THE QUESTION OF METHODOLOGY IN AFRICAN INDIGENOUS KNOWLEDGE SYSTEM

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Abstract
The universal recognition of African indigenous knowledge system has been a recent concern of many scholars, especially those of African descent. There is a lot to showcase as the aspects and contents of African indigenous knowledge system, e.g. health systems, communal ethics, social initiations, religious practices, values, etc. Consequently, so many things could qualify as African indigenous knowledge. This paper, therefore, employing the analytic method of philosophy, calls for the need to raise and resolve theoretical and conceptual issues about African indigenous knowledge system. It argues for the need to resolve methodological puzzles in attempt to formalize African indigenous knowledge. As a result, there is the need to determine the limits and extent of African indigenous knowledge system. The central question that this paper seeks to ask is: what should qualify as African indigenous knowledge? By implication, this question initiates the imperative to construct the criteria for acceptability of what should pass as African indigenous knowledge. The rub of this paper, therefore, is to initiate a discourse on method for African indigenous knowledge. This paper believes that achieving a method for African indigenous knowledge system would make it objective and formal, and consequently, achieve the desired universal recognition.

Key Words: African Indigenous Knowledge System, criteria for acceptability, methodology, universal recognition, cognitive justice.

Introduction
African indigenous knowledge has become a current concern not only because of its aims but also because of its contents. African indigenous knowledge is a product of the African milieu, real or imaginary. Indigenous knowledge is an essential element in the development process of Africa. The contention, however, is how to reconcile African indigenous knowledge and modern science without substituting each other, respecting the two sets of values, and building on their respective strengths. Thus, despite the overreaching influence and application of modern science in almost all aspects of societal life, there are still many areas in the African experience where indigenous knowledge is still prevalent and harnessed. For example, shifting cultivation is a traditional practice in land-use conservation in which land was never over used or repeatedly cultivated season after season and year after year; rather, land was left to rest and covered again with plants and leaves to enable it to accumulate vegetable manure. Also, a change in birds' cries or the onset of their mating period indicates a change of season. These examples underscore the importance of indigenous knowledge as a vital element in the African context.

However, despite the prevalent application and use of indigenous knowledge by Africans, it has not been formalized enough so as to become objective and thereby receive the desired universal recognition. The reason for this is because there is yet to be a methodology which would be the criteria for acceptability of what should pass as African indigenous knowledge. As a result, there is a general lack of information and understanding on the nature, scope and identity of African indigenous knowledge system. To achieve this necessity, it would be required to raise and resolve theoretical and conceptual issues about African indigenous knowledge. This work, therefore, is an attempt at formalizing African indigenous knowledge by initiating a discourse on its methodology.

Generally, the concept of African indigenous knowledge has a lot of definitions which result from the differences in background and ideological perspectives of the people involved in defining it, and such people include among others, social scientists, educationists, representatives of traditional religions, agriculturalists, environmentalists, medical practitioners (World Bank Report). However, African indigenous knowledge is a term that makes reference to the African local knowledge, that form of knowledge that is unique to the African cultural set-up. Thus, African indigenous knowledge is markedly different from the international knowledge. However, African indigenous knowledge system is often misconstrued and misrepresented as some antiquated tradition or custom which, tends to be primitive, outdated or archaic. Such approach would present it as some body of uncritical and illogical beliefs. Thus, it is imperative to adopt the phenomenological approach in bracketing out what African indigenous knowledge is not before proceeding.

African indigenous knowledge is not a system of knowledge that is in opposition to a general so called Western scientific knowledge system, yet it differs from such. Rather than conceiving and understanding it within its own cultural context, it is a prevalent practice to mistakenly attempt to interpret or evaluate it from a Eurocentric view forgetting that its conceptual scheme is peculiar to it and different from all others. Also, the tendency to define it in relation to Western knowledge is problematic in that it raises Western knowledge to a level of reference, ignoring the fact that all systems are culture-bound, and thereby excluding Western knowledge from analysis. Besides, there is a problem with understanding what African indigenous knowledge really means. Over the past decade, a great deal of thinking has gone into defining and specifying what constitutes it. However, different authors on the theme, coming from different backgrounds, have provided a range of different concepts to describe it. Some of these concepts include indigenous knowledge, local knowledge, ethno-philosophy, ethno-ecology, ethno-botany, folk knowledge, traditional environmental knowledge, etc. Basically, however, African indigenous knowledge is a collection of the local knowledge that is unique to the African culture and society; it is the information-base of the African society relating to the survival of indigenous African people, their culture and their environment.

African indigenous knowledge is often perceived as historical and ancient practices of the African peoples, which is a problematic conception. On the whole, the word 'indigenous' has often been used to refer to specific groups of people defined by ancestral territories, collective cultural configuration and historical locations. In this context, indigenous knowledge, according to Owuor (23) refers to “multifaceted bodies of knowledge, practices, and representations that are maintained and developed by peoples with long histories of close interaction with the local natural environment.” The term indigenous, therefore, denotes that the knowledge is typical and belongs to peoples from specific places with common cultural and social ties. Thus, indigenous knowledge is a process of learning and sharing social life, histories, identities, economic, and political practices unique to each cultural group. In other words, indigenous knowledge is “the complex set of activities, values, beliefs and practices that has evolved cumulatively over time and is active among communities and groups who are its practitioners” (Owuor, 23). In attempt to describe indigenous knowledge, Flavier, et al. have argued that it is: the information base for a society, which facilitates communication and decision-making. Indigenous information systems are dynamic, and are continually influenced by internal creativity and experimentation as well as by contact with external systems. This description implies that African indigenous knowledge is dynamic – not static, as the word ‘traditional’ is commonly interpreted. It also means that it is constantly in a form of flux as new knowledge is added to existing sets of knowledge. In another attempt, Warren contrasts indigenous knowledge with the international knowledge system. According to him:
Indigenous knowledge is local knowledge – knowledge that is unique to a given culture or society. Indigenous knowledge contrasts with the international knowledge system generated by universities, research institutions and private firms. It is the basis for local-level decision making in agriculture, healthcare, food preparation, education, natural-resource management, and a host of other activities in rural communities.

Thus, African indigenous knowledge is a system of local knowledge that will have to be incorporated into the mainstream of knowledge. Indeed, one of the fundamental problems confronting Africa today is the arrogance through which the disregard for the fact that cultural systems differ in content and context is perpetuated. There is total disregard for the fact that what is perceived to be truth in one culture is not necessarily also truth in other cultural systems. Thus, the logic and knowledge of any European system should not be transferred to an African setting without making the necessary adjustments after understanding how the people understand their own systems. On the contrary, this measure was not taken in the context of the African encounter with the Western world. This was, perhaps, because the Western world classified the African culture as non-logical, non-scientific and backward.

**Theoretical and Conceptual Issues about African Indigenous Knowledge**

European philosophers of science from Karl Popper to Thomas Kuhn, and Larry Laudan to Imre Lakatos and Paul Karl Feyerabend have spent an inordinate amount of time discussing the nature of rationality, objectivity and problem solving in mainstream science. There is the need to do the same for African Indigenous Knowledge (AIK) by rejecting, accepting, modifying or adapting relevant conceptual baggage in the field, and creating entirely new constructs of analysis for understanding the phenomenon, where necessary. Thus, “resolving theoretical and conceptual issues about the identity of African Indigenous Knowledge Systems (AIK) is in fact one of the many challenges confronting African philosophers, historians, anthropologists and educators” (Emeagwali). This development is, no doubt, a product of the fundamental critique of “the lies, illusions and mystifications constructed in the Western episteme about Africa” (Mudimbe, 179). This implies a crucial challenge of the pursuit of authenticity which demands that as Africans, we “have to stop being what we have not been, what we will never be, and what we do not have to be” (Quijano, 37). A foremost important step towards this is to harness “the usable past” to construct an “authentic African episteme” (Mudimbe, 142-143). There are different prominent philosophical considerations on how the theoretical and conceptual issues about African indigenous knowledge would be worked out. The perspectives of Paulin Hountoundji, Mogobe Ramose and Tsenay Serequeberhan will suffice as a yardstick in this instance.

Hountoundji (534) suggests that an important step in making African indigenous knowledge relevant to the Africans is by integrating it “into the mainstream of ongoing research.” However, Hountoundji’s interpretation of “ongoing research” is beset with a number of flaws because he means the internalist epistemology of modern normal science since he believes in the universal validity of modern science, just as he thinks there is a ‘standard’ way of doing philosophy (Hountoundji, 530). Thus, without ambiguity, he avers that his method for indigenous knowledge is to look “for ways and means to test them in order to validate whatever in them can be validated, and make contemporary science take them into account in a reciprocal process of updating” itself. This is because “ethnoscience does not ask any question about the truth of local knowledge systems. It just describes them and leaves them as they are” (Hountoundji, 535).

With the above, Hountoundji distinguishes between “ethnoscience” and “science” arguing that ‘ethnoscience represents an aspect of the cognitive practices in indigenous African setting, whereas ‘science’ refers to modern science. As such, he ignores Theophilus
Okere’s argument on the varied nature and sources of science, which we uphold (Ajei, 154; Okere, 21). Again, Hountoundji’s position suggests that the practitioners of science in the indigenous setting of Africa were/are impervious to validating their hypothesis and beliefs. However, there are enough researches on the subject to refute Hountoundji’s assumption. For example, the practice of diviners in Ghana has been philosophically proven to meet Thomas Kuhn’s criteria (employing a disciplinary matrix/paradigm) for normal science (Ajei, 100-108) while Sophie Oluwole’s philosophical analysis of the Ifa corpus showed that the Ifa verses actually are rational justifications of specific philosophical positions (Oluwole, 159). Furthermore, Hountoundji’s recipe for African indigenous knowledge system by integrating it into the mainstream of ongoing research cannot survive the clear defiance by modern science to integration and assimilation of non-western systems of knowledge. This is aptly captured by Lauer (263) that “the chief problem of appropriating the benefits of modern scientific method and integrating them effectively into indigenous African knowledge systems has been that the modern scientific tradition has typically prevented it.”

From a different perspective, Ramose, in his Ubuntu, argues that knowledge and being cannot be separated. As such, epistemology is as much an ontological reflection as ontology is an epistemological concern. Therefore, “African ontology and epistemology must be understood as two aspects of one and the same reality” (Ramose, 40). By implication also, religion, law, ethics, politics and other sciences must be anchored upon the ontology of Ubuntu philosophy (Ramose, 51-52). Ramose posits further that the philosophical character of European colonization was the intent of Europe to impose its conceptions of reality, knowledge and truth on the colonized (36), with the goal of questioning the humanity of the African to the extent that it was an enterprise aimed at disproving the humanness of the African (35). Based on the foregoing considerations, Ramose proposes a method for African indigenous knowledge as one that entails the release of the Africans’ conceptions of reality, knowledge and truth from the dominance under the European epistemological paradigm (36). This suggests an authentic liberation.

Serequerberhan (9-12), in his perspective on the method of African indigenous knowledge, has argued that there is need for change in the African's condition of misunderstanding and estrangement from the meaning of ourselves, which have resulted from the mental enslavement that has its roots in the obliteration of the standards and practices of our fathers. Thus, for him, African indigenous knowledge, particularly African philosophy, must play a lead role in the struggle for Africa's emancipation from these by exploring and resolving to decipher the sources of our abdication, confusion and misunderstanding. On the whole, what these theoretical and conceptual issues point to is the necessity of a paradigmatic shift in the conception and theories of African indigenous knowledge system from the current practice of importing Western-controlled standards as the basis for validating African philosophical traditions and indigenous knowledge system in general. This amounts to the methodological puzzles that require adequate response in the attempt to formalize African indigenous knowledge system.

**Methodological Puzzles in attempt to Formalize African Indigenous Knowledge**

One effective way to approach the methodological issues facing African indigenous knowledge is to examine whether it is formal or informal, institutionalized or not, and structured or unstructured, etc. Thus, the question here is whether like mainstream science African indigenous knowledge can negotiate nature through sequential processes such as hypothesis formulation, experiment and prediction. In short, is African indigenous knowledge predictable and repeatable? This raises the consideration of the mode of transmission and sharing of African indigenous knowledge which is often collective rather than individualistic. Apparently, African indigenous knowledge is relatively less transferable due to its flexibility which is premised on its holistic socio-cultural and spiritual dimensions. In the predominantly
Western-oriented academic circles, the African voice or idea is either sidelined or suppressed because indigenous knowledge and methods are often ignored or not taken seriously. One obvious reason for such discrimination is because African indigenous knowledge system has no manifest methodology guiding its production, transmission and application. Thus, a reliable method is at once required in order to heighten awareness, stimulate new thoughts and generate discussion on the wealth of African indigenous knowledge system. Consequently, there is need to engage in the tedious task of developing and using alternative methods in conceiving the African reality and refrain from sticking to Western methodologies. If truly the investigation and preservation of African indigenous knowledge must be achieved, then African scholars particularly must be challenged to seek alternative method for its enquiry.

Furthermore, the hallowed concepts and methods within Western thought are inadequate to explain all of the ways of knowing because universality can only be dreamed about when we have “slept” on truth based on specific cultural experiences (Asante, 168). All knowledge has cultural relevance and must be examined for its particular focus and so it is dangerous, if not oppressive, to hail any one method of investigation as universal. Therefore, all indigenous ways of knowing are to be respected and valued in their uniqueness. That being the case, knowledge and its methods of investigation, cannot be divorced from a people's history, cultural context and worldview. Surprisingly, in Eurocentric thought, indigenous knowledge is often conveniently represented as 'traditional knowledge', connoting a body of relatively old information that has been handed down from generation to generation essentially unchanged, hence dismissed as obsolete. The basis for such thought, according to Battiste (33), is because Eurocentric scholars have taken three main approaches to indigenous knowledge. Firstly, they have tried to reduce it to taxonomic categories that are static over time. Secondly, they have attempted to reduce it to its quantifiably observable elements. Thirdly, they have assumed that indigenous knowledge has no validity except in the 'spiritual' realm. In reality, none of these approaches adequately explains the holistic nature of indigenous knowledge or its fundamental importance to indigenous people.

The discrimination of African indigenous knowledge in the face of Western knowledge expresses the consistency condition which plays an important role in Newton's philosophy though Newton himself constantly violated it. The consistency condition is unreasonable for it preserves the older theory, and not the better theory. It preserves the older and familiar theory not because of any inherent advantage in it but because it is old and familiar. Thus, for eliminating alternatives, the consistency condition disagrees not only with scientific practice but also with empiricism since Feyerabend (41) has argued that “the invention of alternatives to the view at the centre of discussion constitutes an essential part of the empirical method.” Therefore, any method that encourages uniformity is, in the last resort, a method of deception because it leads to a deterioration of the power of imagination and of intellectual capabilities while enforcing an unenlightened conformism.

**Characteristic Features of African Indigenous Knowledge System**

Although there are many things that could qualify as African indigenous knowledge, the emphasis here is basically on the features that cut across all items that could be classified as African indigenous knowledge. It is hoped that these features would provide a vivid impression of what a legitimate method of African indigenous knowledge should be. African indigenous knowledge is the experiential knowledge that is based on the worldview and culture of the African peoples. However, African worldview includes wholeness, community and harmony which are deeply embedded in the cultural values. Thus, the acquisition of knowledge in the African context is also collective and community oriented. For instance, central to the African worldview is the strong orientation to collective values and harmony rooted in a collective sense of responsibility – this signifies a collective ethic. More
importantly, African indigenous knowledge, and its method of acquisition, has a practical, collective and social or interpersonal slant. In fact, African indigenous conceptions of intelligence, for example, emphasize the practical, interpersonal and social domains of functioning and are quite differentiated from the cognitive 'academic' intelligence that dominates Western concepts of the construct. Similarly, learning for the African child is mostly peer oriented and participatory with less adult instruction (OwusuAnsah and Mji).

As a knowledge system, African indigenous knowledge is characteristically oral and passed from generation to generation in the context of community living and activities (Owusu-Ansah and Mji). Regrettably, however, oral tradition which is characteristic of indigenous knowledge system is often, although erroneously, looked down upon relative to the written tradition. As a result, African indigenous knowledge has been mistaken by many as simplistic and not amenable to systematic scientific investigation, partly because African indigenous knowledge is mainly oral and not written, and partly because it is people-centered and sometimes not so easily 'measurable' (Emeagwali ). However, the rich complexities of African indigenous knowledge are found in the community ceremonies and rituals, namely, story-telling, proverbs, folktales, recitation, demonstration, sport, epic, poetry, reasoning, riddles, praise, songs, word games, puzzles, tongue-twisters, dance, music, and other education-centered activities (Ngara). Above all, it is on record that before the advent of Western methods of scientific enquiries, African knowledge and methods have successfully guided its peoples in all spheres of functioning, including the spiritual, social, educational, agricultural, political, and economic. It is from this perspective that we argue that African methods of knowing must drive African indigenous knowledge in order for it to be meaningful and relevant to the peoples.

A Discourse on Method for African Indigenous Knowledge
African indigenous knowledge systems have suffered gross neglect in the face of the purported efficiency and effectiveness of modern science in the present day. It is even more startling to realize that some contemporary African philosophers and scholars have joined the bandwagon for the relegation of African indigenous knowledge. Reichenbach (8) makes a fundamental input to this circumstance which at the same time serves as a guide to finding a method for African indigenous knowledge. He argues that scientific explanations and hypotheses were based on inductive generalizations from observable facts to scientific principles. Although he acknowledges such a generalization also in African indigenous knowledge, he however argues that such a generalization was valid if it was derived from the relevant aspects of the circumstances in question and facts were explained when they were subsumed under general scientific laws. Contrary to this, according to him, appeal to gods and spirits in order to account for events, as obtainable in African indigenous knowledge, were not explanations because they relied on weak analogies to common-sensical entities and processes. For Reichenbach, the assignment of human qualities to physical objects was a form of anthropomorphism that produced, not explanations, but pseudexplanations (8).

Gyekye (121-123) further observes, in line with Reichenbach, that the principal source of knowledge in African traditions is inductive generalization from specific experiences and observations. Given his acceptance of the view that modern science develops by a similar strategy, he expresses puzzlement as to why such an epistemic outlook in traditional Africa did not lead to a greater interest in the scientific principles underlying traditional technologies. His conclusion is that the tendency for traditional Africans to provide causal accounts in terms of spiritual or mystical powers stunted the growth of science. Besides, it is possible to see methodology in explanations in terms of gods, spirits, and ancestors. As argued by Robin Horton, mystical accounts are theoretical schemes linked by correspondence rules to the realm of common sense, the aim being to account for anomalous everyday happenings by appeal to interactions between theoretical entities.
According to Horton (304), “Like atoms, molecules, and waves...the gods serve to introduce unity into diversity, simplicity into complexity, order into disorder, regularity into anomaly.” As such, the mystical entities and forces of primitive religions and African indigenous knowledge, serve the same function as the theoretical forces and entities of modern science.

The primary difference between African traditional religion (and African indigenous knowledge in general) and modern western science, according to Horton, is that traditional cultures are 'closed' while scientifically oriented cultures 'open'. By this he means that “in traditional cultures there is no developed awareness of alternatives to the established body of theoretical tenets; whereas in scientifically oriented cultures, such awareness is highly developed” (322). He argues that it is this absence of awareness of alternatives that encourages an absolute commitment to the theoretical idiom of spirits and mystical relations. Since the traditional thinker "can imagine no alternatives to his established system of concepts and words, the latter appear bound to reality in an absolute fashion", so that manipulation of words and symbols is tantamount to manipulating the spirits and mystical relations the words and symbols represent (324). At this juncture, what should be our guide to the methodology of African indigenous knowledge is a caution to see it properly as a sui generis and not to compare it with Western science or knowledge. Following the proposal of Kwasi Wiredu in his famous essay, "How Not to Compare African Thought with Western Thought", Sogolo urges that we compare traditional African beliefs, not with modern science, but rather with traditional western beliefs. According to him, if Jesus walked on water and witches fly, then the traditional beliefs of both Africa and Europe make the assumption that some people are endowed with the ability to achieve good or bad effects by supernatural means. Finally, one major compass in the search for the method of African indigenous knowledge is to make a case for cognitive justice. This implies a more dialogic engagement between the dominant western knowledge structures and African indigenous/traditional knowledge systems. This will ensure the eradication of the museumization of indigenous knowledge systems as obsolete artifact, useful only for historical display.

**Conclusion**

The cognitive justice recommended above revolves around the right of a plurality of knowledge structures to co-exist in a dialogic relationship with one another. Thus, it emphasizes the cohabitation of western science and knowledge systems with African indigenous knowledge systems. With this, there is need to insist on a unique and original method different from the methods of Western knowledge systems for African indigenous knowledge. This is because the latter differs from the former in great degrees. For instance, African indigenous knowledge may not be described as 'city' sciences like its Western counterpart, but rather as sciences routed in a larger cosmology and understanding of the earth, universe, spirituality and culture. Thus, cognitive justice is based on the principle that all forms of knowledge are valid and should co-exist in a dialogic relationship to each other. As such, African traditional knowledge and technologies should not be marginalized and 'museumized'. This work therefore is a passionate call to all intellectuals of African descent and those who have African studies at heart to refrain from the unjustified attempt to conceive African indigenous knowledge as a sub-arm of Western knowledge and thereby determine and validate it with the conceptual schemes of Western knowledge. The real problem is not that African indigenous knowledge is inferior to Western science and knowledge. Where the problem lies is that there are no manifest methodologies guiding the operation of African indigenous knowledge, hence the recourse to Western methodologies as a guide. However, this work has argued for the possibility and potency of methods which are original and natural to the African indigenous knowledge systems. As such, it recommends relentless efforts in this direction so that these methods will be determined, and consequently, African indigenous knowledge will be formalized.
Works Cited