

# Ecological wisdom as a challenge for the philosophy of education

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## Abstract

Environmental questions call for a radical revision and re-evaluation of our ways of thinking, valuing and acting. Ecological wisdom as a holistic view to these questions is therefore an increasingly important challenge for education and its basic philosophical presuppositions. My article asks, what are the options of pedagogy in this situation? To my mind, classical theories of *Bildung*, of the cultivation and formation of man, have an important theoretical potentiality for environmentally wise education. I take as an example G.W.F. Hegel's theory of *Bildung* as an antagonistic, dialectical process. Dialectical environmental wisdom sees humans both identical to and different from nature. We must control nature to a certain degree, but all the time learn from its feedback. Possible harmony with nature would therefore develop in an open, dialogical and dialectical learning process.

*Keywords:* environmental education, dialectical pedagogy, *Bildung*, ecological wisdom, G.W.F. Hegel

## Introduction

Environmental problems are not always small, technically or institutionally solvable practical questions. First, they are serious, 'wicked' problems: often extremely complex issues with contingent factors and therefore difficult to control both technically and socially. Secondly, they are theoretically and philosophically deep problems, which puts many paradigmatic assumptions of our traditional scientific and philosophical thinking and basic cultural ideals and values into question. Environmental questions therefore call for a radical revision and re-evaluation of our ways of thinking, valuing and acting.

In this situation, what are the implications for general pedagogy? Pedagogy must always reflect the probable future challenges our children will face and try to develop such practices, mentalities and value standpoints that could anticipate future challenges and their possible solutions. In our time, environmental questions must therefore have a more important role in forming pedagogical practices than they currently have. There are many uncertain factors involved, so we must keep different options open in order to manage our relationship with the environment. In this case, pedagogy does not have one solid fundament to build on and must therefore take many possibilities into account. A dialogical approach and cross-disciplinary questioning must therefore be an integral part of environmental education.

An environmentally conscious philosophy of education is an extremely important field in this new situation. It can inform practical pedagogy with the new problems about environmental thinking. New environmental consciousness is still developing, and there is no philosophical, value-theoretical and ethical or scientific-technological and political consensus about the seriousness of and solutions for the situation. Alternatively, it is necessary to strive for a rational consensus. The danger of relativism is serious because it supports environmental denialism: in philosophy, we must also take critical realistic alternatives seriously and seek for a metaphysical and ontological fundament for environmental ethics and politics which could guarantee the wellbeing of both man and nature. The subjective constructivism and narrativism of the late 20<sup>th</sup> century are not fruitful theoretical options here. They only support anthropocentric, narrow culturalist

thinking and do not help to bridge the traditional methodological dualism between the humanities and the natural sciences.

What are the options for traditional pedagogy in this situation? To my mind, classical theories of *Bildung*, of the cultivation and formation<sup>1</sup> of man, have an important theoretical potentiality for our search for a theoretical basis to environmentally wise education. *Bildung* referred originally – until Kant – to the natural growth of organisms. Alternatively, its cultural aspect, the *Bildung* of culture, has *cultura* in its Latin origins, which also has a meaning related to the cultivation of the natural environment.<sup>2</sup> Of course, this aspect can be interpreted in an 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 about higher spiritual and aesthetic values. For example, the sublimity of nature (Kant) can deepen not only our aesthetical views of nature but also affect our basic ethical and philosophical views concerning nature. The young Kant formulated a view of man who basically cannot control mighty nature and is explicitly denied the physicotheological view of man and nature, which was still typical during the early Enlightenment. (Väyrynen, 2006, pp. 225–228; 2008).

In my mind, the concept of *Bildung* found its most interesting formulation in G.W.F. Hegel's thinking. He stressed the antagonistic character of *Bildung*. Human development is not a process of harmonic growth but has necessary moments of reification and alienation.<sup>3</sup> These moments are not negative aspects of external power but rather positive challenges for the learning process (Väyrynen, 2012). This fits very well with our relationship with the environment: we are both identical to and different from nature. We must control it to a certain degree but all the time learn from its feedback. We must seek harmony with it, but this is possible only in a dialectical relationship with reified/alienated moments of

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<sup>1</sup> Because there is no generally accepted direct translation in English, I use the German term.

<sup>2</sup> And, in principle today, conditions for a sustainable man-nature relationship.

<sup>3</sup> Reification means our necessary connections to thing-like (lat. *re* = thing) connections. This is necessary for the human condition: already the use of language and tools is reification. Alienation refers to such outer conditions (ideologies, politics, institutions), that prevent humans from fully realizing their human potentialities. Alienation is not so necessary as reifications: it can – at least in principle – being avoided in as much that human freedom and autonomy is increasing in a better functioning society.

the process. Our identity with nature is dialectical: partly harmonious, partly disharmonious.

An equally important aspect of the Hegelian concept of *Bildung* is the 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 (such as different religions), which tend to be too conservative and traditionalistic. Alternatively, education must be independent of the short-term economic interests of a capitalistic economy in civil society. Educational institutions are therefore rather parts of the state insofar as the latter represents a reasonable general will of society towards a better future, towards ‘freedom of all’ as the ultimate goal of history, as Hegel understands it (Väyrynen, 2016). Whilst bearing our topic in mind, I would add that this means of course only positive freedom, through which we must become both socially and environmentally responsible citizens. Promoting the general interest, which is the fundament of pedagogy, today includes our interests in a good environment – and not only for us but also in itself. (*An und für sich*, as Hegel would say: that means in an environmental context that we should learn to promote our own interests [*für uns*] in such a way that it does not harm the interests of nature [*an sich*], that is, the interests of all living species in a good life of their own.)

## 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 (Gr. *sophia*) has also been positively accepted as a background interest and synthesising activity in environmental philosophy and environmental knowledge in general. For example, the Norwegian founder of deep ecology, Arne Naess (1912–2009), spoke as early as in 1973 about *ecosophy* (Naess, 1973/1976). Another example is the Finnish philosopher Georg Henrik von Wright (1916–2003), who saw in the ancient idea of the avoidance of *hybris* a wise environmental principle in the 1980s (Väyrynen, 2017). The roots of Western thinking were actually not so anthropocentric, as many historians of environmental thinking have asserted. Even for Plato, whose dualism has been

almost unanimously been criticised 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 classical Greek philosophy but also original Chinese wisdom, which was expressed in the early *yin/yang* cosmology and ethics,<sup>4</sup> tried to harmonise our relationship with nature. Especially in Taoism, *yin* and *yang* should be in a harmonic relationship (*he*), and this harmony was also considered a normative principle for man's actions. Harmony (*he*) refers to the bringing of all different elements into proper proportion. If, for example, 'there is *yang* without *yin*, there will be no life and peace will vanish' (Wang, 2016, pp. 3–5). Wise human action, such as successful charioteering, is therefore based in adaptivity to the natural environment and forces, functional efficiency in coping with environmental disturbances and the reorganisation of inherited behaviour patterns to fit existing environmental situations. *Yin/yang* is a configuration of forces, 'the rhythm of human life, earth's changes, and heaven's powers', leading to *Dao*, to wise knowledge, or how to use power (Wang, 2016, p. 11). At this fundamental level, the traditions of the West and East share common ground.

For environmental research, von Wright's basic distinctions concerning traditional scientific rationality and environmentally sensitive wisdom are important. In his essays from the 1950s he saw the ancient concept of wisdom (*sophia*), and especially practical wisdom (*fronesis*), as the main focus of his philosophical thinking. Later on, it was important to von Wright to distinguish between scientific-technological rationality and traditional wisdom, or the *rational* and the *reasonable*. In his article *Images of science and forms of rationality* (1985), he writes 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 beliefs. 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.

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<sup>4</sup> *Yin* is a cosmic, active masculine principle of heaven, *yang* a passive feminine principle of the life-producing earth. In Confucianism, the masculine principle is dominant, in Taoism, the feminine (Väyrynen, 2006, 49–65).

The search for the reasonable was especially typical of the ancient Greeks. They were searching for 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, pp. 172–174).

For von Wright, the environmental implications of this distinction are already clear in his article (1985). He stresses the importance of human-ecological research. He sympathises with a new holistic worldview, 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, p. 187). Later on, he developed these ideas further in many books and articles before his death in 2003.<sup>5</sup>

All scientific research is based on human interests and values, such as Jürgen Habermas has shown in his famous theory of knowledge interests (Habermas, 1968). In environmental research, the core values and interests are often explicitly recognised in order to protect nature (for example, biodiversity, ecosystem health). The environmental sciences actually follow the ‘emancipatory interest’ of Habermas, which he saw as a leading interest in radical social sciences (Marx, Freud). The traditional concept of wisdom in Greek and Chinese philosophy was basically a knowledge of fundamental cosmic values and how they directed human knowledge and actions. It is now again 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 still often lean simply on traditional anthropocentric values, and this is very problematic, not only for science but also for environmental ethics and politics.

For the philosophy of education, von Wright’s distinction between the rational and the reasonable is very important. Pure rationality in education can lead to the social-technological conception of education as a pure means for economic and administrative goals, nowadays especially for international economic competition. Education is not seen as important *per se* for full human

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<sup>5</sup> I have analysed von Wright as an environmental thinker more broadly in Väyrynen (2017).

development relatively independent from practical economic and real political goals. An extreme consequence of this social-technological rationality would be a kind of *a la carte* education (as Lyotard, 1984 has expressed it), supporting the contingent needs of the economy. In this view, humans are only flexible material for economic purposes without any intrinsic value.

A wise education, on the contrary, would be critical of immediate economic or political trends because they can lead to negative developments, such as the emergence of the Nazi regime in the 1930s, or support the currently deepening environmental crisis. A wise education should have a long enough historical perspective to recognise dangerous political trends. This has been stressed both in conservative and radical political thinking (in Burke and Marx, to give a classical example): a longer historical perspective can show how complex a set of entities a wise politics – and as a part of it, education – must take into account. Utopian alternatives – such as escaping from environmental problems to other planets – are always too simple and have therefore many unforeseen side effects. Also simple pedagogical solutions, such as the hype of information technology, share the same problem. Children, as part of the changing society and environment, are an extremely complex phenomenon: how do we keep the rich possibilities of their bio-psychological and intellectual-emotional development on solid ground through the antithetic pressures of the coming decades? A wise pedagogy does not necessarily have any better answers to these future challenges, but it attempts at least to recognise the central problems involved in this without overly simple or utopian answers.

## Dialectical thinking: Basic structures

The Hegelian theory of education and *Bildung* is based on his dialectics. Like all processes of reality, education and *Bildung* are antagonistic. They must find a balance between antagonistic tendencies relevant to education, such as individuality–collectivity, autonomy–heteronomy, egoism–altruism, formal–material, etc. In addition, our relationship with nature is antithetic in the sense of dialectical thinking: we try to understand and control an entity that is radically different from our immediate human world. Alternatively, we are ‘cultural

animals' – animals as a part of nature. We can experience nature directly through our body, emotions and living experiences (*elämys, Erlebnis*), and through concepts and categories, which express natural properties, structures and processes. We also have important valuative connections to nature. We are both identical to and different from it.

Dialectical logic has developed a system of categories that express complex and dynamic interconnections between our thinking and ontological realities. Hegel's *Wissenschaft der Logik* (Science of Logic) in particular exemplifies the extremely complex structures involved. It is very difficult to comprehend as a whole.<sup>6</sup> However, luckily the organising principle is quite simple and fundamental to all critical thinking and its problems. This famous structure is the Hegelian *triad*, or *thesis–antithesis–synthesis*. It is useful to briefly describe its fundamental idea.

The first step, *thesis*, leans on our immediate thinking: some concept as such is the dominant perspective on reality. This can be 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. However, in connection to the objective world, this thesis turns out to be problematic; it leaves residues (see Lefebvre, 2016, pp. 11–12, 299–303, *passim.*), which cannot be properly explained by the original thesis. We must therefore try to formulate an *antithesis*, which could better explain these residues. Through this, we must take a different or even a contradictory perspective. This is often logically implicit in the original *thesis*: for example, the simple idea that something 'is', is originally connected to its contradictory thought that something 'is not'.<sup>7</sup> It is important to note that not all antitheses develop in this formal way. The material aspects of reality often also demand a dialectical analysis. For example, concrete social antagonisms must be expressed in thinking through contradictory concepts. Master–slave dialectics, which is analysed in Hegel's *Phenomenology of Spirit* (1807), is the most famous example. For our topic, the

<sup>6</sup> It is therefore understandable that the recently extensive analytical metaphysics and ontology has not taken the challenge of this work seriously. Theoretically, this new trend of analytical philosophy has returned to pre-Kantian metaphysics.

<sup>7</sup> Plato explained the birth of dialectics in this way. See my article concerning the interconnections between Plato's and Hegel's dialectics, Väyrynen 2017(a). In Hegel's *Science of logic*, the famous first triad (being – nothingness – becoming) analyses these elementary concepts more deeply.



great, basic antagonism of spirit–nature (*Geist – Natur*) is especially important. This antagonism is fundamental to Hegel’s whole philosophical system, expressed in his *Encyclopaedias of Philosophical Sciences* (1817).

The relation of *thesis* and *antithesis* is typical for all critical thinking; it is therefore pedagogically important. However, there is also a danger of relativism and scepticism, or ‘negative dialectics’, to use Hegel’s expression. The third aspect of the dialectical triad, *synthesis*, should lead to a higher, positive result in this respect – ‘positive dialectics’, or speculation. But what is synthesis? This may be the most difficult aspect to comprehend in Hegel’s dialectics. I briefly present here my own view of this crucial concept.

First, *synthesis* is not a formal combination of *thesis* and *antithesis*; it is not simply a more general concept in which thesis and antithesis are included as parts. It rather opens up a wider ontological perspective for 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 more limited positions to the reality as a whole, as relative aspects of a higher truth explicated in ‘becoming’. ‘Becoming’ as a synthesis makes it possible to understand on one hand the limits and on the other hand the relative merits of ‘being’ and ‘not-being’. This is the idea of ‘sublating’ (*Aufhebung*) the contradictory concepts: through this ‘sublating’ act, they partly remain relevant aspects or moments in the higher concept.<sup>8</sup> Becoming, for its part, needs something that ‘is’ and becomes something else – not-being. The parts of the triad are necessarily connected.

In terms of ontology, one could say that Hegel’s *triads* express central modal structures of a stratified reality. In the modal theory of Hegel, a central modal concept is actual reality (*Wirklichkeit*). Its essence is activity, *Wirken*, and it is therefore understandable that Hegel criticises formal possibilities and contrafactual thinking about emptiness. According to him, it is more important to stress strata-specific real possibilities in modal thinking. For pedagogy, this means that, instead of utopic solutions, we must think about what the central historical possibilities to act in the near future are. This does not support deterministic talk

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<sup>8</sup> We could generally say, that through the process of *Aufhebung* the perspectives opened up by thesis and antithesis remain as relevant parts in a more holistic concept expressed by synthesis. On the level of synthesis, we know better their limits and relative truths. They no longer produce ‘residues’ as reductionistic concepts do (as Lefebvre 2016 – see above – noted).

common in everyday politics, visions of some ‘only one alternative’. By adopting a long historical perspective, as Hegel always did, we can formulate surprising alternatives based on long historical experience. For example, a sustainable way of living is possible without consuming as much as we do. Historical experience can inform us that it is a real possibility to live with much less consumption than we are used to do. Dialectical forms of thinking, in this case for example Hegel’s dialectics of master–slave, can open up such perspectives: our position as masters of nature is not based on sustainable productivity, as in principle the position of the slave should be in Hegel’s example.

As you can see, I represent a realistic metaphysical interpretation of the dialectical categories. According to this interpretation, Hegel’s *Science of Logic* is a system of ontological categories which express his stratified ontological position. This kind of interpretation of Hegel’s dialectics is to my mind fundamental to our topic: how to understand environmental wisdom as a thinking of real possibilities and to develop a pedagogical theory which would best suit its demands. But has Hegel anything to offer for environmental wisdom? Is his philosophy of spirit not too idealistic and anthropocentric for this purpose? The crucial question is, what kind of dialectical relationship is there between spirit and nature? In what sense are nature and spirit ‘sublated’ in a higher totality? Moreover, could this dialectical totality be a serious candidate for ecological wisdom? Finally, what does this mean to the Hegelian concept of *Bildung*: how does the dialectics of spirit and nature contribute to environmentally wise pedagogy? *Bildung* is a concept that reflects human history: how should we connect it to historicity in nature? Should environmental education be based on this comprehensive consciousness of human historicity as a part of natural history, especially its slow processes?

## Towards a concrete identity with nature?

Hegel clearly criticises the romantic view of man’s relationship with nature, in which the immediate identity and harmony with nature is idealised. In his *Vorlesungen über die Philosophie der Religion* (Lectures on the Philosophy of Religion), he analyses 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, and to win the state of accomplished reconciliation (*Versöhnung*) by wrestling for it; it is not an original reconciliation.<sup>9</sup>

This view of immediate identity historically has many forms: Hegel mentions, for example, the idea of innocent children and aboriginal people, the doctrine of the *signatura rerum* in the philosophy of the Middle Ages and the instinctive actions of animals (Väyrynen, 2010, p. 360). The concept of immediate identity is still today a popular position in environmental thinking. Modern man could try to overcome his alienation from nature through the restoration of this original identity, for example in adopting the ecologically wise conceptions, values and practices of aboriginal people or oriental wisdom. This kind of ecological primitivism also supposes an original ecological wisdom of these people, but this supposition lacks any empirical evidence.<sup>10</sup>

Hegel considers this romantic view problematic in two respects: it is (a) first empirically not true: aboriginal people are seldom innocent, and children are often egoistic and bad. (b) Secondly, the more important point is that this innocence is not a real position of man. His ethical life (*Sittlichkeit*) is higher than the innocence of children. It is based on his self-conscious will. Man must work on his moral education and *Bildung* through alienation from nature, sketch his essence freely and take as an autonomous subject the moral responsibility. According to Hegel, nature is not morally good; it is on the contrary a brutal struggle for survival. Human history, insofar as it is 'natural history' (*Naturgeschichte des Menschen*), is as amoral as the natural struggle for survival. Ethical life can be established only through hard work for the moral good. Nature as such gives no clear directions for this moral work (Väyrynen, 2010, pp. 361–362). Also, our own individual goodwill (*Moralität*) is, according to Hegel, not enough: we must develop such institutional practices (*Sittlichkeit*) that make a concrete realisation of our ethical goals possible (Väyrynen, 2016). This is extremely important in environmental

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<sup>9</sup> I have partly used the English translation of his lectures. Hegel, 1974, p. 279.

<sup>10</sup> On the critics of environmental primitivism see Korteniemä, 2009.

ethics because many of our individual choices, for example 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 his *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 acted ‘according to nature’ in this respect. Despite this, there is one aspect in which man and nature are in continuum with each other and which also has moral significance. This aspect of nature is its creative force, or in the language of German Idealism, the ‘inner teleology’ of nature.<sup>11</sup> For Hegel, this makes a higher, dialectical identity with nature possible.

Reconciliation with nature is a dialectical process like the general process of *Bildung*: it has both harmonic and hostile phases/aspects because as tool-using animals we must control and use nature in the work process. However, we cannot control it totally – in the last analysis, nature is always stronger than man. Hegel therefore criticises the position of ‘outer teleology’ (or ‘limited teleology’) and its ways of interacting with nature.

In *Kritik der Urteilskraft* (The Critique of Judgement), Kant made a distinction between outer and inner teleology (*äussere vs. innere Zweckmässigkeit*). His famous example concerning the difference was natural beauty and its imitation through human art. Authentic natural beauty, for example birdsong, 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 German Idealism, this view was adopted from the pantheism of Spinoza, whose idea of creative nature (*natura naturans*) was also important for Hegel. For him, inner teleology expresses the real essence of life and also affects positive human freedom because, as living creatures, we must ultimately learn to reconcile with our own nature as well as ‘outer’ nature.

Hegel describes ‘outer’ or ‘limited’ teleology as a goal-oriented exploitation of nature which does not respect its inner goals and its own intrinsic values. Outer

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<sup>11</sup> I have analysed the history of this idea from Eastern and early Greek philosophy until Romanticism in my history of environmental philosophy (Väyrynen, 2006) and I summarised the central thesis in contrast to the recent constructivist approach of environmental research in an article (Väyrynen, 2017a).

teleology has an empirical (*sinnliches*) relationship with nature, in which nature is objectified – it is only lifeless material for our immediate needs. Hegel writes: ‘Our practical relationship with 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’.<sup>12</sup> We break nature into useful parts and are not concerned what nature is as a whole. Only singular products of nature and their singular aspects are important to us. Hegel dooms this kind of practice with the words of Sophocles: ‘Nothing is more monstrous than man ... unexperienced. He does not reach his goals’.<sup>13</sup>

This immediate practical relationship with 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 at 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 at which we act as other animals in an evolutionary struggle for survival. As cultural beings, in the moral, aesthetical and intellectual realm of ‘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 always remains shallow; it cannot reach ‘nature as such’, its generality.<sup>14</sup> This deeper view of the essence of nature can be reached at the level of dialectical reason, in the position of the ‘concept’ (*Begriff*). At this level, nature is not an empirical, shallow object of practical exploitation but a living, active and autonomous entity. At 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 that nature is free in its original livingness’.<sup>15</sup>

What does this mean for our practical relationship with nature? This question is analysed at the end of *Philosophy of Nature*, in which the reconciliation

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<sup>12</sup> ‘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.

<sup>13</sup> ‘Nichts ist ungeheurer als der Mensch ... Unbewandert. Zu nichts kommt er.’ Werke, 9, 13

<sup>14</sup> Werke, 9, 14.

<sup>15</sup> ‘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.

(*Versöhnung*) of the spirit and nature is briefly described. Nature is not alien to the spirit; it is rather its necessary moment. The inner teleology of nature represents in nature the moment of spirit, its seed, which develops through different forms of activity and creativity in nature. At the elementary level, the freedom of the spirit is 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 ‘abandons its special way of thinking and understanding’. Through this, nature becomes ‘a mirror of ourselves ... a free reflex of the spirit’.<sup>16</sup> I would summarise 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 nature. This connection makes it possible to value and respect living nature in its autonomous development, for example through the protection of biodiversity.

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

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 part of 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 Hegel’s 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 due to cultural reasons. Even in the field of technology, nature is providing new inspiration for innovations all the time, such as scientists attempting to research how to imitate

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<sup>16</sup> (der Geist) ‘seine besondere Denk- und Anschauungsweise abtut.’ Die Natur wird ein ‘Spiegel unserer selbst ... ein freier Reflex des Geistes.’ Werke, 9, 538–539.

the strength of a spider's web. In this respect, the discussion about the priority of biocentrism or anthropocentrism is a trail with a dead end – the more important problem is the reconciliation of nature and culture, as 'weak' anthropocentrism and biocentrism are trying to establish.

## **Bildung and historical consciousness – A wise starting point for environmental education?**

Natural processes are slow. That is one 'radically other' aspect in nature that is particularly difficult to understand today. Also in environmental thinking, the transformation from traditional conservationism to a more relativistic environmentalism is leading to a historical standpoint: there is not even a relatively stable nature that we should protect and everything is affected by human intervention. At the same time, we do not question the opposite trend of current history, which seems to favour rapid changes and the readiness to accept everything new. Global economic competition also favours short-term innovations in science, technology and economic production.

On an ideological level, higher goals of human wellbeing and environmental sustainability are almost universally accepted. However, this is illusionary: the immanent goal is to increase economic surplus and guarantee steady economic growth. Striving for a 'greener' economy and politics do not succeed because the fundamental goal is still economic growth. Cosmetic changes such as electronic cars work only as a moral alibi for continuing business as usual.

Human and environmental wellbeing are interpreted accordingly in dynamic and anti-essential terms. Interpreted as such, especially in postmodern constructivism, they cannot form any coherent standpoint for critical opposition. Alternatively, we cannot return to the linear philosophy of a history of 'great narratives'. However, this does not mean that human and environmental history have no relative stability. We know some simple and decisive things concerning human and environmental wellbeing. We cannot stand a climate which is very polluted or has longer periods over +50 °C. The atmosphere must have a certain percentage of oxygen so that we can survive. We must have enough fruitful soil

and clean drinking water to nourish the entire human population. Such basic ramifications are historically very stable. In addition, as we now know, they are vulnerable and scarce resources already in many parts of the Earth. Environmental history teaches us this simple lesson; it is a kind of metanarrative<sup>17</sup> of human history that cannot be eliminated.

For environmental education and *Bildung* it is also important to stress that it is not only the past – as environmental history shows – that is the problem here but also the possible future. The future is not a totally open field of possibilities, but in many ways, it is determined by the past and present. That is especially accentuated today because the effects of our actions reach not only in space but also in time far longer than before: every piece of plastic that we throw in ocean can have serious effects on ecosystems after hundreds of years. As Hans Jonas has shown, our technological society challenges traditional ethics in this respect: ‘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, pp. 8–9). It is increasingly difficult to foresee the effects of our actions in time and space as well in social and ecological contexts: we need therefore to take the ‘precautionary principle’ as a starting point for new ethics.

What does this mean for environmental education? First, it stresses the meaning of a long historical perspective, including environmental history, social and economic history and the history of ideas. The pedagogical tradition of *Bildung* has this long-term perspective: the whole process of human cultivation and its dialectical structure is a background condition for all historically conscious education. It is sad that not even professional historians do not always understand this. Most historians are increasingly concentrating on current history because it is easy to research: for example, Antiquity and the Middle Ages are not such popular topics because they demand extensive language skills. On the other hand,

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<sup>17</sup> With my term ‘metanarrative’ I slightly ironise narrativistic talk here – avoiding the extinction of human species has not yet been any narrative, but can become in future a great narrative of our time ... if we do success to stay alive.



environmental history is still a marginal area in traditional historiography – and it is also difficult because of its methodological and cross-disciplinary problems.<sup>18</sup>

Environmental history has also been a peripheral topic in environmental education. Environmental education stresses the meaning of empirical knowledge, especially living experiences in nature (Matthies, 2004). However, the *longue duree* of natural processes and our interactions with them are difficult to grasp in the immediate experience: they rather demand combined theoretical and historical knowledge about climate change, demographical processes and ecological dynamics – and very often about their complex interactions. A historical perspective should become part of teaching in the natural sciences – the old field of natural history has indeed been revived in environmental sciences, from geology to ecology. Natural history and environmental history<sup>19</sup> actually cooperate today because the co-evolution of human society/culture and nature/environment is presently fundamental for human ontology and an environmentally aware philosophical anthropology. This many-sided, stratified, deeply historical view is pedagogically fundamental in changing the current hectic, short-term visions that are so popular in neoliberal economics and politics.

The key issue is that historical consciousness opens up a deeper understanding of our current situation. We must learn to see how our present time is structured through overlapping histories: we still partly behave like hunter-gatherers; we use the products of agriculture extensively, and we use land extensively through that. We still act in the way Christianity has taught us: we think we are higher than animals and nature, with a basic right to control and use them as we see fit, and that we should ‘propagate and fill the earth’. These deep structures of our

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<sup>18</sup> I have conducted with the Finnish environmental historian Esa Ruuskanen a basic mapping of the short history of this discipline from the 1970s until the present day, and I have also analysed some of its theoretical problems as a multidisciplinary field of research (Ruuskanen & Väyrynen 2017).

<sup>19</sup> The currently fashionable concept of the Anthropocene is too general for this purpose: as a geological period, it is not historically sensitive enough. In environmental history, periodisation must be based on multiple factors, from ideological (Christianity, liberalism, etc.) and economic transitions (birth of agriculture, industrialisation, use of fossil fuels, etc.) to climate periods (Medieval Warm Period, etc.) and ecological transformations (periods of mass extinction, extensive erosion and desertification, etc.). Just one way of periodicalising history (like the concept of the Anthropocene does) is not sufficient, because of many overlapping changes at different levels of reality.

present-day lives can only be effectively criticised after having gained an extensive understanding of human history and its interaction with the natural environment.

Leaning on this ontological fundament, we should re-evaluate the traditional idea of slow and many-sided human development (as Rousseau stressed) through the current perspective of co-evolution and formulate pedagogical practices which can, in this respect, produce sustainable results. Humans who take better care of their bio-psychological wealth tend to have sympathy for the wellbeing of other people and responsibility for the slow processes of nature. We must learn to listen to our bodily interaction with the environment, our emotions – especially moral ones, such as sympathy for other species (not only animals but also plants), and our aesthetical admiration of beautiful and sublime nature. Through historical consciousness, we can deepen these ontological fundaments to a concrete critique of our present-day limitations to realise these potentialities.

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