
UNIT 1 NATURE AND SCOPE OF EPISTEMOLOGY

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1.0 OBJECTIVES

- To introduce the students to the nature and scope of epistemology.
- To give a preliminary introduction to the course of epistemology and its relevance to philosophy.
- To acquaint the students with the preliminary history of epistemology.

1.1 INTRODUCTION

Epistemology deals with the study of knowledge, or more specifically with what we know and how we know it. Therefore, we might say it is to do with justifying our knowledge. However, justified knowledge is also associated with the notion of truth, and the idea of belief. This is because people are not usually justified in claiming to have knowledge of things they do not believe to be true (E.g. Ask an atheist to explain what they know about God). The tripartite definition of knowledge is that “knowledge is justified, true, belief.” Of course, people all around the world differ in their fundamental beliefs about the nature of reality, and as a result they inevitably claim to be justified in knowing and believing many different things to other people. As such, epistemology tries to examine and establish the conditions for certain knowledge (knowledge which cannot be doubted by anyone), and also to establish the conditions for knowing a statement is justifiably true.

The Greek word ‘episteme’ is the root of epistemology or study of knowledge. This philosophical term is commonly associated with the inquiry of truth and knowledge. In fact it was Greek philosophers who initiated such a study and from their cultivation of epistemology, stem the growth of many sciences. The word may have few connotations. First, epistemology can be the quest for true and scientific knowledge as opposed to opinion or belief. Secondly, it may be seen as an organized body of thought about reality. In general it may be regarded that epistemology is the branch of philosophy that studies knowledge. It attempts to answer the basic

question: What distinguishes true (adequate) knowledge from false (inadequate) knowledge? Practically, this question translates into issues of scientific and philosophical methodology: How can one develop theories or models that are better than competing theories of knowledge? As a philosophical enquiry, together with logic, it sharpens our quest in all other philosophical domains like metaphysics, cosmology, ethics and philosophy of God. When we look at the history of epistemology, we can discern a clear trend, in spite of the confusion of many seemingly contradictory positions. The first or ancient theories of knowledge stressed its absolute, permanent character. But the contemporary epistemological theories put the emphasis on its relativity or situation-dependence, its continuous development or evolution, and its active interference with the world and its subjects and objects. The whole trend today is to understand knowledge not as a static, passive reality, but more as adaptive, participative and active process. (Refer <http://pespmc1.vub.ac.be/epistemi.html>)

1.2 HISTORICAL EVOLUTION OF GREEK EPISTEMOLOGY

As stated already, the roots of epistemology can be traced to the Greek language. Therefore, a better understanding of the subject requires a brief historical account of the conditions in which Greek philosophers lived. The first groups of Greek philosophers are referred to as the Pre-Socratics. They include the Milesians, Ionians, Eleatics, Atomists, and Sophists. Important to this historical analysis is for us to realise how the importance changes from geographical to ideological. The change is caused by the conditions in society enabling Athens to become the center of teaching, reflection, wisdom and even governing.

The first philosophers were residents of prosperous cities. Since they travelled widely, they had the luxury that allows speculation and philosophical thinking. Besides trying to improve methods in farming and other occupations, these rich men could afford time for reflective thought. This reflection about nature produced conceptual questions laying the foundations for philosophy. They took up issues of existence, knowledge, and value. Important to their conclusions about nature is the fact they were based upon, what we call today, non-scientific methods of observation. Their speculation is based on few primary documents written by earlier philosophers, or more on secondary sources, oral traditions, and the known historical events.

1.3 HISTORICAL BACKGROUND IN GREECE

The peninsula of Greece (or Hellas) is located on the Aegean Sea, where the climate is very favourable for human habitation. Agriculture became widespread and early civilizations flourished. The three civilizations of the Bronze Age were the Minoan, Cycladic, and Helladic. These civilizations became the first high civilizations on the European continent; they constructed great palaces and writings emerged from there. On the Island of Crete, the Mycenaean rose to supremacy. The significance of the Mycenaean culture was their likeness to the Homer's *heros*. However because of invasion and various natural disasters the Mycenaean went into a dark age around 1450 B.C. This led to population shift to the Ionian Isles and may have resulted in the partial collapse of civilization. Further, the decline of their culture was

aggravated by drought, climate change, harvest failure, epidemic and civil unrest (Refer: Wikiversity).

The Dorians, a nomadic people, invaded the place around the end of the Dark Ages, at about 900 B.C. One of the first Greek historians, Thucydides, wrote about the Trojan Wars. Thus the written history emerged after a 400 year gap, from compilation of oral traditions and claimed that the Dorian invasion was the famous wars between Troy and Sparta. The Dorians were traditional enemies of the Ionians. During the Archaic period (900 B.C.) tensions created by war, economies, and religion made society fragile. Later, things began to settle down. Then trade expanded, the first Olympic Games began in 776 B.C., and small communities developed in geographically secured regions on top of alluvial plains surrounded by impassable mountains. Thucydides speculated that sanctuaries to the gods became permanent as early as the 8th century BC.

In any case by 6th century, cultural figures such as Lycurgus, author of the Spartan constitution, and Solon of Athens demonstrated a Greek society that moved beyond subsistence and was stable enough for viable trade and economic stratification. The diversity of economics gave rise to tyrants also during the 6th century. Thus the first laws attempting to structure society were Draconian Laws of 621B.C. These laws were harsh and savagery. By 594 B.C., these Draconian laws were replaced by the laws promulgated by Solon, a poet and statesman. His laws were more flexible and allowed the liberty of self expression. Paramount to the birth of western philosophy was the economic and social conditions of the times. The development of epistemology was, in fact, a process of civilization's progress. During these times of economic stability, conditions were prosperous enough to develop thought, including philosophical and epistemological thoughts.

Check Your Progress I

Note: Use the space provided for your answer

1. What is the definition of "knowledge"?

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2. In general how do the ancient theories of epistemology differ from the present ones?

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1.4 THE EARLY GREEK PHILOSOPHERS

Miletus, a Greek colonial port city, is home to Thales (624-545 B.C.). He is generally recognized as the first philosopher since the written and oral records of western philosophy can be traced to him. A summary of Thales' contribution to philosophy suggests that all things are full of the gods, and that by some nature or principle all things come into being. He shows this by using the principle of a magnet. Because it attracts iron it must possess a soul. Further, everything has a prime mover, just as the magnet. The prime mover or *arche* of everything, according to Thales, was water because the "seeds of everything have a moist nature." Although his argument is based on observation of the natural world, Thales plants the seed that develops into the quest for knowledge, both scientific and divine. The concept that everything comes from an *arche* and thus returns to an *arche* is the origin of monism or belief in one substance.

Next was Anaximander (610-540 B.C.). Only very few of his writings survive. Specifically, his contribution was the idea that the universe originated from the *apeiron* or the boundless. Therefore, the *arche*, or ultimate underlying substance of all things, must be something other than the four elements of earth, fire, water, and air. If any one of these were limitless it would destroy the other. So the *apeiron* cannot be any one of these four. By his insightful thoughts, Anaximander was laying the foundation for the search for the boundless, that is, theology and the quest to identify with the divine.

Interestingly enough the next of the philosophers, the Ionian, Pythagoras was not even a mathematician. Rather he focuses on a doctrine of metempsychosis or belief that the soul is immortal. He believed the ordering of the natural world was in accordance with mathematic relationships and harmony. His teaching promoted a strict way of life including a strict vegetarian diet since his ideology incorporated that each human and animal soul is reborn.

His successor Heraclitus agreed with the Milesians on the cyclic nature of stuff, but claimed the *arche* was fire and that the flux in nature allowed the contraries of hot and cold to change each element into other. This applies to ideas as well for instance. According to him without strife there is no justice or without war there is no king. "Conflict is Justice, and that all things come to pass in accordance with conflict." This harmony of conflict sustains the world under a law of process and opposition. Logos, or proportion as used in the common language of the Greeks, was the standard for all things. However, he also uses it in a more technical term in which logos is an underlying organizational principle of the universe. This principle is "hidden and perceptible only to the intelligence." Therefore, Heraclitus is particularly important to the establishment of logos as a foundation in Stoicism and Christianity. In epistemology too this idea is significant since only through such a journey of the logos is the knowledge of the divine revealed.

The Eleatic, Parmenides, 5th century philosopher, conceptualized that being is neither changeable nor divisible and can be neither created nor destroyed. Further, he alludes to the dualistic nature of the cosmos. According to his epistemology it is only the being that can be named or identified. Therefore, there can be only one original being and everything else is illusory. Thus, everything is actual or perceived, likewise either true or false, a conclusion highly contested by Plato later on.

During the consolidation of intellectual and political power, Anaxagoras (500-428 B.C.), a Milesian, moves to Athens. He concluded that nothing can come into being or be perished. All

things are made up of ultimate realities of the four elements, taking the shape of the dominant element. According to him, creation was a mixture of elements stirred by nous, or father of all substances. Everything is as it is perceived, and there is no discrepancy between appearances and reality. Most importantly, he believed the mind does not mix with things because it is too fine. It is this separation that forms the foundation for mind and body dualism.

Empedocles rejects monism. He claims that the forces love and strife coupled with the four elements is the motivation for existence. There exist divine gods that are immortal and powerful but they do not influence being. In conclusion, these pre-Socratic philosophers sow the seeds for the origin of uncertainty that emerges in the study of epistemology. The pre-Socratics believed all things to be made of matter. They also upheld the view that it is only through reason that knowledge be found. Heraclitus fostered this hypothesis, but subsequent philosophers moved towards a concept that everything was in flux.

1.5 THE GERMINATION OF WESTERN EPISTEMOLOGY

The next set of philosophers had a great impact in the world of inquiry and epistemology. They develop styles of writing and rhetoric that challenge the beliefs and authorities of the civil society of those days. Democritus, the Atomist, wrote over fifty works that were destroyed in the 4th century A.D. Democritus developed the concept of the *atomos*, or indestructible, indivisible material of one true substance, which form into a complex mixture of atoms by colliding and adhering to each other. Democritus, together with Leucippus, hypothesized that there exists either a void of non-being or a spatially full being. In other words, nothing happens randomly. Rather things happen by the differences in atoms and their attraction to each other. Thus the properties of things are caused by atoms: their shape is caused by rhythm, order by contact, and mode by position, etc. The size and shape of the perceptible world is only perceived by senses and are thus conventionally given. In other words convention or “*nomos*” of the society is significant. This concept of “*nomos*” gives rise to the Sophists’ argument between convention and nature. “Sophia,” (meaning wisdom) was what the Sophists sought. Chrysippus believed the four virtues -temperance, courage, justice, and wisdom - were naturally occurring and not given by convention. Virtue (or “*arête*”) was the means by which happiness was to be found. Protagoras, the most famous of the Sophists, stressed that while keeping the appearance of virtue, one may use four types of speech (wishing, asking, answering, and commanding) to increase the power of persuasion. Unfortunately, this approach got a bad name since they used it to for financial gain and helped to discredit the moral objective of the Sophist. When Protagoras states, “Man is the measure of all things,” he implies that everything that is real is perceived by humans (like Plato's cave), in accordance with sense perception and convention. The Sophist contribution was to raise these issues justice (“*dikaiosyne*”) or virtue in ethical debate. Hence, the Sophist may be considered as the first to raise the epistemological question: How much of what we think we know about nature is objective and how much is human convention?

Then comes Socrates, for whom wisdom is the cardinal virtue. In practice the Socratic Method is based on the assumption that understanding your knowledge is limited. This understanding creates the ground for an endless search for knowledge and in turn brings people to self realization. In the *Phaedo* Socrates makes distinctions between two types of knowledge, opinions and truths. In his quest for knowledge, justice is the underlying faculty for all subsequent

exploration. Plato was influenced by Socrates. In his quest for justice, he inadvertently opens the path to truth and knowledge. His main goal was ethics, but this search for ethics leads to epistemology. Plato's first argument in epistemology is made between true belief and knowledge. "You argue that a man cannot inquire either about that which he knows, or about that which he does not know; for if he knows, he has no need to inquire; and if not, he cannot; for he does not know the very subject about which he is to inquire." (Meno 80e)

Plato uses a theory of recollection (*anamnesis*) to build on Pythagorean theory of rebirth. He assumes that knowledge is innate. "Then it must, surely have been before we began to see and hear and use the other senses that we got knowledge of the equal itself, of what it is, if we were going to refer to the equals from our sense-perceptions" (*Phaedo* 75b-76). In other words, the innate ideas Plato refers to are ideas that found their way in a mind without the mind needing to experience anything. In this way he concludes that not everything is known through the senses, "Well, but we ourselves are part body and part soul...then soul is more similar than body to the invisible, whereas body is more similar to that which is seen." (*Phaedo* 79b) Another discussion of Plato between the opinion and truth is also epistemologically relevant: "So wouldn't we be right to describe the difference between their mental states by saying that while this person has knowledge, the other one has beliefs?" (*Republic* 476d) In his allegory of the cave, Plato explains "The point is that once you become acclimatized, you'll see infinitely better than the others there; your experience of genuine right, morality, and goodness will enable you to identify every one of the images and recognize what it an image is of" (*Rep* 520c). For Plato, justice and civic morality was his goal in his search, which is also epistemological. Plato's dialectic style of writing differs from rhetoric, as the approach is to enlighten, rather than persuade. For him the end product or "*telos*" (goal) is the structuring of an ethical city of virtue. Plato conceived a hierarchal structure in which the nous or intellect was the supreme reality or form. The above nuances and meandering debates of "how we come to know what we know" are the historical basis for epistemology in the Western tradition, as we know it today.

Check Your Progress II

Note: Use the space provided for your answer

1. What was the contribution of Anaximander?

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2. What is 'atomos' and who proposed this idea first?

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1.6 THE BRANCHING OF EPISTEMOLOGY

Aristotle was a student of Plato for twenty years. He became the teacher of Alexander the Great, whose conquest and victory introduced many new ideologies and schools of thought in Greece. Aristotle establishes his school, the Lyceum, in Athens where the focus was on biological studies. Thus he becomes the father of categorical logic and taxonomies, the science of classification. This process requires rigorous and disciplined study to place things properly where they belong.

Aristotle's observation of natural things showed him that they perform various functions and have the potential to change. It is only by intellect can one distinguish between reality and things of convention or belief. Consequently, he concludes that some things are self-evident. He observes through language human beings reflect the world in terms of subjects and predicates. The problem is whether self-awareness comes by accident or is indispensable to understanding. For Aristotle reason was the way to self-knowledge and movement (including our capacity to actualize) was caused by a first principle. Aristotle bridges the gap between potentiality and actuality through nature.

As with other sciences, he treats knowledge as an organized body of thought, which has its own classification or taxonomy. In *Metaphysics*, he first divides *Episteme* into three groups. The first two are *praktike*, or action, as in how we make a choice, *poietike* or *techne*, meaning an applied science, or practical application of skill. The last, *theoretike* is again divided into three categories, *mathematike*, *physike*, and *theologike*. These will inquire into the mathematical, natural and divine realities. Consequently, Aristotle that broadens the branches of epistemology.

Following the death of Alexander the Great, the civil society degrades and a power struggle takes place. Three philosophies, Epicureanism, Stoicism, and Scepticism try to cope with the civil despair. Their individual goals are similar to the above philosophers in that happiness is the ultimate goal. Epicureanism or hedonism is seeking individual pleasure. Although virtue is still the foundation for hedonism (derived from the Greek "*hedone*" meaning "pleasure") the views were a misinterpretation and so later on it would become a perversion. Consequently, individual happiness takes undue precedence over community. These philosophies lead to rampant superstition, chaos and religious fundamentalism.

1.7 NATURE AND SCOPE OF EPISTEMOLOGY

Epistemology grew out of a social concern relative to the environment and the conflicts surrounding the civil society, particularly in ancient Greece, which at its high culture, provided structure that allowed the liberty of thought. In fact, epistemological questions can be traced to the root problems of every society or civilization. The very genesis of how reality is constructed, has given rise to conventions for expressing our origin and the forms in which we give name to. Thus a critical reflection regarding the source and essence of ourselves and of nature is undertaken in epistemology. This process of potentiality to actuality gives rise to the metaphysical root of epistemology.

Clearly the Pre-Socratic philosophers planted these questions. But it was Plato, schooled by Socrates' civic virtues, who turns his quest to establish a moral society into an ideal one. Plato's

epistemology evolved from his exploration of the apparent, imagined, and the recalled, which he found in his society. Thus the character of awareness and how we acquire knowledge, for example, through senses or apart from senses, expands the subject of epistemology. In turn, his student, Aristotle, lays the foundations for epistemology as a model discipline that will incorporate the practical application of science and the work ethic required for thought. He bases the thought in the real knowledge as opposed to the belief or mere opinion. In short, the goal of early philosophy was to seek a virtuous society that could live harmoniously as individuals and communities.

Thus right from the beginning the nature and scope of epistemology has been evolving, most of the time progressively. Depending on the society and its economic and cultural situation, the quest for knowledge and the basic intellectual foundations gave rise to various issues. Though epistemology generally revolves around human's search for knowledge, its particular nature and scope has been changing through history. Thus epistemology, which concerns with the nature and scope of knowledge, has its own evolving nature and scope. The horizon of epistemology is characteristic of the growth and maturity of a given society.

Epistemology enumerates potential realms of knowledge in all religious, political, mathematical, logic, scientific, ethical, or psychological. The scope of epistemology is extended to metaphysics, logic, ethics, psychology and sociology. Philosophy embraces metaphysics and epistemology as its two branches. While metaphysics studies what entities exist, epistemology studies what knowledge is and how it is possible.

The scope of epistemology is in the field of logic which is the formal science of the principles governing valid reasoning. Epistemology is a philosophical science of the nature of knowledge. For example, whether a given process of reasoning is valid or not is a logical question, but the inquiry into the nature of validity is an epistemological question. As Bertrand Russell said, 'the two great engines in the progress of human society are the desire to *understand* the world and to *improve* it.' Epistemology studies whether something is true or false, reasonable or unreasonable, justified or unjustified. In epistemology cognitive acts of human beings are evaluated and general principles are laid down for epistemic evaluations.

There are similarities and differences between ethics and epistemology. Epistemology and ethics help us to understand and improve the world by giving us guiding principles in understanding the world and improving it. When it comes to the relation between epistemology and psychology, a question arises in the mind, 'Where does the first end and the second begin?' However, in modern times psychology is establishing its independence. Psychology is a study of the mind and its processes. Hence, psychologists study phenomena such as perception, cognition, emotion, etc. The subject matter of psychology is *how* minds work, whereas epistemology deals with *what* the mind works on. However, the relation between the two is an intimate one because the subject matter of psychology (that is, the cognitive processes of perception, memory, and imagination) are the very processes involved, although in a different context, in the subject matter of epistemology. Psychology is an investigation into all mental states (including the subconscious), whereas epistemology investigates only cognitive states in relation to their cognitive meaning. In spite of partial differences we find a partial identity of the subject matter, which makes them interdependent sciences. Similarly, epistemology is related to sociology. In fact, there is a

special field in sociology called the ‘sociology of knowledge,’ in which the social conditions which lead to knowledge claims are studied. However, while sociology deals with these larger conditions of the social origins of knowledge, epistemology is more concerned with the cognitive status (that is, the validity) of the actual claims themselves.

As Aristotle said, ‘All men by their nature desire to know,’ people understand the importance and power of knowledge in human life. From very ancient times human beings have tried to *know* themselves and even the many natural and supernatural forces which confront them. Very often, the common person takes for granted that what he or she perceives to be true is true, although it is not so all the time. Epistemology reminds us of the power and the limits of the human mind, evaluates and challenges the way people think and come to know of things. Human beings desire to know the world and their place and role in it. Search for knowledge is not merely for an academic requirement but an existential concern to express ourselves. When we ask, ‘What can I know?’, we simultaneously ask, ‘What is real?’ Knowing the reality of the world and ourselves helps to achieve different goals of life and to make life beautiful. The primary goal of epistemology is to find truth that frees us from falsehood. Epistemology invites human beings to pursue truth thoughtfully by laying down principles by which one can accept something as true or reject it as false. It enables humans to identify and distinguish what is truth from falsehood.

1.8 LET US SUM UP

In this introductory unit we have seen the historical evolution of epistemology and its evolving nature and scope. The first theories of knowledge stressed its absolute, permanent character. But the contemporary epistemological theories put the emphasis on its relativity or situation-dependence, its continuous development or evolution, and its active interference with the world and its subjects and objects. The whole trend today is to understand knowledge from a static, passive view of knowledge towards a more and more adaptive, participative and active one. Aristotle, lays the foundations for epistemology as a model discipline that will incorporate the practical application of science and the work ethic required for thought to be based in the real as opposed to the belief. Altogether, the goal of early philosophy was to seek a virtuous society that could live harmoniously for the ultimate tranquility of each individual within a community. Though epistemology generally revolves around human’s search for knowledge, its particular nature and scope has been changing through history. In a word, the ‘uncovering of being’ takes place. And such true knowledge is necessary for wisdom. As Vincent G. Potter says, ‘To be wise does not require that we know everything about everything, but that we know the place of things relative to each other and to ourselves. It is to know what life as a whole is about.’ Accordingly, we can say epistemology assists human beings in realizing the Socratic maxim, ‘Know Thyself.’ Thus epistemology, which concerns with the nature and scope of knowledge, has its own evolving nature and scope.

Check Your Progress III

Note: Use the space provided for your answer

1. What was Aristotle's basic contribution to epistemology?

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2. Comment on the evolving "nature and scope of epistemology"?

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1.9 KEY WORDS

Apeiron: In Greek, boundless. Hence the infinite, or formless, and the flux of opposites which need *peras* (or a principle of order) to be rendered intelligible.

Arche: The fundamental, underlying source of the being of all.

Atomos: The indestructible or indivisible material of one true substance. First suggested by Democritus.

Dikaiosyne: Justice

Episteme: The body of ideas that determine the knowledge that is intellectually certain at any particular time.

Hedon: Pleasure

Nomos: Convention

Nous: Intellect or the father of all substances.

Praktike: Aristotle divided Episteme into *praktike* and *theoretike*. *Praktike* is related to action, as in how we make a choice, *poietike* or *techne*, meaning an applied science, or practical application of skill.

Telos: Goal or purpose

Theoretike: One of the divisions of Episteme by Aristotle, is divided into three categories, *mathematike*, *physike*, and *theologike*.

1.10 FURTHER READINGS AND REFERENCES

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