The "Paranormal": African Philosophy Questions Science

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Abstract

Modern science and its underlying philosophical doctrine, physicalism, have persistently denied reality to a set of phenomena they refer to as "paranormal". However, belief in the occurrence of these events is common to many non-Western cultures. This essay addresses the question of the reality of these events and advance the view that science, on its own methodology, can neither sustain the denial of their reality nor justify its rejection of the "paranormal" as sources of knowledge.

1. Introduction

This paper attempts a critical review of the dismemberment by physical science and its underlying philosophical doctrines of the set of phenomena referred to as "paranormal". A widely accepted definition of a "paranormal" event is that which seems to contradict the fundamental ideas and principles upon which modern science has been based (Mosley 1978: 9). Belief in the occurrence of these events is common to many non-Western cultures, yet their ontological status and, with it, the question of whether they can be legitimate sources of knowledge has occasioned academic debate since the end of the nineteenth century. All subscribers to physicalism, the ontological and epistemological framework which sustains mainstream Western science, have persisted in their denial of existence to these phenomena and the claims to knowledge made by their advocates. This essay will address the question of the reality of 'paranormal' events and defend the thesis that they are real and can furnish us with legitimate knowledge. Therefore science, on its own methodology, cannot sustain the denial of reality to the 'paranormal'. Nor is the rejection of the 'paranormal' as sources of knowledge methodologically tenable.

Toward this, we expound indigenous African ontological and epistemological concepts to explain the 'paranormal'. The physical scientist who denies paranormal phenomena must provide better explanations than those offered by indigenous African knowledge systems. We claim, further, that the principles underlying the methods of scientific practice, interpreted more broadly than that commonly understood in the West, are embedded in the philosophies of many traditional African cultures, and that certain African indigenous concepts become viable scientific postulates for the explanation of the "paranormal". "Sunsum" an Akan ontologically-epistemological concept is a viable "scientific" postulate for the

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explanation of the 'paranormal'. Therefore, broadening the methodology of science to embrace the procedures that traditional African thinkers employ for the investigation of nature can make meaningful contributions to the search for knowledge and truth.

The argument for the broadening of the methodology of conventional science speaks to the need to take African, Latin American, Asian and Australasian indigenous knowledge systems seriously. Our discussion falls accordingly within the general context of indigenous knowledge systems and, in particular, African indigenous knowledge systems with particular reference to Akan cosmology.

It is not our intention to engage in an elaborate disquisition on the meaning of the phrase, African indigenous knowledge systems. Although such a special discussion is scientifically apposite, we shall content ourselves with the acceptance that the phrase refers to the knowledge, beliefs and cultures of peoples whose ways of knowing and acting were and, continue to be systematically discarded – in the name of "science" and "civilization" – from the global construction of "scientific" knowledge.

2. Occurrence of the "Paranormal": Myth and Reality

The founding of the Society for Psychical Research (SPR) in London in 1882 is often taken to mark the first effort in the Western world to address the question of the occurrence of paranormal phenomena scientifically. The Society undertook to "investigate, among other things, the alleged acquisition of knowledge without the use of any known sense organ" (Mundie 1967: 49-50), and the commonest term given to the kind of information identified for investigation on the agenda of the SPR is Extra-Sensory Perception (ESP) or Paranormal Cognition (PNC).

The terminologies employed by the Society in defining the subject of investigation are instructive on the skepticism about the occurrence of such phenomena. The empiricist stance permeates the terminologies. The aim of the society suggests clearly that the sense organs (and elliptically the pure activity of the mind processing the impressions of the sense organs) constitute the pathways to the acquisition of a class of knowledge about which there is no allegation of unreality. These then, by implication, must be the normal pathways to knowledge. There is, with this, the implication of the existence of a possible category of knowledge, that which is alleged to exist para the normal, and whose status must be judged according to the standards that determine the normal. Embedded in this conception is that the events which are para the normal can never fully coincide with normal events.

It is not unreasonable to suppose that this prejudgment in defining the research tasks of the society have provided a conceptual background that excluded
and clouded alternative viewpoints and nourished the self-assurance of critics of the paranormal. This is the reason why we use the term "paranormal" in quotation marks.

Experimental study of the "paranormal" has since then been the approach of parapsychology or psychical research, and by the 1940s, experimental study had accumulated enormous evidence for the occurrence of such phenomena in Europe and America (Carrington 1945; Johnson 1955; Rhine 1934; Schmidt 1969; Stanford 1978; Tyrell 1953). The researchers identified two broad categories of "paranormal" events. These are Paranormal Cognition (PNC) or Extra-Sensory Perception (ESP), on the one hand, and Psychokinesis on the other.

They distinguished four main sub-species of PNC, the first of which is telepathy, a term they employed to refer to the communication between one mind and another without the use of the recognized channels of sense. In ordinary parlance, we identify telepathic ability as the ability to 'read someone's mind'. Next is clairvoyance. This refers to the mind's ability to acquire knowledge of physical objects or events extra-sensorially. An example of clairvoyant ability would be X's ability to state accurately the contents of a closed briefcase that he encounters for the first time. Precognition, the third species of PNC, refers to the ability to acquire fore-knowledge of events without the use of recognized sensory channels; and finally retrocognition refers to the non-inferential cognition of events in the past, verified later, which are outside the range of a person's memory (Johnson 1955: 9 - 57).

On the other hand, all the phenomena in which the mind is deemed to have extra-sensorial powers of action in the world constitute psychokinesis. The most important sub-species of this, for our purposes, is witchcraft, since this constitutes a good portion of the belief in the "paranormal" in Africa. Witchcraft can be defined as an innate power which can be used by its possessor to influence events in the world from any distance (Oluwole 1995: 366).

3. Skepticism of the "Paranormal"

In spite of the available evidence of experimental research, subscribers to physicalism, the philosophical doctrine underlying the physical sciences, have deployed diverse claims to discredit the findings of psychical researchers and condense on the conclusions of non-western cultures that maintain the occurrence of events that do not easily lend themselves to the explanatory framework of physicalism. Most of this skepticism can be brought under four main categories.

(a) Accidental occurrence

Perhaps the most common of these is the chance hypothesis. This is the claim that "paranormal" events have occurred by persistent accident. This, of course, is a
self-refuting argument for the champion of this hypothesis because an accidental event is an event, and one counter-instance is sufficient to defeat pretences of universalism. Besides, the chance hypothesis amounts to the claim that evidence stretching through varied conditions in different cultures over a wide range of subjects at different times is fortuitous and therefore unreasonable.

These notwithstanding, sufficient documentation exist to prove the conformity of the methods of psychical researchers with established scientific methods of experiment and analysis of testimony. To ensure the validity of their findings, the psychical researchers employed the mathematical evaluative principle of probability, and their calculations of chance, from the 1920s onwards, fulfill the requirements for general practice among statisticians (Rhine 1934: 150). In 1937, the American Institute of Mathematical Research affirmed that these statistical analyses were essentially valid (Mundie 1967: 55), and recent meta-analysis of these findings supports this (Utts 1991). What these mean is that scientific method has established the occurrence of these events. Consequently, pleading the chance hypothesis, by employing scientific methods as the measure of the reality (i.e. the non-chance occurrence) of a phenomenon, leads to inconsistency and cannot therefore stand.

Once the chance hypothesis is ruled out further questions arise regarding human reliability. These are whether we can vouch for the sincerity and competence of the researchers, and if yes whether loopholes may have existed in their techniques that might annul their conclusions?

(b) Sincerity
The subject of sincerity requires very little in answer. Psychical research, like most academic pursuits, is primarily a quest for truth about nature which, for many decades, was pursued by "several university departments in most of the [western] world" (Koestler 1974: 15). Therefore, suspicion of fraud mars the integrity and probity of thousands of respectable scientists. But it would be unreasonable to suppose the reality of a conspiracy on such a scale. Hence the fraud hypothesis must be dropped.

The remark of J. B Rhine, a psychologist who led a para-psychological laboratory in Duke University for forty years, on the question of incompetence is that: "It is also probable that some errors have been made in recording, totaling and computing values. If so, such errors are at most of trifling consequence. The general ground has been covered too often and by too many individuals for serious error that would vitiate an important conclusion" (Rhine 1934: 154). In other words disbelief in the competence of the researchers can be sustained only by a fanatic and unintelligent doubt. Therefore doubts based on both the fraud and incompetence hypotheses are deemed to be unjustified. Accordingly, they must be
rejected. Even here it is worth noting that the fact that a scientist vouches for his or her competence does not by necessity exclude the possibility of error. The claim to competence is not the affirmation of infallibility.

(c) Scientific proof

The remaining source of skepticism of the reality of “paranormal” events worth considering is that these events are difficult to confirm in a way that meets the demands of proof of science. As with the others, this claim can hardly be rationally defended. The statistical nature of scientific justification as the basis for strict replication and prediction is a necessary but not sufficient condition for recognizing the objectivity of science (Doyal and Harris 1986: 52-72). In upholding ‘objectivity’ science necessarily excludes certain elements and segments of reality from its purview. It is therefore narrow and limited in scope. Elements or segments of reality falling outside the scope of science are no less real because of their exclusion. Now, a review of PNC experiments reported since 1934 indicates a statistically significant replication rate of sixty one percent of approximately 3.3 million trials (Honorton 1978: 487). Honorton observes that “this is 60 times the number of significant studies we would expect if the significant results were due to chance error (Honorton 1978: ibid)”.

It is reasonable, then, to view the replication status in the findings of psychical research within the larger perspective of replication demands in other areas of scientific research. It becomes clear, when this approach is adopted, that ‘paranormal’ phenomena are not the only events in which strict replication is unfeasible. In the medical and behavioral sciences, the demand for strict replication is an exception to the rule (Beloff 1994: 9). Even in contemporary theoretical physics, the ability to predict future events under definite circumstances seems elusive. Thus “Yes! Physics has given up. We do not know how to predict what will happen in a given circumstance, and we believe now that it is impossible — that the only thing that can be predicted is the probability of different events” (Feynman, Leighton, & Sands 1965: 10). Therefore, the challenge of non-replication may also be set aside.

The conclusion to be drawn from this is that the recalcitrance of the subscribers to physicalism must be solely because these events defy their explanatory framework. It remains to be seen how justified this recalcitrance is. Before we attend to the question of this justification, we turn to some features of the ontological and epistemological systems of African cultures, which do not fully endorse “the fundamental ideas and principles upon which modern science has been built”, and consider how they legitimately sustain the reality and rationality of the “paranormal”.

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4. Foundations of the belief in the "Paranormal" in African Philosophy

The fundamental structure of Akan cosmology and ontology is fairly well documented (Ajei 2000; Busia 1963; Danquah 1968; Gyekye 1995; Rattray 1927) and the predominant interpretation of these by traditional Akan sages, philosophers and anthropologists alike reveals the following three essential features:

The first is the postulate that existence comprises visible and invisible realms. Secondly, Akan thought postulates a universe containing a hierarchy of beings, with Onyame (the Supreme Being) at the top. In descending order from Onyame comes the abosom (deities) the Nsamanfo (ancestral spirits) human beings and physical objects. Some commentators have attributed a dualistic universe to the Akans (Gyekye 1995: 87), assigning all the categories of being beyond human beings to be the immaterial/spiritual realm of existence, whereas observable entities like trees have been consigned to the physical realm. We would like to suggest here that although the Akan thinker affirms that the universe is composed of visible and invisible beings, it is doubtful whether the implication is that these aspects of existence are two distinctly separate categories as the notion of dualism would suggest. Rather the Akan thinker conceives of these two realms as two points on a continuum, and not distinct realms. This makes a clear-cut dichotomy of the immaterial/material or spiritual/physical in Akan ontology implausible.

The third essential postulate of Akan cosmology is that the universe is endowed with varying degrees of force of power, all of which derive ultimately from Onyame. This force or power is sunsum, "a universal spirit, manifesting itself differently in the various beings and objects in the natural world" (Gyekye 1995: 73) or "a general power to act in non-ordinary, non-physical ways" (Minkus 1977: 115). In particular existents, sunsum itself manifests as an activating essence. On this view, all existing things are similarly unified by their indispensable possession of sunsum, a universal force that functions as the activating principle of their being. The concept, then, accounts for the basic similarity of all existents, which are alike in being spirited or active.

But what is meant by the claim that sunsum is a ‘power’ or ‘force’ that pervades the universe? Most traditional Akan sages and modern philosophers alike admit that sunsum, as force or power, is locatable in this world and is accessible to sense experience under certain conditions. It is immediately concealed from the senses, but the shroud that veils sunsum from immediate perception may be removed under certain conditions, which may be achieved by training or by the conscious (or unconscious) assumption of a certain mental state (Ofosu: 1999).

As a force capable of manifesting, and influencing events, in the physical world, sunsum, by nature, is susceptible to the system of coordinates that define the spatio-temporal schema. Yet, it is not like the concepts of mainstream Western
philosophy and science, guided exclusively by the canons of the logic of binary opposition with its central principles of Identity and Non-Contradiction. This is the case because this logic, primarily concerned as it is with the form rather than the content, of thought, is ill equipped to capture the content and all the ramifications of the dynamism of a concept like sunsum.

In order for an existing thing to be active or have consciousness its sunsum has to interact with the energy of something else in the universe. Consequently, philosophers in the indigenous African setting define experience as the outcome of interaction of sunsum. These interactions lead to events of which we may be cognitively, affectively or sensorially aware, and sometimes not. The vitality of the sunsum possessed by the various beings on the hierarchical structure of Akan ontology differs, and these different levels of potency of sunsum determine the levels of awareness of these beings.

If the ability to consciously experience an event depends on the vitality of one’s sunsum, then a human being may be endowed with just sufficient sunsum to enable him/her consciousness only of the physical world, or some aspects of it. However, this vitality may be augmented to enable a person attain ‘cosmological consciousness’, a level of conscious energy that is capable of apprehending “our understanding of the divine and our relationships to the divine and everything’s relationship to everything else” (Grills 2002: 12). Cosmological consciousness, then, denotes the ability of a person’s sunsum to maximize the use of primordial intelligence with which he was endowed at birth, permitting it consciousness of events which are not ordinarily knowable to others.

The Akan thinker’s notion of sunsum as force coincides with the notion of energy in Western science, conceives of energy as all that was, is and ever will be (i.e. something that can be neither created nor destroyed). On this view, energy may not be visible, but we can understand its properties to do useful tasks called work. The transferring of energy from one object to the other is what is meant by work. Therefore, work is the product of a force (F) times a distance (d). Newton’s First Law states that if there is no net force on a body, then that body must remain at rest if it is initially at rest.

It is important to note two things at this juncture. First, that Western science has for centuries admitted as one of its most important theoretical postulates something (energy) that cannot be seen by our ordinary channels of perception, but experienced. Secondly, that an energy source can neither be created nor destroyed.
5. Wholeness and Sunsum

Due to the belief in the existence of a universal active force that derives from Onyame, the Akan thinker can legitimately be held to conceive of being or nature as one. In this ontology, human beings, like all categories of being partake, by virtue of the species of sunsum in them, of the being of Onyame. Therefore, we cannot plausibly separate being (as matter) from being (as consciousness). Being is understood as being wholeness. I partake of sunsum and so does that tree. Our sunsum derives from one source.

Since all the beings in a wholistic framework share characteristics of the various aspects of a complex whole that forms an internally contiguous order, holonistic ontology succeeds in harmoniously fitting the multiplicity of beings in a single domain of existence. Now, it is important to understand that in this oneness the essential relations among the diverse beings allow for such fluidity that the categories which define their essential attributes dovetail into each other (Abraham 1962: 51). What this notion of beings perpetually emanating from, and gravitating towards the source of their existence means is that their existence is merely a pattern of interactions within a wholeness that each existing entity has the power to interact with every other entity and, as such, is a key to universal knowledge.

A holonistic conception of the universe therefore affords us a picture of nature as a multiplicity of entities that interact in both determinate and indeterminate patterns. It is a view that furnishes us with a language for describing or reasoning about natural and man-made phenomena in a way that both acknowledges the importance of logic and the limitations imposed upon its predilection for form rather than content. It is necessary to transcend these limitations on the ground that actually, matter and form are indivisible. This indivisibility speaks to the need to recognize the emergence of a logic consistent with it. The language of the indivisibility, in actu, of content and form reveals the ability of human conscious energy to operate simultaneously at various levels of existence, of the human capacity to interact with other entities in nature whose being humans cannot accurately define. The logic consistent with this conception may be referred to as the rheomode language (Ramose 1999: 56-60). In this order of things, our search for unity (for a definite, absolute knowledge of nature) reveals that no method of investigation can yield a permanent truth about nature. Instead, we are encouraged to recognize and to explore the interdependence of significant elements in a totality, and to appreciate the relevance of this to our knowledge about nature. How, then, are events caused in this holonistic cosmology and ontology of African thought?
6. **Causality in a Holonistic Framework and the Justification of the “Paranormal”**

Many African philosophers are agreed that indigenous African cultures subscribe to the principle of universal determinism. Thus “when a European explains an unpredictable or unexpected natural event by reference to chance, coincidence, luck, or fortune, from the point of view of Akan thinkers that is the same as saying that the cause is unknown. But the Akan thinker would here retort that ignorance of the cause of an event does not imply the non existence of a cause” (Gyekye 1995: 82). The determinism upheld by African thinkers differs in a fundamental manner from that of Western philosophy and physical science. Embedded in the Western notion of causation is the idea that a cause (Y) must necessarily precede the event (X) which Y causes. There may be an intermediate chain of events between X and Y, but all these must progress from Y before they can properly be considered as part of the cause of X.

Within the deterministic universe of Africans, however, there are two types of causal explanations. The first type pertains to what Gyekye describes as “Why 1” questions. In these, contiguous causal relations are established and therefore physical laws are considered relevant and sufficient to explain relations between phenomena. This is the same as the theory of causality upheld in Western philosophy and science. But where the events to be explained are considered extraordinary in character, such that physical laws prove inadequate to explain them, the investigator would resort to a “Why 2” question and its attendant explanatory model. By so doing, the investigator admits the limitations of the explanatory capacity of physical laws. And in a “Why 2” explanatory model, the interplay of *sunsum* becomes the fundamental postulate.

This two-pronged causal theory is common across African cultures. Sogolo, for example, refers to this as “primary” and “secondary elaborations” with regard to causality in African thought (Sogolo 1993: 91-116). Writing of the Yoruba concept of Inner Essence, Ayoade suggests that we should not consider non-supernatural and supernatural questions as constituting two irreconcilable categories of causal theory but rather as different points along the same continuum. He writes “this is particularly so because the Yoruba believes that a non-supernatural ailment makes a patient highly susceptible to, or softens up a patient for, the infliction of a supernatural ailment” (Ayoade 1979: 49). Ayoade’s ‘non-supernatural’ and ‘supernatural’ is coterminous with Gyekye’s ‘Why 1’ and ‘Why 2’. Therefore in Yoruba causal theory, Gyekye’s Why 1 and Why 2 types of causes would be complementary and mutually inclusive. It is tempting to pursue this line of thought with particular reference to the classical discussion on the principle of
sufficient reason. Leibniz is a well-known proponent of this principle (Parkinson 1965: 56-75; Russel 1937: 30-35). Without succumbing to this temptation, we suggest that this principle is, on the basis of a critical discussion, amenable to the African conception of causality.

From his analysis of an invented fire brought about by an arsonist, Sogolo affirms this view that different causal explanations may affirm and complement each other by advancing the view that a given event can have a variety of causal explanations and our interest in that event determines which of these various causes we advance (Sogolo 1993: 107-108). One of the suggestions to be inferred from this is the importance of cultural determinants in the analysis of 'cause', a position curiously compatible with Hume's (1975) attack on the concept of causation. Since this attack, it is now largely accepted by both philosophy and science that a constant conjunction between two events is sufficient to prove a 'causal connection' between them. This casts doubts on the legitimacy of the demands for an objective, value-free and universal notion of causality, especially in the behavioral sciences. If the explanation of an event is legitimately determined by my interests, then I am surely providing sufficient explanation for the event by claiming that X caused it so long as I observe a constant conjunction between the event and X.

This integrated approach to causal analysis makes the explanation of the "paranormal" by African ontologies, plausible. This is because in explaining the events which pose anomalies and paradoxes to Western science, this approach proceeds from the knowledge that although physical laws make for regularity in the explanation of nature, they cannot exhaust all possible explanations of events. This is because for the African the ontology of invisible beings is as real as the reality of the observable physical world. The natural laws of physicalism, which presuppose regularity in nature, become inadequate because such regularity is undermined by the existence of irregular events that also form part of human experience. For the Akan and, by extension the African, the cause of these latter events is an invisible force present in the world, sunsum. It is difficult to understand why physical scientists should have a problem with this, because in fact Newton's lifelong dissatisfaction with gravity, was because of his understanding that gravity was paradigmatically action at a distance, a mode of causation which seemed to have no place in his comprehensive system of mechanics. In other words, Newtonian physics, which has shaped the theories and practice of science from the seventeenth century onwards admitted at least two characteristic modes of causality.
7. The activity of sunsum in a holonistic framework

The organism, then, constitutes the minimum entity of analysis in a holonistic framework. For, although the event, say X, may consist of parts, all these parts become modes in which they (the parts) enter into the composition of X. What, then, would be the place of sunsum in this schema? Its role would be to link the singular events not a unity, and this role becomes particularly evident when, for instance, a diviner performs an act of precognition which brings together parts of reality that apparently have no link.

But how does sunsum serve this function? If we grant the hypothesis that sunsum is a force that inheres in every existing individual as well as pervading the space outside individuals in the perceptible world, then it is not difficult to accept that the sunsum dwelling in a particular existent is capable of escaping its spatial localization and regain its membership of the universal sunsum. The localized sunsum is only a species of a universal phenomenon. In a holonistic conception of nature, the activity of sunsum can provide us with a meaningful explanation of precognition because the structure of space and time in this conception is different from the physical-scientific conception of it. The potency of the diviner's psychic power (his personal sunsum) enables him to collapse the barriers erected in our consciousness by our fixed conception of space and time that normally serve as indispensable coordinates for our understanding of events. By this collapse of space and time, the diviner's personal sunsum becomes a receiver in the present of events 'transmitted' from the future. Sunsum as energy is the medium of this transmission. The potent psychic energy of the diviner (personal sunsum) apprehends the future event through the medium of universal sunsum which pervades space and time. It is because of the wholeness that universal sunsum can serve as the vehicle through which 'the whole situation' can be grasped by a potent personal sunsum. For the diviner, therefore, something unknowable in the physical scientific framework - the future - becomes actually known because the barrier (time) that shields the future away from the present is removed. Through the sunsum the "supernatural" is one with the natural world. In this connection it is necessary to inquire why telepathy and fortune telling seem to be so popular in the West despite its skepticism about the "paranormal". Furthermore, the oneness of the universe, according to Akan cosmology, raises the interesting question of whether or not African philosophy has only an ontology and not an ontology and a metaphysics. It is outside the scope of this paper to consider this question.

The sunsum that pervades space outside of individuals provide a link by which individuals can be connected, although they may themselves inhabit a different location in space. This link may be contiguous, but because sunsum is inaccessible to ordinary sense, our normal perceptive channels are unable to

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apprehend this contiguity. It is in this connection that *sunsum* explains adequately the "paranormal" events and substantiates its presence in our human sensible dimensions of space and time.

8. **Empirical justification for the occurrence of the paranormal outside of the experimental setting**

The hypothesis of *sunsum* as an active cause of phenomena has an empirical basis in the sense that its proponents regard the occurrence of these phenomena to be adequately established either by observation or testimonial evidence (Engmann 1992: 186). Our interaction with thinkers in the traditional setting also confirms their willingness to relate theory to facts, in the sense that they infer the existence of the hypothesized force from concrete manifestations that they attribute to it, and consider these manifestations sufficient reason for their inference.

Oluwole argues for the validity of this inference by contending that the positive result of any one of the following would be sufficient to establish the reality of witchcraft:

i) we may be given an explanation of the *modus operandi* of witchcraft power

ii) we may experimentally establish a causal relationship between the postulated paranormal power and the event that proves the practical efficacy of this power

iii) we may show a practical manipulation of the power (Oluwole 1995: 367)

Oluwole then submits that the African's claim to the rationality of her belief in the reality of "paranormal" forces rests in her ability to infer their activity by virtue of (ii) and (iii) above. Thus the African establishes certain facts as the effects of something (a force) whose existence may not be denied precisely because of those facts and, on the basis of African ontology, infers *sunsum* as the cause of those facts. This inference is strengthened by his/her knowledge of the abundant testimony to the apparent ability of diviners and *sangomas* to control and manipulate these powers. On this view, then, the African's belief in the "paranormal" explains witchcraft. The explanation boils down to a statement about the demonstrable effects of this belief in practice.

The rationality of the belief in *sunsum* as a theoretical positum on the basis of an ontology is well within the purview of scientific practice. In fact purely objective knowledge, if by that is meant knowledge in which metaphysics—though from an African philosophical standpoint ontology of invisible beings is preferred to metaphysics—does not play a part, cannot exist. A "metaphysics" and values are necessarily prior and foundational to every science, conceived as a body of
knowledge and practice. Two special and striking cases of the profound influence of "metaphysics" on the pursuit of science in the Western experience deserve brief mention here.

The first is that Locke's metaphysical doctrine of primary and secondary qualities provided the basis for Newtonian physics (Mackie 1976: 22-23). The second is Einstein's Special Theory of Relativity, the metaphysical foundation of which is the claim that any system of objects has equal title to the claim to be 'absolutely at rest' and hence any of them can be chosen as the frame of reference by which the motions of all other systems are determined (Harre 1972: 15-16). Consequently, the legitimate ideals of objectivity are better achieved by understanding that when particular theories and assumptions prove to be a bar to progress in understanding the nature of the world, they are liable to be changed or improved. Thus "the assumption underlying the current requirements of empirical verification [by Western Science], the assumption that information can be transmitted and received by human beings only through the recognized channels of the senses, is subject to amendment in the future" (Oluwole 1995: 368).

It is not insignificant that Burtt (1932) has traversed this territory through his historical and critical essay under the title, The Metaphysical Foundations of Modern Physical Science.

9. The Endorsement of "Paranormal" Cognition by the Causal Theory of Knowledge

Plato's account of knowledge in his Thaetetus was widely accepted as sufficient in the Western philosophical setting until it was challenged by Gettier, who provided examples to show that the justification principle in Platonic epistemology could produce a situation in which a false belief is (or can be) justified (Gettier 1963: 122-123). The problems posed by Gettier inspired a set of approaches to the analysis of knowledge, one of which is the Causal Theory which, we believe, affords a means by which "paranormal" cognition could be validated.

The idea underlying all the various formulations of the Causal Theory is that the justification condition for knowledge is met if one's belief is caused in an appropriate way (Appiah 1989: 52). But what precisely is appropriate, and how do we decide on that? A widely acclaimed interpretation of "the appropriate way" of getting a true belief is to be able to distinguish the actual state of affairs in which the belief is true from relevant possible states of affairs in which the belief is false. This discrimination of the actually true from the possibly false state of affairs is best done by a method that is reliable in the circumstances (Goldman 1978: 124).
A few perspectives emerge from Goldman's rendition of the justification condition that supports our claim that Causal Theories validate "paranormal" cognition. The first is the suggestion that a reliable method for distinguishing true beliefs varies with the circumstances. This means simply that what constitutes good evidence for a true belief is relative to the state of affairs prevalent in the belief situation. Since a reliable method justifies a belief, according to the Causal Theory, and since much in the foregone supports the claim that belief in "paranormal" cognition can be shown to be based on 'a reliable method', then belief in "paranormal" cognition is rationally validated by the Causal Theory.

10. The African Diviner as a challenge to "science"

The validation of "paranormal" events by a theory in mainstream Western epistemology and science leads us to develop the argument, advanced earlier on in this paper, that on the basis of developments in some branches of mainstream Western science, the African holonistic practitioner of the "paranormal", who identifies, accesses and harnesses the potency of sunsum for action in the world, can share the status of 'scientist' in a redefined concept of science.

The dominating note of science until the beginning of the 20th century appears to be that the metaphysical doctrine of physicalism affords an adequate basis for scientific concepts. Many complexities have developed in respect of the fundamental concepts of science such as matter, space, time and energy. These have undermined the assumptions of physicalism. The result is that it can no longer hold. Consequently, its relevance to scientific knowledge has been profoundly diminished.

The factors that first led physicists to distrust their orthodox faith were two theoretical systems developed between 1900 and 1927. One was quantum theory, dealing with fundamental units of matter and energy, and the other was the Theory of Relativity, that deals with space, time and the structure of the universe as a whole. Both of these theories are now accepted pillars of contemporary scientific thought. We propose to concentrate on quantum theory here because its findings provide better analogies between the foundations of the theories and methods of the practitioners of the "paranormal" and contemporary physicists.

At the heart of quantum theory is the denial that an atom really exists as an independent entity (Davies 1990: 72-90). If it does, then at the very least it should have a location and a definite motion in space at all times, and this should apply to its components as well. But the findings of Quantum Theorists suggest that it is impossible to know simultaneously the velocity and the position of an electron orbiting around an atomic nucleus (Sklar 1992: 164-179). This is the celebrated
Principle of Uncertainty, formulated by Heisenberg, one of the founders of this theory (Heisenberg 1962: 44-45). It states simply that it is impossible with any of the principles now known to science to determine the position and the velocity of an electron at the same time – to state confidently that an electron is “right here at this spot” and is moving at such and such a speed”. This is because micro particles have been observed to traverse their path in space discontinuously: they move to other parts in space only by disappearing and then reappearing at a new location: they change location by “quantum jumps” (Powers 1982: 138-152).

The implications of this principle for us are these: (i) if there exists no exact state of the particle, the idea that a real thing is that which can be located at a certain place at a certain time is questionable and, with it, the classical notion of causality. (ii) If all explanations and predictions of micro phenomena can only be indeterminate, and it is these micro phenomena that are the ultimate constituents of macro phenomena, then the cause of events and phenomena at the macro level must be indeterminate as well. Where then do we stand with regard to the classical notion of causality?

To give meaning to the wave-like and particle-like representations of nature, Niels Bohr proposed another principle: the Principle of Complementarity, which states that the particle picture and the wave picture are two complementary descriptions of the same reality, each of them only partially correct and only within a limited range of application. For a full account of reality both viewpoints are needed, even though they are incompatible and cannot be viewed simultaneously (Akyeampong 1993: 20-21).

What this principle seems to suggest, then, is that the metaphysical barrier that separates the human observer from ‘objective reality’ has become obscure. Further, it supports the view that there exist phenomena in nature which cannot be explained or understood with the current methods of science: since this principle rejects the notion that a particular explanatory framework can be absolutely dependable, it establishes, by implication, the necessary limitation of the insights of physicalism. It seems to advocate a complementary and inclusive approach to the study of reality, affirming the perspective that the cumulative yield of several points of view will produce a better understanding of reality than any single framework of knowledge.

Both the Complementarity and Uncertainty Principles substantiate the plausibility of our elucidation of the concept of sunsum. We maintain that a particular sunsum is a species of the universal sunsum, and that for this reason it is capable of transcending our normal conceptions of space and time. Furthermore, the Uncertainty Principle invalidates the classical notion of causality since the
location of the causes of events in the micro world cannot be completely determined. Similarly, the African cosmologist postulates a causal element (sunsum) whose location and mechanisms are indeterminate.

Thus at the dawn of the 21st century, a new scientific worldview has emerged in which the objectivity of the natural world has been replaced by the view that the behavior of the object under investigation changes as we change our point of view. The present scientific worldview, especially the Complementarity Principle, seems to agree with the notion that there are several mutually exclusive approaches to reality. It confirms the view that there are phenomena or experiences in nature that cannot be understood or explained with the methodology of physicalism alone.

11. Conclusion

We have shown that the principle of causality in Western science remains responsible for the exclusion of the "paranormal" from the purview of science. Yet, the principle of causality is itself seriously vitiated by Heisenberg’s indeterminacy principle on the one hand and Bohr’s complementarity principle on the other. Accordingly, the weak foundation upon which the principle of causality rests cannot be definitive justification or denial of the "paranormal". On this basis, the Akan concept of sunsum having strong conceptual and cultural affinity with moya, moea, umoya (Ramose 1999: 85) in the Bantu languages, has been invoked in support of the thesis that the unduly narrow and restrictive concept of science upheld by the West must be broadened in order to sustain its claim to science. Such broadening must also mean the recognition of sunsum and other closely related African concepts as scientifically viable. Without such recognition both the credibility and the tenability of Western science shall remain in doubt from the point of view of African indigenous knowledge systems.
NOTES

1. This is exemplified by the establishment of the Society for Psychical Research in London in 1882.

2. This is affirmed by both Gyekye, (1995: 72) and Minkus, (1977: 114). What this means is that the universe of traditional Akan thought contains no inert objects in the sense of matter incapable of awareness or action. This notion that every existent is composed of an activating principle constitutes a difference between the metaphysic of the Akans and other metaphysical systems. It rejects by implication Cartesianism and other all metaphysical systems that hold that matter is essentially passive or inert and that a creative divine being must therefore activate it.

3. In his Enquiries, Hume argues that the physical existence of causal necessity is demonstrable neither on purely rational nor empirical grounds. This, according to Hume, is the case since no logical contradiction is involved in assuming that the relevant correlation between 'cause' and 'effect' will cease to occur: “when we look about us towards external objects, and consider the operation of causes, we are never able, in a single instance, to discover any power or necessary connection; any quality which binds the effect to the cause, and renders the one an infallible consequence of the other. We only find that the one does actually, in fact, follow the other. The impulse of one billiard ball is attended with motion in the second. This is the whole that appears to the outward senses. The mind feels no sentiment or inward impression from this succession of objects: consequently, there is not in any single, particular instance of cause and effect, anything which can suggest the idea of power or necessary connection.” (p. 63)

4. In his Papers and Letters on Natural Philosophy, Newton was at pains to explain that he did not consider gravity to be a primary power of matter since it acted at a distance.

5. Newton’s laws of impact describe the redistribution of velocities and changes in direction that takes place when two or more things collide. This is the very essence of Action by Contact.

6. This claim alludes to Kuhn’s (1970) subsuming of all scientific activity under a paradigm. And a paradigm, according to him, consists of all the theoretical and methodological assumptions and operations which operate under a period of ‘normal science’ during which scientists do not disagree about their conclusions once they
are derived and tested from within the prevailing paradigm. The claim can also be attributed to Mudimbe, 1988; Harding, 1997; and Ramose, 2002.

7. According to which certain qualities of bodies were held to be known to us in sensory experience while others manifest in the things themselves.
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Martin Ajei


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