

Religion and Philosophy

Tension Between the Scientific and the Magical Worldviews in Africa: A Philosophical Re-appraisal Against the Canvass of Post-Modernism

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Introduction

From the time of African integration into the global systems,¹ the magical and the scientific worldviews in Africa have been in tension. This tension is not peculiar to Africa. It is recorded in nearly every culture and epoch going back as far as the ancient Egyptians, the Chaldeans, and the Hebrews. It became accentuated at the first stirrings of the scientific Worldview with early Greek natural science. The naturalistic accounts of the first recorded early Greek philosophers, Thales and his followers, were in tension with earlier mythical accounts of Homer, Hesiod and Xenophanes.² The main feature of the Hippocratic Corpus³ is that it "...challenged the methods of many physicians who used magic and witchcraft to treat disease. It taught that diseases had natural cause and could therefore be studied and possibly cured according to the workings of nature."⁴ Plutarch, a fifth century Greek biographer recorded an account of prognostication about Pericles. According to the account, a one-horned ram was presented to Pericles as gift. Lampon a fortuneteller divulged this to mean that Pericles would in future rise to become a maximum leader. Anaxagoras, a nature philosopher, demonstrated by opening the skull of the ram that the single horn was of natural cause and foretold nothing. People were excited by his naturalistic demonstration. When, however, much later, Pericles became the maximum leader of Athens for 30 years, Lampon's prognostication was fulfilled and he won the admiration of the people.⁵ The fifteenth and the sixteenth centuries marked the immediate threshold of the birth of modern science. In those centuries, magic flourished and was very popular. To the layman, there was at this period no clear-cut distinction between the magician and the scientist; both of them don the long robe. To the people of this age, the scientist seemed something of a magician, "seeing further into the mysteries of nature than other men, and by means to be understood only by initiates."⁶ Faust, a German astrologer and magician, who became an important legend in literature, is representative of the height magic attained at this period. He so much favoured magic that he was ready to sell his soul to the devil in exchange for magic which he believed has power in the Baconian sense. But there was thin distinction between Faust and Kepler, another German but an astronomer and mathematician. He discovered the three laws of planetary motion, which aided

Newton to arrive at the Principle of Universal Gravitation. Kepler also delved

into astrology. He predicted famine, a peasant uprising and war with the Turks for the year 1595; the three events duly occurred. Even Galileo, deliberately rationalistic and perhaps the greatest advocate of scientific rationality during the modern period, cast horoscopes for his patron, the Grand Duke of Tuscany.

Today magic flourishes in Africa and this is in spite of the fact that it is readily dismissed as irrational and unintelligible. Journals, dailies, and daily experiences attest to it that magic flourishes in Africa. Buttressing this fact Emefie Ikenga Metuh writes “thus divination, fortune-telling and medicine-making services have continued to thrive and its (sic) roles have expanded far beyond the limit of their traditional religious roles. They now flourish in the urban areas where pressure of modern life created crisis situations of a different kind to which they have so far adequately responded.”⁷

Today, more than two decades after Emefie Ikenga metuh made the above observation, magic is still flourishing in Africa. Now the practice is spreading the wide and broad spectrum of the society. Africans of all works of life, class, and social status: politicians, traders, civil servants, students, and even ministers of the major churches believe in and or practice magic. Some diviners, fortunetellers and medicine-men now tend to christianize their art by including the recitation of passages in the Bible as part of their rituals. Kekong Bisong records this novel trend in the practice of magic in Africa thus: “the shift is now towards the healing ministry where the people perceive a continuation of similar roles by the minister.”⁸

It is a fact too obvious to need a proof that the magical worldview is increasing flourishing in Africa. It calls for re-assessment and no other time is as auspicious for this re-assessment as now, the threshold of post-modernism. Before now, African magical world-view had been assessed with scientific conceptual schemes and tools. The result has been to dismiss the magical world-view as irrational and unintelligible, yet it increasingly flourishes. Post-modernism is a condition of radical plurality, particularity, contextuality, and heterogeneity of narratives. This implies that each narrative in post-modernism now appears to possess equal legitimacy and worth. No narrative today claims universal and objective validity. Any such claim is shown to be but a particular point of view. Consequently, no narrative, system, pattern of cognition, way of living, can claim precedence over the other. This means that there cannot be spiritual or cultural oppression or hegemony by any narrative or system. Contextuality is the new test of veracity and genuineness of every narrative. Thus, post-modern categories provide serious check and challenge on any narrative, system, institution, culture, pattern of living, that claims universality, totality or superiority in contemporary society.⁹ This is the fecund openness needed to re-visit the assessment of magical world-view. It is against the canvass of this post-modern condition that we want to re-assess the tension between the scientific and the magical world-views in Africa. Before we do that, however, let us define our key concepts.

Clarification of Key Concepts

World-view: Man is always confronted by his primary or natural environment. He responds to this confrontation. His responses with time crystallize into forms, expressions, beliefs, ideas, myths and superstitions. These put together constitute

what is called world-view. Thus a world-view is a secondary environment which man creates for himself through the process of dialoguing with his primary environment. It is "...fundamentally and essentially a representation of the cosmic order, that is to say, an approximation to the order in nature."¹⁰ It is a perception, a map, a picture of reality. It is a commentary on reality. An essential feature of a world-view is that it is the common property of the community that creates it. T.S.Kuhn has similar views as he writes: a "paradigm" (a world-view) is "... the entire constellation of beliefs, values, techniques, and so on shared by the members of a given community"¹¹ He also asserts the converse a community means adherents to a paradigm; men and women who share a paradigm. Individuals may help create elements that constitute a world-view but once these are appropriated by the community, it becomes a common property of the community. Another salient feature of a world-view, though often imperceptible, is that it is dynamic. A world-view, we have seen, results from elicited responses to the challenges of natural environment. But natural environment constantly undergoes changes and so the response to it.

In sum, a world-view is a framework of beliefs, values, and techniques shared by members of a community. It is a system of a people's basic or fundamental assumptions about life, themselves, and the world around them. It is the canvass against which a people holistically and properly perceive reality or existence. A world-view answers all the questions that a people may care to ask. A world-view may be magical, religious, or scientific. A community may simultaneously hold more than one world-view. In such a situation the world-view will be vying for dominance.

Magical world-view: A magical world-view is a cosmic vision suffused and permeated by forces. It is a world-view with the central organizing conviction that non-physical entities or supernatured forces could be used to bring about physical effects. That is, there is the belief that supernatural forces directly influence events in the life of the individual, the tribe, or the community. Thus, force is the major referent in a magical world-view.

Supernatural forces and the belief that they directly influence physical events constitute man's primary environment in a magical world-view. Man, therefore, seeks to control and manipulate these forces. In doing so he develops magical skills, techniques, and acts that help him to appropriately respond to the confrontations and challenges of this primary environment (a universe of forces). These magical acts and techniques in due course ossify into ready-made rituals that become the secondary environment, the magical world-view. Some of the specialized skills or techniques include magic (witchcraft and wizardry); divination (astrology, horoscope, fortunetelling, spiritism, necromancy, sorcery, and augury); and fetishism (charms, talismans, amulets, mascots). Thus a magical world-view is a framework of ready-made or accumulated sets of ritualistic magical beliefs, forms, techniques or skills by means of which non-physical entities or forces are used to achieve some physical effects.

Magic: This is a special skill in a magical world-view. It could be defined as the occult and ritualistic art of controlling and manipulating the secret forces of nature

or supernatural forces for the purpose of achieving man's ends. Karl H. Peschke writes: "magic is the attempt to bring about certain effects by mysterious powers in a preternatural way."¹² Different definitions of magic labour to say that magic is that phenomenon which defies explanation either in terms of common sense, natural sense, scientific sense, psi sense, or faith. Yet magic is real and not superstition.

Superstition, proper, is a deep-rooted general belief justified neither by reason, evidence nor by religion. In superstition, an effect and its supposed cause are absolutely unrelated. Thus, superstition is irrational and unfounded. Every age and every people have a share of their own superstitions. Among the English-speaking people of the world, there are various superstitions about the number thirteen. To some it portends tragedy: e.g. the ides of March in Shakespeare's Julius Caesar.¹³ To some the number thirteen portends treachery and infidelity. To Americans, Friday Thirteen is a notorious day to be wary.¹⁴ Among the Igbo in Africa, there is the superstition that you can placate a deity by immolating a person to it in what has come to be popularly called the Osu cast or cult.¹⁵ There is the belief in some areas that a woman is unclean during menstruation. There is the superstition that babies born with certain abnormalities, such as cutting the upper tooth first are evil. There is wide spread superstition that if sexual intercourse in the afternoon results into pregnancy, the child of that intercourse will be mad.

Recently, magic is classified into two based on the criterion of the use to which it is put. Upon this criterion you have White Magic and Black Magic. White Magic is the type of magic put to benevolent use. This is exemplified by the account of the Three Wise Men or the Magi who through astrological manipulation of the stars discovered where the infant Jesus was hidden, when they found him, they made symbolic gifts to him (Mt: 2:1-2). There are many other accounts of magic put to good use. Black Magic, on the other hand, is the type of magic put to malevolent use. Written and oral sources abound of people who have come to all sorts of harm caused by witches and wizards. In January 2008, a parish priest in one of the dioceses in the eastern part of Nigeria narrated to me an account of how his dead assistant parish priest confided in him that an uncle of his was occultically sending accidents to him. He died the same month of fatal auto crash after two earlier ones. Tatah H.Mbuy, also a priest in Bamanda, Cameroon, recorded a personal experience of being caused to suffer illness by witchcraft.¹⁶ I have used the accounts of priests to underscore the wide and broad spread of the credulity about magic.

An earlier classification of magic initiated by G. Frazer in his book the Golden Bough (1890), is based on the basic principle or nature of magic. Upon this criterion, magic was classified into homeopathic magic and contagious magic. *Homeopathic*, also called imitative magic, is based on the principle, *like produces like*. Based on this, the witch ritualistically imitates what she wants to happen. For example, she will make an effigy or stick representation of the person she wants dead and then thrusts a knife into the heart of that effigy or stick representation. In reality the person will die or the part of the body so represented will become defoemed.¹⁷

Contagious magic is based on the principle that *if one has had contact with certain things, those things will continue to influence one*. Based on this, a witch could affect you if she gets hold of your articles of clothing or parts of your body such as finger

nails, hairs, etc. This explains peoples' sensitivity about how they dispose parts of their body and things that have had contact with their body. A witch can practice a combination of the two types of magic.

Witchcraft is a typical magical art or skill. The word derives from the Middle English word *wiccheecraft* and the angle-saxon *wiccheecraft*. It is a combination of two root words *witch* and *craft*. Witch has root affinity with the Latin word *vincere* which means to *conquer*, while *craft* means *skill, power, strength, force*. Thus, witchcraft is the occult or magical art of a woman especially, but sometimes also of a man, to gain supernatural insights and powers and to use these over others and situations malevolently as is often the case but occasionally benevolently. There are accounts of farmers who have been ruined by the activities of witches who turn into animals and eat up or destroy their growing crops. We have already made instance of people who become ill or meet with accidents caused by witches. Jack M. Kress observes, and correctly so, that the idea of witchcraft in countries with European culture is not exactly the same with that of Africa, West Indies and North America. The idea of witchcraft in European culture is Faustian and antichristian; that is, it involves association with the devil. A potential witch in European culture is ready to sell his soul to the devil, as Faust did, in exchange for magic powers.¹⁸ Witchcraft in Africa is not antichristian and is not Faustian, on the contrary witches in Africa as indicated earlier are embracing aspects of Christian rituals and practices. In Africa witchcraft could be put to malevolent or benevolent use.

Divination: This is a typical magical skill and a prominent feature of the magical worldview. It is the magical art by which a diviner gains knowledge of the past, present, or the future. That is, it is the precognition of the future, such as foretelling when a person will die and the divination of the past and present, such as telling the cause of somebody's misfortune. Other major forms of divination are astrology, fortune telling, and spiritism. Astrology is the occult art of reading a person's character and future by the position of the planets, sun, moon and stars. Astrology is based on the belief that there is regular connection between the position of the planets, sun, moon, and stars at the moment of the birth of a person and the person character and future. Horoscope is a form of astrology. It is a chart that reveals a person's character and future. The chart shows the position of the earth, planets, and stars at a certain time, for instance, at the moment of the birth of a person. Astrologers believe that the position of these bodies influence a person's life. Many daily newspapers set apart columns for horoscope. This is an indication of the popularity of astrology today.

Fortune telling is a form of divination. It is the predicting of the future by the magical use of certain objects like beads, certain sticks, broomsticks, certain leaves or crystal balls. People think that fortune telling is by chance but fortune tellers say that fortune telling is systematic but also complicated. Others say that fortune tellers possess clairvoyance, the awareness of events before they happen. Fortunetellers hold that they see order or pattern in an apparently chaotic situation; like a palmist fore telling a person's character and future by studying the complicated lines on the person's palm. *Numerology* is a form of fortune telling based on numbers. It foretells a person's

character and future by studying the birth, date, and name of the person. *Augury* foretells the future by studying the feeding habit, flight, and cries of bird. In general terms augury involves the interpretation of omens or signs. Spiritism, a typical form of divination involves conjuring up the spirits of the dead, the devil, or the spiritual world to obtain from them the knowledge of the future.

Fetishism: This is a special practice in a magical world-view. It is based on the belief that certain objects have magical powers or embody certain spirits. In fetishism, witches try to manipulate the powers in these fetishes to their advantage. Fetishes exist in almost every society but the objects differ from society to society. The fetishes include feathers of certain birds, skins of certain animals, some animals, insects, carved dolls and so on.

Generally, magic, whatever the form, operates in a sequence of acts. A series of acts are performed in a fixed pattern or certain sequence and disposition to achieve the desired goal. This means that magic will operate automatically for any operator provided that correct sequence is followed. Keeping to this sequence is a *sine qua non* for the efficacy of magic. Failure to keep to this fixed sequence will mean that the magic will not be efficacious. It is not yet clear what the logical structure of magical sequence amounts to. There are two major views on this. One view holds that the logical structure of magical acts is completely determined while another view holds that it is not pre-determined: that is, that it is probabilistic or determined by chance. The problem with these views is that they are still trying to analyze magic using the canons and conceptual schemes of science. Magic is a mode of life and has its own peculiar rationality.

Scientific world-view: Like religion, philosophy, and magic, science is also a world-view. It is one of the intellectual commentaries man makes on his world. It is one of the representations of the cosmic order. Science is man's response to the confrontations and challenges of his natural environment. It is thus a secondary environment created by man.

Scientism is the word usually used to designate the scientific world-view. It is the general belief that the canons of science, the methods of natural science, should be applied in other areas of human affairs such as politics, ethics, metaphysics, and theology. This belief is based on the basic assumptions of scientists that nature is ordered; that there is the law of nature which guides natural phenomena (the operations of nature), and that this law is discoverable by human reason.

Scientific response to the challenges of nature often first arises in the form of scientific theories. These theories, "relativity" and "gravity" for instance, demonstrate the scientists' assumptions that nature is ordered, mathematical and logical. The process of scientific theory-construction is based on the principle of induction. The principle asserts "...that what has been seen to happen a great many times is almost sure to happen invariably and may be treated as a basic fact or law upon which a firm structure of theory can be erected."¹⁹ The testing of theories by predictions of the result of future observations and subsequent confirmation is also based on this principle. It should be noted however that this logico-inductive procedure does not

fully define the scientific process “...the scientific method is more complicated than one had thought, and that it cannot be captured by a simple set of rules.”²⁰ History shows that science is advanced by many different ways. It appears that the method of science is *anything goes*

Based upon the aforementioned logico-inductive assumption of science and upon the fact of the huge success recorded by the scientific method, the scientific world-view is characterized by what W.H. Newton-Smith calls “the image of ‘rationality par excellence’. Science appears to be the model of rationality. The scientific community perceives itself as the custodian of institutionalized rationality; the possessor of the method (scientific method) which constitutes ‘the logic of explanation’, ‘the logic of justification’, and as such the ‘logic of discovery’. Scientists believe that dispassionate and disinterested application of this method will gradually but certainly approximate the goal of science, which is truth.”²¹

Prediction, objectivity, and greater intersubjectivity are essential features of the scientific world-view. These features derive from experimentation as a key defining method of science. Individual scientists conduct experiments to prove a theory; they further repeat the experiments to confirm or not confirm the theory. Though experimentation does not fully and completely define science because it arbitrarily excludes perfectly respectable sciences as astronomy, geology and pure mathematics, and theories such as evolution; ²² it nonetheless demarcates science from more speculative forms and elevates it to the esteemed pedestal of predictive, objective, universally accepted, corporate, and public knowledge.

A significant feature of scientific world-view is positivism. There are many forms of positivism (social positivism, evolutionary positivism, and critical positivism or empiriocriticism). Whatever the form, positivism is the general view that science is the only valid knowledge and facts the only possible objects of knowledge. This implies that only the quantifiable or the measurable are real. It follows that a scientific world-view is a materialistic world-view. It is a world where only the pragmatic and the vendible count.

A necessary follow up to the above feature of the scientific world-view is the feature of the secularization of thought. Scientists seek to construct a world that is purified of any reference to God. The scientific world-view is a rational and natural frame free of religion and disdainful of superstition. If there is any religion in a scientific world-view that religion is science.

Technophile, strong affection for technology, is a prominent feature of the scientific world-view. Technology is the contriving of thing to manipulate and control nature for the achievement of practical end-states. It is defined as “... purposeful human activity which involves designing and making products as diverse as clothing, foods, artifacts, machines, structures, electronic devices and computer systems collectively often referred to as ‘the made world’.”²³ Technology has two essential components: the hardware and the software, also sometimes respectively referred to as the hard and soft technologies. Hardware comprises artifacts, tools, implements, gadgets, machines, and equipment. Software on the other hand, comprises special knowledge of doing practical things generally called know-how. This includes skills, production

methods, organizational patterns and rules of achieving practical goals.

Today, though technology, naively called applied science, appears to stem from pure science, the fact is that it has another source, the craft-tradition. Craft tradition has the background of trial-and-error practical endeavors or heuristic practices. In the scientific world-view of today, science and technology conspicuously go together in a hybrid called technoscience. That is, though science and technology are autonomous professional areas, they have synergies, they re-inforce each other. The implication of the synergy in science and technology for the scientific world-view is the wide spread belief that every thing is possible through science and technology and that whatever can be done technologically should be done.

Let us conclude this section by observing that the scientific world-view is not as scientific as the name suggests. It is an ideology, a frame of reference, a spectacle through which reality is perceived. Most of its claims and features are not scientifically demonstrable. The claim that science and technology can solve all problems cannot be scientifically demonstrated. The claim that whatever is technologically possible, should be done, is not scientifically demonstrable. Hence the scientific world-view is not really scientific.

The Tension: What is at issue in the tension between the scientific and the magical world-views is the problem of rationality. The problem of rationality are the assumption of the scientific community that there is one basic universal rationality, the scientific rationality, which underlies all ways of living or all modes of social life; and that this scientific rationality is the sole key to reality. Against the background of these assumptions, force, the basic reality in the magical world-view is assessed and the verdict returned is that it is occult or impervious to rational comprehension and consequently the entire system of magical world-view is dismissed as irrational and unintelligible. The questions then arise: what does it mean to be rational? Is there really one basic rationality, such as science flaunts, which underlies all modes of life? To address these questions, let us review their treatment, by P.K. Feyerabend. To the first question he replied: "rationality now means acceptance of certain procedures (rules, standards) together with the results of these procedures, rules, standards; it does not mean acceptance of views (except insofar as the views emerge from the application of the procedures, rules, standards):"²⁴ This conception of rationality raises, according to him, "a battalion of questions". He gave three of these: "why is it better to behave in an orderly fashion rather than erratically? How are the rules that determine rational behaviour to be chosen? How will one determine whether the chosen rules continue to be acceptable and not be replaced by other rules?"²⁵ He avers that the first question elicits a lot of answers but that the answer that appears to have relevance is the one that says that the cosmos is orderly and as such needs to be explored by orderly procedure. But this answer is not very adequate because there are erratic physical events, erratic behaviours, and erratic historical occurrences. Thus, that the cosmos is orderly does not solve the problem of rationality.

Answers to the second and third questions are classified by him into the following forms of rationalists, naïve and sophisticated rationalists on the one side and cosmological, institutional, and normative rationalists on the other. Naïve rationalists assume that there are standards or rules that must be obeyed come what may. This is

the assumption in natural science.

Sophisticated rationalists assume that rules and standards are dependent on certain conditions and as such no rules or standards should presume universal validity. Cosmological rationalists assume that rules and standards are determined by practical considerations, aesthetic-metaphysical considerations, and facts of nature. Institutional rationalists assume that rules and standards are dependent on institutions and traditions. We accept them because we belong to the institutions and traditions.

Naïve rationalists assume that rules and standards are objective and independent of facts, traditions, and institutions. But it is a known fact that insofar as rules and standards apply in human society, they are subject to institutions and traditions, hence normative rationalism boils down to institutional or Cosmological rationalism.²⁶

From the review of Feyerabend above, we deduce that there is not one basic rationality, which has universal validity. Peter Winch also holds this view for he writes: the “criteria of logic are not a direct gift of God but arise out of and are only intelligible in the context of ways of living or modes of social life.”²⁷ It follows that science oversteps its bounds anytime it judges magic irrational and unintelligible because magic is not amenable to its criteria of logic or methodological canons.

Rationality and irrationality belong to modes of social life such as science, religion, and magic. Each of these has criteria of rationality peculiar to it. Within magic, for instance, an actions can be rational or irrational. In a magical mode of life, it is irrational to dine with or to accept gifts from a witch known to have the supernatural powers of luring people into dangerous marriages and unions with her gifts. The rational thing to do is to steer clear of the witch. In a scientific mode of life, to jump from a pinnacle is irrational but it is not so in a religious mode. To say that science as a mode of life is rationality par excellence and that any other mode of life not like science is irrational is not admissible. Philosophers of science such as Feyerabend and Kuhn have shown that the so much talked about excellence of science is not based on fair competition between it and other modes such as magic.

It is true that rationality confers intelligibility. However, just as there are many forms of rationality, there are also many and varied forms of intelligibility. This leads us to the realization that reality is of many aspects and so has no single key. Scientific rationality and scientific intelligibility are not the only keys to reality. There are also magical rationality and magical intelligibility.

Magicians and protagonist of magic, such as Agrippa, Trithemius, Paracelsus, John Baptist van Helmont, and Faust, deplore reason or “the logico-mathematical method of the schools,” as applies in the physical sciences. They argue that reason is severely limited. Reason cannot dig deeper to examine the occult forces of nature. On the other hand, they laud magic. Magic, according to them, proceeds by means of mystic experience (insight) and analogy, such analogy as that between man the microcosm and the world the macrocosm. Comparing reason and magic as keys to unlocking reality, Paracelsus writes. “Magic has power to experience and fathom things which are inaccessible to human reason. For magic is a great secret wisdom just as reason is a great public folly.”²⁸ In this vein, magicians consider knowledge from magic divine and superior; and knowledge from logic and demonstration, human and inferior.

Conclusion:

One must admit the fact that there are many forces at work in this world, which are beyond the empirical and scientific rationality, yet they are real. Such forces cannot be examined by the exact sciences. Something is therefore not irrational and unintelligible simply because it is not open to the canons of the exact sciences. But it is strange that the scientific world-view admits the existence of the human soul even though it cannot directly investigate it yet rejects the existence of *ogbanje* because it belongs to the magical world-view.

That science is today preferred to magic is not because there is anything inherently correct about science and inherently wrong about magic. There is nothing in the nature of science, not its method and not its achievements, that confer upon it the kind of authority that it assumes and applies to resist, supervise, and eliminate ideas and forms of life that are not scientific. The methods of science have too exhibited traces of irrationality. The revolutionary relativity theory overthrew the Newtonian scientific world-view showing that a scientific world-view could be wrong. Also science is not the only human endeavour that boasts of results. Magic continues to post results inspite of the attacks, denigrations, neglect, and the cash squeeze it suffers. Whatever science achieves today is what magic had promised. Thus magic set the tone of expectation which science is fulfilling using naturalistic and scientific methods. It is possible that if magic gets the kind of attention and financial support which science enjoys today, it might offer greater results than science. Science is preferred today simply because of the accidents of history; simply because of the decision of the scientific community.

The resolution of the tension between the world-views of science and magic is to be executed by philosophy. Philosophy is concerned with elucidation; the elucidation of how different disciplines makes the world intelligible. It also elucidates and compares different forms of living. Philosophy also turns upon itself to elucidate its way of making reality intelligible. This implicates the disinterestedness, unbiased, and uncommittedness of philosophy while doing its duty of elucidation. Philosophy does not claim to possess rationality par excellence and it endeavours to show that no form of enquiry possesses it. It is only philosophy that can be this uncommitted. Science by its nature cannot be uncommitted. The scientific project is not self-critical. The way science proceeds is good for the investigation of physical nature but completely inadequate for the investigation of human society or forms of living. Different forms of living compete and offer different forms of the intelligibility of things. Philosophy elucidates all these, including magic, without trying to value them or advocate any one of them. Philosophical elucidation illuminates thereby throwing the light of clarity on an idea or a mode of living. With clarity we come to the healthy attitude that any mode of life, science or magic, becomes simply a complement in the general project of making reality intelligible.

References

¹There are two phases of African integration into the global system. The first phase spans the 16th, 17th and 18th centuries. It was occasioned by the European Atlantic merchant capitalist interest. The second phase spans roughly from 1880 to 1960, this was the colonial period. Cf. Samir Amin," "The Use of False Concepts in the Conventional Discourse

- on Africa (Is Africa Really Marginalized)” in *History and Philosophy of Science for African Undergraduates*, Helen Lauer, ed. (Ibadan: Hope publishers, 2003), 131
- ²Drew A. Hyland. *The Origin of Philosophy: From Myth to Meaning* (New York: Capricorn Books, 1973), 29
- ³Hippocratic Corpus is a compilation of about 80 anonymous medical works purported to have been written by the so-called “father of medicine”, Hippocrates, a fifth century great physician who practiced medicine in the ancient Greek Island of Cos.
- ⁴John Scarborough, “Hippocrates”, *The World Book Encyclopedia* H. Vol. 9 (Chicago: World Book Inc., 1994). 239
- ⁵G.E.R. Lloyd, *Early Greek Science: Thales to Aristotle* (New York: W.W. Norton & company, 1970), P.55 footnote
- ⁶Marie Boas, *The Scientific Renaissance 1450-1630* (New York: Harper & Row publishers, 1962), 166
- ⁷Emefie Ikenga Metuh, *African Religions in Western Conceptual Schemes: The Problem of Interpretation* (Studies in Igbo Religion) (Ibadan: Pastoral Institute, 1985), 168
- ⁸Kekong Bisong, “The Quest for the Respectability of the African Traditional Medicine” in *Koinonia*. Vol.2 No4 June 2006 pg.135-136
- ⁹Tobias O. Okoro, “The Communal Dimension of Igbo World-View: A Paradigm for Interpersonal Encounter in a Plural Context---Arguing for the Experience of ‘Egbe Bere Ugo Bere in the Post Modern Society” in *Oche-Amamihe: Wisdom Journal of Theology and Philosophy* Vol.1 No.3, Nov. 2006. pg. 66-90
- ¹⁰J.O.Ukaegbu, *Igbo Identity and Personality Vis a-Vis Igbo Cultural Symbols* (Enugu: SNAAP press Ltd. 1991), 12
- ¹¹T.S.Kuhn, *The Structure of Scientific Revolutions*, (Chicago: University of Chicago Press, 1970), 175
- ¹²Karl H. Peschke, *Christian Ethics: Moral Theology in the light of Vatican*, 11 Vol.11 (Bangalore: Theological Publications in India, 2001), 127
- ¹³William Shakespeare, “Julius Caesar” Act 1, Sc.11 in *The Complete Works of William Shakespeare* (Great Britain: Wordsworth Editions, 1996), 583
- ¹⁴*National Mirror*, *Ngerian National Newspaper* (Tuesday July 17, 2007 Vol.5 No.2). 39
- ¹⁵Chinua Achebe, *Things fall apart* (London: Hernemann Education Books, 1958), 111
- ¹⁶Tatah H. Mbuy, *Understanding Witchcraft Problems in the Life of An African* (Owerri: High Speed Printers, 1992), 19-20
- ¹⁷ *Chiemeka Durunwa, Blood of the Rebel: The Nigeria Delta Story* (Nigeria: Cel-Bez Didactic Books, 2006) 138-39
- ¹⁸Jack M. Kess “Witchcraft,” *The World Book Encyclopedia*, W-X-Y-Z. Vol.21 (Chicago: World Book Inc., 1994), 373
- ¹⁹John Ziman “What is science”, *The Philosophical Problems of Science and Technology*, Alex C. Michalos ed. (Boston: Allyn & Bacon, Inc. 1974), 8
- ²⁰Paul K. Feyerabend, *Knowledge, science and Relativism: Philosophical Papers*, Volume 3, John Preston ed. (Cambridge: University Press, 1999), 124
- ²¹W.H. Newton-Smith, *The Rationality of Science* (Boston: Routledge & Kegan Paul, 1981), 1
- ²²Jim Herrick, *Humanism: An Introduction* (Ibadan: Gadfly Publishers, 2006), 427
- ²³David Layton, “Technology,” *Microsoft Encarta Encyclopedia*, standard version, 2005
- ²⁴P. K. Feyerabend, *Knowledge, Science and Relativism*, 201
- ²⁵P.K. Feyerabend, *Knowledge, Science and Relativism*, 201
- ²⁶P.K. Feyerabend, *Knowledge, Science and Relativism*, pg 202-208
- ²⁷Peter Winch, *The Idea of A Social Science and its Relation to Philosophy* (London: Routledge, 1990), 100
- ²⁸Marie Boas, *The Scientific Renaissance*, 171