LOGIC IN IGBO-AFRICAN TRADITIONAL MEDICINE AND HEALING

Paul. I. Ogugua Department of Philosophy Nnamdi Azikiwe University Awka

Introduction

I was startled when I saw the article by Professor Uduk Etuk on "The Possibility of African Logic" which appeared in *The third Way in African Philosophy*. I asked myself why is it that this scholar, after the whole length of time burnt in the great debate of whether there is African philosophy or not, and having resolved that there is, still talks of possibility of what is; more so, after Nze and some scholars in Africa have penciled articles with regard to African logic. I queried him in my mind as to whether it is possible to have a philosophy without a kind of logic? Is logic no longer an essential tool of philosophy? Is argument no longer the central field of logic? Okay, does the African know reality? Does the African have any kind of understanding with regard to meanings of postulations of expressions? If the African knows reality that not only means that being exists in African parlance but that there is being which is seen as force. More so, that there is epistemology and you cannot rightly hold that, without at the same time holding that there is logic. Paul Feyerabend (1975:52) states that: "knowledge is obtained from a proliferation of views rather than from the determined application of a preferred ideology". This is because knowledge is in perspectives and can only arise, as Ogugua (2003:35) puts it, "when there is someone (a being that knows) and something to be perceived or known". Ogugua continues: "That means when we come in contact with something or its meaning either by acquaintance, or description or representation or recollection, we know that thing". He further adds: "Having knowledge, therefore becomes knowing what something is and having understanding of something means understanding the meaning of that thing for one does understand meaning just as one does not understand reality but knows reality." The subtle distinction made above locates logic rightly within the ambit of epistemology. Paul Feyerabend (1975:27) argues that "it is clear, then, that the idea of a fixed method, or a fixed theory of rationality, rests on too naive a view of man and his social surroundings." The reason for questioning any fixed method for ratiocination is not farfetched. We know that every perspective of apprehension or perception of reality is not the entire view; there are alternatives, as every methodology has its limits. Of course, we say that variety is the spice of life, why? I suppose due to the fact that it throws challenges around. Logic as formal tool of analysis and synthesis cannot be only a formal discipline; it must not be rigid and sterile for it serves the purpose of language, habit, law and morality. It must not concern itself with pure forms, their development and refinement or else it becomes totally artificial as can be seen in western logic which is linear, but should concern itself with matters of practical import. As African understanding for Ogugua (2003:68-74) is anthropocentred, vitalistic, intuitively-inductive and weaved in a web like structure, African logic should follow this stand for it informs this current of reasoning and thought. It is due to this that we hold that Igbo-African logic is curvilinear. Udo Etuk (2002:108) believes that "thought and reason are universal human characteristics: but thought itself is never about nothing, it is always about something." Furthermore he argues that "since human beings always think and reason about particulars (except the few blessed ones who dwell in the Socratic world), particular human experiences, problems and challenges are bound to shape the way they think and reason."

One can agree with Etuk and as such conclude that it is not possible for any group of people to stay all along without the ability to think or /and reason. No doubt that Igbo-African logic must have spanned for centuries. Because thought cannot be all alone, it must be in a language, with or through a language of something and not of nothing there is no doubt it is tied to culture, which we know is exclusively a human phenomenon yet as Ogugua (2004:61) pointedly expressed it "basically unites humanity and divides humanity" culture no doubt confers identity on a group of people.

Now, we have to go on to uncover the logic in Igbo-African perception of reality as we are not thinking of the possibility as Udo Etuk did and are not concerned with rendering apologetics what it should. What is, is, what is not, is not. Elsewhere I discussed the features of Igbo - African understanding and the basic septenary principles of apprehension of reality in the Igbo- African world, this logic must mediate on, gravitate on and oscillate around these metaphysical pillars, for both epistemology and metaphysics study being, the former from the point of view of knowing being while the later from the point of view of existence. This logic cannot be affective logic as Udo Etuk posited, rather it is curvilinear or vita-centred logic, experiential logic which is based on passionate reasoning and not even affective reasoning (I think Udo Etuk lands himself in the same problem Senghor landed into when he distinguished between African and Western brand of reasoning). The major premise with which we are working could be framed thus: Logic informs Language; our minor premise is that language informs and mediates a culture. Then draw the conclusion. The use of formalized language of logic, that is, the use of pure forms, symbols for logic as Russell and White Head did, is not a necessary condition for logic, nor sufficient condition for it to exist. In the sense of logic being study of pure forms then logic is accessible only to trained logicians. Uduma (1998:389) argue that "Symbolism is just for elegance and precision. Clarity of expressions, avoidance of ambiguities and contradictions which are central to logic can be effectively conducted in natural languages." Based on his observation, every language could be used to study logic because it has its own peculiar logical structures. Alonzo Church (1951:106) emphasizes further thus:

The difference of a formalized language from a natural language lies not in any matter of principle, but in the degree of completeness that has been attained in the laying down of explicit syntactical and semantically rules and the extent to which vagueness and uncertainties have been removed from them.

Seeing logic from the aspect of form and not material or content of what is said, in my mind, shows intellectual suicide and a rude approach to the truth of existential realities and a restriction on the scope of logic. Uduma (1998:391) contends that "Logic is obviously not coextensive with symbolic logic and traditional African people were capable of coherent thinking; competent individuals in these societies were logical." I strongly believe that to argue contrary is to trade ignorance of a supine nature.

Igbo- African Logic

I can argue that there is Igbo logic: that is pattern of thought that is peculiar to the Igbo people of Africa. Characteristics of logic are perceivable or discoverable in thoughts of the Igbo people, these elements or features of logic are buried or encapsulated in their symbols, use of symbolism, proverbs, and at times even riddles. These features of logic are equally embalmed in their sociopolitical - cultural, economic and religious life and activities. So the observation of these scholars are 'ad rem' Paul Radin (1957: xxviii) states:

On the face of things, then, there is nothing in primitive civilizations that prevents philosophical formulations from being attempted. Individuals with a philosophical temperament are present, the languages are adequate, the structure of their societies places no obstacles in the way.

On account of the difference between natural logic and formal or symbolic logic and discovering that not every Occident has passed through the rigours of studying logic, Lienhardt (1957:xxvii) said: "It is not true ... that (African) people are less practical and logical than the (Europeans) in the ordinary course of their daily lives." Hegel (1966:345) the renowned German Philosopher held that men who are thoughtful have made efforts to understand the ways of the world in which they live, and to enrich their daily lives. The Igbo-Africans make attempts to study reality, and have recognized the essential relations in things, and the ontological net-work of every reality and make judgments about these relations. Ogugua by pointing out the septenary principles underlying African reality, moved away from the position of Maurier that relationship is at the base, and Iroegbu's position that it is belongingness and emphasized that it is harmony.

For Nze (1998:126) "The Igbo of Africa have a sense and practice of observation. They observe things that are, that is, realities that exist, their natures or essences." He accepts that the Igbo study essential relations among or between things and argues that: "Whether or not all agree and accept the judgement is a different matter; clarificatory and justificatory debate Mgbagha may be entered into which may strengthen or even weaken viewpoints." You can see that as argument is the central field of logic in Western philosophy, likewise in Igbo-African logic. Mgbagha is dynamic, expressing the freedom and communal co-existence of the African.

The Igbo-African uses logic without undergoing the rigours of studying it. Properly groomed by society, they have idea of essence, and as such are not bereft of the idea of measure, for it is in this that the idea of essence lies or inheres. Wayne (1991:63). Or else why have some Igbo scholars posited chi" as principle of individuation. Implied therein is the idea of measure, which is equally reflected in their belief in the hierarchy of forces. The Igbo -African thought logically even before the development of the science or logic by the use of elements of nature. They are in the habit of saying:

- 'Egwu gom mmiri ukwu, gwu mmiri mara nke ka nfe I have swimmed ocean, and swam river outlets and I know which one gave me the toughest time.
- Again they say:
- Onye Ije ka onye isi awu mmara ihe the traveler knows more than the grey haired man (who has not really travelled).
- 'ukwu na eje walawala, anya na ele walawala n'afu ya' the fast moving legs are seen by the fast moving eyes.

A cursory look at these will show relatedness of events, better put continuality between or among events or operations. One could say that Igbo logic is empirically and phenomenologically grounded. We are not claiming that Igbo-African logic is at the same level of sophistication or scientific level (pedestal) as the western brand which is systematized. The difference is not of kind but of degree. Igbo logic is logic as it is ordering of thought in such a way that proper inference can be made and valid conclusion drawn. Igbo - African logic may not qualify as logic if we mean thorough -going systematic study of the reasoning activity to the methods and principles for distinguishing correct from incorrect reasoning. Copi (1978:3). The Igbo-Africans see logic as a practical science, something made

use of and not necessarily something studied or to be studied. This viewpoint rhymes with the understanding of logic by Aquinas as the art which helps us to proceed with case in the task of reasoning. And for Popkin (1975:225) what is important is that we produce or/adduce reasons which serve as evidence for every conclusion we wish to establish or hold. Now, we have to show that there is Igbo logic by examining the Igbo language which is rich in proverbs. Aristotle of Staggira opined that every man by nature desires to know. The Igboman is not an exception. The Igbo people think and in this process form ideas in Igbo language which is a portent tool tying members of Igbo society. A look at the actions of the Igbo people will show that reason informs what they do. Is it not reason that informs the kind of houses they build, the kind of utensils they produce, the kind of products they produce in the bid to attend to multifarious problems in their life. Think of their calling a motor car-'ugbo ani', an aeroplane - 'ugbo ofe n'elu'. What of the names they give to themselves during naming ceremonies of the new born; in social groups, etc. The logic of the Igbo people is not syllabic or syllogistic logic, it is practical. In the words of Locke (1968:265) it is "... a logica utens, rough and ready, good enough for the purpose at hand" There is no doubt that every people have rational people, the Igbo is not an exception, hence God has given the Igbo people like others in the words of Locke (1968:265):

a mind that can reason without being instructed in methods of syllogizing; the understanding is not taught to reason by these rules, it has a native faculty to perceive the coherence of its ideas and can range them right without any such perplexing repetitions.

The Igbo people do not convey their thoughts in an artificial language or syllogistic form and yet there is logic in their expressions as they convey their thought in a clear and very concise manner. Think of these expressions which are not only suggestive, but implicative and inferential.

- "Ugegbe etiware otiwara'- the mirror is broken and cannot be mended or repaired (used to designate death)
- 'Were ile gi guo eze gi onu' use your tongue to count your teeth
- 'Atu a ilu ngilika nkata onye talu ahuamara; if a proverb of an old and spoilt basket is uttered, the lean person knows that he is being addressed

Nze (1998:137) understood that logic is inherent in the Igbo peoples way of life, he states:

Once, there was an incidence in the rational life of an Igbo community. The significance of the incident lies in its transparent portrayal of a proof by the use of an inductive/deductive reasoning. The inductive, clarificatory argument was aimed at disqualifying an opponents stand, at insisting that justice be done, at resisting double standard.

An adequate study of logic will show a history of logics, that is a multiplicity of logics. Each brand of logic has its peculiar nature and purpose, and yet serves the owners. For the Igbo people, Logic is not only concerned with its form and truth, it entails the metaphysical, epistemological and ethical concerns of the Igbo people. Does this expression" one bulu chi ya Uzo Ogbagbue onwe ya na oso' - he who steps in front of his chi, will suffer so much and yet achieve little or nothing. Is this logic not logically unassailable? It points towards direction from above. It envelops the metaphysical, ethical and epistemological decisions of human existence. In this instant of roping in the past, the now and the future, logic aims at stemming some hazards from occurring in the future as the likely acts now show

those of the past that culminated in a kind of hazard. This logic is experiential. It is through discourse, more precisely "mgbagha" it can be deductive or inductive that through experimentation the Igbo people get to the core of a matter and specialize in not only making distinctions but having knowledge of nature.

- "Echi adiro agu agu" tomorrow does not end
- 'ihe obuna nwere mbido ga enwe njedebe-. Whatever has a beginning will have an end.
- 'Gwam onye gin a ya na ayi nka m gwa gi onye ibu tell me your friend and I will tell you who you are
- "Ora hura ka eji mbazu were eli ora ibeya mara na obu etu oga adi mbosi nke ya A slave who sees the corpse of his fellow slave being buried with a wooden digger should know that his will be same as that of the fellow concerned.

Having seen that the Igbo -people have a logic, which is one of the classes of logic, and that it is experientially grounded, curvilinear, tied to African understanding which we have shown the features; what remains for us to do in this paper is to explicitly and implicitly show this logic in operation in Igbo-African traditional medicine.

Logic in Igbo -African Traditional Medicine and Healing

The English term 'medicine' cannot rightly be used to designate traditional medicine (and healing) in Igbo-African world. In Igbo land the proper word for medicine is 'Ogwu'. This concept 'Ogwu' is not limited to just materials used for therapeutic purpose. It includes according to Nadel (1954:132) materials which exercise remote and miraculous effects on the efficacy of other objects. For Monica Wilson "Medicines in African beliefs can be used not only to heal or to kill, but also to secure power, health, fertility, personality or moral reform, to make a bride 'patient and polite to her in-laws, a chief majestic or judge compliant." The fact is that medicine will work for anyone who knows the recipe for tapping its powers, having observed all the taboos associated with its efficacy. Usually medicines are essentially constitute of trees, herbs, plants, fruits animals, fishes, excretion, and all sorts of other materials as the case may be. For Parrinder (1969:158) the power of medicine is derived from the proper processing and mixing of these elements or ingredients. An Igbo man Metuh (1985:5) asserts: "Thus medicines are thought to tap the power put by God into some herbs and other substances with those who know the right formular can tap and use for their own ends, good or bad!"

This understanding of medicine is contrary to the western understanding of medicine. The Chambers 20th Century Dictionary sees medicine as "any substance used for the treatment or prevention of disease". It is rather the definition of the American Heritage Dictionary of English Language that seems close to the Igbo African understanding. It says it is "something believed to control natural or supernatural power to serve as a preventive or remedy". The Igbo-African science of medicine springs from the Igbo-African theory of forces -ontology; and its sister epistemology. Nwala (1985;66) holds that "There is a concept of the familiar or the usual and when an act or deed surpasses this, then that act or deed is said to be accomplished by means of a higher power which is "Ogwu" This understanding of the concept 'Ogwu" is engineered by the dual though co-extensive perception of reality of the Igbo, in which there is no demarcation between the physical and the spiritual, the profane and the sacred, as both the visible and invisible realities penetrate and permeate each other as postulated by the theory of forces, more so interaction of forces. Nze in his paper "Logic in African charm medicine" observes: "However, medicine "Ogwu", in Igbo African tradition is not limited to objects applied for therapeutic purpose. It is inclusive of objects with the ascribed powers not only curing or preventing disease but also objects possessing, trajectory

powers capable of harming somebody aimed at as a target." One can easily decipher that medicine is not necessarily for treatment and prevention of ailment but a science of manipulation of force, force in natural things, persons and even spirits in the bid to achieve an objective. Here lies the supposed interpretation of African medicine being magic. The truth is that all medicines are not charms or magic, but all charms or magic belongs to the class medicine. Now let us look at the logic underlying the Igbo - African understanding of medicine. Although, by general allusion charms fall within 'Ogwu" - medicine, in this work I would like to address the logic in Igbo herbal medicine and not charm medicine. For Igbo-African medicine has both logical causes and effects. For the Igbo people especially the 'dibia' they know that there are diseases that have physical causes and others that have nonphysical causes. This is the primary reason why Igbo-African medicine is administered for particular purposes and to individual cases and not prepared and kept for treatment of similar cases, as it is a living and natural medicine geared towards restoration of the balance or harmony of the body, mind and spirit. It is a truism that the scientific validity of traditional medicine is not everything. Sometimes the personality of the 'dibia', the disposition of the 'Agwu' - spirit in-charge of medicine invocation, period of the time, the spirits, are necessary, for traditional medicine shows an 'admixture of mystical intent. Nadel (1954:145) said of the Nupe people, that when a new medicine is prepared or invented, the medicine man prays thus: God, the medicine that has been prepared here it is. May the medicine be successful. I am sacrificing to Kpara, I am sacrificing to Tswasha Malu... Metuh (1985:6) emphasizes that "in every case, some form of invocation is necessary because there is a general belief that the medical or magical herbal mixture by themselves are ineffective without the invocation." It is not uncommon to see 'Dibia' addressing the force inherent or embalmed in the items he is using for the medicinal product or even the mixture of herbs, trees and other items as well.

A pivotal question at this point is what is the logic of the thought process that brings about the choice of items used in Igbo traditional medicine? What actually brings about creative invention and discoveries in Igbo traditional medicine? What really engineers the use of creative imagination geared towards the production of Igbo traditional medicine which has both physical and spiritual effects in most cases as seen in cases where disease which defy orthodox medicine give way with the introduction of traditional medicine? What Onubia (ed) (1991:52) asserted of scientific enterprise could be said of Igbo - traditional medicine. He states: "it must be admitted here that even though thought process cannot be subjected to empirical verification, nonetheless, the logic of its workings could be determined from its products."

If the logic of Igbo traditional medicine is decipherable from its workings and product, that is its end result, what is this logic or what are these logics? I have already posited elsewhere that Igbo-African traditional medicine is based on septenary principles: symbolism, causality, relationship, belongingness, participation, manipulation and harmony. It is from this myriad of principles that the 'logic' surrounding and within Igbo-African traditional medicine could be seen or discovered. And from the fact that Igbo African medicine (drugs) for prevention and cure of disease are usually prepared from living things plants, shrubs, trees, animals in short, things of nature, with the nature of the disease in mind and even of the diseased part shows a multiple of logic.

In the process of the 'dibia' getting the items to be used in his medicinal concoction, bringing some items in thrice, twos or fives, etc points to the logic and reliance of measure. Remember the philosophical postulation of Protagoras that man is the measure of all things, the things that are that they are and the things that are not that they are not. From the sense of measure, implicitly is embedded the logic of order, choosing the items that should form the drug as not every items is chosen and put in the mixture. Within the logic of measure and

order is that of relation, as we talk of interaction of forces in Igbo ontology, equally too are the logic of participation, association and dependence. Other logics could still be pointed out from the septenary principles underlying Igbo traditional medicine.

Let us look at a scenario in order to appreciate how these logics are applied. The 'dibia' who could be a 'dibia' Afa - diviner, and a 'dibia Ogwu' equally known as a 'dibia Ngbologwu' - herbalist and even 'dibia' oje na muo', gets the diagnosis through the logic of association, for it is in the bid of communicating with the spirits through the 'Afa' phenomenon and the logic and metaphysics of the Afa mystical zero, with his use of the stringed 'Ugili' seed - shells, the tortoise shell and his gong that he solicits the attention of the spirits by tossing the 'Afa' seeds into the air of temporal and spiritual probability during divination. With its fall, through the aid of logical and mathematical intelligence and operation of the spirits, he permeates into the circle of integral differential of reality where spiritual is in the physical and vice versa as our ontology does not think of separate entities. Everything is in a web of relation with every other thing.

In diagnosing a male patient of infertility it is uncommon for the herbalist who worth's his onions (because they are charlatans) to prepare drugs and keep for unimagined sterile case. He prepares his drug to meet cases at hand. By casting his deep mystical gaze at the patient, the 'dibia; Ogwu will then decide where to go straight away to prepare the drug for male fertility or to release the patient from a casual chain of spiritual entanglements. If he wants to prepare drugs, then he will naturally prepare a mixture of Ike Nwoke, Okro seed, crushed roots of Ogirisi tree, Kola pods, raw eggs, honey, and any other items he might have been asked to include by the spirits. Do you see any relation between the semen and the item used in the drug? If the diseased part is a woman breast, usually the items used in preparation of the drug are things that resemble the female breast things that are succulent at times as soft as the breast. In preparing drug for a 'diseased' breast, plants and not every plant are used ie. Orange, coco-nut apple, paw-paw cucumber and other items the spirits indicate; in short, Igbo traditional medicine is natural. Think of the logic behind "Adighi etinye ose na ana eme ogwu odo anya" - it is not usual to put pepper in the course of preparing drug for eye problem.

Concluding Remarks

There is no doubt that there is a chain of logics in Igbo-African traditional medicine. This is reflected in the very nature of items, the very combination of these items in making particular drugs at any point in time for specific ends. There is logic in the selection of these items. The logic is based on experience, which combines the greatness within the traditions of rationalism, empiricism, phenomenology with the gift of intuition in the bid to decipher the value of worthiness of the items used. Edeh (1985:90) comments:

The beauty of a flower is not seen in isolation but in and through its inner meaning that is, its purpose... the attractiveness of the tree means little or nothing if it is not seen in and through its reality, a reality that is primarily value-oriented.

The Igbo-African medicine is anchored on logic derivable from the septenary philosophical principles built over the years from experience. And philosophy remains an interpretation of experience: physical, philosophical and mystical. Philosophy is built on experience likewise logic. Philosophy began with the efforts of some men to tackle the question of causal relations between existents within the context of existence. Okoh (2001:16) observes: that "The conceptual schemes that constitute philosophy through intellectualization cannot be seen on the platform of existence without the ground files of cultural experience." Our logic

too must have affiliation with and flow from our cultural experience as our logic is different from the Aristotelian or linear logic of the Occident's. Ours is natural logic which does not reflects the syllogistic pattern of western logic, it is of curvilinear nature. Nze (1998) attests: "The philosophical significance of ... (Igbo) medicine is found in the logic of selecting certain materials processing properties for concocting certain medicines." The precision in syllogistic argument is not lacking in the choice and combination of these items used in preparation of the drugs, for as conclusion are inferred or derived from premises in a syllogism, (in the same manner) likewise the effect necessarily flows by the use of these drugs. A certain mixture of this animal's skin and this root gives a particular result. Does it not resemble the major and minor premises for a particular conclusion? You can see there is a high level of predictability as these drugs have shown themselves efficacious. Metuh (1985:7) buttresses: "Some psychological and spiritual cures are not subjects to empirical analysis it is perhaps in the area of psychological and spiritual healing that African traditional medicine has an edge over western medicine." Many might continue to nurse the idea that Igbo - African traditional medicine borders on magic. This is untrue; it is scientific, having its logical basis derivable from the ontological relationship existing among forces, man and nature, among the things of nature too as they work continuously to ensure that harmonic whole is maintained, to ensure order and for the good of man who is at the centre of the universe. Stephen North could melt metals or cause them to blend by simple gaze and focusing of energy peddler kit (1981:88). Physics today goes transphysical, talk of energy, and we ask is energy physical? Is it not equally magical? I think alike with Ifemesia (1979:109) that the effectiveness of Igbo-African traditional medicine is due to the fact that "human mind can make connections with space, time and matter in ways which have nothing to do with the ordinary senses". There is logic in Igbo-African traditional medicine decipherable easily by those who see more with their third eyes than their physical eyes; those skilled in seeing connections among things. Ask yourself has any one being able to demonstrate the idea of causation which is cardinal in scientific enterprise? Science is based on inductive reasoning likewise Igbo traditional science whose product is Igbo traditional medicine.

References

Alonzo (1951) "The Need for Abstract Entities in semantic Analysis" in *Proceedings of the American Academy of Arts and Science* Vol. 180.

Copi, I.M. (1978) Introduction to Logic 5th ed. London: Macmillan.

Edeh, E.M.P. (1985) Towards an Igbo Metaphysics Chicago: Loyola University press.

Etuh U. (2002) "The Possibility of African Logic" in Oladipo, S. (ed) The Third Way in African Philosophy. Nigeria; Hope publications

Feyeranbend, I. (1915) Against Method London: Verso

Hegel (1960) Science of Logic vol 1 trans W.H. Johnstone & L.G. Struthers London: George Allen & Unwin Ltd

Lienhardt (1957) cited by Radin Paul in *Primitive man as Philosopher*. N.Y: Dover publications Inc.

Locke, J. (1986) An Essay Concerning Human Understanding Vol II Everyman;s Library.

Metuh, I.E. (1985) 'African Traditional medicine and healing A theological and pastoral reappraisal" in *Lucerna* vol 6 No. 1.

Nadel S.F (1954) Nupe Religion London: Routledge and Kegan Paul

Nwala T.U. (1985) Igbo Philosophy Nigeria: Literamed Publications Ltd

Nze, CB. (1998) "Uncovering logic in Igbo language ad thought" in West African Journal of Philosophical Studies vol. 1. No. 1.

Ogugua, P. (2003) "The Epistemological conditions of African understanding: A Study of the functions of symbolism in Igbo thought system". A Ph.d thesis Dept of philosophy university of Nigeria.

Ogugua, P. (2004) "African culture and Democracy in Unizik Journal of Arts and Humanities vol v.

Okoh, J.D. (2001) "*Philosophy As An Interpretation* of experience" in Njoku, F.O.C. (ed) Philosophy, Christianity and science in the Third Millennium Owerri: Assumpta pres.

Onubia, O.N. (ed) (1991) History and Philosophy of Science Nigeria: Maiden Education Pubs

Parrinder, G. (1965) West African Religion Epworth Press

Pedler, K. (1981) Mind Over Matter Great Britain: Thames Metheren

Popkin, R. H. (1975) Philosophy Made Simple London: W.H. Allen

Uduma, U. (1998) "Logic As an Element of Culture" in Unah, J. (ed) *Metaphysics, Phenomenology and African Philosophy Nigeria:* Hope Publications.

Wayne (1991) "Logic and Language in the Chuing Tzu" in Asian Philosophy vol. 1 No. 1