

THE EPISTEMIC DIMENSION OF SYMBOLISM IN SCIENCE AND THE SUPERNATURAL

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ABSTRACT: *The history of Symbolism as a theoretical entity can be juxtaposed with the history of human knowledge. Its major expression appears to be within the confines of supernaturalism exemplified in various religions of the world. Symbols represent ideals in Africa and acts as the mirror of the unseen. In formal and empirical sciences symbols are codified and universalized for general acceptability. The universal acceptability has a double entendre and this is of vital importance in epistemology. The importance of symbolism cannot be over emphasized. However, how reliable are symbols as mirrors to reality? To what extent do we say that a symbol is a true representation of the ideal or absolute knowledge? The purpose of this paper is to analyze the epistemological character of symbolism in human knowledge.*

KEYWORDS: Symbols, Physical and Mental realities, Science, Universality, Religion, Mathematical and logical Symbolism.

INTRODUCTION

Human knowledge grows by accretion through problem solving. Knowledge of both physical and mental realities most times is represented symbolically. Different forms and levels of experience and relationship to reality both within the confines of the sacred and profane are linked together with the concept of symbols, signs and pictures. The secularization or universalization of symbols for objective interpretation to boost human knowledge is of vital importance in African thought and Philosophy. Religious symbolism has played major roles both in the African traditional religion, Christianity and eastern religious lives. It has aided a standard perception of ideals of each of these religious lives within their socio-cultural milieu.

Our emphasis in this paper is to identify the import of symbolism both in the supernatural and science and in human knowledge. In this we hope to discover or explicate the significance of symbolism in human knowledge and how symbols standardized and make intelligible our understanding of reality whether in the confines of the supernatural or science.

Meaning and Functions of Symbolism

A symbol may be anything, objects, words, colours, or patterns; their defining characteristic is that they stand for something other than their intrinsic property. In aesthetics, symbolism represents an object which apart from its own immediate and proper significance, suggests also another, especially a more ideal content which it cannot perfectly embody. Symbols may be either natural: as light is a symbol of truth; or traditional and conventional: as the cross is a symbol of sacrifice [1]. Another example is while there is nothing intrinsically dangerous about the colour red; it has become a symbol for danger in almost all societies.

Symbols are theoretical or mental entities that are subject to Verification. Though these symbols are subject to verification, yet they are of practical value to thought or mental acts and science in general. In African religion, ethics, agriculture, and even in communal political life, symbols are of practical value. As a result of the necessity to exhaust all frontiers of knowledge, there is now a resumption of series of inquiry into the metaphysics and epistemology of symbolism as a category of human knowledge. This resumption is predicated on the intent to standardize knowledge as objectively as possible.

In the 1960s anthropologists delved into the study of symbolism to investigate what symbols stand for and the processes by which meaning is attributed to them. The common agreement between various research schools on this issue 'is the need to explain the universal presence of symbols in all societies and to explain their importance. In human history, symbols have been used to express ideas, communicate meanings, and convey emotions'^[2].

Different languages of the world have developed different scripts as symbols of meaning. Hieroglyphics from the ancient Egyptian civilization are among the earliest in Africa and the world. The function whereby a mental result primarily referring to one set of object is transferred to another set of objects; first set is said to be symbolic of the second. Symbols are frequently used in a very wide sense as equivalent to any kind of sign. But it seems desirable to limit its application in psychology to cases in which the sign is provisionally substituted for the thing symbolized. In examining the relationship between 'sign' and 'symbol', D. Okeke states '...sign indicates, symbols represents'^[3].

Symbols are used as a kind of key to convey religious concepts, ideas, visual, auditory and even kinetic representation of events. Nature is replicate with symbols. Other non-religious types of symbols have achieved increasing significance in the 19th and 20th centuries, especially those dealing with man's relationship to and conceptualization of the material world. The function of symbol is to represent a reality or a truth and to reveal them either instantaneously or gradually. The symbol is sometimes identified with the reality that it represents and sometimes regarded as a pure transparency of it. As a 'sign' or 'picture' the representation of the experience of and relationship to

Reality has either a denotative or a truly representative meaning. Scholars are now appreciating the theoretical and scientific functions of symbolism. African philosophers have noticed that within the content of both traditional and contemporary life of Africans, symbolism has played

very vital roles. Symbolism has been the integral part of African medical practice, religious worship, culture and literature.

Symbolism in the Supernatural

Symbolism began with the emergence of religion and religion is as old as mankind. The reason being predicated on the conception that man is naturally a worshiping being. And the only way for man to identify the supernatural being that he believes is responsible for his being is to use symbolic representation. This in other words shows that man really knows nothing about his beliefs or the supernatural but only that which appears. The supernatural is simply an act or condition which transcends explanation within the confines of physical or corporal existence. Terry Davidson's description of the supernatural is, 'The Supernatural posits sentient agents who are somehow 'above' or 'beyond' nature (or whatever), who have the ability to alter the very ways in which nature would ordinarily work had these agents instead chosen simply to sit back and watch.'^[4]

Issues within these areas have to do with faith and this is premised on the belief on the possibility of suspension or violation of natural laws. Religion is based on supernaturalism, the world of the mysterious, or the unknowable that cannot readily be comprehended by sensual mechanism. Symbols can be traced back to prehistoric times, where they were totally linked with ritual practices of their religions. A group of so called 'Venus' figures provides one of the earliest examples. The most notable of these is the Venus of Willendorf, a small, stone carving of a faceless pregnant woman, which dates from 30,000-24,000BC.

In Egypt, the use of animal symbols was clearer, since most of the gods were associated with creatures. In many cases, they were portrayed with animal heads and human bodies. Unlike the Egyptians, the Greeks preferred to portray their gods as human beings, using a variety of symbolic props to identify them.

In the west, symbols developed after Christianity was proclaimed the official religion in AD 313. The symbols were simple: the cross, a dove etc. Religious images were placed inside the church for educational purposes, both for the preacher and the congregation. The crucifixion, for instance, could be symbolized by the instruments of the passion (the crown of thorns, the Lance, the nails, the hammer). In a similar way, an apple and a snake could be used to symbolize the temptation of Adam and Eve. The oldest Buddhist image represented Buddha through a series of symbolic objects. These include among others the Buddhist tree under which he was sitting when he attained a state of Enlightenment. African religion, culture and even political life are embedded with symbolism. Most African communities created their gods^[5] and have symbolic representation of these gods in shrines prepared by them. The ontology of African symbols emphasizes that symbols cannot be an isolated compartment but could be seen as a synthesis of his cultural, social and philosophical thinking^[6]. Thus in every aspect of the life of an African that has to do with medical practice or divination of any type, symbols play a direct link. Just as the stethoscope is a symbol of the orthodox medical practice, so do 'the Afa seeds make up the diviners paraphernalia'^[7]. Symbols or symbolic relationships are tied or linked to culture. It could be identified in dressing, dance and even musical instruments; these are basic to our understanding of the consciousness of

a given people. The *Ikenga* is a symbolic representation of a personal god “*Arushi*” found among the Igbos of southeastern Nigeria. Though exclusively identified as an Igbo symbol it is also found in Kogi, among the *Ijaws*, *Ishans*, *Isokos*, *Urhobos* and Edo areas. The issue of the supernatural or African medicine (whether divination or curative) can be identified with symbols such as the mask, shrine, red, white or black cloths. Each of these symbolic representations identifies spiritual forces, each having a particular connotation. As stated above, red in most societies may connote danger, black may connote death, while knives, mirrors, skulls of animals and birds are symbols representing contact points to unseen forces in nature which the medicine man (*dibia*) uses both for diagnosis and treatment of diseases and ailments that are supernatural in character. Herbs as another symbol represent various aspects of forces and unseen and unquantifiable energies in nature. The herbs are used for the preparation of drugs or medicine for both curative and even protection for men against evil forces. Beyond the realm of herbs are more mysterious symbols like the effigy as practiced in Haiti as 'Voodoo'. The effigy can be used as a direct contact to the person involved. Through incantations and invocations, it is believed that if the effigy is stabbed, the stab will be felt by the person involved. In most cases, if the intention was to kill, the person dies. There has however been no scientific interpretation to this claim. And to cap it all, without symbolic representations we cannot rightly talk of magic, mystical experiences or miracles in any social milieu. Thus, there is always an element of symbolism in anything related to the supernatural. The reason being that it acts as a reference point for the unseen or that which is hidden.

Scientific Character of Symbolism

Symbolism is as old as knowledge itself hence was not confined to the perceived knowledge of the supernatural alone; symbols also featured significantly in secular themes. Modern day organized science utilizes symbols for general acceptability. Concepts which may appear ambiguous due to difference in Languages and methods of interpretation use symbols. Symbols in scientific knowledge are necessary for objective communication by scientists. The scientific import of symbolism in human knowledge cannot be over emphasized. The reason is that rational, scientific-technical symbols have assumed an ever increasing importance in modern science and technology. These symbols serve partly to codify and indicate, abbreviate and make intelligible the various mathematical and other scientific and technical relationships and functions. Examples of these are mathematical or logical symbols like \leftrightarrow Bi-conditional or Equivalence, $=$ equal to, $>$ greater than, \rightarrow implication, $<$ less than, \hat{A} negation. These are some symbolic representations of theoretical entities in mathematical and symbolic logic.

In the physical and biological sciences symbols such the symbol (\sim) for alternating current, or the symbols for male and female ^[8] respectively are symbols that have been universalized. It should be noted that these type of universalized or secularized symbols are also rooted to a great degree in the realms of religious life like the example of red, white or black cloths. Scientific symbolism functions in a manner similar to that of the religious symbols which associates a particular meaning with a particular sign.

Symbolic representations are usually depicted in diagrammatic or ideographic modes as signs, abbreviations, images, and objects of all kinds that indicate a larger context. In this category belong the simplified or abstract forms, as well as colours, letters and numbers. The circle, the disk, square, the cross, Star of David, Pentagram etc. may symbolize, the sun, universe, stars, the earth, eternity, the flow of time or even a magical spell. Ordinary formal logic has from the earlier times, substituted symbols (via, the letters of the alphabet) for significant terms, and has thus added much to the facility with which the validity of arguments can be tested. Symbolic logic goes a step further, and adds symbols to stand for combinations of terms, or functions of terms, and statements of relations between terms. Symbols, pictures do mirror the world just like the picture theory of logical atomism of Wittgenstein as documented in the *Tractatus Logico-Philosophicus*. If we wish to identify a particular element, chemical or compound, we can do so by a particular symbolic representation. The perfect language or statement pictures the structure of reality. An ideal statement gives us the structure of facts, and since facts are composed of objects and their properties, we can say that they are symbolic. The structure of the world corresponds to the structure of language and is pictured for us by language. This picture of language, like any other kind of picture or symbol 'is a model of reality.'^[9]

Every model of reality has its symbolic representation. We all (assumption) within the discipline of philosophy, political science etc always have a particular ideology. An example is when the picture of Karl Marx is seen, socialism is imagined hence Marx's picture is a model representation or symbol of socialism. Why should symbolism be important in human knowledge? Of what significance is it? What we should note is that symbolism has a scientific character. It is this characteristic that makes it significant in human knowledge. Science, etymologically is an upshot of the Latin word *Scientia* which literally means knowledge. But the knowledge we are addressing now is the contemporary definition and understanding of science which is 'knowledge arranged in an organized or orderly manner, especially knowledge obtained by observation and experimentation. Thus, scientific knowledge is proven knowledge or systematic knowledge based on evidence'^[10].

Symbolism is based on the theoretical conception of the correspondence theory of truth and the relativist theory^[11]. Symbols represent a state of affairs which has been 'relatively universalized' and accepted by community of scientists, individuals or people. It is this general acceptability as a representation of the real state of affairs that makes it scientific in character. The symbol > greater than has been generally accepted within the scientific world to represent the statement 'greater than', or the symbol < for 'less than'. The colour red or a red cloth has been universally perceived to connote danger.

This universal acceptability depends on the point of view from which it is perceived. For example, we have identified the symbol (~) as representing alternating current in the physical sciences; this same symbol also represents negation in symbolic logic. In contrast to natural language, symbolic logic is artificially contrived by logicians. Its rules and principles are arbitrarily fixed by some sort of fiat that requires logicians to work within their framework, thus, the symbol (~) though accepted generally, but still relative epistemologically. The same can be said of the symbol for a conditional statement (if... then...) that is usually expressed symbolically -> [arrow]. Irvin Copi uses É [horse shoe symbol] and this is accepted generally by logicians.

Knowledge presupposes a subject and an object that is, the knower and the known. The subject is the human mind, the seat of perception, the object of knowledge may not be the things of the material world, but the ideas or symbolic representation in the world of ideas. Thus symbols are seen as the representation of the 'ideals'. An object of knowledge, for example water could be represented symbolically in form of a picture, drawing or by a better scientific identification H₂O. The symbol H₂O can be understood universally by all scientists just as <-> [biconditional] is to all logicians. Symbols can be seen as universals or essences or the general idea of a thing formed in the mind through the process of abstraction. Thus, just as the symbol of the cross signifies sacrifice and as salvation for mankind within the Christian faith and understood generally by all as thus, (even if its meaning is not accepted as a belief by some) so also are other symbolic representations.

There is however an element of the principle of Occam's razor in symbolism. This principle states that one should not make more assumptions than the minimum needed. Occam's razor helps us to shelve those concepts, variables or constructs that are not really needed to explain a phenomenon. Symbols are like short cuts to realities that may look ambiguous to express. The issue is that symbolic representation as a means of comprehending reality does not adequately give us a true knowledge of the 'thing in itself'. The crucifix, picture of God or Buddha tree does not adequately give us the true nature of Jesus, God or the Buddha. Names and symbols are ambiguous. The name John (if it is mine) does not represent my personality adequately nor does it represent my body as a corporeal being.

CONCLUSION

What should be noted is that one of the characteristics of a scientific statement is its general acceptability. The fact that Aristotelian cosmology was dethroned despite its general acceptability did not negate it as a scientific knowledge. Symbolism though assumed to be an ideal representation of reality by all does not constitute an absolute means of representing the sacred or supernatural nor the secular or science.

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