The Human Relation With Nature and Technological Nature

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Abstract:

Two global phenomena are profoundly transforming human existence: the deterioration, if not complete annihilation, of enormous areas of the natural world, and unprecedented levels of human population growth. a progression in technical advancement At the intersection of these two tendencies is lies the nature of technology—technologies that, in many forms, to mediate, enhance, or imitate the natural environment in many ways Videos are a good illustration of technological nature at the moment. as well as real-time cameras of nature, robot animals, and immersive experiences Virtual environments are those that are created in a virtual environment. Does it make a difference in terms of the physical and mental health? the psychological well-being of the human species as it exists in the present Is it possible that nature is being supplanted by technological nature? As a result of the We use the following as the foundation for our tentative response (which is "yes"). Accounts of the evolutionary and cross-cultural developmental processes of The relationship between humans and nature, as well as some new psychology studies on the consequences of technological nature Finally, we explore the issue—as well as some future study directions— "Environmental generational amnesia," as the term is used. The source of worry is that, by progressively becoming used to the absence of true nature Humans will get more technologically advanced as time goes on. reduce the baseline for what qualifies as a crime across generations by full measure of the human condition and of human potential thriving.

Introduction

Our species' long-standing interactions with nature are beginning to be altered by technological advancements. Now we have technological nature—technologies that mediate, enhance, or imitate the natural world in diverse ways. the realm of the natural world Discovery Channel and Animal Planet, for example, are whole television networks dedicated to providing us with mediated information. Nature-themed digital activities include the lion's hunt and the Monarch's flight. Migration, as well as a high-altitude ascent into the Himalayan peaks Video Children are exposed to animal life via games such as Zoo Tycoon. Zoos Technologies such as webcams are being introduced by the companies themselves. shows so that we may, for example, see animals from the comfort of our own homes either at our place of residence or at a café' There have been attempts to create inexpensive robot pets. Wal-Mart and Target stores throughout the globe are prominent dealers of these items. Sony's AIBO, a high-end robot dog, was a big hit. Real individuals are now spending their money. spending a significant amount of time in virtual worlds (e.g., Second Life). Considering our bodily and psychological well-being, we are fortunate. Does it make a difference that we are replacing true nature with artificial nature? What is the nature of technology? In order to substantiate our tentative response that it We rely on evolutionary and cross-cultural developmental theories of the human relationship with the natural environment to examine whether or not it matters. explore some current psychology studies on the subject, and then The consequences of technological progress.

BIOPHILIA—AN EVOLUTIONARY ACCOUNT OF THE HUMAN RELATION WITH NATURE

Wilson (1984) coined the term "biophilia" to refer to what he and his colleagues hypothesised to be a fundamental, genetically-based human need and proclivity to affiliate with "life and living things." Wilson and his colleagues hypothesised that humans have a genetically-based need and proclivity to affiliate with "life and living things." "Processes that resemble life" (p. 1; see also Kellert & Wilson,

1993). Studies have shown, for example, that even a little relationship may be harmful. interacting with nature—for example, by staring at it via a window—can may aid in the recuperation of hospitalised patients and can improve overall health in the workplace, and may help to minimise the number of sick days used. prisons. Interaction with pets has been shown to be beneficial in hundreds of other research. It has been shown to be beneficial to a diverse spectrum of clinical patients—from ranging from individuals with Alzheimer's disease to youngsters with autism spectrum disorder—as well as individuals who are members of the wider public Young youngsters grow and develop. relationships with creatures that are plentiful (Myers, 2007). People tend to favour certain types of landscapes over others based on their preference ratings for certain landscapes. prefer natural environments to created environments, and prefer natural settings to built environments constructed habitats that include water, trees, and other forms of flora than ecosystems that have been constructed without such characteristics (Kaplan & Kaplan, 1989). Indeed, it seems to be more than a purely cultural phenomenon. It is a common practise to send flowers to persons who are in the hospital. Those who are in the hospital or who are going through a time of grief There is a requirement Moreover, the tendency to associate with nature seems to be strong, as does the As a consequence, there are several advantages.

A similar evolutionary explanation for biophilia may be found in the evolutionary explanation for the majority of human behaviours: During ancestral times, particular genotypes were associated with greater occurrences of various behavioural reactions. several of those answers enhanced the likelihood of the occurrence of the survival and reproduction of an organism, as well as the factors that influence these for genotypes to spread across a population and via the environment antiquity, and eventually to us in the present day and age. As a result, according to Proponents of biophilia argue that: (a) Biophilia has shown to be adaptive in our species. (a) Evolutionary history, (b) biophilia is still woven into the fabric of society today and (c) the architecture of the human mind, as well as the evolution of the human species It will not be able to acquire its full amount of sensitivity and significance unless both are present. originating in the natural world The majority of the discussion has revolved around four questions. biophilia. When biophilia is properly understood, one issue emerges. mostly as a result of genetic predisposition to belong:

When the die is cast, To put it another way, where does intellect, free choice, development, and culture fit into all of this? In the next sections, we discuss several elements of this subject. The following section is devoted to A second concern is whether biophilia involves the desire to help others. Is it merely the human attachment with life (i.e., the "bio" half of biophilia) or is it also a combination of the two? whether it should also include the human connection to nonliving nature, such as mountains, canyons, caverns, and geysers, as well as the human connection to living nature. Biophilia, in our opinion, should encompass the human attachment to living things. Nature is nonliving, and thus opens the door to an exciting area of future research. research. A third concern is whether biophilia is limited to certain types of organisms. Positive "loving" relationships with nature (the "philia" element of the word) are important. biophilia). We feel that biophilia makes the most sense (and is the most beneficial). integrates a more fruitful research programme into its planning) when it includes connections with both good and bad connotations There is a fourth question. if biophilia is defined in such a wide manner that it can never be disproved Our response: It's possible! That is concerning, especially in light of the From a scientific standpoint However, it is possible that biophilia is best understood not as a testable hypothesis in and of itself (any more than it is as a testable hypothesis in and of itself). as opposed to the notion that individuals have a natural attraction for one another) yet, as a wide framework that aids in the generation of hundreds of It raises crucial empirical issues that may be tested and offers voice to the An important consideration is the relationship between humans and nature.

THE ENVIRONMENTAL REASONING AND PERSPECTIVES OF CHILDREN

VALUES

If the concept of biophilia has validity, as we think it does, then it should be promoted. However, it still leaves important concerns concerning the genesis and cultural roots of the human relationship with animals unsolved. nature. Kahn (1999) and his colleagues have made significant contributions to answering these problems. In a series of cross-cultural research on children's environmental thinking and values, Dr. Roberts and colleagues discovered that African American youngsters (ages 7, 9, and 10) were among the populations studied, for example. The number 11 is located in the inner city of Houston, Texas, according to Kahn and Friedman (1995). Brazilian children (aged 14) living in urban and rural environments Howe, Kahn, and Friedman (2001) describe a place in the Amazon jungle. The Portuguese children and adolescents (ages 10 to 13) were studied in 1996. Kahn and Lourenc o (2002) conducted a study in Lisbon on the ages of 16, and 19. The techniques are as follows: were in accordance with structural-developmental theories (Turiel, 1983), It asserts that children's conceptual understanding is subjected to development contact with the environment causes qualitative changes in development The physical and social worlds are interconnected. Individual interviews were conducted with the children, who were asked structured questions on themes such as water. pollution, air pollution, parks and open spaces, flora, forests, and other environmental issues Individual creatures, species, and living in peace with environment are all examples of conservation. As an example, consider the following typical question: (of 42 total questions) "Let us imagine that we are in Lisbon," wrote Kahn and Lourenc o (2002). Could everyone please dispose of their waste in the river? Is that okay with you? "Is everything all right?" (p. 410). Animals, plants, and parks were shown to be beneficial in a variety of research. Children's lives were greatly enriched by exposure to nature and open places. Children were aware that water pollution may cause damage to birds, water, and other living things.

Insects, as well as the beauty of the landscape Furthermore, it was important to youngsters that there is a possibility of damage occurring to each of these environmental factors constituents. Based on measurements that took into account the magnitude of Children are also at risk from environmental damage and closeness to danger. Water pollution, according to this viewpoint, is a violation of an ethical commitment. Other findings from the research mentioned above revealed two underlying trends. Children's environmental thinking may take many forms, including anthropocentric reasoning. as well as biocentric Anthropocentric thinking is concerned with the manner in which humans think. that has an impact on the environment has an impact on human beings—including appeals to one's own personal preferences, aesthetics, justice, and morality Welfare factors include physical, material, and psychological well-being While biocentric reasoning recognises and accommodates human interests, it is essentially concerned with the moral standing of nature—including the environment. makes an argument for the fundamental worth of nature and for the fairness of its elements (e.g., animal rights). In terms of quantitative analysis across studies (and Across countries, anthropocentric thinking was the most common kind of children's reasoning, accounting for just approximately 4% of all children's reasoning. Children provide biocentric justifications. As a result, one significant discovery The conclusion drawn from this collection of studies is that children from varied cultural backgrounds— and even in challenging metropolitan environments—have profound and enduring impact In at least some sense, we have moral relationships with nature.

TECHNOLOGICAL NATURE

It's important to remember that Wilson defined biophilia as "the human attachment to life and lifelike processes." Wilson has never explained exactly what he means by "lifelike processes," and we are unaware of any such explanation. However, there is a The concept is provocative. Is it possible to engage with realistic nature— Human nature—provides people with the same psychological benefits as technology. Do you want to get the same experience and advantages as real nature? Kahn and colleagues have made significant strides in answering this topic. started a research programme that would span across a variety of technical platforms. High-definition television is one example of a format. Real-time images of nature in high definition television (HDTV) quality via a 50-inch display "Window" on a plasma display. In one study (Friedman et al., Freier et al., Kahn et al., Lin and Sodeman (2008) described how plasma windows were put in a building. Seven academic and staff

members work in windowless offices in a university environment. (See Fig. 1a.) As stated in Table 1, we conducted an evaluation during a 16-week period. Practices, judgements, beliefs, and emotions of participants are all recorded. Results Participants seemed to prefer the plasma-display window, as shown by the results.
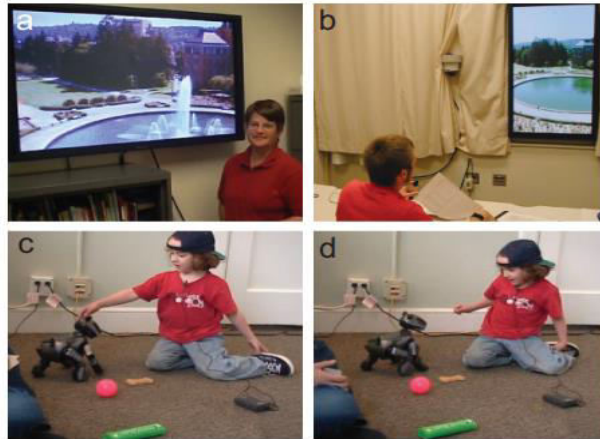

Fig. 1. Examples of technological nature. HDTV plasma ''windows'' displaying real-time images of the local nature scene outside the building are shown (a) installed in a participant's office in a long-term field study (Friedman, Freier, Kahn, Lin, & Sodeman, 2008); and (b) covering up a real window in the plasma-window condition of an experimental study in the lab (Kahn et al., 2008). The camera that recorded looking behavior can be seen poking out from the drapes to the left of the plasma window. The plasma screen was not present in the glass-window condition of the experimental study; and the drapes were pulled across the entire wall for the blank-wall condition. The bottom pictures show technological nature in the form of a robot dog (AIBO; from Kahn, Friedman, Perez-Granados, & Freier, 2006). In (c), the participant has just been introduced to AIBO and approaches the robot a little apprehensively. Within a couple of seconds, AIBO begins to move toward the participant; in (d), the participant is startled and appears slightly apprehensive (not unlike how a person might respond when encountering a biological dog that he or she has never met before).

It had a positive impact on their psychological well-being, cognitive performance, and sense of connectedness to the natural world, among other things.According to the findings of this research, witnessing one kind of technological nature may be preferable than experiencing no nature all. Is this form of artificial nature, on the other hand, as good as real nature? To In order to answer this issue, we carried out another research (Kahn et al., 2007). The study was conducted in an office environment with 90 participants (30 each group) in 2008. were exposed to either (a) a glass pane that provided a glimpse of the outside world or Nature scenes, (b) a plasma window that allowed for real-time viewing of the scene Figure 1b shows an HDTV perspective of basically the same scenario, while Figure 1c shows a blank screen. wall. This is seen in Table 1: In terms of heart rate, we discovered The glass window was more restorative than a blank wall in terms of recovery from low-level stress, while a plasma window was no more restorative. a blank wall is more restorative than a blank wall Furthermore, when individuals in the study state of a glass window when they really glanced through the glass pane, they When they were awake, their heart rate tended to drop more quickly than when they were not. taking a peek out the glass window (In the plasma-window case, this is true. It did not make a difference in heart rate recovery whether individuals were male or female.

They glanced at the plasma window as opposed to looking somewhere else.) The plasma nature window seems to be superior to the absence of nature, but not as superior as genuine nature when both investigations are considered combined. We We are discovering further evidence of this trend in our

other five studies. investigations spanning two different types of technological nature: an advanced robotic dog (AIBO) and a Telegarden—a virtual garden that can be accessed from anywhere in the world in Austria that enabled "gardeners" to plant and care for their gardens from a distance by using a Web-based interface to operate a robotic arm, you may plant seeds. (See Table 1 for further information.) For instance, in Melson et al. (in press), youngsters are discussed. When comparing a live dog to an AIBO, children and teenagers were more likely to believe that the live dog had mental states (83.6 percent live dog, 56.2 percent AIBO). AIBO) could be a good partner (91.4 percent live dog, 70.0 percent AIBO), as well as having moral standing (86.3 percent live dog, 75.7 percent AIBO). What exactly is it? In instance, not only was it intriguing that AIBO was not as captivating as a real dog, but it was also remarkable that AIBO was as compelling as it was. AIBO also looks to be a relatively intriguing social alternative to other people. adults. As shown in Table 1, 60 percent of anonymous (probably adult) AIBO owners spontaneously acknowledged the social status of their AIBOs in their comments in AIBO online discussion forums. AIBO. One AIBO owner, for example, wrote the following:

CONCLUSION

Consider the possibility that, as additional study into the issue of technology nature is conducted, the overall tendency we have discovered so far remains true: specifically, that engaging with technological nature is beneficial. While it gives some of the pleasures and advantages of engaging with real nature, it does not provide all of them. At first look, such a discovery would seem to be surprising. speak to how we may enhance the quality of human life: when real nature is encountered If a natural equivalent is not accessible, substitute technical nature. However, such replacements lead to the development of a pernicious issue. Allow us to clarify. In a study of African American children's exposure to the environment ideas and values in Houston, Texas (Kahn & Friedman, 1995) that are contrary to As previously stated, the findings revealed that a statistically significant percentage of They were aware of the concept of air pollution, but they did not know what it was. Despite the fact that Houston did not have such a problem, many people believed it did. was (and continues to be) one of the most polluted cities in the world at the time The United States of America Kahn and Friedman provide their interpretations of these findings. speculated that these youngsters could have lacked comparative advantage in order to establish a baseline experience from locations with less pollution, Recognize that Houston was a filthy environment. To be sure, it isn't. It is feasible to rule out the possibility that the youngsters have a counterexplanation. They have just not yet become aware of the pollution in their immediate vicinity. Nonetheless, the comparative-baseline interpretation is compatible with the occurrence of the "changing baseline," which has been documented by other researchers in the literature. For example, Pauly (1995) has said that in his writings regarding what he refers to as the "changing baseline syndrome" fisheries:

 Essentially, this disease has developed as a result of each successive generation of The stock size and species composition are accepted as a baseline by fisheries experts. composition that took place at the start of their professional lives, and The purpose of this is to analyse modifications. When the next generation begins to take over, The stock market has continued to decrease, but it is the equities themselves that have declined. a period of time that serves as a fresh starting point As a consequence, there is a clear progression. shifting the baseline, allowing for the progressive acceptance of creeping The extinction of resource-dependent species.. (p. 430) Evans, Jacobs, and Frager (1982) discovered something along the same lines. Even long-term inhabitants of Los Angeles considered the pollution issue to be significant. They regarded living in their city as less harmful to their health than fresh immigrants did. Dubos (1965/1980) has also shown that any "illness," or any other kind of weakness that is very prevalent in a certain socioeconomic group This situation is acknowledged as normal inside the group and is seen as such by others in the group" (pp. 250–251). As a result, it is possible—and, in our opinion, likely—that throughout the board People go through a psychological transition that is fairly significant across generations. the same as what happened to African American youngsters in Houston: Members of each generation build their own ideas about what it means to be human. is considered ecologically normal depending on the natural world in which they live faced

throughout one's childhood The essence of the matter is that, with each the quantity of pollution generated as a result, and the level of environmental deterioration may grow, but each generation has a tendency to take that which has been deteriorated with them.

state as if it were the nondegraded condition—that is, as if it were the usual condition Kahn (1999, 2002) has used the word "experience" to describe this phenomenon. a generational amnesia caused by the environment In a nutshell, this is the possible issue with technology advancement. The natural world, at least as we see it from this early vantage point: As a result of the loss of true nature, species will evolve to compensate. We couldn't help ourselves. Either we evolve or we become extinct. However, due to biophilia—due to the fact that We shall suffer as a result of our evolutionary urge to be associated with nature. There are both physical and psychological consequences. Aside from that, we will be lured to more complex and ubiquitous kinds of technology communication. Nature will offer some, but not all, of the advantages of the environment. nature in its natural state As a result, there will be a downward movement (as there has been in the past). has been (and has been for some time) in the baseline across generations for counts as a comprehensive measure of human experience and of human potential thriving. As a result of this transformation, and as it will continue to do so, society will change. It is tough to alter. For example, if you're trying to convey something to someone, In terms of the completeness of the universe, what we, as humans, are lacking is A well-intentioned individual may consider the human relationship with nature. your face is expressionless as you say, "but I do not believe we are missing anything." It's difficult enough to deal with environmental issues as it is. When individuals are aware of issues such as global climate change, it makes a difference. When they are not present, it is much more difficult. As a result, one of the issues that may arise is the issue   of environmental generational amnesia. The most pressing psychological issues of our generation

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