

## ***Kant's First Antinomy : A Critical Appraisal From the Classical Indian Perspectives***

**S. S. Antarkar**

### ***Introduction***

Kant, in his first antinomy, raised one of the most basic questions about the nature of the cosmos: whether the world has a beginning in time and is also limited as regards space; i.e. whether it is finite or infinite as regards both time and space. It is not that Kant has raised this question for the first time in the history of philosophy; even in the history of Western philosophy. On the contrary, philosophy began both in ancient Greece and in ancient India only with such cosmological issues. The pre-Socratic philosophers were attempting to answer primarily cosmological questions. So is the case with the Vedic seers in India. The universe was conceived by them as a home not only for humans but also for the whole animal world; and they wanted to know about it. Who constructed this home for them? When was it constructed? How big it is? How long will it last? What is the fate of the cosmos, the animal world and the human race? Such curiosities mingled with hopes and fears motivated them to philosophize; to speculate. Socrates in ancient Greece and the Buddha in India started asking how humans can decide the truth or falsity of answers given to such questions. They even questioned practical relevance of the answers to such questions for living a good life. Epistemology, Ontology and Ethics took the centre-stage in philosophy and cosmology was pushed to periphery and even beyond the periphery of philosophy. What could be known with certainty was accepted as a genuine enquiry and the rest was either regarded as dogmatic or was to be consigned to flames being nothing more than sophistry and illusion. Kant stands at the crossroads of dogmatism and skepticism. He, with his critical method attempts to decipher enquiries which have entered or could enter 'upon the secure path of science' from those which remain 'merely random groping'. His verdict is that mathematics and physics (natural sciences and perhaps even human sciences like psychology, anthropology) have entered the path of science

while Transcendent metaphysics consisting of rational psychology, rational cosmology and rational theology enquiring into soul, cosmos and God have remained 'the battlefield of endless controversies'. His diagnosis was that these enquiries "resort to principles which overstep all possible empirical employment"<sup>1</sup>

Kant's motive in raising this question in his *Critique of Pure Reason* was to expose the errors and transcendental illusions to which reason gives rise 'in its non-empirical employment'. In its enquiry into soul, reason gives rise to paralogisms, and in its enquiry into the cosmos, it gives rise to 'antinomies of pure reason'. This article does not discuss the nature of antinomies in general nor the problems discussed in the four antinomies. It is limited only to the first antinomy – the thesis asserting that the world has a beginning in time and is limited as regards space while the antithesis denying it. This exemplifies the general nature of antinomy in which the human reason gives rise to an entirely natural antithetic. Antithetic means a thesis together with an antithesis. "Transcendental Antithetic is an investigation of the antinomy of pure reason, its causes and outcome."<sup>2</sup> Kant holds that these antinomical disputes cannot be resolved on purely theoretical grounds as the reason has extended its domain beyond all limits of experience. But since practical interests of humanity are at stake, should we be compelled to make a choice, we may proceed consulting "only our interest and not by the logical criterion of truth."<sup>3</sup>

This would enable us to comprehend why the participants prefer to fight on one side rather than the other. He observes that the thesis representing rationalism, which he calls 'dogmatism of pure reason' (i) provides foundation for morals and religion (ii) promotes speculative interests; and (iii) has also advantage of popularity. The antithesis representing empiricism, on the other hand, (i) does not provide foundation for morals and religion; (ii) is universally unpopular but (iii) has the advantage of subduing the rashness and dogmatism of rationalism by restricting speculation within the bounds of sense-experience and thereby preserving and promoting dignity of science. But when empiricism itself becomes dogmatic, and lacks modesty, and denounces all ideas, which do not come within the scope of science but which provide foundation for morality and religion, it causes, according to Kant, "irreparable injury to moral and religious interests."<sup>4</sup> Kant, therefore, emphasizes absolute necessity of a solution of the

transcendental problem of pure reason and finds its key in the Transcendental Idealism.

The second section gives Kant's statement of the First Antinomy. The third section would discuss Kant's way out of this antinomy. The fourth section would lay bare the presuppositions underlying Kant's solution. These presuppositions and Kant's solution based on them have been questioned and even rejected by many post-Kantian philosophers. What this article intends to do is to explore how the classical Indian philosophers would have reacted to Kant's presuppositions, his diagnosis and remedy of the First Antinomy. The fifth section attempts at reconstructing their arguments and make them enter into a dialogue with Kant. The sixth section would put forward alternative Indian formulations of and solutions to the question whether the world is finite or infinite both in space and time. The last section would conclude with the discussion whether genuine moral and religious interests required any foundational beliefs or ideas of Self, Cosmos and God, treated either as constitutive, i.e. transcendent or as regulative, i.e. transcendental, as opposed to or atleast different from the scientific understanding of the Self and the Universe.

### ***Statement of Kant's First Antinomy***

The transcendental science of the world or Rational Cosmology, according to Kant, raises four questions about the cosmos, on the basis of quantity, quality, relation and modality. But as Bennett points out, "Only the first antinomy about the age and size of the world"<sup>5</sup> raises the question about the cosmos or the world-whole. The second deals mainly with divisibility of matter. In the third, Kant primarily discusses the un-cosmological problem of human freedom and the fourth about the existence of a 'necessary being' overlaps with the cosmological argument for the existence of God in the chapter on theology.

Kant states the First Antinomy by presenting the thesis and the anti-thesis thus:

**Thesis:** The world has a beginning in time and is also limited as regards space.

**Anti-thesis:** The world has no beginning in time and no limits in space, it is infinite as regards both time and space.

### ***Kant's Formulation of the Proofs***

**Thesis:** (a) If it is assumed that the world has no beginning in time, then it has gone through an infinite series of successive states. It is therefore not logically possible to complete the series through regressive synthesis. Such an attempt would lead to 'infinite regress'. The series can be completed only by accepting that the world has a beginning. This constitutes the proof for the thesis.

**Antithesis:** On the contrary, the proof of the antithesis is that if the world is assumed to have a beginning in time, then there must have been an empty time before the beginning. But an empty time cannot contain a distinguishing condition of existence rather than of non-existence. Therefore, the world itself could not have begun. The world, therefore, must be infinite in respect of past time.

**Thesis:**(b) As regards space, if it is assumed that the world is infinite in space, then it can neither be given in experience (intuition) nor can it be brought to completion through repeated addition of unit to unit. Therefore, the world is, as regards extension in space, not infinite, but is enclosed within limits.

**Antithesis:** If it is assumed that the world in space is finite and limited and hence exists in an unlimited empty space, then the relation of the world to an empty space would be a relation of it to no object, because the world is an absolute beyond which there is no object. The world cannot, therefore, be limited in space, i.e., It is infinite in respect of extension.

These alleged proofs of the thesis and the antithesis take the same form viz. Assume the opposite view, show it to be untenable by drawing implications from it and therefore claim that one's own view is proved. This is a *reductio ad absurdum* method. The proofs, therefore, consist in rejecting the opposite view and thereby claiming to prove one's own view. There is no positive, direct argument to show, for example, that the world did begin and is finite, or that the world has no beginning and is infinite. The argument or the proof is pure apriori. Bennett says, "Instead of a direct argument to show that the world did begin, therefore, we are offered an alleged difficulty about the supposition that it did not."<sup>6</sup> Kant's avowed aim of the transcendental dialectic is 'to obtain insight into the Transcendental employment of pure reason'. The Kantian insight is that reason in its non-empirical employment gives rise *only to*

ideas adding the cautionary remark that the expression 'it is only an idea' is not used and should not be understood 'disparagingly'. "On the contrary," says Kant,

"just because it is the idea of the necessary unity of all possible ends, it must as an original, and atleast restrictive condition, serve as standard in all that bears on the practical."<sup>7</sup>

Kant does not defend any side in the controversy but rather acts like an impartial umpire using the skeptical method of

"watching, or rather provoking a conflict of assertions, not for the purpose of deciding in favour of one or the other side but of investigating whether the object of controversy is not perhaps, a deceptive appearance, which each vainly strives to grasp"<sup>8</sup>

and allowing the contestants to decide the issue for themselves. Of course Kant hopes that

"After they have rather exhausted than injured one another, they will perhaps themselves perceive the futility of their quarrel and part good friends."<sup>9</sup>

This is achieved neither when the reason sees this conflict not as a conflict between two parties nor as arising from a mere misunderstanding but as arising from the conflict between theoretical and practical interests of reason, whereby reason is divided against itself. Rationalism tries to provide justification for morals and religion and Empiricism tries to protect theoretical interest by curbing rashness and dogmatism involved in such a justification. Kant distinguishes between three types of solutions to the problem of reconciling the theoretical and practical interests—the dogmatic solution, the sceptical solution, and the critical solution offered respectively by rationalism, empiricism and critical philosophy.

Restricting the discussion to the First Antinomy, Kant's suggestion is that the question whether 'the world has a beginning and is limited in space' or 'the world has no beginning and is infinite as regards space' should not be answered with simple 'yes' and 'no', but a critical examination, of the question itself and how we are going to answer it, must be instituted. After such a critical examination, Kant claims to set a 'sober critique' in the place of 'a great body of sterile dogmatism'. He gets a clue that "whatever the view may be taken of the unconditioned in the successive synthesis of appearances, it must either be *too large*

or *too small*, for any concept of the understanding."<sup>10</sup>

For example, the idea of 'the world without beginning' is "*too large* for our concept, which consisting as it does in a successive regress, can never reach the whole eternity that has elapsed."<sup>11</sup> On the other hand, the idea of 'the world with beginning' is,

"in the necessary empirical regress, 'too small' for the concept of the understanding.... For since the beginning still presupposes a time which precedes it, it is still not unconditioned, and the law of the empirical employment of the understanding therefore obliges us to look for a higher temporal condition and the world (as limited in time) is therefore obviously *too small* for this law."<sup>12</sup>

"This is also true of the twofold answer to the question regarding the magnitude of the world in space. If it is *infinite* and unlimited it is *too large* for any possible empirical concept. If it is *finite* and limited it is *too small* for our concept, because we have a right to ask what determines these limits. Empty space is no self subsistent correlate of things, and cannot be a condition at which we could stop; still less can it be an empirical condition, forming part of a possible experience."<sup>13</sup>

Because there cannot be any experience of the absolutely void. Thus, an unlimited and infinite world is *too large* and a limited and finite world *too small* for our concept. Lastly, everything belonging to the world is *contingent* i.e. dependent upon some other existence. Since we are constrained always to look about for some other existence with a view to understand a given existence, every given existence is *too small* for our concept.

So far Kant has been saying that the cosmical idea is either too large or too small for the empirical regress and therefore for any possible concept of understanding. This means that the fault lies with the idea and not in the concept of understanding. Kant explains the reason why we do not adopt the opposite manner of speaking that concept is either too small or too large for an idea and attach blame to the concept of understanding and to the empirical regress rather than to the idea. His explanation is that possible experience

"can alone give reality to our concepts in its absence, a concept is a mere idea without truth i.e. without relation to any object. The possible empirical concept is, therefore, the standard by which we must judge whether the idea is a mere idea and thought entity, or



whether it finds its object in the world."<sup>14</sup>

These considerations led Kant to suspect that

"the cosmological ideas and with them all the mutually conflicting pseudo-rational assertions, may perhaps rest on an empty and merely fictitious concept of the manner in which the object of these ideas is given to us; and this suspicion may set us on the right path for laying bare the illusion which has so long led us astray."<sup>15</sup>

### ***Transcendental Idealism as the Key to the Solution***

The central thesis of the *Critique of Pure Reason*, developed from the beginning of Transcendental Aesthetics to the end of Transcendental Analytic is the distinction between 'thing in itself' and 'thing as it appears to our outer and inner senses through the two a priori forms of Intuition-Space and Time-and the categories of understanding'. The world or cosmos and all objects of possible experience are nothing but appearances and have no existence independent of our faculties of knowing. That which exists in itself apart from its relation to our senses and possible experience is unknowable. This is the doctrine of transcendental idealism. This must be sharply distinguished from Empirical idealism. Kant is an empirical realist and transcendental idealist. In so far as we talk of objects which are within the limits of possible experience, it is a matter of indifference whether we talk of them as if they are independent of experience or talk of them in terms of the rule of the advance in the experience in which object as series of appearances given to me in experience. But when we deal with a question which oversteps the limits of possible experience, the difference in these two modes of speaking or conceiving the reality of objects becomes of paramount importance as serving to guard us against the transcendental error or illusion.

Kant says, "it is evident beyond all possibility of doubt, that if the conditioned is given, a regress in the series of all its conditions is *set us as a task*."<sup>16</sup> This is true because in the very concept of 'the conditioned' reference to a condition is logically involved. If the condition is itself conditioned, we refer to a more remote condition and so on through all the members of the series. It is a logical postulate of reason. This proposition is, therefore, analytic. But Kant thinks that

"if the conditioned as well as its condition are things in themselves,

then upon the former being given, the regress to the latter is not only *set as a task*, but therewith already really given."<sup>17</sup>

What does Kant mean by the statement which he calls 'the dialectical argument.' "If the conditioned is given the entire series of all its conditions is likewise given", "upon which the whole antinomy of pure reason" rests?

"The synthesis of the conditioned with its condition is here a synthesis of the mere understanding, which represents things *as they are* without considering whether and how we can obtain knowledge of them."<sup>18</sup>

Having distinguished the transcendental sense and empirical sense of the expression 'conditioned', Kant exposes the fallacy involved in the following cosmological argument:

Major Premiss: If the conditioned be given, the entire series of all its conditions is likewise given.

Minor Premiss: The objects of the senses are given as conditioned.

Conclusion: Therefore, the entire series of all their conditions is likewise given.<sup>19</sup>

Kant points out that

"the major premiss of the cosmological inference takes 'the conditioned' in the transcendental sense of pure category while the minor premiss takes it in the empirical sense of a concept of the understanding applied to mere appearances. The argument thus commits the dialectical fallacy *sophisma figurae dictionis*"<sup>20</sup>

This is a natural and inevitable illusion which leads us to accept *the sensible world in space as being independently real*. Moreover, the synthesis of the conditioned with its condition (and the whole series of the latter), does not in the major premiss, carry with it any limitation through time and any concept of succession. The empirical synthesis, on the contrary, and the series of conditions in appearance (which are subsumed in the minor premiss) is necessarily given successively and is given only in time.

This fallacy of equivocation in the cosmological inference lies at the root of the First Antinomy. The contestants were asserting contradictory propositions about the world which they both assumed to



be 'thing in itself '. But once it is brought to their notice that the world given in sense experience is merely a series of appearances and not a thing in itself, "the contradictory opposition of the two assertions is converted into a merely dialectical opposition."<sup>21</sup> Kant says,

"Since the world does not exist in itself, independently of the regressive series of my representations, it exists *in itself* neither as an *infinite* whole nor as a finite whole. It exists only in the empirical regress of the series of appearances, and is not to be met with as something in itself. If, then, this series is always conditioned, and therefore, can never be given as complete, the world is not an unconditioned whole, and does not exist as such a whole, either of infinite or of finite magnitude."<sup>22</sup>

Kant concludes, "Thus the antinomy of pure reason in its cosmological ideas vanishes."<sup>23</sup> when it is shown that the conflict is due to an illusion of treating appearances as things in themselves. However, a critical and doctrinal advantage of this antinomy, according to Kant, is that it "affords indirect proof of the transcendental ideality of appearances."<sup>24</sup> Secondly, since the completeness prescribed by the idea cannot be realized in experience,

"It can only be *set as a task*" that calls for regress in the series of conditions.<sup>25</sup> "The principle of reason takes the form of "*a rule prescribing a regress* in the series of the conditions of given appearances and *forbidding* it to bring the regress to a close by treating anything at which it may arrive as absolutely unconditioned."<sup>26</sup>

Thus, it is not a principle of understanding but a principle of reason, *not a constitutive cosmological principle* ascribing objective reality to the 'absolute totality of the series of conditions' but a *regulative principle*, which serves as a rule for the continuation and magnitude of a possible experience. "The regulative principle of reason", says Kant,

"is grounded on the proposition that in the empirical regress, we can have no experience of an absolute limit i.e. no experience of any condition as being one that empirically is absolute unconditioned."<sup>27</sup>

Such an experience to be possible must contain a limitation of appearances by nothing or by the void. But the notion of experience of nothing or void makes no sense. What we can reach in the empirical regress, therefore, are conditions, which are themselves empirically

conditioned. The notion of 'empirical regress' contains the rule (in terminis) that

"however far we may have advanced in the ascending series, we must always enquire for a still higher member of the series, which may or may not become known to us through experience."<sup>28</sup>

Kant calls this unending empirical regress 'indefinite regress' distinguishing it from 'infinite regress.'

Kant's first and negative answer to the cosmological problem regarding the magnitude of the world in space and time is that "the world has no first beginning in time and no outermost limit in space."<sup>29</sup> Since it is impossible to have experience of absolute empty time and space, an absolute limit of the world is impossible empirically and therefore also absolutely.

The affirmative answer is that the regress in the series of appearances proceeds indefinitely (indefinitum). Kant distinguishes such an indefinite empirical regress from infinite regress. The distinction implies that though we can never claim nor even hope to claim to reach the absolute magnitude of the sensible world, the empirical regress must always advance from the conditioned to its condition indefinitely

"by means either of our own experience or of the guiding-thread of history or of the chain of effects and causes."<sup>30</sup>

Kant says,

"Our Sole and constant aim must be the extension of the possible empirical employment of the understanding, this being the only proper task of reason in the application of its principles."<sup>31</sup>

### ***Unearthing Kantian Presuppositions***

Any answer to the question whether the universe is finite or infinite in space and time necessarily depends upon one's views about the nature of Space, Time and World. Kant's formulation, diagnosis and solution of the First Antinomy therefore presuppose his views about space, time and the world. It seems, therefore, necessary to unearth these presuppositions in order to critically consider Kant's formulation, diagnosis and solution of the First Antinomy. The main presuppositions of Kant, which are considered here, are the following:

(a) Space and time are the *a priori* forms of intuition.

(b) The spatio-temporal world, therefore, is an appearance. What the world-in-itself is cannot be known. There is an unbridgeable gap between 'What can be known' (phenomena) and 'What exists in itself' (noumena).

(c) There is no higher, supra-sensuous, supra-intellectual way of knowing what is real.

(d) The solution of this antinomy has practical relevance for morality and religion.

I do not propose to discuss how post-Kantian western philosophers responded to Kant's formulation, diagnosis and solution of the first antinomy. Rather, I propose to explore how the classical Indian philosophers would respond to Kant. For this it is necessary to reconstruct their arguments and make them enter into a dialogue with Kant.

(a) The first and the most important presupposition is that space and time are neither substantive nor relational objects of experience but are *a priori* forms of intuition or human sensibility. Kant mentions two rival views about space and time held by, what Kant calls, 'mathematical students of nature' and 'metaphysical students of nature.' The former is the Newtonian view accepting 'the absolute reality of space and time as subsistent and the latter is the Leibnitzian view that 'space and time are relations of appearances, alongside or in succession of one another.' Kant points out that the former is required to accept "two eternal and infinite self-subsistent non-entities, while the latter has to accept 'relations abstracted from experience.' Kant's main objection against those who hold the absolute reality of space and time whether as subsistent or only as inherent is that "they are obliged to deny that *a priori* mathematical doctrines have any validity in respect of real things (for instance, in space) or at least to deny their apodeictic certainty."<sup>32</sup> The view that knowledge of form is *a priori* is an invaluable gift of the ancient Greeks. Pythagoras, Euclid and others have formalized mathematics. Thus mathematics has come to be viewed as giving *a priori* necessary (apodeictic) knowledge of the spatio-temporal form of the world.

Hume had, before Kant, denied the possibility of the synthetic *a priori* knowledge by having a dichotomous division of ideas into 'relations of ideas' and 'matters of fact', thus treating all *a priori* judgments to be analytic and all synthetic judgments as empirical. Kant,

in his enthusiasm to show how synthetic *a priori* judgments are possible, argues that space and time are *a priori* forms of intuition and concepts like substance, causality are *a priori* categories of understanding, which are not derived from experience but are the *a priori* conditions of the possibility of experience.

With the formulation of non-Euclidean systems of geometry, and new developments in symbolic logic, Kant's doctrines of synthetic *a priori* nature of mathematics, space and time as *a priori* forms of intuition and a fixed number of *a priori* categories of understanding have come under heavy attack. These doctrines are traced to the historical fact that these new developments were unknown in Kant's time<sup>33</sup> and to the psychological fact of uncritical acceptance of these doctrines due to the extreme respect for Aristotle, Euclid and for the tradition on the whole. Kant's doctrines, therefore, no more carry any weight in the Western tradition.

In the classical Indian tradition, the distinctions between *a priori* form and empirical content, formal validity and material truth, deductive and inductive arguments, analytic and synthetic judgments, formal sciences like mathematics and empirical sciences like astronomy, logically necessary and contingent, are absent or at least do not seem to have been explicitly recognized. The Kantian argument from the synthetic *a priori* nature of mathematics and causal necessity to the nature of space and time as *a priori* forms of intuition and substance, causality as *a priori* categories of understanding has no appeal whatsoever for the classical Indian philosophers.

Within the classical Indian tradition, divergent views have been held about the ontological status of space, time and the world. The Nyāya-Vaiśeṣika, the Purva Mimāṃsā and Jainism regard space and time as two independent, infinite, substances; the Sāṃkhya-Yoga regard them as relational; the Advaita Vedānta regards them as 'limiting adjuncts' and for Buddhism, time is a series of moments and space (*Ākāśa*) is "a non-composite (*asamskṛta*) *dharma*, which is self-existent, exempt from change i.e. from origin, growth and destruction, eternal, limitless substance. It is devoid of *rūpa* and is not a material thing (*vastu*)."<sup>34</sup>

(b) None of the systems of Indian philosophy regards space and time to be 'human ways of looking' at things. For Kant, space and time belong to the human faculty of cognition, so that they are applicable only to

objects of experience i.e. to things as they appear (phenomena), but not to 'things in themselves' (noumena). Thus, in Kant's philosophy there is an epistemically unbridgeable gap between 'what can be known' i.e. 'things as appear', and 'what is, in principle, unknowable', 'things in themselves.' The Advaita Vedānta regards spatio-temporal world as appearance not because space and time are forms of human sensibility but because they are limiting adjuncts which make one indivisible Brahman appear as divided. Moreover, Vedānta accepts the possibility of directly realizing Brahman. It can safely be said that no classical Indian philosophical system accepts that the real is unknowable.

(c) Kant regards noumenon to be unknowable because the only kind of intuition which human beings possess, according to Kant, is sensible intuition and whatever is given through sensible intuition is an appearance. Almost all the classical Indian philosophical systems (except the Cārvāka and perhaps also the Purva Mīmāṃsā) accept the possibility of supra-sensuous experience through which non-empirical reality can be known e.g. *yogaja* perception of Nyāya; *aparokṣānubhūti* or *sākṣātkāra* of Vedānta, three types of supra-sensuous knowledge by Jainism (*avadhi*, *manahparyāya* and *kevala*).

(d) Kant thinks that the theses of all the four antinomies asserted by rationalism, viz., that the world has a beginning; that the thinking self is simple and indestructible in nature; that it is free in its voluntary actions and that the world-order is due to God— are so many foundation stones of morals and religion. The anti-theses maintained by Empiricism rob us of all these supports or at least appear to do so. The classical Indian philosophers would have a pleasant shock to know that the thesis— 'the world has a beginning' provides foundation for morals and religion because all the classical Indian philosophies, except Cārvāka, hold the world to be without beginning and believe that it provides foundation for morals and religion. We find that the atheistic philosophies of Sāṃkhya, Buddhism and Jainism not only provide foundation for morals but even to the supreme religious goal of *mokṣa*. Buddhism, which does not accept soul, is one of the major universal world religions. Thus the beliefs in God, Soul and Creation do not seem to be necessary foundations of morals and religion according to the classical Indian perspective. If the antithesis that 'the world has no beginning and is infinite as regards space' put forward by empiricism, and atheism are found not to be harmful to the practical moral and religious interests, as



is the case with the Sāṃkhya, Buddhism and Jainism (Buddhism not even accepting soul) then Kant's explanation of antinomy, as arising from the conflict between theoretical and practical interests of reason whereby reason is divided against itself does not hold good. Or else Kant will have to reject Buddhism, Jainism or any non-theistic religion to be religion, making belief in God to be a necessary condition for calling a way of life 'religious'. The truth is that Kant begins with the conception of religion which accepts God as the creator, world as the creation out of nothing, and soul as simple and indestructible or immortal. Since empiricism rejects all these three beliefs, he condemns empiricism for destroying the foundation of morals and religion.

It seems, therefore, that the classical Indian philosophers would find Kant's presuppositions, formulation, diagnosis and solution of the first antinomy not convincing or acceptable. No doubt they would find the question whether the world is finite or infinite in space and time as one of the most puzzling perennial philosophical issues.

## II

Kant's first and negative answer to the cosmological problem regarding the magnitude of the world in space and time is "the world has no first beginning in time and no outermost limit in space." (see footnote 29) His affirmative answer is that empirical regress must continue from the conditioned to its conditions indefinitely "by means of our experience or of the guiding thread of history or of the chain of effects and causes." (see footnote 30) Let us now see where science has arrived at by following the method of empirical regress.

The most prevailing scientific hypothesis—almost the official view of science today about the origin and the spatial magnitude of the universe—is the Big-bang theory. According to this theory the universe is expanding. But 'expanding universe' does not mean that galaxies are moving away from each other in an empty infinite and immutable space. Rather space is not static but elastic and is itself expanding. If the universe along with space is expanding, it must have been more compressed in the past. On the basis of the present rate of expansion, it is concluded that the universe originated with zero size and infinite rate



of expansion with a big-bang. This means that space is compressed to nothing. The big-bang is the origin of space as well as matter and energy. There was no pre-existing void in which the big-bang happened. These considerations force upon us the conclusion that "the big bang was the ultimate beginning of all physical things: space, time, matter and energy. It is evidently meaningless to ask (as many people do). What happened before the big bang, or what caused the explosion to occur. There was no before. And where there is no time, there *can be no causation in the ordinary sense*."<sup>35</sup> On the basis of computation from the temperature of heat radiation today, the universe would have had a temperature of about ten billion degrees throughout at about one second after the beginning. In short the universe has 'a hot dense cosmic origin.'

We now seem to have reached a deadlock: On the one hand the Science claiming to have reached the point beyond which empirical regress is not possible and even to raise the question 'what caused the explosion?' or 'What was before the big bang?' is evidently meaningless and on the other hand, Kant's regulative principle *forbids* Science to stop at the big-bang and to treat any point arrived at by empirical regress as the absolute unconditioned beginning. But Kant also regarded the thesis of the First Antinomy which holds that the world has a beginning in time and is limited in space as subserving practical moral and religious interests. If so, it is very easy for the religionist to jump to a conclusion that it is an operation of the Divine Will. Stephen Hawking narrates an incident occurring at the end of the conference of the scientists invited by the Catholic Church to advise it on cosmology in 1981. He says,

"At the end of the conference the participants were granted an audience with the Pope. He told us that it was all right to study the evolution of the universe after the big bang, but we should not inquire into the big bang itself because that was the moment of Creation and therefore the work of God."<sup>36</sup>

Whittaker compares the modern cosmological big-bang theory with the Christian theory so far as both the theories hold that "time is finite and did not exist before the beginning of the universe"<sup>37</sup> whether the beginning was God's act of creation or big bang, or as the pope suggested, the big bang itself was the moment of God's act of creation. But neither of these two theories regard space and time as *a priori* forms of intuition. For them space and time are objectively real. Secondly, Kant holds that to regard the sensible world as being independently real is a

'natural and inevitable illusion' while both the above theories regard the spatio-temporal sensible world as objectively real. Lastly, Kant's solution of the antinomy is that since the world does not exist in itself, it exists in itself neither as an infinite whole nor as a finite whole and thus the antinomy of pure reason in its cosmological ideas vanishes. Both the above theories hold that the world exists in itself as finite. Thus they both uphold the thesis of the antinomy which not only satisfies theoretical and practical interests of reason but even reconciles them. I want to discuss in the next section how the classical Indian philosophies formulate the problem and offer their solution in the ways radically different from all the above three views (i) Christian Cosmology, (ii) Big bang theory and (iii) Kant's Views on the First Antinomy.

### III

#### *Alternative formulations in Indian Philosophy*

01. Three views on the question whether the world is finite or infinite as regards space and time discussed earlier are: (i) the Christian view of *creatio ex nihilo*, (ii) the scientific view-the Big bang hypothesis, and (iii) Kant's view that (i) is dogmatic and (ii) is provisional pending further empirical regress. In contrast to these three views, we shall discuss some views from the classical Indian philosophy. It may however be mentioned that space and time are accepted as infinite and cosmological time is conceived as cyclic in the classical Indian thought in general. With these presuppositions, the formulation of the problem of Kant's First Antinomy assumes altogether a different form. The universe is now looked at as undergoing cycles of beginning (*sarga*) and end (*pralaya*) without accepting the first beginning (*anādi*) and any final end (*ananta*) as Time is also regarded as without beginning and without end. The individual selves also undergo cycles of birth and death. "To the one that is born death is certain and certain is birth for the one that has died" says the *Bhagavadgita*.<sup>38</sup> What is true of an individual is equally true of the world as a whole. Of course, these ideas of cycle of birth and death of an individual and cycle of *sarga* and *pralaya* of the world may be treated, in the words of Kant, not as constitutive but only regulative. They are ideas of reason. They do not extend our knowledge

to more objects than experience can give but as *regulative principles*, they tell us to continue an enquiry into conditions just as if the series of appearances were in itself endless without any first or supreme member. Thus the Big Bang to which science has arrived at, should not be regarded as the first member. The idea of the cosmos going through the cycles of *sarga* and *pralaya* allows us to regard the big bang as a beginning of a new cycle and as an end of the prior cycle. The classical Indian philosophers, therefore, may accept Kant's rule forbidding the scientist to treat a state arrived at empirically to be the absolute final unconditioned. The big bang is not the first state of beginning or origin of the world.

The Big-bang theory has reached the state of the "initial hot liquid with the temperature of more than ten billion degrees existing about fifteen billion years back."<sup>39</sup> The classical Indian philosophers, especially of the Sāṃkhya, Yoga and Vedānta schools, would hold that the science has gone back from the solid universe to its very hot liquid state (*pṛthvi*, *āpa*, *teja*). But it may be possible to go back to the stages of the gas storm (*vāyu*) and to sound vibrations (*Ākāśa*) and so on. The Vedānta tradition gives the following stages: from *Ātman*-the Original Stuff to sound vibrations to gaseous matter to thermal matter to liquid to solid matter to herbs to the seminal fluid to the animal world. This may be either fantastic speculation or an insight gained through contemplative method. But the point is that it assumes the logical possibility of further empirical regress.

02. The Classical Indian philosophers, especially of the Sāṃkhya-Yoga, the Vedānta and the Buddhist schools would find the method of empirical regress to be, in principle, inadequate to arrive at the unconditioned. Even Kant thinks so and forbids bringing the regress to a close by treating anything so arrived at as absolutely unconditioned. But Kant has no other option for empirical method. The reason why these classical Indian philosophers would find Kant's method of empirical regress inadequate is that it is a movement from the gross 'material (*sthūla*) conditioned' to its gross material conditions. Instead they suggest that the regress (i) must be from the gross material to the subtler and subtler levels (*sthūla* to *sūkṣma* and *sūkṣmatara* levels and so on) and (ii) must embrace both the objective and subjective sides because the gross bodily subject is a part of the physical world and does not fall outside the world whose original state we are investigating into. The method

these philosophers propose is not a speculative method. It is a method of observation which starts with the gross material and moves slowly and step by step to the subtler and subtler levels of both the self and the world, the subject and the object. It is in a sense, a method of experience but 'experience' here is not restricted to Humean sensations, not to Kant's conception of experience as sensations organised through forms of intuition and categories of understanding. It is a contemplative, meditative state of awareness. This awareness is 'theoretic consciousness' and it develops through higher and subtler levels till it reaches the level or 'transcendental thought which is neither objective nor subjective.' Patañjali calls this '*ṛtambhara prajñā*'—'Truth-bearing Wisdom'. In the recent times K. C. Bhattacharyya has put forward 'The concept of Philosophy' in which he discusses different 'Grades of theoretic consciousness' and argues for 'the possibility of philosophy as a body of knowledge distinct from science' indicating his general position by stating wherein he differs from the Kantian view of the subject.<sup>40</sup>

03. To illustrate this 'contemplative' approach of the classical Indian philosophers moving from the gross material to the most subtle reality in the context of the problem of Kant's First Antinomy, let us see how (a) the Sāṃkhya-Yoga (b) the Advaita Vedānta and (c) the Buddha respond to the question whether the world is finite or infinite as regards space and time.

(a) The syncretic school of Sāṃkhya-Yoga accounts for the cosmos as an evolution from the unmanifest, undifferentiated unity of the three interdependent but opposite constituents in the state of equilibrium and hence in a state of rest called *Prakṛti*. The three constituents are effulgence or light, energy or activity and mass or inertia. With its contact with *Puruṣa*—the consciousness principle— the equilibrium is disturbed and the process of evolution begins—It finally evolves into five gross material elements on the objective side and the gross material body plus the eleven subtle physical powers, viz., *manas*, five sense organs and five motor organs on the subjective side. The process does not take place in space and time; rather time is the order of succession in which members of phenomenal series stand to one another. Infinite time objectively considered as the receptacle or substratum of change is a non-entity, being only a mental construct.<sup>41</sup> Time is an empty semantic concept very useful from the worldly point of view. Space also is not a

substantive entity. The most subtle *prakṛti* in the process of evolution becomes spatially extended i.e. becomes gross material. The process of evolution or manifestation is followed by inevolution i.e. a process of going back to unmanifest state. Thus *prakṛti*, the unmanifest, evolves spatio-temporally into the psycho-physical world and goes back into the unmanifest. This truth is known to the seers like Kapila and Patañjali by the method of contemplation mentioned earlier. The contemplation begins with awareness of perceptual consciousness of the five gross elements in the waking state which constitute both the bodily selves and the world of objects. It proceeds, on the objective side, to the awareness of the five subtle elements (*tanmātrās*) which Brajendranath Seal translates as 'infra-atomic particles of subtle matter'<sup>42</sup> and on the subjective side to the awareness of eleven psychic centers and functions. The next stage is contemplation on the I-sense in which five *tanmātrās* on the objective side and eleven psychic centers on the subjective side merge. With such a contemplation intellect gets purified, stable, concentrated as a result *sattva* becomes predominant and the *tamas* gets weakened. On the level of *sātvika buddhitattva*, the pure consciousness is mirrored in the intellect and having realized its nature, the purpose of evolution is fulfilled and *Puruṣa* and *Prakṛti* are separated and the *guṇas* go in a state of equilibrium. Thus the original state of *Prakṛti* is established.

(b) The Advaita Vedānta: While the Sāṅkhya-Yoga, with the help of *satkāryavāda* treated the ultimate cause or origin of the world as the unmanifest *Prakṛti* which manifests into the world; the Advaita Vedānta asserts the unity of the subject and object, the knower and the known. It treats conscious *puruṣas* and the unmanifest *Prakṛti* as two aspects of the underlying unitary principle Brahman and is called *Brahma-Māyā* or *Shiva-shakti*. There are many versions not only of Vedānta system in general but also of the Advaita Vedānta, in particular, though the most popular among them is the one by Gauḍapāda, Śaṅkara and his followers known popularly as *māyāvāda*. Among the Śaṅkara school also there are some who emphasise the negative way of describing reality as not-this not-this (*neti, neti*) and those who emphasise the positive way and say 'Verily, everything is Brahman' (*sarvam khalu idam Brahman*). These two ways are known as *vyatireka* and *anvaya* methods. Śaṅkara seems to prefer *vyatireka* to precede *anvaya*. But the end result is expressed in the following verse:



"The invisible (*Brahman*) is the Full; the visible (world) too is the Full. From the Full (*Brahman*), the Full (the visible universe) has come. The Full (*Brahman*) remains the same, even after the Full (the visible universe) has come out of the Full (*Brahman*)."<sup>43</sup>

From the point of view of cosmology, the *Nāsadiya Sūkta* 'the Hymn of creation' presents a very open, uncommitted approach. After considering various alternatives whether the existent arises from the non-existent or whether all that exists is brought out by the one most powerful being or whether what exists was all the time there or was there the First Cause beyond time and space, beyond death and immortality, it asks,

"Who then knows, who has declared it here, from whence was born this creation? The Gods came later than this creation, who then knows where it arose?...He from whom this creation arose whether he made it or did not make it, the highest seer in the highest heaven, he forsooth knows or does even he not know?"<sup>44</sup>

This is not an expression of doubt, indecisiveness or skepticism. It is an expression of the sense of wonder, of the limits of human reason to know the mystery or the riddle of the universe. The seers wonder at the fact that there be anything at all. In the words of Wittgenstein, "Not *how* the world is, is the mystical but *that* it is."<sup>45</sup> This wonder brings humility and frees one from the clutches of dogma and doubt.

### (c) The Buddha and *avyakta*.

Kant, as we have seen, held that the thesis of all the four antinomies were "so many foundation stones of morals and religion. The anti-thesis robs us of all these supports or at least appears to do so. The Buddha's attitude seems to be exactly opposite. Radhakrishnan mentions 'three marked characteristics of Buddha's teachings. They are "an ethical earnestness, an absence of any theological tendency and an aversion to metaphysical speculation."<sup>46</sup> The Buddha never wanted to base ethics on metaphysics or theology. In the light of this attitude of Buddha, what would be his reply to the question raised in Kant's first antinomy? These questions belong to his questions called '*avyakta*' (*avyākṛta*), which means 'unanswered questions'.<sup>47</sup>

The following four questions relate to the first antinomy:

1. *sassato loko* – the world is eternal.
2. *asassato loko* – the world is non-eternal.



3. *antavā loko* – the world is finite.
4. *anantavā loko* – the world is infinite.

The Buddha refused to answer these questions. Why were these questions unanswered? What is the significance of Buddha's silence? Four alternative explanations are given of his silence. (1) The first pair of explanations assumes that they were in principle answerable but he left them unanswered because (a) he did not know the answers; or (b) though he knew the answers, he considered them not relevant for living a righteous life. (2) The second pair of explanations assumes that the questions were in principle, unanswerable because (a) their solutions are beyond the grasp of human intellect, transcending the limits of knowledge; or (b) the questions are logically meaningless and therefore not admitting of an answer. Out of these four alternatives 1-a is not accepted because Buddha cannot be considered ignorant. Various philosophers have accepted one or the other of the remaining three. 1-b is a pragmatic solution. Radhakrishnan thinks this explanation to be the most satisfactory. It is justified by the story that Buddha took some dry leaves into his hands and asked Ananda whether there were leaves besides those in his hand. On Ananda replying in the affirmative, Buddha said, "I have given you a handful of truths, but besides these there are many thousands of other truths."<sup>48</sup> Some treat Buddha to be a positivist denying God and Soul while others like T.R.V. Murti draw parallel with Kant's antinomies.

### **Conclusion**

Such an attempt to reconstruct the views of the classical Indian philosophers with a view to see how they would have responded to the views of great western philosophers like Plato, Aristotle, Descartes and Kant seems to me to be valuable for two reasons. Firstly, it overcomes the twin defects of (a) cultural Solipsism and (b) Cultural domination. The former makes genuine intercultural dialogue and discussion impossible and thus promotes cultural isolation. It is based on the belief that "East is east and West is west and the two shall never meet". This attitude ignores the fact that problems faced by human beings are basically the same though their formulations are culture-specific. The

latter judges the validity or otherwise of the theories and views held in one culture by the yardstick of another culture, generally the dominant culture and thus does injustice to the culture which is dominated. This cultural hegemony is quite often backed by political economic and other powers. K.C. Bhattacharyya's idea of 'swaraj in ideas' is a fight against such a cultural hegemony. Secondly, the method of dialogue on equal footing helps understanding of and learning from each other. Each culture gains from such a dialogue.

The discussion also shows that Kant's formulation, diagnosis and solution of the first antinomy is not universal but culture-specific. His view that space and time are *a priori* forms of intuition, his list of twelve fixed categories, his acceptance of three and three ideas of reason—Soul, Cosmos and God, his view that the thesis of the first antinomy provides foundation for morality and religion are not 'culture neutral', universal truths. As we have seen, the Sāmkhya-Yoga find 'God' dispensable, The Vedānta dispenses with dualism between God and World, as well as God and Soul and Buddhism dispenses with even 'Soul' and regards transcendent or transcendental metaphysics and theology as not relevant for living a good noble life and even for nirvana.

However, Buddhism as preached by the Buddha and as practiced by his followers seems to be based on the foundational beliefs in the law of Karma, cycle of birth and death and *nirvana* as the ending of this cycle. It seems to me to be possible and even advisable to dispense with these ideas and enquire into the best way of living which will minimize ignorance, corruption and suffering. To put it positively given the scientific understanding of man, society and nature how to live this life with perfect wisdom, character and equanimity how to achieve in this life three perfections (*pāramitas*) in wisdom, character and equanimity.

### Notes and References

<sup>1</sup>Smith, Norman Kemp: *Immanuel Kant's Critique of Pure Reason*, Abridged Ed., London, Macmillan, 1952. (All references to the *Critique* are references to this edition, abbreviated as *CPR*.) p.5

<sup>2</sup>Smith Norman Kemp: *A Commentary to Kant's Critique of Pure Reason*, New York, Humanities Press, 1962, p.480

<sup>3</sup> CPR p.228

<sup>4</sup> CPR p.231

<sup>5</sup> Bennett Jonathan: *Kant's Dialectic*, London, Cambridge University Press, 1974, p. 114

<sup>6</sup> Bennett: p.117

<sup>7</sup> CPR p.175

<sup>8</sup> CPR p.216

<sup>9</sup> *ibid*

<sup>10</sup> CPR p.237

<sup>11</sup> *ibid*

<sup>12</sup> *ibid*

<sup>13</sup> CPR p.237

<sup>14</sup> CPR p.237-238

<sup>15</sup> CPR p.238-239

<sup>16</sup> CPR p.242

<sup>17</sup> *ibid*

<sup>18</sup> CPR p.242-43

<sup>19</sup> Smith: p.304-305

<sup>20</sup> CPR p.243

<sup>21</sup> CPR p.245

<sup>22</sup> *ibid*

<sup>23</sup> *ibid*

<sup>24</sup> CPR p.246

<sup>25</sup> *ibid*

<sup>26</sup> CPR p. 246-247

<sup>27</sup> CPR p. 248

<sup>28</sup> *ibid*

<sup>29</sup> CPR p.249

<sup>30</sup> CPR p.250

<sup>31</sup> *ibid*

<sup>32</sup> CPR p. 253

<sup>33</sup> Strawson P.F: *The Bounds of Sense*, New York, Methuen paperback, reprint 1985, p.23

<sup>34</sup> Radhakrishnan S: *Indian Philosophy*, London George Allen & Unwin Ltd. 1956 Vol. I p. 616, 617, 639

- <sup>35</sup> Davies Paul: *The Last Three Minutes*, London, Phoenix paperback, 2001, p.33-34
- <sup>36</sup> Hawking, Stephen: *A Brief History of Time*, 1988, p.122
- <sup>37</sup> Whittaker, Edmund Taylor: *The Beginning and End of the World.*, London, Oxford University Press, 1943, p.9
- <sup>38</sup> Radhakrishnan S: *The Bhagavadgita*, London, George Allen & Union Ltd., 1948 Verse II.27, p.110
- <sup>39</sup> Davies: p. 33-34
- <sup>40</sup> Bhattacharyya Krishnachandra: *Studies in Philosophy*, Calcutta, Progressive Publishers, 1957, Vol. II, p. 95-117
- <sup>41</sup> Aranya Swami Hariharananda: *Yoga Philosophy of Patanjali with Bhasvati*, See Commentary on Yoga Sutra III-52 Calcutta, University of Calcutta 2000, p.335-336
- <sup>42</sup> Seal, Brajendranath: *The Positive Sciences of the Ancient Hindus*, Delhi, Motilal Banarasidas, 1958, p.17
- <sup>43</sup> Swami Ranganathananda: *The Message of the Upanisads*, Bombay, Bharatiya Vidya Bhavan, 1968, p.63
- <sup>44</sup> Radhakrishnan: Vol., I, p.100-101; See also Pannikkar Raimundo, *The Vedic Experience* (Mantramanjari), Delhi, Motilal Banarsidass, 3<sup>rd</sup> Ed. 1994
- <sup>45</sup> Wittgenstein L. W.: *Tractatus Logico Philosophicus* 6.44
- <sup>46</sup> Radhakrishnan: Vol. I, p. 358
- <sup>47</sup> Jayatilleke K.N.: *Early Buddhist Theory of Knowledge*, London, George Allen Unwin, 1963, p.243 & 470-476
- <sup>48</sup> Radhakrishnan: Vol. I, p. 466