



# CRITICAL PERSPECTIVE ON MAN, SCIENCE AND NATURE INTERACTIONS

Dr. Upasana Mishra, Mr. Bihari Nandan Pandey, Mr. Raghavendra P Singh  
Assistant Professor, Department of Computer Science and Engineering  
Ajay Kumar Garg Engineering College, Ghaziabad

**Abstract:** Homo sapiens share a common dwelling place, the earth; and also, the resources, available on the planet. This association of man and nature is a fundamental reality of human civilization, and many scientific innovations were been made towards it, targeting a fulfilling life. But the paradox is that mechanization and scientific advancements are being proved as a great challenge to humanity and peace. The human species is witnessing an existential threat with exponentially growing scientific innovations and mechanization. Knowledge (education) is pivotal in guiding, understanding nature's inherent harmony, and aligning innovative mindsets towards continuous happiness and prosperity. The objective of the present communication is the critical analysis of our desire for harmony among humans, science and nature; and to unveil the current status of contrariness.

**Key Words:** Science, Innovation, Mechanization, Knowledge, Harmony, Happiness and Prosperity

## I. INTRODUCTION

The term "Harmony with Nature" refers to a principle of amicable and holistic co-existence between humanity and nature (Dancer, H., 2021). Nature is a set of resources that can be utilized, modified, altered, privatized, commercialized and transformed without many consequences. In this harmonious nature, the Earth is the only home place for humans. The earth is a vast, complex, fragile network of interconnected systems, that took around 4.5 billion years to get to its present status. From the ashes (ref. Big Bang theory), the planet emerged as a mass of energy and elements. From that mass of energy and elements further evolved structured, dynamic systems of solids, liquids, and gases. The periodic evolution of the planet continued to unfold over billions of years in a way to upgrade the conditions with the ability to foster life eventually. No one would deny the fact that humans have been entirely dependent on nature throughout the history of their life on Earth. Actually, "people have a fundamental physical, emotional and intellectual dependence on nature" (Kellert, 1997). So, we can confidently state that the beginning of human history on the Earth planet is similar to the beginning of the history of human and nature associate

ship, as reflected in the words of philosopher Raymond Williams, "The idea of nature contains an extraordinary amount of human history". In the Judeo-Christian culture, the man was set apart from nature and enjoyed the authority of making reckless decisions about it, although this attitude was revised towards stewardship later. On the other side, Oriental religions have a more holistic view and consider humans an integral part of nature. Modern philosophers have views ranging from anthropocentrism (human-centric) to biocentrism (living-component centric) and egocentrism (individual-centric). In Indian tradition, human is conceived as representing a microcosm of the larger universe, which is the macrocosm. Interestingly there is a constant exchange of forms between two- micro and macrocosms. Thus, the fire of nature became speech as it entered the mouth: the sun became sight as it entered the eyes; wind became breath by entering the nostrils; the annual herbs and regents of the forest became hair as they joined the skin; the moon entered the heart and became mind. It also indicates human and nature's interdependence and the reality that the two can only be comprehended completely in coexistence.

## II. METHODOLOGY OF ANALYTICAL STUDY

Qualitative survey analysis (QDA). is a process of Noticing, Collecting, and Thinking about interesting things. QDA was been taken as the methodology (Armstrong, G.A., 1999) to research and extract the conclusions in this study. The idea was initiated with many of the thoughts and a variety of research questions in mind. Many available references were studied and analyzed to interrogate the context and reach some concrete outcomes.

## III. HUMANS AS AN INTEGRAL PART OF HARMONIOUS NATURE

'Harmony' conveys nature's innate, mutually enriching design and deals with the fulfilling connection between humans and nature. In 'Human and Nature in History', the author starts the chapter 'The Restorative Environment' with the claim that "early human beings were a part of nature" (Kaplan, S., 1992). Humans depend on nature for all their material needs, hence, there has been a deep connection between humans and nature. During the last century, research has been increasingly drawn towards understanding the human-nature relationship (Guiney, M.



S., Oberhauser, K. S., 2009; Nisbet, E. K., Zelenski, J.M., 2013; Seymour V., 2016)) and has revealed many ways humans are linked with the natural environment (Davis et al., 2009).

Education plays a vital role in knowing the reality of coexistence, harmony and relationship, and facilitates ensuring the universal human desire for continuous happiness and prosperity in every individual. Man defines nature as much as he sees it through education. Since dawn, the man had a remarkable influence on nature. Through all his conscious or unconscious actions, man determines nature's direction. In other words, man determines the pace that nature will take to evolve. As such, nature and man are inseparable. Man depends on nature for all the resources required in life, and its coordination with nature is also desirable, being an integral part. However, this connection was weakened after the industrial revolution in modern times, when industry influenced human life. Humans tend to depend on man-made industry in industrialized cities, rather than pure nature; hence, they have been gradually alienated from nature.

Human is not only a dweller in nature but also transforms it. From the very beginning of his existence, and with increasing intensity, human society has adapted environing nature and made all kinds of thoughtless incursions into it. The current interaction between man and nature is determined by the fact that in addition to the two factors of change in the biosphere, that have been operating for millions of years--the biogenetic and the a biogenetic, there has been added yet another factor, the techno genetic, which is acquiring decisive significance. As a result, the previous dynamic balance between humans and nature, and between nature and society as a whole, has shown ominous signs of breaking down. The problem of the degradation of replaceable resources in the biosphere has become particularly acute. It is getting more and more complex to satisfy the needs of human beings and society, even for such a resource, as fresh water. The problem of eliminating industrial waste is becoming more severe day by day. The threat of a global ecological crisis is multiplying exponentially. His keen awareness and exploration towards coexistence and harmony is shifting him from the irresponsible, destructive and polluting subjugation of nature to a reasonable, harmonious interaction in the "technology-man-biosphere" system. Nature initially terrified us and made us tremble with its mysterious vastness and the uncontrollable energy of its elemental forces; now we are terrified by its limitations and a new-found fragility, the severity of its plastic mechanisms. We are quite uncompromisingly facing the concern of how to stop, or at least moderate, the destructive effects of technology on nature. In 4.5 billion years of life on Earth, everything has undergone a natural flow of evolution. However, our blind race for success as a species has begun to affect this natural order. With our population at seven

billion and exploding, we have played a tremendous role in the disruption of the Earth's natural systems. As we continue to grow and have a greater impact on the Earth's systems, it is urgent to decide our role and relationship with nature.

#### IV. HUMAN'S MASSIVE DIALECTICAL INFLUENCE ON NATURE

Human enjoys no pristine position, but a whole lot of privileges get accrued to man through his intellect. Man's ability to manipulate the landscape and recognize the consequences of doing so puts him in a peculiar position. As a species, we are responsible for providing and proliferating. The desire for stability for ourselves and our kin is prominent. However, we also have an approach to maintaining the environment, as we are dependent on it for the resources and services it provides. The fundamental question arises- what is our role in nature? Do we have the authority to modify the land, factory farm animals, and pollute water bodies? Or do we have to limit our population to ensure survival? One of the most important aspects of restructuring human development is to affirm the need for justice towards nature and other living creatures. In the absence of a right understanding of connectivity, stability, cooperation and harmony with nature, we cannot be developed. A proper balance of indigenous absolute knowledge and modern science and technology can help us get closer to this new vision of sustainable holistic development.

Modern development is altering the dynamics and functioning of the Earth system to a degree never before seen. We have exceeded the limits of our demands. We have disrupted nature's balance. We are going through a series of multiple crises that could cause the collapse of the whole system. It is significant to restore, determine and ensure the existence, integrity, interrelation, interaction and regeneration of the Earth system and all of its components, as a whole. As the foundation of human development, science-technology, innovations and machines have greatly improved social productivity and liberated the labor force. For example, agricultural production can be maximized through advanced and scientific cultivation. Modern research can develop better seeds for planting (e.g., hybrid rice), mechanized agriculture can reduce the burden on farmers, and a diversity of agricultural products can increase farmer's income. Furthermore, the advancement of science-technology, innovations and mechanization has improved the efficiency of human labor, and the saved time may be an additional value, such as agricultural product processing and work outside, which can also boost farmer's income. Moreover, progress in science-technology, innovations and machines can effectively track climate change and predict natural disasters, helping us to face these challenges. All these advancements have greatly improved social

anomalies. However, such advancements also bring issues, in terms of global warming, climate change and pollution, which bring about more uncertainties in natural harmony. As a result, future development should consider the effects of human activities on natural laws.

#### V. SCIENCE: TO UNDERSTAND AND EVALUATE MAN-MACHINE RELATIONSHIP

Human Being is the co-existence of sentient Self (I) and material (Body). The Body is an instrument of the Self. The transaction between the Self (I) and the Body is only in the form of information. The Self (I) and the Body are in harmony when there is a feeling of self-regulation (Sanyam) in the Self (I) and health in the body. Knowledge of self (I) and self-regulation improves the understanding of physical facility, which is required in a limited quantity for nurturing, protection & right utilization of the body. Prosperity is a feeling of having more than the required physical facilities (Gaur et. al., 2019), which needs-

- Identification of the required physical facility (including the required quantity) — with the right understanding
- Ensuring availability/ production of more than the required physical facility—with the right skills

The evaluation principle referred to as the "three principles" of man-machine relationships: "safety," "reliability," and "agreeableness," is followed by ensuring the availability or production of more than required physical facilities—with the right skills. All of the factors in the "man-machine-environment" are represented by these "three principles". **Safety** includes objective, behavioral, physiological and psychological factors that cause accidents ("machines" and people). Objective factors mainly refer to comprehensive factors and machine factors, such as an inappropriate distribution of human and "machine" functions; design errors such as the use of tools and workplaces (such as the inappropriate layout of displays and controllers, alarm devices in hard-to-see locations, etc.); and a lack of necessary safety devices and protective measures. Behavioral factors mainly refer to human factors, including training and skills, memory ability, age and experience, life stress and so on. Physiological factors mainly refer to human factors and human physiological and biological rhythms. Psychological factors mainly refer to the character of the person (introverted, extroverted or adventurous). The machine's use function, the machine's service life, and the machine's working environment conditions are all aspects of **Reliability**. In addition, the manufacturing, assembly, management, maintenance, repair, transportation, packaging, and inventory of the machine are also factors to be considered for reliability. **Agreeableness** includes whether a machine is easy to operate; whether the design of the machine conforms to human physiological

characteristics; whether the shape, color and texture of the machine and its decoration meet human psychological requirements; and whether the micro-climate (physical factors, such as temperature, humidity, lighting, noise, vibration, radiation, air pressure, etc. and chemical factors, such as toxic gases, industrial dust and smoke, as well as water pollution), are suitable for people (Wei Chen, 2019).

#### VI. CONCLUSION: SPECIFIC STAGES OF THE HUMAN-NATURE RELATIONSHIP

The connection between nature and humans has various stages. The first stage is where man depends entirely on nature. The second stage of the man-nature relationship is where nature changes its face in the course of its interaction with humans deluded mind. In the third stage, man is concerned with preserving nature for sustainability, with a holistic worldview or knowledge.

Although the connection is intricate, multiple instances prove that present-day human isn't in-tune with nature. As such, humans must realize their inter-relationship with nature, considering that they need nature to live, so their complementarity with nature is quite important. Nature's existence may be visualized without man, but humans can't exist without nature. Although it is quite apparent that in spite of the weakened connection out of human's gradual dependence on industry, human's physical and psychological need for nature has not been weakened at all. Nature has been proven to be a source of mental and physical well-being for humans since the beginning of their existence on the planet Earth. Hence, there had been a powerful and intense association between humans and nature. But industrialization and urbanization have gradually kept humans away from their main home and caused a big gap in the human relationship with nature. So, apparently, humans have been isolated from nature, and such isolation turning into alienation, can be called the main reason for all his physical and especially psychological disorders. But in recent years, as this isolation and alienation have felt threatening, both for humans and nature, attempts have been started for reconciliation between humans and nature. A reconciliation that can bring psychological well-being for humans in this era of human degradation. It's sincerely acknowledged that there should be a universal awareness of "everything is connected to everything else" (Barry, 1971), inherent interconnectedness, co-existence and self-regulation of the whole universe, of which human being is an integral part (Babu, G. and Gaur, R. R., 2017) and how humans can best use nature without exploiting it so that the man-nature connection can continue to thrive. Science in the co-existential view is thus not in opposition with nature, nor is it alienated from human purpose and life. This is the meaning of wisdom-oriented science or science with a purpose.



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