Chapter 9.
Rational theology

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9.1 Introduction:

In the previous section, while deriving the demonstration of fourth antinomy, the reference to a necessary being was made. At that place, though the term necessary was used against the term contingent, the context was mainly cosmological as well as causal. As it is indicated in the concluding remark by Kant, the question of necessary being is now to be undertaken with reference to logic and ontology. The very grounds of this notion of “necessary being” are to be investigated, particularly, with reference to the use of reason.

In cosmological or causal sense the idea of a necessary being is a “cosmological idea” where the category of for example “causality and dependence” is applied independently of sense-experience. “If conditions are given the conditioned is also given” by the use of this and through Hypothetical syllogism, the antinomies are derived. Here the matter is taken differently, and, somehow, more generally. Here pure reason, falls in the realm of transcendental illusion, by the employment of “ideal of pure reason” and through disjunctive syllogism. For this, it is necessary to clarify Kant’s view about “ideal” and “transcendental ideal”

9.2 Concept, idea and ideal:

According Kant, Human beings, and, more correctly, any finite beings, have only two modes of knowledge: sensibility and understanding. For the classification and interpretation of sense data the faculty of understanding has “concepts” as its ingredient. According to Kant “concepts” when they are applied to appearances they can be exhibited\(^1\) “in concreto.”\(^2\) And according to Kant, “Ideas are even further removed from objective reality than are categories, for no appearance can be found in which they can be represented ‘in concreto’.”. The example, which is given by Kant, is that of Humanity. According Kant\(^3\) “Humanity, [as an idea] in its complete perfection, contains not only all the essential qualities which belong to human nature and constitute out concept of it – and these so extended as to be complete conformity with their ends which would be our idea of perfect humanity-”
And this is completely true that no object can be exhibited in the field of appearances “in concreto” for any idea of reason.

But there is another advancement in the capital of reason in this section. For idea, there is an ‘ideal’ and this even, is further removed from the object of appearances than “ideas”. What is the requirement of ideal objects of experiences? Kant explains, with definition, as

“But what I entitle the ideal seems to be further removed from objective reality than the idea. By the ideal I understand the idea, not merely in concreto, but in individuo, that is as an individual (einzeln/nes) thing, determinable or even determined by the idea alone.”

This ideal is somehow, still removed from reality. Kant compares his ideal with a particular type of peratonic interpretation as,

“what to us is an ideal was is Plato’s view, an idea of the divine understanding an individual (einzlenes) object of its pure intuition the most perfect of every kind of possible being and, the archetype (urgrund) of all copies in the field of appearance.”

With this definition of ideal, it is necessary to come to the main point of the context. Though the ‘ideal’ of the ‘idea’ of Humanity is a perfect man.

Here, the point of discussion is the transcendental ideal (prototypon Transcendentale) which is to presented as the last example of transcendental illusion by the implication of Disjunctive syllogism.

‘Idea’ is an abstract set of properties which are necessary for the determination of that. In other words, it is a sum-total of possibilities in a particular reference. When this sum-total of possibilities is “individualized” it becomes an “ideal”. Now ‘transcendental idea’ is a sum-total of all possibilities. It demands something more than more than “logical possibility.”Kant explains this as

“This principle does not rest merely on the law of contradiction for, beside, considering each thing in its relation to the sum-total of all possibilities, that is sum total of all predicates of things. It contains a transcendental presupposition, namely that of material for all possibility, which in turn is regarded as containing a-priori the data for the particular possibility of each and every thing.”

This possibility is the sum-total of “all-possibility” not of “all that exists” or “all that which is actual. In the later case, the concerning idea would be the idea of “universe” or “cosmos”. But this is not a complete determination of a thing. But in the reference of the transcendental ideal, not mere “existence” or “actuality” is to be
predicated by “all possibility” is also to be taken into account. For Kant⁹ “to know a thing completely, we must know every possible [predicate] and must determine it there by either affirmatively or negatively.” So for the determination of the ideal of sum-total of all possibility, Kant explains this determination as¹⁰ “Although this idea of the sum total of all possibility, in so far as it serves as the condition of the complete determination of each and everything, is itself undetermined in respect of the predicates which may constitute it, and thought by us as being nothing more than the sum total of all possible predicates, we yet find, on closer scrutiny, that this idea, as a primordial concept, excludes a number of predicates which as derivative, are already given through other predicates or which are incompatible with others; and that is does, indeed, define itself, as a concept that is completely determined a-priori. It thus becomes the concept of an individual (enjzelenen) object which is completely determined through the mere idea, and must therefore be entitled as ‘ideal’ of pure reason.”

The logical determination of a concept is related to the application of Disjunctive Syllogism. According to Kant, the Disjunctive Syllogism determines the required individualization of ideal, and even that of transcendental ideal, in the following way.¹¹ “The logical determination of a concept by reason is based upon a disjunctive syllogism in which major premise contain a logical division (the division of a sphere of a universal concept), the minor premise limiting this sphere to a certain part and the conclusion determining the concept by the means of this part.”

With this ‘formal’ requirement of the determination of a concept by the application of Disjunctive syllogism, Kant states the determination of ‘transcendental ideal’ of pure reason in these words¹² “the transcendental major premise which is presupposed in the complete determination of all things is therefore no other than the representation of the sum of all reality; it is not merely a concept, which as regards its transcendental content, comprehends all predicates under itself, it also contains them, within itself; and the complete determination of any and everything rests on the limitation of this total reality.”

If transcendental ideal is to be determined by an employment of pure reason, then the ideal would be an ontological individualization of all that-which-is possible rather than of what “all-that-there-is”. There are no modal logical considerations, which are
explicitly playing their part in the present discussion, but it is sure that there is a
dispute between “what is” and “what can be”. So, according to Kant, the ideal of pure
reason is a supposed transcendental individuation of “the all” (das All) \(^{13}\) and so,
naturally in cannot exclude anything. The metaphysical characteristics, indicating its
ontological superiority is stated by Kant in these words.\(^{14}\)

“The object of the ideal of reason, an object which is present to us only in and through
reason, is therefore entitled *primordial being* (ens origine rium). As it has nothing
above it, it is also entitled *highest being* (ens summum); and as everything that is
conditioned is subject to it, the *being of being* (ens entuim)”

From the idea of “all-that-” is possible the “being” which is being taken as an ideal is
primordial, highest and being of all beings.

The concept of this type of being is according to Kant, the concept of an “*ens
realissimum*” which is explained by Kant in these words\(^{15}\)

“This concept of an *ens realissimum*” is therefore, of all concepts of possible things,
that which best squares with the concept of an unconditionally necessary being; and
though it may not be adequate to it, we have no choice in the matter, but find
ourselves constrained to hold it. For we cannot afford ta dispense with the existence
of a necessary being; and once its existence is granted, we cannot, in the whole field
of possibility, find anything than a better ground claim [than the *ens realissimum*] to
such pre-eminence in the mode of existence.”

This ‘*ens realissimum*’ is the highest being which Kant wants to undertake as
an example of transcendental illusion. This illusion comes as an ideal of pure reason.
Historically this ideal is much similar to the idea of God in classical metaphysics and
theology. So, here, Kant does not want to indicate that the ‘ideal’ itself is self-
contradictory or it gives the paradoxical results, but he wants to show that there is no
way in which such an ideal can be proved. The impossibility of any supposed proof
has been indicated by the statement that there are only three types of proofs and all
these three proofs are fallacious. So there is no way of proving the existence of God
or *ens realissimum*. Kant states\(^{16}\)

“There are only three possible ways of proving the existence of God by means of
speculative reason.”

9.3 Ontological proof:

In the chapter III, section IV contain the title, “THE IMPOSSIBILITY OF AN
ONTOLOGICAL PROOF OF THE EXISTENCE OF GOD”\(^{17}\)
Kant starts the opening paragraph from the assertion that the ideal of ‘ens realissimum’ is an idea of pure reason whose objective reality is to be proved. Here Kant wants to examine an important point in the present context. What is to be understood when we say that a proposition is necessary, or, more correctly, the proposition states or exhibits the necessary truth. The proposition, which is under consideration, is:

‘ens realissimum exists’ is a tautology and on the other hand,

Ens realissimum does not exist is a contradiction. But where does this characteristic of necessity belong? According to Kant, the necessity is a relation which can be thought between the subject and the predicate of a proposition. The thing or object which is to be posited in the place of the subject term of a proposition does not become a necessary being. Kant explains as

“The absolute necessity of the judgment is only a conditional necessity of things; or of the predicate in the judgment. The above proposition does not declare that three angles are absolutely necessary but under the condition that there is a triangle (that is, that a triangle is given) three angle will necessarily be found in it.”

So there is a relation of identity between the term “triangle” and “three angles”. The predication of the predicate term on the subject term cannot be denied, and if it is done so, the result is a contradiction. But in an “identical proposition” this type of relation of necessity occurred only between subject and predicate term. If the subject and predicate term both are to be rejected, there is no contradiction. So according Kant God is omnipotent’ is a necessary proposition but ‘There is no God’ is not a self-contradictory proposition. In the same way another question which is generated by Kant is this that whether “this or that thing (which whatever it may be, is allowed as possible) exists” is an analytic or a synthetic proposition? If it is analytic then the depiction of the existence of a thing results in a tautology, as Kant makes it clear

“If it is analytic, the ascertainment of the existence of a thing adds nothing to the thought of the thing; but in that case either the thought, which is in it, is the thing itself, or we have presupposed an existence as belonging to the realm of the possible and have then, on the pretext, inferred its existence from its internal possibility which is nothing but a miserable tautology.”

Here, according to Kant, the difference between the words “reality” and “existence” which is a peculiar characteristic of classical metaphysics, does not come
in between and to say that the subject term is “real” does not provide any type of remedy in the current situation.\textsuperscript{24}

With this general background it is time to start the actual famous argument of Kant against the ontological argument for the existence of God. For a historical background and logical clarity, it would be preferable to start with the famous proof of Anselm. The example of a version of Anselm’s proof has been taken from Christopher Hughes’ account of medieval philosophy as\textsuperscript{25}

“1. God is that than which nothing greater can be conceived.
2. That than which nothing greater can be conceived exists in understanding even if it does not exist in reality.
3. Suppose that than which nothing greater can be conceived exists only in the understanding.
4. Then it can be thought to exist not just in the understanding but in reality- which is greater.
5. So that than which nothing greater can be conceived is something than which something greater can be conceived.
6. Since (5) is impossible, then than which nothing greater can be conceived (God) exists in reality and not just in the understanding.”

Now, at the first sight, this argument seems to suggest that “whatever is in mind, cannot be said in existence” in reality. It has many criticisms and the first criticism starts in this version beginning from Gaunilo, a contemporary of Anselm to Kant.\textsuperscript{26} Kant states a logically articulated criticism. But this says something more than which is generally supposed. Before coming to it we see Kant’s statement of this argument and his criticism. Kant makes the statement of the ontological argument in the following way.\textsuperscript{27}

“We may be challenged with a case which is brought forward as proof that in actual fact the contrary holds, namely, that there is one concept, and indeed only one, in reference to which the non-being or rejection of its object in itself self contradictory, namely the concept of \textit{ens realissimum}. It is declared that it posses all reality, and that we are justified in assuming that such a being is possible (the fact that a concept does not contradict itself by no means prove the possibility of its object; but the contrary ascertainment I am for the moment willing to allow.) Now [the argument proceeds] “all reality” includes existence; existence is therefore contained in the concept of a thing
that is possible. If, then, this thing is rejected the internal possibility of a thing is rejected—which is self-contradictory.”

The position of the Kant’s statement of ontological argument contains some version of Leibniz and Descartes proof for the existence of God by ontological proof. Descartes version is similar to Anselm’s version which has been stated. A version of Leibniz’s argument, based on the modal concepts of possibility is given by David Blumenfeld as 28

“The presumptive argument for God’s existence
1. If it is possible that God exists, then God exists.
2. In the absence of the proof of the contrary, it is more reasonable to suppose that a statement of the form “it is possible that::: is true than it is false.”
3. There is no proof that “it is possible that God exists” is false
4. Therefore it is more reasonable to suppose that “It is possible that God exists” is true than it is false.
5. Therefore it is more reasonable to suppose that God exists than that God does not exist”

From this presumptive argument the modal proof for the possibility of God is stated by Blumenfeld as 29

“1. If a necessary being is not possible, no being is possible.
2. If the definition of a concept is non-contradictory, then a being that exemplified the concept is possible.
3. But there are instances of definitions of concepts which are non-contradictory. (For example circle)
4. Therefore, a being that exemplifies the concept of circle is possible.
5. Therefore, a necessary being is possible.”

Here the concept of possibility logically implies the concept of necessity. If we have to accept the general proposition that “All beings (or concepts) are simply possible” then, this possibility invariably indicates necessity. In the symbolism of modal logic, if for all propositions p, it is true that ◊p (P is possible) then, this invariably state that

(P) ◊P ⊨ □◊P

This indicates that there is some weight in the argument leading to necessity from possibility. Leaving this matter here, we now see Kant’s famous (and widely accepted
as valid) criticism of this ontological argument by stating that ‘being is not a real predicate’ Kant states and argues as

“‘Being’ is obviously not a real predicate, that is it is not a concept of something which could be added to the concept of a thing. It is merely the positing of a thing, or of certain determination, as existing in themselves. Logically, it is merely the copula of a judgment. The proposition ‘God is omnipotent’ contains two concepts, each of which has its object-God and omnipotence. The small word ‘is’ adds no new predicate, but only serves to posit the predicate in its relation to the subject. If now, we take the subject (God) with all its predicates (among which is omnipotence) and say ‘God is’ or ‘there is a God’ we attach no new predicate to the concept of God, but only posit the subject in itself with all its predicates and indeed posit it as being an object that stands to my concept. The content of both must be one and the same; nothing can have been added to the concept, which expresses merely what is possible, by my thinking its object (through the expression ‘it is’) as given absolutely. Otherwise stated the real contains no more than merely possible. A hundred real thalers do not contain the least coin more than a hundred possible thalers.”

Existence or being is not a ‘real’ predicate. If we say ‘x exists’ we do not know anything about x. Being or existence makes no extension in the concept to which it is added. This all is true. But there is point. The ideal of reason, of pure reason, the ens realissimum is not a concept in the normal sense of the term. It is neither a pure nor an empirical concept. Its determination is not supposed to be done by the predicated which are supposed to make further and further extension of the concept. It is rather a sum-total of ‘all-that-there is’ plus ‘all-that-can-be’ in other words, it is a whole which contains ‘all that is actual as well as all that is possible.’ It may be questioned that there can be no such whole. But that will be another point. The point of consideration in the present context is this that the ‘individuation’ of ‘all that is possible’ and ‘all that is actual’ is not a concept, but a ‘notion’ or ‘ideal’ which, by definition includes all concepts, either possible go actual. If for the moment, we grant that ‘all that is possible is not real’ that whatever exists or what is real is only an infinitely small part of ens realissimum’. To say that it exists is to say very little about it. So when Kant stats that being is not a real predicate, he seems to reduce the set of all possibilities to a concept and up to this point the criticism does not completely applies to ens realissimum. We can consider a modal as
<W, P> where W is the set of all possible worlds and P is a function on W. W may contain the actual world or may not. But in Kant’s case it may. So the entire discourse is having some elements of cross interpretatia. Now we turn to the cosmological argument.

9.4 Cosmological argument:

The cosmological proof rests upon the supposed connection between absolute necessity and highest reality or in other words, if anything exists then a necessary being must exist. Kant states the proof as, “It runs thus: if anything exists, an absolutely necessary being must also exist. Now I at least exist therefore an absolutely necessary being exists.”

This being, which is necessary, must be determined. Through its own concept. And so this necessary being amounts to the acceptance of the reality of ens realissimum. The cosmological proof, in parts, depends on the validity of ontological argument. But according to Kant, ontological argument is not valid. And so the ground of the validity of cosmological argument also collapses.

Here it is also to be noted that the ‘being’ which is necessary is not going to be put as the transcendental cause of the universe. This according to Kant, is a subject of the antinomies, which we have seen in the previous chapter. Here a type of modal logic based argument is being provided by Kant “If anything exists, then ‘existence’ is necessary.” This necessity of existence is based on experience. Following the line of Descartes, at least ‘I’ exist. And so ‘some type of existence becomes necessary.’ If we want to refute the proposition ‘at least something exists’ the negation would be ‘Nothing exists’. This ‘Nothing exists’ is a type of self-contradiction even in Kant. There are so many ‘things’ which are having existence. Finite beings, empirical reality of space and time, categories, and finally Noumena. These all are having existence and so the proposition ‘nothing exists’ becomes a self-contradictory according to Kant also.

The application of causality to the universe as a whole in certainly artificial and contains many logical fallacies as well as contradiction. For the termination of the chain of infinite regress, the assumption of a first cause will not serve any purpose. Kant lists objections in this regard, and they are valid so for But, as we have said, the validity of the cosmological argument does not rest only on the acceptance of the principle of causality and its possible application to the universe as a whole. But the
necessity of existence as such does not amount to the necessity of a particular thing. Kant states 36

“I may indeed be obliged to assume something necessary as a condition of the existent in general; I cannot think any particular thing as itself necessary.”

Finally Kant concludes the entire discussion of a necessary being as a ground of the world as 37

“The concept of necessity is only to be found in our reason, as a formal condition of thought it does not allows of being hypostatized as a material condition of existence.”

So, according to Kant the existence of a necessary being cannot be proved either from the idea of that being or from any contingent being. Any type of existence is necessary, but there is no such thing as ‘necessary existence’. Such is the ideal of pure reason which may be useful in other directions but it does not prove a necessary supreme being is all ideal of pure reason. Finally, we see in brief the impossibility of physic-theological proof.

9.5 Physico-theological proof:

For this proof, Kant states that 38

“This proof always deserves to be mentioned with respect. It is the oldest, the clearest and the most accordant with the common reason of mankind.”

Kant gives respect to the argument for the purpose and cites practical utility in the realm of the practical employment of reason. But, in the field of pure reason, however Kant is sure that 39 ‘the physic-theological proof can never by itself establish the existence of a supreme being’ and, moreover, ‘it only erves as an introduction to ontological argument.’ The main points of this argument is given by Kant in the following words. 40

“The chief points of the physico-theological proof are as follows:

(1) in the world we everywhere find clear signs of an order in accordance with a determinate purpose, carried out with great wisdom; and this in a universe which is indescribably varied in content and unlimited in extent.

(2) This purposive order is quite alien to the things of the world, and only belongs to them contingently; that is to say, the diverse things could not of themselves have operated, by so great combination of diverse means, to the fulfillment of determinate final purposes, had they not been chosen and designed for these purposes by an ordering rational principle in conformity with underlying ideas.
(3) There exist, therefore a sublime and wise cause (or more than one) which must be the cause of the world not merely as a blindly working by *fecundity* but as intelligence through *freedom*.

(4) The unity of this cause may be inferred from the unity of the reciprocal relations existing between the parts of the world, as members of an artfully arranged structure inferred with certainty in so far as our observation suffices for its verification and beyond these limits with probability, in accordance with the analogy.”

The proof is, no doubt, the oldest one, and there is a continuous reappearance of this line of argument in the history of philosophy. The presence of ‘purpose’ and ‘order’ and the difficulty of the explanation of this ‘ordered purposiveness’ by the means of mechanical causal structure of the word often leads to the considerations about the existence of an “intelligent design” in the nature apart from ‘mechanically operated’ causal principles. In fact it is often, suggested that “these causal principles” require an ‘intelligently working force’ in addition to them for the explanation of ‘order’ and ‘purpose’ which we find in the universe. This is not limited to theistic and scientific literature, but even in cosmology, a particular type of popularization often takes about ‘weak or strong antropic principle’  But according to Kant, though this line of thought is attractive, it does not prove that which it intents. This proof, in all its strongest form, can only indicate that there is an intelligent being who can be taken as designer of the order of the universe and goal of the all purposes of the universe. It does not, however, prove that that designer is the supreme being or *ens realissimum* which is taken as the ideal of pure reason by Kant: Kant observes this point as:  

“The utmost, therefore, that the argument can prove is an ‘architect’ of the world who is always very much hampered by the adaptability of the material in which he works, not a *creator* of the world to whose idea everything is subject.”

To make an identity between the designer (or architect) and creator, we have to believe that the designer is a necessary being of cosmological argument, and that in turn, must be the *ens realissimun* of ontological argument. So the phisico-theological argument depends on both cosmological as well as ontological argument as Kant observes in the concluding remark of chapter II as  

“thus the physico-theological proof of the existence of an original or supreme being rests upon the cosmological proof and the cosmological upon ontological.”
And so, according to Kant in its original form the ontological proof is the only proof which can be given for the proof of the existence of a supreme being or *ens realissimum*.

### 9.6 Conclusion:

Kant’s theory of transcendental illusion finds its end in the discussion of the ideal of pure reason. Kant takes a different path for proving the ideal as an example of transcendental illusion. There is no possible proof of this ideal and therefore the ideal is not real. The argument seems both: somehow different and somehow little bit weak also. Unlike the ideas of self and universe we are neither facing paralogisms not antinomies here. What is simply being stated is this that it is in question. But the question is this that whether such an ideal like *ens realissimum* can be framed logically or not. The matter is not so simple and it requires some wider considerations.

The sum-total of all possibility and actuality may have certain shortcomings in the field of set theory and logic. There is no set of all sets. But in the field of modal logic, we may take possible world together with actual world in a modal <W, P>. This amounts that at least for the concept of universe and the concept of a necessary being a close semantical study of the position of Kant is required in the light of modal logic and particularly predicate modal logic. The point of conclusion is this that the ideas of pure reason, which are discussed by Kant, are having contemporary significance and relevance in the field of semantics cosmology and mathematical logic.
Notes and reference

2. Kant Immanuel (1968) ibid. P.485
4. Kant Immanuel (1968) ibid A568/B596, P.458
5. Kant Immanuel (1968) ibid A569/B597, P.486

6. Kant Immanuel (1968) ibid A568/B596, P.486
7. Kant Immanuel (1968) ibid A573/B601, P.488
8. Kant Immanuel (1968) ibid A573/B601, P.488
10. Kant Immanuel (1968) ibid A574/B602, P.489
11. Kant Immanuel (1968) ibid A577/B603, P.491
12. Kant Immanuel (1968) ibid A577/B603, P.491
15. Kant Immanuel (1968) ibid A586/B614, P.497
16. Kant Immanuel (1968) ibid A590/B618, P.499
17. Kant Immanuel (1968) ibid A592/B620, P.500
18. Kant Immanuel (1968) ibid A592/B620, P.500
19. Kant Immanuel (1968) ibid A594/B622, P.502
20. Kant Immanuel (1968) ibid A595/B623, P.502
The general form of an ‘indential proposition, in the present reference, is ‘as A’s are A’s.”
the symbolic translation would be (x) ( Ax ⊃ Ax ). Now if the predicate Ax is to be
denied on Ax then the result will be (x) ( Ax ⊃ ~ Ax )that is (x) ( Ax v ~ Ax ) which
results (x) ~Ax . so in this type of propositions the negation of predicate becomes the
negation of the subject: but if both, subject and predicate are simultaneously related,
there is no contradiction, because there is nothing which is to be contradicted.

22. Kant Immanuel (1968) ibid A598/B626, P.504
23. Kant Immanuel (1968) ibid A598/B626, P.504
24. Kant Immanuel (1968) ibid A598/B626, P.504
27. Kant Immanuel (1968) op. cit. A597/B624, P.503
30. Kant Immanuel (1968) ibid A599/B627, P.505
32. Kant Immanuel (1968) ibid A604/B632, P.508
33. Kant Immanuel (1968) ibid A605/B633, P.508
34. Kant Immanuel (1968) ibid A606/B634, P.509
35. Kant Immanuel (1968) ibid A610/B638, P.511
36. Kant Immanuel (1968) ibid A616/B644, P.515
37. Kant Immanuel (1968) ibid A620/B648, P.518
38. Kant Immanuel (1968) ibid A624/B652, P.520
39. Kant Immanuel (1968) ibid A625/B653, P.521
40. Kant Immanuel (1968) ibid A626/B654, P.521
42. Kant Immanuel (1968) ibid A627/B655, P.522
43. Kant Immanuel (1968) ibid A630/B658, P.524
Chapter 10
Conclusion

With the completion of this research work it seems necessary to anticipate, recapitulate and evaluate some important concluding remarks. The research work is mainly focused on two themes. One of them is Kant’s theory of space and time together with its role in the articulation of knowledge as it is presented in transcendental analytic. This very role and function determines the ultimate limits of knowledge and what is beyond this limit is completely unknowable to us. So according to Kant, the ontic counterpart of the epistemological considerations divides into two realms. One is phenomena which are known through empirical concepts in the background of pure categories of understanding. Second is noumena or thing in itself which is completely unknown and there is no possibility of any type of knowledge for this field. This ultimate distinction is justified by Kant in the concluding remarks of the chapter of phenomena and noumena. Kant’s fundamental position is this that no analytic knowledge can make any advancement in the realm of understanding. Kant clarifies this position in the following words. 1

“If after all these explanations, any one still hesitates to abandon the merely transcendental employment of the categories let him attempt to obtain from them a synthetic proposition. An analytic proposition carries the understanding no further; for since it is concerned only with what is already thought in the concept it leaves undecided whether this concept has in itself any relation to objects, or merely signifies the unity of thought in general- complete abstraction being made from the mode in which an object may be given. The understanding [in its analytic employment] is concerned only to know what lies in the concept; it is indifferent as to the object to which the concept may apply.”

So far as the functions of an aesthetics and understanding are concern, the matter, in a sense, stops here. It is, in the words of Patton, Kant’s metaphysics of experience. But neither epistemological programme of Kant nor his critique of pure reason stops at this juncture. And this becomes the focus point of present research work. The point is this that, epistemologically what remains which is to be investigated further. So far as the articulation of the text is concern, Kant has to indicate and prove the impossibility of metaphysics as science. On the other hand he should have to say something about the possibility of metaphysics as a natural
disposition. But this aim and the related programme for its achievement appears somehow vague. A question naturally arise after aesthetics and analytic, and both are transcendental, what is that which remains undiscussed in the philosophy of Kant or in other words what can be the possible subject matter of transcendental dialectic. In a humble attempt for the answers of these questions, in this research work, the conclusion is drawn in the form that all three types of transcendental illusion are having some objective counterpart and the question are not that much illusory as they are supposed by Kant. For a comprehensive representation of these conclusive remarks it is useful to go a step by step textual presentation which is summarised in the following points for the explication of these conclusive remarks.

1.) Epistemology is the theory of knowledge which basically deals with the question what can be known and how it can be known. We have observed in the beginning of this research work that no satisfactory answer to these questions has been achieved in the traditions of rationalism and empiricism. It is shown that the methodological devices which are used either in rationalism or empiricism are insufficient. If knowledge means that which is certain, clear and apparent and which has a cognitive counterpart then this type of knowledge cannot be obtained either by deduction or induction. In other words neither geometrical method of Spinoza nor inductive method of Bacon can acquire this type of knowledge. This methods of deduction and induction, if they are to be taken independently or if a possible synthesis of both is to be sought, then a systematic epistemological discourse finds some essential lackings. This is a point which is of the greatest importance for Kant. Deduction is a procedure which cannot be completely identified with some essential characteristics of consciousness. Deduction proceeds by a stereo type step by step algorithemic and computational positions. So is the case with mathematical results. This was anticipated, in part, in the subsequent development of idealistic tradition in Germaney. Hegel is observed as remarking that $7 + 5 = 12$ is not an epistemological content which requires definite conscious operations from a conscious being. Actually these results can be obtained, in principle, by a machine.² So, historically both traditions find their dead ends. Rationalism ends in dogmatism and empiricism in scepticism. So the first conclusion is this that the epistemological problem which is before Kant is a genuine and real problem. And with this background, the journey into Kant’s critique of pure reason is started in this research work.

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2.) Some fundamental change or paradigm shift is necessary for the aversion of these dogmatic and sceptical results of epistemological traditions. Kant makes a Copernican revolution which demands some fundamental changes in the epistemological framework. The conformation of object of knowledge is the basic principle which demands a systematic presentation of Kant’s theory of space and time. In this situation, the position is this that Kant heavily relies on Newtonian concept of absolute space and time and Euclidian concepts of flat geometry. This is one of the basic points of investigation of this research work that what happens if these paradigms are shifted. In other words what would be the possible articulation of the details of transcendental aesthetics if it is to be presented in the light of Einstein’s special and general theory of relativity as well as Rumanian geometry which is non-Euclidian? One of the important conclusion of this research work is this that the out comings are not that much negative and devastative for the philosophy of Kant as they are supposed in the reference of analytic school in general and logical positivism in particular. In the field of philosophy of mathematics, there is a continuous debate about the ontological status of mathematical truths. In the tradition of analytic philosophy and particularly in logical positivism, it is supposed that mathematics has nothing to do with the actual description of the facts of the universe. Godel’s unsubmitted article for the volume of Carnap was entitled ‘Is mathematics a synthex of language?’ in which Godel criticized Carnap’s view of the reduction of mathematical knowledge up to the level of linguistic syntax. Apart from the different thesises of logicism the main point which was used against Kant’s position about mathematical knowledge was the invention of non-Euclidian geometries in 19th century. It was supposed in the history of analytic philosophy that this invention are refuting the claims of Kant regarding the inevitable application of mathematical knowledge to the field of possible experience but the situation is not as simple as it appears. After the discovery of general theory of relativity, it is true that Euclidian geometry does not apply to our actually existing space. But what does that mean? In the language of geometry, this simply means that the differential equation of a line is not $\frac{d^2y}{dt^2} = 0$ but according to Remanian geometry, it becomes $\frac{d^2y}{dt^2} + \Gamma^i_{jk} \ dx^i dx^j = 0$. But this does not establishes the thesis of analytic school and logical position as completely as it was supposed. The fact is this that geodesic equation applies to curved space, simply means that in the place of Euclidian geometry, Remanian geometry applies to the world. Now the question is this why a
particular set of mathematic structures applies to the facts of the world and if we proceed with the more recent developments then there is a possibility that every mathematical structure does apply to some portion of physical reality. This is observed and discussed in multiverse hierarchy of Tagmark. It is derived and concluded in this research work that in the light of these ramifications, some concrete research programme can be anticipated as they are presented in the works of Michel Friedman and others.

3.) Transcendental aesthetics textually followed by transcendental analytic. Here Kant’s famous deduction of categories, principles of analogy and distinction between phenomena and noumena have been presented. Here again as a formal counterpart Kant takes almost everything from Aristotelian logic. One of the important conclusions on this point from this research work is this that Aristotelian logic is formally insufficient and it must be supplemented by symbolic logic. The insufficiency of Aristotelian logic has been put forward by Bertrand Russell right from the beginning. So far as the criticism, of classical metaphysics and epistemology are concerned, they amount to the thesis of Aristotelian logic according to which every proposition must have a subject and a predicate. But here again the position is same as it is in the case of mathematical knowledge. Symbolic logic is far richer then Aristotelian logic, so far as the techniques and scope of logic is concerned. But whether logic has to do something with conscious operations of human intellect or not? This is the question which is to be determined apart from any reference of Aristotelian or symbolic logic. So according to Kant when a priori conditions of understanding are to be discovered then it does not have much importance whether one is dealing with Aristotelian or symbolic logic. Transcendental logic provides an ‘a priori’ ground for application of pure categories to the objects of possible experience. Kant states this difference and possibility in the following words.

“In the expectation, therefore, that there may perhaps be concepts which relate aprior to objects, not as pure or sensible intuitions, but solely as acts of pure thought that is, as concepts which are neither of empirical nor of aesthetic origin. We form for ourselves by anticipation the idea of a science of the knowledge which belongs to pure understanding and reason, where by we think objects entirely a priori. Such a science, which should determine the origin, the scope, and the objective validity of such knowledge, would have to be called transcendental logic, because, unlike general logic, which has to deal with both empirical and pure knowledge of reason, it
concerned itself with the laws of understanding and of reason solely in so far as they relate apriori to objects.”

One of the points which is discussed and concluded in this work is this that even in the light of modern symbolic logic Kant’s basic epistemological questions regarding the content of Human Understanding do not become completely irrelevant. Even if we permit the occurrence of nested quantification in the perview of logic, there remain some points which have to deal with the semantical interpretation of epistemological content. So it is derived as an outcome that Kant’s theory of understanding must be supplemented by an appropriate semantical counterpart as it has been done in the works of Coffa and Friedman. In the later half of 20th century, there is a revival in the understanding of Kant’s theory about semantics. The central question is this that whether Kantian concept of semantics is formal or it has some ontic connection? In the case of Kant, this ontic connection can be made only in the case if synthetic judgments are to be said as semantically interpreted with reference to pure intuition of space and time. Coffa makes it clear in his celebrated work in the following words.6

“We have detected two tacit assumptions behind Kant’s dealing with the analytic and the synthetic: According to the first analytic coincides with true in virtue of concepts—or, as some would say much later, in virtue of meanings. On this assumption, considerations of a semantic sort are relevant to the establishment of only those judgments whose predicate is part of their subject. This implies that the ground of synthetic judgments does not lie in semantics. The second assumption tells us where it does lie. Given Kant’s views on the nature of representation, it can only be assumed that the ground of synthetic knowledge is intuition-in the interesting cases, pure intuition.”

Moreover Kant’s treatment of causality has been shown as a relevant discourse with reference to quantum mechanical restrictions on the application of causality. In quantum mechanics the principle of causality has not been completely given up. There are certain limitations due to Heisenberg’s uncertainty principle. But some version of causal principle is always there in quantum mechanics. It can be seen in the form of time dependent evolution of Schrodinger’s equation and in some interpretations of quantum mechanics this wave function never collapses.7 The current status of this preservation of this causal principle in quantum mechanics can be seen in the observation that information can never be lost completely. Information can be preserved even inside the event horizon of a black hole. For this Susskind introduced
his famous holographic principle which states that ‘any information can be stored in
the form of a holographic principle on the edge of a lower dimentional surface.’ This
is described by him in following words.8

“According to the Holographic principle, that fly just in front of your nose is really a
kind of holographic image of data stored on the two dimensional boundary of the
room. In fact you and everything else in the room are image of data stored on a
quantum hologram located on the boundary. The hologram is a two-dimensional array
to tiny pixel-not voxels-each as the quantum hologram and the way it codes thee-
dimensional data is very different from the way ordinary holograms work. But they do
have in common that the three-dimensional world is completely scrambled.”

After making a constructing survey of transcendental aesthetics and transcendental
analytic what remains is the investigation in the field of transcendental dialectic. Here,
naturally, Kant’s view and his treatment of reason becomes a subject of investigation
and interpretation. It is noted that Kant is not sure and clear in the meaning and
application of the term reason. If the components or ingredients of reason are ideas
then there is hardly a common meaning which can be assigned to the term ‘idea’
which is covering all there examples of transcendental illusions. What is common is
this that they are transcending the possible field of experience and according to Kant.
This trespassing is somehow inevitable. So it becomes necessary to investigate each
of these three transcendental ideas separately which has been done in this research
work.

4.) The first transcendental idea which Kant encounters is the idea of self. According
to Kant classical metaphysics assigns four metaphysical characteristic to self. They
are substantiality, simplicity, unity or personality and ideality or interaction with the
outer world. These four metaphysical chariceristics of self are not generally accepted
explicitly in idealistic doctrine of self but as a common minimum interpretation of the
concept of self these four can be counted as minimum characteristics for calling some
entity as self. Here Kant takes a view that these four cannot be consistently thought or
interpreted in the realm of meterilism also. Kant makes it clear that unity cannot be
obtained in the perview of materialism. Because due to apperception there is a
particular cognitive status of self whose above mentioned metaphysical characteristics
can not be defined in the discourse of materialism. Kant makes it clear in the
following words.9
“For apperception is something real and its simplicity is already given in the mere fact of its possibility. Now in space there is nothing real which can be simple; points, which are the only simple things in space, are merely limits, not themselves anything that can as parts serve to constitute space. From this follows the impossibility of any explanation in materialist terms of constitution of the self as a merely thinking subject. But since my existence is taken in the first proposition as given for it does not say that every thinking being exists, which would be to assert its absolute necessity and therefore to say too much, but only, ‘I exist thinking’- the proposition is empirical, and can determine my existence only in relation to my representations in time.”

It has appeared somehow as a matter of surprise that, Kant derives these paralogisms on the ground of the application of categorical syllogism in this field. It is argued and proved that there is no fixed formal structure of categorical syllogism. Formally it has 256 possible modes among which only 15 are valid. The question remains that what is here being applied to the idea of self from the formal counterpart of categorical syllogism when we look into the actual arguments of paralogisms, they all are presented in the first figure and AAA mode. So it is concluded that the logical background of the derivation of this paralogism is not clear and in defining the term substance and unity and etc, it appears that as if Kant is fighting against a Straw man. Neither Spinoza nor Descartes nor any rationalist philosopher, for example, defines substance in this way, which Kant is taking in the examples of his paralogisms. So it is concluded that there are some anomalies about the nature of empirical consciousness in Kant’s philosophy. Particularly in his concepts of transcendental unity of apperception and his concept of self which is dealt in the chapter of paralogism. So this requires a closer study in the details of transcendental analytic and paralogisms.

5.) Kant’s treatment of the antinomies of pure reason is the main focus of this research work. Basically this is the starting point of the origin of this research work that Kant has asked the question about the beginning and the limit of the universe. The term universe or world or nature is used in metaphysical discourse, often, without an appropriate amount of precise explanation for example, it is used by Wittgenstein in the very first statement of his Tractatus: The world is all that is the case. But Kant uses this term with a definite meaning. No doubt all these three terms are related with
given completeness or whole. But however for, Kant the meaning of the term ‘word’ and ‘nature’ is different Kant makes it clear in the following words.\textsuperscript{11} “We have two expressions, world and nature, which are sometimes run together. The first signifies the mathematical whole of all appearances and the totality of their synthesis in the great as well as in the small. I.e., this means that in their progress through composition as well as through division. But the very same world is called nature insofar as it is considered as a dynamic whole and one does not look at the aggregation in space or time so as to bring about a quantity, but looks instead at the unity in the existence of appearances.”

The distinction between mathematical and dynamical whole may seem artificial but the point is this that Kant wants to undertake a consideration with a type of absolute completeness. This absolute completeness is unconditioned and it is thought in the form of composition, division, arising, ascending series and dependence of existence. All this generate antinomies and so the question about the origin of the universe comes automatically as an implication of this stand. Kant makes it clear in the following words.\textsuperscript{12} “Now one can think of this unconditioned either as subsisting merely in the whole series, in which this every member without exception is conditioned, and only their whole is absolutely unconditioned, or else the absolutely unconditioned is only a part of the series, to which the remaining members of the series are subordinated but that itself stands under no other condition. In the first case the series is given a parte priori without bounds (without a beginning). I.e. it is given as infinite and at the same time whole, but the regress in it is never complete and can be called only potentialiter infinite. In the second case there is a first (member) in the series, which in regard to past time is called the beginning of the world, in regard space the boundary of the world, in regards to the parts of a whole given in its bounds the simple, in regard to causes absolute self-activity (freedom), in regard to the existence of alterable things absolutely natural necessity.”

It is ascertained that Hawking remarks about Kant’s originality of questions are highly appreciable. And with this appreciation we state our investigation in the details of Kant’s antinomies of pure reason. As it was in the case of transcendental aesthetics, here the same case occurs again when Kant attempts to derive these antinomies. The plain fact is this that Kant is accepting Newtonian concept of absolute space and time and takes material or physical universe as something which exists in time and not with
time. In Einstein’s general theory of relativity, space, time and matter are three inter
depended physical entities and none of them can be conceived independently. So, all
the treatment of first antinomy becomes irrelevant in the light of general relativity and
big bang cosmology. It has also been shown that time may find its local end in the
form of singularity. Hawking’s singularity theorem has been stated and evaluated in
this reference, so it is the case, with other antinomies. Second antinomy becomes
irrelevant in the light of quantum gravity and string theory. If ultimate building blocks
of physical reality are strings or branes, question of infinite divisibility stops there.
Scientifically, this is exactly the case with third and forth antinomy, asking about the
transcendental cause of transcendental being as a ground of this phenomenal world is
not an illegitimate or illusory question. And this is the basic outcome of this research
work that these questions are to be dealt as genuine questions in scientific and
philosophical discourse.

6.) Lastly, Kant’s treatment of rational theology has been examined in one particular
important reference. Transcendental ideality which is the subject matter of Kantian
investigation is dealing with the ideality of _ens realissimum_. Now this _ens realissimum_ is considered as a sum total of all that is possible together with all that is
actual. This absolute reality or _ens realissimum_ which is to be taken as the example of
transcendental ideal is not to be taken either empirical or pure concept. We have
emphasized it in our research work that there is a categorical difference between the
notion of absolute being as it is discussed in the forth antinomy of pure reason and the
concept of absolute reality which is the subject of under discussion in this section. In
forth antinomy the concept applies to what is absolutely real in the actual sense and
that applies to, in an ontological sense, all-that-there-is but this concept of _ens realissimum_ is not only representing all that there is but it represents all that can be.
Naturally this later necessarily includes the former. In other words the absolute reality
which is discussed in the forth antinomy is a subclass of this transcendental ideal of
pure reason. We have shown that Kant’s criticism of ontological proof does not apply
as it stands to the concept of this transcendental ideal. Here for transcendental ideal
there is no process of concept formation in the usual sense. This transcendental ideal
is the sum total of all that which is possible and all that which is actual. If term actual
is to be limited to empirical world then this actuality is nothing but an infinitely small
portion of all possibilities and existence. But here Kant somehow innovates some
directions towards model logic and this entire discussion is partly supported by recent
concept of multiverse. Multiverse is a term which is used for all possible universes and with the principle that ‘whatever can happen does happen’ if this is to be taken into consideration then there is no need to specify the question remains what is possible? If the most general notion of this possibility is to be undertaken then all that which is non-contradictory is possible. In other words following Tagmark, we can say that there is a realm of reality for every possible mathematical structure.\textsuperscript{13} In this situation when we are saying that such a collection exists we are not predicing existence on a particular concept. But our logical and ontological commitment compels us to include the actuality of universe in the set of all possible universes. So as we have shown Kant’s criticism of ontological proofs requires serious reconsideration. In the language of modern model logic it is a structure which contains all possible and actual universes as its ingredients. If this is to be considered as a meaning of God then the meaning does not remain same in the criticism of ontological and cosmological arguments. ‘Being is not a real predicate’ this observation is valid but its validity amounts to the thesis that it is to be applied to concepts of the universe but if the same is to be applied to a superstructure of all possible universes then the question about the applicability of argument becomes controversial. It is stated and concluded that this entire critique of theology requires reconsideration in the light of modern model logic.

Thus, we have concluded this research work with the indication that on future occasion more light may be thrown on the points which we have discussed and evaluated.
Hegel’s observation in this regard is prophetic and turns out as completely correct in the development of computers and any forms of robotics, computational and algorithmic processes do not require any presence of cognitive and conscious observers. In the form of Turing machines this entire science of computers has been developed. Cf. Kleene S. C. (1997) ‘Mathematical logic’, Dover publication, U.K.


4. Tagmark M (2007) ‘Multiverse herarchy’ in Carr Bernard (2007) ‘Universe and multiverse’, Cambridge University press, Cambridge. Here, the forth type of multiverse finds possible universes parallels to every mathematical structure. So from the concept of possible universes there is a possibility that fact and form may be connected with one-one correspondence relationship. So, the problem of Kant that how is pure mathematic possible, does not find a complete refutation in analytic tradition.

5. Kant Immanuel (1968) op. cit. A57/B82, p-p.96-97


This unitary or deterministic interpretation was carried forward by Greham and David and it resulted in the many world interpretation of quantum mechanics. Cf. Greham and David (1973) ‘The many world interpretation of quantum mechanics’, Princeton University press, Pinceton.

