
UNIT 2 BRIEF HISTORY OF EPISTEMOLOGY

Contents

- 2.0 Objectives
- 2.1 Introduction
- 2.2 Period of Ancient Greek Philosophy
- 2.3 Medieval Epistemology
- 2.4 Rationalism, Empiricism and Synthesis in Kant
- 2.5 Post-Kantian Epistemology
- 2.6 Phenomenological Epistemology of late 19th Century
- 2.7 Realism of 20th century
- 2.8 Recent Developments in Epistemology
- 2.9 Let us sum up
- 2.10 Key words
- 2.11 Further Readings and References
- 2.12 Answers to Check your Progress

2.0 OBJECTIVES

In this unit we study the history of Western Epistemology, divided it into seven periods. Each period is described with its own special contexts and characteristics. Going through these periods, we shall see how Epistemology, this important branch and foundational treatise of philosophy developed from the 5th century BC up to our present day.

Thus we learn:

- How the theories of knowledge propounded by the great ancient Greek philosophers, like Socrates, Plato and Aristotle to counteract the skepticism of the time and how it took a turn to empiricism in Epicurus and the Stoics and ended up in a sort of mysticism in the Neo-Platonists.
- Growth and development of epistemology in the medieval period, going into the thought of Augustine, Thomas Aquinas and William Ockam. We also see how during this period the three important theories of the Universals, viz., Realism, Conceptualism and Nominalism, came into existence
- The progress of epistemology in the 17th century; the opposition between Continental Rationalism and British Empiricism; the great contribution of Emmanuel Kant who made a synthesis of both.
- The Idealist epistemology of Fichte and Hegel, characteristic of the Post-Kantian period.

- Late 19th century Phenomenological epistemology, associated with existentialism - originally a reaction against the idealism of Hegel.
- The 20th century swing from Idealism to Realism in epistemology.
- The recent developments in epistemology, viz., virtue epistemology and post-modernist epistemology that challenges the traditional epistemology.

2.1 INTRODUCTION

Epistemology's beginning in the Western philosophy can be traced back to the 5th century BC when a group of people called Sophists appeared in Athens. They were doubtful about the possibility of any knowledge at all. It is in the context of counteracting to the skepticism of the Sophists and skepticism in general, the ancient Greek philosophers, Socrates, Plato and Aristotle asserted the possibility of knowledge with their different theories of knowledge. This was the beginning of this important branch of philosophy. The emergence of science during renaissance and the disputes that it produced led again to certain skepticism about claims to knowledge and to the search for a method, like that of science for epistemology. Thus the Rationalists of the 17th century attempted to show that the primary truths that constituted certainty of knowledge are related to other self-evident truths existing in mind. Empiricists of the time opposed this, saying that all knowledge begins with sensible experience and arises out of it. Emmanuel Kant synthesized these opposing views. Post-Kantian epistemology of Idealism followed, in reaction to which came the phenomenological epistemology in late 19th century leading to the 20th century Realism and Logical Positivism. This survey of the history of epistemology ends with the recent developments of Virtue Epistemology and the Post-Modernist epistemology.

2.2 PERIOD OF ANCIENT GREEK PHILOSOPHY

In ancient times the Greek Sophists raised skeptical consideration about the possibility of knowledge: Gorgias claimed that nothing exists; and even if it existed, we could not know it and communicate it; Protagoras asserted complete subjectivism regarding knowledge.

Socrates (c 470 BC -399 BC)

Reacting to the skepticism of the time, Socrates argued that knowledge was attainable by his method, called 'Socratic irony' or '*maieutic* method' helping one to remember what one already knows, the knowledge of Forms or Universals which is already in one's mind.

Plato (429-348)

Arguing negatively that knowledge cannot be mere sensations, Plato follows his master Socrates' theory that knowledge is nothing but a remembering of Forms or Universals, we have contemplated before our birth and bringing it to light what was hidden in the recesses of our minds; birth being accompanied by forgetfulness. Reacting to the complete subjectivism of the sophists, Plato came to hold that reality cannot be changing or imperfect and that it must therefore consist in a world of 'Forms' or 'Ideas' independent of the sensible world. Here knowledge consists in apprehension of Forms or Ideas which never change. Thus Plato also

broke with the materialistic theories of knowledge, as developed by some of the Pre-Socratics.

Aristotle (384-322 BC)

Like Plato, Aristotle held that knowledge is concerned with the Universals – with Forms – any knowledge which is expressible in judgment must consist of an apprehension of an essential connection between Forms. To know something about a thing is to be able to subsume it under species and genus and thus to know what is essential to it. Insofar as we can be said to know particular things, we know them as instances of a Universal; we know the Universal in the particular. Aristotle thus rejects the Platonic notions of a world of separate Universals or Forms. Knowledge depends ultimately on the soul's or mind's reception of the Forms of things. The soul itself is not a distinct spiritual entity but the set of faculties possessed by the body.

Aristotle's preoccupations with epistemology appear in his theory of science; in his theory of the mind and its faculties. According to him, to know the essence of a thing is to give the cause of it, which involves the demonstration of its essence from first principles, the first principles themselves can be known only by a form of intuition. Principles such as law of contradiction, which are implied in all demonstrations, can be proved by dialectical argument.

Epicurus (341- 270 BC)

He was an empiricist. All knowledge resulted from contact with atoms of which the soul is composed from outside. Mass stimulation of the sense organs results in a presentation or appearance (*phantasma*) to the soul. Sense experience occurs when incoming presentation is fitted to a general conception. This is the nearest thing to judgment, and this is the most usual source of error.

Stoics (c 300 BC)

Stoics (Zeno - founder of the school, Sextus Empiricus and Chrysippus) were empiricists to a large extent. Like Atomists of the time, Stoics thought things make impression on the soul, although they differed from atomists over which physical process were involved whenever an impression is received in the soul, the soul has to register it by a process of assent, but there cannot be knowledge until there is apprehension, until the soul is gripped by the impression.

Neo-Platonists

In the third century Platonism was revived in its more mystical aspects by **Plotinus** (205-270 AD). The soul, as opposed to the body, is given prominence, so that perception and knowledge are made a function of the soul, the main function being contemplation of the Forms; the body and its impressions are merely instruments for the soul to use.

2.3 MEDIEVAL EPISTEMOLOGY

Medieval thinkers were primarily concerned with issues in metaphysics, logic and natural theology; less with epistemological topics. However, Augustine, Aquinas and Ockham were three thinkers for whom epistemological questions were of interest and important.

Augustine (354-430 A.D).

Augustine provided the classic refutation of skepticism with his famous '*Si fallor, sum*' argument. Even a skeptic is bound to admit that he is certain of some truths – his own existence being one of these. After all, 'even if I am in error, I exist'. If you did not exist, you could not be deceived!

Augustine's epistemology gave prominence to soul by stating that the soul produces impressions when the body is stimulated. Experience involves inference, as the soul subsumes its impressions under concepts. To have concepts is to be aware of Forms. Forms or Universals have real existence in the mind of God, and all knowledge, even sense knowledge involved awareness of God. Augustine then brings in the theory of 'divine illuminationism' to solve the problem of how our mind, finite, changing and fallible is able to attain necessary and eternal truths, by God illumining our minds.

Thomas Aquinas (1225-1274)

Aquinas closely followed Aristotle's account of scientific knowledge. For Thomas, sensation is the act of the total human composite, body and soul and not (as Augustine) an act of the soul using the body. Next, there are no innate ideas to be found in man: all his ideas come to him through the senses, though he may develop and reason about them until he reaches conclusions that go beyond the immediate evidence of his sense.

Sensation gives us knowledge of particulars, not of universals. In and through this particular, material sense impression man apprehends the Universal and the abstract. Obviously the intellect has to actively, in someway, render the sensible species intelligible. The active intellect, which is not a part of the intellect, much less a second intellect in man, does this function. It illumines the phantasm and abstracts the universal element, producing the impressed species on our passive intellect. Thus, Aquinas built a masterly synthesis as regards the Universals by Realism and responded to the age-old objections of Nominalism (Universals were mere names) and Conceptualism (in so far universal concepts are formed by abstraction and through these concepts we conceive what is objectively in the thing, though we do not conceive it as it is in the thing; Universals existed only as concepts in the mind)

William Ockham (c1290/1300-1349) makes an interesting break with Aquinas' conception of knowledge. For him, there is no intermediary such as a phantasma or form, or sensible species of the perceived object in perception of an external physical object. One is knowing the singular rather than the Universal. (Ockam was a Nominalist insofar as Universals were mere 'names' which signify individual things and stand for them in propositions) One intellectually apprehends the individual material existent directly, and not by having to pass by way of the Universal. This is empiricism, but it cannot be put on the same plane as British empiricism.

Check Your Progress I

- Note:
- a) Use the space provided for your answer.
 - b) Check your answers with those provided at the end of the unit.

- 1) Explain briefly how the great ancient Greek philosophers counteracted skepticism.

.....

.....

.....

.....

- 2) Give a brief analysis of the Medieval Epistemology.

Which were the theories of the Universals that developed during this period?

.....

.....

.....

.....

2.4 RATIONALISM, EMPIRICISM AND SYNTHESIS IN KANT

The emergence of science during renaissance and the disputes that it produced led to certain skepticism about claims to knowledge and to the search for a method, like that of science. Rationalists have generally attempted to show that the primary truths that constitute certain knowledge are related to other truths somewhat as the axioms are related to theorems on geometry. Empiricists on the other hand, have taken the view that the truths which constitute ordinary knowledge can be constructed out of the primary truths, as a building is built up from its foundation. Rationalists looked for them among the deliverances of reason, whereas empiricists looked for them on sensible experience.

Rationalism

Rationalism asserts that by employing certain procedure of reason alone we can discover knowledge in the strictest sense. Theories of knowledge, like those of Leibniz and Spinoza were also called rationalistic in this sense. But the chief Representative of rationalism was **Rene Descartes** (1596-1650).

He was seeking an absolutely certain basis for all knowledge. After casting doubts on scientific, mathematical and sense information, Descartes continued his quest for some information which would be indubitable and certain until he found it in: I am, I exist. It has to be true, every time that I utter it or I mentally think about it. 'I think, therefore I am'. Whenever I conceive of any condition under which 'I think, therefore I am' may be false, I am completely assured that I exist. Any attempt to doubt or deny this, is still another thought which confirms me that I must exist in order to think. Thus Descartes built his epistemology on this indubitable and certain truth and other self-evident truths deducted from and related to this self-evident truths existing in mind.

Empiricism

In general, empiricism stands in opposition to rationalism both in its view about the main sources of our ideas and in its views concerning the source of true knowledge.

John Locke (1632-1704) was a complete empiricist insofar as he tried to work out an explanation of our knowledge in terms of sense experience. Our knowledge comes to us through our senses. We have two sources of knowledge, one is sensation and the other is reflection.

David Hume (1711-1776), who introduced the experimental method into philosophy following Newton, was a real empiricist. Everything we are aware of can be classified under two headings, impressions and ideas. The difference between the two is the degree of force, liveliness with which they strike upon the mind. Impressions are more forceful and lively than ideas. Hume denied innate ideas.

Immanuel Kant (1724-1804)

Kant made a synthesis of Rationalism and Empiricism by asserting that although all our knowledge begins with experience, it does not follow that it all arises out of experience. We have certain ideas, concepts and know certain things, which are not derived directly from impressions through our senses, as concepts of space and substance as well as propositions of mathematics, proposition: 'Everything which happens, has its cause', whose source must be the mind itself. Thus Kant concludes that *synthetic a priori* judgments and concepts are possible.

Space and time provide the *forms* of all experience, sensation provides the *content*. What is given in this way must be subsumed under concepts in judgment, if knowledge is to result. It should not be of imagination (Hume). Such judgments have to conform to principles of understanding and that principles are derived from the pure, formal concepts which Kant calls categories of understanding. Only insofar as our judgments conform to these principles can judgments that we make about appearance be true for all men.

2.5 POST-KANTIAN EPISTEMOLOGY

Idealism was the characteristic of Post-Kantian epistemology. It was begun by **Johan Gottlieb Fichte** (1762-1814) who found fault with Kantian view of things-in-themselves that are beyond the reach of knowledge. With rejection of things-in-themselves (*Noumena*), experience and experiencer became only two sides of the same coin. For this reason, the general trend of idealism was toward the coherence theory of truth – the view that experiences and judgments are true to the extent they cohere with one another, forming a coherent system. The sensible world is therefore only appearance, and reality must be something else.

G.W. Friedrich Hegel (1770-1831)

Influenced by Platonist and Neo-Platonist conception of an intelligible world of Forms with a structure of its own, through a dialectic, Hegel charts the notions most central to reason, beginning with the opposition between the categories of *Being* and *Nothing* and the synthesis of which he finds in *Becoming*. These are

notions which reason finds indispensable for any account of the world and upon which logic must depend.

Hegel begins by pointing out that consciousness appears to be apprehension of what is immediate, of what *is*, which is, it appears, a confrontation of the ego with something else (Fichte supposed).

Check Your Progress II

Note: a) Use the space provided for your answer.

b) Check your answers with those provided at the end of the unit.

1) Explain briefly rationalism and empiricism and their synthesis in Kant

.....

.....

.....

.....

2) Discuss how the Idealism of Hegel was a reaction to Kant's rejection of Noumena

.....

.....

.....

.....

2.6 PHENOMENOLOGICAL EPISTEMOLOGY OF LATE 19TH CENTURY

Neo-Kantian philosophy came under empiricist influence from Britain and at the end of the century under the influence of Franz Brentano and Alexius Meinong. This finally led to a return to realism, a movement that not only produced phenomenology but also influenced Bertrand Russel and other Realist philosophers.

Brentano (1838-1917)

Brentano was concerned with the psychology of our mental acts. Each mental act had an immanent object. Then the question: how a real act can have an unreal object?

Meinong(1853-1920)

Taking up the question, Meinong postulated non-existent objects to explain the possibility of our thinking, for example, of things that do not or cannot exist. Similarly, false judgments were said to correspond to what he called objectives – non existent state of affairs which would be facts if only the corresponding judgments were true. Objectives could not be said to exist, for they were not things, but they might subsist. From a linguistic point of view, this doctrine implied a realist theory of meaning, according to which the meaning of any expression was given by a corresponding entity. The fact these entities were not themselves

mental entities (although they gave content to what is mental) implied a return to realism in a more general sense. Objects could be real, according to Meinong, without being actual.

Husserl (1859-1938)

He started from Meinong, maintaining that the proper philosophical task was to investigate the essence of mental acts and their object. Philosophy consisted, in his view, in an enquiry into the essences with which they are concerned. To study this, it was necessary to strip off all presuppositions, metaphysical or otherwise. He adopted the method of bracketing (*epoche*) – the bracketing of presuppositions – in a manner akin to Cartesian method of doubt. This would lead to pure consciousness as the one absolute, the one firm thing, and from this philosophers may turn back to investigate the essence of different phenomena as they appear to consciousness. Thus, in effect the initial realist point of view led back to one which was more like the idealism.

Henri Bergson (1859-1941)

He is an anti-intellectualist, who emphasized life against thought. Space and time, of which we are conscious, are continuous; the division of it into things and processes is due to the intellect, which carries out the division according to the biological needs.

Because of this emphasis on biological utility, there is a relativism in Bergson's point of view, which he has in common with American Pragmatism as instituted by William James (1842-1910) and C S Pierce (1839-1914): our concept of anything is determined by our concept of the practical bearing of that thing. In sum, meaningfulness is a question of practical utility. William James turned this theory of meaning into a theory of truth. Test of truth is its fruitfulness. John Dewey (1859-1952): knowledge as successful practice.

2.7 REALISM OF 20TH CENTURY

G E Moore (1873-1958)

He insisted that concepts or ideas should be regarded as the objects, the meanings, of our thoughts. Things are merely collection of concepts and as such enter into propositions as their constituents. There seems to be no propositions at all. If there were, there would have to exist something corresponding to false beliefs.

Bertrand Russell (1872-1970)

He was first an idealist but was converted to realism by Moore. From Leibniz, Russell took the view that philosophy consists in the analysis of propositions and his interest in logic also brought him to a concern with language.

For Russell, it was important that all knowledge be founded on knowledge by acquaintance, if it was possible at all, for only in knowledge by acquaintance is error absolutely impossible. He gives a list of the knowledge by acquaintance – sense data, memory-data, the self, and universals. Of physical objects we have only knowledge by description, because here error is possible.

Ludwig Wittgenstein (1889-1951)

Wittgenstein criticized the attempts implicit in much sense-datum philosophy to construct a private language by arguing that the results of such attempts would lack the essential conditions of a language. He also stressed the importance of bringing back terms to the language game that is their original home – ordinary language. This is perfectly in order as it is; the important thing is to examine the uses to which expressions are put, with the recognition that language is a form of life and must be treated accordingly. Among other things this led to the recognition of truths which are necessary but not analytic. These are truths which express non-analytic connections between concepts. The emphasis upon such truths and the arguments which lead to them on the part of followers of Wittgenstein was in a sense a partial return to Kant.

Logical Positivists

Wittgenstein's *Tractatus* influenced a group of philosophers –Vienna circle. According to them meaningful proposition must be either analytic or empirically verifiable. So metaphysical propositions which belong neither to mathematics and logic nor to science, are meaningless.

Moritz Schlick (1882-1936)

Schlick was the original leader of the group. He felt compelled to interpret scientific laws as rules rather than statements. Regarding the problem of 'empirically verifiable', he held that ultimately there had to be a direct confrontation with experience. His view brought with it the correspondence theory of truth.

Karl Popper (1920-1994)

He was influenced by the movement of Vienna circle. Key to understanding of science is not in verifiability but falsifiability. He put this forward not as a theory of meaning but as a criterion for the demarcation science from metaphysics.

2.8 RECENT DEVELOPMENTS IN EPISTEMOLOGY

Introduction

Ethicists like Alasdair MacIntyre (1929-) and John McDowell (1942-), today talk about Virtue epistemology that focuses on the characteristic of knower than the individual beliefs or collections of beliefs. There are also emerging challenges to traditional epistemology from Postmodernism

Virtue Epistemology

Roughly, the claim is that when a true belief is the result of the exercise of intellectual virtues, it is knowledge. Such an approach re-introduces some neglected areas of epistemology, for example connection of knowledge to wisdom and understanding.

Post-Modern Epistemology

The emerging challenges from Postmodernism to certain presuppositions of traditional epistemology are, for example, the arguments that there is no set of

rules for belief acquisition that are appropriate for all people and all situations; that many of the proposed conditions of good reasoning, for example, ‘objectivity’ or ‘neutrality’ are not invoked in the service of gaining truth, as traditional epistemology would hold, but rather they are employed to prolong entrenched power (at least in some cases) and distorts the objects of knowledge (Feminist Epistemology).

Check Your Progress III

Note: a) Use the space provided for your answer.

b) Check your answers with those provided at the end of the unit.

1) Explain the various stages of the phenomenological epistemology which led to the Realism of 20th century.

.....

.....

.....

.....

2) What was the criticism of Wittgenstein’s Language philosophy to Realism?

.....

.....

.....

.....

3) What is logical positivism? Explain briefly its development in history?

.....

.....

.....

.....

4) Which are the recent developments in epistemology?

.....

.....

.....

.....

2.9 LET US SUM UP

After going through the various periods of the history of epistemology we see there are two main trends started by Plato and Aristotle running through the whole history of epistemology, viz., idealism and Realism. Though there were efforts to combine them by philosophers like Kant, they were met by a return to either idealism or Realism. But one thing we can learn from the history of epistemology

is depth of that simple question: “What is it to ‘know’ philosophically, the problematic of knowledge, truth and certainty in general and to recognize the baffling mystery of the power of our human mind for growing in the never-ending process of arriving at Truth and wisdom.

2.10 KEY WORDS

Skepticism	: The theory which says that there is no possibility of knowledge
Maieutic method	: From the Greek verb, meaning to serve as a midwife because Socrates said that his role was but to help the student to give birth to knowledge.
Empiricism	: Theory which explains knowledge in terms of sense experience.
Noumena	: In opposition to <i>phenomena</i> , which means appearances; <i>noumena</i> means things-in-themselves.
Phenomenology	: The science of what is given immediately to our intentional consciousness
Pragmatism	: is that doctrine or trend of thought according to which the value of an assertion lies solely in its practical bearing upon human interests.

2.11 FURTHER READINGS AND REFERENCES

Copleston, Fredrick. *A History of Philosophy*. Vol.1. New York: Image Books, 1962.

Encyclopedia of Philosophy, (2nd edition) ed. Borchert, Donald M, vol. III. Thomson Gale, Farmington Hills, MI, 2006

Kenny, Anthony. *A Brief History of Western Philosophy*. United Kingdom: Blackwell Publishers, 1998.

Popkin, Richard H, and Stroll, Arum. *Philosophy*. 3rd edition. Oxford: Butterworth-Heinemann, 1993.

Routledge Encyclopedia of Philosophy, ed. Craig, Edward. Vol. III. London and New York, 1998

Walsh, Martin. *A History of Philosophy*. London: Geoffrey Champion, 1985.

2.12 ANSWERS TO CHECK YOUR PROGRESS

Answers to Check Your Progress I

1. Criticizing the skepticism, **Plato** tried to construct a theory of knowledge – what knowledge is possible, how we could attain it, and why it was true. He agreed with Socrates that knowledge is nothing but a remembering of what

we have contemplated before our birth and bringing to light what was already in our minds; birth being accompanied by forgetfulness. He came to hold that reality cannot be changing and that it must therefore consist in a world of 'Forms' or 'Ideas' separate from the sensible world. Knowledge consists in the apprehension of these forms or ideas which never change. Like Plato, **Aristotle** held that knowledge is always knowledge of the Forms or the Universals. But he rejects the Platonic notions of a world of separate Universals or Forms. Knowledge depends ultimately on the soul's reception of the Forms of things. Sense perception is the receiving by the sense organ, the faculty of which is the respective sense, of the sensible form of a thing without its matter. There is then a reception of Form in this case not sensible Form but intelligible Form by the intellect, which is a faculty that depends on the prior exercise of perception.

2. Knowledge of a thing involves knowledge of its general characteristics; therefore, its subsumption under a universal. The main dispute during this time was over theories of Universals. Realists thought that universals had an objective existence. Conceptualists held that universals existed only as concepts in the mind. Nominalists held that the only universal things were words.

Answers to Check Your Progress II

1. Subscribers to Continental rationalism in the modern period was philosophers like Descartes, who was seeking an absolutely certain basis for all knowledge in some truth which was indubitable and certain, which he found in: *Cogito, ergo sum* 'I think, therefore I am'. On this fundamental truth he builds his epistemology. Empiricism stands in opposition to rationalism both in its view about the main sources of our ideas and the source of true knowledge, which is sensation and reflection. Kant joins the two views by his *Synthetic a priori* knowledge which means that not all knowledge about things can be derived from sensible experience alone. Spatio-temporal forms, which are not derived from sense experience, are necessary, *a priori* characteristic of experience, whose content is provided by sensation. Knowledge results when the forms and content are subsumed under concepts in judgment and such judgments have to conform to principles of understanding, which are derived from the pure, formal concepts (categories). Only insofar as our judgments about appearance conform to these principles they are true for all men.
2. Idealism came as a result of Kantian rejection of things-in-themselves (Noumena) that are beyond the reach of knowledge. Sense knowledge proper must involve a subsumption of the immediate consciousness under Universals or concepts, and, moreover, there is no way of grasping the particular which is thus subsumed under concepts except by reference to other concepts. Sense knowledge thus turns out to be a mediated knowledge which is possible only through the medium of Universals and which is not a direct knowledge of reality. The intellect provides with a higher universal which constitutes the basis or condition for applying the lower-order universals in sense perception. The unity of the objects of perception is due to the law-like connections which exist between Universals under which they are subsumed. The opposition between consciousness and self-consciousness requires a synthesis by reason.

1. Phenomenological epistemology started with Meinong and Brentano who were influenced by British empiricism. Husserl starting from Meinong, maintained that the proper philosophical task was to investigate the essence of mental acts and their object. Philosophy consisted, in his view, in an enquiry into the essences with which they are concerned. To study this, it was necessary to strip off all presuppositions, metaphysical or otherwise. He adopted the method of bracketing (*epoche*) – the bracketing of presuppositions – in a manner akin to Cartesian method of doubt. This would lead to pure consciousness as the one absolute, the one firm thing, and from this philosophers may turn back to investigate the essence of different phenomena as they appear to consciousness. Thus, in effect the initial realist point of view led back to one which was more like the idealism.
2. Wittgenstein appeals to usage and functions of language for knowledge. Language is a form of life and must be treated accordingly. This leads to the recognition of truths which are necessary. The emphasis upon such truths and the arguments which lead to them was in a sense a partial return to Kant.
3. Logical positivism: Meaningful proposition must be either analytic or empirically verifiable. Basic proposition must be about immediate experience. It started with Vienna circle, a group of philosophers who were influenced by Wittgenstein. M. Schlick, the leader of the group interpreted scientific laws as rules rather than statements. He held that ultimately there had to be a direction confrontation with experience for solving the problem of empirically verifiable. This led Karl Popper to state that the Key to understanding is not in verifiability but falsifiability.
4. Virtue epistemology: justification and knowledge arises from the proper functioning of our intellectual virtues or faculties in an appropriate environment. Post-modernist epistemology typically opposes the presuppositions shared by foundationalism, essentialism, and realism. For R. Richard Rorty, Michael Foucault, Jacques Derrida and Lyotard oppose transcendental arguments and transcendental standpoints; reject the picture of knowledge as accurate representation; reject principles, distinctions and categories that are thought to be unconditionally binding for all times, persons and places; reject any complete and closed explanatory system and grand narratives.