

A Critical Examination of Induction and African thought System

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Abstract

Induction as a method of science is formulated from simple observation of particulars and their series, interconnectedness and order from whence general laws are derived. The highpoint of induction is centered on ?particular instantiation? which informs the heart of the general conclusion. These being the case, one will wonder if this kind of culture or way of reasoning can be replicated in African thought system especially when it is common knowledge that the particular ?individual? in African worldview is not seen nor heard but lost in the general scheme of things. How then can the individual be a basis for a general consensus about the truth of a matter? This inquiry informed the thrust of this work.

Index terms— induction, african, cosmology, thinking, logic, reality.

1 Introduction

Induction as a method of inquiry is popularized by the West. The built in mechanism of induction is the cornerstone of modern science and science is western contribution to humanity. The point that is being stressed here is that induction is horned out of the western culture and tradition. This point must be kept at heart because this is where the position of this work will be justified. Barbet (2001), gives us an idea of inductive reasoning viz:

(a) Tom, Dick and Harry were all born under the sign of Pisces, are 34 and have had an unpleasant experience on the thirteenth day of June. Mary is also 34, and had an unpleasant experience on 13 th June. Therefore Mary is Piscean. (b) I have observed the sun to rise every day for the last forty years. Therefore it will rise tomorrow (p.35).

He went on to explain that (a) is an argument from analogy, essentially it involves an inference from premises stating that a group of things share a number of features to a conclusion which affirms that another member of the group known to possess all but one as well; (b) Is an example of simple enumeration in which we move from a statement about past instances of a thing or event possessing a number of characteristics to a statement affirming a future occurrence.

2 II.

3 Induction, Types and Problems

The term induction may have been derived from the Latin word 'inducere' which means to 'Lead in'.

Hence inductive logic is not concerned with the rules for correct reasoning In the case of 'valid' or conclusive reasoning, but rather as opined by Popkin and Stroll (1969) is 'concerned with the soundness of those inferences for which the evidence is not conclusive' (p.226). In particular, while deductive logic is concerned with inferences from the general to particular (i.e, from assertions about the whole of a class of things to assertions about some of them), inductive logic is concerned with inferences from the particular to the general, and the inference of a general proposition from particular assertions can never be conclusive.

According to the naïve inductivist, science starts with observation. Observational statements about the world form the basis from which the laws and theories that make up scientific knowledge are to be derived. To the inductivist, provided certain conditions are satisfied, it is "legitimate to generalize from a finite list of singular

observation statements to a universal law” ??Chalmers, 1982:3). This process of drawing the conclusion of an argument about an object or event that is yet to occur on the basis of previous observations of similar objects or events made Aigbodioh (1997) to articulate Newton’s induction thus:

The inductive method of analysis is most important and indispensable to the natural sciences, and is preferable to the deductive method because it enables the scientist to move from knowledge of one form of object to another, example, effect to causes. This means that induction plays an important role in scientific practice and is more useful than deduction because whereas in deduction the conclusion cannot enlarge our knowledge of the empirical world beyond the scope of information already provided by the premises, the conclusion of an inductive inference does (p.147).

4 I

The basic idea of induction as can be deduced from the forgoing is that we start with observation and The principle of induction is held to lead us to a generalized kind of truth or laws from individual to general conclusion by which science thrives. Science is still making progress from the application of inductive principle meaning that induction is worth studying as a mode of inquiry. At the end of this work, we should be able to attain to new insight that will further the horizon of our knowledge. Let us proceed further by looking more closely at induction and its types. move up to generalizations. In other words every good scientist following the inductive method will begin by making a large number of careful individual observations. They will in turn curiously infer some generalizations from the data collected, and probably make predictions on the basis of this generalization.

That said, we have some types of induction amongst which are: hasty generalizations, illicit conversion, slanted question, fallacy of biased generalization, self selection fallacy, fallacy of anecdotal evidence, inductive generalizations, inductive syllogisms and inductive argument by analogy. All these are just different shades of presenting the idea that embodies induction. Their conclusions are implicitly probable. This is where the problem of justifying induction suffices. Of course an inductive argument will not be deductively valid because even if a pattern is found many times, that does not guarantee it will always be found. Therefore an inductive argument provides weaker, less trustworthy support for the conclusion than a deductive argument does.

Induction cannot be justified on logical grounds. We see that from the analogy of Bertrand Russell’s story of the inductivist turkey that got so used to being fed at 9.am. However, being a good inductivist, he did not jump into conclusions; this is how Chalmers (1982) captured the story:

He waited until he had collected a large number of observations of the fact that he was fed at 9.am, and he made these observations under a wide variety of circumstances. Finally, his inductivist conscience was satisfied and he carried out n inductive inference to conclude: ”I am always fed at 9.am. Alas, this conclusion was shown to be false in no uncertain manner when, on Christmas Eve, instead of being fed, he had his throat cut. An inductive inference with true premises has led to a false conclusion (p.14).

5 III.

6 African Cosmology and Worldview

African Cosmology and Worldview is nothing other than the web that ties the African people together cutting across her heritage, culture, tradition, belief, philosophy and myth. Ojong (2008) speaking along this line aver thus:

When we are talking about the African worldview, we are invariably referring to the African cosmology and the kind of epistemology that goes with it, as well as its methodology (p.200).

Cosmology is basically a science or a theory of the universe and what there is in the world. In every clime, people have their own views and perception of the world and Africa is not an exception; Africans know and relate very well with their environment. Umoren (2005) understands this point very lucidly when she avers that:

Every society possesses a body of knowledge through which the universe would be interpreted. The knowledge, otherwise called cosmological ideas represents that society’s worldview. The worldview held by an individual in a given society is dependent on the cultural beliefs prevalent in that society (p.11).

Myth relates to primordial event that took place at the beginning of time. It is a special story about past happenings which are generally held to be real. The actors of the myth are in most cases gods or culture heroes, not human beings as such. There is the assumption that man cannot know his acts except they are revealed to him. The myth, therefore, is a recital of what the gods or the semi-divine beings did at the beginning of time (p.45).

An understanding of a cosmology and worldview of a people is a pathway into knowing the cultural heritage of such people and how they are able to cognize and make sense of the many happenings in their environment and like Masolo (1994) will say: ”any philosophy or thought system that is not part of its tradition does not constitute experience” (p.248).

African tradition and thinking does not permit forgone definitions of the cosmological perspective, in their search for meaning because Africans are inclined to discussing issues relating to everyday living. It should be emphasized that Africans, rather than subject the world to proof of existence, continually live with the world and within the variety of worlds, because its existence is real and without doubt and he finds himself welcomed by it.

For the Africans, the world includes the earth, sun, moon, stars and the other planets. This permits the African cosmology to be described through myths. African thought recognizes a plurality of worlds and hierarchy of beings. However, the material world is just the first step towards understanding other worlds of The problem of induction is predicated on trying to justify induction by induction. This makes it circular; so to give the problem a soft landing, the idea of degree of probability is introduced. Thus generalizations arrived at by legitimate inductions cannot be guaranteed to be perfectly true, but are probably true.

From the above quotation, we can see that culture plays a very formidable role in understanding a peoples cosmology and their worldview. Worldviews explains the how and why of things and why things continue as they do. They also allow one to order and systematize perception. Hence African cosmological ideas are drawn from cultural and religious beliefs and practices. A critical element in cosmology is myth; Myths represent explanatory mechanics and organizing metaphors utilized by Africans to resolve puzzles of nature. Udiugwomen (??001), talking about the nature, function and logic of myth opines thus: which is the spiritual worlds. This will now lead us into the core issue of this work and that is to see how the individual is submerged into the whole scheme of things.

IV.

7 An analysis of Induction and

African Thought System.

Today as it were, western classical thinking has permeated every nook and cranny of knowledge and it is held as a paradigm for pedagogical praxis. However on a closer examination, by the understanding of African cultural heritage and tradition, it is becoming increasingly a paradox in trying to fit some themes and concept of western logic into African traditional thought system.

Induction as we have observed so far, is a creation of the west at least in principle and practice whether induction itself is logically justifiable or not. At least we see a kind of reverence for the method and its applicability in numerous disciplines and dimension. But when we attempt to place the principle of induction side by side with African thought system, it becomes like putting a square peg in a round hole. In order to really project this truth, let us briefly examine the ontology of African thought system.

According to Momoh (1989), "our philosophy is more of co-existence with nature, rather than conquest, more of collectivism than individualism, more of holism, rather than atomism, more of synthesis rather than analysis" (p.59). Momoh has just juxtaposed western and African thought systems, showing clearly their point of departure. Communalism is what characterizes Africans and is not far fetch from her thought system. In traditional African life, the individual does not and cannot exist alone except corporately unlike in the west where individuality is the defining paradigm of that tradition. The individual in Africa owes his existence to other people, including those of past generations and his contemporaries. He is simply "part of the whole" ??Mbiti, 1969:p.103).

The community must therefore make, create or produce the individual, for the individual depends on the corporate group; hence, the corporate or general group is of more important to the African that is why he is communally minded. Nkemnkia (1999) speaking along this line contends thus:

Just as one cannot remove a fish from the water to talk with it, in the same way it is not possible to remove an African from the life of the clan, tribe or family since he will no longer be an authentic African having lost his deepest identity, his very being (p.112).

With such conception, the meaning of an individual's life is founded in and through his relationship with the other or others. In fact it is meaningless to ask oneself "who am I" without having a complete knowledge of the other, from whom in the final analysis one expects the answer.

Kinship therefore has been one of the strongest forces in traditional African life. Kinship is reckoned through blood and betrothal that is engagement and marriage. It is kinship which controls social relationships between people in a given community. Almost all the concepts connected with human relationship can be understood and interpreted through the kinship system. This is it which largely governs societal behavior, thinking and whole life of the individual in the society of which he is a member.

V.

8 Evaluation

From the forgoing then, certain truths become axiomatic on their own, some of which are that: reality is colored by a people's belief, culture, tradition, philosophy, perception or cognition and even cosmology and worldview. Thus, no culture has the final or the most correct view of reality for we know in part such that one man's premise, becomes another man's conclusion. Since it has been established that induction as a western logic, embedded in her culture (from whence science operates from) does not fit into African thought system, the question to be posed here is: does it mean that Africans will continually fall short in terms of benefitting from science and technology? The answer is no; the benefit of science and technology is being enjoyed by all and sundry including Africans. But we must stress that science does not have answers to all the questions that bedeviled man especially when the issue cuts across matters of morality and society.

9 VI.

10 Conclusion and Recommendation

In concluding this work, it is pertinent to reiterate that, differences in perception of reality by conflicting culture should be a strength and not weakness as the thrust of this truth will elicit caution in making harsh remarks about other people and their cultures. No one has absolute knowledge and reason is a primary preserve of man. Thus if Hegel and other racists knew this truth, they would not have remarked that Africans do. Our major focus and emphasis as far as this work is concerned has been on the discovery of the line of thought of the west contrary to the Africans hinged on cultural differences with ontological persuasion. It becomes *prima facie* to establish that every people and divide have their own unique and indigenous logic of viewing reality hence the need for tolerance and understanding in our criticism of other cultures.

Induction then as a western idea and culture runs antithetical to the spirit of brotherhood and kinship of the African. This is predicated on this simple logic: in western induction, the "general conclusion" gets its identity from individual or particular instantiation; but in African thought system or logic, it is the "general" that gives the "particular" or an individual its identity; so that we can correctly say that the logic of western induction runs contrary to the logic of African thought system. not have rationality. So by way of recommendation, there should be respect for inter and cross cultural inquiry with moderation in passing hasty generalized judgments about a people's perception of reality even when we seem intellectually privileged because as the saying goes "what is good for the goose is also good for the gander".

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