

Reconstruction of the Worldview as Strategy for Environmental Survival and Sustainability

Ibrahim Shogar

What people do about their ecology depends on what they think about themselves in relation to things around them?

Lynn White (1967)

Abstract The current ecological crisis is a matter of urgent global concern that seeks global solutions and sincere cooperation of nations and all parties of the human community: experts, policymakers, organizations and publics. The relevant solution, however, sought to be found associated with a precise identification and clear vision of root causes which, consequently, guide to the development of valid theories that capable to address the issue from its various dimensions. Although the distinguished scholars of various disciplines across the glob have been suggesting solutions of different kinds to the problem, they agree that the major part of environmental crisis comes from human actions. However, more significantly, scholars are in agreement that human actions are determined by his ideas and beliefs. This factor obviously identifies the strategic approach to deal with our ecological crisis; that is to rebuild our ideas and beliefs towards nature, i.e. reconstruction of the worldview. This work examines this hypothesis which asserts that the environmental crisis which experienced by mankind today are mainly due to his world view; i.e. misconception of the true relationship between man, nature and the ultimate truth. The study focuses on philosophical foundations of man- nature relationship, with objective of providing useful insights and perspectives that might contribute to uncover the root causes of our environmental crisis; and to establish a new united vision that capable to maintain the indispensable friendship of man and nature. To achieve these goals the study shall focus on the view that both man and nature are creatures of one Creator. However, nature has been made to serve man, not as a

I. Shogar (✉)

Kulliyyah of Science, International Islamic University Malaysia, Kuala Lumpur, Malaysia
e-mail: Shogar@iiu.edu.my, Shogar2000@yahoo.com

Ibrahim Shogar is a researcher, author, and advisor, focused on Islamic philosophy of science. Currently he works as Assistant Professor of philosophy of science at “Kulliyyah of Science”, International Islamic University-Malaysia

machine dominated by human, but as “Amanah” or “Trust” which capable for utilization not destruction. Nature, according to this concept, has two main functions: to serve man in his physical needs, and to guide him morally to the right path, i.e. towards discovery of the Creator and His great wisdom in the natural phenomena.

Keywords Nature · Environment · Sustainability · Reconstruction

1 Science, Technology and Ecological Crisis

Over the course of time man has been developing many interconnected and validated ideas about the physical, biological and social worlds. Those ideas have enabled successive generations to achieve an increasingly comprehensive and reliable understanding of the world. The devices used to develop these ideas are particular ways of observing, thinking, and experimenting. Scientists, envisioned by originated systems in the natural world and inspired by biological engines of living creatures, have shown great efforts to create new scientific knowledge. When biochemists need complex molecular machines, they still have to borrow from cells of living creatures. Nonetheless, advanced molecular machines of living creatures have led biochemists to build nanomachines. Computer-aided design systems already have grown common, spurred by advances in computer technology. Biologists have achieved great advances because they have found chemical and physical explanations for every aspect of living cells yet studied, including their motion, growth, and reproduction[4].¹

Scientists and engineers are of great concern to develop new theories and more advanced devices in various scientific disciplines. They started to deal with biological engineering in the same manner that they dealt with non-biological world. I.e. they are shifting from creation of devices and passive substances, to more complex patterns such as genetic engineering and biotechnology. Philosophers of science argue that the major purpose of science is to develop laws and theories to explain, predict, understand, and control the natural phenomena [3, 5].² They suggest that the main objective of science is to control nature through its laws.

Indeed, nature was the teacher of human and very foundation of his technology, which provided him with great insights to the natural phenomena, and imminent prospects of knowledge creation. However, the major difference between the natural process and human technology is “No waste or pollution in the natural process”. The natural property of self-regulation, self-maintenance and self-purification maintain almost an endless cycle of sustainable ecological balance. But, mankind unfortunately, has failed to learn this valuable lesson from nature. The immediate consequence of this failure was perfectly demonstrated by our current ecological crisis. New discoveries in biotechnology, for instance, have enabled man to master the living creatures, the entire genetic systems of organisms become known to the

¹Drexler, K. Eric, Engines of creation, http://www.foresight.org/EOC/EOC_Chapter_1.html

²See, for instance, Popper, Karl. R .[10],.

scientists. But, this continuous scientific progress and creation of new technologies has produced its own challenges, it has brought up life in the planet earth into a critical turn.

On 18 -NOV-1992, over 1,500 members of national, regional, and international science academies from various nations signed the “*World Scientists’ Warning to Humanity*”. The introduction to the warning declared that; “Human beings and the natural world are on a collision course. Human activities inflict harsh and often irreversible damage on the environment and on critical resources. If not checked, many of our current practices put at serious risk the future that we wish for human society, the plant and animal kingdoms, and may so alter the living world that it will be unable to sustain life in the manner that we know. *Fundamental changes are urgent if we are to avoid the collision our present course will bring about*”³

What type and nature of fundamental changes we need to avoid the collision with nature? That is the most important question of today. However, almost two decades has passed since this Warning was issued, and the situation at main time has worsened. The earth’s environment has further degenerated and life on it is threatened. Air quality is degrading and contributing to the destruction of ecosystems causing death to thousands of people every year. Global warming appears to be an established fact. It is having repercussions in the number of high intensity hurricanes, violent storms, tsunamis, etc. It is obvious man’s actions on nature have contributed to cause the environmental crisis. Man at main time no longer in a position to deny the escalating global crisis of environment and need for resolution. He also cannot deny his need to theories and suggestions concerning both the nature of crisis and the means for elimination, but what he can do?

Various parties of this concern, scientists, philosophers and theologians, have suggested various approaches to answer this central question. Some scholars have held the view that; development of new sciences and technologies is the only strategy to meet the ecological challenges. But the opposite view feels that, although science and technology are necessary for the development, however, this suggestion seems to be unsuccessful due to two main factors: Firstly; this strategy characterized by mechanical view of the world, which considers nature as lifeless machine and encourages man to exploit nature. Therefore, the theory “more science and more technology” is not going to get us out of the present ecologic crisis.⁴ Secondly, this approach neglects the historical background of the current environmental problems. It does not consider the fundamental causes of the crises, instead it focuses on measures may produce new backlashes more serious than those they are designed to remedy [11].

³<http://www.religioustolerance.org/environment.htm>

⁴This is view held by many of contemporary scholars see, for instance, Professor Lynn White who insisted: “I personally doubt that disastrous ecologic backlash can be avoided simply by applying to our problems more science and more technology. Our science and technology have grown out of Christian attitudes toward man’s relation to nature, which are almost universally held not only by Christians and neo-Christians but also by those who fondly regard themselves as post-Christians. White [11]

With due consideration of these factors, other scholars have suggested that we should focus on the metaphysical foundations that underline modern technology and science [11]. That means we must rethink about our ideas instead of our actions.

2 The Worldview and Roots of Ecological Crisis

Due to shortcomings associated with scientific view of the world; contemporary scholars are increasingly becoming supportive to the theologian perspective to deal with environmental problems.⁵ They held the view that our ecological crises are due to our beliefs towards nature. And because our actions are determined by our beliefs when we change our ideas towards nature the situation in environment will change as well. According to this approach our worldview is the root cause of our ecologic crises. Thus, the religion plays a crucial role to deal with environmental issues. The word “Worldview” in this context refers to the manner man answers the basic cosmic questions and interprets the world. It means the fundamental human assumptions towards man, nature and the ultimate being. Or it is set of presumptions which human holds, consciously or unconsciously, about the basic constructions of the world. To elaborate role of the worldview as strategy for environmental survival we review two of the earliest, yet original and reliable works in this concern. Namely, work of Professor Lynn White, entitled “The Historical Roots of Our Ecological Crisis”,⁶ written in 1967; and work of Professor Seyyed Hossein Nasr who contributed, since 1960s, with many topics in this field; latest of which was his remarkable work “Religion and the Order of Nature”⁷ published in 1996.

Regarding the existing environmental crisis, both White and Nasr, stressed on two main points. First; both held the view that the contemporary scientific paradigm, dominated by a secularist worldview, have deeply contributed to cause ecologic crises in the modern world; therefore it bears, primarily, responsibility for the destruction of the environment. Second; they agree that the fundamental cause of the crises extends beyond this apparent cause to the worldview, which plays great role in shaping our attitude towards the natural world; therefore it can play a crucial role to ameliorate our ecological problems. The external crises of the natural environment,

⁵According to Hossein Nasr even champions of secularism now speak of how significant the role of religion can be in averting a major global environmental catastrophes. “**Religion and the Order of Nature**”

⁶This was an article written by Professor Lynn White, Jr. [11].

⁷Prof. Nasr, in his introductory remarks in this book, has pointed out that “This work follows our book **Man and Nature**, which comprised the text of our 1966 Rockefeller Lectures at the University of Chicago and which was one of the first works to predict the environmental crisis, and our 1981 Gifford Lectures, **Knowledge and the Sacred**, which itself was followed by **The Need for a Sacred Science**”. In this scholarly book Professor Nasr discusses the relationship of Western civilization to nature, and the alienation of humans from the natural world. He compares several religious traditions, as well as the viewpoint of secular science, and tries to identify ways in which we can revive our appreciation of the sacred in nature.

according to White and Nasr, are only reminders of the internal crises within human self. These crises are not simply result of bad engineering but reflection of our worldview. Professor Nasr has expressed this meaning as following:

Strangely enough, although the destruction of the sacred quality of nature by modern man dominated by a secularist perspective is directly responsible for this catastrophe, the vast majority of the human species, whether participating directly or indirectly in the havoc wreaked upon the natural environment, still lives within a worldview dominated by religion. The role of religion in the solution of the existing crisis between man and nature is therefore crucial". He means misconception of man- nature relationship was root cause of our crisis, therefore he declares "Our aim in this study is to negate the totalitarian claims of modern science and to open up a space for the assertion of the religious view of the order of nature that various traditions developed over the centuries in their cosmologies and sacred sciences, . . . The religious view of the order of nature must be reasserted on the metaphysical, philosophical, cosmological, and scientific levels as legitimate knowledge without necessarily denying modern scientific knowledge [8].

The present increasing disruption of the global environment, according Professor White, is the product of a dynamic technology and science which originated in the Western medieval world. He argues, "Since both technological and scientific movements got their start, acquired their character, and achieved world dominance in the Middle Ages, it would seem that we cannot understand their nature or their present impact upon ecology without examining fundamental medieval assumptions and developments" [11]. His most significant conclusions of this examination of fundamental medieval assumptions were two things: First; man's relation to the nature was profoundly changed. Man formerly had been part of nature, but now he became exploiter of nature. Distribution of land, for instance, now no longer based on needs of a family, rather on the capacity of a power machine to till the earth. Second: the spirits in natural objects, which formerly had protected nature from man, evaporated.

These new developments in man-nature relationship, according to White, were introduced by religious tradition, namely Christianity, which shaped the Western attitudes towards nature. But what did Christianity tell people about their relations with the environment? Christianity, according to White, not only established a dualism of man and nature but also insisted that it is God's will that man exploit nature for his proper ends. It held a view of nature that separated humans from the rest of the natural world, and encouraged man to exploit nature for his own purposes. According to this view, humans were seen as rulers of nature rather than part of nature [11]. However, the implications of Christianity for the conquest of nature emerged more obviously in the Western atmosphere through science and technology. According to Hossein Nasr, these developments constituted the historical process through which Western civilization moved away from the idea of nature as sacred and embraced a worldview which sees humans as alienated from nature and nature itself as a machine to be dominated and manipulated by humans [8].

Both scholars came into the same conclusion, i.e. reconstruction of the worldview as strategic approach to the resolution of environmental crises. Professor White concluded his discussion by asserting "What we do about ecology depends on our ideas of the man-nature relationship. More science and more technology are not going to get us out of the present ecologic crisis until we *find a new religion, or rethink our*

old one” [11]. While Professor Nasr suggests, “The environmental crisis requires not simply rhetoric or cosmetic solutions but a *death and rebirth of modern man and his worldview*” [11]

Reconstruction of the worldview, therefore, is only the strategic approach to deal with our ecologic problems, but how, and what we can do about ecology depends on what we think about ourselves in relation to things around us? No one yet knows, however, the religious concept of *Tawhid*, which considers man as *Khalifah* (vicegerent) and nature as *Amanah* (trust) may provide some alternatives to answer this central question.

3 New values for Man-Nature Relationship

Since the root causes of environment troubles are so largely religious, the remedy must also be essentially religious. However, there are mainly two strategies: urgent and strategic. The first strategy deals with our actions, i.e. adding ethical values to the contemporary science and technology, while the second aims to change our current destructive beliefs towards nature to more constructive one in the future generations. This later strategy should base on religious framework which capable to sanctify our actions and relevant to build new values of man-nature relationship.

3.1 Man and Nature in Tawhidic Concept

The three major monotheistic religions in world, i.e. Judaism, Christianity and Islam are based on concept of Tawhid, which means “God is the only Creator and ultimate cause of all things in the universes”. Tawhid, in its absolute sense, is a general view of reality, of truth, of space and time, of human history and his destiny. According to this concept, both man and nature are creatures of one God, who made man as his *Khalifah*⁸ on earth and nature as His *Amanah* (Trust) to man. This tawhidic concept sees man and nature at equal level in their relation to the Creator [1, 7]⁹. However man, at his personal level, considered to be a multidimensional creature; stands between the spiritual and material worlds and partakes the nature of both. Spiritually, God breathed His own spirit in to him so that the spiritual world is reflected in him, the part that constitutes the relationship to his Lord. And from the other part God has originated him from clay, so the animal world is reflected¹⁰.

⁸Khalifah or vicegerent means one who exercises delegated powers. There are three conditions to be a *Khalifah* with delegated authorities: **first**, utilization of the power that delegated to him for the benefit of the office and managing the affairs of the object over which he has been given authority (*Amanah*); **second**, to act according to the commands and guidelines of his Master or Principle, and **lastly**, to handle the burden and responsibility of any misuse of the power and authority that delegated to him.

⁹Al-Farouqi IR (1992) *Al-Tawhid: Its implication for thought and life*. International Institute of Islamic Thought, (Herndon, Virginia)

¹⁰See more details, Nasr, Seyyed Hossein, [7, p. 101].

Due to this earthly part, man needs nature and resources of the material world for his personal and social needs. Knowledge and moral consciousness are, seems to be, the unique characters that have qualified man for the office of vicegerency. However, occupation of this office is not only element of honor, but also aspect of burden and responsibility. Duty of man, as Khalifah of God and bearer of Amanah, is to fulfill all requirements of the office either towards his Creator or towards nature. This means justice and knowledge are the most important requirements of man's duty while he endeavoring to fulfill his responsibilities of vicegerency. Therefore, the Supreme Trust (*Amanah*) has given to a creature with intellect, capable of making choice to follow the right course, with capability for betraying the Trust. From pure Tawhidic perspective, khilafah system dose not provide any room of a secular realm in which man might act purely as a creature of this earth only and exploit nature. It dose not recognize the division between the worldly and the Sacred, which appears clearly in the current Western worldview.¹¹

3.2 The Scientific and Religious Duty of Nature

At ancient times man has maintained close relationship to nature due to two main reasons: First the undeveloped methods and technologies that were in use did not provide man the key to the secret of nature and made him feel as an integral part of it. Second: insufficient knowledge of man about nature created fear of it, forcing him to regard nature as superior, therefore man tried to maintain intimacy with nature and tread her friendly and kindly¹². However, man main time maintains close relationship with nature not because of fear or ignorant, but because of his knowledge and confidence. Therefore, nature has two main duties towards man and the Creator: to serve man in his physical needs, and to guide him to the right path, equally with Scriptures, i.e. towards the discovery of the Creator and His great wisdom in the natural phenomena. Since nature has been made by God it definitely reveals the divine wisdom and plan behind creating of this world. Thus, nature has been a great teacher for mankind since the earlier stages of human history. Birds, bats, and bees have been good examples for designing of flying machines, aerodynamics, and flight projections. The entire universes, at both macrocosmic and microcosmic levels, are functioning in accordance to the great systems of nature. Galaxies and stars are working through motion laws such as gravity system. Biological laws govern all living creatures. Complex plant and animal life begins from a single cell of great complexity. Machines originated by God, such as protein, DNA, and cell, have guided humanity to the discovery of new technologies.

The religious view that nature has no reason for existence save to serve man is true in this sense, which creates an inseparable friendship and peace between man and nature. To create a new set of constructive values towards nature, a progressive inculcation of this Tawhidic vision of man, nature and ultimate being, into human

¹¹Charles LE Gai Eaton [6, pp. 370–371]

¹²<http://www.americanchronicle.com/articles/viewArticle.asp?articleID=7524>

generations is necessary. This inculcation should be the main goal of our entire education systems. Including this strategic goal, the urgent measures for environmental protection are necessary, the most important of which is to create awareness of environmental value.

4 Conclusion

According to the Tawhidic vision, this physical world is Amanah (trust) of God to man to be utilized peacefully without any harm. To fulfill this requirement strategically, reconstruction of our worldview towards nature is necessary. However, at main time we can teach our children following steps:

1. Maintaining ecological system of the world, its wholesome cleanliness and promoting beautification of the environment.
2. Protection of the ecological balance between human, animals, and plant.
3. Environmental preservation for sustainable development, particularly preventing deforestation, depletion of natural resources, and pollution of land, sea, or air.
4. Bringing about a safer world by maintaining and promoting peace, avoiding war, and eliminating threat to human life and survival of the world, such as supporting the prohibition of nuclear, chemical, and biological weapons.

As trustee of the earth, man should act as custodian of this planet by proper observation of everything in the planet according to commands of the Creator. He is not supposed to cause corruption in any form on earth whether to nature or his fellow human beings, or to other living creatures and the environment [2].

References

1. Al-Farouqi IR (1992) *Al-Tawhid: Its implication for thought and life*. International Institute of Islamic Thought, Herndon, Virginia
2. Al-Mahdi Muhammad, *Understanding the Concept of Khalifah*, <http://www.islamic-world.net/?vo=11>
3. Carnap R (1966) *An introduction to the philosophy of science*. Basic Books, New York
4. Drexler KE (1986) *Engines of creation*: See following website: http://www.foresight.org/EOC/EOC_Chapter_1.html
5. Hunt SD (1991) *Modern marketing theory: Conceptual foundations of research in marketing*. Southwestern Publishing, pp 17–18
6. Le Gai Eaton C (1991) *Islamic spirituality*. In: Nasr SH (ed) *Crossroad*, New York
7. Nasr SH (1990) *Man and nature*. Unwin Paperbacks, London
8. Nasr SH (1996) *Religion and the order of nature*. Oxford University Press, New York
9. Parsons HL (1975) *Man east and west*. In: Gruner BR (ed). Amsterdam, Hungary
10. Popper KR (1980) *The logic of scientific discovery*, Unwin Hyman, UK
11. White L (1967) *The historical roots of our ecological crisis*. *Science* 155(3767):1203-1207, 1967). See <http://daphne.palomar.edu/calenvironment/religion.htm>