Rationalism and Empiricism

Chapter II
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This chapter starts with the definition of rationalism and then examines the ways of attainment of knowledge from the viewpoint of Rationalism, Empiricism and Kant’s theory.

Rationalism has been defined in different forms, some of them are:

"The term "rationalism" (from Latin ratio, "reason") has been used to refer to several different outlooks and movements of ideas. By far the most important of these is the philosophical outlook or program which stresses the power of a priori reason to grasp substantial truths about the world and correspondingly tends to regard natural science as a basically a priori enterprise." ¹

"A theory or system that exaggerates reason’s independence from the senses in philosophy or from supernatural revelation in religion. Although it appears in many forms, in nearly all a doctrinaire insistence on the sovereignty of reason displaces a native trust in the reasonableness of human thought, and an arbitrary insistence is placed on the former as uniquely representative of free scientific inquiry." ²
"The philosophical view that regards reason as the chief source and test of knowledge. Holding that reality itself has an inherently logical structure, the Rationalist asserts that a class of truths exists that the intellect can grasp directly. There are, according to the Rationalists, certain rational principles—especially in logic and mathematics and even in ethics and metaphysics—that are so fundamental that to deny them is to fall into contradiction. The Rationalist's confidence in reason and proof tends, therefore, to detract from his respect for other ways of knowing."3

"In philosophy, a theory that holds that reason alone, unaided by experience, can arrive at basic truth regarding the world. Associated with rationalism are the doctrine of innate ideas and the method of logically deducing truths about the world from "self-evident" premises."4

These definitions stresses on: The power of reason to grasp substantial truths about the world, to be a priori, to use "self-evident" premises, independent of supernatural revelation, disadvantage falling to contradiction and associated with innate ideas. Therefore, rationalism is a view that insists on the sovereignty of reason to grasp knowledge about the world. This knowledge is particularly different from Greek and Medieval knowledge. In the past, man's mind acted like a mirror and was receptive, but in new rationality it is active and its theories makes the world.
Epistemology

The discussion about rationalism takes place within epistemology, the branch of philosophy devoted to studying the nature, sources and limits of knowledge. The defining questions of epistemology include the following.

1. What is the nature of propositional knowledge, knowledge that a particular proposition about the world is true?
2. How can we gain knowledge?
3. What are the limits of our knowledge?

Our focus here will be on the second question, regarding the sources of our concepts and knowledge on bases of two main philosophical movements after the Renaissance, Rationalism and Empiricism.

A- Rationalism

The rationalism movement started in the 17th century with Descartes and was continued by Cartesian thinkers. In this research, we will examine Descartes, Spinoza and Leibniz approaches about different ways of gaining knowledge:

Rene Descartes (1590-1650) has started his *meditations* with these statements “several years have now elapsed since I first became aware that I had accepted, even from my youth, many false opinions for true, and that consequently what I afterwards based on such
principles was highly doubtful; and from that time I was convinced of the necessity of undertaking once in my life to rid myself of all the opinions I had adopted, and of commencing anew the work of building from the foundation, if I desired to establish a firm and abiding superstructure in the sciences."

To attain certainty, he chose the way of doubt; the doubt on all knowledge instruments of man. First, he doubted on everything that he had accepted from or through senses, because he "observed, however, that these sometimes missed us." After that, he examined the several imaginations and other objects still more simple and universal than general objects like body, eyes, a head, hands etc. If somebody doubts corporeal nature in general and its extension, their quantity, their numbers, their place and time, he will not doubt Arithmetic, Geometry and the other sciences that they have connection with these objects. But it is possible a God created man, such as he is, and although there should be neither earth, nor sky, nor any extended things, there are perceptions of many things in man. Maybe men err in judgments that two and three makes five and that square has four sides. Maybe some malignant demon always deceives man.

For acquisition of accurate knowledge about the world, Descartes wanted only one thing that is certain and indubitable. The proposition of "I am" or "I exist" was a true statement for him. But this " I " is very abstruse and ambiguous, and needs to be definite. This " I " certainly does not have the element, body, face, hands and
legs and a machine is made from meat and bones, because elements
have form, place of occupation, will make sense with touch and other
senses. Whereas this "I" does not have these particulars, is it possible
for this "I" to be the soul? The soul also has many specifications that
can be separate from it, barring thinking. Thinking is a unique
specialty that does not separate from the soul. Then "I am therefore,
precisely speaking, only thinking thing, that is, a mind,
understanding, or reason."^7

But what is a thinking thing? It is a thing that doubted,
understood imagined, perceives and in other words is intellect.
Descartes says "...it is now manifest to me that bodies themselves are
not properly perceived by the senses not by the faculty of
imagination, but by intellect alone."^8

After Descartes, rationalism was found in Baruch Spinoza's
(1632-1677) thought. He was one of the Cartesian thinkers and had
accepted some of Descartes' approaches. Unlike Descartes, who
advocated dualism and said except God there are only two
substances (body and soul), Spinoza believed in "Substance Monism"
and builds his case for substance monism in a tightly reasoned
argument. And this substance is God. "By God I understand a being
absolutely infinite, that is, a substance consisting of an infinity of
attributes, of which each one expresses an eternal and infinite
essence."^9 He also says" We understand by a remote cause one which
is in no way connected with its effect. But all the things, are in God,
and so depend on God that without him they can neither exist nor be conceived.”

According to Spinoza, the system of bodies is not separate from the system of minds. They are one system that “it be looked from two points of view: it can be conceived under the attribute of thought or under the attribute of extension there corresponds a mode under the attribute of thought, and this second mode Spinoza calls an ‘idea’. Thus to every extended thing there corresponds an idea.” Therefore, there are not two orders, order of bodies and order of ideas. In his view, “The order and connection of ideas is the same as the order and connection of things.” Whether we consider Nature under the attribute of extension or under the attribute of thought or under any other attribute, we shall find one and the same order and one and the same connection of causes: that is, the same things follow in either case.

Degree of Knowledge- Spinoza maintained that human beings do have particular faculties whose functions are to provide some degree of knowledge.

1. Perception by hearsay; everything we learn from people like the date of our birth.
2. Perception by vague or confused experience, everything that is understood by vague experience such as I know oil is good for feeding a flame.
3. Perception wherein the essence of one thing is inferred from the essence of another, but not adequately.

4. Perception by intuition or "a kind of perception is that whereby 'a thing is perceived through its essence alone or through knowledge of its proximate cause'. For example, if in virtue of the fact that I know something I know what it is to know anything, that is to say, if in a concrete act of knowledge I perceive clearly the essence of knowledge, I enjoy this fourth degree of perception."¹⁴ There is no error in this fourth kind of knowledge and it is the truth because it corresponds with objects, "but the things which I have so far been able to know by this knowledge have been very few."¹⁵

Gottfried Wilhelm Leibniz (1648-1714) also was a Cartesian thinker and like Spinoza, believed in one substance. Where Spinoza saw the world as a single comprehensive substance like Descartes' extended matter, there, Leibniz supposed that the world is composed of many discrete particles, each of which is simple, active, and independent of every other, like Descartes' minds or souls. Spinoza says "substances monism" is God and Leibniz calls this substance "Monad". "The monad...is nothing but a simple substance that enters into composites - simple, that is, without parts. In addition, there must be simple substances, since there are composites; for the composite is nothing more than a collection, or aggregate, of simples. But where there are no parts, neither extension, nor shape, nor
divisibility is possible. These monads are the true atoms of nature and, in brief, the elements of things”

**Innate Ideas**- The innate ideas have a very important position in Descartes’ notion, because he advocated, “we can construct metaphysics and physics by logics deduction from a number of innate ideas implanted in the mind by ‘nature’ or, as we afterwards learn, by God. All clear and distinct ideas are innate. And all scientific knowledge is knowledge of or by means of innate ideas.”

On the basis of Descartes’ view, there is difference among three kinds of ideas: adventitious (from external objects), factitious (invented) and innate (inborn). The adventitious come to the mind from experience and the factitious were constructed by the mind’s own activity, but the innate were created by God together with the mind or soul itself. For Descartes notion “God”, “mind” and “matter” (or extension) are three important substances and fundamental ideas. He argued in meditation I & II that these ideas are innate ideas, because they are pure and do not contain any sensory material. When he speaks about the mind (I or who thins), God and matter, there are no images and pictures of sensory experience. Secondly, “the fundamental ideas implicitly contain, in different ways, some ideas of infinity, and in grasping the idea one thereby grasps the possibility of infinitely many and various modifications to which mind and matter can be subject. In the case of God this argument goes further, for here we grasp an actual infinity of perfections implicit in the idea. The
same point, however, holds for all these ideas: the grasp of infinitely many possibilities must transcend what has been given to us in experience, since experience could have given us at best only a limited set of such conceptions, corresponding to what had actually been experienced."\(^{18}\) We grasp an actual infinity of perfection in God idea; therefore, this argument in the case of God is more obvious than mind and its extension.

Frederick Copleston says innate ideas are like a prior forms of thought and compares them with Kant’s theory, “Descartes innate ideas are a prior forms of thought which are not really distinct from the faculty of thinking. Axioms such as those mentioned above are not present in the mind as objects of thought from the beginning; but they are virtually present in the sense that by reason of its innate constitution the mind thinks in these ways. Descartes’ theory would thus constitute to some extent an anticipation of Kant’s theory of the a priori, with the important difference that Descartes does not say, and indeed does not believe, that the a priori forms of thought are applicable only within the field of sense-experience.”\(^{19}\)

In Descartes’ view, the source of our knowledge, metaphysics and physics, are innate ideas. On this basis, how can we know laws of physics, chemistry and other scientific laws? In addition, is there any role for sense-experience? He answered, “In our ideas there is nothing which is not innate in the mind or faculty of thinking, except only those circumstances which point to experiences; the fact, for example, that we judge that this or that idea, which we now have
present to our thought, is to be referred to a certain external things, not because these external things transmitted the ideas themselves to the mind through the organs of sense, but because they transmitted something which gave it the occasion to form this ideas, by means of an innate faculty, at this time rather than at another.”

The problem of man’s knowledge and perception in Leibniz is known in his work, New Essays. In this book, he criticized Lock’s view about Empiricism and theory of innate ideas. He argued that there are certain particular ideas that are innate to the mind, and do not or cannot come through the senses: “The ideas of being, possible, and same are so thoroughly innate that they enter into all our thoughts and reasoning, and I regard them as essential to our minds.” For Leibniz, “… Innate ideas are virtually innate. This does not mean simply that the mind has the power to form certain ideas and then to perceive the relations between them. For the opponents of innate ideas would admit this. It means in addition that the mind has the power of finding these ideas in itself. For example, by reflection on itself the mind comes to conceive the idea of substance. To the philosophic axiom that there is nothing in the soul which does not come from the senses one must accordingly add ‘except the soul itself and its affections’.” Ideas and truths are in the mind, he argued, just as the shape of Hercules might already be in the veins of a block of marble, making that shape more likely to emerge when the sculptor begins to hammer on it, even though considerable effort may be required to expose the shape: “truths would be in us the figure of
Hercules is in the marble when the marble is wholly indifferent to the reception of this figure or of some other."

Leibniz ascribes every perception to monads and owing to the fact that monads do not have any windows that allows something to come from outside and knowledge all through is derivable from itself, thus it is innate.

**True proposition**—The basis for Leibniz's philosophy is pure logical analysis. Every proposition, he believed, can be expressed in subject-predicate form. What is more, every true proposition is a statement of identity whose predicate is wholly contained in its subject, like "2 + 3 = 5." In this sense, all propositions are analytic for Leibniz. But since the required analysis may be difficult, he distinguished two kinds of true propositions:

Truths of Reason are explicit statements of identity, or reducible to explicit identities by a substitution of the definitions of their terms. Since a finite analysis always reveals the identity-structure of such truths, they cannot be denied without contradiction and are perfectly necessary.

Truths of Fact, on the other hand, are implicit statements of identity, the grounds for whose truth may not be evident to us. These truths are merely contingent and may be subject to dispute, since only an infinite analysis could show them to be identities.
Anything that human beings can believe or know, Leibniz held, must be expressed in one or the other of these two basic forms. The central insight of Leibniz's system is that all existential propositions are truths of fact, not truths of reason. This simple doctrine has many significant consequences.25

It is important to note that rationalists do accepted experience to be a source of knowledge about the world. But unlike the empiricists, they claim that it is possible to have a priori knowledge about self-evident. Truths are demonstrative truths when are deductively based on such self-evident truth about the world.

B- Empiricism

It is impossible to study rationalism without cognition of empiricism, because they have opposition and thinkers exhibited their view against each other in these two schools. Secondly, they are joined together in the philosophy of Kant and rationalism after him is very important. In the following section, we will review the views of Locke, Berkeley and Hume briefly:

"Empiricism stresses the fundamental role of experience and as a doctrine in epistemology it holds that all knowledge about the world is ultimately based on experience.26 This viewpoint brought forth by John Locke (1632-1704) in the seventeenth century. In the
leadoff of his important works, *Essay Concerning Human understanding*, he attacked innate ideas and wraiths: “The way had shown how we come by any knowledge, sufficient to prove it not innate. It is an established opinion amongst some men, that there are in the understanding certain innate principles; some primary notions, koinai ennoiai, characters, as it were stamped upon the mind of man; which the soul receives in its very first being, and brings into the world with it. It would be sufficient to convince unprejudiced readers of the falseness of this supposition, if I should only show how men, barely by the use of their natural faculties, may attain to all the knowledge they have, without the help of any innate impressions; and may arrive at certainty, without any such original notions or principles.”

Then he argues with different ways that there is no innate principle in the mind of man, for example says, “Universal consent proves nothing innate. This argument, drawn from universal consent, has this misfortune in it, that if it were true in matter of fact, that there were certain truths wherein all mankind agreed, it would not prove them innate, if there can be any other way shown how men may come to that universal agreement, in the things they do consent in, which I presume may be done.” Therefore, unlike the rational thinkers Locke believes humankind does not have any knowledge or idea when he comes to this world, and his mind is like white paper and void of all characters. After that Locke asks “How comes it to be
furnished? Whence come it by that vast store which the busy and boundless fancy of man has painted on it with an almost endless variety? Whence has it all the materials of reason and knowledge? To this I answer, in one word, from EXPERIENCE. In that all our knowledge is founded; and from that it ultimately derives itself."^^

We have relationship with external world per our senses that he calls sensation and "about external sensible objects, or about the internal operations of our minds perceived and reflected on by ourselves, is that which supplies our understandings with all the materials of thinking. These two are the fountains of knowledge, from whence all the ideas we have, or can naturally have, do spring."^o

According to Locke, substance is an abstract and bootless implication and the substance-accident structure is a feature of our ideas and language, not a structure in reality. The mistake of dogmatic philosophers is to think that they can form simple conceptions of substances matching their unitary natures. "it is important to understand that Locke is talking about the origin of our idea of substance. Bishop Stillingfleet of Worcester at first understood him to mean that substance is nothing but the figment of men's fancies. To this, Locke replied that he was discussing the idea of substance, not its existence. To say that the idea is grounded in our custom of supposing or postulating some support for qualities is not to say that this supposition or postulate is unwarranted and that there is no such thing as substance. In Locke's view, the inference to substance is justified; but this does not alter the fact that is an
inference. We do not perceive substances; we infer substance as the support of 'accidents', qualities or modes, because we cannot conceive the latter as subsisting by themselves."

On this basis, he believes the nature of knowledge is the perception of the agreement or disagreement of ideas and concepts in our mind. "...Since the mind, in all its thoughts and reasoning, hath no other immediate object but its own ideas, which it alone does or can contemplate, it is evident that our knowledge is only conversant about them. ... Knowledge then seems to me to be nothing but the perception of the connection of and agreement, or disagreement and repugnancy of any of our ideas. In this, alone it consists. Where this perception is, there is knowledge, and where it is not, there, though we may fancy, guess, or believe; yet we always come short of knowledge."

George Berkeley (1685-1753) also was an empiricist and in his new theory of vision denied matter or bodies, dualism in things, primary qualities, and secondary qualities of bodies. He believes that without any perceptive or images of external things, we cannot establish their existence. The perceptive is in the mind and everything that is perceived is an idea. "The New Theory of Vision is merely an attempt to show the manner wherein we perceive by sight the distance, magnitude, and situation of objects, though, still in the opening section, Berkeley also announces that he will be considering
the difference there is between the ideas of sight and touch, and whether there be any idea common to both senses.\textsuperscript{33}

David Hume's (1711-1776) thoughts take empiricism to its last stage and obstructed the way of knowledge by denegation of causality and prepared the ground for skepticism. Its most general epistemological principle is that all 'ideas', the contents of our thought, are derived from more lively 'impressions', the contents of our sense experience and emotional experience. This is put forward at first as an empirical thesis, but it is also used as a normative principle. He writes in his important works, \textit{A Treatise of Human Nature}, our perceptions are two kinds, probability and knowledge. The term 'knowledge' is restricted to what is certain, and the term 'probability' (in a wide sense) is used in the Treatise for all factual beliefs, which might get revised. For Hume, the meaning of probability is uncertain knowledge and it does not have a mathematical intendment. Knowledge, in the strictest sense, is confined to current sense impressions, along with intuitions about the relations between currently sense-perceived qualities, and certain relations of ideas, namely those that are demonstrably certain.

"Hume locates "three principles of connexion" or association: resemblance, contiguity, and cause and effect. Of the three, causation is the only principle that takes us "beyond the evidence of our memory and senses." It establishes a link or connection between past and present experiences with events that we predict or explain, so
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that "all reasoning concerning matter of fact seem to be founded on the relation of cause and effect." But causation and the ideas closely related to it also raise serious metaphysical problems: "there are no ideas, which occur in metaphysics, more obscure and uncertain, than those of power, force, energy or necessary connexion."^4

With respect to causality, Hume writes "When we look about us towards external objects, and consider the operation of causes, we are never able, in a single instance, to discover any power renders the one an infallible consequence of the other. We only find that the one does actually, in fact, follow the other. The impulse of one billiard-ball is attended with motion in the second. This the whole that appears to the outward senses. The mind feels no sentiments or inward impression from this succession of objects: consequently, there is not, in any single, particular instance of cause and effect, any thing which can suggest the idea of power or necessary connexion."^5

Ethics

The ethical issue is one of the arguable subjects that philosophers ever deliberate about in its different aspects. For example, what should man do? What are the standards for organising the society? What are right and wrong? How does man acquire goodness? These kinds of questions and the hesitation about them, form the content of the philosophy of ethics; and various
ethical systems in the history of philosophy have appeared because of this. The approaches of Rationalists and Empirists too, are different in the area of ethics.

Descartes, along with other philosophical issues, had thought about these important problems but he did not elaborate a system of ethics. The passions of the soul and the correspondence with Princess Elizabeth of Bohemia are more a psychophysical theory of emotions, presupposing the fundamental doctrine of the complete separation of the body and soul, and the paradox for Cartesian philosophy of their substantial union. Descartes, in the third part of *Discourse on Method* has discussed about ethics. He writes “while my reason compelled me to suspend my judgment, and that I might not be prevented from living thenceforward in the greatest possible felicity, I formed a provisory code of morals, composed of three or four maxims, with which I am desirous to make you acquainted.

- The first was to obey the laws and customs of my country, adhering firmly to the faith in which, by the grace of God, I had been educated from my childhood and regulating my conduct in every other matter according to the most moderate opinions, and the farthest removed from extremes, which should happen to be adopted in practice with general consent of the most judicious of those among whom I might be living. ...
-My second maxim was to be as firm and resolute in my actions as I was able, and not to adhere less steadfastly to the most doubtful opinions, when once adopted, than if they had been highly certain;

-My third maxim was to endeavor always to conquer myself rather than fortune, and change my desires rather than the order of the world, and in general, accustom myself to the persuasion that, except our own thoughts, there is nothing absolutely in our power.”

These rules, which show how to act based on wisdom and imitation from the style of the wise, are the main principles for Descartes. Although in the first stage, he completely doubted his knowledge and respected Divine values, after that, he wanted to follow the line up behind the people who had awareness.

Spinoza’s theory about ethics is related to his metaphysical view. In this area, reason researches the canons and principles of metaphysics among the changes of things. Reason in ethics also, searches the ethical principles from man’s wanting and passions. Spinoza was against the philosophical traditions that regarded morality as based on free will and existence of moral good, rejected free will and believed that the notion of good and evil are fictions of the imagination. “He conceived these only in relation to the end, which for him is only the last term of the activity that is developed independently of man’s free will.”

On the other hand, Locke as an Empiricist thinker, rejected innate practical or innate moral principals like the theory of innate
ideas. Therefore, our moral ideas arise from experience. For Locke, "Good is that which is apt to cause or increase pleasure in mind or body, or to diminish pain, while evil is that which is apt to cause or increase any pain or to diminish pleasure. Moral good, however, is the conformity of our voluntary actions to some law, whereby good (that is, pleasure) accrues to us according to the will of the law-giver; and moral evil consists in the disagreement of our voluntary actions with some law, whereby evil (that is, 'pain') is down on us from the will and power of the law-maker."^38

Locke, in his main work, *Essay concerning Human Understanding*, has discussed about the Divine law, the civil law and the opinion or reputation. The law of opinion or reputation is "praise or blame, which by a secret and tacit consent establishes itself in the several societies, tribes and clubs of men in the world, whereby several actions come to find credit or disgrace amongst them, according to the judgments, maxims or fashion of that place."^39

Locke expresses three sources for ethical principles and believes that God has send moral commands for showing the right way. But he obviously defended the recognition of the Divine law and the moral rules by reason. He remarked that morality is capable of demonstration, as well as mathematics. In Locke's view "the idea of supreme being infinite in power, goodness and wisdom, whose workmanship we are and on whom we depend, and the idea of ourselves as understanding rational beings, being such as are clear in
us, would, I suppose, if duly considered and pursued, afford such foundation of our duty and rules of action, as might place morality amongst the sciences capable of demonstration; wherein I doubt not but from self-evident principles, by necessary consequences, as incontestable as those in mathematics, the masseur of right and wrong might be made out to anyone that will apply himself with the same indifferency and attention to the one as he does to the other of those sciences."

Hume emphasized on the experimental method in ethical issues like natural sciences. It does not mean that testing is necessary, but examination of the real problem is obligatory in ethics. From his view, reason plays a role in understanding of moral principles but this role is only an instrument of passion. "In asserting this view of the subordination of the reason to the passions Hume was obviously adopting an anti-rationalist position. Not reason but propensity and aversion, following experiences of pleasure and pain, are fundamental spring of human action. Reason plays a part in man's active life, but as an instrument of passion, not as a sole sufficient cause."  

In Hume's view, to discuss about moral distinctions does not mean a mistake and is not a high fault, and everybody makes some moral distinction. But the foundation of such distinctions is a matter for dispute. So the moral distinctions are based on reason or they are founded on a moral sense or sentiment. Hume believes that the share of moral sense is more than reason, and sentiment and reason concur
in almost all moral determination and conclusions. He has argued that moral distinctions do not exactly arise from reason and says, "Take an action allowed to be vicious: willful murder, for instance. Examine it in all lights, and see if you can find that matter of fact, or real existence, which you call vice. In whichever way you take it, you find only certain passions, motives, volitions and thoughts. There is no other matter of fact in the case. . . . You can never find it, till you turn your reflection into your own breast and find a sentiment of disapprobation which arises in you towards this action. Here is a matter of facts; but it is the object of feeling, not of reason. It lies in yourself, not in the object."  

Hume is against Locke, who advocated against demonstration of morality, does not accept vice and virtue as some relations. The moral distinctions are not of a similar degree in quality or proportions in quantity and number. But these relations are founded just as much on material things as on our actions, passions and volitions. "If we make moral distinctions, and if they are not derived from reason, they must be derived from or founded on feeling. Morality, therefore, is more properly felt than judged of. Virtue arouses an agreeable impression, vice an uneasy impression. An action or sentiment or character is virtuous; why? because its view causes a pleasure or uneasiness of a particular kind."  

So, the a priori judgments have not effect and our moral precepts have emanated after experience and they are analytic. "The moral sentiment is a feeling of approbation or disapprobation towards actions or qualities
or characters. And it is disinterested. It is only when a character considered in general, without reference to our particular interest, that it causes such a feeling or sentiment as denominates it morally good or evil." Hume stresses the importance of utility, and in this respect is a forerunner of the utilitarians, but he does not make utility the sole source of moral approbation.

**Kant's Answers to his Predecessors**

All of these developments led directly to Immanuel Kant (1724–1804), professor at Königsberg, the greatest philosopher of the modern period, whose works mark the true culmination of the philosophy of the Enlightenment. Historically speaking, Kant's great substantive contribution was to relate both the sensory and the a priori elements in knowledge and thus to mend the breach between the extreme Rationalism of Leibniz and the extreme Empiricism of Hume. He did not accept the empirical theory that all our concepts are derived from senses-experiences and also denied the theory of innate idea. "According to the Rationalist and Empiricist traditions, the mind is passive either because it finds itself possessing innate, well-formed ideas ready for analysis, or because it receives ideas of objects into a kind of empty theater, or blank slate. Kant's crucial insight here is to argue that experience of a world as we have it is only possible if the mind provides a systematic structuring of its
representations. This structuring is below the level of, or logically prior to, the mental representations that the Empiricists and Rationalists analyzed. Their epistemological and metaphysical theories could not adequately explain the sort of judgments or experience we have because they only considered the results of the mind's interaction with the world, not the nature of the mind's contribution."

The important problem for Kant also was 'decision about the possibility or impossibility of metaphysics in general and the determination of its sources, its scope and its boundaries. The chief question would be what and how much can understanding and reason know apart from all experience? "As Kant saw it, the problem of metaphysics, as indeed of any science, is to explain how, on the one hand, its principles can be necessary and universal (such being a condition for any knowledge that is scientific) and yet, on the other hand, also involve a knowledge of the real and so provide the investigator with the possibility of more knowledge than is analytically contained in what he already knows; i.e., than is implicit in the meaning alone. To meet these two conditions, Kant maintained, knowledge must rest on judgments that are a priori, for it is only as they are separate from the contingencies of experience that they could be necessary and yet also synthetic; i.e., so that the predicate term contains something more than is analytically contained in the subject."
Kant explains and criticizes these problems in his works, *Critique of Pure Reason*. His views shortly are: some of our concepts and judgment are a priori (before experience) and some of them are a posteriori (after experience); and our propositions are synthetic and analytic, in analytic propositions, the predicate -concept is implicitly or explicitly contained in the subject-concept (for example, ‘A bachelor is unmarried’ or ‘An unmarried male is male’), so the proposition conveys no new information and is true by identity alone; in synthetic propositions, the content of the predicate is clearly not contained in the subject-concept (for example, Bachelors are unhappy’) so the proposition conveys new information and cannot be true by identity alone. Second, there is an epistemological distinction between propositions which are a posteriori, or can be known to be true only on the basis of antecedent experience and observation, and those which are a priori, or known to be true independently of experience, or at least any particular experience. In mathematics all proposition are a priori synthetic and in physics and other natural sciences are a posteriori synthetic.

Kant, concerning human cognition, believes our knowledge begins with matter that is produced by senses-experience and then the mind increases forms. That which is given by the faculty itself, Kant calls ‘form’ while that which is produced by external influence he calls ‘matter’. The forms may be discovered by a consideration of the constant and universal elements in our knowledge, while the matter is that which may change and vary. On other hand, we cannot
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perceive anything without time and space, because space and time are forms of our perception.

Although predecessors believed human can know the truth and nature of external world, "Experience is, as Kant expresses it, an empirical synthesize, which invest all other synthetics with reality. We know phenomena only; not thing as they are apprehended by means of the form of our understanding, which (like the forms of perceptions) have significance from the human standpoint only."\(^{47}\)

Finally, "Kant's critical turn toward the mind of the knower is ambitious and challenging. Kant has rejected the dogmatic metaphysics of the Rationalists that promises supersensible knowledge. And he has argued that Empiricism faces serious limitations. His transcendental method will allow him to analyze the metaphysical requirements of the empirical method without venturing into speculative and ungrounded metaphysics. In this context, determining the "transcendental" components of knowledge means determining, "all knowledge which is occupied not so much with objects as with the mode of our knowledge of objects in so far as this mode of knowledge is to be possible a priori."\(^{48}\)

Karl Jaspers while talking about the structure of Kant’s theory of knowledge writes,"...To clarify objectivity as that whereby objects exist for us – to understand the cognitive faculty as the condition of all objectivity; to justify the claim of necessary and universally valid
judgments; to understand that our knowledge is valid only within the limits of possible experience and that is impossible to go beyond them; to derive the principle of all empirical science; to gain an awareness of the phenomenality of existence.

1) What we think in the categories has objective validity, but only within the limits of possible experience and no further. Metaphysics in the sense of objective knowledge of the supersensible or as ontology, which teaches being as whole, is impossible. ...He secures the world as an infinite field lying open to experience. The world is not a closed system and cannot become one. Kant opens us to this possibility of experience, but admits no objective knowledge that is not fulfilled in experience.

2) Kant's idea frees us from the natural faith in the self-subsistence of the world as the whole and exclusive reality, and frees us from confinement in our Knowledge of existing things. He closes the door to the dogmatic empiricism that absolutizes the content of experience into pure being.49

Ethics- Kant is the primary proponent in history of what is called deontological ethics. Deontology is the study of duty. On Kant's view, the sole feature that gives an action moral worth is not the outcome that is achieved by the action, but the motive that is behind the action. He has explained his view toward practical categorical reason in Critique of Practical Reason. He sought to formulate a general and universally
applicable principle by which the pure practical reason could distinguish right from wrong.

What is the categorical imperative? All man's good acts absolutely are conditional. The different good acts and good things are not counted categorically; for instance the good capital is a capital that it is used for good aims; or the good science is a good science that it is used in right way and will not harmful for others. So, man's acts are presented conditionally and only good will and good intention are included as categorical; and the good will means to obey duty.

Duty itself is figured important. Duty must be done for itself, without any other reason. Anybody who does a duty for the reward or the fear of punishment, acquires a benefit or repels a loss. He does not do the duty and does not use the good will. The moral good is an act which does not pay attention to its result and its good or evil end.

For Kant, duty means to obey the universal principles, and someone who follows these universal principles and respects the canon, does his duty. The canon is sacred; therefore its following is necessary. The man's motive must be to do the duty. Hence, the categorical imperative is Kant's famous statement of this duty: "Act only according to that maxim by which you can at the same time will that it should become a universal law." This statement amounts to the principle that whatever one wishes to do, one should be prepared for everyone else to do it as well. If you cannot wish that your action should become a universal rule, then you should not to do it in your individual circumstances. Then he added a second principle, "Act in such a way as to treat people as ends and never as means."
An examination of Kant’s viewpoints denotes that it is not sensory and experimental in the consideration of universal law and the necessity of following them. Good will is the fruit of categorical reason. The obedience of duty is the command of practical reason and this imperative is a categorical imperative. The other commands are hypothetical imperative. Therefore, the categorical imperative belongs to synthetic judgment and it has founded the a priori synthetic judgment in ethical issues.

Valuation- In this manner, it is mentionable that Descartes and Cartesian thinkers emphasized that man’s has innate which do not appear in our mind through sense-experience. In other words, they are a priori. On the other hand, according to Empiricists, all our knowledge about the world emanates from senses and there are no innate principles in the human mind when man comes to this world. All human knowledge about the world is experimental and his statements are a posterior. These two movements joined in Kant’s thought and he claimed that our perception and experience are derived from senses in the frame of time and space, and the mind processes them by its logical categories. The statements in natural sciences are synthetic and a posterior and the statements in mathematics are syntetic judgment and a priori. For man, the Universe is divided into two parts, phenomenon and noumena. An only the phenomenon came be known and man’s mind cannot know any noumena. This kind of rationality (Kantian rationality) was
accepted by the modern thinkers and after some changes, continued in nineteenth and twentieth century.

In the domain of ethics, Cartesian philosophers value reasonable judgments. The self of wisdom and aware man are able to recognize virtues and evils. Empiricists, against Rationalists, denied innate ethics rules and advocated the experimental method in the realm of ethics. But Kant preferred rational judgment in ethics and said that ethical principles are a priori and synthetic.

**Characteristics and background of rationalism**

The philosophical thought, like any other thought, can never grow up without relationship to cultural, political, social and economical condition. Every change in scientific theory and human knowledge influences philosophical thought and a philosopher cannot philosophize alone. He needs to challenge all knowledge of his period; take impression and leave impression.

After the Renaissance, everything gradually changed in the western world and new rationalism was formed along with other changes and reached the apogee of its form in the eighteenth century. The characteristics of this new method of knowledge were completely different from the past and its structure was built in special conditions and background. The exact recognition of Kantian rationalism is not possible without first examining its characteristics and background.
Characteristics of Rationalism

The characteristics of Kantian rationalism indeed are the same characteristics as those of the subject of knowledge or modern man. Since rationalism was born after many challenges, it has many specifications:

Subjectivity- In the new rationalism, subjectivity becomes the replacement for objectivity and Kant calls this alteration Copernican revolution. Copernicus recognized that the movement of the stars couldn’t be explained by making them revolve around the observer; it is the observer that must be revolving. Analogously, Kant argued that we must reformulate the way we think about our relationship with objects. It is the mind itself, which gives objects at least some of their characteristics because they must conform to its structure and conceptual capacities. Thus, the mind’s active role in helping to create a world that is experienceable must put it at the center of our philosophical investigations. The appropriate starting place for any philosophical inquiry into knowledge, Kant decides, is with the mind that can have that knowledge.

On this basis, the human situation is changed and man is the source of all Knowledge instead of any other source.

Enlightenment- The medieval man did not think, because he was not free, bold and adult. They liked to relax. Reasoning and
confrontation was not very easy for them, because others understood and determined instead of them. Religious dogmatism and familiar tradition too believed that the ideal man was an obedient man. Rationalism was created against non-adult reason and attempted for free reason. In What is Enlightenment? Kant Writes, "Enlightenment is man's release from his self-incurred tutelage. Tutelage is man's inability to make use of his understanding without direction from another. Self-incurred is this tutelage when its cause lies not in lack of reason but in lack of resolution and courage to use it without direction from another. Sapere aude! "Have courage to use your own reason!"- That is the motto of enlightenment."50

Edmund Burk (1729-1797) member of England's parliament, wrote in a letter to a Frenchman, Sir, that in this enlightened age I am bold enough to confess that we are generally men of untaught feelings, that, instead of casting away all our old prejudices, we cherish them to a very considerable degree, and, to take more shame to ourselves, we cherish them because they are prejudices; and the longer they have lasted and the more generally they have prevailed, the more we cherish them. We are afraid to put men to live and trade each on his own private stock of reason, because we suspect that this stock in each man is small, and that the individuals would do better to avail themselves of the general bank and capital of nations and of ages. Many of our men of speculation, instead of exploding general prejudices, employ their sagacity to discover the latent wisdom,
which prevails in them. If they find what they seek, and they seldom fail, they think it more wise to continue the prejudice, with the reason involved, than to cast away the coat of prejudice and to leave nothing but the naked reason; because prejudice, with its reason, has a motive to give action to that reason, and an affection which will give it permanence.  

**Only reasoning**- In past, there was so many sources of knowledge like divine revelation, spiritual passion, magic, myths and ancient views and according to Francis Bacon, there are different idols (Idols of the Tribe, Idols of the cave, Idols of the Market place and Idols of the Theater). Any notion contrary to these sources was not accepted and the clergy and who wanted guardianship to people had excommunicated new notions. But rationalism denied all of them; broken idols and only reason could say what is truth or what is wrong. “I have placed the main point of enlightenment - the escape of men from their self-incurred tutelage - chiefly in matters of religion because our rulers have no interest in playing guardian with respect to the arts and sciences and also because religious incompetence is not only the most harmful but also the most degrading of all.”  

This rationalism does not claim sanctity, universality and to know every essence. It has so much limitation and can know only phenomena. It also claims that man does not need to acquire any knowledge and with help of natural sciences can get answers to all questions and solve every problem in his worldly life.
To be critical—modern reason, contrary to predecessors, examines every thing critically and does not confirm anything before analyzing completely. Furthermore, it is very skeptical and does not make sure of anything easily. To interrogate is more than mere listening. "Kant in fact describes Enlightenment as the moment when humanity is going to put its own reason to use, without subjecting itself to any authority; now it is precisely at this moment that the critique is necessary, since its role is that of defining the conditions under which the use of reason is legitimate in order to determine what can be known, what must be done, and what may be hoped. Illegitimate uses of reason are what give rise to dogmatism and heteronomy, along with illusion; on the other hand, it is when the legitimate use of reason has been clearly defined in its principles that its autonomy can be assured. The critique is, in a sense, the handbook of reason that has grown up in Enlightenment; and, conversely, the Enlightenment is the age of the critique."53

Mundane—rationalism is mundane and its main aim is a tranquil life. If the medieval church believed that man were born joined to first crime, to labor and wait is suitable for this world and man must repent and attempt for next world, modern reason summons people to sensuality in this world. The important aim of new knowledge is not description of God and secrets of nature. But its aim is to know and to dominate nature. “For by them I perceived it to be possible to arrive at knowledge highly useful in life; and in room of the
speculative philosophy usually taught in the schools, to discover a practical, by means of which, knowing the force and action of fire, water, air the stars, the heavens, and all the other bodies that surround us, as distinctly as we know the various crafts of our artisans, we might also apply them in the same way to all the uses to which they are adapted, and thus render ourselves the lords and possessors of nature."54

**Background of rationalism**

The background of rationalism begins from the medieval times and later the Revolution. Although philosophers established rationalism movement, so many mathematicians, cosmologists and different scientific and society motions too had a basic role in the appearance and growth of rationalism.

**Cosmological mutations** - Before the Renaissance, the theory of Geocentric (=Earth-Centered) preponderated for two thousand years. The presumption was that the Earth is a sphere, fixed and unmoving at the center of the Universe, the natural state of motion on the Earth was rest and the natural state of the Heavens is unceasing uniform circular motion (or combination of such motion) A rotating or revolving Earth would thus be unnatural in this world view. In the base of animistic and J. C. Scaliger's doctrines about motive intelligence and believed that one such the spirit is the cause of moving stars.
The Copernican theory demolished the structure that was Earth-Centered and replaced it with the Heliocentric System (=Sun-Centered). Kepler (1630-1571) and Galilei (1642-1564) developed this approach in the seventeenth century. In this system, the Sun, not the Earth, is at the center, the Earth rotates and revolves around the Sun and Stars are on an outermost celestial sphere. Descartes and then Newton advocated the mechanical philosophy and the world were supposed to be like a machine. The world did not have any external motive power or essential, but its moving power is mechanical. Newton explained the mechanical motion by mathematical method and then mixed them with action. He understudied physics laws that are correct on the Earth, also correct on the Solar System and the world is an orderly machine. And we can know its conjunct components and its formulas. Therefore, it fortified the inmost of natural sciences.

Economical mutations- we cannot understand the birth of a new world without examining economical mutations because there are multiple relationships of cultural changes with translocation of agricultural relations and agricultural and banking relations. The barbarian groups and wanderers in the desert settled progressively after the twentieth century and made cities. The appearance of nations and development of European societies was influenced basically by wealth and agricultural activity. The monetary economy shifted to barter economy and there was a spread of silver extraction
in Germany and gold mining in America. The merchants and the rich became wealthier and created banks in Italy and Germany. Then they went to India and America for transaction of their goods, and replaced the exchange of necessary goods with luxury goods very soon. After this basic mutation, the merchants wanted great imperial and exploitation of colonies. The ordinary institutes and old confederacy could not operate societies, and then the bourgeoisie, merchants, capitalists and bankers won power. Therefore, these groups shelved the episcopacy and kingdoms gained power in different countries. First, the bourgeoisie made inroads, occupied land and then confiscated the property of the church. Afterwards, the main aim, which was an honorable service to God, waned and the primary interest became service to bourgeoisie and the security of national welfare.

**Political transformations** - the church had an autocratic sovereignty in the medieval Christian world. The Pope was God’s deputy on Earth and had the full authority to interfere in mundane affairs, religious matters, lawmaking and politics. He gave university’s degrees, divided concessions among societies and he was the keeper of international law. If a Christian person was killed, only he could take vengeance.

There was a long combat between the Pope and kings in order to get religious or mundane control in societies. In the thirteenth and fourteenth centuries, there were so many such attempts that the
church replaced the legal government in place of episcopacy and national governments directed churches in their realms. Later, the Pope's power was under a cloud by yet another theory. According to the hypothesis of relative income, the king was also the deputy of God in his locality and just like the Pope; he too could handle his government. Though Dante's followings manifested this thesis, it was not successful. Then the French lawyers claimed that this situation was actually for king of France. Other governments too slowly authorized the king or deputies of God. Protestantism defined this theory and believed that the kings are Gods in this world and people are Satan of hell.

Locke and Hobbes in Britain, Machiavelli in Italy and Bodin in France established a new political theory and changed traditional political views. They advocated the autocracy of the throne against autocracy of the sovereignty of the church. Machiavelli wanted a government whose aim was power, acreage and economic prosperity in Italy because he was a patriot and abominated bishops' artifices. Besides, Italian people also had started showing disinterest in religious matters. In France, Bodin was the leader of the politicians who shielded the government against Protestants and Catholics, and favored the king's power as against religious groups. His book about the government was published in 1567. He abandoned all medieval concepts in this book and explained his theory about the autocratic sovereignty of the government. For Bodin, the government is an
assemblage of clans that have in common properties, besides political power and the reasonable rule among them.

The “Social contract” was one of the other important theses that manifested after the Renaissance. Hobbes executed this theory to uphold powerful despotic government because he thought only reason (Desecration reason) is dependable.

In the viewpoint of Hobbes, the governor has complete hegemony in religious matters and it is not correct for the church to act without his dictate and principles. According to Hobbes, the Pope must not reign.

At first, the theory of social contract advocated the rights of the people and opposed monarchy and Catholics supported this approach in Britain and France. The social contract became reasonable and philosophical because of Johan Locke and on this basis; this political thought prevailed during the next century. In this manner, the sovereignty was transferred from God and his deputy to man. It means that human reason that did not have any political power and freedom in medieval years became predominantly powerful in the eighteenth century.

Experimental method and mathematics- Aristotelian teaching that was preponderate for more than a thousand years supported the knowledge of essence and quality of things. The logical deduction for investigation universalities was sufficiency, but by then human
thought had acquired new form of paying attention to experience and mathematics. Roger Bacon (1214-1292) was one of the first individuals who spoke about experimental science and the importance of mathematics.

In the western world, people were unhappy about the knowledge that had no relationship with problems connected to their civil life and realities of that time. They thought the Tomas Aquinas' system and other systems that are against him are verbal and bootless. Francis Beckon calls the result of this philosophy formal knowledge.

In conformity with the experimental method, the first accurate knowledge was derived from science of medicine. Man's body was described and Hrvi discovered the circulatory system. Then Gilbert explained the magnet. In this new period, man, contrary to past, expended to natural sciences and to know properties of things. According to Galilei "the aim of scientific research is not to discover the correct essences and final substance but it is only to know their properties." In addition, Hume believed that any knowledge that does not grasp from sensation is not useful; he says, "When we run over libraries, persuaded of these principles, what havoc must we make? If we take in our hand any volume; of divinity or school metaphysics, for instance; let us ask, does it contain any abstract reasoning concerning quantity or number? No. Does it contain any experimental reasoning concerning matter of fact and existence? No."
In other words, the experimental method did not agree with the deductive method, because in the latter manner generalization was impossible. Therefore, the inductive method replaced it and help of inductive generalization generalized the results of limited examinations to other matters.

The speed of scientific movements quickened thereafter to associate the experimental method with mathematics. In the later half of the fourteenth century, Grecian mathematics became important among scientific schools. These schools discussed about dynamics. The humanists helped the development of new sciences to motivate people to study old Alexandrian knowledge. After that, people knew Archimedes and Grecian mathematicians. People became interested in mathematics because they had faced some problems on voyage, repairs, to operate artillery and arbalest. The artificers and artisans also confirmed the drive for mathematics. Cosmologists found it necessary to use mathematics. Cosmologists like Kepler and Tycho Brahe (1549-1601), found this useful because they understudied the places of stars by geometry and mathematical calculation. The big artists like Leonardo da Vinci, Michelangelo and Rafael needed to learn mechanics and mathematics because they wanted to create buildings and paintings on the walls. Descartes was hired in the Poland army as an engineer, and he said “Arithmetic and Geometry..."
are the sole sciences to the studies, but only that in our search for the
direct road towards truth we should busy ourselves with no object
about which we cannot attain certitude equal to that of the
demonstrations of Arithmetic and Geometry.”

Method itself also became very significant. Descartes
underlined “In the subjects we propose to investigate, our inquires
should be directed, not to what others have thought, nor to what we
ourselves, but to what we can clearly and perpetually behold and
with certainly deduce; for knowledge is not won in any others
way...there is need of a method for funding out the truth. ...by a
method I mean certain and simple rules, such that, if a man observes
them accurately, he shall never assume what is false as true, and will
never spend his mental efforts to no purpose, but will always
gradually increase his knowledge and so arrive at true understanding
of all that does not surpass his powers.”

Religious approach- there is spatial view based on the teachings
of Christianity about man, world, God and the relationship among
them. Accordingly, Adam and Eve were excluded from heaven after
they ate fruit of the prohibited tree. Then they fell on the Earth,
Adam was found guilty and condemned to work very hard and Eve
had to endure the pain of pregnancy and childbirth, and their
children were born sinful and inherited the disturbed nature of their
fathers.
On the other hand, although man is an earthworm on Earth, he is the center of the Universe. The planets revolve around him and God created the Earth, sea and everything for man. The sublime God incarnated in a human form in Bethlehem and bled on the cross, until he delivered man from his assumption and craziness.

According to Augustine, there are two souls or groups or cities in the world, the God’s city and Devil’s city. Everything that exists in Devil’s city is rotten, and God and human heart do not accept it, because it is proud and hapless. There is no eternal matter in this city. But in God’s city, only the faithful people dwell and the first group of them is prophets and bishops, who believe in divine inspiration in their painful life. The people, who believe in Jesus and truth of his convocation for validation of divine kindness, are offspring of this city.

Everything is also meaningful in the world that has been created to show the divine secrets and augustness. The human life is an excursion, from birth till death, for validation of divine aim. The Universe is full of secrets and man’s reason must try to know its secrets, but his limited reason cannot discover hieroglyphically secrets of the world. Thereby medieval thinkers believed in a reasonable arrangement in this world, searched for a meaning for everything, and thought that nature and each book is full of secrets. Therefore, they wanted to explain its duties and aim. In the twelfth century one Sufi explained creation briefly “the soul was created for
God, body for soul and all of universe for body, until the soul become obedient God, body become obedient soul and the universe become obedient body."

The big and main secret of this world was in its aim, not in causes and incidents. The system of this world has so many levels that are from base till the most exalted, from stone and tree till man and angel. Society also constitutes the helot, master, king and then the Pope. All creations attempted to realize the divine aim and man must try to receive the most exalted aim. Kindness motivates everything and divine kindness inclines creatures to realize their essence. Man needs to be aware and change his nature, because he has inherited the main sin from Adam. According to Augustine and religious tenets, the divine blessing is a means of deliverance and church is center of this deliverance. These views were good causes till the medieval church led the life of people and were the most important authority of faith and ethics. Its faith and kindness was unique, its deliverance was necessary and holy, and its customs were prophetical. It was powerful and dominated the people's life because it had the blessing of deliverance and was bestowed through the customs of the church itself. The necessity of this blessing had two causes. Firstly, the church wanted to dominate human transcendental essence on the basic essences. Secondly, it wanted to change human nature and deliver man from death and absorption. The blessing of deliverance was only through the customs of the church.
There were seven customs of church - baptism, stabilization, Eucharist, penitence, subservience, celibacy and marriage.

This religious thought accosted a religious reformation movement from inside and outside the Catholic Church in the fifteenth century and Renaissance age. Martin Luther showed another way that was outside the church for deliverance and Catholic reformers started to reform from inside the church. These movements had diverse results:

1- Believers of Christianity became very simple.
2- They accentuated personal deliverance and knew it as a direct relation between soul and his creator; and also knew religion as a personal and inner opinion.
3- The intricate unity of the medieval system was broken. Afterwards the institution of Christianity was not a completely orderly one and different groups critiqued each other.
4- Scholastic philosophy became the follower of Protestantism and Catholicism.
5- There was a beginning of personal and reasonable interpretation of holy book, and people could express their opinions about religious problems.
6- After so many sectarian battles, the different groups learned to temporize and to rely on the power of reason and personal conscience. According to Voltaire, if in Britain there was only one religion, its despotism was frightful. If there were two religions, they
battled severely. But there were thirty sects; therefore they lived in tranquility and luck.\(^5^9\)

After the religious reformation movement, a righteous conduct movement arose in the sixteenth century in the Europe. The approach of righteous conduct was the ideal of bourgeoisie. This approach made a rational life for man and convinced that wealth is a divine blessing and man must try to do business for lawful profit. To do business is service to God and man must attempt this way, completely.

In the Renaissance Age, humanism also influenced religious thought and negated man’s degeneracy and debility. The humanists wanted a mere ethical religion without any irrational secrets. They deny the main sin, deny that man can be despicable; to need eternal deliverance or to change the human nature, and said man can exist without supernatural help. Therefore, Christ’s self-sacrifice was non-useful for the deliverance of man.

In the eighteenth century, after the growth of religious challenge, some thinkers and religious leaders advocated natural reason and said that they did not need revelation and could demonstrate the principles of religion. They believed religion is not an innate need, but it is just knowledge such as physics and chemistry.
Rationalism and Empiricism

Rationality after Kant

In the 19th and 20th century, philosophical thought was completely dominated by Kant. There were numerous and varied philosophical tendencies of agreeing and disagreeing with pure rationality in the later two centuries. Idealism, Materialism, Positivism and Romanticism were active movements in the nineteenth century and the propounded schools in the twentieth century are new-positivism, Dialectical Marxism, Phenomenology, Existentialism and Postmodernism etc; and to discuss about all of them needs another research. Here, it will be better to examine only some Rationalists movements that they had the most influence on the modern world and its crisis.

It was pointed that Idealism, Positivism and Materialism were active in the realm of rational philosophy in 19th century. The Romanticism movement was not part of this story. The romanticists were poets and thinkers who took a strong stand against reason. They were not satisfied with the foundations of mechanical view about the world, and expressed that there are other ways for perceiving reality. Motion and life were important for them and they were interested in a dynamic picture of the world instead of aesthetic understanding. For philosophies of the eighteenth and nineteenth centuries, the big machine of the world was established one time and for always and nothing new appears inside the world. Romanticists did not agree with this interpretation.
Idealism - The tendency in systemization is a predominant characteristic of the nineteenth century. At the beginning of this age in Germany, the synthetic method on analytic inclination prevailed and Idealist philosophers like Johan Gottlieb Fichte (1762-1814), Friedrich Wilhelm Joseph Schelling (1775-1854) and Georg Wilhelm Friedrich Hegel (1770-1831) came on the scene.

Idealism is a philosophy, which makes the physical world dependent upon the mind and is usually also called idealist even if it postulates some farther hidden, more basic reality behind the mental and physical senses. The post-Kantian idealists were not subjective idealists and did not believe that only man's mind recognizes its ideas and these ideas are spread from extramentially existing things. They also did not believe all objects of knowledge are products of man's limited mind. "For Fichte insisted that the productive subject was not the finite ego as such but the absolute ego, a transcendental and supra-individual principle. And as for Schelling and Hegel, any reduction of things to products of the individual finite mind was entirely foreign to their thought."^60

The Absolute has the most important position in Hegel's philosophy. "But the Absolute is the totality, reality as a whole, the universe. 'Philosophy is concerned with the true and the true is the whole'... The Absolute is a process of self-reflection: reality comes to know itself. And it does so in and through the human spirit. Nature is a necessary precondition of human consciousness in
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general: it provides the sphere of the objective without which the sphere of the subjective cannot exist. But both are moments in the life of the Absolute. In Nature, the Absolute goes over into, as it were, or expresses itself in objectivity. There is no question with Hegel of Nature being unreal or merely idea in a subjective sense. In the sphere of human is the Absolute’s self-knowledge. That is to say, the history of philosophy is the process by which the Absolute, reality as a whole, comes to think itself. Philosophical reason comes to see the whole history of the cosmos and the whole history of man as the self-unfolding of the Absolute. And this insight is the Absolute’s knowledge of itself."

"The life of the Absolute thus comprises three main phases: the logical Idea or Concept or Notion, Nature and Spirit. And the system of philosophy will fall into three main parts: logic, which for Hegel is metaphysics in the sense that it studies the nature of the Absolute ‘in itself’, the philosophy of Nature and philosophy of spirit. These three parts together form the philosophical construction of the life of the Absolute."

Materialism-The rise and descent of thought of Idealism was very strong and fast. Some systems that advocated natural sciences became a replacement of Idealism very soon.

Materialism was founded by Karl Marx (1818-1883), Ludwig Feuerbach (1804-1872) and Fredric Engels (1820-1895). Marx the big
theorician of sociology and economy had a long collaboration with Engels. He also was student of Hegel in university of Berlin (1837-1841). In that time, the left and right wings had appeared in Hegelian school. Feuerbach who was one of the members of left wing, presented a materialistic interpretation from Hegel's philosophical system. This approach and natural science influenced Marx profoundly. After the Revolution of Russia in 1917, W. I. Lenin (1870-1924) used Marx's thoughts, with some changes, and dialectical materialism and then Marxism-Leninism became the ideology of Russia Communist party. This school was powerful in Russia and parts of Europe till the fall of Union of Soviet Socialist Republics in 1987.

According to materialism, accepts the primacy of matter and considers consciousness to be a product of matter. We know material things through our senses and all material beings followed only from determined laws. The knowledge is realistic and the material world is objective and independent of the mind. Man can know anything and everything in the whole world and there is no unknowledgeable thing around us. Knowledge is the reflection or a picture of the world in the mind. The true method of knowledge is only found in science together with the technical act.

For Materialism, the Universe and man do not move in the direction of a distinct goal and there are no reputable ethical infinite rules; each social state has special ethical principals. The best ethical
principle for proletariat is a principle that it destroys the bourgeoisie world. In this school, religion too is compounded of imaginary opinions that are condemned by science. Religion arises from fear. Man was forever disabled in confronting events of nature and exploiters. Consequently for him, they were conceived a divine aspect. Man had always worshiped God, believed in futurity and had consoled himself by religious concepts.

On the other hand, religion was a very suitable instrument for exploitation of the masses by feudal proprietors and capitalists. Religion makes obedient masses for exploiters and prevents the proletariat from rising or revolting against the despots by temptation of better life after death. The proletariat does not need religion, because they do not exploit anyone. Therefore, the whole of religion must be destroyed.

Altogether, dialectical materialism was one kind of new rationality that negated metaphysics and all abstract truth. The senses and empirical method are a unique way of achieving knowledge. Religion and metaphysical moral rules are worthless.

After World War I, Marxism developed among some western European intellectuals. They were interested in the philosophical aspects of Marxism and tried to interpret the developments of economical and social conditions in the western world by the foundation of Marx thoughts. These groups were called Neo-
Marxists and the most distinguished of them were thinkers of the Frankfurter school. The representatives of this school were not exactly the followers Marxism; because they only concentrated on the philosophical points of Marxism, against the establishers of Marxism whose main problems were not philosophical issues. They had attempted to separate 'theory' from 'practice' and presented a kind of Idealism and new self-consciousness. The theoreticians of the Frankfurt school had thoughtfully challenged the New-Positivists and this has continued till now.

After 1960, the viewpoints of Frankfurt school had affected the situation in Germany and America. The members of this school are connected together on basis 'the critical theory'. The main founders and members of Frankfurt school are: Max Horkheimer (1895-1973), Theodor w. Adorno (1903-1969), Herbert Marcuse (1898-1979) and Jurgen Habermas (1929). These thinkers shifted to social science and critiqued Rationalism from different pointes of views. In other words, in second half of the twentieth century, philosophers gave more importance to the changing of the world rather than the interpretation of the world.

Habermas, who is one of the authoritative philosophers in our age, strongly critiques the method of natural sciences and expresses that the natural sciences have taken their philosophical motives from Positivistic and Neo-Positivistic tendencies. Positivists followed
scientism and only accepted the judgments and concepts that are coordinated with the theories and judgments of natural sciences.

In the realm of ethics, he advocated the 'Discourse ethics' as an alternative to Utilitarianism and Kantian moral theories. This theory has been founded on the principle of universal ability whose contents are "Every valid norm must satisfy the condition that all affected can accept the consequences and the side effects its general observance can be anticipated to have for the satisfaction of everyone's interests (and these consequences are preferred to those of known alternative possibilities)." In Habermas' view, this principle is raised from pragmatic presuppositions of communication and argumentation. There are some validity-claims in speeches of speakers, for instance claims to truth or untruth and normative rightness. These validity-claims denote the notion of an ideal speech situation freed from all external conditions. "The principle of universalizability represents an attempt to formulate this counterfactual ideal as a constitutive rule of argument for moral-practical discourses: norms or maxims of action are only morally legitimate if, when contested, they could be justified in a moral-practical discourse."

The discourse ethics is a de ontological moral theory. It assumes the priority of the right over the good. The basic moral principle must be specified in a way that does not presuppose a specific conception of the good life since that would violate the liberal commitment to a plurality of conceptions of the good. In a further
sense the distinction between de ontological and theological theories is closely related to Kant's distinction between categorical and hypothetical imperatives, a distinction strongly contested in contemporary analytic moral philosophy. Habermas sides with those who argue that morality consists of categorical imperatives (imperatives that do not require non-reason-based interests or desires), but agrees with critics that Kant's defence of such imperatives was not successful. In his own theory, Habermas accounts for the obligatory character of moral norms in terms of their relation to communicative action: valid norms are morally binding because of their intimate connection with processes of social interaction and communication out of which one cannot easily (or even rationally) choose to step out (1983: 109).

The next chapter discusses some viewpoints of the Frankfurt school towards the critique of modern rationality.

**Positivism**- Positivism was established by August Comte (1798-1857) in France and was followed by British philosopher Johan Stuart Mill (1806-1873), and German philosophers Ernst Laas (1837-1885), Friedrich Jodl (1848-1914). Ludwig Wittgenstein (1889-1951), Wiener Kreis, Rudolf Carnap (1891-1970) and Karl Popper with his theory of Critical rationalism continued this approach in the 20th century. Sometimes this course is also called New Positivism, Logical Positivism or Analytics Philosophy. The thought of the famous philosopher, Bertrand Russell (1872-19) was very near this school of
thought. It is not incorrect that Positivism, Marxism, Russell’s thought and some other tendencies are called Empiricism or philosophy of Materialism.

Positivism had roots in separate movements of British Empiricism in 18th century and in 19th century social science and early 20th philosophy. Key positivist ideas were that philosophy should be scientific, that metaphysical speculations are meaningless, that there is a universal scientific method, that a main function of philosophy is to analyze that method, that this basic scientific method is the same in both the natural and social sciences, that the various sciences should be reducible to physics, and that the theoretical parts of good science must be translatable into statements about observations. Positivism also is the view that serious scientific inquiry should not search for ultimate causes deriving from some outside source but must confine itself to the study of relations existing between facts, which are directly accessible to observation. “Comte advanced three ideas typical of positivism: (1) that science is the highest form of knowledge and that philosophy thus must be scientific; (2) that there is one scientific method common to all the sciences; and (3) that metaphysical claims are pseudoscientific.”

The contemporary positivists were seriously rationalist, analytical and logical. They were also strongly scientists more than Dialectical Materialists. For them Philosophy is the only analyzing language of natural science. The logical positivists shared the anti metaphysical sympathies of Comte. They did not conceive
philosophy to be an empirical discipline. Instead, they assimilated philosophy more to the model of logic. Philosophy became primarily clarifying and formulating the rules and concepts of good science, and the logical positivists were thus committed to the existence of a single, universal a priori scientific method. The logical positivists attacked metaphysics by bringing in the empiricist tradition. They argued that sensory knowledge was the most certain and that any concept not directly about sensory experience should be 'translatable' into observational concepts. Those concepts that could not be so translated, primarily metaphysical concepts, were rejected as meaningless. This claim also led to a very specific and long-persuasive picture of science: science is divided into two parts - the observational and the theoretical - and theoretical terms must be definable in observational terms.

Wittgenstein in *Tractatus Logical-philosophy* starts from Russell's logical atomism. On basis of this view, the world has compounded from a set of real facts that they are absolutely independent of each other. Our knowledge is the reflex picture from these sensible and distinct facts. The universal statements are truth functions of atomic statements without exception. The characteristic of logic is a priori, and it cannot prove anything about the world. The logical statements are empty and do not give us knowledge about facts. The realties are searched by natural sciences.

Then other positivists, like Carnap, claimed classical philosophy explains feeling and does not report external facts. The
philosophical objects like the existence of God and realism are false, and to discuss about them is futile. Philosophy must be limited in analysis of scientific language by logical method.

In the later years of age, Wittgenstein reconsidered his view and negated some points of the *Tractatos*. For an older Wittgenstein there are numerous languages instead of one language; and words or terms in ultimately analysis are instruments. The different tools have different usage. "Think of the tools in a tool-box: there is a hammer, pliers, a saw, a screw-driver, a rule, a glue-pot, glue, nails and screws. The function of words are as divers as the function of these objects. And in both cases there are similarities." He says, "Language is an instrument. Its concepts are instruments." He calls this various language 'language game'.

It seems Wittgenstein's aim from discussion about language game and game with language express the positivistic approach and anti-metaphysical. Because he believes, "The results of philosophy are the uncovering of one or another piece of plain nonsense and of bumps that the understanding has got by running its head up against the limits of language. These bumps make us see the value of the discovery," and "Philosophy may in no way interfere with the actual use of language; it can in the end only describe it. For it cannot give it any foundation either. It leaves everything as it is." According to Innocentius Bochenski, to imprison thought in frame of different games of language and theirs rules makes the philosophical
Wittgenstein attempts to rescue us from encounter with problems that are agents of man’s unrest and confusion. From his viewpoint, every philosophical problem creates ‘mental cramp’; and ultimately the aim of philosophy is to cure mental illness; “What is your aim in philosophy? To show the fly the way out of the fly-bottle.”

Karl Popper too is called New-Positivist. In spite of the fact that Popper’s thoughts have proximity with New-Positivists, he does not have an interest that is figured in this movement; and he declared himself as a ‘Critical Rationalist’. In the second half of 20th century, there was attention upon Popper’s viewpoints about the methods of natural sciences and methods of social sciences in England and other areas. The key parts of his works were in philosophy of science.

Popper advocated a versatile style of writing in philosophical and scientific objects and disagreed with difficult style of writing hardly. In his view, words are not the main object, but he focused on testable arguments. He also asserts that to achieve certain knowledge is impossible and man can only draw near the truth.

For Popper, the natural science does not start with measurement, but from the first, every research begins by ground ideas. To hoard or to describe of facts do not account for the development of science. It is result of powerful thoughts, which are tested and critiqued.
Popper presents two problems towards the theory of science, 'the problem of induction' and 'the problem of demarcation'. "The problem of induction can be formulated: what relation holds between theoretical knowledge and experience? The problem of demarcation can be formulated: what distinguishes science from metaphysics as well as from logic and mathematics? The received answers to these problems are: we get knowledge from experience by means of induction, that is, by inferring universal theories from accumulations of particular facts; and the inductive method demarcates science from metaphysics as well as from logic and mathematics."\(^72\)

In Popper's view, only hypotheses falsifiable by experience should count as scientific. In other word, just 'falsifiability' or 'refutability' or 'testability' is standard for every scientific statement. He says hypotheses come from our propensity to guess and they are both logically and psychologically prior to observation. They cannot come from observation alone because there is no observation without hypotheses. The real process of science has relation with guesses and to jump in results. We are theorizing all the time in order to navigate in the world, and our encounters with negative evidence are the bumps that deliver information about the shape of reality.

For Popper, to think about 'utopia' and any ideal society institutes are out of the realm of scientific research. He does not agree with revolutionary changes in structure of social institutes and calls every attempt for ultimate ideas, Utopianism. Popper suggests solving real and actual problems of society, instead of abstract good.
He writes in *Conjectures And Refutations*, "Work for the elimination of concrete evils rather than for the realization of abstract good. Do not aim at establishing happiness by political means. Rather aim at elimination of concrete miseries. Or, in more practical terms: fight for elimination of poverty by direct means—for example, by making sure that every body has a minimum income. Or fight against epidemics and disease by erecting hospital and school of medicine. Fight illiteracy as you fight criminality. But do all this by direct means. Choose what you consider the most urgent evil of the society in which you live, and try patiently to convince people that we can get rid of it. But do not try to realize these aims indirectly by designing and working for a distant ideal of society which is wholly good. However deeply you may feel indebted to its inspiring vision, do not think that you are obliged to work for its realization, or that it is your mission to open the eyes of others to its beauty. Do not allow your dreams of a beautiful world to lure you away from the claims of men who suffer here and now. Our fellow men have a claim to our help; no generation must be sacrificed for the sake of future generations, for the sake of an ideal of happiness that may never be realized. In brief, it is my thesis that human misery is the most urgent problem of a rational public policy and that happiness is not such a problem. The attainment of happiness should be left to our private endeavours."  

Overall, the common characters of Positivists and materialists are: first, they are Naturalists and believe that man is a part of the nature. They do not accept that man’s essence is distinctive from
other natural beings. Secondly, scientism is very strong among them and advocates natural science as the main and unique resource of knowledge. The religious and ethical experiences are not acceptable and if something is recognized in this way, it is lay and cognitively meaningless. Thirdly, the tendency of these thinkers is in the direction of materialism. Fourthly, they are Rationalists and only consider the reasonable and analytical styles important.
Rationalism and Empiricism

Notes


7. Ibid., p. 334.

8. Ibid., p. 338.


11. Ibid., p. 222.

12. Ibid., p. 223.

13. Ibid., p. 223.


15. Ibid., p. 231.


20. Ibid., p. 84.


22. Ibid., p. 319.

23. Ibid., p. 319.


27. Johan Locke, *Essay Concerning Human understanding*, Book 1, chapter 1, 1

28. Ibid, chapter 1, 3.

29. Ibid, chapter Chapter Of Ideas in general, and their Original, part 2.

30. Ibid.


39. Ibid., p. 135.

40. Ibid., p. 136.

41. Ibid., part II, p. 131.

42. Ibid., pp 133-134.

43. Ibid., p. 135.

44. Ibid., p. 135.


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51. Ibid., p. 59.

52. Ibid., p. 61.


57. Ibid., p. 150-153.


59. Ibid., p. 314.


61. Ibid., p. 208.


64. Ibid., p. 558.
65. Ibid., p. 535.
67. Ibid., p. 151e.
68. Ibid., p. 48e.
69. Ibid., p. 49e.