Chapter-III

Kant’s Concept of Substance and Causality

In chapter two, Locke’s concept of substance and causality has been explored in terms of their interrelationship and interdependence.

In a similar strain, the present chapter unearths the claim that Kant makes as regards substance and causality which are the two most fundamental categories for the acquisition of knowledge and observes whether his claim can be sustained or not.

The concepts of substance and causality are crucial to Kant’s overall project, as these two are fundamental which makes knowledge possible.

This chapter is divided into three sections. The first section deals with Kant’s general epistemological and ontological positions. The purpose of this section is to locate the categories of substance and causality within a framework and also enunciate the methodological position that it is not possible to deal with any concept separately without inter-locating it within the whole epistemological and ontological system. In other words, in any system these two are interrelated. The second section critically expounds the concept of substance and the third discusses the concept of causality, followed by standard criticisms found in different commentaries.
Section-I

This section, though it deals with Kant’s general philosophical position, is very important because, it is through this ‘architectonic,’ that the concepts of substance and causality, the main thrust of the present thesis emerge. Therefore, without discussing how and in what way Kant conceives these categories of understanding, the discussion of substance and causality will be incomplete. This is the main reason for including this section within this chapter. This section shows how Kant introduces a middle course between the empiricists claim that knowledge is rooted in sense and those of rationalists who focus exclusively on thought.

Theory of Knowledge

Immanuel Kant’s Critique of Pure Reason is one of the much discussed philosophical classics which stands apart amidst philosophical world, at once bringing the Enlightenment to its highest intellectual development and presenting a new set of problems that has impact far and beyond.

“Human reason” plays the most crucial role in Kant’s critique. Kant begins in the first preface by observing,

“Human reason has this peculiar fate that in one species of its knowledge it is burdened by questions which, as prescribed by the very

---

nature of reason itself, it is not able to ignore, but which, as transcending all its powers, it is also not able to answer.”

It is the urge of human reason to ask questions extending beyond the realm of experience. And thus it falls within the traps of the dialectic of reason. Kant’s aim in the critique is to rescue metaphysics, “to secure for human reason complete satisfaction”, by defining its proper sphere of application.

With this end in view, Kant adopts the critical method. This method requires reason to reflect upon its own activities, to determine its own limits, and then to devise rules for staying within them.

Kant thinks that this is the key to reason’s “complete satisfaction” he claims, “there is not a single metaphysical problem which has not been solved, or for the solution of which the key at least has not been supplied”.

He adds, “… the chief question is always simply this; what and how much can the understanding and reason know apart from all experiences.”

This may sound not anything unique, as this type of approach has already been taken by John Locke in his Essay, where he attempts to define the limits of human knowledge by employing reason in a reflective act of self-criticism. But Kant’s method is not like Locke’s. He rejects Locke’s position as mere physiology that could sensualise all concepts of

---

2 Ibid., p.7.
3 Ibid., p.669.
4 Ibid., p.10.
5 Ibid., p.12

146
understanding. Kant's most important contribution is not the general idea of the critical method, but the specific form that method takes, that is, his transcendental method.

The question now arises what is his transcendental method? To understand it, we need to focus on his Copernican revolution which he outlines in the Critique and which afterwards his whole developments throughout the Critique. He finds that the basic question regarding the objective validity of knowledge in its relation to objects must be solved in the process of knowing. The concept with the condition of our knowledge of objects is to replace the concern of traditional metaphysics with the 'thins-in-themselves'. His 'copernican revolution is both a condition and a consequence of this new point of view. It is a condition in that the supposition that 'objects must confirm to our knowledge' provides justification for this shift of emphasis, and it is consequence in that it constitutes Kant's critical solution to the problem of apriori knowledge.

Historically, this project of Kant can be viewed as a result of Descartes' theory of the self as enunciated in the Meditations. Kant himself indicates that he so interprets his enterprise by making the Cartesian 'cogito' the first premise of his central argument. "It must be

6 Ibid., p.8
7 The concept of the transcendental - from transcendre, to transcend, to be link a bridge between divided shores, mediates between antagonists. Ref - E. Meyer, 'The Kant we know and the Kant we do not know' - L.W. Beck, (ed.) Proceedings of Third International Kant-Congress, D.Reidel, Dordrecht-Holland, 1972, p.704.
possible for the 'I think' to accompany all my representations, for otherwise something would be represented in me which could not be thought at all, and that is equivalent in saying that the representation would be impossible, or at least would be nothing to me”

It is well known that it was Hume’s discussion of causality that roused Kant from his ‘dogmatic slumber’ and led him to the lines of thought which resulted in the critique. But he does not follow Hume blindly. He attempts to make a way between rationalism and empiricism, to offer a solution of the problem of apriori knowledge.

In his theory of knowledge, Kant accepts Hume’s basic assumption that only ‘impressions’ and ‘ideas’ are given through sense-experience. It is through sense-organs that we observe anything. When the sense-organs are influenced externally they provide us with sense-impressions. Both Hume and Kant are in agreement on this point. But here their agreement ends. According to Hume, observation consists in receiving sense-impressions and nothing more. For Kant, observation is something other than and more than merely the reception of sense-impressions.

This point can be illustrated with the help of an example. One person is looking at a game of billiards. Here he observes that one billiard ball roll toward and hit a second billiard ball, which thereafter, as a consequence of the impact it receives, also begins to roll. This is a report

---

of what a person observes. And yet is it really that? What is meant by saying that the one ball makes the second roll? The expression ‘makes’ means here ‘the same thing as ‘causes’ ‘brings about’ ‘leads to’ etc. According to Kant, we distinguish and we think that we necessarily must distinguish between an event being caused by (a consequence of following as a result of) another event, and an event merely following temporarily after another.

The second ball in our illustration begins to roll only after it is hit by the first it begins to roll also because of this.

A bus punctually passes besides a station every morning just before the station-clock strikes eight. The station clock always begins to strike immediately after the bus passes it, but it does not strike the hour as a consequence of this.

Humean empiricism, however, does not justify such a distinction. No sense impression exists that can show us the difference between merely following after another event temporally and following a consequence of the event. In other words, according to Hume, to follow as a consequence of, is not something that is essentially differently from merely following after. The difference between saying that something happens after something else, does not, according to Hume, lies in the fact that there is an inner bond that joins cause and effect, but simply in the fact that this particular sequence of events seem always to have been the case. The
concept 'because of' is defined by means of the concept 'temporal succession'.

But if this position is granted -and it is a necessary consequence of Humean empiricism, then we find ourselves without any answer to the question as to how one knows that things will continue to happen in the way they always have happened. How can the fact that something has therefore been the case constitute a guarantee that it will continue to be the case? Humean empiricism has therefore disastrous consequences for our view and understanding of reality.

On the whole, we conceive of a thing as a thing that has different properties; properties (colour, smell, shape etc.) and the thing that has the properties. Our concept of a thing is therefore not identical with the concept of the sum of its properties. And generally we think of a cause as something causing its effect and not merely preceding it in time. We, therefore, assume, that we can predict what effect a given cause necessarily will have—a conclusion, that among other things, is a necessary presupposition of that knowledge on the basis of which we carry on our daily affairs.

But according to Hume, these assumptions are unwarranted. They are unwarranted in the sense that no ground can be found for them. Psychologically speaking, we have become accustomed to these assumptions. Through constant repetition we have become habituated into
believing that there is a necessity where actually none exists—habituated into believing that there are rational and logical grounds where there are none.

The result of this kind of thinking that knowledge builds upon and contains nothing other than that which is given in sense-experience, is consequently a denial of knowledge and the collapse of these concepts we necessarily must employ in order to speak about and to understand reality. If Hume's empiricism is true, then there is no knowledge.

Faced against this situation, Kant maintains that there is knowledge and so Humean empiricism is not the only possible alternative. To assert that Humean empiricism is not the only alternative is to assert that knowledge does not simply consists in receiving sense impressions. That is, sense-impressions in order to be sense-impressions at all, must be subject to certain condition. If these conditions are not fulfilled, no sense-impression can be perceived by us. These conditions are universally valid and necessary. They are of two kinds. First, there are the conditions under which a sense-impression can be a sense-impression at all, and second, the conditions under which a single sense-impressions can exist not simply as a sense-impression but as a sense-impression that is bound together with other sense impressions-bound together so that what appears is judged to be not a bundle of sense-impressions but a thing, or is judged not as two events that merely followed temporally one after the other but as events
that are connected in such fashion that the one even tis viewed as the effect of the another.

But how do we arrive at these conditions? That one cannot know them through the simple reception of sense-impressions follows already from their status as conditions of sense-impressions. The conditions are what Kant calls apriori, i.e., conditions that viewed logically are prior to sensation.

So, in conscious opposition to Hume and the entire empiricist school, Kant has tried to show that besides analytic knowledge, and that which is synthetic a posteriori, there is a third kind of knowledge which is synthetic apriori. This third kind is more important than the other two and hence his problem, how are apriori synthetic judgments possible?

Kant regards knowledge to be synthetic apriori. In order to make it clear he differentiates 'synthetic' from 'analytic' and 'apriori' from 'a posteriori'. According to him, necessity and universality are the two criteria which are essential for being a proposition to be apriori, and they are inseparable from one another. While defining synthetic form analytic Kant cites:

In all judgments in which the relation of a subject to the predicate is thought, this relation is possible in two different ways. Either the predicate B belongs to the subject A,... or B lies outside the concept A,... In the one case I entitle the judgment analytic, in the other synthetic.⁹

⁹ Ibid., p.48.
To him all analytic judgments must be apriori, but not vice versa, because they may be synthetic also. In Section-I (Introduction) of the Critique Kant starts with a distinction between apriori and empirical knowledge by saying “there can be no doubt that all our knowledge begins with experience” His problem was how much pure reason competent to know unaided by experience. Kant’s main ground for attempting a revolution in philosophy is the fact that we possess a priori knowledge. And so his first problem here stands with the examination of apriori knowledge, through the distinction between empirical and apriori knowledge. Kant states that we shall understand by apriori knowledge, not knowledge independent of this or that experience but knowledge absolutely independent of all experience. Opposed to it, is empirical knowledge, which is knowledge possible only a posterior, that is through experience.

Kant holds that a priori knowledge is prior to experience. But this priority is only logical, not temporal. A priori knowledge is only logically prior to experience because its dependence of experience is only logical dependence. All our knowledge begins with experience and there is no knowledge which precedes experience in time. Yet although all knowledge begins with experience it is possible that some knowledge is not derived from experience. Experience may be something composite, and it may be that sense-impressions give us the matter, while our power of knowledge give us the form of experience.
Kant admits that without experience no knowledge is possible, but he opposes Hume who regards knowledge to be confined to sense-experience only.

According to Kant, knowledge depends upon both intuitions and concepts. Through the first an object is given to us, through the second, the object is thought in relation to that give representation. The capacity of receiving intuitions is called by him ‘sensibility’ and the power of conceiving or thinking is called ‘understanding’.

Kant States:

"Without sensibility no object would be given to us, without understanding no object would be thought. Thoughts without content are empty, intuition without concepts are blind". ¹⁰ Unless therefore sensibility and understanding, intuitions and concepts are in interplay, there is no knowledge of objects.

But these categories do not owe their origin to sensibility but they make sensibility meaningful. In his view, sensibility is meaningful, only when, they are perceived in the forms of sensible intuitions, viz, space and time.

Space and time are our basic ways of intuiting. Space is the form of outer intuition. Time is primarily the form of our inner intuition. Time is however, peculiar in that it is the formal condition of all intuitions--

¹⁰ Ibid., p.93.
outer and inner.

As Kant puts it:

But since all representations, whether they have for their objects outer things or not, belong, in themselves as determinations of the mind, to our inner state; and since this inner state stands under the formal conditions of inner intuition, and so belongs to time, time is apriori condition of all appearances whatsoever.\(^{11}\)

All objects (as objects of the senses) therefore, must confirm to the constitution of our faculty of intuition, in the sense that they can be intuited not as they are in themselves, but only in so far as they are spatio-temporally conditioned, since space and time are our subjective forms of intuition. Objects, as objects of the senses, are no more than appearances. Kant never doubts for a moment that we are in possession of synthetic apriori knowledge of objects. It is the empiricists who seek to explain the agreement between concepts and objects by a kind of empirical deduction, which consists in the derivation of all concepts from the experience of objects. For them, as Kant states their view, 'concepts... conform to the object'.\(^{12}\) That is, they seek to derive all simple concepts from the experience of objects by a process of reflection and abstraction (Locke) or by a certain amount of copying (Hume); and then they offer an explanation of all complex concepts in terms of compounding simple concepts.

\(^{11}\) Ibid., p.77
\(^{12}\) Ibid., p.22
The error of this view lies according to Kant, in the failure to appreciate the 'dignity' of certain concepts and principles. The concepts and principle in question are such apriori concepts as Kant calls the 'categories' of the understanding and such synthetic apriori judgments (categorical principles) as constitute the basic presupposition of natural science: e.g., the concept of cause and the principle of causality.

The apriori character of the categories has been established by Kant by an account which shows them to be the conceptual correlates of the apriori form of judgment. Kant argues as follows.

To understand is to think, to think is to judge, and to judge is to apply a concept. The basic ways of conceiving and the basic ways of judging must therefore coincide. Since making a judgment by means of a concept is an act of the understanding, the logical structures or forms of judgment must necessarily be the expressions of the basic concepts or the categories of the understanding.

Proceeding according to this line of reasoning, Kant deduces from the twelve forms of judgment the twelve categories: unity, plurality, totality, reality negation limitation, substance and accidens, cause and effect, community (between agent and patient); possibility-impossibility, existence-non-existence, and necessity-contingency.

The apriori categories present a formidable problem, namely, that of the justification of their objective validity. Since they are apriori, they are
not derived from (the representation of) objects; but then how (i.e. with what justification) can they apply to objects? This is Kant’s famous problem of the ‘Transcendental Deduction of the Categories’.

The solution that Kant himself offers to the problem under consideration amounts to the adoption of the revolutionary view which he sums up by saying “that the objects, or what is the same thing... the experience in which alone, as given objects, they can be known, conform to the concepts”.13

An object, in the sense of a unified determinate whole, is not as such given to us in intuition. What intuition just presents is a manifold. The object known, however, is not a mere manifold, it is rather a unity having a diversity. The unity of the object cannot be explained except in terms of synthesis. This synthesis, which is not given, is, then performed by the mind. The synthesis of the manifold data presupposes a unitary consciousness, which is called by Kant the synthetic unity of apperception.

Since the unity of the object is due to synthesis which again presupposes the unity of consciousness, it is clear that the unity of consciousness is a condition or presupposition of the possibility of knowledge of objects. Kant calls it ‘transcendental apperception’ to stress that it is a necessary presupposition of knowledge.

13 Ibid.
The synthesis of the manifold is rule governed. It cannot be haphazard. But what are the basic rules by which the synthesis of the manifold must be governed. For Kant, these basic rules are the basic concepts of the understanding. This needs some explanation.

For Kant, every concept is a rule of synthesis. For example, the concept of triangle, which is that of a plane figure bounded by three straight lines, is a 'rule of synthesis', it is a rule that the given straight lines are to be so synthesized that a plane figure is formed. These basic concepts must then be such as to correspond to the basic forms of judgment in accordance which the object is judgable, because as has been already pointed out, the synthesis of the manifold must be so rule-governed that the object, which as the synthetic unity of the manifold is produced, becomes judgable. Clearly, the basic concepts in question are the categories of the understanding.

According to Kant then, objects, as objects of knowledge, conform to concepts, in the sense that they are 'made' by the mind through a synthesis of the given manifold in accordance with certain rules of synthesis embodied in the categorical concepts.

Nature as the inter-connected system of the objects of knowledge, is, then, determined by the knowing mind. So Kant says that understanding is the law giver of nature. Since "Categories are concepts which prescribe laws apriori to appearances, and therefore to nature, the sum of all
appearances", the categorical synthetic apriori principles are quite intelligible. If nature were composed of things-in-themselves, we could not know anything about nature synthetically and apriori for things in themselves may not be in agreement with our apriori laws. However nature, as we can and do know, is the sumtotal, not of things in themselves, but of objects which are phenomena determined by the knowing mind.

Here to understand the basis of Kant’s Philosophy one must know the difference between appearance and things-in-themselves. The manifolds of intuitions, in so far as they are not determined by the categories of understanding are the appearances. Kant states: “The undetermined object of an empirical intuition is entitled appearance”. But when they are determined by the unity of the categories, they became phenomena. “Appearances, so far as they are thought as objects according to the unity of the categories, are called pheanomena”. And all the categories of understanding are confined to the sphere of phenomena; that is to say, it is confined to the extent in so far as an object can be given in sensible intuition and is determined by the unity of the categories. So the categories, for example substance and causality can operate within the world of senses. Whereas, there is a world, where the sphere of actual and possible scientific knowledge cannot penetrate. This is the world of

14 Ibid., p.172.
15 Ibid., p.65.
16 Ibid., p.265.
noumena. Kant writes:

But if I postulate things which are mere objects of understanding, and which, nevertheless, can be given as such to an intuition, although not to one that is sensible-given therefore... such things would be entitled *noumena*.17

So the categories of understanding are applicable within the world of phenomena and not to the world of noumena. Therefore, the concepts of Substance and Causality are applicable within the world of actual and possible experience.

Section-II

This section is designed to bring out Kant’s conception of substance. It has been already discussed in chapter two, how Locke has showed that the concept of substance can never be known directly. It is only through the ideas that one can know the substance. Reacting to this position Berkeley has stated later if all we know are ideas then how can one know that there is an objective reality outside. Following this line of thought, Hume has stated that all we can know are fragmentary impressions and ideas. So Hume has denied the concept of substance and necessary causal connections. Kant who wants to reconcile empiricism and rationalism denies Hume’s position and in view of establishing scientific knowledge

17 Ibid.
accept substance as one of the basic categories out of the twelve. The concept of substance and causality are the most important, as they constitute the core of objective reality. The present section deals with the concept of substance and causality will be discussed in the next one.

This section is divided into three sub-sections. In the first, it is shown how Kant under the influence of his empiricists and rationalist predecessors places substance under relation as an apriori category of understanding. In the second, a general discussion on the 'Analogies of Experience' is included. Here, it has been shown how Kant relates the three categories viz, substance, causality and reciprocity with three modes of time viz, succession, duration and co-existence. Though in this study the concept of reciprocity is not treated separately, yet reference has been given to this concept as it is closely associated with substance and causality. In the third, attempt has been made to give a critical exposition of the first analogy regarding the proof that substance is something permanent.

The Concept of Substance

Substance is one of the most important category of understanding that Kant recognizes under the head relation. Kant remarks, "...this category has to be assigned a place among the categories of relation, but rather as the condition of relation than as itself containing relation". As

18 Ibid., p.216.
Mellin observes this makes the category "the ground of all others"\textsuperscript{19} This category plays a central role in the acquisition of knowledge. Kant asserts that unless there is a continuity, there can be no knowledge. And the category of substance explains this continuity. For Kant, since categories are apriori forms of understanding, so substance as one of the categories is also apriori. In order to prove that substance is apriori, Kant gives the following arguments. He states:

If we remove from our empirical concept of any object, corporeal or incorporeal, all properties which experience has taught us, we yet cannot take away property through which the object is thought as substance or as inhering in a substance. Owing, therefore, to the necessity with which this concept of substance forces itself upon us, we have no option save to admit that it has its seat in our faculty of apriori knowledge.\textsuperscript{20}

Kant’s account of the concept ‘substance’ is directed towards showing how this concept is connected with our discriminations of changes, events and duration. To claim that the concept of an event presupposes our discrimination between individuals and their properties is already to be taken for granted that the category of substance is required for our recognition of an event. In a similar way, change cannot be understood without something permanent. Kant assigns the two words ‘alteration’ and ‘change’ to the different ways in which we think of individuals and properties as changing. Moreover, whenever we say that sometime has

\textsuperscript{20} Kant, op.cit, p.45.
elapsed between two events, it means that something permanent is there against the background of which this temporal duration is to be understood. All these shows that substance is very necessary for our knowledge of objective reality.

In forming his idea of a priority of substance, Kant is influenced by his empiricist and rationalist predecessors viz, Locke, Hume and Leibniz whom he mentions in the Critique, besides Aristotle.

As it has been observed in the first chapter that Aristotle enumerates ten categories of which substance is a fundamental one which constitutes the basic features of material objects. Aristotle regards that every sensible substance has two aspects viz, matter and form and these cannot be separated from one another.

But Kant is opposed to Aristotle’s views. As Kant states: “He merely picked them up as they came in his way”. Though Kant expresses his indebtness to Aristotle, but while forming his concepts of substance he differs from him. For Aristotle, a substance is a amalgamation of form and content, and can exist independently, but for Kant, it is synthetic apriori category of understanding. Moreover, Kant differs from Aristotle in respect of the origin of the categories as they are the “original pure concepts of synthesis that the understanding contains within itself apriori” Moreover,

\[21\] Ibid., p.114.
\[22\] Ibid., p.114.
as it is stated, Kant in the first section recognizes twelve categories, instead of Aristotle’s ten categories. For Aristotle, categories provide both form and content, but for Kant, they can provide only the form and sensible intuition supplies the content. But Kant agrees with Aristotle, that is like Aristotle, he regards substance as one of the fundamental category which makes knowledge of an object possible.

Like Aristotle, Locke also realizes the concept of substance to be an important and necessary for the acquisition of knowledge. But whereas Locke tries to derive the concept of substance from the simple ideas on the basis of the operation of the mind, Kant, on the other hand, makes substance as one of the categories of understanding. For Kant substance cannot have its origin in experience. Kant criticizes Locke because he thinks that Locke’s attempt to derive the concept of substance from simple ideas is an invalid one. While criticizing Locke on this issue Kant states:

The illustrious Locke, failing to take account of these considerations and meeting with pure concepts of the understanding in experience, deduced them also from experience, and yet proceeded so inconsistently that he attempted with their aid to obtain knowledge which far transcends the limits of experience. 23

Locke’s difficulty arises because in speaking of simple sensible qualities he is already committed to the correlative notion of something to which these qualities inhere. No doubt, Locke recognizes the importance of this concept but somehow or other he fails to explain it in proper terms.

23 Ibid., p.127.
Kant not only recognizes its importance as a category but he believes that he could explain it also. To Kant, the concept of substance is a necessary condition of our knowing such temporal phenomena as duration and succession.

Hume regards the notion of substance as a mere philosopher's invention that is both unintelligible and unnecessary and reduces substance to certain bundle of impressions. On the basis of his empiricist premise, Hume regards that all we can know comes from experience. Since the concept of substance cannot be given in experience, so it cannot exist. Kant, while criticizing Hume's denial of substance and causality states:

David Hume recognized that, in order to be able to do this, it was necessary that these concepts should have an apriori origin. But since he could not explain how it can be possible that the understanding must think concepts, which are not in themselves connected in the understanding, as being necessarily connected in the object, and since it never occurred to him that the understanding might itself, perhaps, through these concepts be the author of the experience in which its objects are found, he was constrained to derive them from experience, namely from a subjective necessity (that is, from custom), which arises from repeated association in experience and which comes mistakenly to be regarded as objective.24

But just as Kant wants to rescue the category of causality from Hume's skepticism, similarly he wants to defend the relational category of substance and accidents, but in its form as a mode of temporality. So Kant does not follow Hume and jettison accidents and substances, on the

24 Ibid.
contrary, he tries to show the futility of seeking the ground of relation to another relation.

Kant’s rationalist predecessor, viz, Leibniz recognizes this concept of substance but in a quite different sense. Substance which he terms as ‘monad’ is something super sensible and purely intelligible. Kant comments: "... Leibiniz intellectualised appearances, just as Locke, ... sensualised all concepts of the understanding,...". He continues: "...Leibniz, regarding substances as noumena, took away from them, by the manner in which he conceived them, whatever might signify outer relation, including also, therefore composition and so made them all, even the constituents of matter, simple subjects with powers of representation--in a word Monads". 25

Thus all the above factors help to frame Kant’s concept of substance which is an apriori concept of understanding.

Regarding the origin of substance Kant writes: "Wherever there is action and therefore activity and force there is also substance, and it is in substance alone that the seat of this fruitful source of appearances must be sought". 26 He continues,

Action signifies the relation of the subject of causality to its effect. Since, now, every effect consists in that which happens and therefore in the transitory which signifies time in its character of succession its ultimate subject, as the substratum of everything that changes, is the permanent, that is substance. 27

25 Ibid., p.283.
26 Ibid., p.229.
27 Ibid.
Here Kant is guided by Newtonian laws of notion. Newton explains phenomena in nature in terms of matter, force and reaction. He defines matter through its effects or our senses and density only as mass per unit volume. In his theory, there is a difference between mass and weight. The body’s resistance of acceleration, i.e. whether it is in a state of motion or rest can be measured only by its mass. In his theory of substance as something permanent, Kant is guided by the scientific notion of substance as matter. But there is a difference between Newton and Kant. Newton’s laws of motion are applicable within his realistic framework whereas Kant transforms the ideas of Newton and applies it to the transcendental framework.

While explaining the concept of substance Kant makes it clear that this concept is never one which can be used to furnish any information about objects by itself. He explicitly attacks what he takes to be the Lockeian idea of substance as a substratum distinct from accidents. He states:

Locke in his essay on human understanding says, we represent substance to ourselves as the portitor (bearer) of accidents... But the accidents are not particular things that exist, rather only particular ways of considering existence, they therefore do not need to be borne, but rather signify only the manifold determination of one and the same thing.\(^{28}\)

According to Kant the manifold determinations of one and the same thing include not just those predicates traditionally called accidents but also relations of causality and reciprocity as well.

"In substance there is 1. The relation of inherence (accidens), 2. Of causality (Force); 3. Of commercii (Influence)". So though substance, causality and community are three separate concepts, they can be used only in conjunction with one another.

In this context, Kant writes: "Causality leads to the concept of action, this in turn to the concept of force, and thereby to the concept of substance". So wherever there is activity and force there is also substance. In this way Kant makes causality dependent upon substance.

In the Metaphysical Deduction of the Categories, Kant describes substance as the category of ‘Inherence and Subsistence’ or substance and accidents. In the ‘Schematism’ chapter Kant says that substance is that whose schema is "the permanence of the real in time", that which is conserved or remains the same through all changes. First of all, it is something eternal. Secondly, it makes up the entire material content of the world, since it is the basic raw material of all fluids and other stuffs as well as of common solid material things.

"Only in [relation to] substance can the succession and coexistence

---

29 Ibid.
30 Kant, op.cit, p.228.
of appearance be determined in time."\textsuperscript{31} Kant recognises substance as permanent and it exist independent of experience. He says: "The concept of body, in the perception of something outside us, necessitates the representation of extension, and there with representations of impenetrability, shape, etc."\textsuperscript{32} This shows that though Kant criticises Descartes' idealism and for all his differences from Descartes, he works generally within Cartesian assumptions about the relations of mind and body. He rejects the claim that the two are metaphysically distinct, but committed himself to the view that on the empirical level 'dualism alone is tenable'.\textsuperscript{33} Empirically the mind is one thing, the body another.

Now what is a schema? A schema is a kind of concept which can mediate subsumption of the appearances under the category because "[it] is so far homogeneous with the category... in that it is universal and rests upon apriori rule [and] it is so far homogeneous with appearances, in that [it involves time] time is contained in every empirical representation of the manifold."\textsuperscript{34}

Accordingly, the categories although they have 'nothing empirical' in them, can nevertheless be brought to bear upon intuitions, for even if the categories cannot be applied to intuitions, at least their schemas can be so applied because they contain the empirical element of temporality.

\textsuperscript{31} Ibid., p.184.  
\textsuperscript{32} Ibid., p.135.  
\textsuperscript{33} Ibid., p.351.  
\textsuperscript{34} Ibid., p.181.
Bennett, criticises this position. He says that Kant introduces substance as inherence-subsistence in the ‘Metaphysical Deduction of the Categories’, which is the unusable concept of simply a something which can be thought only as subject, never as a predicate of something else’ while its schema is empirically serviceable because in it ‘the sensible determination of permanence’ is added. But this solves nothing. According to Bennett, if one is wondering how the concept C can be applied to members of the class Bs, it is no solution to say that the naked concept C does not apply to the Bs but that the specially adapted concept CB does apply to them.35

So Bennett accuses Kant of sliding from substance conceived of as something that can function as a subject or bearer of attributes to substance conceived of as something sempiternal.

Analogies of Experience

Kant argues in the Critique that every category corresponds to a principle whose truth is presupposed in its application. Principles are “rules for the objective employment”36 of the categories. There principles are all apriori and they have two aspects, subjective and objective. Subjectively, they help us to construct our ways of thinking, and objectively, they say

36 Kant, op.cit,p.196.
how the world must be if it is to be intelligible. Though these principles, the categories “prescribe laws apriori to appearances, and therefore to nature”. That is to say, they lay down synthetic apriori truths concerning the world of everyday and scientific observation. They do not give knowledge of a world described without reference to our perceptions. According to Kant, synthetic apriori knowledge is only of “things which may be the objects of possible experience”.  

In this area the principles state objective and necessary truths, since the categories ‘relate of necessary and apriori to the objects of experiences, for the reason that only by means of them can any object of experience be thought’. It is the most important point that Kant emphasizes that outside the field of possible experience there can be no synthetic apriori principles. According to Kant, principles which constitute the foundation of our apprehension of things, are by their very nature apriori. Being the very foundation of our knowledge, they cannot be empirical or aposteriori, in other words, they must be apriori.

These principles are discussed in the chapter Analogies of Experience. The general principle of the Analogies is as follows, “experience is possible only through the representation of a necessary connection of perception”.  

\[\text{Ibid., p.172.}\]
\[\text{Ibid., p.162.}\]
\[\text{Ibid., p.208.}\]

171
Our analogies really portray the unity of nature in the connection of all appearances under certain exponents which express nothing save the relation of time... to the unity of apperception. Taken together the analogies declare that all appearances lie, in one nature, because without this apriori unity no unity of experience, and therefore no determination of objects in it, would be possible.40

The categories of substance, causality and reciprocity constitute the basis of the analogies of experience and these are an indispensable part of an epistemological theory of the necessary condition of time-determinations. They show us that certain principles are required in order to ground temporal determinations about objects.

But why the principles involving the schemata of the relational categories are termed analogies of experience? In fact, the term 'analogy' is equivalent to the mathematical terms ‘ratio’ and ‘proportion’. But here Kant uses the term differently. Kant spells out: “An analogy of experience is, therefore, only a rule according to which a unity of experience may arise from perception”.41 Following Henry Allison it can be clarified by saying. “The “analogy” is thus between the two term relation expressed in the category and its schema on the one hand, and the presumed relation of a given appearance to some unspecified relatum on the other. For example, in the case of the causal relation, the analogy enables us to determine a priori that for any event, there must be some antecedent event x from

40 Ibid., 237.
41 Ibid., p.211.
which y follows in accordance with a rule”.42

So the analogy provides only a rule or decision procedure for finding the fourth member in experience, rather than the fourth member itself. The analogies are not intended to supplement some principles for judgements about objects which have been established prior to them. Rather, they are the basic principles for judgements about objects.

In the Analogies, the concept of time plays a very crucial role. In the first edition while stating the principle Kant writes: “All appearances as so far as their existence is concerned stand apriori under rules of the determination of their relation to one another in one time”.43 Here Kant conceives time in the absolute sense. For him, the objects of experience or representations are given in time. He conceives time as being prior to the objects of experience. It is in this sense, time for Kant is apriori. Things are related with one another in time. The process through which one thing is interconnected with another is known as schematization. We may also note here that just like time, Kant thinks of space in the absolute sense and consequently space is also apriori. This view of absolute space and time are the result of the influence of then existing scientific theories, viz., Newtonian theory of space and time. Kant comments:

They are simply principles of the determination of the existence of appearances in time, according to all its three modes, viz, the relation of time itself as a magnitude, the relation of time as a

---

43 Kant, op.cit, p.208.
successive series, and finally, the relation in time as a subtotal of all simultaneous existence.\textsuperscript{44}

Thus, there are three different modes of time, duration, succession and co-existence with which Kant relates the three categories viz, substance, causality and reciprocity.

While forming these analogies Kant limits the number of three. He wants the categories to correspond to the three Newtonian laws of motion. As it has been remarked earlier that while forming the analogies Kant get influenced by the science of his time. Scientific explanation depends upon principles of method; being presupposed in scientific enquiry, these principles cannot be proved through it. Kant believes that such principles would be reflected in basic scientific laws, and it is one of the tasks of metaphysics to provide grounds for their acceptance.

The physical science of Kant’s day seems to assume apriori the existence of universal causation and of reciprocal interaction. It assume\textsuperscript{8} that it must explain not only the existence of matter but the changes undergone by it. It assumes the need for a law of conservation according to which, in all changes some fundamental quantity remains altered. Kant thinks that the above assumption has guided Newton in the formulation of his laws of motion. Kant therefore attempts, in deriving his principles to establish the validity of universal laws of nature as laws of the

\textsuperscript{44} Ibid., p.236.
understanding, arguing further that all the fundamental laws of the new astronomy can be seen on reflection, to rest on principles that are valid apriori. All these are due to Newton’s influence. Thus Kant argues for quantitative conservation principle; for a principle of continuity of alteration; for the principle that every alteration of state has a cause; for the principle of the reciprocal interaction of all parts of matter at any time.

Kant regards Newtonian mechanics as an “unchangeable insight into the system of the world which, as observation is continued, may hope always to extend itself, but need never fear to be compelled to retreat”. 45 This shows Newton’s influence on Kant.

According to Kant, Newtonian mechanics is inseparably embedded in Aristotelian logic. It necessarily employs Euclidean geometry and other mathematical theories which conform to the transcendental aesthetic and some other parts of the Critique; and it explicitly or implicitly acknowledges certain synthetic apriori principles which form a complete and unique system. This means that the rejection of any of these principles on scientific grounds would necessitate a rejection or modification of Kant’s metaphysics of nature or, at least of his claim that it is unique. It is because Kant considers such a scientific change to be impossible that he regards Newtonian mechanics not merely as a valuable heuristic

---

instrument, but as an absolutely reliable confirmation of the metaphysics of nature, as expounded and defended or, or precisely "transcendently deduced" in the *Critique*.

**First Analogy**

The proof that substance is something permanent is given in the first analogy. Here Kant tries to show that substance which is a category of understanding is indispensable and a prime requirement of the human understanding without which experience is not possible.

While discussing Kant's general philosophical positions in the first section, it has been noticed that the objective that Kant undertakes in the *Critique* is to know how synthetic apriori judgements are possible. This knowledge is a joint product of sense and thought. In the sections of the *Critique* preceding the Analogies of Experience, Kant asserts that what is given to the mind by sense is organized by rules of synthesis called categories.

This enables Kant to explain how universal and necessary knowledge comes about in that the mind, organizes experience according to these categories. The particular categories, Kant claims, at work in arranging human experience turn out to be outwardly the same that Aristotle has given as governing reason with the exception that instead of ten Kant present twelve for the ordering of knowledge. But not only
regarding quantity, qualitatively there are certain differences. While Kant is more interested in bringing out the relation that exist in the categories, that is, he wants to subsume them under certain concepts, Aristotle wants them to identify or locate in a certain position.

Accordingly, with this general line of reasoning, Kant needs to prove that the categories are the most essential for our knowledge. In particular he wants to show that the category of substance the most fundamental of all the Aristotelian categories, is at work in organizing experience and is a fundamental presupposition of science. This demands that besides its logical employment, there is its empirical justification which demonstrate it as a necessary component, not just of thinking but of experience also. Not only this against the empiricists, specifically Hume, Kant wants to offer a proof that can support his concept of substance against all the criticisms.

Here the temporality of experience is a main issue. In Kantian system, whatever is presented, is given within the spector of time. Therefore the categories must come temporalised. Within his framework he must show how substance along with other categories work in time. So substance is something which subsists through time and this shows the interdependence of temporal order and substance. Here time plays an important role. The arguments that Kant offers centers on time and he shows that there must be unity of time in order for there to be experience.
The notion of permanence is correlative to the argument’s central concepts of time and substance. According to Kant, this notion can be discussed both from the viewpoints of common sense, as well as that of metaphysics. Common sense demands there must be an element of stability or permanence behind all changes. It is true, human perceptions are ever changing, but within these changes there must be something stable. We fail to explain experience if everything is in continuous flow. Communication will not be possible without some permanent something. So some referent is necessary to explain the stability.

From the metaphysical perspective, the problem of permanence has traditionally been associated in terms of substance. And there are various meanings that are attached to the term. For example, it is something permanent, the qualities inherence substratum, something that manifest changes but does not itself change etc. Kant incorporates all of these meanings in his use of the term substance. He offers different arguments but the main intention is quite clear, that is, there must be something underlying the change and this “permanent” is substance, according to Kant. Kant calls the first analogy as the “principle of permanence of substance”. His point is not to prove that substance is permanent as this proposition is nothing but “tautological”.46 But he wants to show how this principle must find application to our experience.

46 Ibid., p.214.
In the first edition of the Critique the principal is stated as follows:

“All appearances contain the permanent (substance) as the object itself and the transitory as its mere determination that is, as a way in which the objects exists”\(^47\)

And in the second edition, “In all change of appearances substance is permanent; its quantum in nature is neither increased nor diminished”\(^48\)

In support of this principle, Kant offers a number of proof which are explained by various scholars differently. There are at least four argument which Kant sets forth in order to prove the permanence of substance.

For clarity’s sake the arguments are divided in four parts and then comments will follow accordingly. The arguments are as follows: (i) The substratum thesis, (ii) The alteration thesis, (iii) Permanence theory and iv) Conservation theory.

In the substratum thesis Kant argues as follows:

All appearances are in time, in which as substratum (as permanent form of inner intuition), can either co-existence or succession be represented. Thus the time in which all change of appearances has to be though remains and does not change. For it is that in which, and as determination of which, succession or co-existence can alone be represented.\(^49\)

Here Kant reaffirms the contention of the Transcendental Aesthetic that time is the formal apriori condition of all objects and all objects of the

\(^{47}\) Ibid., p.212.
\(^{48}\) Ibid.
\(^{49}\) Ibid., p.213.
senses are in time and necessarily stand in time-relations. Here time plays the role of a “substratum”. So to represent either co-existence or succession, the concept of time must be presupposed. Permanence is a property of time itself, the whole in which both succession and co-existence occur. In so far as succession and co-existence are relations of moments of time and time itself is permanent succession and co-existence are modification of that which is permanent.

Against the above claim that time does not change, but rather that things change in time, there are some commentators like Caird who argues that it is equally true that time does not remain or endure. Caird puts his arguments in the following way:

It may be objected that to say that ‘time itself does not change’ is like saying that passing away does not itself pass away. So for the endurance of time and the permanence of the changing might even seem to mean only that the moments of time mean only that the moments of time never cease to pass away and the changing never ceases to change. A perpetual flux would therefore sufficiently “represent” all the permanence that is in time.50

Cassirer, another expert on Kant comments in this connection that the characteristics of changeableness and unchangeableness both are inapplicable to time, and that while things may be said to remain the same, or to suffer change in time, it simply makes no sense to speak of time as exempt from change.51

The point that Kant wants to prove in the above, is related with the following comments that Kant says in the Critique, Kant states: "Now time cannot by itself be perceived". What Kant means is that the empirical determination of temporal relations must be in terms of perceptible changes, that is in terms of events. As he says in the Inaugural Dissertation (#14), the quantity of time cannot be measured, "except in the concrete". To estimate quantity of time in the concrete is to relate it to events or happenings that are perceptible. Here time is taken as a form or mode of representing objects rather than itself an object that is represented, a conclusion which is already affirmed in the Transcendental Aesthetic. From the above argument, it follows naturally that there must be some perceptible object which embody the permanence that has already been attributed to time itself. If everything is in constant flux, if there are nothing that endures, then we could not even be aware of either succession or co-existence. Therefore Kant asserts that, there must be an enduring, perceivable object or objects against the framework of which succession, coexistence and duration of time can be perceived.

The second kind of argument which Kant offers is the alteration theory of substance. Here Kant appears to reach his conclusion by what is essentially just an analysis of the concept of alteration which defines an alteration as a change in the state of something. Here "alteration"
presupposes the continued existence of that which changes, through at least the two moments occupied by the alteration if not longer.

Kant states:

Coming to be and ceasing to be are not alterations of that which comes to be or ceases to be. Alteration is a way of existing which follows upon another way of existing of the same object. All that alters persists and only its states changes. Since this change thus concerns only the determinations which can cease to be or begin to be, we can say, using what may seem a somewhat paradoxical expression, that only the permanent (substance) is altered, and that the transitory suffers no alteration but only a change, in as much as certain determinations cease to be and others begin to be.53

Regarding the meaning of the term “change”, which in original German is ‘Wechsel’, there are certain controversies. Kemp Smith translates the term ‘Wechsel’ as change. Since Kant frequently uses the term ‘change’ to refer to a ‘coming to be’ or a ‘ceasing to be’, one may thought that Kant means by it a total change similar to the Aristotelian notion of substantial change. But Henry Allison, one commentator rightly argues that Kant here does not mean by it as substantial change because his main point is that only states or determinations of substances change not the substances themselves. In support of his argument, Henry Allison takes from the Critique the example of a change that occurs when a wood is burned. Here ‘Wood’ which was burnt turned into ashes. Allison argues that by ‘change’ one must mean ‘replacement change’ where one item is replaced by another. He argues that Kemp Smith’s ‘change’ totally fails to
indicate the kind of change e at issue and therefore, fails to indicate what the argument is about.\textsuperscript{54}

Paul Guyer, another critic argues that an alteration is a change in the state of something rather than a change from one thing to another, so, of course, if there is an alteration then there must be something which changes, and if all changes are alterations, then there can be changes only in the states of things which always persists, but nothing which counts as the creation or annihilation of a thing itself.\textsuperscript{55}

From the above analysis an important fact emerges, that is, whatever changes there may be, there is something that preserves its own identity, i.e. the thing itself. And this fact, Kant asserts again and again all through these various arguments.

Kant here draws a distinction between alteration and change. This point may be substantiated following Cassirer. He points out the expression 'alteration is properly applicable only when something persists and remains one and the same. The expression 'change' on the other hand ought to be reserved for what may be regarded as the element of mere transitoriness in things, i.e., for what occurs when their various determinations, or states replace one another.\textsuperscript{56}

\textsuperscript{53} Ibid., pp.216-217.
\textsuperscript{54} Allison, op.cit, pp.204-205.
\textsuperscript{55} Guyer, op.cit, pp.222-223.
\textsuperscript{56} Cassirer,op.cit, p.176.
From the above distinction an important point emerges which has a direct bearing on the theory of perceptual knowledge. The point that follows is while the properties of a thing may undergo perpetual change, the thing itself is to be regarded as standing for as element of constancy and stability. It is amply clear that Kant is using the term alteration in such a way that it assumes something which persisted and the concept of persistence in Kant's philosophy means continuation in the object that persists. This may be explained in the following way. When someone says 'The green leaf has turned yellow; what one has in mind in such a case is not merely substitution of one property for another. On the contrary, it has been taken for granted that the identity of the object talked about retained even though it has acquired a new property in place of that which used to belong to it. In other words, we have here a statement which alleges what Kant calls alteration, as distinct from mere change. So, there must be some enduring, reidentifiable substance which function as substrata of change.

The next argument that Kant offers is about the permanence theory of substance. The question that confronts whether it is necessary to have absolute permanence of substance. The commentators while criticizing Kant show, that Kant is confusing between relative and absolute permanence. Though Kant begins from relative permanence, he concludes that what exists is the absolute permanence and this move from relative to absolute permanence is totally unwarranted.
Strawson is of opinion that there should be some objects, so that we should be able to identify places, and hence objects or processes as the same at different places. This in turn requires that we should perceive some objects as having a permanence which our perceptions of them do not have. But from the above, it does not follow that there is any necessity for any absolute permanence either of particular objects or of any such quantitative aspects of matter as ‘mass’ or ‘energy’. 57

Strawson interprets Kant when he says about a passage in the Critique, where Kant, while giving the proof of substance, uses the term ‘substance’ in the singular, but later on in the same passage he shifts from singular to plural, that is, ‘substances’. The passage in question is as follows:

Substances, in appearances are the substrata of all determinations of time. If some of these substances could come into being and other cease to be, the one condition of the empirical unity of time would be removed. The appearances would then relate to two different times and existence would flow in two parallel streams which is absurd. There is only one time in which all different times must be located, not as co-existent but as in succession to one another. 58

In reply to the above, it can be said that Kant is aware of this two uses of substance. And when illustrating the permanence of substance, Kant says that substance is something whose quantum in nature can neither be increased or diminished, he means the whole frame of nature, where

58 Kant, op.cit, A.188/B 231--2.
substance is treated as something permanent. But he is also aware that what represents this permanence for us in experience is not one absolute permanent thing, but rather those merely relatively permanent objects of perception, which, in their relations to each other, yield the one enduring framework. And this is the reason why he uses the word ‘substance’ in the plural, that is, to mean those particular objects.

Here one thing must be mentioned, that is, Kant in the first analogy characterizes substance as ‘substantia phaenomenon’ 59 which is nothing more than a complex of relations and which is quite different from those of substance in the metaphysical sense. Kant’s rationalist predecessor viz, Leibniz conceives substance in the metaphysical sense. Substance is to be an immovable absolute, i.e. something having its essence and reality solely within itself. And substance is something super sensible and purely intelligible. It is something empirically in accessible because it transcends experience.

But Kant’s observations upon substantia phenomenon show clearly how his view of substance differs from the metaphysical view. In the Amphiboly of the Concepts of Reflection Kant writes: “In an object of the pure understanding that only is inward which has no relation whatsoever (so far as its existence is concerned) to anything different from itself.” 60

59 Ibid., p.279.
60 Ibid., pp.279-280.
It is quite otherwise with a substantia phenomenon in space; its inner determinations are nothing but relations, and in itself is entirely made up of mere relations.

So, substance is simply a complex of relations. It is an organizing concept; concerned to relate different items in experience and it is something permanent.

And from the above that substance is not merely enduring through some given changes but truly permanent follows the last argument, that is, of the conservation of substance. And as it is thus unchangeable in its existence, its quantity in nature can be neither increased nor diminished. Therefore, the permanence of substance entails the conservation of its quantity in the universe.

In forming this argument Kant is guided by the principle of the conservation of mass as it is understood within Newtonian mechanics. In fact, he is identifying substance with the matter of which things are composed and that this matter must be conceived as permanent. He characterizes matter as "impenetrable lifeless extension". Matter so conceived is completely indeterminate. But it is not like Aristotelian prime matter which is indeterminate in the metaphysical sense that is, a pure staff, literally without properties. But matter as it is understood by

---

61 Ibid., p.663.
Kant is indeterminate in the methodological sense that no properties other than the occupation of space can be legitimately assigned to it. So, if matter is conceived in this way, then the only category available for its conceptualization is quantity consequently the permanence of matter must be conceived as the permanence of its quantity. The crucial point is that only matter, defined as the movable in space satisfies the definition of substance. As Allison interprets that this is because apart from matter no real subject for the properties of the objects of outer sense can be thought except for space itself.

But Kant has shown in the transcendental Aesthetic that space is not an object of outer sense, but rather than form of our representation of such objects. So matter is the only possible alternative for substantial status.

Kant further argues that the independently movable parts of material substance are themselves substances, and that by the ‘quantity of matter’ is to be understood the number of such substance of which a given portion of matter is composed. And as far as any particle of matter is capable of moving independently of the other particles, is likewise capable of funding as a subject to which properties can be attached. And this capacity of independent motion of matter replaces the traditional metaphysical conception that substance is something which is ontologically independent.
This analysis enables Kant to speak of a plurality of substances, in spite of the identification of substance with matter, which suggests a monistic conception.

Within this framework of material substance, Kant argues that substances cannot be created nor destroyed.

Bennett raises an objection against the above view. He asks to imagine a porcelain pig in an airtight glass case. The pig is resting on one arm of a highly accurate balance inside the case and is precisely balanced by the weights suspended on the other arm of the balance. All of a sudden the pig disappear, and the weights on the balance drop to the floor of the case but nothing seems to leak from the case, nor is any explosive conversion of matter into energy observed. Bennett next asks "does not [its scene] describe the existence change of a physical object? Is it not a case in which some amount of substance, viz, the porcelain comprising the pig simply ceases to exist? Bennett admits that Kant would not deny the logical possibility of such an event. In fact, Kant’s principle is an epistemological principle rather than a logical one. As Allison illustrates that Kant does not claim that there is anything self contradictory in the thought of something simply coming into or passing out of existence. The claim is rather that such an “event” (like an “event” without a cause) could not be an object of possible experience. Here in Bennett’s case we can never have sufficient
evidence to judge that the substance which made the pig has disappeared. 62

Following Paul Guyer, the above can be explained that here what Kant’s principle implies is that if we cannot now produce that substance (viz the porcelain pig) then it must simply remain undetermined whether the substance has ceased to exist or has just been moved or has even just been removed from attention some other way. Kant’s argument is not that we need some enduring object by which to mark the disappearance of the pig, on the contrary, his argument is that there can be no adequate evidence for the occurrence of any objective change at all unless we can produce some substance now in a state incompatible with the continued existence of that which is alleged to have been annihilated. That can be only the same substance in another state. In fact, in case of the porcelain pig, the substance is there and it endures through all such transformations, whether that be earth, air, fire and water. 63

Kant in his Critique cites the above position in the following example. “A philosopher on being asked how much smoke weighs, made reply: “Subtract from the weight of the wood burnt the weight of the ashes which are left over remains and you have the weight of the smoke”. He thus presupposed as undeniable that even in fire, the matter (substance) does not vanish, but only suffers an alteration of form”. 64

62 Bennett, op.cit, p.189.
63 Guyer, op.cit, pp.232-233.
64 Kant, op.cit, p.215.
Here neither wood nor ash nor smoke are themselves substances as such; they are only a variety of form which some substance common to them all can take on. Here, the piece of wood which was burnt must have existed for a period of time prior to its destruction by fire and it must be capable of being altered in any ways during that period without losing its identify as a particular price of wood. But its destruction by fire cannot be regarded as just another alteration of the wood because it is no longer identifiable as a wood at the end of the process. But, in spite of the radical nature of the change, this process of combustion is nothing but an alteration. The difference is that instead of treating the piece of wood as the subject that alters, we are constrained to presuppose some matter which at one stage assumed the form of a piece of wood, and at a later stage was transformed into smoke and ashes.

It may be stated that Kant’s argument has no relevance in the current scientific developments, for the case that Kant has cited, there is not an absolute conservation of matter rather the matter of the wood must be transformed into the energy which we sense as the heat of the fire, and of, the weight of the smoke and the ashes does not precisely equal the weight of the original wood. But if considered, this is not really an objection to Kant’s arguments. For Kant is here equaling substance and matter not as a part of some of particular physical hypothesis. On the contrary, as a philosopher he employs endurance as the primary criterion of
substance. Thus, it is simply whatever is ultimately determined by empirical theory to endure that is properly identified on substance.

If matter endures, then matter is substance, but if it is only a constant quantum of matter-cum-energy which endures then from the philosophical point of view that is what must be regarded as substance. That substance endures, and that all that exists is ultimately reducible to substance, are philosophical points; and the question of what substance actually is, is a scientific questions, and this is out of the arena of Kant's position.

The above fact, though not clearly stated in the Critique, but in a note from the late 1770s emphasizes the criterial role of endurance:

Between substance and accident the logical relation is synthetic. The subject is itself not a predicate,... but only that which is no further predicate is called a substance: 1. since no further subject is thought for it; 2. since it is the presupposition and substratum of the others. This can be inferred only from endurance, in so far as the other changes. It therefore belongs to the essence of a substance that it is perdurable. If one assumes that the substance ceases to be, this cessation process that it is no substance...65

Endurance is a mark of substance. If our beliefs about what really endures change, then so must our conception of what is actually a substance.

So, the scientific substitution of the principle of the conservation of matter plus energy for the conservation of matter alone is not an objection

65 Cited in Guyer, op.cit, pp.233-34.
to Kant’s philosophical theory of substance. It is rather an illustration of
the role of endurance or conservation on the “essence” or criterion of
substance.

Within Kantian frame it is not possible for substances to come into
being and pass away, because then the cause-effect relationship will be
violated. The coming into being of a substance will initiate a causal chain
i.e., it will be an uncaused event. But this violates the law of the causality
according to which every event has a cause. The passing away of a
substance will not necessarily be an uncaused event, but it will be an event
that bring a particular causal chain to a close. But, again this is impossible
for every event is connected necessarily to a following as well as a
preceding one in Kantian system. This leads to the subject of our next
section viz causality which is closely related to substance.

Section-III

This section deals with Kant’s notion of causality which is one of
the main theme of the present study. The course of the exposition of the
present section is as follows. Here, first of all attempt has been made to
trace Kant’s concept of causality from his pre-critical writings. Secondly,
the view that Kant advocates in the Prolegomena, regarding causality,
which was published shortly after the publication of the Critique's first edition, has been highlighted. And finally, the second analogy, where Kant offers the proof of causality, has been critically assessed.

The Concept of Causality

This section is designed to bring out Kant's concept of causality which in its turn, is inseparable from the concept of substance. The acceptance of necessary causal connection, like the concept of substance, is the essential pre-requisite of all scientific knowledge.

Let us first ask, how we come to have a notion such as that of causality. We can readily point to two different things; first certain laws are designated in science as causal laws. It is said, for example, that the laws of classical mechanics possess a causal character. And secondly, we speak of the general causal law which may be formulated as follows, every event must have a cause. So, all knowledge whether they are concerned with our day to day activities or with scientific activities, necessary causal connections are there and it constitutes the essential prerequisite of knowledge, to know the objective reality. It has been already seen how Kant was influenced by Newtonian laws, in forming his theory of substance. Similarly, while formulating the principle of causality, Kant takes for granted these laws. As it has been remarked earlier that he was well acquainted with the then existing scientific theories, which are mainly
based upon this physics. This fact can again be reasserted by giving the following example. In his first elaborated piece of work, presented to the dean of the philosophical faculty in 1746, he dealt with the problem of living forces as presented in the Philosophies of Leibniz, Newton, Wolff and others. His first major work published in 1755, was A General Natural History and Theory of the Heavens or an Essay concerning the constitution and the mechanical origin of the entire universe treated according to Newtonian Principles. This work seeks to develop a secular theory of cosmology in place of Newton's own deistic doctrine. In fact, his early writings are, most of all scientific in nature and later during the critical period he publishes some scientific papers. In 1785, he publishes an essay On volcanoes in the Moon. Thus, it becomes his general interest to reconcile the world of Newtonian physics with the world of reality and religion. With this end in view, like the principle of substance, he proceeds to formulate the principle of causality.

Though we find that in the Critique, specially in the second analogy of experience, Kant deals with this problem of causation extensively, yet his views should not seen in isolation, but it forms a part of his total philosophical developments. The seeds of the concept of causality can be seen all scattered through his early writings, which find their culmination in the full-fledged form in the Critique.
The principle of causality makes its first appearance in the New Elucidation of the First Principle of Metaphysical Cognition (1755) under the guise of the ratio antecedenta determineans (the antecedently determining grounds). While acknowledging his debt to Crusius (1715-75), German Philosopher, opponent of Leibniz and Wolff) and agreeing with him that God is not subject to the principle of the determining ground, Kant attacks Crucius’s view that the free-will must also be exempted. In proposition IX (Aki: 398-406) Kant attempts to reconcile the seemingly irreconcilable by arguing that acts of free-will may be both antecedently determined and yet free by virtue of the fact that such acts are internally, not externally determined. It seems that by dividing determination into internal and external factors in other words, internal and external causality, Kant is accepting the Cartesian dualistic separation between mind and body. Kant’s concept of willing has its source in the Descartes concept of willing. Although Kant, in this book is clearly aware of the importance of Crusius’s distinction between real and ideal grounds, he does not deal with the crucial epistemological problems, surrounding the issue of causality viz, the validity of the principle of causality in general and more particularly the nature of the relation between a cause and its effect.

In Attempt to Introduce the Concept of Negative Magnitudes into Philosophy (1763), the distinction between logical and real opposition is explored at length. Kant’s attention focuses in particular, on the conflict of forces, both the physical forces of nature and the psychological forces of the mind. He distinguishes between logical contradiction and a real opposition of forces, and from this distinction it follows, that the logical relation of ground to consequent is not the same as the ontological or cosmological relation between cause and effect. He makes a significant turn in recognizing that causality is a connection between two distinct things. A cause is a real ground, not a logical ground, and hence a judgement of causation cannot be proved by showing the identity of subject and predicate “The rain never follows the wind because of the law of identity”.

What, then, is the relation between cause and effect? According to Kant “that the relation of a real ground to something else which is posited or prevented is not to be exposed at all by a judgement, but only by a concept, which can perhaps be reduced by analysis to simpler concepts of real grounds whose relations to the consequent cannot be made distinct”.

The main thrust of the argument is as follows: judgement is a logical relation of implicit and partial identity between subject and predicate or

67 Beck, L.W., Early German Philosophy: Kant and his Predecessors, Belknap, Cambridge, 1969, p.452.
68 Ibid.
ground and consequence. Causality is not such a relation; a causal connection cannot, therefore, be properly expressed in a judgement but is a simple, un-analyzable concept.

In the article ‘General Remark’ (AK.2: 201-4) Kant raises the issue of the relation between cause and effect, or rather as Kant prefers to express it, between ‘real ground’ and ‘consequent’, whereas the logical relation is through identity, the real relation cannot be explained in these terms at all.⁶⁹ Nor can the relation be explained by employing the concepts of cause and effect and of force and action, for these concepts already presupposes the relation, which is under scrutiny.

“The relation of a real ground to something which is either posited or cancelled by it, cannot be expressed by a judgement, it can only be expressed by a concept. That concept can probably be reduced by means of analysis to simpler concepts of real grounds, albeit in such a fashion that in the end all our cognition of this relation reduce to simple unanalyzable concepts of real grounds, the relation of which to their consequence cannot be rendered distinct at all”.⁷⁰

We may mention here that the method which Kant expounds in the above passage can be traced to Descartes Rules where Descartes states, The “secret of the entire method” is “that in all things we diligently note

---

⁶⁹ Kant, Theoretical Philosophy, op.cit, p.xl-xli.
⁷⁰ Ibid.
that which is most absolute” that is most absolutely simple. The steps from the complex to the simple must be carefully kept in mind, noted and enumerated.71

The final chapter of Dreams (1766) also contains a brief discussion of causality and Kant repeats the purely negative thesis of Negative Magnitudes, that the relation between cause and effect is not explicable in terms of identity. But Kant extends the discussion. His concern is to give content to the notion of the ‘limits of human knowledge which are imposed on it by the nature of human reason itself’ He specifies two types of such a limit; metaphysical forces, relations and beings (such as disembodied spirits) and fundamental empirical forces, relations and beings (such as causes). The former can neither be known (they are not the possible objects of an experience) nor even understood; their concepts not being derived from experience are ‘wholly arbitrary... and admit of neither proof nor refutation’. The latter can be known (are the possible objects of experience) but cannot be understood.72

Here Descartes influence can be marked. In his pre-critical writings, Kant, like Descartes accepts the demarcation between the world of consciousness, where disembodied souls and god are posited and which cannot be known by experience, whereas substance and causality as

72 Kant, Theoretical Philosophy, p.xii.
material entities are considered by Kant as knowable. Kant asserts:

If one eventually arrives at relations which are fundamental, then the business of philosophy is at an end. It is impossible for reason even to understand how something can be a cause, or have a force; such relations can only be derived from experience.\(^7\)

Here Kant’s attention is still focussed on the specific issue of cause, the cause-effect relation. To Kant, the possibility of such a relation is impenetrably mysterious. But the existence of such a relation in a given case can, he claims be established by experience which can be subsumed under a law of sensation, ‘which is unanimously accepted by the majority of the people. It is this view which Kant develops later in his Critique assigning to the principle of causality the status of apriori category and the discovery of the real causal relationship between events as being dependent upon what is given in sense-experience.

Thus, in the precritical writings, he is mainly concerned in bringing out the empirical causal relationship between events, whereas in the Critique, he attempts to give an explanation how this empirical causal relationship entails certain, universal and necessary knowledge. In the second analogy of experience of the Critique, Kant discusses at length the proofs of causality and also formulates the principle of causality. But in between the first and second edition of 1782 and 1787 there stands the Prolegomena to the first edition. This Prolegomena is the source of some

\(^7\) Ibid.
of the changes in the second edition. In the second edition of the Critique, Kant incorporates some aspects of the Prolegomena (1783) including the formula ‘how are synthetic apriori judgements possible’? So before discussing the analogy, let us enquire first, what Kant writes in the Prolegomena about causality.

Since Locke’s and Leibniz’s Essays or rather since the beginning of metaphysics as far as the history of it reaches no event has occurred which could have been more decisive in respect of the fate of this science than the attack which DAVID HUME made on it. He brought no light into this kind of knowledge, but he struck a spark at which a light could well have been kindled, if it had found a receptive tinder and if the glow had been carefully kept up and increased.

Hume started in the main from a single but important concept in metaphysics, namely that of the connection of cause and effect (together with its consequential concepts of force and action etc.). He challenged Reason, who pretends to have concerned this concept in her womb, to give an account of herself and say with what right she thinks: that anything can be of such a nature, that if it is posited, something else must thereby also be posited necessarily; for that is what the concept of cause says. He proved irrefutably that it is wholly impossible for reason to think such a conjunction apriori and out of concepts. For this conjunction contains necessity; but it is quite impossible to see how, because something is, something else must also necessarily be, and how therefore the concept of such an apriori connection can be introduced.74

It is in this context that he makes the comment “it was David Hume’s remark that first many years ago, interrupted my dogmatic slumber and gave a completely different direction to my enquiries in the field of speculative philosophy”.75

---

74 Kant, I., Prolegomena to any Future Metaphysics that will be Able to Present Itself as a Science, Trans, P.G. Lucus, Manchester University Press, 1959. pp5-6.
75 Ibid., p.9.
He puts a test of Hume's concept, viz, the concept of cause. For example, when the sun shines on the stone it grows warm. To Kant, this judgement is a mere judgement of perception and contains no necessity, no matter how often people may have perceived this; the perceptions are only usually found conjoined in this way. But if the proposition is formulated in this way the sun warms the stone, 'the sun through its light is the cause of heat'. Here the concept of the understanding of cause is added to the perception and connects the concept of warmth necessarily with the concept of sunshine. The synthetic judgement becomes universally valid, consequently objective and is converted from a perception into experience.

Kant explains his position in the following way:

Thus I do very well have insight into the concept of cause, as a concept necessarily belonging to the mere form of experience, and into its possibility as synthetic unification of perceptions in a consciousness in general; but I have no insight at all into the possibility of a thing in general as a cause, because the concept of cause indicates a condition not attached in any way whatever to things, but only to experience, namely that experience can only be an objectively valid knowledge of appearances and of their sequence in time when the antecedent appearances can be joined with the subsequent appearances according to the rule of hypothetical judgements.

So, Hume's doubts regarding the principle of causality are taken by Kant as a challenge to apriori knowledge and thus to metaphysics. In response, Kant sought a critical position in which causality is based neither on a custom derived from repeated experience nor on the apriori

---

7b Ibid., p.73.
ontological order of ground and consequences, governed only by the laws of contradiction and sufficient reason. The results of this search are presented in the Transcendental Analytic of the Critique of Pure Reason, where causality is placed within the broader architectonic of categories and principles.

In the Transcendental Analytic causality stands as the second of the categories of relations. The other two, viz., substance and reciprocity like causality are derived from the pure judgements of relation, causality deals with the logical relation of ground to consequence. Causality along with the other categories is justified in the deduction as a form of 'connection and unity' which 'precedes all experience' and without which experience would not be possible. But causality by itself along with the other categories cannot be applied directly to intuition; it has to be schematized through time that is adopted to intuition, in the course of which it becomes "the succession of the manifold, in so far as that succession is subjective to a rule".  

But though the principle of causality is discussed elaborately in the second analogy, yet it makes its first appearance in the introduction of the Critique. While showing that there actually in human knowledge judgements which are necessary and in the strictest sense universal, and which are therefore pure apriori judgements, Kant introduces the concept

---

77 Kant, op.cit, p.185.
in the following way. "...if we seek an example from the understanding in its ordinary employment, the proposition, 'every alteration must have a cause' will serve our purpose". Here "... the very concept of a cause so manifestly contains the concept of a necessity of connection with an effect and of the strict universality of the rule, that the concept would be altogether lost if we attempted to derive it, as Hume has done, from a repeated association of that which happens with that which precedes and from a custom of connecting representations, a custom originating in this repeated association and constituting therefore a merely subjective necessity".\(^78\)

Thus, he attacks Hume's skepticism about causality. His thesis about causality is important, because it is here Kant argues that all explanation of change requires the postulation of an unchanging substance, and uses this as proof of the validity of a fundamental conservation in science.

Moreover he defends, in the second analogy, the important metaphysical doctrine that 'the relation of cause to effect is the condition of the objective validity of our empirical judgements'.

It is only because we can find causal connection in our world that we can postulate its objectivity. This is a consequence of the connection between objectivity and duration; it is a consequence of the connection

\(^{78}\) Ibid., p.44.
between objectivity and duration; it is because things endure that one can distinguish their reality. But they can endure only if there is a thread of causal connections which unites their temporal parts. The dependence of objectivity on causality is matched by a similar dependence of causality on substance; it is only on the assumption of enduring things that our causal laws gain application. As Kant remarks: “Causality leads to the concept of action, this in turn to the concept of force, and thereby to the concept of substance”. In other words, we discover how things are only by finding causes for how they seem and we find causes only by postulating a realm of enduring things.

The thought of an independent object involves thoughts about causality and Kant argues that causality is a species of necessity. To know any truth of the world is therefore to have knowledge of necessities, of what must be and of what might have been.

Kant states, the concept of cause “... must either be grounded completely apriori in the understanding or must be given up as a mere phantom of the brain. For this concept makes strict demand that something A, should be such that something else B, follows from it necessarily and in accordance with an absolutely universal rule.Appearances do indeed present cases from which a rule can be obtained according to which something usually happens, but never prove the sequence to be necessary.

79 Ibid., p.228.
To the synthesis of cause and effect, there belongs a dignity which cannot be empirically expressed namely, that the effect not only succeeds upon the cause but that it is posited through it and arises out of it”.

The argument of the second analogy is the culmination of the Transcendental Analytic. Kant formulates the principle differently in the first and second edition. In the first edition, it is known as the 'principle of production' and it states “Everything that happens that is, begins to be presupposes, something upon which it follows according to a rule”. In the second edition it is termed as the principle of succession in time in accordance with the law of causality and it states, “All alterations take place in conformity with the law of the connection of cause and effect”.

The first edition formulation remind Hume’s characterization of the causal principle as the maxim that “whatever begins to exist must have a cause of existence”.

Before we discuss Kant’s criticism of Hume’s concept of causality, let us first see, what, according to Hume, produces in us the idea of necessary connection. Hume distinguishes two questions, concerning necessary connection. He states it in the following way: “For what reason do we pronounce it necessary that everything whose existence has a beginning, should also have a cause?” and “why we conclude, that such

---

80 Ibid., p.125.
81 Ibid., p.218.
82 Ibid.
83 Hume, Treatise, ed. Selby-Biggy, p.78.
particular causes must necessarily have some particular effects”.  

Commenting upon Hume’s view, L.W. Beck analyses Hume’s concept of causality in terms of its two important aspects. The first aspect he designates ‘as every event some cause’ and the second as ‘same cause-same effect’. Hume states that the principle every event some cause is not known by intuition or reason, and hence “that opinion must necessarily arise from observation and experience”.  

In fact, Kant does not disagree with Hume about the nature of the individual empirical laws, which govern our experience. They are contingent and they are discovered as regularities in our experience. Not only here, Kant also finds Hume to be correct in rejecting the possibility of necessary synthetic judgements which go beyond experience, but he thinks Hume was in error in failing to see the difference between apriori in the sense of going beyond possible experience and apriori in the sense of underlying possible experience. And he states that “Hume was therefore in error in inferring from the contingency of our determination in accordance with the law [of causality] the contingency of the law itself”.  

So Kant’s aim is to challenge Hume’s skepticism and with that purpose he formulates the principle of causality in the second analogy.

---

84 Ibid.,  
85 Beck, L.W., Essays on Kant and Hume, New Haven & London, Yale University Press, 1978, p.120.  
86 Kant, op.cit, p.610.  
87 Ibid.
The specific problem of the second analogy is the possibility of knowledge of an order of successive states of an object that is, the possibility of judgement of the form state A precedes state B in object X. Such a succession of states can also be called "objective succession' and this objective succession is determined according to causal laws.

In seeking to vindicate the validity of the causal principle, Kant brings forward in the second analogy different proofs. N.K. Smith claims that there are at least six arguments in Kant’s text for the second analogy. But he also shows that four of these are merely variations of the same argument. According to A.C. Ewing the second analogy contains no less than six different proofs; but five are the same in principle and can be treated together. In a sense all the proofs come under one principle. Kant states later in the Critique, "only one proof can be found for each transcendental proposition" and instances this by saying that the sole possible ground of proof for the proposition that everything which happens has a cause is "that the determination of an event in time, and therefore, the event as belonging to experience, would be impossible save as standing under such a dynamical rule".

---

88 Smith, Commentary, op.cit, p.363.  
90 Kant, op.cit, p.624.  
91 Ibid.
H.W. Cassirer holds that though in seeking to vindicate the validity of the principle of cause and effect, Kant brings forward no fewer than six alternative proofs, yet it will be sufficient if we combine ourselves to the first three, since the addition made by the remaining ones are almost negligible.\(^92\)

Here we are not discussing these proofs separately, on the contrary, following Paul Guyer we may say “In fact, Kant advances only a single, epistemological argument that the existence of causal connections is the presupposition of objective time-determination, though he reiterates its main point numerous times and on some occasions, of course, more clearly that others”.\(^93\)

The thesis of Kant’s single argument about causation is that causal rules are needed to determine the succession of objective states of affairs in time and thus to judge that any objective events have transpired. This thesis is clearly stated in his writing from the period between the *Duisburg Nachlass* (1755) and the *Critique*.

Princpium rationis is the principle of the determination of things in the time series, for they cannot be determined through time, rather the latter must be determined in the understanding through the rule of the existence of appearances. Therefore, it is not possible to determine the position of things in time without the presupposition of this principle through the flow of appearance is first made uniform...\(^94\)

---

\(^92\) Cassirer, *op.cit*, p.178.
\(^93\) Guyer, *op.cit*, p.241.
\(^94\) Cited in Guyer, p.242.
Before proceeding to the arguments in details, we must first consider how Kant construes the two key terms viz ‘cause’ and ‘event’. These are the two terms with the aid of which Kant builds his argument in the second analogy. The first analogy suggests a connection between the concept of an objective time order and the concept of an event. It is the task of the second analogy to complete the argument, by establishing a connection between the concept of an event and the concept of a cause. One of the essential feature of the Kantian conception of causality is the element of necessity Kant claims that “this concept makes strict demand that something A, should be such that something else B, follows from it necessarily and in accordance with an absolutely universal rule”, and again that “the concept of cause involves the character of necessity which no experience can yield”.

The second key term is event which Kant generally treats as synonymous with ‘happening’ or ‘occurrence’ or ‘alternation’. To cite one of Kant’s own example, the freezing of water, it is an event, because it involves the coming into existence of a new state (solidity) of the water. It is therefore the becoming and not the being solid that constitutes the event. An event thus involves an alteration, which is just the point that Kant emphasizes in his second edition formulation. In the most famous example

---

95 Kant, op.cit, p.125.
96 Ibid., p.139.
'the ship moving downstream', it is presumably the change of spatial position of the ship that constitute the event.

Graham Bird, explains Kant's concept of event in the following way:

The analysis of an event has shown that the perception of different states in an object is not enough to discriminate events from non-events. What distinguishes one from the other is that events are regarded as ordered in a determinate way of time. What we mean by 'event' is such a determinate temporal order of two states in the same object. But the idea of a determinate order between two states presuppose that of something which determines it; and this idea of a determinate or reason for such an order is that of a cause. 97

The same line of thought is substantiated by Kant in the Critique, Kant states:

...the objective relation of appearances that follow upon one another is not to be determined through mere perception. In order this relation be known as determined the relation between the two states must be so thought that it is thereby determined as necessary which of them must be placed before, and which of them after, and that they cannot be placed in the reverse relation. But the concept which carries with it a necessity of synthetic unity can only be a pure concept that lies in the understanding, not in perception; and in this case it is the concept of the relation of cause and effect, the former of which determines the latter in time, as its consequence. 98

So causation is objective, we cannot reverse the position.

The objectivity of causation in Kant's view, is dependent upon the acceptance of substance. This point we have already discussed in our earlier section. In this context Melnick, one commentator, quotes Kant in

98 Kant, op.cit, p.219.
the following way: "Every coming to be of a state of affairs is the coming to be of a state of substance which is preceded by another state of that substance to which it is connected necessarily or in terms of a rule". 99 It depends on the permanence of substance, for if a substance could come into being then some state of affairs (a state of that substance) would not be preceded by another state (of that substance) to which it is connected necessarily.

The relation of cause and effect is such that cause must be prior and effect posterior and their position cannot be reversed. As he says—"I cannot reverse the series placing that which happens prior to that upon which it follows... the state which proceeds is posited, this determinate event follows inevitably and necessarily". 100

To Kant, what Hume completely overlooked, is the difference between the succession of impression and the impression of succession. For illustrating the point, he mentions two examples—the first being a case of the former and the second the latter. Thus, while looking at a house, we may have the impression of its top following that of the basement. The two impressions are successive no doubt, but it is purely subjective i.e., depending on the choice of the observer. He may as well reverse the order, and first have the impression of the basement. Such a succession of

100 Kant op.cit, p.225.
impression is thus purely subjective. However there are cases in which we have no option of changing the order of the succession of impression. Thus, in the case of a boat moving in a stream, we first observe the boat on the up-stream and then on the down stream. But can we ever change the order of the succession of impression seeing the boat first in the down-stream and then in the up-stream? That is impossible which means that there is an objective coercion on us of perceiving the succession. So in this case there is really an impression of succession which though inclusive of successive impression is much more than that. The objective coercion about impression of succession indicates that it cannot be reduced to our habit and expectation are merely subjective. It indicates objectivity. Our awareness of the impression of succession which constitutes the basis of causality has therefore, an objective about it, which was sought to be denied by Hume. This is the second proof that Kant offers here.

According to Kant, Hume could not develop the cause-effect relationship within his epistemological framework, that is why he denied any necessary connection between them. Since, according to Kant, the categories of cause and effect does not owe its origin to sensibility but to understanding, therefore it is not posteriori but apriori. But they are not analytic apriori, on the contrary they are synthetic apriori.

The category of causality being synthetic apriori subsume both empirical and rational aspects of knowledge. Being apriori, it is certain,
universal and necessary, while being synthetic it is applicable to empirical reality.

From the above analysis it is quite clear that Kant considers the category of causality to be the basis of all knowledge which is synthetic a priori. At this point, it will be helpful to make a comparison with Hume. While Hume considers causality to be the basis of all knowledge regarding matters of fact, it is Kant who holds that all knowledge which is synthetic a priori is based on cause and effect.

Hume denies the concept of substance, consequently he also denies the necessary connection between cause and effect. But Kant, in order to show that there is necessary connection between cause and effect, accepts the category of substance and shows that if this concept of substance is denied, then the concepts of activity and force will have no validity.

The continuous existence of substance can be asserted only on the basis of unchangeableness of time. Here Newton's theory had an influence on Kant. Kant accepts time as absolute and therefore it is unchangeable. All the changes that take place are in time, yet time itself remains the same. To Kant, the concept of time which is unchangeable must have as its foundation something unchangeable. And this is the substance.

Kant's view that every change in the field of appearance is based on some kind of a cause-effect relationship operating, is in fact a development of Newton's position on causality. In the third analogy things are perceived...
as co-existing, are in continuous reciprocity. This, again, is a development over Newton's third law of motion, that every action has its equal and apposite reaction. The action-reaction relationship both in Kant and Newton, has a relationship to a definite law operating behind it. This is the way through which Kant overcomes Hume's denial of causality.

But this concept of causality can be applied to an object only in so far as it is given in sensible intuition and it can never be applied to the things-in-themselves. As Kant writes: "... though we cannot know these objects as things-in-themselves we must yet be in a position, at least to think them as things-in-themselves".\(^{101}\)

Not only Kant accepts some part of Newton's theory, he also criticizes Newton's theory of causality. Newton applied the concept of cause to God also. God is the first cause in his system. This theory is the result of his mechanistic, holistic, deterministic approach, which he has inherited from Descartes and Galileo. But Kant's epistemology is not so competent either to deny or to assert the existence of God. That is why he remarks: "I have therefore, found it necessary to deny knowledge in order to make room for faith".\(^{102}\)

When Newton is talking about matter and force, they are independent that is, they exist by their own. This is the realist position of

---

\(^{101}\) Ibid., p.27.

\(^{102}\) Ibid., p.29.
Newton. But Kantian substance and causality are all mind-dependent. It is here, we find the development of transcendental idealism. The difference between Kant and Newton lies in the fact that Kant’s basic principles lies within his transcendental framework, whereas Newton’s principles lies within his realistic framework.

Before examining Kant’s arguments in details, let us first state the argument which deals with the nature of time. As it is stated before, this is the single proof on which all other proofs are dependent. This is the fourth proof, that Kant offers in the Critique.

In the second analogy Kant argues that in order to experience an event occurring in space and time we must presuppose that it is determined to occur by some preceding event according to a causal law. And this presupposition is necessary because it is through this presupposition that one can place an event in a determinate and necessary temporal relationship. Kant states:

When, therefore, I perceive that something happens this representation first of all contains [the consciousness] that there is something preceding, because only by reference to what precedes does the appearance acquire its time-relation, namely, that of existing after a preceding time in which it itself was not. But it can acquire this determinate position in this relation of time only in so far as something is presupposed in the preceding state upon which it follows invariably that is, in accordance with a rule. From this, there results a two-fold consequence I cannot reverse the series, placing that which happens prior to that upon which it follows. ...if the state which precedes is posited this determinate event follows inevitably and necessarily. 103

103 Ibid., p.225.
Here the rule that he is referring is a causal law. He is saying that our presupposition that an event is determined by some preceding event in accordance with a causal law has as a ‘consequence’ the thought that the event is necessarily located in a determinate position in time, relative to some preceding event, some ‘preceding state’. The event follows some preceding event "inevitably and necessary". As he states that an event is connected with some previous event in necessary relations in the time series.

Here our presupposition of the causal determination of an event is necessary because it is "only in so far as" we presuppose causal determination that we are justified in our thought that an event is necessarily located in a determinate temporal position relative to some preceding event.

According to Kant, it is an essential presupposition that all events are determined to occur according to causal laws and the events must be within a spatio-temporal order. He says: "For only in appearances can we empirically apprehend this continuity in the connection of times".\textsuperscript{104} According to a Kant it is an "indispensable law of empirical representation of the time-series" that each event is determined by some preceding event, following a causal law. "If then, it is necessary law of our sensibility and

\textsuperscript{104} Ibid.
therefore a *formal condition* of all perceptions, that the preceding time necessarily determines the succeeding (since I cannot advance to the succeeding time save through the preceding), it is also an indispensable law of *empirical representation* of the time series that the appearances of past time series that the appearances of past time... and that these latter, as events, can take place only in so far as the appearances of past time determine them according to a rule”.105 It is within the time-order that the empirical determination occur and here “the preceding time must determine the succeed ing”.

He holds that in the required empirical representation provided by events, the occurrence of the preceding part of time is a necessary condition. Of the occurrence of the succeeding part, Kemp Smith interprets this as “each moment of time is the indispensable condition of the existence of that which follows it”. So it is not possible for us to “advance” to the succeeding part of the time order without passing through the preceding parts.

According to Kemp Smith, the fifth proof that Kant presents coincides with that of the first proof, that is besides sense and intuition, there is imagination which does the work of connection in respect of time relation.106 And the argument of the fifth proof is clearly state in the sixth

---

105 Ibid.
106 Kemp, Smith, op.cit., p.367.
proof. All synthesis is due "to the faculty of imagination which determines inner sense in respect of the time relation". So here, Kant brings forward the faculty of imagination. Through imagination within time order various appearances get interconnected. Coming back to the objections that has been levelled against the order of phenomena, that is, subjective order and objective order, it may be stated that most of the commentators criticize the above phenomena.

According to Schopenhauer these two cases viz, the observation of the house and the ship are not different all, that both are events the knowledge of which is objective, in other words, one of changes in real objects that are known as such by the subject. Both are changes in the position of two bodies, relative to each other. In the first case, one of these bodies is the observer's own organism, and indeed only a part thereof namely his eye, and the other is the house; with respect to the parts of the house, the position of the eye is successively changed. In the second case, the ship alters its position relatively to the river and so the change is between two bodies. Both are events, the only difference is that in the first case the change starts from the observer's own body whose sensations are naturally the starting point of all his perception. Yet this body is nevertheless an object among objects, consequently is liable to the laws of this objective corporeal would. In so far as he behaves as a purely knowing

107 Ibid.
being, the movement of his body according to his will is for him merely an empirically perceived fact. The order of succession in the change could be reversed just as easily in the second case as in he first, if only the observer had the strength to pull the ship up-stream, just as he has to move his eyes in the opposite direction. From the fact that the succession in the perception of the parts of the house depends on his own arbitrary choice, Kant tried to infer that this succession is not objective and not an event.

But moving his eyes from the roof to the basement is one event and the opposite movement from basement to roof is another, just as is the sailing of the ship. Here there is absolutely no difference.¹⁰⁸

Schopenhauer also has objected that Kant’s argument even lead one to comment that succession of day and night is causal. As he says: “In fact even the succession of day and night is an undoubtedly known to us objectively, but they are certainly not regarded as cause and effect of each other”.¹⁰⁹

While defending Kant against Schopenhauer, Stadler, one commentator replies: “When Schopenhauer adduces the sequences of musical notes or of day and night, as objective sequences which can be known without the causal law, we need only meet him with the question, where in these cases is the substance that changes? So soon as he is forced

¹⁰⁹ Ibid.
to put his objection into the form required to bring it into relation to the question of the possibility of knowledge, his error becomes obvious. His instances must then be expressed thus: The instrument passes from one state of sound into another; the earth changes from the measure of enlightenment which makes day, to that which makes night. Of such changes, no one will say that they are not referred to a cause. And we may quote in this reference the appropriate saying of Kant himself, ‘Days are, as it were, the children of Time, since the following day with that which it contains is the product of the previous day’.

Night and day must be conceived in terms of causality, not in the sense that night causes day, but as being determined by causes that account not only for each separately, but also for the alternating sequence of the one upon the other.

While defending Kant against above position Caird comments:

Kant is showing, not that objective succession is always causal, but that the determination of a succession of perceptions as referring to a succession of states in an object, involves the principle of causality.

Coming back to Schopenhauer again, we find that he contends that Kant falls into the error opposite to Hume’s. Just as Hume says all consequences to be mere sequence, Kant, on the other hand, affirms that there is no other sequence but consequence. But Kant’s position is not like

---

110 Cited in Kemp Smith, op.cit., p.378.
111 Ibid., Note.
this. Kant claims only that without the appeal to the schema of causality, we could not distinguish between the representation of successive states of a changing object and the successive representations of co-existing parts or properties of an enduring object. But this does not at all entail that the only succession which we experience is that of cause and effect. Not only Schopenhaur, Arthur Lovejoy holds that the distinction between the subjective and the objective is nothing new and is a restatement of Leibniz's proof of the principle of sufficient reason, which later was accepted by Wolff. According to Lovejoy this principle is analytic and dogmatic rather than synthetic and critical. Lovejoy only acknowledges Kant's originality where he moves from the reflection that in every instance of event perception the order of perceptions is determined and thus irreversible, to the conclusion that every event follows from the preceding state of affairs in accordance with a universal and necessary law. Lovejoy brands Kant's argument as "one of the most spectacular examples of the non-squitur which are to be found in the history of philosophy".\footnote{Allison, op.cit. p.232.}

The thesis that it is only when phenomena stand one to another as cause and effect that we can know them to be objectively successive is, moreover, very questionable. This would be true only if "rule of succession" and "causal relations are synonymous. But they are not. There are many other rules of succession possible, beside that which a causal
relation constitutes. If A caused B, then indeed A preceded B; but the converse does not necessarily hold.

Like Lovejoy, Strawson also calls Kant’s position as “a non sequitur of numbing greenness”. Strawson acknowledges Kant’s claims that in the experience of an event the order of perceptions is determined or irreversible and “in this sense necessary”. He takes this to be a more or less legitimate way of articulating the denial of “order-indifference that is characteristic of event-perception. But Kant erroneously believes that “... to conceive this order of perception as necessary is equivalent to conceiving the transition or change from A to B as itself necessary, as falling that is to say, under a rule of law of causal determination; it is equivalent to conceiving the event of change or transition as preceded by some condition such that an event of that type invariably and necessarily follows upon a condition of that type.”

According to Strawson, here lies the non-sequitur, which he traces to Kant’s shift from a conceptual to a causal notion of necessity. Strawson interprets that Kant is under the impression that he is dealing with a single application of a single notion of necessity. In fact, he not only shifts the application of the word ‘necessary’ but also changes its sense another. It is conceptually necessary that in the perception of the sequence of states A-B

---

113 Strawson, op.cit. p.137.
114 Ibid., p.138.
the observer’s perceptions should follow the order: perception of A, perception of B. Nevertheless, he insists, that the necessity invoked in the conclusion of the argument is not a conceptual necessity all; it is the causal necessity of the change occurring, given some antecedent state of affairs. It is a very curious contortion indeed whereby a conceptual necessity based on the fact of a change is equated with the causal necessity of that very change.\textsuperscript{115}

From the above critical comments, it follows that most of the critics, while reflecting upon Kant’s theory of substance and causality attack his subjective point of view. And from this aspect, emerges the final point, whether Kant is justified in his claims.

It has been observed that in the \textit{Critique}, Kant’s mission was two fold (i) to lay the secure foundation of scientific knowledge (ii) to make room for faith. That is, he wants to reconcile both science and religion.

To fulfill the above mission, Kant rightly thinks that science consists of a discovery of necessary causal connection, but at the same time he ascribes the origin of this causal connection to mind, instead of ascribing it to objective reality.

He rightly stress the dialectics, of human nature, and presents a system of fundamental concepts such as substance and causality, but ascribes their origination to reason.

\textsuperscript{115} Ibid.
All these categories are applicable only within the phenomenal world. The categories become subjective.

In this context, Hegel remarks:

To regard the categories as subjective only, i.e. as part of ourselves, must seem very odd to the natural mind... It is quite true that the categories are not contained in the sensation as it is given to us. When for instance, we look at a piece of sugar, we find it hard, while, sweet etc. All these properties we say are united one object. Now it is this unity that is not found in the sensation. The same thing happens if we conceive two events to stand in the relation of cause and effect. The senses only inform us of the two several occurrences which follow each other in time. But that the one is cause, the other effect—in other words, the causal nexus between the two—is not perceived by sense; it is evident only to thought. Still, though the categories such as unity or cause and effect, are strictly the property of thought, it by no means follows that they must be ours merely and not also characteristic of the objects. Kant however confines them to the subject-mind. (Logic).  

In conclusion, we may say the ‘architectonic’ that Kant creates becomes mental and subjective. Our categories and concepts become a barrier between us and reality as it is in itself. Kant’s dualism portrays the subject as separated and cut off from the objective world by an absolute cleavage.