

## **EPISTEMOLOGICAL IMPLICATIONS OF KANT’S NOTION OF SPACE AND TIME**

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### **Abstract:**

Immanuel Kant is by far one of the most influential philosophers of modern times whose richness of thought spans the entire spectrum of philosophy and beyond. He had written much on metaphysics, epistemology, ethics, aesthetics, political philosophy, logic and of course on other disciplines such as mathematics and geography (Kaufmann 363). Born in 1724 at Konigsberg where he studied and later became a professor in it University, Kant was said to have lived a monotonous and routine-kind of life to the point of boredom. He died in 1804. This paper examines Kant’s conception of space and time and its implication for the theory of knowledge. The point will be made that Kant’s position leads us to skepticism. In other words, going by the position of Kant, the human mind cannot acquire true or certain knowledge. Thus, his position is rejected and argument to is presented to show that the mind is capable of true knowledge even beyond the bounds of space and time.

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**Keywords:** Epistemological Implications, time, space, Kant

### **The Notion of Space and Time Before Kant**

Before Kant quite a number of philosophers had looked at the problem of space and time. For instance, Aristotle rejected the idea of the existence of space, that is vacuum. For him, “it is inconceivable that space should exist, because space must be filled with matter to transmit physical effects by direct contract” (Crowe, 104). The concept of space has often been conceived in consonance with the concept of time. Space is used to refer to the whole area in which things exist and move (Hornby 1139). However, space is also defined as the amount of an area of a place that is empty or that is available for use. This latter conception

of space is seen to be immediately rejected by Parmenides who thought that to say empty space exists would be to say that what is not, exists. Lacey says that the notion of empty space supports that of time without change. “This however has been more generally rejected” (326). In ordinary, unscientific term, space is understood as an “in-between, a differentiating distance between one body and another” (Iroegbu 42). In other words, space is more of a connection between things that a thing as such. Space is the link between different realities in their connectedness with one another.

Time on the other hand is seen as the record of succession of events, bodies and other occurrence in the universe by the human mind. This succession involves three levels of temporality and historicity, namely, past, present and future. Edet appears to agree with the above view of time. According to him, “we speak of time when we refer to a sequence of events or their duration. Events are fundamental to time” (3). For the realist, time is a posteriori. By this it is meant that, time is nothing but the relationship between events. In fact, when St. Augustine asked “what then is time”, he was expressing his perplexity in grappling with a notion of time. In answer he declared, “if no one asks of me, I know, if I wish to explain to him who asks, I know not” (Augustine 264). Time is thus independent of human consciousness. Human beings can only try to determine its rate or flow, but cannot make time flow faster or slower.

### **Kant’s Epistemology**

Kant’s idea of space and time is drawn from his epistemic and metaphysical views, and hence, differs both from ordinary sense and that of most philosophers. It is in Kant that one finds a clear case of the interrelatedness of epistemology and metaphysics. This explains why Kant’s Epistemological views are deeply interwoven with his metaphysical views.

In his theory of knowledge, Kant believes that not all knowledge derives from experience, though they many begin from experience. This was his response to one of the basic questions of epistemology which the rationalists and empiricists contended with, namely, what is the source of human knowledge? In the words of Kant, there can be no doubt that all our knowledge begins with experience, yet it by no means follows that all arise out of experience” (41). To further buttress his point, Kant identified two operations by which human knowledge derives. These he called sensibility and understanding. By sensibility he means, the capacity of the mind to passively receive the contents of sense perception or intuition. Understanding on the other hand, is the active power of thinking about the object of sense-perception.

In other words, sensation, sense perception or intuition presents us with raw materials of knowledge from the external world, while thought or understanding activity reflects upon these raw materials to give rise to knowledge. With this, Kant felt he has been able to bridge the gap between the empiricists and the rationalist by showing the important roles of each in the process of knowledge acquisition. It was this belief that led to his insistence that a synthetic a priori knowledge is possible. By synthetic a priori, Kant meant the type of knowledge or proposition which though related to experience are not derived from experience yet cannot be contradicted by experience. “They are synthetic and at the same time a priori” (Omogbe epistemology 12). Thus, as Howell rightly avers, “although our sensibility and understanding are thus utterly distinct faculties of the mind, Kant is of course famous for holding ...the basic position that our human knowledge of object require the use of both these faculties and of the intuitive and conceptual representations proper to them” (7). It is much the same view that Sahakian expresses when he quotes Kant as saying that:

*Thoughts without content are empty, perceptions without conceptions are blind understanding can perceive nothing, the senses can think nothing. Knowledge arises only from their united action (171).*

It is perhaps, worth mentioning that, though Kant appreciates the combined effort of both sensation and reason in human understanding, he appears to express more confidence in the power and ability of the mind as the seat of reason. Thus, Kant posits that it is the object of external world which conforms to the categories of the mind and not otherwise. Hence, the mind in Kant’s epistemic metaphysics becomes very active and the arbiter or determiner of what should pass as knowledge. “This is his Copernican revolution” (Blackburn, 80). Based on this, Kant introduces his concept of space and time and how it relates to what we can and cannot know.

### **Kant’s Notion of Space and Time**

As stated earlier, Kant’s notion of space and time stems from his epistemology. Space and time according to Kant are the two forms or frameworks in which perception takes place. Following Kant’s line of thought exposed earlier, all sense perceptions take place in time and space without which it cannot take place. Space and time are necessary conditions for sense perception to take place. Kant believes that the human mind is of the nature no sense

perception can take place. Kant believes that the human mind is of the nature that no sense perception can take place and no object can appear to us except in time and space.

Thus, Kant defines space as that subjective condition of sensibility by which external objects appear to us. He believes that we cannot imagine a non-existing space. All we can imagine is an empty space; that is, a space that exist with nothing in it. Space is a prior as it is not derived from experience. It is one, eternal and all embracing. Nothing apart from phenomena (things as they appear) are represented to us in space. Things as they are in themselves (Noumena) cannot be perceived by human mind and are not represented in space.

Kant also conceived of time as he did space. Time for him, is also necessary, and subjective condition for sense perception. It is not a property inherent in things and does not exist of itself. It also a prior, it is only in that any thing can be perceived as phenomena and existing in succession or at the same time with another. Like space, there can be time without any phenomena, but there can never be anything without connection with time. Time is thus one and all embracing. For Kant “The idea of motion and change is meaningful only in time” (Gorden 1050). However, while space is the subjective necessary condition for our external experience, time is the subjective necessary condition for our internal experience.

Hence, he defines time as the form of the internal sense or state. It is only things that appear that are in time, not all things are found in time except things that are phenomenon. On the other hand, things as they are in themselves are not given in time. Time according to Kant is nothing when considered in itself. It cannot exist as an entity outside the human mind, hence, it is only in relation to the human mind that time can be conceived to exist. To the question is time unreal? Kant says “Time when considered in itself is unreal, because it has no independent existence as an objective entity” (Omoregbe Modern, 94). Thus, time is unreal, yet is real when considered empirically in relation to objects of sense perception as no object can be experienced by man without coming under the condition of time.

As stated earlier, knowledge is acquired by the joint operation of two faculties – sense perception (sensibility) and understanding (thought). These two faculties operate under some a prior conditions; time and space. The faculty of thought (undemanding) also has its own a prior conditions of operation. Concerning the functions of these faculties, Kant held that while the sense perception receives data, the thought synthesizes the content of sense perception. The faculty of thought is also called judgment and its a prior condition of operation is called categories which are pure a prior concepts constituting the rules of thinking by which the faculty of thinking operates. The function of understanding is the

function of judgment is to discover the function of understanding. Also to know the different kinds of judgment is to know the categories of understanding.

Thus, Kant asserts that when the content of a judgment is analysed it will be found to have four functions with three forms (moments) each. Here, Kant argues that if we can find all the forms of judgment then we can also find all the categories of understanding which also has four forms with three sub-forms each. The forms of judgment are:

1. **Quantity:** Universal, particular, singular
2. **Quality:** Affirmation, negative, infinite
3. **Relations:** Categorical, Hypothetical, disjunction
4. **Modality:** Problematic, Apodictic, assertive (Kant 107)

These forms of judgment correspond to the categories of understanding which are as follows:

**Quantity:** Unity, plurality, singular

**Quality:** Reality, negation, limitation

**Relation:** Substance/accident

Cause/Effect

Community/ reciprocity (Kant, 113).

The above according to Kant are the categories of human understanding. By this he meant that they are a prior concepts, principles or rules by which we think and by which anything can be thought or conceived of. This simply means that it is only by these categories that knowledge can be acquired or any object known. The categories reveal the structure of understanding. Things can be known only when the categories have been applied to it. This implies that things cannot be known in themselves except as the categories present them to us. It follows therefore that the categories can only apply to objects of sense-perception which are phenomena and they appear in space and time.

So only objects existing in space and time and appearing as phenomena that can pass through the application of the categories of sense-perception and outside space and time because they are not objects of human knowledge as they are outside the bounds of human understanding and knowledge.

### **Implications for the Theory of Knowledge**

Kant's epistemological exposition of the concept of space and time has some implications for knowledge acquisition. One of the implications of our forms of intuition restraining us to spatio-temporal reality for metaphysics and in effect for epistemology is that, it makes the mind and its categories the subjective criterion by which truth or knowledge is known. Whatever the mind tells us reality is, is to be accepted as so. Subjectivity is a philosophical view that denies the existence of objective knowledge or truth. It holds that truth or knowledge is dependent on the individual or the subject and not on the object. For Lacey "subjectivism says that certain utterances do express objective truths, but only about human minds, wishes, beliefs, experiences etc whether they be of the speaker or of the people in general (333). In other words, in subjectivity, whatever appears to be objective truths or rules in certain spheres are really disguised commands or expressions of attitude.

Following this, one of Kant's major aim, which is to show what objective knowledge man can acquire and by what means, is defeated as he presents us with personal subjective knowledge of truth and reality. The subjectivity implied in Kant's metaphysics is occasioned by his conception of the human mind. He gave the mind (reason) such an autonomous, self subsisting and independent role that it becomes the arbiter and decider of truth and authenticity criterion. The mind has to restructure the world and present same to us as truth or knowledge within the bounds of space and time. One thing can be deduced from the foregoing, and that is the fact that truth or knowledge is neither objective nor certain. There is no one absolute or objective truth or knowledge which human mind can and do aspire to grasp. Rather what is the case by virtue of Kant's position are *truth or knowledge* as given to man through the mind. Hence, as there are different men with different minds, so are there different and numerous *truths and knowledge* about a given aspect of reality. What Kant appears to have done here is to project his personal-individual subjective understanding of the world as authentic knowledge of reality. This may not encourage the growth of metaphysics and indeed the entire body of knowledge.

Again, despite the rigorous process involved before truth can be arrived at, Kant, by introducing the concepts of Noumena and Phenomena made it explicitly clear the aspect of reality we can know and the aspect we cannot know. Now, Kant bifurcated reality into two, namely, things in themselves (Noumena) and things as they appear (Phenomena). This can be likened to Plato's division of the world into the world of appearance (knowledge of which our senses can attain) and the world of form (where there is absolute knowledge and only mathematical and philosophical reasoning can attain it). Kant on his own part conceived that

only the phenomena can be known by man's cognitive faculty because it lies within the bounds of space and time. While Noumena cannot be known by virtue of their being beyond space and time. This position, led Kant to reject metaphysics as impossible and by extension epistemology (considering the relationship between metaphysics and epistemology).

Kant believes that this is all that metaphysicians do that create problem for them. They strive always to apply the mind and its categories to investigate things outside space and time. This, he believes, leads to nothing but illusion. What should be clear here in that Kant's position leads us to skepticism. Skepticism holds that we can never know the true nature of things. All we know is the way things appear to us, not the way they really are. Since things appear differently to different people, there is no objectivity in knowledge, no certainty, since each person can only say the way things appear to him. "No body can say the way really are; nobody knows and nobody can know" (Omogbe knowing 135).

In view of these constraints placed on human mind and its principles, categories and faculties of knowing by Kant, one cannot rightly make any epistemic claim. One cannot claim to know anything for certain except as it appears to him through the sense and within space and time. Again, this does not encourage the growth of knowledge and epistemology in particular. It is true that skepticism is believed to have led to foundationalism among other things in epistemology, which is aimed at laying a solid foundation for knowledge that is able to refute the skeptical challenge; the fact remains that, skepticism has done more harm than good to the theory of knowledge. going by the skeptical challenge, every effort by man's mind in whatever discipline or endeavour to acquire or arrive at true and certain knowledge is a fruitless venture that ends in uncertainty. One begins to wonder how Hume's skepticism had awoken Kant from his dogmatic slumber when he eventually fell into the same skepticism on the long run. Thus, one agrees with Allais when she says "the interpretation I favour, sees Kant as committed to seeing appearances as genuinely independent in some sense and also sees him as committed do there actually being an aspect of reality which we cannot have knowledge" (2).

It must be noted, however, that the skeptical position and in particular Kantian skepticism in the light of his spatio-temporal limitation of human cognition, is hardly tenable. Human mind can acquire certain and absolute knowledge and it is not circumscribed by how we know it as Kant posits. For instance, in African epistemic circle, "what we know as inseparable from how we know it" (Okolo 17). In the process of acquiring knowledge, the rational, empirical, revelational, spiritual and material methods to arrive at absolute and genuine knowledge.

Apart from this, following the meaning of metaphysics as the “science of being as being, by which it is meant that the object of metaphysics is all reality, visible and invisible- whatever exists” (Coreth 19), the mind can apprehend by means of metaphysical reflection or investigation all aspects of reality in so far as they exist whether they be visible (phenomena/world of appearance) or invisible (Noumena/world of forms). If this is not the case. One would have to ask, how Kant got the idea of the existence of Noumena (things in themselves) if his mind with all of its cognitive apparatus, did not give him the knowledge of the existence of such aspect of reality, as to have categorically stated that it lies beyond space and time.

This is more so when it is reckoned that the idea of space and time allows the traditional African to articulate the universality, coherence and absoluteness of reality. By this, it is meant that, contrary to Kant’s position, the African fuses the idea of physical space and time of everyday experience with the idea of transcendent space and time in order to have a coherent and holistic knowledge of reality. This assertion receives credence from the following words.

*Space and time form one continuum and aspects of the totality that forms the material and the immaterial, the living and the dead in a way that is existentially relevant. That is to say, this traditional African philosopher was able to transpose the idea of physical space of every day experience into a transcendent space that extended beyond the physical into the realm of the supernatural (Asouzu, 166).*

## **Conclusion**

The foregoing has been an attempt to examine the implications of Kant’s notion of time and space for the theory of knowledge. Kant’s epistemology from where his notion of space and time was drawn was briefly exposed to aid an understanding of his conception of the two concepts. The central question of this discourse has been; is man’s knowledge of reality circumscribed by space and time, outside which nothing can be known? Kant’s response to the above question was shown to be inimical to the growth of epistemology and the entire edifice of knowledge, because it leads inevitably to subjectivism which in turn leads to skepticism.

Hence, it was argued against Kant, that based on the understanding of metaphysics as the science whose central object is all reality whether it be visible or invisible in so far as it exist. Man can attain knowledge of reality even beyond the spatio-temporal world. Moreover,

Kant's recognition of the fact that the mind has the tendency or inclination of always going beyond space and time therefore towards what he called "illusions", is an indication that man can acquire knowledge beyond the phenomenal world.

Thus, the position was held that space and time are both real and ideal and human mind can apprehend reality both within and outside space and time in so far as it exists.

### References:

Allays, Lucy, *Kant's Argument for Transcendental Idealism in the Transcendental Aesthetic. A paper delivered to the Aristotelian society* on Monday November, 23<sup>rd</sup> 2009 at 4:15pm. London University of the Witwater strand.

Asouzu, Innocent I: *The Method and Principles of Complementary Reflection in an Beyond African Philosophy*. Calabar: University of Calabar Press, 2004.

Augustine St. *Confessions*, Book XI, xh. 13. Warner R. (trans) New York: Mentor Books, 1963.

Blackburn, Simon, *The Oxford Dictionary of Philosophy*. New York: Oxford University Press, 2005.

Crowe, Michael J. *Theories of the World Antiquity to the Copernican Revolution*. New York: Dover, 1990.

Coreth, Emerich. *Metaphysics* New York: Herder and Herder, 1968.

Edet, Mesembe. *St. Augustine's Idea of Time and Time in African (Efik) Thought*. Calabar: Posh Communications, 2001.

Gordon, Brittan G. *Kant's Theory of Science*. New Jersey: Princeton University Press, 1978.

Hornby, A. S. *Oxford Advanced Learner's Dictionary of Current English Oxford*: Oxford University Press, 2000.

Howell, Robert, *Kant's Transcendental Deduction: An Analysis of Main Themes in His Critical Philosophy*. Netherlands: Khurer Academic Publishers, 1992.

Kant, Immanuel *Critique of Pure Reason*. New York: Anchors Books, 1966.

Kufmann, Walter *Philosophic Classics VolumeII: Bacon to Kant*. New Jersey: Prentice Hall, 1968.

Lacey, A. R. *A Dictionary of Philosophy*. New York: Routedge and Kegan Paul, 1976.

Okolo, C. B. *African Philosophy: A Short Introduction*. Enugu: Crota Press, 1993.

Omeregbe, Joseph *Epistemology: A systematic and Historical Study*. Lagos: Joja Press, 1998.

\_\_\_\_\_ *A Simplified History of Western Philosophy: Vol. 2 Modern philosophy*. Lagos: Joja Press, 1991.