

The Pitfalls of Techno-Scientific Ideology and the Igbo Notion of Akonucheism

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ABSTRACT: Since the last century, the techno-scientific enterprise has championed innovations that propel much progress in man's domination and mastery of his environment. But this has not been without a concomitant increase in a worldview, which products heighten the probability of human extinction such as in wars etcetera. However, it is common knowledge that the fallibility of science, its lack of consideration of metaphysical realities, the controversy surrounding its methods and more importantly, the moral lacunae which characterize this epistemic enterprise, all refute the narrative that surround the ideology of techno-science. Yet, the rhetoric and ideologization projecting its "almighty" status as a repository of all knowledge and answers to man's indeterminate situations and problems rage on and these smacks of a naïve and solipsistic epistemology. It is against this backdrop that this paper examines the pitfalls of the techno-scientific ideology against the Igbo notion of akonucheism. Our proposed notion recognizes the values in our culture/tradition and through its fusion with the merits of the techno-scientific endeavor, it produces relevant knowledge that is domesticated for problem solving purposes.

KEYWORD: Techno-science, Domestication, Ideology, Epistemology and Akonucheism.

Introduction

The cognitive and ethical competencies of the techno-scientific enterprise have historically provoked much critical polemics though their pragmatic merits are simultaneously beyond doubt. Science which claims to have freed man from an ideologically petrified universe has unfortunately and in our age, become another ideology if not a dogma and this is chiefly because of the snag in its method of induction, which is bedeviled by uncertain inferences and probabilities. Yet, its application (technology) serves pragmatic purposes thereby giving credence and a quantum of justification to the techno-scientific enterprise. The term techno-scientific ideology, a fusion of three words namely: technology, science and ideology refer to the instrumentalization of scientific epistemology yet their individual meanings and approaches may sometimes differ when separated. The word, technology etymologically derives from the Greek – *techne*, hence, *The Cambridge Dictionary of Philosophy*, has *techne* as a human skill based on general principles and capable of being taught (2015, p. 07). This definition which emphasizes practical application of general principles generated by and characteristic of science is likened to the practice of crafts and skills like carpentry, welding, engineering services and others.

These afore-stated general principles are the meeting points of science and technology. They represent the bond connecting the two concepts while ideology is the rhetoric of its operation. The best symbol for this relationship is that which exists between theory and practice. Scientific findings are therefore applied and

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implemented through technology. Techno-science therefore is to be understood in the context of this paper as referring to the application of technological skill and knowledge gained scientifically in the search for solution to man's innumerable problems (Ihejirika, 2013, p. 84). In any case, the term *akonucheism* is a coinage which derives from Igbo words for intelligence and thought – *ako* or *izu*. Ihejirika (2016) defines it as the use of intelligent thought, which entails the pragmatic integration of the positive elements found in the moral charter (culture/tradition) of the Igbo people of Nigeria with acquired techno-scientific learning and knowledge. This notion is compared with techno-science which takes its offshoot from science (p. 17). On the other hand, science, as a systematic study of knowledge of reality is derived from the Latin word for knowledge, *scientia*. By its references, "science studies the general principles of the material universe. It does not yield indubitable truths rather probabilities" (Ihejirika, 2013, p. 9).

However, our interest in this paper in our references to science is primarily limited to the pure (natural) sciences such as physics, biology, chemistry and their related disciplines. These pure sciences share the foundational commonality of causality. The causal principle is evident in science whether through deduction and induction. The general scientific assumption is that events in the cosmos are caused and that by man's understanding of these causes, he is better able to control, improve and make the world more habitable and conducive for humanity. Consequently, science and even techno-science pride themselves as the repository of all answers to man's innumerable problems while more often than not, looking down on other disciplines.

The foregoing beliefs constitute the ideological basis for techno-science as a discipline and its application, technology. What then is Ideology? The history surrounding the term ideology reveals that it embodies and symbolizes false consciousness. Hart (2002) reports that Antoine Destutt de Tracy in 1796 coined this term, which was adopted by Karl Marx in his *Communist Manifesto*. Ideology therefore denotes a false consciousness shared by the members of a social class. A techno-scientific ideology by the foregoing definition, is a false or dubitable consciousness which is bereft of epistemic justification. The general nature of ideology is that it is a shared belief. Such shared beliefs may be used on certain premises that may not be both absolutely certain hence, it may entail dogmatism. As a result of this, questions bordering on techno-scientific rationality prop up daily in epistemological discourses. The techno-scientific ideology has become a movement with a world view that is reverberated through the fabric of modern-day lifestyles and as an offshoot of post-modernism. This ideology exaggerates the potentials of science and technology and gives it a special albeit, an almighty status in the advancement and survival of humanity.

Our study therefore examines this purported almighty status and the exaltation of the techno-scientific ideology. The researcher attempts to find out what constitutes the nature of techno-scientific ideology and further takes a critical look at techno-science in order to determine if it can offer humanity the indubitable knowledge of philosophical quests. However, if techno-science at its best terminates in the provision of skewed and probable knowledge system that overlooks metaphysical realities and even at times, destroy the very humanity it seeks to protect by its products, would it not amount to epistemological naivety to stake our lives on such techno-scientific probabilities with its problems of method, non-ethical considerations, her projection of the empirical and its illusionary fallibilism? Howbeit, it is obvious that techno-science has historically improved both human and animate lives yet, it is also glaring that products of the techno-scientific ideology in warfare, its production of synthetic foods in agriculture and the latter's ceding of the ontological position of man on earth to artificial intelligent robots (just to mention but a few) are evidences that this ideology is fast stifling life out of the very humanity it seeks to improve. The foregoing situation has prompted this study. The author at the end of this research proposes the Igbo notion of *akonucheism*, this notion creates an epistemic balance by integrating the positive elements in the techno-scientific approach (to knowing and doing) with the rich moral elements and values in our cultures and mores (which constitute our folk wisdom). This fusion in *akonucheism* complementarily gives techno-science a human and humane face

through the domesticated and depositional knowledge (wisdom) that issue from *ako na uche*, (thought and thinking).

Materials and Methods

This qualitative research adopts the analytical and hermeneutical methods of enquiry. The words couching our topic are analyzed in order to bring out their contextual meanings in our work. Similarly, the hermeneutical method helped us to interpret the meanings of the Igbo notion of *akonucheism* and other terms and concepts that constitute that notion. This is done to engender understanding by a foreigner to the Igbo Language and syntax. In any case, the Igbos are one of the three dominant tribes of Nigeria, a West African country. In this study therefore, the researcher labored to consult both primary and secondary materials consisting of books, dissertations, journals and web materials dealing specifically on both science and technology including the Igbo notion of *akonucheism*.

Results and Discussion

The Nature of Techno-science as an Ideology

Science in its operation and practice poses as the ultimate knowledge and explanations of all physical phenomena and projects its successes, worldviews and associated technologies as a practical expression of the merits of the discipline. This presupposition of the scientific endeavors as well as techno-science is to a large extent disturbing. Regarding this presupposition of science, Kalu (2018) asks: “if science justifies through explanation (testing) of natural phenomena,... are natural phenomena the only reality? Are there no other areas of which science is incompetent to explain? Can science justify the base upon which it thrives? Can science justify some of its assumptions (that are) taken for granted or the method it uses?” (pp. 80-81).

If science cannot answer the foregoing questions in affirmative, then for her as a discipline to preserve its rationality, it requires some basic principles. These principles are namely, the pre-suppositions which must necessarily anchor on metaphysics thereby accepting Hume’s conclusion concerning the logical and empirical improbability of uniformity.

The term scientific method should be parochially understood in this paper as relating to the use of experimentation by scientists in their discoveries rather than a representation of an attitude of mind. This attitude of the mind has to do with the presumptions of science. Kanu paraphrasing Ratzsch (1986) has these presumptions as namely: that all sciences are guilty of the assumption that there is uniformity in nature; that nature is understandable; predictable and that scientific results are reproducible (pp. 81). This is what is called scientific faith, which is faith in the universalibility and stability of nature. It is however not a new belief about science since it is traceable to the Ancient Greeks, who held that the observable patterns in nature are pathways to understanding unobservable process. Besides, there is also the assumption that scientific finds are objective, rational and empirically established. These mere assumptions are responsible for the much-trumpeted faith in science and its application namely, technology. Accordingly, science as an ideology approximates a modern-day perception-altering drug with an exaggerated relevance. However, as Feyerabend (1975) rightly observes,

The reason for this special treatment of science is, of course our fairy-tale (the myth of method); if science has found a method that turns ideological contaminated ideas into true and useful theories, then it is indeed not mere ideology, but an objective measure of all ideologies. It is then not subjected to the demand for a separation between state and ideology. But the fairy-tale is false,... There is no special method that guarantees or makes it probable. Science (and by extension, techno-science-addition mine) prevails but because the vote has been rigged in its favor, we are told that the apostles of science were more determined conquerors and that they materially suppressed the bearers of alternative cultures. (pp. 37).

In any case, we cannot deny the achievements of the techno-scientific endeavor which has led to the ease of life. Mason (1961) as far back as his milieu, gives us the catalogue of the achievements of technology to include: “the wearing of trousers, instead of toga, the use of butter, instead of olive oil and the making of barrels and tubs”. One can only imagine what a present catalogue of the achievements of science and technology could look like in the 21st century. But the history of techno-scientific enterprise bears witnesses that no sooner had it gathered momentum than it did force man to fit his values and life to the rhythm of machines” (pp. 103). More recently, the pace at which artificial intelligence is forcing man out of relevance for example, the development of a computer software by name ChatGPT and its likes, which now has the ability of writing better than men hence, the fear of these innovations rendering man redundant. Regarding the development of science and technology, Man as Ijiomah puts it has “started to lose his human quality for his human quantity” (1996, p. ii).

However, it is the utilitarian element in techno-science that makes it universally attractive since it leads in the achievement of practical solutions. Technology, being an offshoot of the scientific endeavor heavily relies on the outcomes of scientific researches as a determinant factor to its own direction. Techno-scientific ideology has among other advantages improved lives, led to the production of insecticides, herbicides; fungicides and greater yield in crops beside glorious medical-science breakthroughs; efficient communication systems used for domestic and international business transactions; effective weaponry for warfare etcetera. In fact, it is almost impossible to give a catalogue of its products and their benefits.

Regrettably, techno-science exposes humanity to live under the uncertainties of a biological and nuclear war. Lately, inventions of science and technology like robots and other associated artificial intelligent products, are increasingly causing unemployment and the most recent attempt by scientists, to genetically engineer crops to clone themselves constitutes a mockery of the ontological status of man. These tendencies of the techno-scientific ideology and products is sounding enough warning for humanity to tame this discipline before it terminates life on earth. The fact that this ideology is also riddled with much axiomazation and suffers a helpless tentative malady in the knowledge it issues, is another reason we cannot ascribe the possession of the truth (that is consistent in its entirety to reality) to it. Besides, the claim of the techno-scientific ideology that legitimate human knowledge must be validated on the basis of sensory observation (on which science relies) also sounds dogmatic and represents the logical positivists’ misconception criterion to knowledge. Ozumba, therefore enthuses that “the spirit of critical and validated enquiry rather belongs to philosophy, which is characteristically clothed with objectivity, repeatability, systematicity and practical creativity, thereby complimenting science” (1995, p. 12).

If, the techno-scientific ideology offers humanity no laboratory to investigate human experience and cultural systems in order to discern right from wrong or good from bad, then, we need not be deceived by the practical help-life aspects and products of the techno-scientific ideology. Idachaba and Ogba (2014) therefore warn that “modern science is no longer ultimate wisdom. Post modern plurality appears to have overtaken it...Trans modern pluri-varsality is on stage now and Africa has a lot of space on that stage” (pp. 21-60).

It is therefore of no use for us to over-flog the need to domesticate techno-science, defrocking her of her peacock-like pride through a comparison with an Igbo epistemic notion which complementarily integrates or better put, combines the benefits of techno-scientific worldview with folk wisdom. Cognizant of the need for the associated moral and ethical elements in our foregoing proposed epistemic system, which engenders the creation of a humane atmosphere that maintains man’s ontological status and the preservation of his culture and environment, we now embark on the search for a paradigm shift and find the notion that does exactly the afore-stated in our notion of *akonucheism*.

This Igbo and by extension, African notion of knowledge cures techno-science of its seeming value-free malady but garbs her with an appreciable moral panoply, which is life-preserving and society advancing. The

notion of *akonucheism* neither procures human welfare, cultural values and human personhood at the detriment of techno-science nor protects the latter's interests against the ethical foundation of things.

The Notion of *Akonucheism*: Meaning and Nature

This term, *akonucheism* first appeared in an unpublished doctorate dissertation of the Department of Philosophy, University of Port-Harcourt titled "John Dewey's Instrumentalism: A critique". In this work, Ihejirika (2016) used this term to describe the pragmatic integration of the positive elements found in the moral charter (culture) of the Igbo people of Nigeria with acquired sciento-technological learning, knowledge, and skill (*anumanu* and *nka na uzu*) in order to produce problem-solving and domesticated knowledge (here styled, wisdom-*amamihe*) (pp. 181-184). Being a coinage from the Igbo words for intelligence and thought (*ako* or *izu* and *uche*), *akonucheism* best describes the Igbo epistemic circle, which embodies the concepts that co-relate to produce contextually domesticated pertinent and relevant knowledge which solves existential problems.

In Igbo worldview, it is in the correlation of the concepts of *ako* (intelligence), *amamihe* and *uche* or *echiche* (Thought or Thinking) that we find the real nature of Igbo epistemology or better put, what the Igbos mean by 'knowing' or still what Pierce (1995) calls 'fixing of belief'. This idea was first partially but differently espoused by Ijiomah in his pamphlet, *HUMANIZING EPISTEMOLOGY* published in 1996.

In the Igbo enclave, knowledge is considered as the moral application of tact (*adeko*) working in the receptable of thought or thinking (*uche* or *echiche*) to produce the relevant knowledge (*amamaihe* – wisdom) which is domesticated to resolve human problems (*nmekpahu*) or challenges (*ihe imaka nihi*). Therefore, as long as man's existential realities show constant challenges, knowledge in this context gets updated to meet emerging challenges and the needs of the people. Similar to the techno-scientific ideology, knowledge unceasingly gets revised hence, Ihejirika (2023) tells us that knowledge among the Igbos becomes a potentiality that finds its full weight, purpose and value in actualization. This actualization however must be such that is morally guided and life-protecting so that the ethical wealth in Igbo culture and by extension, African cultures is retained (p. 120).

The wise man among the Igbos is therefore the pragmatic one, who has the ability to apply his techno-scientific knowledge in fusion with his folk wisdom and mastery of his culture to solve indeterminate situations or problems. Knowledge here metamorphizes into wisdom and represents a disposition demonstrated behaviorally in a manner that is favorable to human welfare or the solution of human problems while protecting the lesser animate, plants and the inanimate in our environment. The wise man, who is morally sound and understands the foregoing alongside the mastery of Igbo culture is the man with the relevant and domesticated knowledge which is styled in this paper as *akonucheism*.

However, my description of Igbo epistemic circle in this paper, is not aimed at promoting any particularistic view of Africans or projection of a parochial Afro-centric ideology in a world which is now a global hamlet. There is no doubt that the positive impact of techno-scientism through information technology has brought about the cross-hybridization of cultures in today's world thereby affecting cultural epistemologies. In consequence, any projection of a culturally distinctive epistemology will expectedly face some harsh criticism if such notion lacks universality. Yet, the truth remains that it is our peculiarities that give us our unique cultural identities as persons or communities. In any case, our understanding of culture in this work agrees with Udoidem's position, "where culture assumes new meaning and ceases to be a celebration of the past ways of life-a misconstrued notion which makes culture to be something static and belonging to a past that no longer has any practical relevance to lived life or present-day concerns" (1992, p. 04).

A cursory examination of our notion of *akonucheism* reveals the following: (i) That this notion of knowledge is the moral application of intelligent thought to produce domesticated and relevant knowledge (wisdom),

which is primarily employed for problem-solving purposes. (ii) That similar to all humanistic notions, our *akonucheism* upholds the understanding that the universe and all in it evolves but unlike other secular humanistic ideologies, it is neither non-theistic nor is it strictly founded on naturalism. The reason is that Africans being incurably religious, find an instrumentalist postulate (such as the techno-scientific ideology), which is totally opposed to humanistic ideals in its entirety, very strange and that accounts for the low scientific temper among some Africans.

Again, the overemphasis of the empirical scientific method (if science qualifies to be seen as thoroughly empirical) over and above humane moral and religious interests is adjudged erroneous. (iii) Our *akonucheism* notion has a place for metaphysical realities such as God hence, it holds that even the inner voice conscience (when not both properly and morally conscious and God-centered), becomes seared. (iv) Our notion also reveals that the wise application of *ako* and *amumanu* takes into cognizance that man is not only on earth by chance. Hence, it could be said that our notion of *akonucheism* upholds creationism in tandem with Africans' cultural.

Additionally, it respects and sympathizes with non-living things and the environment as creatures of *Chi-Ukwu* (The Big and Sovereign God) hence, it is eco-friendly. Summarily put, the *akonucheism* notion is an approach to knowledge that combines the western techno-scientific paradigm with African-Igbo knowledge system thereby creating an integration that comfortably accommodates theistic humanism with techno-scientific ideologies to achieve almost the impossible. *Akonucheism* through its dynamism refines native or folk intelligence and all that is embedded therein. It also fuses this folk wisdom with learnt skills and scientific knowledge to produce solutions to human challenges.

Conclusion

We have so far in this paper, attempted a comparative examination of the techno-scientific ideology against the Igbo notion of *akonucheism*. We exposed the false consciousness spread by the techno-scientific ideology by its tendencies to interpret an aspect of reality as representing the whole, its overemphasis of the scientific method, the partial neglect of both the moral dimensions of man (generic) and the place of metaphysical realities in a balanced understanding of lived life. Having identified some weaknesses of the techno-scientific ideology, we proceeded to identify its relevance and the ease its products have brought to life. Our research also explored the benefits of the notion of *akonucheism* towards a comprehensive understanding of reality. Having compared both epistemic approaches, we rounded off our study by adopting an integrative method in a further search for solutions or man's quest to resolve indeterminate situations of life. We therefore discover in our *akonucheism* notion, a knowledge system that recognizes that due to the unending nature of problems and challenges (*nmekpahu* or *iheimakanihu*) and the different phases of their manifestations within a lived spacio-temporal arrangement, that the quest for knowledge and search for solutions (research) are unending. Though the solutions sought may vary but they ought all be crafted with a mindset that is conscious of the moral, metaphysical and ethical aspects of humanity without downplaying the fact that the pragmatic techno-scientific epistemology (not as an ideology) is part and parcel of that search for solutions.

This notion therefore provides us with a framework that is self-reconstructing and therefore, not absolute rather, so open to revisions. That way, our notion is well guided to be universally applicable and to yield universally acceptable results. Though its results may be relative, in the sense that it recognizes ethical relativism, but it only does so in order to fend off individualism and solipsism. *Akonucheism* therefore agrees with Ijiomah's conviction that it is at the point of moralizing of human being that a full circuit of knowledge is completed (1996, pp. 18-21). This is the reason any learning or educational programme (*amumanu*) or acquired technology or skill (*nka na uzu*) which fails to produce a morally acceptable solution to human problems (*nmekpahu*) and in keeping with the ethical values and worldviews of the people as couched in their culture, is considered useless and condemnable. Knowledge, considered from the *akonucheism* perspective,

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gets redefined in the techno-scientific sense and must be both life-affirming and transforming. If then, the search for humanity's solutions to indeterminate situations must be reasonably undertaken, this search as a prerequisite, must not be limited to a singular method. Else, we will be building a civilization which suffers from the disease of epistemic naivety. This could be the reason Feyerabend conceived science as but one ideology among many (Feyerabend 1975, p. 40, qtd.in Newton-Smith 1981, p. 144).

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