Chapter – I

The Philosophical Heritage of
John Locke and Immanuel Kant

This chapter is devoted to unearth the philosophical thoughts that John Locke and Immanuel Kant owe to their predecessors and contemporaries. One of the methodological assumptions that the present study follows, is this: no thought originates or comes out of blue, the historical conditions are always there. In line with this methodology, this chapter presents the views of the predecessors and contemporaries that have a bearing in bringing out the thoughts of Locke and Kant. The concepts of substance and causality constitute the core of this study besides other related issues.

This chapter is divided into two sections. In the first-section Locke’s relation to his predecessors viz, Aristotle and Descartes, and contemporary, viz, Newton has been discussed. The comments of Leibniz and Berkeley in connection with substance have been discussed in the next chapter. And the second section has focused on the influence of Leibniz and Hume in the philosophy of Kant. The impact that Aristotle, Descartes, Locke and Newton have on Kant in developing his thoughts on substance and causality has been referred later in the third chapter.
Section – I

Aristotle (384-322 B.C.)

The present section first discusses Aristotle’s views on substance and then causality. After that, this section, brings Aristotle’s relevance on Locke’s thought. Here, more stress is given to Aristotle’s thought, as it is from him that Locke forms many important aspects of his philosophy, which later incorporates in his theory of substance and causality.

The Concept of Substance

The first line of the book ‘Metaphysics’ starts: “All men by nature desire to know”\(^1\) So, it is the question of knowledge that concerns Aristotle primarily. And, as according to him knowledge is not possible without something permanent or enduring, naturally the question of substance comes to the forefront.

What is knowledge for Aristotle? In Posterior Analytic Aristotle shows that scientific knowledge is true knowledge as it is concerned with the cause of things:

We suppose ourselves to possess unqualified scientific knowledge of a thing, as opposed to knowing it in the accidental way in which the sophist knows, when we think that we know the cause of that

fact and of no other, and further, that the fact could not be other than it is.\footnote{Ibid, p.111.}

So, knowing a thing means to enquire why it's nature is so and not accepting flatly as it is but at the same time, it is also trying to connect it with the other basic necessary aspects. Therefore, it comes out that knowledge is based on the categories of substance and causation. Aristotle recognises ten categories, of which substance is the fundamental. Besides substance, the other categories are the following: quantity, quality, relation, place, time, position, state, action or affection. In the book Categoriae, Aristotle defines substance as:

Substance, in the trust and primary and most definite sense of the word, is that which is neither predicable of a subject, nor present in a subject; for instance, the individual man or horse.\footnote{Ibid, p.9.}

So for Aristotle, the individual can be treated as substance in the true sense of the term. But, then continuing in the same paragraph he shows genera and species can too be termed as substances, as certain primary substances are included within them.

In the book Metaphysics he discusses about the nature of substance where he shows that four things are commonly held to be substantial – the essence, the universal, the genus, and the substratum. He defines:

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\begin{itemize}
\item \text{Ibid, p.111.}
\item \text{Ibid, p.9.}
\end{itemize}
Now the substratum is that of which everything is predicated, while it is itself not predicated of anything else... for that which underlies a thing primarily is thought to be in the truest sense its substance. And in one sense matter is said to be of the nature of substratum, in another shape, and in a third, the compound of these. (By the matter I mean, for instance, the bronze, by the shape the pattern of its form, and by the compound of these, the statue, the concrete whole). Therefore if the form is prior to the matter and more real, it will be prior also to the compound of both, for the same reason.⁴

While explaining, Aristotle shows, matter itself cannot be substance, for both separability and 'thisness' are thought to belong chiefly to substance. And so form and the compound of form and matter would be thought to be substance, rather than matter.⁵

In the very same Metaphysics (Z13-14) Aristotle argues that Plato's forms cannot be substances because they are universals that is common to many things.

The argument that he offers is the following:

It is impossible that any universal term should be the name of a substance. For primary substances are those substances which are peculiar to an individual and which do not hold of anything else, but universals are common since we call universal that which is of such a nature as to hold more items than one.⁶

⁴ Ibid, p.785.
⁵ Ibid.
But Aristotle does not deny totally that universals exist; in the substances; on the contrary he shows that they do exist. But their existence is derivative: beauty exists in so far as certain substances are beautiful; the existence of beauty focuses on the existence of other items.

In Locke's treatment of substance, the topic of next chapter, it can be seen that he deals there also with essence, substratum and universal.

The Concept of Causality

While dealing with causation, Aristotle starts with same vein as he starts with substance in book Metaphysics. In Physica, he remarks: "Knowledge is the object of our inquiry and men do not think they know a thing till they have grasped the 'why' of it."

In the Physica as well as in Metaphysics Aristotle distinguishes between material, formal, efficient and final causes. In fact, the relationship between matter and form finds full expression in his treatment of causation. He defines material cause as 'that from which as its constitutive material, something comes, for example, the bronze of the statue.'

The formal cause is that with which the statue is associated, i.e., a statue, may be of the goddess Athena. The efficient cause is "the source of the first beginning of change, ... for example.. the father is the cause of the

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7 Ibid, p.240.
The final cause is the end or purpose "that for the sake of which [a thing is done] as health is of walking around..."\textsuperscript{8}

So, it may be pointed out that the relationship between material and formal relates to his fundamental contrast between form and mater.

In the \textit{Physica}, Aristotle says that as the word 'cause' is used in various senses, so it follows that there are many causes of the same thing. For example,

\begin{quote}
both the art of the sculptor and the bronze are causes of the statue..., the one being the material cause, the other the cause whence the motion comes".\textsuperscript{9}
\end{quote}

Again things may cause reciprocally, e.g. hard work causes fitness and vice versa. Moreover, the same thing may be cause of contrary results. The results vary as to the presence or absence of the cause "Thus we ascribe the wreck of a ship to the absence of the pilot whose presence was the cause of its safety".\textsuperscript{10}

Aristotle distinguishes causes also in the sense of substratum and in the sense of essence-- "the whole and the combination and the form".\textsuperscript{11}

There is also causes which are potential and actual. "... the cause of a house being built is either 'house-builder' or 'house builder, building'".\textsuperscript{12}

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\textsuperscript{8} Ibid., pp.240-241.
\textsuperscript{9} Ibid.
\textsuperscript{10} Ibid.
\textsuperscript{11} Ibid., p.242.
\textsuperscript{12} Ibid.
\end{flushright}
The concept of actuality and potentially is related with substance which again is related with power according to Aristotle. It is plain that of the things that are thought to be substances are most of them potencies. Powers or potencies are derivative entities. For example, a stuff such as a wood is to be conceived of as a set of capacities, e.g., a casket is not earthen nor earth but wooden. So wood has the potentially to become a casket. This particular potentiality of wood is specialized, and it is a derivative capacity. But at the same time, Aristotle says that these powers are accidents rather than substances. Power means, simply for something to be able to do something. For bronze to exist is for certain substances to be brazen. that is to say, it is for certain substances to have certain powers or capacities-- the power to be moulded into different shapes, the power to be hammered without breaking, and so on.\textsuperscript{13}

In Book Theta of Metaphysics it has been shown that actuality is prior to capacity. In particular “In time it is prior, in this sense”.\textsuperscript{14}

The actual oak tree is once a corn, potentially an oak tree; so that in its history potentiality preceeded actuality. But that corn is produced by an oak tree; so that before any potential oak tree, there is an actual oak tree.

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\item\textsuperscript{14} Aristotle, Metaphysics, p.823.
\end{footnotes}
And his position that actuality is prior to potentiality in time shows that substance must be prior in time to stuffs or powers.

Now, Locke's treatment of power which has been discussed in the next chapter is associated with Aristotelian categories that is just mentioned e.g. substance, power or quality and activity. Substance must be enduring as it is necessary to have permanent something to receive any change or production.

Locke also defines qualities as the power to produce an idea in our mind. It is the execution of power that is called activity. All these topics will be discussed in details in the second chapter. But before that, attempt has been made to show how Aristotle influences Locke in forming his whole system of thought.

Aristotle’s Influence on Locke’s Thought

Locke owes a lot to Aristotle. Though in the Essay, he criticizes Aristotle’s syllogism, nevertheless he shows respect, recognizing that he is one of the ‘greatest’ philosophers. As he says:

Aristotle, whom I look on as one of the greatest men among the ancients; whose large views, acuteness and penetration of thought, and strength of judgment, few have equalled.\textsuperscript{15}

The Essay starts with an attack against innate ideas. It is an accepted fact that Locke places his arguments against Descartes. But if one tries to trace it back, it can be seen that the seeds are lying in the works of Aristotle, specifically his treatise on the soul ‘De Anima’. There Aristotle clearly states that mind do not think without an image and why this is so we have to inquire. He remarks; “the soul never thinks without an image”.16

Though it’s a fact that here Aristotle’s line of reasoning is psychological rather than epistemological, as he explains thinking in terms of actualizing a potentiality; but still, he is saying that the mind is actually nothing until it has thought, which it can do only by having the characters on it which are potentially there. Aristotle narrates:

What it thinks must be in it just as characters may be said to be on a writing tablet on which as yet nothing actually stands written: this is exactly what happens with minds.17 From what it has been said, can be source of Locke’s tabula rasa.

In Essay, Chapter II. I.3, Locke’s description of qualities, arranging in antithetical pairs are almost similar to what Aristotle presents in De Anima II.11.422b 23-27. As Ross, one of the interpreter of his philosophy states - “each sense-organ is sensitive to one or more sets of qualities ranging between extremes”.18

16 Mckeon, op.cit, p.594.
Aristotle spells out in this connection:

Every sense, it is commonly thought, is concerned with a single pair of contraries, as sight with white and black, hearing with high and low, taste with bitter and sweet; but in the tangible there are several pairs of contraries, hot cold, dry moist, hard soft, and in the case of the other senses, as many such as these.19

This corresponds to what Locke says in Essay II I.3, where he replaces yellow colour as an example in place of black. He describes:

First our senses conversant about particular sensible objects, do convey into the mind several distinct perceptions of things, according to those various ways wherein those objects do affect them. And thus, we come by those ideas we have of yellow white, heat, cold, soft, hard bitter, sweet and all those which we call sensible qualities; which when I say the senses convey into the mind, I mean, they from external objects convey into the mind what produces there those perceptions.20

Here, Locke talks about secondary qualities which form part of the concept of substance. In the same book Locke mentions the state of a newborn child, unable to avoid the acquisition of simple ideas ‘being surrounded with bodies’ because ‘the understanding is merely passive’.

Here, he almost echoes the same ideas as that of Aristotle’s ‘living thing’ in De Anima II 5 at 417b17 which already has sensation, while the objects that make the sensation actual are outside, ‘the seen the heard’ etc.

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20 Locke, op.cit., pp.33.34.
According to Aristotle "Sensation does not depend upon himself-- a sensible object must be there".\(^{21}\)

Then in *De Anima* II.5.41810 Aristotle distinguishes between what is perceptible by any and all of the senses. Locke too distinguishes between the ideas of one sense and those 'We get by more than one sense'. Moreover Locke makes a list of ideas derived from both sight and touch in Essay II. iii and II v. This list corresponds to almost every word of Aristotle that he mentions in *De Anima* 11.6 at 418 a 18.

Aristotle says: "Common sensibles are movement, rest, number, figure, magnitude"\(^{22}\) and Locke mentions Extension, Figure, Motion and Rest. This connection may help to explain why Locke takes for granted the pre-eminence of what he calls 'the primary qualities' when he gets round to designating them in Essay II.viii.22, they are the 'the primary, and real qualities of Bodies, which are always in them (viz. solidity extension, figure, number and motion or rest). All these issues have been discussed in detail: in the second chapter, where analysis has been given to Locke's theory of substance.

But the simple ideas that we derive from one sense are no doubt reliable. Locke holds:

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\(^{21}\) Meckon, op.cit., p.566.

\(^{22}\) Ibid., p.567.
And thus our simple ideas are all real and true, because they answer and agree to those powers of things which produce in our minds, that being all that is requisite to make them real and not fictions at pleasure.\textsuperscript{23}

Similarly Aristotle in \textbf{De Anima} 418a 15 asserts “Each sense has one kind of object which it discerns, and never errs in reporting that what is before, it is colour or sound”\textsuperscript{24} though they can err as to what and where their causes are.

There is another passage in \textbf{De Anima} II.7, emphasizing that colour “is not visible except with the help of light; it is only in light that the colour of a thing is seen”.\textsuperscript{25} Like Aristotle, Locke narrates, giving the example of Porphyry:

Hinder light but from striking on it, and its colours vanish; it no longer produces any such \textit{ideas} in us; upon the return of light it produces these appearances on us again.\textsuperscript{26}

Regarding the point that there is no sixth sense both Aristotle and Locke agree. Aristotle offers an argument at the start of the book II of \textbf{De Anima}: “That there is no sixth sense in addition to the five enumerated—sight, hearing, smell, taste, touch—may be established by the following consideration”.\textsuperscript{27} But Locke presents this as an ordinary fact and remarks

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\begin{itemize}
\item \textsuperscript{23} Locke, op.cit., p.182.
\item \textsuperscript{24} Mekeon, op.cit., p.567.
\item \textsuperscript{25} Ibid, p.568.
\item \textsuperscript{26} Locke, op.cit., p.61.
\item \textsuperscript{27} Mekeon, op.cit., p.581.
\end{itemize}
that God could make "a creature with other organs"\textsuperscript{28} and with more than the five human senses. He also says "I have here followed the common opinion of man's having but five senses;'\textsuperscript{29} and may be, he is here influenced by Aristotelian standpoint.

There is one more similarity between Aristotle and Locke regarding the colour theory. Locke seems to believe that "white, red, yellow, blue" have "several degrees or shades and mixtures, as green scarlet, purple, seagreen and the rest"\textsuperscript{30} but there are other passages where he offers different doctrines, at least he mentions only white and black, in Essay, II.viii. 2-3. Prof. Ronald Hall, well-known philosopher observes:

Had he once been acquainted with the theory of Aristotle that COLOURS FORM A SERIES in which each, between white and black, consists of white and black combined in a certain ratio?\textsuperscript{31}

Aristotle gives this theory in the De Sensu (439 b 20). It is conceivable that the white and the black should be juxtaposed in quantities so minute that either separately would be invisible, though the joint product would be visible; and that they should thus have the other colours for resultants. Similarly Aristotle derives the intermediate flavours savours/tastes from sweet and bitter, on the same principle at 442a 14; and

\textsuperscript{28} Locke, op.cit., p.46.
\textsuperscript{29} Ibid.
\textsuperscript{30} Ibid., p.47.
\textsuperscript{31} Hall., op.cit., p.25.
says that 'between the extremes of sweet and bitter come the harsh, the pungent, the astringent, and the acid' (442 a 18-19 De Sensu) and salt is also mentioned there. Like Aristotle, Locke too in the Essay writes that there is a "numberless variety of relishes" and "sweet, bitter, sour, harsh and salt, are almost all the epithets we have to denominate"\textsuperscript{32} them.

After showing the similarity that Locke shares with Aristotle, let us try to find out how his theory of substance and causality influences Locke.

In Aristotle's theory experience is an important constituent of knowledge but with experience there is reason too.

With a view to action experience seems in no respect inferior to art, and men of experience succeed even better than those who have theory without experience (Book A 981 a Metaphysics).

Similarly in Locke's theory experience plays a major role. And it is through sense-experience that we are aware of primary and secondary qualities which belong to material substances. So it can be said that Locke accepts the basic Aristotelian notion of substance when he deals with essence, substratum and universals, recognized by Aristotle. (These points have been discussed in the next chapter)

Moreover while dealing with causation, Locke emphasizes on active and passive power. This distinction goes back to Aristotle's Metaphysics (Bkv.12. BK. Ix.i) Passive power are frequently spoken of as capacities in

\textsuperscript{32} Locke, op.cit., p.48.
Aristotle’s *Metaphysics*. Similarly Locke in Essay book II Chapter 23.7 speaks of ‘active power and passive capacities’. These concepts of active and passive power will be dealt in detail in the next chapter. So from the above analysis, one point clearly emerges that in conceiving substance and causality, Locke is quite deeply influenced by Aristotle’s thought.

After Aristotle, now we trace the concepts, substance and causality in the philosophy of Descartes and try to find out in what respect Descartes influences Locke’s thought.

**Descartes (1596-1650)**

**The Concept of Substance**

In the *Principles of Philosophy*, Descartes defines substance in the following way:

> By substance, we can understand nothing else than a thing which so exist that it needs no other thing in order to exist.  

In the above sense, God is only a true substance. So he introduces two other substances-- mind and matter. These two fall under the common concept of substance because they are conceived through themselves: each possesses a principle which constitutes its nature or essence. He says:

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Thus extension in length, breadth and depth, constitutes the nature of corporeal substance; and thought constitutes the nature of thinking substance.\textsuperscript{34}

He continues:

We may thus easily have two clear and distinct notions or ideas, the one of created substance which thinks, the other of corporeal substance provided we carefully separate all the attributes of thought from those of extension.\textsuperscript{35}

So, in Descartes system extension is the essence of body or corporeal substance. In the \textit{Principles} he writes: “And indeed a substance can be known from any of its attributes. But yet there is one special property of any substance which constitutes its nature and essence and to which all other are referred”\textsuperscript{36} This special property is extension in body and thought in mind. All other notions “are referred” to this special property in so far as it is through the notion of extension that we understood size, shape, motion etc., and it is through the notion of thought that we understand the particular thoughts we have, Descartes claims.\textsuperscript{37}

Descartes is so emphatic about this notion of extension that for him we cannot comprehend the notion of this substance apart from its principle attributes. In the \textit{Principles} he states:

When [other] distinguish substance from extension or quality, they either understood nothing by the name “substance”, or they have

\textsuperscript{34} Ibid., p. 240.
\textsuperscript{35} Ibid., p. 241.
\textsuperscript{37} Ibid.
only a confused idea of an incorporeal substance which they falsely attribute to corporeal substance and leave for extension (which however, they call an accident) the true idea of a corporeal substance. And so plainly express in others something other than what they understand in their minds.38

So body is known through extension, mind through thought. This view is known as Cartesian dualism. Now the relation of mind to matter brings certain problems, in that neither has access to the other, because they share no common ground.

Descartes tried to solve this problem by giving two arguments. In the first place, he says that a perfect god will not deceive us. But this is a weak argument because Descartes has said that we cannot take the help of God in the absence of clarity and distinctness. The second argument is based on mind-body interaction. It is a fact that one’s own body is best known kinesthetically. That there is evidence of mind’s interaction with its personal body -- as when a tooth aches. Descartes, is so impressed by this evidence that he assigns the pineal gland as the cross over point, on the side of body, for their relation. He then explains the reciprocity of mind and body by describing the activity of “animal spirits” in this gland; mind feels changes in its body and often directs body’s behaviour.39

38 Ibid., pp.226-227.
These two ways of characterizing matter, as categorically distinct from it or as joined to it, express two things of Descartes' metaphysics. One implies mind's separability from matter, its exemption from mechanical laws, hence its autonomy. The other claims to show the reciprocity of mind and body and the unity of persons.

The concept of substance is inseparable from the concept of causality because the necessary causal connection is related with some enduring permanent substance. Descartes who accepts the objectivity of knowledge, recognises also causal connection. Now his concept of causality will be discussed.

The Concept of Causality

The causal principle as developed in the Third Mediation is a corner stone in Cartesian ontology. This principle which is related to his concept of substance, though operates within a mechanistic physics, still retains an inheritance of the tradition. The above points are evident in his Third Meditation where he interprets the causal principle in terms of mechanistic physics. The cause must contain, either formally or eminently, at least as much reality as the effect:

Now it is manifest by the natural light that there must at least be as much reality in the efficient and total causes as in its effect. For pray, whence can the effect derive its reality if not from its causes? And in what way can this cause communicate this reality to it, unless it possessed it in itself? And from this it follows, not only that something cannot proceed from nothing, but likewise that
what is more perfect that is to say, which has more reality within itself-- cannot proceed from the less perfect.  

The above shows that it is the efficient and not final causes which are appropriate for natural philosophy. (the cause of an event might be found in its purpose).

Decartes states:

For, in the first place, knowing that my nature is extremely feeble and limited, and that the nature of God is on the contrary immense, incomprehensible and infinite, I have no further difficulty recognizing that there is an infinitude of matters in his power, the causes of which transcend my knowledge; and this reason suffice to convince me that the species of cause termed final, finds no useful employment in physical [or natural] things, for it does not appear to me that I can without temerity seek to investigate the [inscrutable] ends of God.

But here one point must be noted. Though he maintains that the customary search for final causes is utterly useless in physics yet he reverts to the Aristotelian notion of “final” or purposive causality, while dealing with animal physiology. He writes in his physiological writings that the beneficial functioning of the organism depends on the benevolent ordinances of God in nature, designed to ensure the well-being of the living creature.

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40 Descartes, Rene, Meditation III in The Philosophical Works of Descartes.
41 Ibid., p.173.
Against scholasticism, Descartes insists on abolishing all forms of change except local motion. Thus, while preserving the concept of substance, he wants to ban substantial change. Motion alone, of the four Aristotelian types of change, is adequate to explain all the events that make up the natural scene.

His theory of matter in motion governed by three laws suggests a wholly “mechanical” set of interaction - these interactions are nothing but the product of efficient causation.

But though it is so central, yet in the Rules, Descartes shows that motion is simply not definable. In the Rules he criticizes scholastic definition of motion. He writes:

Indeed, doesn’t it seem that anyone who says that motion, a thing well known to all, is the actuality of a thing in potentiality in so far as it is in potentiality is putting forward magic words? For who understands these words? Who doesn’t know what motion is. Therefore we must say that these things should never be explained by definitions of these sorts, lest we grasp complex things in place of a single one. Rather, each and every one of us must intuits these things distinguished from all other things, by the light of his own intelligence.42

But later, in Principles he gives a definition of motion that is intended to capture the notion of motion as understood by the common people, which is again supplemented by another that is supposed to capture the true notion of motion.

... the transference of one part of matter or of one body from the
neighbourhood of those bodies that immediately touch it and are
regarded as being at rest, and into the neighbourhood of others. 43

So all change is grounded in local motion, these laws of nature are in
essence laws that governs the motion of bodies.

The cause of the nature of motion are two fold (i) the universal and
primary cause, which is the general cause of all the motion there are in the
world and (ii) the particular causes, from which the individual parts of
matter acquires motion that they did not previously have.

Descartes upholds that the universal and primary cause is no one but
God himself, who created motion and rest. And the particular causes are
certain rules or laws of nature, which comes from God, and are responsible
for the different motives that we notice in individual bodies.

From the above analysis, it becomes clear that the concept of motion
plays a crucial role in Descartes' theory of causation.

Descartes' influence in forming Locke's Concept of Substance
and Causality

In the Principles of Philosophy, Descartes states that we can form
no clear and distinct idea of substance divested of its attributes; it is easier

43 Ibid., p.305.
to conceive a thinking thing or an extended object than substance as it is in itself.\textsuperscript{44}

This view in the \textit{Principles} may be said to \textit{firm} the starting point for Locke's reflection on Substance.

Lady Masham's remarks also support the above fact.

"The first books (as Mr. Locke himself has told me) which gave him a relish of philosophical studies were those of Descartes".\textsuperscript{45}

From the above statement, it is quite clear that Locke is quite familiar with Descartes works. Not only the \textit{Discourse}, Locke is familiar with \textit{Rules} too. The question may arise how the book \textit{Rules} which was first published in 1701 have influenced Locke's Essay, the first edition of which is published in 1690. The link is probably Locke's reading of both Descartes already published work and Arnauld and Nicole's \textit{Port Royal Logic}. This logic, the second edition of which is published in 1664 makes reference of Descartes' \textit{Rules}. This is the source for Locke's use of Descartes theory that is not otherwise available until the \textit{Rules} get published in 1701. It may be asked here why so much emphasis on the \textit{Rules}, when the \textit{Discourse} is available to Locke?

\textsuperscript{44} Descartes, op.cit, p.246.

There is historical evidence that Locke was influenced by the theory of Descartes before he wrote the Essay. Harison and Laslett record that in Locke’s library there are Cartesian works which include the Discourse on Method. This is because Locke’s ‘Historical Plain Method’ is the application of a procedure that is sketched in the Discourse but the details are given in the Rules. This method is used to reconstruct ideas which are obscure, we analyze obscure ideas in search of simples. Here question may arise that Descartes’ Rules is intended as a set of procedures for solving complex questions. But this is only one of its two aims and Locke is emphasizing the others i.e. to show that obscure ideas can be replaced by clear and distinct simples and their complexes. 46

Regarding the subject of knowledge both Descartes and Locke agree unanimously that it is mind, regarding objects of knowledge they also agree, viz., ideas but regarding the source of knowledge they differ. Whereas to Locke it is mainly experience, to Descartes it is reason.

Suman Gupta observes in this regard:

Though Locke rejects the rationalism of Descartes, he accepted Cartesian dualism. Like Descartes, Locke also regarded mind and matter to be causally independent substances, mind having the attribute of thinking and perceiving and matter having the attribute of extension, solidity etc. But, whereas, according to Descartes the nature of these substances is known, Locke added mysticism by declaring them to be unknown and unknowable. 47

46 Weissman, op.cit., p.201.
Actually, Descartes and Locke come from two different schools, viz. rationalism and empiricism. Locke, known as an empiricist (though there are rationalist elements in his philosophy) believes that all knowledge is derived from experience, whereas to Descartes, there are some innate knowledge and hence not derived from experience. Descartes accepts thinking as the essence of mind, but Locke denies that thinking is the essence of mind. He cites the example of sleep or unconsciousness as a reason and says that

"...Perception of ideas being (as I conceive) to the soul what motion is to the body; not its essence, but one of its operations".⁴⁸

Regarding the qualities, primary and secondary, both Descartes and Locke agree and disagree on some points. For example, both seek to show that felt heat is no real property of objects, since it merges imperceptibility by increase, into pain. Both agree that the primary qualities, are perceptible by more than one sense. And these qualities in here in substance.

As it is noted in the very beginning that it is Descartes' conception of substance that influences Locke to form his notion of substance associated with qualities. But regarding these qualities there are certain aspects where they differ. Thus to Locke, the cause of our illusions lies more with

secondary qualities than with primary qualities. But with Descartes, most of his examples of perceptual illusions are visual examples concerned with primary qualities, in particular with the apparent size and shape of distant objects.

Moreover regarding primary qualities there is an important difference between them. Locke includes solidity as one of the primary qualities of which no mention is made by Descartes. Locke's account of solidity which is one of the primary qualities of substance makes it clear that he has in mind a certain sensible quality; it is what we experience if we take an object such as a football between our hands and then try to put our hands together. "That which thus hinders the approach of two bodies when they are moving one towards another, I call solidity".49 According to Descartes, there are certain sensations that are produced by bodies resisting the motion of our hands when they come in contact with them but argues that it might well be the case that whenever our hands approached a body, it retreated; in this case we should never experience these sensations, and yet would have no reason to suppose that the bodies failed to be really material bodies.

To Locke, solidity is an absolute quality, admitting of degrees, this is because he accepts Newtonian atomism, which for theoretical reasons are

49 Ibid. p. 48
absolutely incompressible. But Locke willingly applies it to big compressible objects, such as footballs and indeed it would seem that it is only from such objects that the idea of solidity, he offers, in terms of sensations, could be derived at all. In Descartes system, his conception of physical science and of the material world as understood by it, is inadequate, particularly because of his fondness to physics to those of pure mathematics.

Moreover, there is also the role of science, which plays an important part here. So it can be mentioned whatever their disagreements are, there are a shared commitment to the new mechanistic science which is at that time replacing established practice, which is again rooted in the works of Aristotle. Both Descartes and Locke are champions of a new style of philosophizing, which aims to replace the scholastic approach, that goes hand in hand with this Aristotelianism.

Issac Newton (1642-1727)

In tracing Locke’s philosophy from his predecessors, priority has been given to Aristotle and Descartes. The reason is; Aristotle is the first philosopher among the ancients who gives prime importance to the concept of substance and causality. And Descartes, the father of modern philosophy
brings a new trend in his thought by his dualism between matter and mind which later determined the course of Locke's empiricism.

Coming to contemporaries, attention is now given to Issac Newton, who was a close friend of John Locke. Newton has been chosen here because, regarding their relationship and influence, there are lots of controversies. Most of the commentators are of opinion that Locke's intellectual and philosophical attitude was moulded by Newton. But G.A.J. Rojers, one of the commentator, through his researches shows that it may be other way round, that is, Locke might have influence on Newton in forming these views. He also shows that, they have a mutual influence and they share many similar views. But this is not due to one's influence on the other, on the contrary, it comes from some other source. Here Descartes acts as a godfather and it is for him, that they share almost similar ontologies. Following Rojers, this section tries to unravel the relationship that existed between Locke and Newton.\(^{50}\)

Before going into details, it is necessary to point out certain basic facts which are indispensable in understanding their relationship properly. The period that Locke covers is 1632-1704, whereas Newton 1642-1727. The Essay, though came out in the year 1690, yet the draft got finalised by

the end of 1686, Locke read Newton’s *Principia*, published in July 1687.\(^{51}\) Although it is not known exactly when Newton met John Locke, but the evidence that are available shows that it was probably during 1689, at the house of the Earl of Pembroke, after Locke’s return from Holland where he had been since 1683.\(^{52}\) But though they did not meet personally before 1689, but were acquainted with each other’s writings through different associations. It has been stated in the introduction that Locke had a scientific temperament and he began his career as a physician, though his interest is not always confined to medicine only. The first edition of Newton’s *Principia* contains very little information about either epistemology or scientific method. But in his second edition of the *Principia* (1713), he expresses clearly his views on philosophy of science. Newton’s, other important work, the *optics* was published in 1704, only months before Locke’s death, But Locke was aware of Newton’s work in *optics*, some portion of which had been published in the *Transactions* of the Royal Society.\(^{53}\)

To acknowledge the relationship between Locke and Newton, including their mutual influence, one must recognize that each wrote his


outstanding work independently of the other. The above basic fact help
one to understand the support, that one bestows upon the other.

Before showing their mutual influence, let us state the similarities
and differences that Locke and Newton share in respect of their ontologies.
Locke is primarily known as a philosopher, whereas Newton as a
mathematical physicist. But both of them share the same ontologies and it
is due to Descartes’ influence in the seventeenth century thought. Like
Descartes, they subscribe to dualism, believing in mind and matter as two
separate substances. Each adheres to a causal theory of perception and each
shows ambivalence about the objects of perception, switching from the
language of ideas to some form of direct realism. Both of them regard
experience as the origin of ideas and deny the existence of any innate ideas.
They accept the real causal interaction between physical objects but refuse
to accept the scholastic account of substance. Both recognize the problem
and obscurity in forming the idea of substance and the corpuscular theory
plays a crucial role here. The primary secondary quality distinction of
matter is subscribed by both. And each believes in God’s existence, though
their way of acceptance are different.54

But the above shared views should not obliterate one to mention
certain important differences that existed between them. Although their

ontologies are much the same, they are not identical. The primary and secondary qualities that Newton offers, are different from that of Locke. In Newton’s case God plays an active role in forming the qualities. According to Newton, matter only possess passive qualities and that active properties are the result of God’s intervention in the physical world. There are some other points of difference which are worthy to be mentioned. Locke is basically a philosopher with scientific temperament and this helps him to handle many problems, as he accepts the power of mathematics within his philosophical framework. But Newton is always the mathematician, seeking ways to embrace phenomena within his qualified field. Locke’s acceptance of Cartesian dualism leads him to the rejection of real essences of natural kinds. This point has been discussed in detail in next chapter. But Newton always tries to penetrate into the real essence of things. His scientific orientation makes him to probe into the secrets of nature.55

Newton’s philosophical arguments about the origin and nature of knowledge are never fully expressed in his published works. But there are certain manuscripts which show his kinness towards philosophical views. In draft Rule V of the Principia Newton states:

Whatever is not derived from things themselves, whether by the external senses or by the perception of internal thoughts is to be taken for an hypothesis. Thus I perceive that I am thinking which could not happen unless at the same time I were to perceive that I

55 Ibid.
exist. But I do not perceive that any idea whatever shall be innate. And I take for a phenomenon not only that which is made known to us by the five external senses, but also that which we contemplate in our minds when thinking: such as, I exist, I believe, I understand, I remember, I think, I wish, I am unwilling, I am hungry, I rejoice, I suffer, etc. And those things which can neither be demonstrated from phenomena nor follow from it by the argument of induction, I hold as hypothesis.56

This position almost echoes the thoughts of Locke. The rejection of innate ideas, the distinction between ideas of sensation and reflection, and the attack on hypothetical explanation are all common thoughts. Moreover, the view expressed in the draft Rule is entirely in agreement with his published methodological and epistemological remarks. But Newton, unlike Locke, offers no sustained argument for his view, perhaps he felt no need to a detailed argument after the publication of Locke’s Essay. Rojer comments in this connection: “Just as Locke by temperament was not strongly attracted to the mathematical sciences, so Newton was only weakly moved towards epistemology”.57

Coming to Locke’s reference to Newton, it has been observed that Locke mentions Newton in the first edition of the Essay in the ‘Epistle to the Reader’ as the ‘incomparable Newton’.

That Locke does not accord Newton any other recognition shows, that while he was revising the Essay for publication, he was not at all

56 Ibid., pp.8-9.
57 Ibid.
inclined to alter it to take account of the Principia. The reference that he
gave in the 'Epistle' shows his association with scientist friends. His
scientific background has been dealt in the next chapter.

If the first edition of the Essay offers no positive impact of the
Principia on Locke, then in truth it cannot be maintained that subsequent
edition are over-burdened with references to Newton's works. In the
second edition of 1694, in the chapter Of Maxims of the fourth book Locke
added a section on the use of maxims which is as follows:

They [i.e., maxims] are not of use to help men forwards in the
advancement of sciences, or new discoveries of yet unknown
truths. Mr. Newton, in his never enough to be admired book, has
demonstrated several proposition, which are so many new truths,
before unknown to the world, and are further advances in
mathematical knowledge; but for the discovery of these, it was not
the general maxims. What is, is; or, The whole is bigger than a
part, or the like that helped him. These were not the clues that led
him into the discovery of the truth and certainty of those
propositions. Nor was it by them that he got the knowledge of
those demonstrations, but by finding out intermediate ideas that
showed the agreement of the ideas, as expressed in
the proposition he demonstrated....

Here Locke uses the mathematics of the Principia to support a
general point. He wishes to make against all those who claim that
knowledge is dependent on having knowledge of general maxims—a thesis
that Locke rejects as he grounds all knowledge in experience of the
particular. In the fourth edition of the Essay in 1700, there is another

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reference of *Principia*. In Book II, Chapter VIII, Section II, Locke in the earlier edition had written:

The next thing to be considered is, how Bodies operate one upon another and that is manifestly by impulse, and nothing else. It being impossible to conceive, that Body should operate on what it does not touch, (which is all one as to imagine it can operate where it is not) or when it does touch, operate any other way than by Motion.\(^59\)

In the fourth edition, this has been changed to:

The next thing to be considered is, how bodies produce ideas in us; and that is manifestly by impulse, the only way which we can conceive bodies operate in.\(^60\)

Here the generalization about this ability of bodies to operate without contact has disappeared. Locke explains his changed point of view in his third letter to Bishop Stillingfleet. This shows a way in which Newton’s book played a part in modifying the ideas of Locke. But it does not show a fundamental reappraisal, rather it shows that Newton’s book helped to confirm a general position to which Locke already adhered. The general position is that, one cannot determine apriori what the powers of objects are except where there is a contradiction implied. The letter is as follows:

\[\ldots\text{you ask, how can my idea of liberty agree with “the idea that bodies can offer only by motion and impulses?” Answ. By the omnipotency of God, who can make all things agree, that involve not a contradiction. It is true I say “that bodies operate by impulse}\]

\(^{59}\) Ibid.

\(^{60}\) Ibid., p.226.
and nothing else”. And so I thought when I writ it, and can yet conceive no other way of their operation. But I am since convinced by the judicious Mr. Newton’s incomparable book that if it is too bold a presumption to limit God’s power, in this point by my narrow conceptions. The gravitation of matter towards matter, by ways inconceivable to me, is not only a demonstration that God can, if he pleases, put into bodies, powers and ways of operation above what can be derived from our idea of body, or can be explained by what we know of matter, but also an unquestionable and everywhere visible instance, that he has done so. And therefore in the next edition of my book, I shall take care to have that passage rectified.61

This letter was published in 1699, the year before Locke’s alterations appear in the Essay.

All the above factors show that the Essay is not seriously altered by Locke as a result of his reading and understanding of the Principia. In so far as the approaches to science and knowledge revealed in the Essay and the Principia are the same, certainly with respect to all the editions of the Essay and the first edition of the Principia then this is because their authors shared a common outlook rather than because one was greatly influential on the other.

So this section may be concluded by saying that Locke is quite aware of Newton’s works and as they are friends, they share many ideas and in turn have a mutual influence on one another.

61 Ibid.
Section - II

In tracing Kant’s philosophy from his predecessors attention is mainly given to the philosophies of G.W. Leibniz and David Hume. These two philosophers are selected for the following reasons. The Critique is Kant’s response to the twin challenges which confronted the metaphysics of his time. These are the challenges of unfounded dogmatism on the one hand and scepticism, on the other. According to Kant, the philosophy of his time faces two equally unacceptable alternatives. The rationalism of thinkers such as Leibniz made speculative claims about knowledge which could not be substantiated. The empiricism of thinkers, such as Hume seemed to undermine any claim to knowledge at all. Kant wants to reconcile both these positions. It is on the basis of the ideas of Leibniz that Kant sought to revive philosophy after the sceptical influence of Hume.

The exposition of substance and causality of Leibniz and Hume are presented in two sub-sections. The relevance of their thoughts on Kant’s philosophy will be shown in the third chapter which will be dealing with Kant’s concepts of substance and causality. The influence that Aristotle, Descartes, Locke and Newton have made on Kant’s philosophy will also be discussed in the third chapter. The present section first discusses Leibniz’s views on substance and then causality.
G.W. Leibniz (1646-1716)

The Concept of Substance

G.W. Leibniz is one of the great philosophical system-builders of the seventeenth century who has made original contributions in an astonishing number of different fields of study. His system has an answer to almost every question put to it; he is said to be "an academy of science all by himself". He was a mathematician, a diplomat, a theologian, a lawyer, an inventor and a metaphysician. With Descartes, he shares the merit of having a deep insight into the method and value of mathematics and physics. And with Hume he insures the setting of the background for the revival of modern philosophy in the critical philosophy of Kant.

As a predecessor, Leibniz has a great impact on Kant. Kant was well aware of Leibniz's writings. In 1765 Leibniz's New Essays get published and at that time it came to Kant's attention. The views of Leibniz impressed him so much that while forming his concept on substance, Kant adds a section in the Critique, entitled A Note to the Amphiboly of Concepts of Reflection. According to Kant, Leibniz 'intellectualized...

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phenomena' and this point of view later induced him to form his concept of substance within the world of actual and possible experience.

Coming to the concept of material substance, it can be observed that according to Leibniz, matter is something composite. Since matter is composite, it follows that there must be something simple as its basis, and this simple something is the monad. But monads “are not ingredients or constituents of matter”, “but only conditions of it”. He states: “Monads can no more be said to be parts of bodies, or to come in contact with them, or to compose them, than can souls or mathematical points”.

Monads and material things are facts of two distinct orders; they are related as the rational or spiritual and the physical or sensible. Matter is no more composed of monads, than it is of thoughts or of logical principles. Matter, space, time, and motion are only phenomena, that is having their rational basis and condition. The monads are not appearances, they are realities. Matter is a phenomena or manifestation of spirit in an imperfect and confused way. Leibniz holds that sensible qualities are images or reflexes of the spiritual qualities, witnessing, so far as possible to their origin in pure energy.

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His position is as follows: That which in the mind is activity or substantial is, in sensible matter, motion. That which in the monad is lack of a given activity, that which constitutes its subordinate position in the hierarchy of monads is, in the sphere of material things inertia. That which in the spiritual world is the individuality of monads, making each ideally distinct from the other, is on the phenomenal realm, resistance or impenetrability.

Leibniz uses the term ‘matter’ in at least three senses; it is the metaphysical element of passive force in the monad; it is the monad itself considered as, upon the whole, externally conditioned or unconscious; and it is the phenomenon resulting from the aggregation of the monad in the second sense. The first is naked matter and is a pure abstraction; the second is the monad as material, as opposed to the monad, as soul; the third is clothed or concretely body, corpus. The first is unreal by itself; the second is one phase of substance; the third is not substantial, but is a reality, though a phenomenal one. It is from the substantial monad that we are to explain the two things now demanding explanation—that element in bodies which is the source of their physical properties, and that which is the subject, the carrier, so to speak of extension.  

Leibniz differs from Descartes that the essence of matter is extension. If matter were extension it would be incapable of passion or of action. Solidity, too, is a motion entirely opposed to the conception of mere extension. The idea of matter as extension contradicts some of the known laws of motion. It

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64 Ibid., p.357.
requires that the quantity of motion remains unchanged whenever two bodies come in contact, while, as a matter of fact, it is the quantity of energy, that which the motion is capable of effecting.

Leibniz has another argument of a logical nature:

Those who claim extension is a substance, reverse the order of words as well as of thoughts. Besides extension, there must be a subject which is extended; that is to say, something to which it belongs to be repeated on continued. For extension is nothing but a repetition or continued multiplication of that which is spread out—it is a plurality, a continuity, a co-existence of parts. Consequently, extension does not suffice to explain the nature of the repeated or manifold substance, of which the motion is anterior to that of its repetition. 65

Extension, in other words, is nothing substantial, it is not something which can exist by itself; it is only quality, a property, a mode of being. It is always relative to something which has extension.

From the physical side, therefore, we find it impossible to account for the concrete properties of material phenomena from extension; on the logical side, we find that the idea of extension is always relative to that which is extended. What is that which is to be considered as the bearer of extension and the source of physical qualities? It is force both active and passive.

From the above discussion, it is quite clear that in Leibniz’s philosophy, the essence of matter is force and this force induces action and passion. After discussing substance we now try to give an exposition of the concept of causality which is closely associated with substance.

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65 Ibid.
The Concept of Causality

In the Monadology, Leibniz develops his view of causality. The relation between cause and effect is ideal. It signifies the relative position, which the objects concerned have in the harmonious systems of reality. The body that is higher in the scale dominates the other. There is no energy which passes physically from one to the other. But the higher monad makes an ideal demand upon the other. It places before the other its own more real condition. The less developed monad, since its whole activity consists in representing the universe of reality, answers to this demand by developing the corresponding quality in itself. The category of harmonious action is thus substituted for that of external and mechanical influence. The reality of higher stage is the more active and it has a greater content in that it mirrors the universe more fully and it has an ideal domination over that which is lower in the scale. It is actually what the other is potentially. But as the entire existence of the latter is in representing the relations which makes the world, its activity is finalized to a corresponding production. Accordingly, the former is called “cause” and the latter “effect”. Every created monad, according to Leibniz, is both cause and effect at once-cause, because of its activity and effect because of its passivity.

Robert Latta, one commentator on Leibniz, illustrates the position in the following way:

The connection between cause and effect in different substances is a purely ideal relation, a harmony of internal changes and operations, implying no physical influence of one substance upon another. And further, the cause of any change is not its obscure antecedent nor any power or activity prior in time to the effect; the true cause is always the
reason or explanation, the distinct as opposed to the confused perception, whatever may be the time order of the events or phenomena.66

According to Leibniz causal relation is not a temporal relation; for though the monads are created, their creation is not an event in time. To explain the relation Leibniz uses the term 'fulgurations'. He seeks to maintain by this word both the individuality of the monads and their essential unity with god.

Leibniz recognizes both efficient and final causation. The higher monads act in accordance with final causes, whereas in matter everything occurs through efficient causation, including the increase and diminution of organisms. The two realms of efficient and final causation correspond perfectly and incomplete independence. There is complete harmony between all beings in the universe.

After discussing Leibniz's position on material substance and causality, we are now giving an exposition of Hume's concept of material substance and causality.

**David Hume (1711-1776)**

**The Concept of Substance**

Traditionally, substance is defined as 'something which may exist by itself'. But Hume rejects this basic assumption and regards substance as a mere philosopher's invention that is both unintelligible and unnecessary. As an empiricist, he refuses to accept anything which are outside the field of experience. According to him, what cannot be given in experience, cannot exist. And as the idea of substance can neither be derived from 'impressions of

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sensation' nor from 'impressions of reflection', therefore substance cannot exist.

He remarks in this connection:

If it be conveyed to us by our senses, I ask, which of them, and after what manner? If it be perceived by the eyes, it must be a colour; if by the ears, a sound; if by the palate a taste; and so of the other senses.\(^{67}\)

But nobody asserts that substance is either a colour or sound, or a taste. Moreover the impression of reflection also cannot convey us anything but certain passions and emotions, which nobody will call a substance. Hume continues:

We have, therefore no idea of substance, distinct from that of a collection of particular qualities nor have we any other meaning when we either talk or reason concerning it.\(^{68}\)

According to Hume, each of our perception is different and distinct from every other thing and requires nothing else to support its existence. It is also not necessary to have the notion of substance in order to explain how we come to attribute identity to things. Hume holds that we make such attributes because the 'passage of the thought' along a series of related but different perceptions is so smooth and effortless that we mistake it for a continued view of the same object.

Therefore Hume states:

The idea of a substance as well as that of a mode, is nothing but collection of simple ideas, that are united by the imagination and have a particular name assigned them, by which we are able to recall, either to ourselves or others, that collection.\(^{69}\)

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68 Ibid.
69 Ibid.
So what generally people call substance is nothing but a cluster of qualities and our senses can supply only those qualities such as colour, taste etc. Thus, substance is a relation among qualities, but according to Hume we can never observe a relation between perceptions and objects and hence it is not possible for us to proceed by causal inference from perception to object. we can observe either qualities or impression and ideas. Thus for Hume, only discrete and unconnected impression exists and there is no material substance.

The Concept of Causality

Hume's theory of causality is a landmark in the history of philosophy. It is this theory of causality which induces Kant to rise from his 'dogmatic slumber' and to form his critical method. Hume acts as an immediate impetus who helps Kant to form the categories of understanding.

Hume's theory of causality is connected with his denial of substance. Since Hume denies substance, what is left is only unconnected impression and ideas and from his denial it follows that there is no necessary causal connection.

But before discussing Hume's analysis of causation, let us see how Hume defines cause-effect relationship. Since Hume denies any necessary causal connection, therefore, he defines cause-effect relationship in term of before and after. In the Treatise we find two definitions of cause. He writes that a cause is,
An object precedent and contiguous to another and where all the objects resembling the former are plac'd in like relations of precedence and contiguity to those objects, that resemble the latter.  

Then he gives another one:

A cause is an object precedent and contiguous to another, and so united with it, that the idea of the one determines the mind to form the idea of the other, and the impression of the one to form a more lively idea of the other.

Hume claims that these two definitions” are only different by their presenting a different view of the same object”. He considers the former as philosophical and the latter as natural which consists of association between ideas. Hume maintains:

though causation be a philosophical relation as implying contiguity, succession and constant conjunction yet it is only so far as it is natural relation, and produces an union among our ideas, that we are able to reason upon it, or draw any inference from it.

The natural relation of causation which Hume, within his pluralistic empiricist philosophy, interprets as one set of ideas leading to another set of ideas, can be interpreted by necessary objective causal connections too. The above view of Hume, later Kant criticizes and he shows that causation which is a category of understanding has necessary causal connection.

In the Enquiry, he further gives three definitions where he excludes the distinction of philosophical and natural relation that he offers in the Treatise. The definitions are as follows:

(i) A cause to be an object followed by another, and where all the objects similar to the first are followed by objects similar to the second.
(ii) A cause is an object followed by another where, if the first object had not been, The second never had existed.

70 Ibid., p.170.
71 Ibid.
72 Ibid., p.94.
Hume claims the first two definitions as equivalent. He discusses
the first with positive instance and the second with negative instance.

Regarding the above definitions it can be said that the definition of
cause that he offers in the Treatise is different from the definitions given
in the Enquiry and in all these definitions one thing is common that is, he
has denied the necessary objective causal connection between cause and
effect.

Hume recognizes seven kinds of philosophical relation and divides
them into two classes, those which do and those which do not depend
upon the ideas ‘compared together’. He states that such as depend entirely
on the ideas which we compare together and such as may be changed
without any change in the ideas. Hume places causal relation into second
class of relations and analyses the relation of cause and effect into
contiguity, succession and necessary connection. And this necessary
connection is, according to him, neither a quality of the objects connected
nor one can find any impression from which the idea has been derived.

According to him, spatial contiguity is always not necessary for
calling one event to be cause and another to be effect. This is so because,
in his view, there are some cases where cause and effect relation cannot
be explained through spatial contiguity. To Hume, cause must be prior to
its effect. While explaining the necessity of temporal contiguity for

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73 Hume, David, Enquiries Concerning Human Understandig and Concerning the Principles of Morals,
considering one event to be cause and another to be effect, Hume refers his discussion of succession of impression. In his view, temporal contiguity and succession of impressions are related. According to him, the denial of temporal contiguity is resulted in the denial of the succession of impression. In the Treatise Hume holds that all our arguments concerning cause and effect consist both of an impression of the memory or senses, and of the idea of that existence, which produces the object of the impression or is produced by it. Here, therefore, we have three things to explain viz, first, the original impression, secondly, the transition to the idea of the connected cause and effect, and thirdly, the nature and qualities of that idea.

According to Hume, the inference from cause to effect or vice versa is the result of a habit of association formed by the imagination on the repeated experience of their conjunction. And the impression from which the idea of necessary connection is derived is the impression of reflection formed by introspection of the determination of the mind by custom. There is no ‘real’ connection between them and the transition of our imagination from one to the other is something entirely subjective as to Hume.

Hume states:

Necessity is something that exits in the mind, not in objects; nor it is possible for us ever to form the most distant idea of it, consider’d as a quality in bodies.\(^{74}\)

While analysing causation he writes:

All events seem entirely loose and separate. One event follows another but we never can observe any tie between them. They seem conjoined but are never connected.\(^{75}\)

\(^{74}\) Hume, *Treatise*, p.165-166.

\(^{75}\) Hume, *Enquiries*, op.cit, p. 74.
He denies the real causal connection in the objective reality. Hume's argument is simply that no such relations are observable. To take his favourite example of a game of billiards, we do indeed speak in 'forceful' terms of the cue being used to strike the ball and of one ball cannoning of another. But all that we actually observe is a series of changes in spatio temporal relations.

While explaining his viewpoint, Hume himself raises the question, why does anyone believe in the necessary causal connection? Hume maintains that through repetition of similar events, mind is led to believe in the necessary causal connection. To Hume, the events which are considered to be cause and effect are constantly conjoined.

Explaining the process through which mind forms the idea of necessary causal connection between cause and effect Hume writes, that it is by habit, we make the transition from causes to effect, and it is from some present impressions we borrow that vivacity which we diffuse over the correlated idea. According to Hume, there is no certain relation and deductive demonstration in causation and the relation depend not on reason but on custom, the necessity which we find in a causal connection is not objective but subjective, not logical but psychological.

The above view of Hume, Kant later challenges in his Critique. And to show that causality is not subjective and that there is necessary causal connections in the world of experience, Kant introduces in his epistemology, the categories of substance and causality.