

**SUPREMACY OF THE ARTS/HUMANITIES OVER SCIENCE AND
TECHNOLOGY IN NATIONAL DEVELOPMENT**

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Abstract

The question is: Can the Arts/Humanities bake bread as Science and Technology? The peripheral nature of the Arts/Humanities in terms of the economic, scientific, managerial and technological development of nations is occasioned by human greed subsumed in knowledge-misplacement of experience over reason. The work adopts the method of philosophy, preferably that of philosophical dialectics imbued with analysis. Research findings revealed that the Arts/Humanities maintain prima-facie position in all aspects of human epistemic projections, notwithstanding the epistemic bias for science and technology. While science and technology have advanced in the direction of wider acceptance and rich public prestige and publicity, there remain questions which the computer (technology) cannot answer even with the vast technological advancement. Humankind has achieved a lot more with the computer, yet it cannot effect a psychological treatment of the human mind. This shows that technology is deficient in some areas. Science has greatly advanced in terms of invention/discovery; but it has not been able to discover the abstract nature of God, death, hunger and destruction or even *explain explanation* as Kant would say. Where science and technology stop, the Arts/Humanities take off. That is the cutting edge between the Arts/Humanities over Science and Technology in national development.

Keywords: Arts, Humanities, National development, Science, Supremacy, Technology.

Introduction

Science and technology are two fundamental phenomena driving development. Globally, countries invest in these two aspects. They reap tremendous benefits which aim at adding

value to culture, man and society. Huge investments in this direction have caused some countries in the world to be classified or characterized as developed. Such countries have derived the benefits of investment in science and technology and converted same into massive wealth of influence. Countries with advanced development in this area have become the global master-architects of politics, economics and morality. Through science and technology, countries in the world have been classified as advanced (developed) and underdeveloped, respectively. The bulk of the developed countries are those whose value contents in scientific and ethnological advancement have practically been transformed through knowledge application. The underdeveloped countries are those lacking in the transformation of their value contents while adopting the scientific and technological knowledge. Nigeria and other third world countries are in this category of underdeveloped; reasons being partly that most of these third world countries have been unable to transcend the realm of science to that of technology. Moreover, these countries lack basic foundation in science and technology but are able to appreciate the Arts and Humanities. And for that matter, the Arts and Humanities cannot bake bread for rapid development and transformation as Science and Technology.

Our aim in this work is to ask whether Science and Technology have been able to provide the answers of life and existence that would liberate humanity from the pangs of sorrows and death, even with its acclaimed superior achievements over the Arts and Humanities. Science and technology are seen as the servant of the highest good, and deemed to be superior to the Arts/Humanities. They are described by their defenders as agents of truth. But how much truth do these phenomena give over the Arts/Humanities is left to be determined. The researchers in this piece of work adopted the philosophical approach and focus for analysis of the topic.

Methodology

The methodology of a work involves all the methods/approaches adopted in a work as this. This work adopts the method of philosophy, preferably that of philosophical dialectics imbued with analysis. The reason revolves around the fact of the work as a qualitative rather than quantitative research. The researchers' grounded approach follows a sceptical concern regarding the exalted position of priority and leadership given to Science and Technology over and above the Arts/Humanities. This sceptical technique via philosophical analysis has the goal of x-raying the supremacy of the Arts/Humanities over Science and Technology.

Theoretical Findings and Discussion

History reveals that theoretical studies can sometimes lead to what Alexander Lenz of the Institute for Practical Physics Phenomenology at Durham University called "amazing

changes” in the epistemic realm. This can also attest to the fact that our modern society rests on key pillars of discovery, ranging from computers to satellite communication systems, which were hitherto based on theoretical postulations. When Albert Einstein predicted gravitational waves over a century ago, which are said to be the foundation of the Big Bang Theory, presupposing the beginning of time and space, it was based more on theoretical postulation premised on predictions or intellectual investigation which had no practical application at that moment.

Although our knowledge-driven society always queries why we should give attention to, or care about, theoretical matters that have no practical impact on the human environment, theory is at the base of every postulation. Again, when Quantum Mechanics was developed over a century ago by Werner Heisenberg and Erwin Schrodinger, it was purely some theoretical theme developed to give humanity an understanding about certain properties of atoms. These early authors were driven solely by the zeal and quest to understand what the composition of the world is. The effects of this theory to society were understood to be philosophical rather than practical in nature.

Thus, in a piece of work as this, theoretical findings cannot be overemphasized. Our findings reveal that the supremacy of the Arts/Humanities over Science and Technology depicts fundamental evidence that the eventual applications of science and technology in modern and contemporary times would not have had direct benefits to humanity without the fundamental theoretical foundations of the Arts/Humanities in our complex but competitive research-driven world. Again, when we engage in big research projects in higher institutions of learning, we receive such education at the highest existing technical level where knowledge moves first, theoretically, at the intellectual level of understanding, while creating impact on the mind concepts that become meaningful for practical use. Research findings in this work, therefore, reveal that the Arts/Humanities maintain prima-facie position in all aspects of human epistemic projections, notwithstanding the epistemic bias for science and technology.

Reasons for Science and Technology

When the researchers contacted the flier of the FAHSANU, at the University of Calabar International Conference 2018, with the broad theme, “The Arts/Humanities: past, present and future,” in relation to the contribution of these disciplines to national development, as regards what science and technology had achieved in terms of human and national development, they asked, “what are the reasons for such applause given to science and technology over and above the Arts/Humanities”? A fundamental concern is that science and technology, in all ramifications, are human activities, and equally address themselves

to the natural world. Granted that human civilization has a well of knowledge that is deeply and readily rooted in the scientific enterprise about how to understand and govern human activities. The argument states that science and technology have been able to provide mankind with the surest way possible and ground for governing the knowledge of human nature and human affairs which is not itself scientific. Furthermore, it is argued that science and technology are responsible for the life improvement occasioned by modern European civilization.

Great civilizations of the ancient past developed and achieved high level of technologies but without much a conception of science as it is today. Ancient civilizations such as Egypt, Mesopotamia, India and the Hebrews or Jews were responsible for this. But the Greeks on their part, created a system of thought that was similar to the scientific model. From that crude stage, the western world today has continued to enjoy progress and development in modern science for over 600 years now. The great, pervasive and influential power of science and technology is observed without doubt. Its effect is acknowledged in all aspects of life even to its very recent development.

History of science, specifically modern science, tells that science was “launched in the seventeenth century out of frustration” granted by the barren ideas of European universities at the time. Notwithstanding the frustration, it is recorded that the enterprise of science “aimed at improving the condition of the human race, relieving suffering, enhancing health and enriching life.”

For Francis Bacon, according to Levin, “Man is in need of relief because he is oppressed by nature at every turn,” but “knowledge driven solely by a natural curiosity and inquisitive appetite, would be misguided and inadequate.” Thus, science was “sought to master nature” in order to “ease suffering and empower humanity to act with greater freedom” (2006:32-46).

For Rene Descartes, another mentor of modern science, in his *Discourse on Method*, Science’s aim was not for neutral knowledge “or the creation of frivolous mechanical toys” it is mainly to conserve health, being the first good and the ground for all other goods of this life. Research has proven that how humans live depends a lot on what they strive for. As such, the scientific and technological world bears a profound and powerful influence on what humans understand to be the proper purpose of life, whereas the power and success of scientific reasoning has cause to shape human thinking more generally.

Science and technology see human health not only as a foundation for its progress but also as a principal goal and an end as well. This teleological end is to bring relief and preserve

humans from disease and pain, from misery and necessity, while defining human actions, and to that effect, human societies. Levin, arguing in support of modern science against the charge of science being morally neutral, cited the Arts as saying: just as political communities were necessary for the fulfilment of man's nature to seek justice through reason and speech, science is driven by a morally profound purpose, which guides, shapes, and directs the scientific enterprise. Pressing further for the purpose which science and technology (science's handmaid) thrive, Levin said:

Avoiding the worst, rather than achieving the best, is the great goal of the moderns, even if we have done a very good job of gilding our gloom with all manner of ornament to avoid becoming jaded and corrupted by a way of life directed most fundamentally to the avoidance of death. We have gilded it, above all, with the language of progress and hope when, in fact, no human way of life has ever been more profoundly motivated by fear than our modern science driven way. Our unique answer to fear, however, is not courage but *techne*, and so our fear does not debilitate us, but rather it moves us to act, and especially to pursue scientific discovery and technological advance (2006).

From the passage above, the great goal of modern science was to avoid the worst for mankind, by making the natural world to continue to expand. So defined, mankind has conceded to its authority so vastly, while it has left humanity in every nation of the world to increasingly become powerless to decide how best to appreciate the Arts/Humanities, as equal servants, in the provision of health, relieving of human suffering, enriching life and granting freedom.

In developing nations like Nigeria, which is begging to catch up with the scientific and technological progress of Europe far back from the 17th century, we ceded to science and technology the authority as the master of knowledge. This weakens our allegiance to other sources of knowledge and wisdom which are crucial to human self understanding and self government. Indeed, exceptional emphasis is on science and technology above the Arts/Humanities. Money for staff and students' development (in terms of human capital), for instance, the Education sector in Nigeria, meets a higher demand for Science and Technology-based disciplines. Whereas a staff member or student in the science-based disciplines received over five hundred thousand naira to one million naira for study fellowship, those in the Art/Humanities receive between three hundred and fifty thousand naira to seven hundred thousand naira only. The reason is, science and technology will lead Nigeria to great strides and national development. The question remains (yet unanswered by science and technology): whether both have been able to effect a psychological treatment

of the human mind, and also discovered the abstract nature of God, death, hunger and destruction.

Where science and technology start and end, the Arts/Humanities take off from there. This could be likened to what Asouzu addressed as “the authentication of the self through the opposite other.” His view is that “it is the opposite other that provides the conditions for genuine authentication of the self. A basic reason is that the self, “left on its own, becomes solipsistic, monistic and non-differentiated” but self authenticating (2003:121). This informs a relationship where the authentication of the other and awareness of the other is lacking, perhaps deliberately, too. Science and technology have been enthroned supreme to constitute the centre of our Nigerian world, while the system suffers a major setback because the Arts/Humanities have been deprived of their authentic foundation and contribution to national development. The lack of complementarities to the Arts/Humanities in Nigeria’s quest for development had heightened the idea of missing link in the realm of epistemology (Asouzu, 2004:277).

Moral Neutrality of Science and Technology versus Supremacy of the Arts/Humanities

The question of moral neutrality of science and technology remains a fundamental issue that scientists and policy makers in Nigeria’s developmental stride have not yet provided answers to. Science and technology, for whatever good end they stand to achieve, especially in our health and education sectors, must answer the charge of moral neutrality brought against them by the Arts/Humanities. The charge is, science and technology, with all their developmental progress in Nigeria, do not obey the moral imperative of national growth. It states further that science and technology do not care about morality such that their powers are used for bad purposes as good ones. In these regards, there is a moral challenge posed for Nigerians by science, especially modern science and technology. Perhaps, the reason why Udokang in his “The Place of Man in Technocracy (Absolutized Technology),” would ask, “Man and Technology, who controls each other?” (2001).

That is, the tools of these disciplines duly provide us raw power. But it is up to our nation to determine the right ways and procedures to use such power, and to disband the wrong ways. These wrong ways, in Sweitzer’s view, caused the misbalanced view of man as mere matter which has led to the jaundiced monster of civilization in the present state of western life (1961:58). Borrowing President George W. Bush’s view, the researchers are apt to say that “society increasingly empowered by science” must be ready to confront the challenges technology brings, with a view that “mankind is defined not by intelligence alone but by conscience” (McCook, 2006).

The issue is on where intelligence and conscience pull the string of difference between the Arts/Humanities and Science and Technology. How do the Arts/Humanities differ from Science and Technology in terms of national development? They differ in the first instance because they include the study of more than what is empirical. Beyond the empirical, science, with its handmaid, is deficient. Science depends on practical learning. This learning is achieved by doing, according to Northedge. It involves “trying things out, watching others, asking for advice, reflecting on experience, practising, and being there as part of the action”. However, this is not the case with the Arts/Humanities. It is practically impossible to learn history or economic modeling, or of ‘thought’ brain functioning simply by ‘doing’. Can science and technology ‘do’ the Middle Ages by direct experience? Models of the economy and theories of brain function remain products of ‘thought’ and ‘debate’ but not of doing by experience. They are abstract ideas which do not require one to learn them by direct experience (2000:77). Indeed, curiosity belongs to the realm of rationalism. It is the first point of contact of the human mind with the realm of knowing. This is a burning bowl in the mind from which understating comes to terms with the desire to know that which is.

In his “Big Bang Theory” Stephen Hawking, the renowned British theoretical physicist, held that everything, including our universe, was created by the big bang. The theory states that the universe as it is, originated as a prick of a pin or what is called “pinprick,” and then kept expanding, and becoming so vast. It is also recorded that the vastness has taken 13.8 billion years to get the universe to the way it is. While this idea has gained acceptance pretty well, scientists are yet to tell what force is responsible for driving all the growth-years of the universe. Again, the big-bang theory has the shortcoming of not being able to accurately spot the “first dot” of the universe from which the big bang itself and other subsequently emerging substances are derived (*Newsweek*, 2018).

Science with technology, in this case, is an effect and never a cause. And, since it is an effect, it can never cause itself. So, by another, science/technology is produced. That which produces science and technology is first an efficient cause. And where effect (experience) stops, cause (reason) proceeds, takes off, and continues in the quest for ultimate understanding into all reality. This means that there are things beyond the bounds of scientific possibilities. No scientist can know a first efficient cause by experience or empirical formulations. This is because efficient cause itself is not a material substance like a fish to be handled or experimented with; it is that which dwells within the realm and bound of reason. The Arts/Humanities are disciplines that thread the ground of rationalism or reason to define their concepts since efficient cause is conceptual and not material. It takes not an empirical mind but a rational one to go the realm of conceptualizing efficient cause. This is to say, science and technology dwell on the natural methods to propagate knowledge.

But what about the supernatural and beyond methods? Science and technology are like Maria, the twelve-year-old, who could predict certain future events or dangers to others but is unable to predict future events and dangers to herself and not being able to tell her own future (*Awake*, 2017:5).

To the scientist or technologist, what the senses do not have access to does not constitute knowledge in any way or a lack of it. This is a 'Humean Empiricist' objection. But what lies beyond appearance and the sensible is the "real" which is within the domain of the Arts/Humanities.

"The world" in which we live, according to Hamilton, "is a reasonable and comprehensible place." It has definite facts. Mankind has discovered "a number of rules by which the dark and tremendous forces of nature can be made to move so as to further our own purposes". Man's main effort is devoted towards the increase of "power over the outside material of the world." This is the realm of science and technology. But do we dream of questioning the importance of the substance that is responsible for what acts? Reason is the substance and pre-eminent, too. While we cast imagination, search the depths of the universe through the light of the spirit, it is reasoning upon our observations which involve the activity of the mind. It takes the Arts/Humanities to give a comprehensive and rational account of the society we are born into. That is why Paul, in the Holy writs says that "the things that are seen are temporal and the things that are not seen are eternal." The Arts/Humanities, as Paul defined the realm of the Mind with reason, work from the visible world, to "the realm of the spirit that lives by the invisible" (1949:10-11).

Many specific scientific subjects start out as though they have no tangible or objective answers but, upon careful reflection, they do. They start out with primary theoretical enterprise or as the Arts/Humanities, then as soon as they are seen to have aspects and consequences that are observed, tangible, practical, and empirical, they become science or technology and move away from the Arts/Humanities. But why do they not forget the insights derived through the wisdom of the Arts/Humanities? Indeed, it is intellectual reason that fosters creativity for practical reason. It points out to thinking the constricted, narrow and confined areas of confusion and unreason in the mind. Mankind would often refer to creativity in knowledge as the ability of thinking outside the box. That is, if an individual can produce what others can immediately appreciate? But once this is extended to the other side of knowledge-creativity where the non-initiate can no longer appreciate, such idea is considered non-creative, non-inventive, non-original, impracticable, unrealistic, and idealistic. Purely, this is the realm of the Arts/Humanities. Scientists would argue that the Arts/Humanities are not valuable and relevant today because the world of the 21st century and beyond is seen to be driven by information and communication technology.

Nigeria Needs the Arts/Humanities for National Development

There is an apparent neglect of the Arts/Humanities by Nigerians in furtherance of science and technology. The truth is that Nigeria needs these disciplines for national development, since no society had ever attained or achieved greatness without the Arts/Humanities. Reasons adduced by our policy makers for this shift in emphasis for knowledge acquisition from the Arts/Humanities to Science and Technology are that science and technology had taken the lead to offer the key of transformation to our westernization, industrialization, entrepreneurship, self-development and employment, as well as the gateway to localizing globalization.

Is this not a misnomer in the epistemic realm that the neglect of the Arts/Humanities in pursuit of science and technology is leading Nigeria to a society without focus? The reason is that the Arts/Humanities are the custodian of knowledge that delivered the products or raw materials of science and technology. Of course, there are two types of human knowledge. These include: the theoretical and practical knowledge. Putting human knowledge into two is based on the purpose or end of it. In this regard, the end or purpose of theoretical knowledge and the end or purpose of practical knowledge is two-pronged approach. Yet, no one can succeed without the other. For obvious reasons, the development of science and technology in Nigeria will have little meaning without the Arts/Humanities. Whereas science and technology represent practical knowledge, the Arts/Humanities represent theoretical knowledge. Theoretical knowledge, however, is knowledge gained for its own sake and for absolute or complete natural good of making existence. It is the way the human intellect proceeds naturally prior to its ability to do or cause anything. It is the *prima-facie* and first natural position from which the intellect finds its object. The mind moves naturally searching for its object with the assurance of possessing them.

Nigerians need the development of the mind first in this direction before they can embrace any innovation in science and technology, otherwise this will amount to what Professor Wilson referred to as “a well without water” (*UNIUYO News Bulletin*, 2016:6). According to him, Nigeria, as part of “the developing world, erroneously focuses attention on science and technology” forgetting about the tremendous benefits Arts/Humanities knowledge could afford the nation. The inventors of science and technology in the west still pay great attention to the development of the human mindset in order for science and technology to thrive.

For him, the reverse is the case in Africa and, particularly, Nigeria where people have lost touch with the Arts/Humanities because of science and technology “evidenced in killing

human beings” and stifling reason and creativity as the highest order of knowledge by intuition or natural ability. Although science and technology are good for the nation, the extent to which the failures of science and technology have grown, and the good, is a thing of worry which calls for a rethink on reinventing the Arts/Humanities in our schools, colleges and universities, if the quest for rapid national development must be achieved. Much more, a synthesis of both the Arts/Humanities and science and technology is required for recreation in the nation’s strive for development towards the Sustainable Development Goals

Conclusion

Nigerians need the Arts/Humanities as well as they need Science and Technology for national development. Neglect of the Arts/Humanities in favour of Science and Technology is caused by our national greed, subsumed in the misplacement of knowledge. The Arts/Humanities can bring previous knowledge undreamt of in previous generations which does not displace science and technology from their place of pride. Nigeria needs to invest time, money and efforts to recreate both the Arts/Humanities as equal partners in progress with science and technology. A rejection of anyone group of these disciplines in favour of the other is tantamount to a human body without eyes to illuminate the body.

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