



IPRPD

International Journal of Arts, Humanities & Social Science

Volume 01; Issue no 02: July 10, 2020

The Ethics of Responsibility: The Philosophical Proposals of Hans Jonas and its Critical Appraisal

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Received: 04/06/2020

Accepted for Publication: 01/07/2020

Published: 10/07/2020

Abstract

The late modern views that the environment is simply there for the use and benefit of the human person without value persist to this day. The purpose of this article, The Ethics of Responsibility: The Philosophical Proposals of Hans Jonas and its Critical Appraisal towards Environmental Ethics for a Technological Age, is to add to the growing discussion which seeks to reconnect the environment and the human person through an exploration of the views offered by Hans Jonas. The imperative of responsibility serves as a guide to an establishment of an ethics for the future. This ethics guided by general principles of authentic dialogue unfolds an important relationship between those theories concerning our view and the use of the environment and human activities championed by modern technology. The significance of this study rests on the fact that the environmental crisis has become so urgent and leaves no one unaffected. The global environmental challenges, especially in our technological era, present serious ethical difficulties. For these reasons this work seeks to examine and evaluate the environmental ethics of Hans Jonas. He presents the dangers that will come to the environment if an ethics of responsibility is not taken towards the environment and further generations. At the same time we want to propose what could be solutions to the present day environmental crisis. The investigation concludes that the environment and the human person share essentially the same scope. Both lead to an understanding of that reality and truth which underline all that occupy human interest.

Keywords: Anthropocentrism, Environmental Ethics, Ontology, Categorical Imperative

Introduction

Among the many urgent contemporary worries, such as bioethical issues, is what has been called the environmental crisis or the ecology crisis. Environmental crisis has to do with the problem of environmental destruction caused by the human person. The global environmental crisis has challenged philosophers to develop a new system of ethics. This new ethics which was also stimulated by social issues has eventually flourished into theories of different variations. In order for this new environmental ethics to be a cure for present environmental problems, a notion of the environment needs to be developed. Today the greatest destruction of the environment is attributed to modern technological advancement. If anthropocentrism is the problem, then perhaps non-anthropocentrism is the solution.¹

¹Cfr. W. G. SMITH, "The Value of Wilderness" in *Social Ethics, Morality and Social Policy*, A.MAPPES-JANE S.ZEMBATY (eds.), McGraw-Hill Pub. Company, New York 1987, 498. This is the view that value can be ascribed to the non-human world only insofar as it is good for the sake of the wellbeing of human beings. This is purely a Western moral thought. It is characteristic of Western moral philosophy. Can this simply not be some form of anthropocentric bias? By this opinion it means that the environment or nature hasn't got an intrinsic value. This will therefore call for no justification for its preservation since its value is not direct. It will call for preservation only on condition that it has a direct bearing on the human being. A development of an environmental based morality that recognizes the worth of the environment as environment is now envisaged.

To some authors the environment is “all the external factors influencing the life and activities of people, plants and animals.”² Here the environment is understood to be the reality which acts on an organism from outside. This calls for a judicious use of the environment if we envisage a ‘future generation.’

At the same time there is the high tendency to produce material goods with little regard for the by-products of industrial technology that serve to pollute and degrade the environment. Also, today, there is the tendency to ‘develop’ the land with little regard for the preservation of endangered plants and animal species. This inclination to exploit natural resources with little regard for future generations has been identified as part of the environmental crisis. The depletion of the ozone layer, environmental hazards caused by pollution, high industrial and technological advancement with little or no respect for the environment indicate a serious crisis. G. B. Tangwa, in *Some African Reflections on Biomedical and Environmental Ethics*, describes the harm caused by technology to the environment in these words:

Global pollution (of air, water and soil); global warming and consequent erratic and unpredictable changes in global weather system, massive risks to plants, animals and humans from toxic industrial wastes and from sophisticated weapons, conventional, nuclear, chemical and biological; risks of upsetting nature’s ecological balance; risk of accidentally triggering the collapse of the very foundation of life via gene technology. These hazards are urgent for all human beings in all parts of the world.³

The environmental problem, therefore, deals with the question of how human beings relate to the natural environment in their pursuit of happiness and well-being. Today, more than ever before the problem has become very urgent. The very activities that occupy the human person are meant to enhance human life but at the same time the human person has been endangered in this quest. Our interaction with nonhuman forms of life and with the environment as a whole has raised a number of moral problems. This has led to what is today known as “Environmental Ethics.”⁴

²J. FEINBERG, “The Rights of Animals and Unborn Generation” in *Philosophy & Environmental Crisis*, WILLIAM T. BLACKSTONE, University of Georgia Press, Georgia 1974, 43.

³G. B. TANGWA, “Some African Reflections on Biomedical and Environmental Ethics,” in *A Companion to African Philosophy*, Kwasi Wiredu (ed.), Blackwell Publishing, Australia 2004, 393..

⁴S. BLACKBURN, *Oxford Dictionary of Philosophy*, Oxford University Press, Oxford 1996,121. Most of ethics deal with problems of human desires and needs: the achievement of happiness, or the distribution of goods. The central problem specific to think about the environment, is the independent value to place on such things as preservation of species, or protection of the wilderness. Such protection can be supported as a means to ordinary human ends, for instance when animals are regarded as future sources of medicines or other benefits. But many would want to claim a non-utilitarian, absolute value of the existence of wild things and wild places; it is in the very dependence of human lives that their value consists. They put us in our proper place, and failure to appreciate this value is not only an aesthetic failure but one of due humility and reverence, a moral disability. The problem is one of expressing this value, and mobilizing it against utilitarian arguments for developing natural areas and exterminating species more or less at will.

This is why Hans Jonas⁵ in his book *The Imperative of Responsibility: in Search of an Ethics for the Technological Age*, attempts to provide some solutions to the environmental crisis in what he calls “the ethics of the future.”⁶ H. Jonas’s position about the environment is very practical and relevant in the sense that most of the environmental problems he grapples with arise from, or are related to, human problems. He questions modern technology that has ‘raped’ nature.⁷ That technology is focused only on success, no matter the consequences, without a consideration for its by-products is not correct. The philosophical contributions of H. Jonas to the environmental crisis are very important.

The concept of the environment has presented a serious difficulty in terminology. Thinkers on the environment use words that seemingly look the same. Some use ‘nature’ for the environment while others use ‘ecology’, ecosystem and ‘climate change’ interchangeably. However, nature is broader in scope than the other concepts. H. Jonas holds that there has been a danger of overstraining nature. In a vivid way he describes human activities on nature as the ‘raping of nature’ as we have stated above, caused by the overpowering of human beings. Nature has been made vulnerable by human technological intervention and the self-propagation of the technological change. Technology has turned into an infinite forward-thrust with the dynamic pride of achievement. H. Jonas’s major attempt is to ground his ethics of responsibility in metaphysics even though he ends up rejecting the foundation of metaphysics and instead gives a privileged position to the human person at the detriment of the environment.

The main problem that will occupy us in this article is: “why should we care about the environment, or the future.” To do this we need to find out if it makes sense to talk about rights of the ‘unborn generation’ or a future generation that does not even exist by protecting and preserving the environment? And if yes, how do we talk of a right to an entity that has no corresponding duty like the environment? What is the relationship between the human person and the environment? How do we ascertain the sustainability of the environment in relation to the human person?

A big issue in environmental ethics is whether the environment is intrinsically valuable, or merely useful to human beings. According to P Takov, when people argue about environmental

⁵Cfr. R. WOLIN “Ethics After Auschwitz: Hans Jonas’s Notion of Responsibility in a Technological Age” in *The Legacy of Hans Jonas; Judaism and the Phenomenon of Life*, 1. Hans Jonas is a German – American Jewish philosopher, born in Mönchengladbach in 1903. By the age of thirty Jonas had experienced in *extremis*, the full array of early twentieth - century European cultural and political turmoil: World War I (albeit as a Civilian) He studied philosophy at Marburg University under the famous twentieth century philosopher Martin Heidegger. This period of studies presented a crisis that stems from the self-destructive nature of modern reason under the influence of modern natural science. He also learned from Heidegger that philosophy had the task of showing the limits of modern natural science by returning to ancient philosophy. He accused his teacher of nihilism (that is the view that the good is an invention of the human will not a reality existing by nature). In 1933, he left Germany with the rise of Nazism to power. In 1934, in light of escalating levels of anti-Semitic persecution Jonas wisely decided to emigrate to Palestine. At the same time, he pledged that he would only return to Germany as part of a conquering army. As it turned out, his vow proved prophetic. In 1939 he joined the British army’s Jewish Brigade, reentering his former homeland along with victorious allies in 1945. Three years later, in 1948, Jonas would don military garb again to fight in Israel’s war of independence. He later returned to Germany where he had lost his mother in Auschwitz concentration camp like many other Jews. The Second World War experiences deeply affected or altered his outlook on life. In 1949 he moved to Montreal and in 1951 moved to Ottawa in Canada where he began a distinguished career as a university professor. He died in 1993. Among his many works we have “*The Imperative of Responsibility, In Search of an Ethics for Technological Age*, which will be our primary source, *Philosophical Essays : From Ancient Creed to Technological Man; Mortality and Morality: A Search for the Good after Auschwitz* and *The Phenomenon of Life: Towards a Philosophical Biology*.

⁶H. JONAS, *The Imperative of Responsibility: In Search of an Ethics for the Technological Age*, Trans. H. JONAS-D.HERR, The University of Chicago Press, Chicago 1984, 27.

⁷*Ibid.* 2. “The raping of nature and the civilizing of man go hand in hand. Both are in defiance of the elements, the one by venturing into them and overpowering their creatures, the other by securing an enclave against them in the shelter of the city and its laws. Man is the maker of his life qua human, bending circumstances to his will and needs, and except against death he is never helpless.”

ethics - as with other fields of ethics - they can go round and round in circles because both sides have made different assumptions.⁸ While W.G. Smith and M. Benjamin see the environment as a tool to provide human beings with food and resources, others such as Peter Singer believe that the environment has its own interests and needs to be considered in its own right.⁹ H. Jonas bridges the gap between these two views by establishing an ethics of responsibility and considers these opinions in relation to technology. Environmental ethics is that part of ethics which examines the moral basis of our responsibility towards the environment.

This work seeks to present H. Jonas's environmental ethics as comprehensively as possible, to analyze his ethical proposal, that is, the imperative of responsibility and to critically evaluate his proposals for a technological age. The world today is struck by an environmental crisis, which strictly speaking, is a moral crisis. This crisis is championed by the fact that the human person has deviated from the objective value of reality. The human person has indulged in some form of simplistic approach to reality. Anthropocentrism has become the criteria for evaluating existence. Is the human person for the environment or is the environment for the human person? The environment has been relegated and manipulated upon by modern technology in the quest for fame, economic value and success at all cost.

For these reasons we want to undertake this study to examine and evaluate the environmental ethics of Hans Jonas within the context of an ethics of responsibility in a technological age. H. Jonas presents the dangers that will come to the environment if an ethics of responsibility is not taken seriously towards the environment and future generations. At the same time we want to propose what could be a solution to the present day environmental crisis.

Two assumptions can be made here: that we ought to care for the 'future' and that it makes sense to speak of the rights of the 'unborn generation'. We have the moral obligation to conserve our environmental inheritance for the future generation. G. B. Tangwa argues that "human beings have putative moral responsibility towards inanimate objects, plants, and the "lower" animals."¹⁰ We have practical obligations towards the posterity of a distant future, and a principle of decision in present action. P. Singer contends that we can be sure that future generations will appreciate the "wilderness."¹¹ He says:

Perhaps they will be happier sitting in air-conditioned shopping malls, playing computer games more sophisticated than any we can imagine? That is possible. But there are several reasons why we should not give this possibility too much weight. First, the trend has been in the opposite direction: the appreciation of the wilderness has never been higher than it is today, especially among those nations that have overcome the problems of poverty and hunger and have relatively little wilderness left. Wilderness is valued as something of immense beauty, as a reservoir of scientific knowledge still to be gained, for the recreational opportunities that it provides, and because many people just like to know that something natural is still there, relatively untouched by modern civilization.¹²

⁸P. TAKOV, *Deriving "Ought" from "Is" According to Hans Jonas*, A Doctoral Dissertation in the Faculty of Philosophy, Unpublished, Rome 2009, 9

⁹Cfr. W. G. SMITH, "The Value of Wilderness" in *Social Ethics, Morality and Social Policy*, 496

¹⁰G. B. TANGWA, "Some African Reflections on Biomedical and Environmental Ethics," 388.

¹¹Note that the environment, nature and wilderness are used here interchangeably. By wilderness we mean that part of our planet that is unaffected by human activity, perhaps it is already too late; there may be no wilderness left anywhere on our planet.

¹²P. SINGER, *Practical Ethics*, 271.

The value that future generations will give to the environment is up to us now. We must create a culture of preservation now. This can only be done, thanks to an ethics of responsibility, as prescribed by H. Jonas. This is the argument we shall strongly push in this work.

According to many contemporary environmental philosophers, organisms do not have any rights or responsibility. M. Benjamin argues that organisms have value only in relation to man.¹³ This argument begins with the philosophy of Aristotle. It is the dominant Western tradition.¹⁴ We disagree with this dominant Western tradition. It is no longer a popular opinion. "To claim that humankind is the apex of biological existence, as we know it, has sometimes been dismissed as an arrogant specialist claim."¹⁵ Actually, most people like J. Passmore and J. Feinberg¹⁶ are agreed that we should not damage the environment irreparably. But H. Jonas, our author, does not only highlight difficulties involved in environmental ethics but goes beyond difficulties to propose solutions.

Although many have critically evaluated the ethical proposal made by Hans Jonas about the environmental crisis caused by technology from different points of view, there is still a need to comprehend his theory in its entirety. His ethics of responsibility needs to be analyzed with its intrinsic relation to other elements of his earlier philosophical reflections. *The Phenomenon of Life: Towards a Philosophical Biology*, is very essential to his ethical considerations of the environment. There is also need to analyze systematically the enormous critique his ethics has generated. Such an analysis could help to overcome the criticism levied against his ethics and critically evaluate his contributions. However, the impact of his ethics is still in the initial stage but his predictions are already being felt. It is the relevance of such a critical analysis that prompted us to take on this research on Hans Jonas's ethics of responsibility towards the environment.

This article on Hans Jonas's ethical proposal and its critical appraisal employs basically a philosophical method. We shall explore the thoughts of H. Jonas especially his contributions to environmental problems but at the same time analyzing and criticizing his metaphysics of life which is the foundation of his ethics of the environment. Environmental considerations today, in relation to the unlimited quest for technology, must be based on an ontology that proposes a more meaningful ethics. The ethics of the environment must be developed. We shall try to understand H. Jonas's concept of nature, environment and technology. His environmental ethics is drawn largely from his understanding of the anthropocentric nature of philosophy flowing from living organisms. To do this we shall make recourse to H. Jonas's main works as indicated in the select bibliography as well as other subsidiary sources that are closely connected to his philosophy. Our work will be analytic and synthetic. We will make recourse to critical appraisal of his ethical considerations towards the environment.

Technology has been a welcome relief in resolving many human difficulties but in the bid to do this it has done a lot of harm to the environment. Besides the good produced by technology there has been untold harm to the environment. Therefore, there is need to refocus our obligation towards the environment. Our interest therefore is to raise awareness about the environmental crisis and propose some solutions by joining H. Jonas in his *Ethics of Responsibility: in Search of an Ethics for the*

¹³Cfr. M. BENJAMIN, "Ethics and Animal Consciousness," in *Social Ethics, Morality and Social Policy*, A.MAPPES-JANE S.ZEMBATY (eds.), McGraw-Hill Pub. Company, New York 1987, 482.

¹⁴P. SINGER, *Practical Ethics*, 271. (According to the dominant Western tradition, the natural world exists for the benefit of human beings. God gave human beings dominion over the natural world and God does not care how we treat it. Human beings are the only morally important members of this world. Nature itself is of no intrinsic value, and the destruction of plants and animals cannot be sinful unless by this destruction we harm human beings.)

¹⁵G. B.TANGWA, "Some African Reflections on Biomedical and Environmental Ethics," 388.

¹⁶John Passmore is a professor of philosophy at Australian National University (Canberra, Australia). His published works include; *Hume's Intentions*(1952), *A Hundred Years of Philosophy*(1957), *Philosophical Reasoning*(1961) *Science and its Critics*(1978), *Man's Responsibility for Nature*(that concerns us directly in our research)(1974). Joel Feinberg is a professor of philosophy at the University of Arizona. His works include; *Doing or Deserving* (1970), *Social Philosophy*(1973), *Reason and Responsibility*(ed.) (1973) *moral Concepts*(1969), *Coeditor of Philosophy of Law*(1975), many articles i.e. "The Rights of Animals and Unborn Generation," in *Philosophy and Environmental Crisis*, W.T Blackstone (ed.) University of Georgia Press, Georgia 1974 43-68.

Technological Age which holds that the environment has intrinsic value and ought to be handled with care. Something is of intrinsic value if it is good or desirable in itself. This is opposed to instrumental value, which is value as a means to some other end or purpose. Our research work serves as a caution to the architects of technology who are violating this intrinsic value of the environment.

HANS JONAS'S ETHICS OF RESPONSIBILITY TOWARDS THE ENVIRONMENT

H. Jonas presents an ontological foundation of his ethics of the environment. This is evident in his philosophical biology. We have seen that the rejection of metaphysics starting with the distinctions made by R. Descartes has serious consequences. This Cartesian dualism destroyed the holistic understanding of nature. The distinction between *res extensa* and *res cogitans* could not adequately explain the phenomenon of life. Metabolism stands at the centre of H. Jonas's philosophical biology. According to H. Jonas metabolism enables the organism to exchange matter with the environment. Metabolism distinguishes between organic and inorganic life. We also saw that the central core to metabolism is needful freedom. The concept of needful freedom demonstrates a distinguishing characteristic between living organism and dead matter. In this chapter, therefore, we shall present H. Jonas's ethics of responsibility towards the environment.

THE CONCEPT OF RESPONSIBILITY

The concept of responsibility according H. Jonas is presented in his work *The Imperative of Responsibility: A Search for an Ethics for the Technological Age*. According to H. Jonas responsibility is understood as "being accountable 'for' one's deeds whatever they are and responsibility 'for' particular objects that commit an agent to particular deeds concerning them."¹⁷ V. Höhle affirming the importance of this work observes that "*The Imperative of Responsibility* became for many of my generation the source of a new moral and political orientation."¹⁸ To H. Jonas this ethics is new in that it is the "ethics of the future."¹⁹ H. Jonas himself affirms that "nature as a human responsibility is surely a novum to be pondered in ethical theory."²⁰ He further states:

As a moral proposition, namely a practical obligation towards the posterity of a distant future, and a principle of decision in present action, it is quite different from the imperative of the previous ethics of contemporaneity; and it has entered the moral scene only with our novel powers and range of prescience.²¹

This indicates that we of the present generation can determine the outcome of the future of the yet unborn generation by preserving the environment now. It also means that we can determine what the future generation should look like because the actions we carry out now will affect the distant future. It calls for responsibility in the choices we make now.

According to C. Mitcham "Responsibility" is a term that is often polymorphously employed to "ethicize" any human activity, including the activities of science and technology."²² D. Nikulin on the other hand observes:

¹⁷H. JONAS, *The Imperative of Responsibility*, 90.

¹⁸V. HÖHLE, "Ontology and Ethics in Hans Jonas" in *Graduate Faculty Philosophy Journal*, 32.

¹⁹Cfr. H. JONAS, *The Imperative of Responsibility*, 27.

²⁰*Ibid.* 7.

²¹*Ibid.* 10.

²²C. MITCHAM "Philosophical Biology and Environmentalism" in *The Legacy of Hans Jonas Judaism and the Phenomenon of Life*. 507.

The new ethics is not that of virtue (as in Plato, Aristotle and the Stoics), not of happiness (as in Utilitarian), not of duty (as in Kant), but an ethics of responsibility, an ethics implying a specific duty of humans towards humans and towards the non-human world.²³

By responsibility here we mean accountability for the actions we carry out towards the environment and the future generation. H. Jonas's environmental ethics is about assessing and limiting human power over the natural world and expanding the human ethical concern to the non-human world.²⁴ This responsibility lies on the human person towards the environment and not the environment towards the human person. H. Jonas is of the view that:

We intuitively recognize in the ontological distinction of man – his capacity for responsibility- not only its essentiality but also a value. The appearance of this value in the world does not simply add another value to the already value-rich landscape of being but surpasses all that has gone before with something that generically transcends it. This represents a qualitative intensification of the valuableness of Being as a whole, the ultimate object of our responsibility.²⁵

The imperative of responsibility, therefore, is addressed and can only be addressed to and by human beings. Only human beings are capable of responsibility. If the presence of human beings in the world is a necessity and is constantly threatened by human beings themselves, then human beings have the duty and responsibility of preserving this present world into the future. They have the duty of saving the world for themselves not through their elimination but through their continual preservation.

According to H. Jonas this can only be done through this new Ethics. The main purpose of Jonas' ethics of responsibility is to provide an ethics whose validity is not cut off from an ontological foundation. If the environment is such that it has an objective purpose then the claim that it also has an intrinsic value may be justified. But if the environment has no value then it has no purpose. H. Jonas affirms:

What is true of the particular purpose - namely, that the fact of it comes first, and the validity of "good" and "bad" relative to it comes second, determined by the first (de facto), but not legitimized by it (de jure) – is also true of "purposiveness" itself, as an ontological characteristic of an entity.²⁶

The purpose of the environment is life and life is only life when it is existent.

That there ought to be through all future time such a world fit for human habitation, and that it ought in all future time to be inhabited by a mankind worthy of the human name, will be readily affirmed as a general axiom or a persuasive desirability of speculative imagination.²⁷

²³D. NIKULIN, Reconsidering Responsibility: Hans Jonas' Imperative for a New Ethics" in *Graduate Faculty Philosophy Journal*, 101.

²⁴ Cfr. L.TROSTER, "Caretaker or Citizen: Hans Jonas, Aldo Leopold, and the Development of Jewish Environmental Ethics" in *The Legacy of Hans Jonas Judaism and the Phenomenon of Life*, 375. Jonas's environmental ethics arises from the fear of the destruction of humanity from the need to create a philosophical basis for humans' responsibility to save themselves and the planet. His response to the environmental crisis is most fully elucidated in his book, *The Imperative of Responsibility*. In his work, Jonas argued that the environmental crisis emerged from the impact on the natural world, which is better and more far – reaching than in any previous age. This unique and novel power comes from modern technology, which is also radically different from the technologies of previous ages.

²⁵ H. JONAS, "Towards an Ontological Grounding an Ethics for the Future, in *Mortality and Morality : A Search for the Good after Auschwitz*, 106.

²⁶ H. JONAS, *The Imperative of Responsibility*, 80.

²⁷ *Ibid.* 10.

The danger posed on life by technology as we have seen above must lead us towards a certain responsibility.

THE RESTRICTED NATURE OF TRADITIONAL ETHICS

According to Jonas traditional ethics is limited. It considers only the present and individual actions. But due to the modern situation starting with technological development, there is need for reconsideration of the application of ethics. Jonas emphatically states that “our actions have opened up a whole new dimension of ethical relevance for which there is no precedence in the standards and canons of traditional ethics.”²⁸ He states that “modern technology has introduced actions of such novel scale, objects and consequences that the framework of former ethics can no longer contain them.”²⁹ We need principles that will help us to deal with issues that mankind has never known or had to deal with before. “This is not because former ethical principles were necessarily wrong, but because they were not designed to cope with the current ethical challenges.”³⁰ H. Jonas proposes an ethics that should have consequences even to an unforeseeable future. New technologies have emerged that threaten species of life. H. Jonas says:

All traditional ethics reckoned only with noncumulative behavior of the basic situation between persons, where virtue must prove and vice expose itself, remains always the same, and every deed begins afresh from this basis. The recurring occasions which pose their appropriate alternatives for human conduct – courage or cowardice, moderation or excess, truth or mendacity, and so on – each time reinstate the primordial conditions from which action takes off. These were never superseded, and thus moral actions were largely “typical,” that is, conforming to precedent. In contrast with this, the cumulative self-propagation of the technological change of the world constantly overtakes the conditions of its contributing acts and moves through none but unprecedented situations, for which the lessons of experience are powerless.³¹

Today new challenging issues like the environment are presenting new ethical challenges that traditional ethics did not take into consideration. In chapter one, we saw the meaning of traditional or previous ethics according to H. Jonas. The fact is that every previous moral endeavour of philosophy dealt with the relationship between human beings. The relationship of human beings and the environment was never the object of ethical consideration.

ETHICS OF RESPONSIBILITY

The ethical axiom which validates the rule according to H. Jonas is “never must the existence or the essence of [human being] as a whole be made at stake in the hazards of action.”³² Global technology threatens not only the present but also a distant future. Therefore “moral responsibility demands that we take into consideration the welfare of those who without being consulted will later be affected by what we are doing now.”³³ But the question is, on what grounds do we have to protect a future that is not yet there or existing? According to H. Jonas it should be “on ontological grounds.”³⁴ He argues that ethics without metaphysics is not possible. Metaphysics or ontology must underpin ethics.

²⁸H. JONAS, *The Imperative of Responsibility*, 1.

²⁹*Ibid.* 6.

³⁰P. TAKOV, *Deriving “Ought” from “Is” According to Hans Jonas*, 48.

³¹H. JONAS, *The Imperative of Responsibility*, 7.

³²L. VOGEL, “Does Environmental Ethical Need a Metaphysical Grounding?” in *Hasting Centre Report*, 37.

³³L. VOGEL, “Editor’s Introduction Hans Jonas, Exodus, from German Existentialism to Post Holocaust Theology” in *Mortality and Morality*, 99. Cfr. L. VOGEL, “Does Environmental Ethical Need a Metaphysical Grounding?” in *Hasting Centre Report*, 37.

³⁴*Ibid.* 100.

Ontological grounding is based on the quality that belongs inseparably to being. We must bridge the “what is” and the “what ought to be” in order to propound any future ethics. Ethics for the future contains an imminent claim on reality that it is better for value to be than not to be. Because technology is doubled faced, that is able to lead to either good or evil, its good has the potential of turning into something bad due to its sheer growth. Knowledge of the good must be derived from the essence of what is human.³⁵ It is ontology that gives us evidence of what the environment ought to be and calls for responsibility in its usage. H. Jonas says:

Therefore, the capacity for responsibility per se obliges its respective bearers to make existence possible for future bearers. In order to prevent responsibility from disappearing from the world—so speaks its immanent commandment – there ought to be human beings in the future... our responsibility to see that the capacity for responsibility survives in the world involves not only the existence of future human beings but also the way they exist; we must make sure the conditions of their existence do not cause this capacity (which depends on the freedom of the subject) to disappear.³⁶

The above considerations lead us to the conclusion that responsibility here is personified. It is our responsibility to be responsible. By capacity Hans Jonas is referring to “man’s ontological capacity to choose knowingly and willingly”³⁷ what we ought to be as moral agents with moral obligations. Our ethics for the future must be based on the responsibility to see that the world survives. “The [human person] is the only being known to us who can assume responsibility.”³⁸ There is something worthwhile about him and it is that our existence is worthy of a future. There is always a new chance to develop our potentials for the good. Only ontology can inform us why the human person ought to be at all, why he must not bring about his own disappearance from the world or allow this to happen. This we can do by assuming responsibility or care for the environment.

ETHICS FOR THE FUTURE

“An ethics for the future” means a contemporary ethics concerned with a future we seek to protect for our descendants from the consequences of our actions in the present.”³⁹ Because we are axiological beings, we are drawn towards an end. “The destruction of the world with beings that strive for ends (organisms) and beings that can reflect on ends (human beings) would be a serious crime.”⁴⁰ The ethics of responsibility appeals mostly to the preservation of human life whose existence Jonas presupposes as part of a general teleological order.

THE ETHICS OF FEAR

Motivated by a sense of imminent catastrophe, the “heuristics of fear”⁴¹ suggests that our technological interventions must be tempered and guided by a comparative futurology. It is fear not hope that is the strongest motivation in Jonas ethics, what he calls the “heuristics of fear.” It is also

³⁵Cfr. L. VOGEL, “Does Environmental Ethical Need a Metaphysical Grounding?” 103.

³⁶H. JONAS, “Towards an Ontological Grounding of an Ethics for the Future,” in L. VOGEL, Editor’s Introduction Hans Jonas, Exodus, from German Existentialism to Post Holocaust Theology in *Mortality and Morality*, 106.

³⁷L. VOGEL, “Editor’s Introduction Hans Jonas, Exodus, from German Existentialism to Post Holocaust Theology,” in *Mortality and Morality*, 101.

³⁸*Ibid.*

³⁹H. JONAS “Toward an Ontological Grounding of an Ethics for the Future” in *Mortality and Morality*, 99.

⁴⁰*Ibid.*, 39.

⁴¹H. JONAS, *The Imperative of Responsibility*, 26.

known as “Ethics of Caution”⁴² or the “sterner ethic of responsibility,”⁴³ which does not provide a positive suggestion for concrete action. H. Jonas emphasizes that “as long as the danger is unknown we do not know what to preserve and why.”⁴⁴

The position based on the heuristics of fear is always safe to maintain because if the worst happens, one can always say, ‘I have warned you but you did not listen, hence the result. If the worst does not happen, one can either say that the worst did not yet happen or that it did not happen at all exactly because of the anticipation of the worst.’⁴⁵

The fear mentioned above is caused by the unprecedented nature of modern technology. In the ethics of responsibility the very notion of responsibility appears to be translated into the feeling of fear. L. Troster holds that:

It can be said that environmental ethics has arisen out of a sense of fear and a sense of tragedy. The fear comes from the growing realization of the human cost of environmental destruction; the tragedy comes from the realization of how humanity is bringing about the extinction of so many other species and has irrevocably damaged the biosphere.⁴⁶

The fear that the incredible power of the human person over nature which results from the dualistic change of categories might have bad consequences is what preoccupies the environmental ethics of H. Jonas. This change of categories occurred at the beginning of modernity and may end in a catastrophe for humanity and the future. Therefore “environmental ethics attempts to reassess the relationship of humanity to the natural world in order to stem human environmental damage and provide a hopeful vision of a renewed more sustainable future for all life on earth.”⁴⁷

THE NEW IMPERATIVE

In the formulation of this new ethics H. Jonas makes reference to Kant’s Categorical Imperative. Kant’s theory of ethics was developed initially in *Groundwork of the Metaphysics of Morals* and in the *Critique of Practical Reason*. When reflecting on the experience of moral obligation, he found that morality implied a categorical imperative which he states as follows: “so act that the maxim of your will could always hold at the same time as a principle establishing universal law.”⁴⁸ This form of

⁴²L. TROSTER, “Caretaker or Citizen: Hans Jonas, Aldo Leopold, and the Development of Jewish Environmental Ethics” in *The Legacy of Hans Jonas Judaism and the Phenomenon of Life*, 387. This ethic of caution is also found in the precautionary principle, an ethical theory which states that an action, particularly one resulting from the introduction of a new technology, should be deemed by valid scientific opinion to have a high risk of being negative from an ethical point of view. The principle states that, when results cannot be determined with some kind of precision, action which might lead to significant harm should be delayed or shunned. According to the precautionary principle, new technology should be assessed for indication of harm. The onus of safety is on those who create the technology. Also see TIMOTHY O’RIORDAN and JAMES CAMERON, (eds.), *Interpreting Precautionary Principles*, Earthscan Publications, London, 1994.

⁴³L. VOGEL, “Does Environmental Ethical Need a Metaphysical Grounding?” in *Hasting Centre Report*, 38.

⁴⁴H. JONAS, *The Imperative of Responsibility*, 27.

⁴⁵L. TROSTER, “Caretaker or Citizen: Hans Jonas, Aldo Leopold, and the Development of Jewish Environmental Ethics” in *The Legacy of Hans Jonas Judaism and the Phenomenon of Life*, 375.

⁴⁶Ibid

⁴⁷L. TROSTER, “Caretaker or Citizen: Hans Jonas, Aldo Leopold, and the Development of Jewish Environmental Ethics” in *The Legacy of Hans Jonas Judaism and the Phenomenon of Life*, 375.

⁴⁸I. KANT, “Fundamental Principles of the Metaphysics of Moral,” in *Kant’s Critique of Practical Reason and other works on the Theory of Ethics*, Trans. T.K. ABBOTT, Longmans, London 1909, 175. A maxim is a principle or a general rule governing the action of a rational person. It takes the form, ‘whenever **A** happens, I consider it right to do **B**.’ Maxims are crucial in Kant’s moral theory, because they show the basis upon which the good will is operating. M THOMPSON, *Ethical Theory*, Hodder Murray, London 2005, 97.

the categorical imperative therefore provides a simple logical test. If you are content that someone else should be bound by the same principle upon which you are acting, then what you are doing is logically consistent and therefore right. If, on the other hand, what you want to do would involve a contradiction, or be self-defeating, even if everyone followed that same maxim, then it is wrong. Jonas on the contrary formulates a new imperative that reads:

Act so that the effects of your action are compatible with the permanence of genuine human life; or expressed negatively; Act so that the effects of your action are not destructive of the future possibility of such life or simply: "Do not compromise the conditions for an indefinite continuation of humanity on earth." In your present choices, include the future wholeness of [the human being] among the objects of your will.⁴⁹

According to this imperative a person acts morally and responsibly not only for the sake of others but also for the sake of the environment. This imperative is represented unconditionally. The ethics for the future obliges human beings to accept a certain minimal requirement toward their own action in the context of an indefinite future even when the effect of this action is still unknown.

The Imperative of Responsibility unlike Kant's Categorical Imperative that deals with the act here and now is different in that it appeals to a future generation that is not yet there. Kant's Categorical Imperative does not take into consideration the existence of the future generation. But Jonas propagates an ethics that does not appeal only to human beings but the environment as well. His ethics does not only take care of the now but also a distant future:

It means that in the final analysis we consult not our successors' wishes (which can be of our own making) but rather the "ought" that stands above both of us. To make it possible for them to be what they ought to be is the true crime, behind which all frustration of their desires, culpable as they may be, takes second place. This means, in turn, that it is less the right of future men (namely, their right to "happiness," which, given the uncertain concept of "happiness," would be a precarious criterion anyway) than their duty over which we have to watch, namely, their duty to be truly human: thus over their capacity for this duty.⁵⁰

While the Kantian imperative is centered on the now, H. Jonas on the other hand, considers his ethics to include nature as a whole. In as much as we have responsibility towards others, we also have responsibility towards the environment. Just as we depend on others so too we depend on the environment in one way or the other.

THE QUESTION OF RIGHT

The whole concept of the environment hinges on one thing, "right". Is it biologically, metaphysically or ethically, justified to hold that the environment has the right to be or to be preserved for its own sake or for the sake of the human person? Facing the environmental crisis Jonas is confronted with two very important questions. In the first place, why do we have the duty to preserve the environment for the future human generation so that they can live on? Secondly, is the environmental crisis morally relevant only because it endangers the future human generation or because the environment has an intrinsic value? T. A. Mappes argues that "in speaking of duties to future generations, we imply that future generations have rights which we are morally obligated to respect."⁵¹ Many proponents of

⁴⁹H. JONAS, *The Imperative of Responsibility*, 11.

⁵⁰H. JONAS, *The Imperative of Responsibility*, 41-42.

⁵¹T. A. MAPPEES, "Animals and the Environment" in *Social Ethics: Morality and Social Policy*, 468.

environmental ethics have argued that it makes sense to talk about the rights of the environment as well as that of the future generation. Prominent among them is Joel Fienberg, in *The Right of Animals and Unborn Generations*, who maintains that plants and animals may be said to have rights.⁵²

The answers provided linger around the question of right. How can persons who do not yet exist have rights? Can we accord this right to the environment? Joel Fienberg thinks that “to have a right is to have a claim to something and against someone, the recognition of which is called for by legal rules or, in the case of moral right, by the principles of an enlightened conscience.”⁵³ By this premise it is clear that it is absurd to speak of the environment or nature as having “rights” because they are unworthy of rights. J Fienberg maintains that:

We have in our power now, to make the world a much less pleasant place for our descendants than the world we inherited from our ancestors. We can continue to proliferate in ever greater numbers, using up fertile soil at an even greater rate, dumping our water into rivers, lakes and oceans, cutting down our forest, and polluting the atmosphere with noxious gases. All thoughtful people agree that we ought not to do these things. Most would say we have a duty not to do these things, meaning not merely that conservation is morally required (as opposed to merely desirable) but also that it is something due our descendants, something to be done for their sakes. Surely we owe our future generations to pass on a world that is not a used up garbage heap. Our remote descendants are not yet present to claim a livable world as their right, but there are plenty of proxies to speak now in their behalf. These spokesmen, far from being mere custodians, are genuine representatives of human interest. Why then deny that the human beings of the future have rights which can be claimed against us now in their behalf? Some are inclined to deny them present rights out of a fear of falling into obscure metaphysics, by granting rights to remote and unidentifiable beings who are not yet even in existence. Our unborn great-great grandchildren are in some sense “potential” persons, but they are far more remotely potential, it may seem, than fetuses. This, however, is the real difficulty.⁵⁴

This long quotation gives us a summary of our present day state of affairs regarding the various arguments presented either in favour or against predicating rights of the environment and future generation.

So far we have presented the views of H. Jonas from the ontological foundation of organic life championed by metabolism and needful freedom as well as his ethics of responsibility and related implications. The problem of modern technology has been highlighted as well as the usefulness of the environment suggested by some environmental philosophers.

CONCLUSION

This research was undertaken with a desire to present H. Jonas’s ethics of the environment as well as to analyze his ethical proposals for the preservation of the environment for future generations. The ethics of responsibility towards the environment have provoked many reactions among thinkers and many have dared to ask; what is the role of philosophy today? Can philosophy change the world? These are serious questions that have constantly been asked. Philosophy can help to educate people so that they can develop an understanding of the long term effects of human action. The task remains for philosophy to keep watch over human action by means of which we are trying to avert a serious catastrophe.

⁵²J. FEINBERG, “The Nature and Value of Rights” in *Journal of Value Inquiry* 4, Winter(1971), 263.

⁵³*Ibid*

⁵⁴J. FIENBERG, “The Right of Animals and Unborn Generation” in *Social Ethics: Morality and Social Policy*, 492.

Hans Jonas's vision of the environment, especially of life, has been described in detail in this work in order for us to understand the central idea behind his ethics. Its starting point is the actual world historical situation in which the human prospect appears increasingly dark caused by modern technology. His thought especially on the practical ethical problems posed by the unprecedented nature of modern technology and scientific innovations, becomes a prophetic call on the face of the danger that looms in the air not only about the future but the now. There is serious need for a call for moral wisdom. H. Jonas, a true philosopher does not satisfy himself with warnings but he recognizes the fact that the central point is partially the result of some incorrect ethical assumptions blurred by Cartesian dualism and the existential interpretation of nature. He sees the necessity for new ethical ideas 'the imperative of responsibility,' in order to overcome the actual threat. H. Jonas died a few years back, yet we are already witnessing environmental hazards caused by modern technology and a greater threat coming from the proliferation and use of nuclear weapons.

The human activities are increasingly and, constantly taking more and more living space away from other plants and animal species. Is this development morally acceptable even if it does not endanger the human person? Is the environmental crisis morally relevant only because of its endangerment of human generations or do plants and animals have an intrinsic value? H. Jonas in *The Imperative of Responsibility*, even though more anthropocentric in thought on the basis of his philosophical biology, certainly provides a metaphysical foundation for ethics.

The analysis of the ethics of responsibility has demonstrated that the environment and modern technology cannot be seen as isolated realities. The existential interpretation of the environment, the teleological understanding of organisms, and the ontological grounding of the ethics of the environment knit together the concept of responsibility on human beings for present and future generations and for nature on the whole.

One recommendation that we can make from the environmental ethics of H. Jonas is what we will refer to as the philosophy of sacrifice. Unless we sacrifice now, we will not only put ourselves into the danger of extinction but the life of the future generation will be jeopardized.⁵⁵ The imperative of responsibility can be summarized as a call for sacrifice on the part of human beings. Without this the ethics of responsibility will not be different from the previous ethical prescriptions.

⁵⁵Cfr., H. JONAS, *The Imperative of Responsibility*, 10. There *ought* to be through all future time such a world fit for human habitation, and that it ought in all future time to be inhabited by a mankind worthy of the human name, will be readily affirmed as a general axiom or a persuasive desirability of speculative imagination (as persuasive and as undemonstrable as the proposition that there being a world at all is "better" than there being none): but as a moral proposition, namely, a practical obligation toward the posterity of a distant future, and a principle of decision in present action, it is quite different from the imperative of the previous ethics of contemporaneity: and it has entered the moral scene only with our novel powers and range of prescience.

Works Citation

Primary Sources

- JONAS Hans, "On Suffering" in *Region Practice*, 15, 2000.
- JONAS Hans, "The Outcry of Mute Things," in *Mortality and Morality: A Search for the Good After Auschwitz*, L. VOGEL(ed.) Northwestern University Press, Evanston II, 1996.
- JONAS Hans, "Evolution and Freedom on the Continuity among Life Forms" in *Mortality and Morality: A Search for the Good after Auschwitz*, L. VOGEL (ed.) Northwestern University Press, Evanston II, 1996.
- JONAS Hans, *The Imperative of Responsibility: in Search of an Ethics for the Technological Age*, Trans. H. JONAS-D.HERR, The University of Chicago Press, Chicago, 1984.
- JONAS Hans, *The Phenomenon of life: Towards a Philosophical Biology*, Northwestern University Press, Illinois, 2001.
- JONAS Hans, "Closer to the Bitter End," in *Graduate Faculty Philosophy Journal* M. MATUSSEK – W.KADEN, 2001.
- JONAS Hans, "The Concept of God After Auschwitz: A Jewish voice," in *The Journal of Religion*, 1987.
- JONAS Hans, "Towards a Philosophy of Technology," in *The Hastings Centre Report*, 1979.
- JONAS Hans, *The Gnostic Religion, The Message of the Alien God and the Beginnings of Christianity*, Beacon Press, Boston, 1958.
- JONAS Hans, "Is God a Mathematician?" in *The Phenomenon of Life: Towards a Philosophical Biology*, Northwestern University Press, Illinois, 2001.
- JONAS Hans, *Philosophical Essays: From Ancient Creed to Technological Man*, University of Chicago Press, Chicago, 1980.
- JONAS Hans, "Responsibility Today: The Ethics of Endangered Future," in *Social Research*, 1976.
- JONAS Hans, "The Concept of Responsibility: An Inquiry into the Foundation of an Ethics for Our Age," in *Knowledge, Value and Belief*, H. TRISAM ENGELHARDT- DANIEL CALLAHAN (eds.) 1-15, Hastings-on-Hudson: Hastings Centre, 1977.
- JONAS Hans, *Mortality and Morality: A Search for the Good After Auschwitz* L. VOGEL (ed.) Northwestern University Press, Evanston II, 1996.
- JONAS Hans, "Wissenschaft as Personal Experience," in *Graduate Faculty Philosophy Journal*, 2001.

Secondary Sources

- DONNELLEY Strachan, “Hans Jonas and Ernest Mayr: On Organic Life and Human Responsibility” in *Graduate Faculty Philosophy Journal*, 2001.
- FERNANDO Sahayadas, *The Principle of Responsibility: The Proposal of Hans Jonas and its Critical Appraisal*, Salesian Pontifical University, Rome, 2004.
- GEREON Wolters, “Hans Jonas’ Philosophical Biology” in *Graduate Faculty Philosophy Journal*, 2001.
- HÖSLE Victorio, “Ontology and Ethics in Hans Jonas” in *Graduate Faculty Philosophy Journal*, 2001
- KASS Leon, “Appreciating the Phenomenon of Life” in *The Hasting Centre Report*, 1995.
- MITCHAN Carl, “Philosophical Biology and Environmentalism” in *The Legacy of Hans Jonas, Judaism and the Phenomenon of Life* HAVA TIROSH –SAMUELSON and CHRISTIAN WIESE (eds.), Brill Leiden ,Boston, 2008.
- NIKULIN Dimitri, “Reconsidering Responsibility: Hans Jonas’ Imperative for a New Ethics” in *Graduate Faculty Philosophy Journal*, 2001
- TAKOV Peter, *Deriving “Ought” from “Is ” According to Hans Jonas*, A Doctoral Dissertation in the Faculty of Philosophy, Pontificia Universitas Urbaniana Unpublished, Rome, 2009.
- TROSTER Lawrence, “Caretaker or Citizen: Hans Jonas, Aldo Leopold, and the Development of Jewish Environmental Ethics, ” in *The Legacy of Hans Jonas Judaism, and the Phenomenon of Life*, HAVA TIROSH - SAMUELSON and CHRISTIAN WIESE (eds.), Brill Leiden ,Boston, 2008.
- VOGEL Lawrence, “Does Environmental Ethics Need a Metaphysical Grounding?” in *Hasting Centre Report*, 25, no 7, 1995.
- VOGEL Lawrence, Editor’s Introduction Hans Jonas, Exodus, from German Existentialism to Post Holocaust Theology in *Mortality and Morality: A Search for the Good after Auschwitz*, Northwestern University Press, Evanston II, 1996.
- VOGEL Lawrence, “Hans Jonas and Ernst Mayr: On Organic Life and Human Responsibility” in *The Legacy of Hans Jonas Judaism and the Phenomenon of Life*, HAVA TIROSH - SAMUELSON and CHRISTIAN WIESE (eds.), Brill Leiden Boston, 2008
- WIESE Christian, *The Life and Thought of Hans Jonas: Jewish Dimension*, Brandeis University Press, Massachusetts 2007.
- WOLIN Richard, “Ethics after Auschwitz: Hans Jonas’s Notion of Responsibility in a Technological Age” in *The Legacy of Hans Jonas Judaism and the Phenomenon of Life, Life*, HAVA TIROSH SAMUELSON and CHRISTIAN WIESE (eds.), Brill Leiden ,Boston, 2008.

WOLIN Richard, *Heidegger's Children: Hannah Arendt, Karl Lowith, Hans Jonas, and Herbert Marcuse*, Princeton University Press, Princeton, 2001.

YAFFE D. Martin, "Reason and Feeling in Hans Jonas's Existential Biology, Arne Naess's Deep Ecology and Spinoza's Ethics" *The Legacy of Hans Jonas Judaism and the Phenomenon of Life* HAVA TIROSH - SAMUELSON and CHRISTIAN WIESE (eds.), Brill Leiden ,Boston, 2008.

Other Sources

ANDREW Belsey, "Chaos and Order, Environment and Anarchy," in *Philosophy and the Natural Environment*, R. ATTFIELD – A. BELSEY (eds.), Cambridge University Press, Cambridge, 1994.

ABANUKA Bartholomew, *A New Essay on African Philosophy*, Spiritan Publications, Nsukka, 1994.

ANYANWU K C. "The African-World View and Theory Knowledge" in *African Philosophy; An Introduction to the main Philosophical Trends in Contemporary Africa*, E. A. RUCH-K.C. ANYANWU (eds.), Catholic Book Agency, Rome, 1984.

BARACCHI Claudia, *Aristotle's Ethics as First Philosophy*, Cambridge University Press, Cambridge, 2008.

BOURDEAU Patrick, "The Man-Nature Relationship and Environmental Ethics," in *Journal of Environmental Radioactivity*, 2004,

STEVENSON C. Lewis, *Ethics and Language*, Yale University Press, 1944.

COOPER E David, "The Idea of the Environment," in *The Environment in Question: Ethics and Global Issues*, D. E COOPER – J. A. PALMER (eds.) Routledge, London, 1992.

DAVID Ross, *The Foundation of Ethics*, Oxford University Press, London, 2000.

DUBOS Rene, "Environment," in *Dictionary of the History of Ideas: Selected Studies of Pivotal Ideas*, P. P. WIENER (ed.), Charles Scribner's Sons, New York, 1973.

FEINBERG Joel, "The Nature and Value of Rights" in *Journal of Value Inquiry* 4, Winter 1971.

FEINBERG Joel, "The Rights of Animals and Unborn Generations" in *Philosophy & Environmental Crisis*, WILLIAM T. BLACKSTONE, University of Georgia Press, Georgia 1974.

FINLAY Graeme, "The Emergence of Human Distinctiveness: The Genetic Story" in *Rethinking Human Nature A Multidisciplinary Approach*, M. JEEVES (ed.) William B. Berdmans Publishing Com, Cambridge 2011.

GODFREY S. William, "The Value of Wilderness" In *Social Ethics, Morality and Social Policy*, A. MAPPES-JANE S. ZEMBATY (eds.), McGraw-Hill Pub. Com., New York 1987.

GRISEZ G. –S. Russell, *Beyond the New Morality, The Responsibility of Freedom*, University of Notre Dame Press, Notre Dame Indiana 2006.

HANNAM James, *God's Philosophers; How the Medieval World Laid the Foundation of Modern Science*, Icon Books, London, 2009.

HEIDEGGER Martin, *The End of Philosophy*. Trans. JOAN STAMBAUGH, Harper & Row Publishers, New York, 1973.

HENRY Sidgwick, *Essay on Ethics and Methods*, Clarendon Press, 2000.

HERBERT L.M.-J. Langenhein, "The Language analysis of the Concept of Environment," in *Ecology*, 1957

HIROKO Tabuchi, "Japan Premier Wants Shift Away From Nuclear Power," *The New York Times*. 13 July, 2011.

IAN G Barbour, *Religion in an Age of Science*, SCM Press, London, 1990.

INGOLD Tim, "Culture and Perception of the Environment," in *Bush Base: Forest Farm Culture, Environment and Development*, E. CROLL– D. PARKINS (eds.), Routledge, London, 1992.

JEAN H.-John B.(eds.), *Making Moral Decisions*, Continuum International Publishing Group, London, 1994.

POLKINGHORNE J, *Science and Christian Belief*, SPCK, London, 1969.

JOHN L. Mackie, *Ethics; Inventing Right from Wrong*, Routledge, 1993.

JOHN Rodman, "The Liberation of Nature," in *Inquiry*, 1979.

KANT Immanuel, *Fundamental Principles of the Metaphysics of Morals*," in *Kant's Critique of Practical Reason and other works on the Theory of Ethics*, Trans. T.K. ABBOTT, Longmans, London 1909

KANT Immanuel, *Groundwork of the Metaphysics of Morals*, Cambridge University Press, London, 1998.

KANT Immanuel, *Critique of Practical Reason*, Cambridge University Press, London, 1997.

W. G. SMITH, "The Value of Wilderness" in *Social Ethics, Morality and Social Policy*, A.MAPPES-JANE S.ZEMBATY (eds.), McGraw-Hill Pub. Company, New York 1987.

Internet Sources

<http://www.uni-konstanz.de/FuF/Philo/philachiv/bestande/Jonas.htm>. 16 July 2018.

<http://wwwhans-jonas-zentrum.de>. 16 July 2018.

<http://www.thehastingscenter.org/> 4 August 2018.

<http://www.amsa.gov.au>. 28 August 2018.