

VIEWS ON BIOTIC NATURE AND THE IDEA OF SUSTAINABLE DEVELOPMENT

ZBIGNIEW ŁEPKO

Institute of Ecology and Bioethics
Cardinal Stefan Wyszyński University in Warsaw
ul. Wóycickiego 1/3, 01-938 Warszawa, Poland
e-mail: z.lepko@uksw.edu.pl

ABSTRACT: The search for balance between humankind's civilisational aspirations and the durable protection of nature is conditioned by contemporaneous views of biotic nature. Of particular importance in this regard are physiocentric and physiological views that may be set against one another. The first of these was presented by Hans Jonas, the second by Lothar Schäfer. This paper does not confine itself to setting one view against the other, but rather sets minimum conditions for cooperation between their promoters in the interests of balance between the aspirations of the present generation and those of future generations. Both views of nature are in their own way conducive to a break with the illusion present in some areas of the modern natural sciences – that nature is a boundless area of inexhaustible resources.

KEY WORDS: biotic nature, humankind's civilisational aspirations, physiocentric and physiological views.

INTRODUCTION

The search for a proportional balance between humankind's civilisational aspirations and the long-term safeguarding of nature requires reflection on how the two component parts of this relationship are viewed. While the present study appreciates the importance of people's views in this regard, the cognitive emphasis is on views of biotic nature.

Among these, what seem worthy of particular attention are the literature's apparently opposing physiocentric and physiological views or depictions. In the first case, the exponent of choice would be Hans Jonas (1979; 1983; 1990), while in the second it is the standpoint of Lothar Schäfer (1987, 15–37; 1993) that needs to be sought out.

Jonas presents nature as a space conditioned by the existence of different (but all equally valuable) living entities. Nature depicted in this way represents a certain kind of whole that is subject to universal laws. Jonas sets this view against an anthropocentric one which, in his opinion, fails to comply with the human being's natural drive for self-preservation. For the existence of humankind can only be safeguarded by respect for nature in line with the latter's inherent and characteristic value and dignity. Human beings that are actually related to all of nature in biological terms are obliged to remain faithful to it, even if the highest manifestation of that is actually faith in the continuing existence of their own species.

Schäfer in turn postulates a physiological view of nature which he takes as equating with a mildly anthropocentric view. Here, nature is presented as a certain kind of whole that favours or does not favour the phenomenon of life as expressed multifariously in a host of different entities. His physiological conceptualisation of nature thus points to a link between humankind and nature manifested in physiological processes of exchange between the organism and its environment. The functional efficiency characterising the physiology of the human body is thus said to represent a measure of the functional efficiency of nature's metabolism. This denotes that a state or circumstance in which the human being experiences wellbeing and satisfaction, and also enjoys good physical health, offers the most reliable indicator that conditions in the natural environment in general are favourable. This in turn means that nature conservation finds its fullest expression in the successful protection of humankind.

This text does not content itself with setting these two different views of biotic nature against one another, but rather endeavours to denote minimal conditions under which the representatives of the two might actually cooperate in the name of some reconciling of the civilisational ambitions of the present generation of humanity with the aspirations of future generations. For a first common feature of the two views under consideration is that they both (albeit in their own way) seek to bring an end to a certain illusion present in modern natural science, to the effect that nature is a boundless area whose resources are inexhaustible. The two views also encourage the shaping of attitudes in respect of globe-friendly human beings building a human-friendly world (Lepko 1999, 279).

THE PHYSIOCENTRIC VIEW OF BIOTIC NATURE

A starting point for work on Jonas's physiocentric view of nature is the thesis regarding the anthropocentric justification of humankind's dominion over nature that remains so deeply-rooted in European culture. While many faces to anthropocentrism can be perceived, the main sources are seen to lie in some conferring of absolutism upon

a naturalist's outlook dominated by the desire to achieve an axiology-free understanding of the world. Jonas notes this, in order to opine that the natural sciences' modern-era isolation from any assignment of value has given rise to an ontological thesis holding that nature – as both habitat and subject of research – is neutral from the axiological point of view. Perhaps paradoxically, it is in this axiological/ontological thesis that Jonas finds the main cause of humankind's technical and technological dominion over nature (Jonas 1983, 7–9).

Recognition of the causal linkage between the view of nature as neutral from the axiological point of view and the absolute dominion of humankind over nature inclined Jonas to try and determine the humanity-nature relationship as construed in physiocentric terms. His assumption is that objective dignity and a right to respect is enjoyed by biotic nature in its entirety. He also refers consistently to the kind of humanity-nature relationship manifested in a feeling of responsibility for nature. In his view, this problem must become a priority issue for contemporary philosophy. He therefore makes a philosophical attempt to justify a normative understanding of nature that postulates the establishment of standards for human conduct vis-à-vis nature, on the basis of a theory of nature (Jonas 1979, 91–93).

Those commenting on Jonas's work make the success of the above task conditional upon the assumption that nature is “not merely nature”. Alongside everything that contributes to the “nature-like nature” of nature (as indicated by its quantifiable components), we also see it present a value and dignity proper to itself. Nature as such thus obliges the human being to first generate an ethic of responsibility and then to engage in actual conduct that displays accountability (Wetz 1994, 134–135). Jonas supplies an ethic of this kind precisely by invoking the ontological structure of the being that is nature. What is involved here is the contradistinction pertaining between the two most widespread and (as the author stresses) best-defended dogmas of our times, i.e. the one that holds that there is no metaphysical truth and the other maintaining that no conclusions regarding obligation may be drawn from the mere fact of existence (Jonas 1979, 92).

The first of these dogmas limits the scope of currently value-driven knowledge to the sphere of the natural sciences that shies away from value or sense. It thus lacks the capability to question either the importance of the subject matter or (even more so) the objective existence of value. In Jonas's mind, that denotes that the natural sciences fail to tell the full truth about nature. There can thus be no *a priori* precluding of the possibility that ethics invoking the metaphysics of nature will be generated (Jonas 1979, 92).

However, this possibility is questioned from the standpoint that the second dogma manifests, in line with which a real-life state of affairs, i.e. the circumstance in which something exists, offers no basis for the introduction of norms, and hence for the determination of how things “ought to be”. For a failure to take account of this standpoint leads to what philosopher George Edward Moore in 1903 termed “the naturalistic fallacy”, as today understood in line with the significance assigned to such matters

(even prior to Moore) by David Hume (Hume 1978). In this view, values are not properties of things or descriptive depictions of states of affairs, but are rather projections of human needs and expectations vis-à-vis things and the actual state thereof. It is precisely this view that Jonas criticises, given his conviction that value and dignity are indeed fundamental and inherent attributes of nature. For him, their existence is not solely dependent on the intentional acts of some entity seeking to define and assign value, who engages in mere projection on to things that lack any value in and of themselves.

There is no obvious need for values inherent to things in and of themselves to impose themselves on to the entity seeking to know them. A better acquaintanceship with them thus requires philosophical reflection fed by the effectiveness of the contemplative intellect. It was in this way that Jonas came to express his postulate regarding dominion over the scientific potential of humankind in the face of nature, i.e. a break with the cognitive tradition founded under the sway of an aggressive and manipulative intellect raised by modern science (Jonas 1979, 251). The Jonas postulate regarding rule over the scientific power of humankind in the face of nature may thus be understood as an appeal to the cognitive capacity of human beings still capable of drawing on the resources of their moral apparatus as some kind of final instance to which an appeal remains worthwhile (Jonas 1979, 251). It is with this conviction that Jonas offers up for reflection a value- and sense-imbued view of nature. Namely, he presents a teleological interpretation of it, in the aspect of a holistically-argued goal-orientation of nature manifesting itself in a striving to achieve ever-higher levels of organisation of life, as well as in the aspect of an individually-manifested tendency of the particular organism to exist in line with its own objective (Jonas 1979, 143 and 157; Jonas 1973).

The first aspect of the teleological interpretation of nature presented by Jonas points to an internal dynamic in the form of a striving to achieve ever-higher levels of organisation, which immediately implies goal-orientation, as well as the seizing of every possible suitable opportunity. Given the possibility that nature will encounter circumstances providing for the emergence of new, previously unknown objectives, Jonas is inclined to refer to a disposition to achieve goals rather than a mere directing towards goals. That disposition is of course not a manifestation of any aware “desire”, and so does not constitute a function of some understanding inherent to the world. It does not even reflect the activity of a God located beyond the world itself. Rather, it is a manifestation of some concentration of the forces of nature around the phenomenon of life itself. In line with this conceptualisation, the phenomenon of life represents a principle that can order the complicated processes operating throughout biotic nature (Jonas 1979, 155–157).

The concentration of the forces of nature on the phenomenon of life that is indicated in this concept finds its fullest manifestation in the individually-displayed tendency of different organisms to exist in line with their own goals. It is in this way that the second aspect of the teleological interpretation of nature presented by Jonas makes its presence felt. For in the process of striving towards a goal, the being makes itself worthy of its own effort, strengthening the value to an ever-greater degree by setting a goal for itself.

In that sense, each being that feels, and that struggles to go on, says “yes” to life as a resounding “no” to the option of non-existence. For this reason also “the very fact that a being is not impassive towards its own fate renders its distinctiveness from the non-being a fundamental value of all a values, a first «yes» in general” (Jonas 1979, 155). Developing this thought further, one may state that everything that lives has value because that is how nature “wishes” it to be. This also represents a model for Jonas, and at the same time a basis upon which to justify humankind’s duty to respect and honour all other living beings. Equally, respect for that obligation is also a matter for human beings themselves, as “only they themselves can assume responsibility” (Jonas 1979, 185). For only a human being is able to recognise the inalienable value of nature and to shoulder responsibility therefor in line with that awareness. Also arising out of this truth is the task of supporting humankind’s cognitive and moral faculty to confer a future perspective upon the relationship with nature. This is to say that the human being can anticipate (to some extent at least) the long-term consequences of his/her actions in nature, as well as the ecological situation likely to face future generations in relation to those actions.

In the face of all this, Jonas postulates a shaping of environmental sensitivity and associated human attitudes as part of the so-called “heuristics of fear”, whose task entails precisely that building of imagination in regard to future events that arise as a consequence of today’s human impact on nature (Jonas 1979, 63–65). For we need an enhanced awareness in this regard, with technological involvement of human beings in nature being linked up with scientific forecasting that takes account of far-reaching impacts. In this case, Jonas proposes a highlighting of long-term consequences of humankind’s technical and technological activity, through support for scientific methods by which to hypothesise. The entirety of the strategy of pro-environmental undertakings constructed in this way is in turn termed “comparative futurology” (Jonas 1979, 62). It is in this way that the needs of human beings today should be met through greater reliability imparted to apocalyptic visions of the future, with indications given as to the degree to which these are dependent on phenomena that current activity in nature is inducing. The effect of such a pedagogical strategy would first manifest itself in the instilling of a feeling of fear among people, with powers of observation also enhanced, and a greater capacity to perceive crisis phenomena in those parts of nature made subject to humankind’s technical and technological prowess. This would then be followed by the development of a greater feeling of accountability, as well as readiness to be accountable, for nature. In line with this conceptualisation, only feeling supported by intellect is able to motivate and direct appropriate action by people. For this reason too, further elaborations of the concepts of Jonas emphasise that the postulate regarding the “heuristics of fear” is a crucial part of the chain linking theory with practice where humanity’s responsibility for upcoming generations of its own kind is concerned (Wille 1996, 258–262).

An indicated readiness on the part of human beings to take up responsibility is a key element in the ontological ethics of responsibility or accountability postulated by

Jonas. In the view of those who know the subject (Wetz 1994, 115–120), Jonas makes use of the relevant output of Max Weber, who was the first to introduce the category of responsibility into ethical discussions. In a critical analysis of Kant's practical philosophy, Weber drew a distinction between the ethics of moral disposition (i.e. of intention) and those involving responsibility, emphasising that the quality of human activity should arise, not only from the former kind of ethics, but also out of the account taken of probable effects. However, while Weber's considerations confine themselves to the world of current inter-personal references, Jonas takes into account a reference by humankind to the whole of biotic nature, and also to future generations of human beings. He then makes consistent use of nature and future generations to create an instance before which human beings are answerable. He thus identifies what humankind is responsible for with who it is responsible to. Where nature is concerned, human accountability extends to protection and tending. Under this concept, the rationale obliging people to proceed in an accountable manner as regards nature arises out of nature itself (Jonas 1979, 157).

Jonas does not confine his diversified models of human accountability to interpersonal relationships, instead extending them to the ones pertaining between humankind and the whole biosphere. For, ever since "humankind became dangerous, not only to its own kind, but also to the whole biosphere, we have had to assume some kind of metaphysical responsibility extending beyond our own interest" (Jonas 1979, 246). This kind of stance is justified by the commonality to the fate of humankind and nature alike, where the latter is understood as the place of abode for the human being in the most elevated and refined sense of the word. Hence Jonas's conclusion that humanity's natural obligation to show respect for nature may ultimately be subordinated to responsibility or accountability vis-à-vis our own species, with no threat of slipping into any narrow, anthropocentric point of view (Jonas 1979, 246). An anthropogenic approach to nature, traditionally couched in terms of nature being subordinated to arbitrarily determined human needs, is actually seen to be calamitous for our species itself. For in the best case it leads to a dehumanisation of the human being, and hence to the atrophy thereof. A highly probable consequence of this may be the biological annihilation of human existence and even the extinction of *Homo sapiens* as a whole species. In this sense, anthropocentrism stands in conflict with the natural desire of human beings to safeguard their own existence. Also in this sense, the existence of humankind may only be assured by respect for nature, in line with the value and dignity inherent to it. Human beings related to nature in biological terms are obliged to keep faith with it, with the highest manifestation of this in fact being faith in our species's own existence. From the point of view of experience of its own existence, humanity is able to make an adequate assessment of the value of nature, and to recognise the natural character of its obligation to assume accountability for nature's persistence and survival (Jonas 1979, 246).

THE PHYSIOLOGICAL VIEW OF BIOTIC NATURE

The postulate regarding the physiological view of nature represents a critical reaction to Jonas's philosophical justification of the need for a change in the human being's way of proceeding vis-à-vis nature. In Schäfer's view, the physiocentric perspective espoused by Jonas could only give rise to accusations of naturalism and anachronism. While the first accusation relates to the part of Jonas's concept recommending adoption of a normative concept of nature, the second concerns the teleological presentation of nature as of value thanks to its propensity to strive for the goals that diverse forms of life designate (Schäfer 1987, 22–25).

The critical approach to Jonas's stance stresses that the teleological interpretation of nature he came up with is anachronistic from the point of view of the requirements of a post-Darwinian age, and unsuited to the challenges posed by today's experience of environmental crisis. Jonas's last attempt to achieve a physiocentric justification of the ethics of responsibility was written off as unsuccessful by Schäfer. Moreover, it did not provide for any counteraction of anthropocentrism, fashioning a new variant of it, somehow hidden in humankind's alleged conceptualisation of itself as nature's most worthwhile goal achievement (Schäfer 1993, 152–173).

In Schäfer's opinion, the difficulties with making Jonas's concept a reality also lie in the failure to identify widespread anthropocentrism with an egotistical attitude on the part of human beings. The history of modern culture makes it clear that this identification is justified. Though postulated since the early modern period in Europe, the methodical use of nature to increase the material wellbeing of humankind only found practical reflection in the egotistical desire of highly-developed countries to multiply their own wealth at the cost of the remainder of humanity. Indeed, this phenomenon also applies to the reality of social structures within highly-industrialised countries.

Though Schäfer has no simple prescription for counteracting practices that exploit nature, a certain hope lies in the principles of equality and solidarity that are present in the relevant philosophy, as opposed to in the activity undertaken in nature's name (Schäfer 1987, 26). For this reason also there is a consistent orientation towards the anthropocentrism of traditional ethics, in accordance with which responsibility for nature represents a part of the obligations towards fellow human beings. These are therefore commitments towards future generations as much as present ones. All of this means that humanity's responsibility for nature may only make its appearance in the context of the responsibility for our own species (Schäfer 1993, 165). It is in this way that Schäfer expounds a main thesis of a positive discourse regarding his own concept for environmental ethics founded upon an anthropological principle as regards the rational and moral autonomy of humankind vis-à-vis nature. In line with this approach, the establishment of an ethic of responsibility not only fails to require a rejection of anthropocentrism, but in fact even assumes the latter. Only in an anthropocentric perspective making clear humankind's autonomy is there any revealing of the problem of his accountability to nature.

Anthropocentrism defined in this way is not the same as human egoism, so it does not indicate radical human opposition to the natural environment, rather representing a foundation for a theory whereby humankind's use of natural resources is subordinated to a specifically human cognitive capacity, and especially to human morality (Schäfer 1987, 26). For, while it is given to humankind to make use of nature's resources, there is an essential need for this to link up with rationally recognised and morally assessed limits to growth in material wellbeing. What is thus involved here is the idea that economic growth and increased material wellbeing should not be an objective for humankind in and of itself. That further denotes that humankind is only entitled to satisfy its needs by way of nature's goods where those needs can be estimated in some due manner. This perforce demands a preventative style of behaviour on the part of human beings where nature is concerned (Schäfer 1987, 26).

Activity seeking to meet human needs with goods from nature must therefore be linked up with human morality. This in turn takes account, not only of the material and biological success of our species, but also the maintenance or increase in the humanistic quality of its life. For the crisis we are encountering is a crisis of satiation as regards the currently-dominant material goods. And this is a circumstance proper to an egotistical relationship between humankind and non-human nature. Thus, any striving to raise the humanistic quality of people's lives on account of the relationship with non-human nature should express itself in efforts to engender the priority of non-material and social goods. In this case, the relationship between human beings and non-human nature might be expressed in different variants of co-existence (Scherhorn 1997, 162–251). And in this way, the biological discourse regarding human ecology is enriched by humanistic aspects indicating the need for a preventative referring to nature by humankind, on account of the requirement imposed by individually expressed good relations between people and an ongoing peaceful international situation. In line with this interpretation, the quality of interpersonal relations derives from the quality of humankind's reference to the non-human part of nature.

The justification of human responsibility for nature with the anthropocentrism of traditional ethics adopted by Schaefer leads to the adoption of the physiological concept of nature. This breaks with the understanding of nature maintained by proponents of physiocentrism – as a certain whole that is subject to universal laws. It likewise sees nature as a certain entirety that favours or disfavors the phenomenon of life. The physiological conceptualisation of nature thus points to links between humankind and nature, as manifested in physiological processes of exchange between the organism and its surroundings. According to Schäfer, this implies neither resort to archaic “back to nature” slogans, nor the rejection of a human presence in the natural environment that is conditioned by technology. Rather it subordinates these to moral and practical principles that take in responsibility for the physical health and biological life of human beings. The normative sentences formulated within this framework are not associated with suspicions regarding naturalism. For the obligation contained in them does not arise from a normative human reference to nature, but rather from obligations towards its own

species that humankind has, and from obligations that the individual has towards him or herself – first and foremost the duty to take care of physical condition (Schäfer 1993, 206–210). For the functional efficiency of human physiology represents a measure of the functional efficiency of nature's metabolism. This is to say that a person's sense of wellbeing and physical health serve as the most reliable indicators of favourable conditions in humankind's natural environment.

Moreover, the physiological conceptualisation of nature points to fundamental new experiences that can be described as a return to a finite outlook. The infinite universe idea present in modern natural science creates the illusion that nature is a limitless area whose resources are inexhaustible. In contrast, the truth is that nature – like our habitat and place of real impact – has its defined limits, and processes of exchange between the organism and the environment are very dense and direct, and closer than was thought likely until recently. It is thus clear that the effects of the environmental crisis will quickly reach humankind in the physiological cycle of life in nature. It is for this reason too that questions regarding people's responsibility for nature rapidly home in on the protection of living organisms in general, given the conviction that this will find its most complete embodiment in the protection of humankind itself. For the human being as a living organism constitutes part of the metabolism of nature (Schäfer 1993, 223–237).

Reference to a physiological experience of nature's metabolism allows for the assignment of ecological value to ways in which (and the technological extent to which) humankind interferes in nature. In line with this conceptualisation, humankind's responsibility does not relate to nature as such, but rather to the consequences of its own actions in nature. This denotes that responsibility (or accountability) does not manifest itself solely in a certain type of humanity-nature relationship, but is rather just overlain by the duty to cultivate and nurture nature. It is also for this reason that the main task of contemporary philosophy should link up with the search for criteria by which to engage in the ecological valuation of technology. For, with its assistance, it is possible to pursue the conviction that an essential condition for the efficient utilisation of nature is its protection. In line with this concept, technology plays a mediating role in humankind's discharge of a nurturing support function in respect of both itself and nature. Thus technology here represents an important supplement to human relationships with nature. So, where some adherents of physiocentrism see a threat to nature inherent in technology, Schäfer perceives technical possibilities for nature to be nurtured. Albeit on the condition that the deployment of technology will take place in line with ecotechnical augmentation (Ropohl 1985, 28–30 and 111–134). It is also for this reason that Schäfer (unlike Jonas) sees chances for our species, not so much in a postulate regarding new environmental ethics as in one relating to alternative forms of ecologically validated technique. It thereby perceives a possibility to remain faithful to the modern project for utilising nature, without any danger of falling into an error committed at the stage of naive implementation of that project (Schäfer 1993, 267).

Thus, reflection on the relationship between humankind and nature must take account, not of the normative character of nature, but of the assignment of ecological

value to ways of cultivating or nurturing it. The assumption here is again a recognition of nature in relation to the objective that humanity represents. Consistently, the concept of culture from Schäfer also links up inseparably with an anthropocentric standpoint amid claims that “those who demand the rejection of anthropocentrism, at the same time reject the demand to nurture nature” (Schäfer 1987, 27–28). A proper understanding of the thesis that humankind is the goal of nature requires an enrichment involving the thesis that human beings are capable of assigning value in their choice of means by which to favour the said nurturing or cultivation of nature. A linking of these two was engaged in by Schäfer in line with the standpoint of Immanuel Kant expressed in his 1790 *Critique of Judgment* (Kant 1964, 414–431). In line with that conceptualisation, the human being might only be perceived as the ultimate of goal of nature where he or she is also able to set objectives. And because human beings may only set goals in the areas of action connected with their everyday life and practical actions, the position as lord over nature is not associated with the possibility of using defined technical means, but with morality. This position is worthy of humankind, not because of some power to subordinate nature on account of objectives determined arbitrarily, but solely because, in line with morality, it is possible for our species to treat nature as a means by which defined aims can be achieved. The relationship between human beings and nature is thus subordinated to human morality, and it is thanks to that that it represents a principle underpinning a responsible approach to the environmental crisis (Schäfer 1987, 28).

SUMMARY

Though the views of nature referred to here arise out of different cognitive perspectives, they both equally favour a break with an illusion present in today’s natural sciences, that nature is a boundless area full of inexhaustible resources. The two views make an equal contribution to the shaping of a world-friendly attitude among people, and in turn to the building of a world that is friendly for humankind. They can thus be treated as equally valuable contributions to some linking up of the good theories contained in the idea of sustainable development with attempts to achieve its practical application. In this sense, the philosophical stances manifested by the views concerning nature referred to here contribute to work to resolve the environmental question to the extent that they point to a separation from the natural sciences in terms of their methodology. For this reason, we today refer to a new philosophy of nature, of which the specific features go beyond just methodologically adequate determination, in the direction of a shaping of the relationship between humankind and nature (as well as human-human relationships) that relies on the idea that people are also part of nature (Böhme 1989, 7–12). This in turn shows that the views of biotic nature presented relate to that current of philosophical inquiry taking account of humankind’s active presence in nature. This is therefore one of the variants of a practical philosophy that entails

the search for the truth about human activity in the world. Emphasising the biological linkage between human beings and the natural environment in which they live, this philosophy indicates the opportunity characteristic for humankind for that relationship to be enriched by accountability. In line with this concept, human beings represent their living environment in their own inimitable way, in that they both belong to it, but are also able to put a certain distance between themselves and it. This uniquely human capacity is manifested in different types of relationship. While people may treat the environment instrumentally, they may also shoulder responsibility for it (Łepko 2014, 61–70). This leaves humankind as both a source of environmental threat and a manifestation of hope that that threat can be overcome. The trick is then to build a stable principle out of the hope in question, i.e. one that would confirm humankind's responsibility for its living environment. The above juxtaposition of different philosophical views on biotic nature might be regarded as an important contribution to the work being done to develop a principle of this kind (Meyer-Abich 1997, 154–162).

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