

The Intellectual Revolution in the History of Philosophy Kant's Copernican Revolution

Dr. Urmi Ray

Philosophy, Assistant Professor, Women's Christian College, Kolkata, Guest Faculty at University of Calcutta,
Postal Address: Salt Lake, Purbachal, Cluster-7/29, Kolkata 700097

Running Title: The Intellectual Revolution in the History of Philosophy

Abstract: *In 1781 a revolution was found in philosophy by German philosopher Immanuel Kant; documented in his book Critique of Pure Reason, in Preface to the Second Edition. Before Kant it was believed that knowledge came from external objects, but Kant changed the idea and showed how our knowledge came not from objects but from within the knower who constructs the external objects by the mental faculties of Sensibility (through Space, Time) and Understanding (through Categories). Such a drastic change was found in astronomy too, propounded by Copernicus due to which thus Kant's revolution was metaphorically called Copernican Revolution. The phrase 'Pen is mightier than sword' seems to be so true as such intellectual revolutions gave the world so much, not at the cost of any bloodshed.*

Keywords: Double point of vision, Knowledge subjective not objective, Metaphysics and Synthetic a priori judgment, Natural Metaphysics and Metaphysics of morals, Sun's motion is ours, Turning upside down.

1. Introduction

In Kant's book Critique of Pure Reason; in its **Preface to the Second Edition** we find the metaphorical usage of the term "Copernican Revolution", although not coined by Immanuel Kant himself but by the British philosophers – in order to analogize the revolution in astronomy and that in philosophy. In the astronomical arena Ptolemy gave a 'geocentric' explanation whereby he stated that the Earth is in the middle and sun moves round it. But thereafter Copernicus heliocentrically proved that the Sun is static as posited at the center around which earth and other planets revolve. Since we are moving on Earth thus we seem to posit our movement onto the fixed sun and thus we say that the sun rises in the East and sets in the West. So there had been a complete change in the field of astronomy whereby the moving sun had been proved to be static and movement had rather been found of the Earth.

A similar change in perspective was brought by the German philosopher Immanuel Kant in the epistemological study of Philosophy wherein before Kant it was thought that the objects of experience gave us knowledge, and after him it was shown how the knower constructs the objects of knowledge in experience and hence receive knowledge from them. Pre-Kantians believed that knowledge came from Empirical objects but Kant emphasized on the knower's role and retorted that human knowledge comes from knower and not from the objects of knowledge.

Prior to Kant the judgments which were already believed were: Analytic a priori – 'All bachelors are unmarried males', and Synthetic a posteriori – 'The leaf is green'. Analytic a posteriori was refuted for its absurdity, so was Synthetic a priori. But Kant for the first time introduced not only logically but also by showing practical instances, the notion of Synthetic a priori judgments.

Copernican hypothesis was given by Kant as an explanation to prove such possibilities of Synthetic a priori judgment. Such a judgment as Kant showed was possible in Arithmetic – ' $7+5=12$ ', also in Geometry 'A straight line is the shortest distance between two points' also in Pure Natural Science (Physics), 'In all changes of the universe the total amount of matter remains unchanged'. And such a Synthetic a priori judgment was also found in Metaphysics at least in its intention – but it is to be proved whether they are as genuine as those found in Science and Mathematics. Kant's aim was to elevate Metaphysics onto the level of science which gave a superior knowledge having strict universality, certainty as well as novelty – all of which are found in Synthetic a priori judgment. Now Kant first would go on to see what made Logic, Physics, and Mathematics to be independent Sciences. Once that could be found, then that model if applied on Metaphysics would take it onto the level of scientific certainty.

Logic is the Science of Reason, dealing with the forms of thought which have no subject matter. But Metaphysics does have a subject matter, which is God – Soul – Universe as a whole. Thus the model of formal thoughts of logic cannot be applied on Metaphysics, in order to make the latter Science. Now Kant would re-visit Math to check how it became Science. At one point of time Math was not a Science. During that time the measurement of one figure was taken and applied onto others. But that particular measurement could not be applied on all figures universally. Hence the method of construction was introduced where a figure, for example a triangle's concept was constructed in intuition and according to such a mental construction the original was drawn thereafter and was given parameters. Thus intuition or active role of the knower (by process of constructing figures in imagination) had to be admitted in mathematics once it got the status of Science. Hence Kant realized that if Metaphysics then were to be elevated to Science, there also mind's active role had to be brought in.

Again Kant delved into the secrets of Physics, as to how it became Science. When Physics was not a Science then the Scientists depended on the occurrence of natural phenomena to determine or justify a hypothesis which they got in intuition. But later the scientists created the natural phenomenon artificially within the walls of laboratory to testify the proposed hypothesis. Here again active role of the experimenter is only to be found.

Thus after intervening into the several disciplines of Science, Kant understood that Science is not a teacher-student relation where the student is merely a passive listener. Kant concluded, when the knower plays an active role, it is only then that knowledge becomes Science. Let us see now whether the knower in case of Metaphysics can or cannot play an active role in constructing the so-called metaphysical objects such as God, Soul and Universe as a whole.

Kant went on to describe a knowledge situation where an object of experience strikes our mind which has two windows – Sensibility and Understanding. Through Sensibility immediate representations of external objects are obtained after passing through Spatio-temporal forms (the pure forms of sensibility). But these are discrete Intuitions received; they are further conjoined and converted to a single idea or judgment through the Understanding capability of the mind, which uses its Categories to make the discrete intuitions into a well formed object. Thus the mind very actively seems to construct the objects of experience, and we do not receive knowledge from objects passively as they are merely presented before us. Thus if not during operation of Sensibility, but during the operation of Understanding faculty of the mind; it remains active. This knowledge according to Kant is scientific knowledge as mind's active role is found here.

The question is, would this knowledge or method of knowing be easily applied in Metaphysics also? If it can be; then Metaphysics would also be elevated to Science (which was Kant's primary motto). The answer remains in negation though; as to know God – the object God must be present in experience affecting the mind, entering through Space and Time and finally being synthesized by the Categories of the Understanding faculty of mind. But God neither remains in experience to affect our mind Spatio-temporally and nor can it be synthesized by Categories such as substantiality, causality, unity etc. – as it has to be noted that such Categories can only be applied upon objects of experience and not upon objects which transcend experience. And God, soul and universe as a whole are objects which transcend experience. Thus scientific knowledge of such metaphysical objects was turned down.

Hence the attempt of elevating Metaphysics to Science thus went in vain. Kant says about Metaphysics, "But though it is older than all other sciences, and would survive even if all the rest were swallowed up in the abyss of an all-destroying barbarism, it has not yet had the good fortune to enter upon the secure path of a science."¹

Although Metaphysics could not be made a Science but it cannot be discarded either, just as we do not stop breathing

even on knowing that air has impurities. At least Natural Metaphysics has to be considered which constantly raises questions in our minds on God, soul and Universe as a whole, all of which can at least be thought by us. Moreover natural metaphysics, also known as scientific metaphysics or metaphysics of phenomena has also to be considered because it can acquire a priori knowledge of the world or nature or phenomena. For example when we say that 'The table is brown' then we consider something permanent as substance having attributes, interacting with other objects to be brown. Thus the substantiality, causality, unity, reciprocity of table has to be first and foremost admitted by us, then only we can talk about it and its qualities. And these notions of substantiality, causality etc. are not found in experience but comes from within us. Hence a priori principles ought to be applied from our mind to know any object of experience as an object in general. This is how we know the phenomenal world through a priori knowledge. Hence at least in this sense, in this kind of natural metaphysics Synthetic a priori is found. So although Transcendent Metaphysics could not be elevated to Science but Scientific or Natural Metaphysics or Metaphysics of phenomena could at least be admitted by Kant, in this way.

Through this attempt to elevate the status of Metaphysics, also a new paradigm of acquiring knowledge is achieved. And this paradigm shift in philosophy has been compared not by Kant but by the British philosophers as a Revolution similar to that of Copernicus in astronomy.

The Pre-Kantians believed in the statement that "All our knowledge conforms to objects". If all our knowledge conforms to objects of experience then all such knowledge would be Empirical. Hence there would be no room for the superior, scientific – Synthetic a priori knowledge as invented by Kant.

But Kant stated – "All objects of knowledge conform to our knowledge". As mentioned earlier in this paper the Pre-Kantians (Locke, Hume) could explain Analytic a priori judgments whose truth can be justified on analyzing them. They also admitted of Synthetic a posteriori propositions because their truths can be justified by mere experience and they themselves were very much Empiricists. But Kant by mentioning the above claim that objects known conforms to our knowledge, added to the list Synthetic a priori judgment. When Kant stated "All objects of knowledge conform to our knowledge"; then he meant:

"All objects of knowledge conform to our pure forms of sensibility (space, time) and to our pure forms of understanding (categories) – both of which are a priori".

Therefore, "All objects of knowledge conform to a priori things".

Hence **Synthetic a priori principles** are found in obtaining even objects of experience. Thus for the first time role of subject seemed to be important as it is the subject producing a priority upon external/empirical objects.

In astronomy also after Copernicus the subjects got an important role as their movement was imposed upon the sun. To some critic (Alexander Samuel) Kant's revolution in Philosophy seemed to be in proximity with Ptolemy's theory

– not with that of Copernicus. As Ptolemy gave a ‘Geocentric’ theory by positing earth (us) in the middle.

But the point of similarity is not that. Even with Sun at the middle Copernicus emphasized on the subjects’ role as we on earth are moving and such a movement is imposed upon the sun.

2. Consequences of Copernican Revolution

2.1 Negative Consequence:

God, Soul, Universe as a whole could not be known as knowledge requires justification (as per the famous JTB theory) – but God etc. cannot be justified. Moreover Sensibility and Understanding faculties of the mind cannot know God etc. in the manner they know any other objects. Again God etc. can’t be known as other things are known because they are non-spatiotemporal. ‘God creates universe’ – It is a Synthetic a priori judgment according to the Metaphysicians as it gives us novelty (hence synthetic) and God is found beyond experience (thus a priori). But this judgment cannot be a priori **knowledge** as the criterion of a priori knowledge is strict Universality and necessity but God is not universally or unanimously admitted by all. Thus these metaphysical objects cannot form Synthetic a priori judgments, not only so as a matter of fact they cannot form knowledge at all. Thus after this revolution the Metaphysical objects’ knowledge was discarded once and for all.

Another negative consequence of this Revolution is that the age old proposition as established by Descartes, i.e. ‘I think therefore I am’ is to be eradicated here. Herein ‘my’ existence has been affirmed by Descartes as the immediate representation. Hence “I” is an immediate representation— which should thus come under Sensibility. But Sensibility can intuit but cannot think or understand. Understanding faculty as Kant shows can think. But here the “I” of Sensibility is ‘thinking’ as per Descartes – which is not correct in Kant’s paradigm of knowledge

2.2 Positive Consequence:

Before Kant we found the rationalists to prove everything with reason – which Kant showed is not possible as even pure reason cannot know God, soul and universe as a whole. Again Hume being skeptic doubted even reason. But Kant saved it through his notion of a priority being applied on all/any empirical knowledge and thereby introducing Synthetic a priori. Thus Kant balanced between the two extreme views of rationalists and skeptics.

Second, Kant mentions that although pure reason cannot prove God etc. but there is no loss to humanity as had been thought that in such a case all our previous discussions on God etc. went in vain. There is no loss as pure reason cannot prove God etc., it cannot disprove them either.

Lastly Kant says that although he denied knowledge in case of metaphysical objects – but he did create a room for **faith**. In Kant’s language “I have therefore found it necessary to deny knowledge, in order to make room for faith.”² And here comes the **Metaphysics of Morals** which talks of **Practical**

Reason and not of Pure reason. This reason is not mere ‘knower’ but the ‘doer’. As moral actions through practical reason are ‘done’; such as ‘Do your duty’ or ‘You must tell the truth’. These do not describe facts so they are not factual statements, thus transcendental. Here we find thus the advent of Transcendental Ethics where the free soul without being conditioned by anything, acts freely or morally in the universal Kingdom of Ends; God being the award giver to such souls in such an unconditional world of faith and Morality. Thus Metaphysics of Morals had to be admitted too, as here also Synthetic a priori knowledge is found. ‘Do your duty’ is Synthetic as it provides novelty and it is a priori because such a truth is supposedly universal and necessary.

Moreover the difference in Pre-Kantian objects is well noticed with those of Post-Kantian ones which is also to be seen as an important consequence of this revolution. As Empirical objects as per Locke and Hume are real in nature but according to Kant they are mere appearances as they are always known through the glasses of space and time which are inseparably worn by us – thus their real nature (noumenon) can never be known. Rasvihary Das, one of Kant’s commentators says after Kant, “It shows that we know objects as appearances, as they are or may be given in our experience, but we cannot know things in themselves, which are not and cannot be given in any experience.”³

2.3 Changes before and after this Philosophical Revolution

So far in this article whatever changes have been noticed before and after this revolution, would be now summed up in this concluding part of the paper. Before Kant it was believed that knowledge came from empirical objects. But Kant showed that knowledge came from within us. Thus objective knowledge after Kant became a subjective affair. Second, the Pre-Kantians believed that the mind remains passive while knowing; just as an unconscious mirror which passively receives our images. But Kant showed that the mind actively constructs the object of knowledge while knowing it. Third, Pre-Kantians could explain only Analytic a priori and Synthetic a posteriori, but Kant added to the list Synthetic a priori judgment, his new invention. Fourth, before Kant Descartes’ judgment “I think therefore I am” was much celebrated but Kant showed that this is incorrect as ‘I’ as an immediate representation comes under Sensibility faculty of the mind which cannot think. Fifth, before Kant; Locke, Hume believed that empirical objects are real in nature but Kant stated that those objects are appearances not in an illusory sense though, but because their real nature cannot be known as whenever they are known, they are known through the spatio temporal glasses which are worn by the knower inseparably.

3. Conclusion

Points of Analogy between Kant and Copernicus

Both Kant and Copernicus shared a methodological similarity, although in different disciplines. In both their cases reversals of previous hypothesis were found, hence both are said to be the revolution setters in their respective

fields. Again, both their methods had more explanatory capacities than their predecessors. Moreover both showed a double point of vision as Kant showed soul once conditioned (psychological soul which can be known) and again unconditioned (moral soul which can be thought of and not known). And Copernicus showed the same sun being fixed (as known by us) and it having motion in its self (which can be thought of and not known). Lastly both explained their processes from the percipient's view points. Due to such solid grounds of similarities with Copernicus, Kant's paradigm shift in philosophy was later termed as Copernican Revolution in the field of Epistemology.

Such a paradigm shift in knowledge by Kant had shaken indeed the world of philosophy enormously. Thus there can be some revolutions which are not bloodshed but pen stricken and not pain stricken, enlightening the world forever. And this was one of such kind, known as Kant's Copernican Revolution in Philosophy.

References

- [1] Kemp Smith, Norman (1929) *Immanuel Kant's Critique of Pure Reason (Preface to the Second Edition)* Macmillan And Co. Limited: London P.21.
- [2] Ibid, P.29
- [3] Das, Rasvihary (1958) *Kant's Critique of Pure Reason* Progressive publications: Kolkata P.32.

Author Profile

Urmi Ray graduated from Lady Brabourne College, Kolkata and post graduated from University of Calcutta both with Philosophy as major, and got awarded for her doctorate degree on 2014 on Practical Ethics, topic being Terrorism. The Calcutta University Press had also published her book called *Terrorism: An Epidemic of Today's World—Can There be a Solution*. She has many publications to her credit in National and International journals and now studying Western Epistemology as her post doctoral studies. Dr. Ray is currently teaching Philosophy at Women's Christian College and also she is the Visiting faculty at University of Calcutta and had been a Visiting faculty at Presidency University.