

Environmental Intelligence, A Holistic Approach to the Human-Environment Relationship

Nasser Barati^{a*}- Babak Dariush^b- Fatemeh Dastyar^c- Mina Barati^d

- ^a Associate Professor of Urban Development, Faculty of Architecture and Urban Development, Imam Khomeini International University, Qazvin, Iran (Corresponding Author).
- ^b Instructor of Architecture, Sheikh Bahaei Research Institute, Tehran, Iran.
- ^c Instructor of Architecture, Sheikh Bahaei Research Institute, Tehran, Iran.
- ^d M.A. Student of Urban Planning, Faculty of Social Sciences, Sheffield University, UK.

Received 27 April 2019; Revised 20 October 2019; Accepted 03 November 2019; Available Online 20 June 2020

ABSTRACT

Human beings have most often had thoughtful and rational interactions with their living environment throughout the history of life. But, nowadays, the continuous observations in the world in different forms reflect the idea that people do not have a favorable relationship with the nature and their living environment. Hence it can be stated that they have become indifferent, negligent, and easygoing towards their life environment and the nature in their periphery. But generally the apathy towards the environment and the necessities of its protection can have a common reason and root, the same way that the human beings' attention and protection of the nature come from the same root. So the point of this study is that despite the vast and profound environmental knowledge attained from scientific findings, where does the indifference towards complications created by neglecting the environment that effect the environment, humanity, and the future come from and what could be the reason? The present researchers of this study believe that the prior research in regard to this issue that have been raised in scientific circles so far to explain and justify this negligence for the environment cannot respond to this important and complex problem. Thus, the current research paper aims at exploring the various aspects of such a problem, thereby to figure out the primary reason for such an indifference and gap. The research method in this article is based on the qualitative method paradigm and can be enumerated amongst analytical-heuristic research. In this method while investigating the cognitive dimensions of the subject and beyond analyzing the scientific sources and existent evidence, the main cause of this phenomenon is discovered and judged by taking advantage of scientific experiences. In the conclusion section, the authors come to the belief that the reduction or omission of the sufficient and necessary attention towards the environment can be defined and elucidated within the format of a hypothesis related to Environmental Intelligence.

Keywords: Environment, Intelligence, Environmental Apathy, Environmental Intelligence.

^{*} E_mail: nasserbarati1955@yahoo.com

1. INTRODUCTION

It seems that the human beings have had a more or less logical and intellectual relationship with the natural and artificial environments and their components in the course of the human history. Numerous historical documents indicate that throughout history and across the world humans have discovered a chain of experiences related to nature and carried them as part of their lives and an irreplaceable legacy. Thus, they took measures in various situations to safeguard the continuity of their biological and social life. The mankind is the product and result of the balance in nature both biologically and psychologically and he can be considered as its distinct example. On the other hand, the quality of the mutual human-nature relationship, as well, has guaranteed the preservation and continuation of this balance and the supply of the favorable conditions for the human life. It is accordingly made clear that rational conditions should govern this issue so that the continuity can be guaranteed. Some of the communities, like the Iranian society, have had successful experiences in their interaction with the peripheral environment and the nature. Iranians have a good fame in this regard. The special siting of the villages and cities in consideration of the environmental and climatic conditions and their residents' access to water and natural resources can be pointed out as factors giving rise to such fame. Iranian progressive knowledge of water resources and their transmission and segmentation, the formation of

buildings in cities with respect to the angle of sunlight, and the direction of favorable and unfavorable winds, and the establishment of cities and villages in respect to agricultural lands are evidences of this claim (Fateh & Dariush, 2015). In the ancient culture of Iranians, it can be witnessed that the nature and phenomena and their components have been given special personalities and the coordination between the human beings and natural phenomena has been existent in a marvelous way. In ancient religions and the later creeds as well as in the different philosophical schools, nature and its essence and the way it has to be treated have been emphasized in a significant and effective way (Shariati, 2016).

Providing and supplying water from very remote areas, keeping it clean, as well as distributing and optimizing its use its optimal distribution and consumption (aqueducts, creeks, and etc.) as well as utilizing desert winds through windmills and cooling the same winds to moderate indoor air, central courtyards in homes and mosques, and other architectural spaces, creating amazing gardens, respecting nature and making optimum use of energy and sunlight are signs of the Iranians' high understanding of the environment and space for planning a balanced life in a tough and difficult environment. It seems that Iranians have been in a process of collective awareness and perception qualified for a holistic culture and ideology, and their value and belief systems have been influenced by such an ideology (Barati, Ujam, & Ryan, 1997; Barati & Zarringhalam, 2013; Barati & Kakavand 2013).

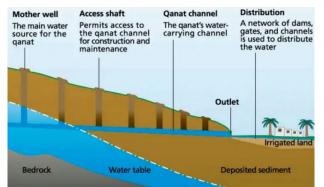


Fig. 1. Cross section of a Qanat

In spite of this rich and fascinating history, in the contemporary era, especially the Iranian urban community has rapidly lost its sense of wisdom and transcendent attitude towards the environment in the shadow of the modern urban life made with oil dollars, so that, at present, city-dwelling people in Iran, especially in large cities, like in many of the metropolises around the globe, are paying less attention to environmental health. During the recent years, the city dwellers have jeopardized the lives and health of themselves and others by their mass and extreme consumerism, waste production and dispersion, contamination of the air by the continuous movement of cars, up to several times the permissible limit, excessive driving disorder, and etc. More than 200 thousand people

died in car accidents only in the past ten years and more than 2 million have been injured (Atonement Headquarter Report, 2017). The destruction of natural resources outside the cities, in the jungles and on the coastlines, hunting animals even for recreation and amusement, immethodical use of water (irrigation of greeneries, car wash, and precinct cleaning and so on by the use of treated drinking water) and energy resources (electricity, gas and so forth) are examples showcasing the extreme and intensive confrontation of the human beings and environment in Iran today. In a country and society with brilliant histories in the area of nature protection and conservation and optimum use of energies and resources, people turning away from social and collective movements in proper, principled,

and rational exploitation of resources is very worrying. This issue can be also seen in countries with a long history of civilization such as India, Egypt, and China as well as some of today's developed countries such as the US in such a way that it has instigated the formation of huge people-driven movements.

The science and technology imported from the west not only failed to fill the void caused by the weakness or lack of subjective and cultural meanings of nature for the Iranians, but on the contrary, caused their unprecedented indifference towards the environment (Dariush & Motedayen, 2019). The issue has been moved forward to the extent that some believe that today's Iranian society needs a nonviolent revolution against violence towards the environment; a revolution that has to take place inside us so we can come up with a new definition of the relationship between man and the environment the universe. It may be argued that the danger posed by Iran's imminent environmental crisis is far greater than the danger of foreign enemies and domestic political disputes (EPI Report, 2015). The danger is very close and destructive because if the "production of greenhouse gases does not stop, the temperature of the humid bubble will exceed well above 35 degrees in many of the middle eastern regions making them non-habitable" (Chandler, 2015). Bioenvironmental crises are global phenomena. However, credible researches shows that "climatic

change will considerably worsen the life conditions in the Middle East and North of Africa. Lengthy heat storms and dust storms can render some places nonbearable, forcing people to migrate" (Max Planck Report, 2016).

2. STATEMENT OF THE PROBLEM

Global observations and experiences show that people in different societies, and in different historical periods, have various relationships with the environment.

Their confrontation and intervention in the natural surroundings, especially with the dominance of the determinist-oriented positivist thinking, has shaped a more mechanical approach with the adoption of explicit human-environment (subject-object) dualities. The scientific thinking tools of the positivism and mechanical view of the world made immediate human communication and interaction with the environment abandoned and neglected. Under such circumstances, man regarded his surroundings as a commodity, and the insane consumption of natural resources became commonplace. In the modern world, the attitude to the environment is also quite instrumental and man thinks of himself as separate from and superior to nature. With the weakness of spirituality, the great concern of mankind in that mental space focuses on how nature can be exploited faster and more than before.



Fig. 2. Comparison of the Various Landscapes in Tehran on 20th of October and 9th of January, 2015, Subject to Air Pollution (Image Courtesy of Tasnim News Agency: Erfan Kouchan, January, 2015)



Fig. 3. Marine Littering by the Tourists (Image Courtesy of Aftab News Agency, 16th of August, 2018)



Fig. 4. Forest Littering by the Tourists (Image Courtesy of Tabnak, 13th of April, 2018)

197

I

Barati, N. et al.

As the results of the polls by Gallup Institution about the global warming phenomenon in the US show, the majority of the US respondents do not care for the global warming and do not believe that it can influence them (Gallup Poll, 2010). According to Guardian, the EU's audit court has asserted that the air pollution in the European Continent is the most important bioenvironmental danger to the general public's health. But governments have not so far taken serious measures for fighting this crisis and their interventions have not been as expected. The limitations and criteria for air pollution in Europe are far below those of the World Health Organization. In addition, most EU member do not comply with these criteria. Air pollution in this continent is so high that 400 thousand people have so far died in Europe due to air pollution and inhalation of toxic air (Guardian, 2018).

Sara Parkin, the Scottish politician states that: our

numbness, silence, and lack of courage can mean that eventually, we will be the only species that witnessed our extinction piece-by-piece. It will be written on our gravestones that "they saw what happened but they did not have the wit to prevent it" (Putti, 2013). "We are close to a peak point wherein the earth warming has become irreversible" (Hawking, 2017). Climatic changes, reduction in biodiversity, environment destruction, and the catastrophes resulting from it, water shortage and many of the other problems are realities that have caused changes in the life pattern of the present generation and will also influence the future. The method for confronting with such an environmental crisis will be surely determinative in the quality of the present and future generation's lives (Isaac-Márquez, Salavarría García, Eastmond Spencer, Ayala Arcipreste, Arteaga Aguilar, Isaac-Márquez, Sandoval Valladares, & Manzanero Acevedo, 2011).



Fig. 5. Earth Warming Due to the Use of Fossil Fuels

On the other hand, it is witnessed that there are various approaches adopted towards the optimal relationship between the human beings and the environment and many studies have also been carried out in this regard and also many solutions have consequently been put forth. However, according to what is mentioned so far, the important question is that "why people are still so much indifferent towards their peripheral environment in spite of the progress made in the environmental knowledge field and with the enormous amount of environmental information in the modern world?"

While it has been accepted that the human environment must be in a reasonable position to sustain human life in a balanced, desirable, and safe manner, the continuous and systematic destruction of the environment by humans is also quite evident and undeniable. To solve this complex dilemma, many theories have been posited in various epistemic fields; but the irrational treatment and destruction of the environment is still being continued by mankind.

3. THE KEY CONCEPTS DISCUSSED

3.1. Environmental Apathy

It includes the general apathy towards the environmental issues and the lack of interest in the bioenvironmental matters, and the public belief that such problems in this field have been exaggerated (Thompson & Barton, 1994).

3.2. Environmental Crisis

Awareness of the environmental crisis has grown since the 1970s, and part of the concern goes back to the massive environmental disasters such as widespread droughts in hot and dry areas in the 1970s and 1980s, as well as the Chernobyl nuclear accident in 1986. (UNEP, 2000).

3.3. Intelligence

Intelligence has been defined in many ways, including: the capacity for logic, understanding, self-awareness, learning, emotional knowledge, reasoning, planning, creativity, critical thinking, and problem solving. More generally, it can be described as the ability to perceive or infer information, and to retain it as knowledge to be applied towards adaptive behaviors within an environment or context (Wkipedia).

3.4. Multiple-intelligence

Multiple-intelligence theory was first designed and offered by Gardner and includes eight different kinds of intelligence such as musical intelligence, intrapersonal intelligence, visual-spatial intelligence and verballinguistic intelligence; a ninth type is also deemed to be likely under the title of existentialist intelligence (Gardner, 2006).

4. LITERATURE REVIEW

Many studies have been carried out about bioenvironmental issues; but, after reviewing the literature and the relevant texts, we come accross two major types of research that are related to the environment: there are types of research that have addressed the causes and factors of people's inattention towards the environment and another type of research are concentrated on the solutions and factors influencing the reduction of such a negligence as well as paying more attention to the bioenvironmental concerns. But, both of the aforesaid types of research can be placed in one of the following classifications:

4.1. Research about the Role of Beliefs and Attitudes in Regard to Bioenvironmental Behaviors

Referring to personal efficacy, environmental information, and attitudes toward global warming and climate change in the United States Kellstedt et al. (2008), they considered dominant environmental attitudes as one of the factors affecting indifference in this field.

In an article entitled "meeting the environmental challenges: the role of human identity", Crompton and Kasser (2009) we are in need of a novel, deeper approach to link human values and identities that are at the heart of environmental challenges.

Also in the article "Apathy towards environmental issues, narcissism, and competitive view of the world", Pane (2013) states that narcissism is the reason for the negligence of the environment.

Another researcher, Harold Searles, also believes that the apathy towards the environment is caused by the severe anxiety and worries regarding the bioenvironmental dangers and that the defensive mechanism of the subconscious ego is connected with apathy (Lertzman, 2010), titled "The Myth of apathy: psychoanalytic explorations of environmental degradation".

4.2. Studies about the Relationship between Religion and Ethics with Bioenvironmental Behaviors

In an article by the name of "ethics: essence for sustainability", De Paula and Cavalcanti (2000) believe that religion and religious values lead to the altruistic values and that they have positive effect on environmental conservation.

Crowe (2013) also asserts that combining spirituality and religious traditions in instructing environmental conservation is an alternative method for designing curricula that brings about changes in environmental attitudes and behaviors of learners, in the article, "transforming the environmental attitudes and behaviors through eco-spirituality and religion".

Berenguer (2010) emphasizes empathetic behavior with

the environment as a moral reason. In another article entitled "the effect of empathy on the environmental moral reasoning".

4.3. Research about the Norms, Values, and Environmental Behaviors

Pauw and Petegen (2010) state in an article called "a cross-national perspective towards the youths environmental attitudes" that social norms are the determinants of the environmental behaviors. These results have been discussed in regard to the objective issues and mental values.

Calubaquib (2016) finds environmental values and gender as important factors influencing the rate of apathy in an article under the title of "value orientation and environmental behavior of teacher education students".

4.4. Research about the Amount of Sense of Belonging to the Environment and Environmental Behaviors

Kals et al. (1999) found it necessary to pay attention to the sense of belonging with regard to the environmental issues in an article named "emotional affinity towards nature as a motivational basis to protect nature".

Hinds and Sparks (2007) asserted in the article "engaging with the natural environment: the role of affective connection and identity" that the higher an individual's sense of belonging to the environment, the more the intention for taking part and participating in the environment within the format of responsible behaviors.

In the article "impact connections with nature" Shultz et al. (2004) deal with people's concerns about environmental issues and that to what extent people consider themselves to be part of the environment or in a sense belonging to that environment.

4.5. Research about Environmental Knowledge and Awareness and Environmental Behaviors

Heath and Gifford (2006) have noted that, the inadequacy of scientific information on the severity of climate change and the effects of free markets are reasons for the decline in environmental quality, in their article called "Free-market ideology and environmental degradation: The case of belief in global climate change".

in an article titled "Do natural Science experiments influence public attitudes towards environmental problems?", Wallner et al. (2003) also underline that having sufficient environmental information is the primary prerequisite for people's participation in supporting environmental policies.

In another article on this subject, "environmental concern: conceptual definitions, measurement methods, and research findings" Fransson and Garling (1999) argue that although environmental awareness alone

Armanshahr Architecture & Urban Development

is not adequate to promote responsible environmental behaviors, but it has a significant impact on the adoption of environmental policies.

4.6. Research about the Individual Sense of Duty and Environmental Behaviors

In an article by the name of "the psychology of denial concerning the climate mitigation measures" Stoll-Kleeman et al. (2001) state that people have often not reached the stage of recognizing or taking responsibility for bioenvironmental issues.

Hines et al. (1986) concluded in an article entitled "analysis and synthesis of research on responsible environmental behavior: a meta-analysis" that there is a significant relationship between the individual's sense of responsibility and environmentally responsible behaviors.

4.7. Research about the Relationship between Politics and Economy with Environmental Problems

Abaidoo (1997) states in his PhD dissertation by the name of "Human-Nature Interaction and the Modern Agricultural Regime: Agricultural Practices and Environmental Ethics" that the environmental crises are rooted in the modernization of capitalism.

Nilsen and Ellingsen (2015) believe that the neoclassical economics discourse is related with environmental indifference, in the article "The power of environmental indifference; A critical discourse analysis of a collaboration of tourism firms".

In another article titled "System justification, the denial of global warming, and the possibility of systemsanctioned change", Feygina et al. (2010) say that political conservatism and nationalism are effective in the denial of the environmental problems.

5. THEORETICAL GENERALIZATIONS

So far it has been shown that, many scholars in various disciplines and tendencies of knowledge, with great concern, have sought to find the cause or probable reasons of this phenomenon; due to the high sensitivity of systematic destruction of the environment and nature by modern humans. However, it seems that the issue has been left behind vagueness and a persuasive and appropriate answer is yet to be presented.

In this regard, it is necessary to take a firm step towards explaining and elaborating this subject while reviewing the various branches / tendencies of science in this regard. The most important of these approaches and research are discussed below.

5.1. Sociological Approach towards the Human-Environment Relationship

Considering the hasty increase in the environmental problems and their detrimental side effects, the research on the environmental behaviors has become intensively important during the past decades (Hines, Hungerford, & Tomera, 1986). Goken et al. argue that the prevalence of environmentalism in a global level, and environmental activities and social movements driven by increasing global problems and issues, has required many social scientists to study bioenvironmental values and concerns (Salehi, 2010). In the globalization theory, Giddens believes that the ecological issues are universal, especially considering the problems related to pollution and global warming and climate change that have transcended beyond the national borders and have global effects (Barry, 2007). The "modern social movements" approach in sociology sees its goal of confronting the existing socio-political order not as changing the power and overthrowing the governing system, but as bringing about changes in attitudes and approaches towards various social issues. Therefore, if we are currently facing numerous problems in our social life today, including environmental issues, these problems are rooted in the misconceptions and insights that we have ruled over ourselves and look at the world from their perspective (Mehraeen, 2015).

5.2. Bioenvironmental Approach to the Human-Environment Relationship

An increase in the environmental problems and crises in the world, on one hand, and the perception of long-term outcomes of bioenvironmental issues in the human life, on the other hand, have caused an increase in the importance of discussions on environment and environmental matters (Budak, 2005). As a result of paying attention to environmental problems and issues and perceiving their adverse consequences, humans have sought to find solutions to environmental difficulties. One way to avoid harming the environment, and preventing its destruction, is to change human behavior toward naturalistic dimensions (Quimbita & Pavel, 1996). During the recent decades and due to the numerous and unpleasant experiences that have been acquired in practice, the developed countries have made a lot of efforts for a principled and intellectual interaction with the environment and created ecological approaches versus human-oriented approaches (Thompson & Barton, 1994).

The novel environmental paradigm is rooted in the environmental movement in the 1960s and 1970s and inspired by the contents of the book "Silent Spring" authored by Carson (Carson, 2002). This is the most widely applied paradigm trying to investigate the preliminary beliefs about the nature of the earth and the human beings' relationship with it (Putnam, 2006). In accordance with the approach based on lifestyle change and anti-environmental behaviors, many worried scientists, organizations, and individuals around the world are calling for the urgent and fundamental change of human culture and behavior and the use of environmentally friendly technologies in order to

protect the earth's life support systems (Willuweit, 2009).

5.3. Philosophical Approach to the Human-Environment Relationship

The "Environmental Philosophy" is a school in philosophy that discusses the values and the reason why the human beings should support and conserve the environment as well as why they should remain ethically committed to the environmental conservation (LeBlanc, 2002). The focus of these discussions is on the philosophical analysis of the ecological issues (Delord, 2008). In the human-environment relationship, questions can be posited based on two human-oriented and nature-oriented approaches: "is the environment being protected for the reason that the human interests have been endangered?" (human-oriented approach) and/or "the nature essentially deserves respect and protection disregarding the human interests (natureoriented approach)?" Spinoza, (a 17th century Dutch philosopher) believes that the human beings are a part of the world and mistakenly presume that they are free and independent of the world.

Hans Jonas, German philosopher (1903-1993), emphasizes on the principle of responsibility. He has a book under the same title and believes that "we should think of technological elements with new ethics. At present, the planet has become extremely expanded, the nature has become imbalanced, and some animals have reached the extinction point. Considering his ethical nature, mankind has the right to tolerate these conditions but it but it must accept its duty towards the future generations and nature" (Jonas, 1979). From the viewpoint of Rolstone, nature has a value independent from the human beings. In contrast to Taylor's objective theory, which was based mostly on an objective and Kantian perception of the nature's values, it speaks of nature's absolute independence from human values (Rolston, 2012). John Benson also believes that what we need for acting properly is obedience to follow the nature, because we are part of the nature; we are a part of the nature (Benson, 2013).

5.4. Religious Approach to the Human-Environment Relationship

There are two different viewpoints in this regard. In their investigations of the historical roots for ecological crises, some hold religion responsible, via adopting an extremist approach (White, 1967; Toynbee, 1972); and some others, including Seyed Hussein Nasr, believes that this process (instrumental use of nature), not only belittles the spiritually and internally of mankind but it also makes it difficult for him to inhale the same air that is needed for life on earth. Nasr believes that the only way to resolve the environmental crisis is to reverse the path of desacralizing the nature and wisdom; that is, the process that led to the secularization and monopolization of science should be reversed, and traditional and metaphysical teachings about the sanctity of nature should be revived. He considers the fundamental solution to the bioenvironmental crisis to be the restoration and retrieval of nature as a sacred reality, the establishment of a spiritual relationship between man and nature, and the birth of a human who is truly the successor of God on earth and keeper of the sacred affairs (Nasr, 2007).

5.5. Psychological Approach; General Definitions of Intelligence in the Relationship between Man and the Environment

"Individuals differ from one another in their ability to understand complex ideas, to adapt effectively to the environment, to learn from experience, to engage in various forms of reasoning, to overcome obstacles by taking thought." (Neisser, Boodoo, Bouchard Jr, Boykin, Brody, Ceci, Halpern, Loehlin, Perloff, Sternberg, & Urbina, 1996). Intelligence is not a single mental process, but rather a combination of many mental processes directed towards effective adaptation to the environment." (Encyclopedia Britannica) ": the ability to learn or understand or to deal with new or trying situations: ... the skilled use of reason: the ability to apply knowledge to manipulate one's environment or to think abstractly as measured by objective criteria (as tests)" (World Book Encyclopedia). Protecting the environment requires a lot of attention. Thinking and contemplating about environmental protection while purchasing different products makes us consider the advantages and disadvantages of the purchased items for the environment (Goleman, 2010).

5.6. Specific Intelligence Definitions in Relation to the Environment

"A person possesses intelligence insofar as he has learned, or can learn, to adjust himself to his environment." (Sternberg, 2011) ". . . Certain set of cognitive capacities that enable an individual to adapt and thrive in any given environment they find themselves in, and those cognitive capacities include things like memory and retrieval, problem solving, and so forth. There is a cluster of cognitive abilities that lead to a successful adaptation to a wide range of environments." (Simonton, 2003) ... "Intelligence is part of the internal environment that shows through at the interface between person and external environment as a function of cognitive task demands." (Slatter, 2001). "A global concept that involves an individual's ability to act purposefully, think rationally, and deal effectively with the environment."... (Wechsler, 1958).

6. FINDINGS

Despite the efforts made by the researchers and scholars in various areas, so far, there seems to be no plausible answer to the problem of systematic destruction of the environment by humans in the contemporary era. On Armanshahr Architecture & Urban Development

201

I

the other hand, it appears that the obtained answers have not been able to practically prevent the worrisome destruction of the environment by the humas. A comprehensive scientific response should naturally have an evident effect on the conflict and oppositions between the humans and the environment in the world today, but nothing has been observed yet.

The theories put forth for finding the roots of mankind's conflict and hostility towards the environment, and its component and elements can be divided into two major divisions: one set includes the bioenvironmental and sociological approaches which pertain to matters that are outside the human mind and try solving the problem via instructional ways and the enactment of strict regulations for changing the human beings' attitudes and behaviors or through taking advantage of advanced technologies. The observations and experiences show that this way of treatment has not been able to solve the problem in the past century.

Another group of the abovementioned approaches includes the psychological, philosophical, and religionoriented perspectives that see environment treatment more as an internal issue and try correcting their behaviors towards the environment by encouraging the human beings to rely on the internal and mental solutions. So far this group of theories have not been able to efficiently treat the issue.

It is evident that the continuation of human life directly depends on the mutual relationship between the human beings and the environment. From the perspective of many environmental scientists, if the unconscious and destructive behavior of human beings towards their peripheral environment is continued in the same way, their survival will be faced with serious threats. But the main concern is that the destruction process of the environment is still being intensely continued, both in the constructed and artificial spaces and the nature, even with the vivid catastrophic environmental signs that have stemmed from mankind's unwise treatment. In the meantime, the proposed ideas and theories cannot completely explain this phenomenon and they are occasionally confronted with obvious contradictions from within.

It has been stated in a PhD dissertation under the title of "the impact of social, political and economic forces on environment protection efforts" that the environmental information are so technological that the public thoughts cannot gain an insight over them (Park, 1998). So there is a missing link to modern human behavior and environmental protection that has been overlooked.

Despite the numerosity of the studies, the evidence is indicative of the idea that these problems are still being intensively repeated and a serious danger is threatening the people and the earth. These issues are of two types: either the posited solutions are not proportionate and appropriate or the people have lost their talent for comprehending the environmental information. It can almost certainly be said that today's bioenvironmental information is far greater than that of humans who lived in the distant or near past; but we can still see that the mutual relationship between humans and the environment has been a lot better in the past than it is now.

Human beings are equipped with an instrument called "intelligence" to continue their rational lives in the world. In the meantime, the practical intelligence that is called by the majority of the people as common sense includes the ability of adapting to daily environments and the formation and selection of them. Although intelligence, the way it is commonly defined, can be useful in the daily life, but the existence of a practical intelligence is also necessary. Without some degree of practical intelligence one cannot survive in the cultural context and even the natural environment (Sternberg, Forsythe, Hedlund, Horvath, Wagner, Williams, & Grigorenko, 2000).

According to what has been discussed and analyzed so far, the authors believe that there is an organic and not mechanical relationship between intelligence and the interaction and compatibility with the environment as stated in the definitions of the Environmental Intelligence.

7. CONCLUSION

The present study's findings indicate that there is a need for a more general and deep view at the issue to discern the reason for the modern human's conflict with the nature. The answer to this issue should be simultaneously clarifying and resolving.

Despite the existence of an ocean of information about the environment and the necessity of its protection, the contemporary human beings are performing dangerous actions in the area of environment destruction that is contradictory to the common sense. Furthermore, we are still witnessing a systematic gap in the world in this regard, even with the existence of deep and broad theoretical foundations about the issue in various areas of thought and science and also with the great many solutions provided. That is because many of the people seem to have lost the ability of reaching a real conception of the issue. This is while the human beings have been exhibiting more consistent, reasonable, and more constructive behaviors towards the environment in the distant past and their entire ways of treating the environment and its components have been essentially accompanied by the protection, conservation, and even love of the environment.

It seems that there has been something existent in the past based on which the humans could evaluate and accomplish their tasks in the environment and take advantage of the results and/or predict the consequences. The way people around the world interact with the environment is different; But from the results of studying the environmental behavior of people in countries with very rich cultural backgrounds in the past, such as Iran, as well as the people from the

scientifically and industrially developed countries, one can say that man is unable to establish a relationship between his actions in the environment and its consequences and is unable to properly understand and respond; a phenomenon that has been interpreted as environmental "numbness/indifference/degradation". Both the natural environment and the manmade and artificial environment need the people's rational confrontation and intervention in order to be able to fulfill the role for what they should be and the role expected from them.

If the human presence and the way he or she behaves and intervenes in natural and artificial environments meet the requirements of their health and survival; in this case, man and his rationality will be aligned, consonant, and synergistic with the environmental requirements.

What has been presented so far indicates that on one hand there is, by definition, a relationship between human intelligence and how one interprets and interacts with the environment and, on the other hand, the authors and experts of this area have fallen short of expressing a specific form of this relationship in connection with one another and in a pragmatic and applied framework.

If we consider intelligence to be a mental tool that man can rely on it to better compute, analyze, and interpret himself, and his surroundings, and the phenomena within it and also adopt appropriate behavior based on the interpretations and analyzes; It can be hypothesized that the unreasonable human behavior towards the environment and its requirements indicates the lack of some kind of "collective / general intelligence". Intelligence capable of establishing a logical, systematic and nonlinear relationship between the damage that individuals and societies inflict on the environment; and ultimately, cause very severe damage to the same individuals and communities, as well as the whole human environment and society; and the daily behavior of humans in the environment, by relying on worldview and collective holistic analysis. Disregarding the amount of profits, they make and the extent to which they are successful in their individual and private lives and the jobs they have and the incomes they earn or even the degree to which they are religious or not, these individuals directly or indirectly and consciously or unconsciously cause constant and/ or irreparable damages to their environment, reflect the absence of an intelligence that basically had to lead to a sustainable human survival in the environment. The existence of this collective intelligence should enable human beings to make correct presuppositions of the

requirements and conditions of a viable environment and the continuity of life in their minds; in order to gain a better perception and interpretation of how to deal and interfere with the environment, to adopt appropriate behavior, and to transfer it to others as part of their daily life.

The human beings intrinsically, intensively, and strongly guard their life and soul. This instinctive protection is also supported by the social, cultural, religious, and legal principles and regulations, too. If we consider the means of realizing this phenomenon to be the instinctive intelligence of man in preserving its life and health, we must admit that humans do not have such intelligence about their environment and this is a rare paradox.

So, why cannot humans understand that the destruction of the environment will ultimately cause the destruction of the human race, while these same humans are incredibly industrious, active, and confident in guarding their own lives?

This apparent and dangerous contradiction can be attributed to the lack of intelligence which historical experiences show it has been clearly prominent among individuals and human groups in the traditional world, and more likely in prehistoric man and has been badly damaged and destroyed in modern times and with the acceptance of the duet between man and nature.

This is the intelligence that has to be revitalized again in an acceptable manner for the modern human beings. The mental relationship between people and the environment comes from a chain of experiences and knowledge, and the meaning of the environment derives from its functions. This intelligence, which we call "Environmental Intelligence", is the power of calculation, analysis, and presupposition that can help humans establish an organic and immediate relationship between their own partial actions and the large and subtle environmental effects that would immediately and undoubtedly influence the whole society and the entire environment and eventually every individual members of the society. This is the intelligence that has to have an individual and collective aspect and be learnt and transferred in a holistic connection of the individual and society and it is the intelligence that can establish a systematic and nonlinear relationship between the individual, society, environment and the bioenvironmental data. The acquisition and deepening of such intelligence can bridge the gaps that are existent in the human community and are dangerously growing on a daily basis even with the extensive and unprecedented instructions and notifications.

Barati, N. et al.

REFERENCES

- Abaidoo, S. (1997). Human-Nature Interaction and the Modern Agricultural Regime: Agricultural Practices and Environmental Ethics. Ph.D. dissertation, University of Saskatchewan, Canada.
- Air Pollution is 'Biggest Environmental Health Risk' in Europe. (2018). Sep 11 th, Guardian.
- Barati, N., Ujam, F., & Ryan, T. (1997). Language and the Organisation of the Built Environments: *Waterloo*, 25(1), 41.
- Barati, N., & Kakavand, E. (2013). Comparative Evaluation of the Environmental Quality of Residential Places with an Emphasis on Citizen's Image (Case Study: Qazvin City). HONAR-HA- YE-ZIBA, 18. <u>https://dx.doi.org/10.22059/jfaup.2013.51315</u>
- Barati, N., & Zarringhalam, F. (2013). The Study of the Semantic Field of Connectional Spaces from the Perspective of a Lingo-Cultural World Case Study of Persian Language. *Baghe-Nazar*, 10(24), 105. <u>http://www.bagh-sj.</u>com/article_2701_en.html
- Barry, J. (2007). Environment and Social Theory, Second Edition, Routledge
- Benson, J. (2013). Environmental Ethics an Introduction with Readings, Rotlage.
- Berenguer, J. (2010). The Effect of Empathy in Environmental Moral Reasoning. *Environment and Behavior*, 42(1), 110–134. <u>https://doi.org/10.1177%2F0013916508325892</u>
- Budak, D. (2005). Behavior & Attitude of Student Toward Environmental Issues at Faculty of Agricultural, Turkey. *Journal of Applied Sciences*, 1224-1227.
- Calubaquib, J.B. (2016). Value Orientation and Environmental Behavior of Teacher Education Studies, *International Journal of Advanced Research in Management and Social Sciences*. 5(6), 785-799. <u>http://www.garph.co.uk/</u> IJARMSS/June2016/52.pdf
- Carson, R. (2002). Silent Spring. Boston: Houghton Mifflin.
- Chandler, D. (2015). Persian Gulf could Experience Deadly Heat, MIT News Office Study, October.
- Crompton, T., & kasser, T. (2009). Meeting Environmental Challenges: The Role of Human Identity, Green Books; 1st edition
- Crowe, J.L. (2013). Transforming Environmental Attitudes and Behaviors Through Eco-Spirituality and Religion. International Electronic Journal of Environmental Education, 3 (1), 75-88. https://eric.ed.gov/?id=EJ1104861
- Dariush, B., & Motedayen, H. (2019). The Importance of Mountain in Iranian Literature in the Course of Time and the Effect of Modernity on it. *Baghe-Nazar*, 16(2), 77-86. <u>https://dx.doi.org/10.22034/bagh.2019.86875</u>
- Delord, J. (2008). La Recherche Ecologique à l'Epreuve de la Philosophie de L'environnement. *Reveu Labyrin-the-Atelier Interdisciplinaire*, 29. <u>https://doi.org/10.4000/labyrinthe.3773</u>
- De Paula G.O., & Cavalcant, R.N. (2000). Ethics: Essence for Sustainability. *Journal of Cleaner Production*, 8, 109-117. <u>https://doi.org/10.1016/S0959-6526(99)00321-2</u>
- Environmental Performance Index (EPI) Report. (2015). Available in: <u>http://epi.yale.edu/ epi/country-profile/iran.</u>
 <u>Access in: 04/16/2015</u>
- Fateh, M., & Dariush, B. (2015). Rural Architecture of Iran, Fourth Edition, Elmo-Danesh.
- Feygina, I., Jost, J.T., & Goldsmith, R.E. (2010). System Justification, the Denial of Global Warming, and the Possibility of "System-Sanctioned Change." *Personality and Social Psychology Bulletin*, 36(3), 326–338. <u>https://doi.org/10.1177%2F0146167209351435</u>
- Fransson, N., & Garling, T. (1999). Environmental Concern Conceptual Definitions, Measurement Methods, and Research Findings. *Journal of Environmental Psychology*. 19, 369-382. <u>https://doi.org/10.1006/jevp.1999.0141</u>
- Gardner, H. (2006). Multiple intelligences. NewYork: Basic Books.
- Gallup Poll. (2009). Partisan Gap on Global Warming Grows. Retrieved October 30, 2009, from <u>http://www.gal-lup.com/poll/107593/partisan-gap-globalwarming-grows.aspx</u>
- Goleman, D. (2010). Ecological intelligence: The Hidden Impacts of What We Buy. New York: Broadway Books.
- Hawking Says Trump's Climate Stance Could Damage Earth. (2017). BBC News July 2. <u>https://www.bbc.com/</u> news/science-environment-40461726-
- Hedquarter Atonement Report. (2017). The Victims of the 10-year-old Accidents are more than Martyrs of Revolution, Assassinations and Imposed War, the Tasnsim News Agency.
- Heath, Y., & Gifford, R. (2006). Free-Market Ideology and Environmental Degradation: The Case of Belief in Global Climate Change. *Environment and Behavior*, 38, 48-71. <u>https://doi.org/10.1177%2F0013916505277998</u>
- Hines, J.M., Hungerford, H.R., & Tomera, A.N. (1986). Analysis and Synthesis of Research on Responsible Environmental Behavior: A Meta-Analysis. *Journal of Environmental Education*, 18 (2), 1-8. <u>https://doi.org/10.108</u> 0/00958964.1987.9943482

- Hinds, J., & Sparks, P. (2007). Engaging with the Natural Environment: The Role of Affective Connection and Identity. *Journal of Environmental Psychology*, 28, 109–120. <u>https://doi.org/10.1016/j.jenvp.2007.11.001</u>
- Isaac-Márquez, R., Salavarría García, O., Eastmond Spencer, A., Ayala Arcipreste, M., Arteaga Aguilar, M., Isaac-Márquez, A., Sandoval Valladares, J., & Manzanero Acevedo, L. (2011). Environmental Culture in High-School Students. Case Study of Environmental Education at the High-School Level in Campeche. *Revista Electrónica de Investigación Educativa*, 13 (2), 1-17. <u>https://redie.uabc.mx/redie/article/view/285</u>
- Jonas, H. (1979). Le Principe Reponsabilité, Traduction Française: Cerf.
- Kals, E., Schumaker, D., & Montada, L. (1999). Emotional Affinity Toward Nature as a Motivational Basis to Protect Nature. *Environment and Behavior*, 31, 178–202. <u>https://doi.org/10.1177%2F00139169921972056</u>
- Kellstedt, P.M., Zahran, S., & Vedlitz, A. (2008). Personal Efficacy, the Information Environment, and Attitudes Toward Global Warming and Climate Change in the United States. *Risk Analysis*, 28(1), 113-126. <u>https://doi.org/10.1111/j.1539-6924.2008.01010.x</u>
- Leblanc, M. (2002). La Philosophie Ethique: DesNeiges au Service de L'environnement?, Fondation Médias Verts.
- Lertzman, R.A. (2010). Myth of Apathy: Psychoanalytic Explorations of Environmental Degradation (Doctoral Dissertation, CARDIFF UNIVERSITY (UNITED KINGDOM).
- Max Planck Institute. (2016). Climate-Exodus Expected in the Middle East and North Africa, May.
- Mehraeen, M. (2015). Environmental Sociology; Issues and Approaches, Hamoon News Agency.
- Nasr, S.H. (2007). Religion and the Environmental Crisis, World Wisdom, Inc
- Neisser, U., Boodoo, G., Bouchard Jr,T.J., Boykin, A.W., Brody, N., Ceci, S.J., Halpern, D.F., Loehlin, J.C., Perloff, R., Sternberg, R.J., & Urbina, S. (1996). Intelligence: Knowns and Unknowns. American Psychologist, 51, 77-101. DOI: 10.1037//0003-066X.51.2.77
- Nilsen, H.R., & Ellingsen, M.B. (2015). The Power of Environmental Indifference. A Critical Discourse Analysis of a Collaboration of Tourism Firms. *Ecologica Economics*, 109, 26-33. DOI: 10.1016/j.ecolecon.2014.10.014
- Pane, M. (2013). Apathy Towards Environmental Issues, Narcissism, and Competitive View of the World. *Proce*dia-Social and Behavioral Sciences, 101, 44-52. <u>https://doi.org/10.1016/j.sbspro.2013.07.177</u>
- Park, J. (1998). The Impact of Social, Political, And Economic Forces on Environmetal Protection Efforts -Degree of Doctor Of Public Administration School of Public Affairs and Administration Western – Mishigan University
- Pauw, J.B., & Petegen, P.V. (2010). A Cross-National Perspective Youth Environmental Attitude. *Environmental-ist*, 30, 133-144. <u>https://doi.org/10.1007/s10669-009-9253-1</u>
- Putnam, T. (2006). Environmental Paradigm Shifts: Their Causes, Attributes, and Implications for Environmental Sustainability, The National Conference on Undergraduate Research, The University of North Carolina, Asheville, North Carolina, 401-408.
- Putti, J. (2013). Searching for Inspiration, Perspectives on Personal, Family and Community Development, Trafford.
- Quimbita, G., & Pavel, M. (1996). Assessing an Environmental Attitude Development Model: Factors Influencing the Environmental Attitudes of College Students.
- Rolston, H. (2012). A New Environmental Ethics: The Next Millennium for Life on Earth, Rotlage.
- Salehi, S. (2010). People and the Environment: A Study of Environmental Attitudes and Behavior in Iran, Lambert Academic Publishing
- Shultz, P.W., Shriver, C., Tabanico, J.J., & Khazian, A.M. (2004). Implicit Connections with Nature. *Journal of Environmental Psychology*, 24(1), 31-42. <u>https://doi.org/10.1016/S0272-4944(03)00022-7</u>
- Shariati, E. (2016). Development Without Regard to the Environment is a Product of Incomplete Modernity in Iran, ISNA.
- Simonton D.K. (2003). An Interview with Dr. Simonton. In J. A. Plucker, Editor, Human Intelligence: Historical Influences, Current Controversies, Teaching Resources. <u>http://www.indiana.edu/~intell,35</u>
- Slatter. J. (2001). Assessment of Children: Cognitive Applications. Jermone M. Satler Publisher Inc., San Diego, 4th edition.
- Sternberg, R.J., Forsythe, G.B., Hedlund, J., Horvath, J.A., Wagner, R.K., Williams, W.M., & Grigorenko, E.L. (2000). Practical Intelligence in Everyday Life. New York, Cambridge University Press.
- Sternberg, R.J. (2011). Editor. Handbook of Intelligence. Cambridge University Press.
- Stoll-Kleeman, S., O'Riordan, T., & Jaeger, C.C. (2001). The Psychology of Denial Concerning Climate Mitigation Measures: Evidence from Swiss Focus Groups. *Global Environmental Change*, 11, 107-117. <u>https://doi.org/10.1016/S0959-3780(00)00061-3</u>
- Thompson, S., & Barton, M. (1994). Ecocentric and Anthropocentric Attitudes Toward the Environment. *Journal of Environmental Psychology*, 14, 199–210. <u>https://doi.org/10.1016/S0272-4944(05)80168-9</u>

Barati, N. et al.

- Toynbee, A. (1972). The Religious Background of the Present Environmental Crisis. International Journal of Environmental Studies, 3(1-4), 141-146. <u>https://doi.org/10.1080/00207237208709505</u>
- UNEP Global Environment Outlook. (2000). Report, Earthscan Publications Ltd.
- Wallner, S., Hunzikey, M., & Kienast, F. (2003). Do natural Science Experiments Influence Public Attitudes Towards Environmental Problems? *Global Environmental Change*. 13, 185- 194. <u>https://doi.org/10.1016/S0959-3780(03)00042-6</u>
- Wechsler, D. (1958). The Measurement and Appraisal of Adult Intelligence. Williams & Wilkinds, Baltimore, 4 edition.
- White, L. (1967). The Historical Roots of Our Ecological Crisis. *Science*. 155, 1203–1207. DOI: 10.1126/science.155.3767.1203
- Willuweit, L. (2009). Promoting Pro-Environmental Behavior. An Investigation of the Crosscultural Environmental Behavior Patterns, the Case of Abu Dhabi. Thesis for Master degree, Department of Human Geography, Stockholm University.

HOW TO CITE THIS ARTICLE

Barati, N., Dariush, B., Dastyar, F., & Barati, M. (2020). Environmental Intelligence, A Holistic Approach to the Human-Environment Relationship. *Armanshahr Architecture & Urban Development Journal*. 13(30), 195-206.

DOI: 10.22034/AAUD.2019.183282.1860 URL: http://www.armanshahrjournal.com/article_108590.html

