CYBERNETIC IMMORTALITY AND ECOLOGICAL IMBALANCE: INSIGHTS FROM AFRICAN ANTHROPOHOLIST PHYSICO-SPIRITUAL ECOLOGY

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Abstract

Man is constantly seeking to improve himself and to overcome the challenge of the limitations of life and death. Several approaches in addressing this challenge abound. However, the transhumanist solution to this primeval quandary is via cybernetic immortality. The idea is premised on a materialist cum functionalist idea of personhood, where the essence of man is narrowed to the information in the brain; hence, the possibility of codifying man's consciousness into a software and transferring it into cyberspace or silicone bodies. While this transhumanist project has been hitherto evaluated from various perspectives, there is hardly literature that discusses its possible inadvertent ecological consequences. On the other hand, Africa enjoys a rich ecological heritage and understanding of the human person, life, and reality that is metaphysical, anthropocentric, and holistic. In the face of the possible global ecological challenge, that the transhumanist quest for cybernetic immortality portends, this book chapter, therefore, intends to foray into the African anthropoholist physico-spiritual ecology, to see what insights can be gleaned from her in cautioning and cushioning against this daring techno-scientific utopia, which possesses the potential of disrupting the equilibrium of the ecosystem.

Keywords: Cybernetic immortality, personhood, ecology, anthropoholism, transhumanism.

Introduction

One of the strongest instincts in man is the instinct of self-preservation. Hence, every desire that is associated with this instinct (i.e. eating, drinking, aversion for sickness and death, sex etc.) is usually necessary and compelling. It is not out of place then for man to linger on the possibility of immortality. The desire for immortality is therefore coeval with man. However, how we go about gratifying this desire matters. Transhumanism promises a fulfillment of this age long desire in the form of cybernetic immortality. The idea of cybernetic immortality aims to attain perpetuity of life by uploading the mind into cyberspace or silicone bodies. This is only possible because they believe personhood is tied to the information

in the brain. As expected, this idea has sparked wild reactions, ranging from acceptance, skepticism, and repugnance. However, the focus here will be on the ecological implications of cybernetic immortality.

On the other hand, in Africa, personhood is understood metaphysically and relationally; there is continuity of life and existence even after death; all things in the universe (physical and spiritual; living and non-living) are interconnected; and man is at the centre of this physico-spirtual ecological balance. This book chapter therefore intends to give an exposition of insights that can be mined from African anthropoholist physico-spiritual ecology in restoring balance to the possible disruption of the ecosystem, as suggested by cybernetic immortalists.

In doing this, the discourse opens with an investigation of the modus operandi of cybernetic immortality, followed by an exploration of the African understanding of personhood, life, death, and the after-life. It then evinces anthropoholism, as it is unique within the framework of African physico-spiritual ecology. This leads to several rationalizations, regarding the charge of ecological imbalance that could result from cybernetic immortality, when considered from the optics of African anthropoholism. This chapter wraps up with a conclusion that attempts to strike a balance, while posing possible areas and questions for further research.

Cybernetic Immortality and a Materialist *cum* Functionalist Conception of Personhood: Virtual Reality and Silicon Bodies

According to Johnson Lee (2015), cybernetic immortality refers to a "radical transhumanist vision":

> in which the information in the brain is uploaded onto a computer so the 'person' can exist in the virtual world. En route to an entirely disembodied existence, technology will permit intelligence to be shared, minds to be connected to other minds and other devices, and communal rather than individual intellect to emerge (p. 273).

Nelson Kellog (2015) regards the transhumanist's goal of cybernetic immortality as "the most ambitious". He explains that cybernetic immortality intends to provide a non-biological substrate that can realize the functional capacities of the human brain, including the capability for consciousness, as well as the possibility of uploading the contents of a person's existence into this artificial mind. Chief

proponents of this movement include Raymond Kurzweil, Martine Rothblatt and Ted Chu.

This idea has appeared under several names such as "digital immortality", "brain emulation", "mind transfer", "mind uploading", "mind copying", etc. In defining what these terms mean collectively, John Doyle (2018) gives a similar definition, that they refer to "the hypothetical process of transferring a conscious mind from a biological brain to a non-biological substrate (e.g., silicon digital computer) via technical developments (scanning, mapping, simulation) that are as yet uninvented" (p. 130). The idea is for the substrate to achieve a complete simulation of the native brain, such that its behavior is undistinguishable and complete with the individual's memories and life experiences.

Before further elucidation will be made on the contents of cybernetic immortality, it is pertinent at this point to consider why they think this project is not only possible but also plausible. It is because advocates of transhumanism believe in a fluid understanding of personhood that is materially and functionally construed. The idea of cybernetic immortality from a materialist cum functionalist perspective of personhood is based on a number of assumptions. The first assumption is that "personhood may be defined by a set of functions or abilities and such abilities must be present in actual, not potential form" (Sullivan, 2003, p. 17). The second assumption is that personhood or what characterizes identity is a function of brain states or mental states. The third assumption is that what characterizes a particular mental state of a peculiar type is not dependent on its intrinsic properties, but on the way it operates or the role that it plays in the system that it constitutes (Levin, 2018). Hence, there is an emphasis on what a thing does or how it functions than what it is made of (Polger, 2020). The fourth assumption is that:

> mental states and processes of consciousness are none other than functional states and processes. And, furthermore, as functional states and processes, mental states and processes can occur in different material substrates, one such being the neurological system of a human brain, and another being the electronic system of a suitably programmed AI system (Cocchiarella, 2019: 5).

What this means is that the mind neither depends on a spiritual substance such as the soul or a biological substrate like the human brain. As such, the functionality of the mind can as well work on an electronic substrate such as a digital computer. The fifth assumption is that despite functional states being

independent of specific types of substrates, mental states "*must* occur in a physical system, and hence, mental states and processes *must* have a physical or material substrate made up of many interrelated parts of a common structure… hence, functionalism's view of mentality is completely contrary to the claim of metaphysical dualism" (Cocchiarella, 2019: 5).

Functionalism's claim that the essence of mental states and processes can be realized on different physical substrates is only possible because of what they call *multiple realizability*. According to Bickle John (2020), multiple realizability is the thesis that "a single mental kind (property, state, event) can be realized by many distinct physical kinds" (n.d.). A good example is the idea of a mousetrap for killing or catching mice. Different types exist, with different mechanisms of operation, and made of different materials such as wood, iron, adhesives, boxes etc. However, at the end of the day, they are all mousetraps and they fulfill the purpose of catching a mouse (Polger, 2020).

What this implies then is that the functionality of the mind is not dependent on the biological substrate of the brain and can be realized in different physical substrates such as an electronic digital computer. As such, the goal then is to duplicate the functional processes of mental states in a computer program. The obvious challenge that rears its head is the ability to differentiate duplication from good and complete simulation. Here then, the underlying assumption is that the mind-body relationship is analogous to the relationship between the software and hardware of a computer; where the mind is akin to the software, and the body, the hardware. As it is claimed, it becomes easy then for the mind to be duplicated as software in a computer superstructure (Cocchiarella, 2019).

Two probable hypothetical models are often considered in realizing cybernetic immortality. The first model of mind uploading considers high-resolution 3D scanning, modeling, mapping and characterization of every vital feature of a person's brain, and then operating this resultant model on a powerful computer host. In the second model, the neurons in a person's brain would be increasingly substituted by synthetic forms until the person's brain become entirely synthetic. Usually, advocates of this project are materialists who believe that man is entirely a bundle of matter and if at all there is any spiritual element involved, it is via the interaction of material forces.

Moravec Hans (1998) suggests that "successive generations of human beings could be designed by mathematics, computer simulations, and experimentation, like airplanes, computers, and robots are now" (p. 108). The reason he gives for

this proposition is to have a plan B in case the earth is bedeviled by some great catastrophe or the earth becomes overpopulated and there is a need to exit to an alternate universe. He also argues that this will significantly increase human intelligence since neurological synapsis in the human brain is slow. In an age of intelligent robotics, Ray Kurzweil argues that holding on to the human body would make us "second-rate kind of robot" distinguished only by our DNA. Hence, only "human chauvinists would be foolish enough to cling to the human body" (2005: 108). To overcome this limitation, there is need to transfer the human mind to a computer. According to Moravec (1998), this can be possibly achieved through systematically scanning the human brain, destroying it, and making a copy of the brain in the form of a computer software or program.

Moravec (1998) however suggests the possibility of mind transfer via noninvasive scanning that would not necessarily kill the person in question. The idea is to reproduce the molecular structure of the brain in digital form or a in a hybrid form that is both digital and analogue. This amounts to the mind of the person that has just been killed but immortalized since the "mind is entirely the consequence of interacting matter" (p. 119). He adds that:

> The entire program can be copied into similar machines, resulting in two or more thinking, feeling versions of you. You may choose to move your mind from one computer to another that is more technically advanced or better suited to a new environment. The program can also be copied to a future equivalent of magnetic tape. Then, if the machine you inhabit is fatally clobbered, the tape can be read into a blank computer, resulting in another you minus your experiences since the copy. With widely enough dispersed copies, your permanent death would be highly unlikely (p. 112).

Furthermore, he argues that "as a computer program, your mind can travel over information channels, for instance encoded as a laser message beamed between planets. If you found life on a neutron star and wished to make a field trip, you might devise a way to build a robot there of neutron stuff, then transmit your mind to it" (p. 114). Though this would lead to "two separate versions of you, with different memories for the trip interval" (p. 114), this could be resolved combining both memories as one.

Explaining how cybernetic immortality can be realized via mind uploading, Kurzweil (1999) evinces that:

> As we cross the divide to instantiate ourselves into our computational technology, our identity will be based on our evolving mind file. We will be software, not hardware... As software, our mortality will no longer be dependent on the survival of the computing circuitry... as we periodically port ourselves to the latest, evermore capable 'personal' computer... Our immortality will be a matter of being sufficiently careful to make frequent backups (p. 129).

He surmises that when this becomes possible, "we will be able to live as long as we want" (2005, p. 330). However, this provokes the problem of personal identity. Is the copy of an individual's mind, really the individual or another entity that thinks like the individual? How can the complications resulting from multiple copies of an individual's mind being in different places be resolved? Are these computer copies same as the individual? (Drozdek, 2015).

Surprisingly, Moravec (1998) answer that these copies are the same as the individual, since it is not the continuity of the mind's substance that constitutes personal identity but continuity of the mind's pattern: "pattern-identity defines the essence of the person" (p. 117). Kurzweil (2005) concurs that personal identity is a function of "the patterns of matter and ene
rgy that are semi-permanent (that is, changing only gradually)" and this "identity is preserved through continuity of the pattern of information that makes us us", such that the copy in cyberspace "is not you- it is you. It is just that there are now two of you" (p. 54-55). Drozdek Adams (2015) explains that this means "two (or a hundred) copies of one pattern make one person" (p. 8). This uploaded mind is believed, would exist either in cyberspace/virtual reality or relativized in silicone bodies. Some scholars opine that even if this vision is feasible, it will only be realizable in the distant future. Albeit, others such as Dmitry Itskov believe that we are at the threshold of realizing this project and according to the *2045 initiative* program, this vision will be realizable by 2045 (Itskov, 2013).

An African Understanding of Personhood

Looking at the transhumanist proposal for cybernetic immortality, I imagine that the first reaction of an average African, who is largely bioconservative (Mbessa, 2020), and has a religious affiliation, will be that of open eyes and mouth, with mixed feelings of shock and amazement. Perhaps, such a reaction will be due to the novelty of the idea, its daring poise, and other mind boggling issues

surrounding this transhumanist project; especially as it conflicts with certain areas of African ontology and cosmology.

The first point of conflict is in the understanding of man and personhood. Taking into account the diverse African opinions on the subject matter, two things stand out in the consideration of man and personhood from an African perspective. The first is an understanding of the composition of man that is metaphysical, and the second is a normative notion of personhood that is understood relationally.

As regards the metaphysical composition of man, the prominent African scholar from Ghana, Kwasi Wiredu, describes the composition of man as "made up of *nipadua* (body), *okra* (a life giving entity), and *sunsum* (that which gives a person's personality its force, i.e. courageous, evil, kind, modest, etc.)" (1995: 132). These three qualities represent the constituting elements of a person. Wiredu adds the concepts of *mogya* and *ntoro,* which are both derived from the blood of the mother and father respectively, and becomes the conduit for inducting a person into the clan of both parents. Kwasi Wiredu however cautions against the understanding of the *okra*, often translated to mean the soul, in terms of western categories, wherein it is dubbed as immaterial. For Wiredu, the *okra* is quasi-material. It is not visible to the physical eyes, but possesses both physical and spiritual properties. It is more a less a portal for trafficking and negotiating between the physical and spiritual world.

Kwame Gyekye, though agreeing with Wiredu that man is composed of *sunsum, okra, and honam* (similar to *nipadua,* meaning the body), differs by positing that the *okra* can be understood to be soul in purely immaterial terms: "So conceived, the *okra* can be considered as the equivalent of the concept of the soul in other metaphysical systems. Hence, it is correct to translate *okra* into English as soul" (Gyekye, 1987: 85). It is the germ of the divine in man and represents the essence and life giving force of the individual. Gyekye further introduces the concept of *honhom,* which connotes breath. The departure of this breath from the individual marks the death and consequent departure of the soul. His submission that the both the *sunsum* and *okra* are immaterial properties while the *honam* is a physical property, ultimately leads to a conception of man that is basically dualistic (i.e. material and immaterial): "Akans hold a dualistic conception of a person; a person is constituted by two principle substances, one spiritual (immaterial) and the other physical (material)" (Gyekye, 1987: 205).

Kwame Appiah further corroborates the position of Gyekye and Wiredu by consenting to the tripartite elements that comprises the human person:

"according to Asante traditions, a person consists of a body (*nipadua*) made from the blood of the mother (the *mogya*); an individual spirit, the *sunsum*, which is the main bearer of one's personality; and a third entity the *okra*" (Appiah, 2004: 28).

Segun Gbadegesin also attempted to give a similar corollary of man's composition from a Yoruba standpoint. Gbadegesin underscores the person (*eniyan*) as comprising of four fundamental characteristics:

> Among the terms that feature in discussions of the Yoruba concept of *eniyan*, the following are prominent: *ara, okan, emi, ori,* though there is a lot of confusion about what each of these means and what relationship exists among them. One way to avoid, or at least, minimize confusion is not to start with English equivalents of these terms, but rather to describe their usages among the Yoruba and to relate them to each other in terms of their functional interdependencies (Gbadegesin, 1991: 28).

In his exposition, the *ara* refers to the physical properties of the body- in terms of size, weight, shape or height. The *okan* represents the heart, which is the seat of blood circulation and emotions. The *emi* connotes the divine breath in the person (different from *eemi* which is physical breath). Finally, the *ori* plays the dual role of designating the physical head and the personality of a person:

> It is thus *ori* so chosen, with the destiny wound up in it, that determines the personality of the individual. And though, the *ori* is symbolized by the physical head, it's not identical with it. For the *ori* is construed as the inner- or spiritual head *ori-inu* (Gbadegesin, 1991: 38).

As seen from the above discourse, though compositionally, man is understood to have a metaphysical basis from an African perspective, there is also a widespread belief that his personhood is expressed and fulfilled socially. According to Placide Tempels, the Bantu conceive that a person is an essentially an assemblage of diverse forces. However, these forces are only activated via social relations with other forces- ancestors, gods, human beings, animals, and inanimate objects (Tempels, 1959). Here, the individual is basically defined as a relational being. As such, Tempels avers that possessing vital forces as an individual is not enough to grant an individual the status of a person. The individual is only considered as being a person by the community based on the quality of his/her social relations and alignment with the norms and ethos of the community. What this implies is that there are those who possess a higher

degree of personhood than others, and those who do not even merit being accrued the status personhood.

John Mbiti (1980), links personhood with the ability of the individual to integrate himself within ties of family and kinship. According to Mbiti, for one to be a person, he ought not only to ensure the vitality and perpetuity of these ties with the living on earth, but also with his/her ancestors who are believed to be alive in another spiritual plane of life, and the unborn. In his words, the individual "owes his existence to other people, including those of past generations and his contemporaries. He is simply part of the whole. The community must therefore make, create or produce the individual; for the individual depends on the corporate group" (Mbiti, 1980: 141). From this premise, Mbiti posits that the individual's identity is immutably linked with the life of the community; hence, his popular phrase: "I am because we are; and since we are therefore I am".

Menkiti (1984) stretches the argument further and exalts the community over the individual. Hence, it is the community that decides who counts as a person or not. In his view, personhood is attained in varying degrees, to the same extent of an individual's fulfilment of the prescribed moral obligations.

The point to be made here is how radically, the African conception of personhood differs from the functionalist conception of personhood, upon which the feasibility of cybernetic immortality thrives. The functionalist conception of personhood rejects any concept of man that has a metaphysical undertone. It considers man to be purely matter. This mechanistic view of man embraces a fluid understanding of personhood that is realizable in a non-biological substrate other than the carbon based human body. Such a framework will hardly sit squarely within the African perception of man, in relation to his fellow man and the environment. The implication of this transhumanist understanding of personhood, on the balance of the eco-system within the African world-view, will be made clearer as the discourse progresses.

The Interconnectedness of Life, Death, and Afterlife: An African Idea of Immortality

 The African worldview enjoys a rather seamless symbiotic relationship between her cosmology and ecology. As such, the whole universe (physical and spiritual) is seen as one organic whole. This represents the tenor of her ecological equilibrium. To create a distinction or separation in the constitutive parts of the universe and reality will invariably lead to an imbalance in the eco-system, with

undesirable ecological repercussions. The transhumanist agenda for cybernetic immortality does just this; as it not only radically alters the ontological understanding of reality in favour of a materialistic one, but in so doing, treats its constitutive parts as separate units. This informs the foreground for Africa's distrust and cry for caution against transhumanism's aggressive techno-progressivism.

While this will be discussed subsequently, we seek here to first understand her closely knitted metaphysical understanding of reality. In doing this, we will consider her understanding of life, death and the afterlife; the interconnectedness of the physical and spiritual world (ancestors, gods, man, animals, plants, and inanimate objects); and man's central role in the universe.

Acknowledging the diverse cultural belief systems and practices in Africa, Sambuli Mosha (2000) identifies four basic areas that cut wide across Africans: 1. the centrality belief in gods or God, 2. synergy between individuals and their community, 3. the idea of the universe as an independent interconnected whole, 4. the understanding of life as a continuous process of realization and transformation. Asuquo (2011) adds that this metaphysical, religious, or spiritual outlook on life permeates the African's understanding of life, death, and the afterlife.

Four cardinal points are identified in relation to life: that it originates from God; that it finds meaning in communal identity and integration (Njoku, 2002); that the living dead (ancestors) play a central role in the balance of life (Opokwu, 1978); and that life is related to time cyclically, rather than linearly (Mbiti, 1980). Death therefore, is considered to be liberation from the jaws of this problem-ridden and restless world. For those who live a good life, it is a bliss that marks the departure of the immortal soul to its real home (the land of the ancestors). Those who live bad lives will also receive the recompense of their iniquities by being excluded from the world of the ancestors, thereby losing their personal immortality (Wiredu, 1992). The sacredness of death is expressed in the elaborate rituals and piety that accompanies burial practices (Kanu 2015a&b; M'passou in Cox, 1998; Mbiti, 1980). As such, death does not mark the cessation of life, but a transition to the afterlife, where the dead shed off bodily encumbrances for a purely spiritual body and life as ancestors (Uduigwomen, 2004). These ancestors (living dead) do not cut of links with those on earth; there is continuity of relationship and interaction (Tempels, 1959). As such, through several rituals, sacrifices, and obeisance, the living can communicate with and seek the

patronage and protection of the ancestors (Gyekye, 1987). The ancestors in turn, can also reach out to the living through visions, dreams, and omens (Baloyi & Makobe-Rabothata, 2014).

Anthropoholism: African Physico-Spiritual Ecology

Stretching further from the discourse above, the African position on the connection that exists between the physical and spiritual forces that embodies man's reality does not exist among humans alone. It transcends humans and ancestors to include all non-human animals, plants, and every other inanimate object in the universe (Edwards, 2015). In the African worldview, everything is interrelated and interconnected (Behrens, 2010). Regarding this view, Austine Okwu (1979: 19) notes that:

> The foundation of most African value systems, thought patterns, and general attitudes to events and phenomena such as life, disease, and death is the belief in the unity of creation, in other words, the absence of any mental demarcation between the spiritual and the human, animate and inanimate. Thus, the notion of reality is not limited to that which one sees and touches. Consequently, the members of the supernatural world are regarded as an integral part of the material world… The notion of the unity of being connotes also that all things exist in cosmic order and harmony.

Describing this holistic worldview, Steyne Philip (1990: 58) notes that:

> The world interacts with itself. The sky, the spirits, the earth, the physical world, the living and the deceased all act, interact and react in consort. One works on the other and one part can't exist nor be explained without the other. The universe, the spirit world and man are all part of the same fabric. Each needs the other to activate it.

And so, faced with the question of man's relationship with this holistic worldview, he stands face to face with the physical, the material, and the spiritual expressions of reality. Man interacts with this organic whole and they in turn reciprocate this gesture. Man feels at one with this reality and according to Steyne (1990: 59), does not draw "distinctions between the physical, material or the spiritual…between the sacred and the profane… the secular and the religious… between his profession and his community responsibilities… they are all knit together in a whole".

Onunwa (1994) further expatiates that the African cosmos can be likened to an isosceles triangle wherein God or the Supreme Being is at the top, the ancestors are at the bottom, and man is at the centre. Kanu concurs that "the primacy of the human being in the African universe is due to the central place he occupies within the universe. The triangular imagery suggests that human beings form a 'microcosm' on which converge the innumerable forces that inhabit the other arms of the universe" (Kanu, 2013). This echoes the perspective of Mbiti (1970: 119):

> African ontology is basically anthropocentric; man is at the very centre of existence, and African peoples see everything else in its relation to this central position of man. God is the explanation of man's origin and sustenance; it is as if God exists for the sake of man. The spirits are ontologically in the mode between God and man; they describe or explain the destiny of man after physical life.

This represents the framework for the anthropoholist understanding of African physico-spiritual ecology. It becomes pertinent at this point to clarify the term "anthropoholism". Anthropoholism consists of two Greek words: "Anthropos", meaning "man/human being" and "holos" which means "whole" (Griffen, 1993). Smuts Jan Christian (1927), who is generally given the credit for the coinage of the term "holism," defines it as a "principle which makes for the origin and progress of wholes in the universe" such that "the whole is greater than the sum of the parts" (Okoro, 2019: 5). Philosophically speaking, the theory implies that "parts of a whole are in intimate interconnection, such that they cannot exist independently of the whole, or cannot be understood without reference to the whole, which is thus regarded as greater than the sum of its parts" (Barney & Perkinson, 2016: 292). Thus, considered from an African perspective, anthropoholism refers to the concept of the cosmos and reality that is interconnected and interdependent, with man at the centre.

Ecologically speaking, this inexorable bond between man and nature, places on man the ginormous burden of responsibility for the sustenance, protection, and preservation of nature (Opoku, 1993). According to Oji (1988: 15), nature here refers to "the visible material world or universe, comprising both living and non-living things, visible and invisible powers, plants and animals, the inanimate and the natural phenomena, like lightning and thunder, all centred around man. The spirit world is all the same, tacitly understood as inclusive in nature" (In Turaki, 2000: 18). This obligation that is thrust upon man is owing to his ontological and

teleological status (Beyers, 2010). Opoku (1993) emphasizes that this represents the contribution of African Traditional Religion for the worldwide concern for the environment. This need for man to protect the environment is due to the following rationalizations: because man depends on it, because of its beauty and life, because of its intrinsic worth, and because of its ontology, history, and complexity (Bassey, 2019).

Cybernetic Immortality and Ecological Imbalance: An African Anthropoholist Perspective

As the posthuman promises and possibilities of cybernetic immortality is gradually gaining acceptance, and people are beginning to fancy themselves living forever in virtual reality, it becomes easy to get carried away with the fantasies and ecstatic thrill of this techno-scientific vision; hence, losing sight of the ecological consequences of this pursuit. Having discussed an African understanding concerning the interrelatedness of life, reality, the cosmos, and man's place in it; what we seek to evince here is to see what plausible sensibility and consciousness can be sieved from African physico-spiritual ecology, to cushion against the potential ecological imbalance that may ensue from transhumanism's extreme ambition of cybernetic immortality.

A fundamental charge that an African anthropoholist ecological mindset would throw against cybernetic immortality, would be framed around the depersonalization of man, and the displacement from his ontological and teleologically ordained role in the nurture, protection and equilibrium of the ecosystem. Cybernetic immortalists conceive of a monolithic worldview that is purely materialistic and functional. As such, what defines man is not any metaphysical or spiritual mumbo jumbo. For them, personhood is the sum of all information that is stored in the brain, which can be realized in cyberspace. On the other hand, Africans have an understanding of man that is both metaphysically and relationally defined. This includes his ability for ratiocination. As such, he sees the cosmic order through the dualistic prism of the spiritual and physical (but connected and interdependent on each other). Therefore, since man embodies both dimensions of the physical and spiritual, he stands as the central figure to mediate the traffic and balance between both realms. Hence, what cybernetic immortality does is that it strips man of his essential metaphysical nature, leaving a carcass of hard matter that is hardly recognizable even to himself. Man loses his place at the centre of the universe and the other parts can longer rapport in convivial harmony. While it is a truism

that that man is responsible for much of the environmental challenges today, it is still up to him to seek redress and restore the balance. And so, if the caretaker of the environment (man) gets compromised, the resultant effect will be unprecedented ecological crisis.

A second charge against cybernetic immortality will be that it bifurcates reality into it constituent parts, destroying that seamless unity that exist in the universe among the physical, the spiritual, man, non-human animals, plants, and inanimate objects. Cybernetic immortality denies the spiritual dimensions of man and the universe, traps the essence of man in his brain, and inadvertently conceive of everything in nature as a mere means for realizing man's selfish ambitions. This is diametrically opposed to the African worldview which embraces a metaphysical undercurrent to the physical, and sees the constitutive parts of both realities in a unified macrocosm. This forms the basis of her bioconservative poise towards the environment. For the African, to break these relational links, as the cyber immortalist does, will cause the individual parts of the earth to see themselves as antigens and antibodies in a cataclysmic macrocosm; gunning for domination through manipulation, exploitation, and intimidation, rather than amiable exploration and cooperation towards a teleological end. This will breed brute rivalry and an unhealthy level of competition between the biotic and abiotic factors of the ecosystem. It becomes a fierce battle for supremacy and dominance, and the survival of the fittest; with the individual parts eating into themselves. In the end, man suffers, nature suffers, and spirits also suffer.

Another issue that may be raised against cybernetic immortality is its subtle consideration of biological life and nature as a limitation to be escaped from. Though rarely explicitly stated, this underlying grievance against the human body and nature, as though it were an incurable disease, informs the cyber immortalist's drive to find a cure (i.e. to leave the human body and natural environment and become avatars in a digital environment). They believe that this is the only solution to breaking free from the limitations of space, time, disease, ignorance, suffering, and death. But how do we react to diseases? Yes! We hate them and fight them like we would an infernal foe. Such an attitude towards the natural environment will lead to an aggressive exploitation of the earth's resources to achieve this goal; leading to an eventual abandonment of nature. In reaction to this possible outcome, it is as if I could already hear the conservative African bewailing, "Who would take care of mother earth?" "Who owns those who live in this alternate virtuaverse- the company that owns the

server or the entities in the server?" "Are those copies of me in cyberspace really me?" These and many more similar contentions will make the African anthropoholist, rather stick to his biological body and strive to maintain his primeval duty of maintaining harmony and balance in the universe.

Furthermore, cybernetic immortalists seem to superimpose the artificial over the natural in a parasitic manner. This gradation begins with artificially complementing body parts; then the body is eventually abandoned for synthetic or silicone bodies; then we finally end up as software in a computer! The African anthropoholist would contend that this mindset would lead to a slippery slope error that would include the annihilation of the natural environment as we know it. Africans believe that artificiality ought not to take the place of the natural. At best, they can both work together in a symbiotic relationship to maximize life's possibilities.

This last point to be raised is in regards to morality and the meaning of life. Cybernetic immortality conceive of evil materially; hence, the need to do away with that material (i.e. the human body and the natural world). However, the African sees evil as an exercise of freewill and a thermometer for measuring the moral temperature of a person. Thus, while the cybernetic immortalist is consumed with the desire of living forever, the African is worried whether this will deal with the evil concupiscence in man. If the same evil persons we live with in this natural environment will retain their evil nature in a virtual reality, what then will be the desirability of living eternally with them? What will be the moral status of cyber immortals? The promise of living forever therefore, does not even solve the fundamental problem of evil and the ultimate meaning of life, it rather complicates it. Death and the cycle of life is considered by the African as nature's way of maintaining balance, renewing the freshness her beauty and substance; and cushioning against overpopulation and undue pressure on her limited resources. Supposing we could achieve digital immortality via silicone bodies, we would then have to deal with the greater problem of an ever growing human population (having the freewill for good or evil; that is if man's freedom is not taken away by mind engineering), on a static universe with limited resources. The environmental consequences of what I would rather call a dystopia, are only better imagined.

Conclusion

Does this bioconservative approach to the techno-progressive drive of transhumanism, negate altogether the need for technology and artificiality?

Judging how much Africa has embraced technological trends and how it has aided in improving her standard of living, it is nearly impossible to answer in the affirmative. Rather, insights from her ecological worldview would encourage man's use of technology, within reasonable limits that maximizes man's exploration of all of nature's resources at his disposal; while also maintaining man's personality, and the integrity of the harmony among all the agents and factors in the ecosystem in their rightful place. It is also worthy of note that there are several transhumanist propositions that are compatible and even encouraged within the African worldview. Areas of compatibility, and what particular paradigms, possibilities, and projects are tenable within the African mindset could be engaging areas for further research.

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