



PHI 104

Methodology of Rational Inquiry

Course Manual

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Methodology of Rational Inquiry

PHI104



University of Ibadan Distance Learning Centre
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Vice-Chancellor's Message

The Distance Learning Centre is building on a solid tradition of over two decades of service in the provision of External Studies Programme and now Distance Learning Education in Nigeria and beyond. The Distance Learning mode to which we are committed is providing access to many deserving Nigerians in having access to higher education especially those who by the nature of their engagement do not have the luxury of full time education. Recently, it is contributing in no small measure to providing places for teeming Nigerian youths who for one reason or the other could not get admission into the conventional universities.

These course materials have been written by writers specially trained in ODL course delivery. The writers have made great efforts to provide up to date information, knowledge and skills in the different disciplines and ensure that the materials are user-friendly.

In addition to provision of course materials in print and e-format, a lot of Information Technology input has also gone into the deployment of course materials. Most of them can be downloaded from the DLC website and are available in audio format which you can also download into your mobile phones, IPod, MP3 among other devices to allow you listen to the audio study sessions. Some of the study session materials have been scripted and are being broadcast on the university's Diamond Radio FM 101.1, while others have been delivered and captured in audio-visual format in a classroom environment for use by our students. Detailed information on availability and access is available on the website. We will continue in our efforts to provide and review course materials for our courses.

However, for you to take advantage of these formats, you will need to improve on your I.T. skills and develop requisite distance learning Culture. It is well known that, for efficient and effective provision of Distance learning education, availability of appropriate and relevant course materials is a *sine qua non*. So also, is the availability of multiple platform for the convenience of our students. It is in fulfillment of this, that series of course materials are being written to enable our students study at their own pace and convenience.

It is our hope that you will put these course materials to the best use.



Prof. Isaac Adewole

Vice-Chancellor

Foreword

As part of its vision of providing education for “Liberty and Development” for Nigerians and the International Community, the University of Ibadan, Distance Learning Centre has recently embarked on a vigorous repositioning agenda which aimed at embracing a holistic and all encompassing approach to the delivery of its Open Distance Learning (ODL) programmes. Thus we are committed to global best practices in distance learning provision. Apart from providing an efficient administrative and academic support for our students, we are committed to providing educational resource materials for the use of our students. We are convinced that, without an up-to-date, learner-friendly and distance learning compliant course materials, there cannot be any basis to lay claim to being a provider of distance learning education. Indeed, availability of appropriate course materials in multiple formats is the hub of any distance learning provision worldwide.

In view of the above, we are vigorously pursuing as a matter of priority, the provision of credible, learner-friendly and interactive course materials for all our courses. We commissioned the authoring of, and review of course materials to teams of experts and their outputs were subjected to rigorous peer review to ensure standard. The approach not only emphasizes cognitive knowledge, but also skills and humane values which are at the core of education, even in an ICT age.

The development of the materials which is on-going also had input from experienced editors and illustrators who have ensured that they are accurate, current and learner-friendly. They are specially written with distance learners in mind. This is very important because, distance learning involves non-residential students who can often feel isolated from the community of learners.

It is important to note that, for a distance learner to excel there is the need to source and read relevant materials apart from this course material. Therefore, adequate supplementary reading materials as well as other information sources are suggested in the course materials.

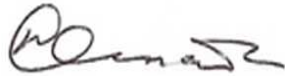
Apart from the responsibility for you to read this course material with others, you are also advised to seek assistance from your course facilitators especially academic advisors during your study even before the interactive session which is by design for revision. Your academic advisors will assist you using convenient technology including Google Hang Out, You Tube, Talk Fusion, etc. but you have to take advantage of these. It is also going to be of immense advantage if you complete assignments as at when due so as to have necessary feedbacks as a guide.

The implication of the above is that, a distance learner has a responsibility to develop requisite distance learning culture which includes diligent and disciplined self-study, seeking available administrative and academic support and acquisition of basic information technology skills. This is why you are encouraged to develop your computer skills by availing yourself the opportunity of training that the Centre’s provide and put these into use.

In conclusion, it is envisaged that the course materials would also be useful for the regular students of tertiary institutions in Nigeria who are faced with a dearth of high quality textbooks. We are therefore, delighted to present these titles to both our distance learning students and the university's regular students. We are confident that the materials will be an invaluable resource to all.

We would like to thank all our authors, reviewers and production staff for the high quality of work.

Best wishes.

A handwritten signature in dark ink, appearing to read 'Okunade', with a stylized flourish at the end.

Professor Bayo Okunade

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About this course manual

Methodology of Rational Inquiry PHI104 has been produced by University of Ibadan Distance Learning Centre. All course manuals produced by University of Ibadan Distance Learning Centre are structured in the same way, as outlined below.

How this course manual is structured

The course content

The course is broken down into Study Sessions. Each Study Session comprises:

- An introduction to the Study Session content.
- Study Session outcomes.
- Core content of the Study Session with a variety of learning activities.
- A Study Session summary.
- Assignments and/or assessments, as applicable.
- Bibliography is provided while starting the course.

Your comments

After completing Methodology of Rational Inquiry we would appreciate it if you would take a few moments to give us your feedback on any aspect of this course. Your feedback might include comments on:

- Course content and structure.
- Course reading materials and resources.
- Course assignments.
- Course assessments.
- Course duration.
- Course support (assigned tutors, technical help, etc.)

Your constructive feedback will help us to improve and enhance this course.

Getting around this course manual

Margin icons

While working through this course manual you will notice the frequent use of margin icons. These icons serve to “signpost” a particular piece of text, a new task or change in activity; they have been included to help you to find your way around this course manual.

A complete icon set is shown below. We suggest that you familiarize yourself with the icons and their meaning before starting your study.

			
Activity	Assessment	Assignment	Case study
			
Discussion	Group Activity	Help	Outcomes
			
Note	Reflection	Reading	Study skills
			
Summary	Terminology	Time	Tip

Study Session 1

Notion of Inquiry

Introduction

In this study session, we shall examine the notion of inquiry, and see whether it differs from process skill. Our emphasis shall be on philosophical inquiry, as a unique form of inquiry that involves conceptual and logical analysis, positing and explaining distinctions, evoking shared ideas and values. To achieve this objective, we shall first consider what we mean by ‘Inquiry’, and then proceed to explore two basic forms of inquiry: scientific inquiry and philosophical inquiry. Afterwards, we shall take a brief look at the process of inquiry, and narrow down our discourse to philosophical inquiry. We shall contextualize the discourse by exposing the notion of inquiry in the philosophy of John Dewey. Finally, we shall conclude with brief illustrations and examples concerning what is been inquired into in some arms of philosophy.

Learning Outcomes



Outcomes

After the Study Session, you should be able to:

- 1.1 describe the nature and scope of philosophical inquiry.
- 1.2 contrast the two types of inquiry.
- 1.3 explain the notion of inquiry using a philosopher’s standpoint.

1.1 Defining Inquiry

Inquiry Conceptual and logical analysis, positing and explaining distinctions, evoking shared ideas and values.

Though the notion ‘**inquiry**’ is somewhat elusive to define, from its common usage, the word means any quest or search for knowledge or truth. These quests have mainly been undertaken with regard either to aspects of reality or to the whole of reality.¹ Inquiry is

about logic, it is about reasoning from data, and it is about applying scientific techniques and skills to real-world problems.² In other words, ‘inquiry’ could be defined as a seeking for truth, information, or knowledge, by raising questions. The process of inquiring could be said to begin with gathering information and data through applying the human senses of seeing, hearing, touching, tasting, and smelling.

1.2 Types of Inquiries

There are two basic forms of inquiry we shall concern ourselves with in this study session. These are scientific inquiry and philosophical inquiry.

1.2 Scientific Inquiry

Scientific inquiry refers to the diverse ways in which scientists study the natural world and propose explanations based on the evidence derived from their work. It also refers to the activities of students in which they develop knowledge and understanding of scientific ideas, as well as understanding of how scientists study the natural world. Scientific inquiry is a multifaceted activity that involves making observations, posing questions, examining various sources of information to see what is already known; planning investigations; reviewing what is already known in light of experimental evidence; using tools to gather, analyze, and interpret data; proposing answers, explanations, and predictions; and communicating the results. It requires identification of assumptions, use of critical and logical thinking, and consideration of alternative explanations. Students will engage in selected aspects of this inquiry as they learn the scientific way of knowing the natural world; they also develop the capacity to conduct complete inquiries.³ There are three methods of scientific inquiry, viz: “retroduction,” “induction,” and “colligation”. Retroduction

depends on our capacity to guess at the conditions under which a given kind of phenomenon will present itself. Retroduction is similar to induction; while Induction involves reasoning from data to generality, retroduction involves reasoning about why things happen including, why the data appear the way they do (used by critical realists). Colligation involves linking facts together by a general description or by a hypothesis that applies to them all. To be specific, scientific method represents a form of inquiry concerned with hypotheses development, data collection, analyses and interpretation. The inquiry process takes advantage of the natural human desire to make sense of the world. This attitude of curiosity permeates the inquiry process and is the fuel that allows it to continue.

In sum, with the use of scientific inquiry, one develops the ability to think and act in ways associated with scientific methodology, including asking questions, planning and conducting investigations, using appropriate tools and techniques to gather data, thinking critically and logically about relationships between evidence and explanations, constructing and analyzing alternative explanations, and communicating scientific arguments.⁴

1.2.2 Philosophical Inquiry

Philosophical inquiry involves attempting to answer the most fundamental questions about life. Also, Philosophical inquiry involves an investigation of the fundamental questions of human existence. Such questions include wondering about such things as the meaning of life, what kinds of things the universe is made of, whether there can be a theory of everything, how we can know what the right thing to do is, and what is the beautiful in life and art. Other disciplines are concerned with these sorts of questions also, but philosophers, more often than not, either attempts to

provide adequate reasons and justifications for their beliefs or attempt to clarify and examine the basis for those beliefs.

Philosophical inquiry could be said to be the mother of all other inquiries on the ground that most disciplines and fields of inquiry we have today broke off from it to become independent disciplines. The natural sciences separated early; the separation of philosophy from psychology is only about a century old. Still, boundaries remain blurred, for most disciplines, as well as professions, admit to at least a foundational philosophical component.

At this point, it would be expedient to consider some branches of philosophy and see what form of inquiry they are engaged in.

Inquiry and Its Branches of Philosophy

- **Epistemology** can be seen as the inquiry into what knowledge is, what can be known, and what lies beyond our understanding; the investigation into the origin, structure, methods, and validity of justification and knowledge; the study of the interrelation of reason, truth, and experience.
- **Metaphysics** could be regarded to as the inquiry into what is real as opposed to what is appearance, either conceived as that which the methods of science presuppose, or that with which the methods of science are concerned; the inquiry into the first principles of nature; the study of the most fundamental generalizations as to what exists.
- **Axiology**, which is also known as theory of value could be considered to be the inquiry into the nature, criteria, and metaphysical status of value.
- Finally, **aesthetes** could be viewed as the inquiry into feelings, judgments, or standards concerning the nature of beauty and related concepts such as the tragic, the sublime, or the moving – especially in the arts; the analysis of the values of sensory experience and the associated feelings or

attitudes in art and nature; the theories developed in les beaux arts.

1.3 Review of Philosophical Underpinnings on Notion of Inquiry

1.3.1 John Dewey and the Notion of Inquiry

Inquiry was one of the core concepts in John Dewey's philosophy. Dewey stressed the importance of inquiry in the education of young children. He argued that children learn by doing things and trying ideas out, and not merely by memorizing lessons and repeating them back to their teachers. In books that he addressed primarily to philosophers, such as *Logic: The Theory of Inquiry*, Dewey discussed the technical aspects of inquiry. It was in this work, in fact, that he gave us his most succinct definition of the term. According to Dewey, inquiry is “the controlled or directed transformation of an indeterminate situation into one that is determinate in its constituent distinctions and relations as to convert the elements of the original situation into a unified whole”.⁵ In Dewey's opinion, inquiry is called for whenever we sense that something is indeterminate or out of balance. Such situations may range from the trivial to the life-threatening. It is important to note, however, that Dewey avoided subjectivism: it is the whole experienced situation, and not just the experiencing subject, that is problematic. We do not know in advance whether we will need to alter things that are external relative to us, or accommodate ourselves to them. In fact Dewey thought that resolution, or what he called “adjustment”, usually requires a mix of both alteration and accommodation. In any case, a problematic situation must be analysed so as to identify which of its elements are relevant to the problem at hand, and then those elements must be reconstructed so as to restore harmony and balance.

Furthermore, Dewey thought that inquiry is an observable behavioural process that is as natural as walking or chewing. He therefore rejected the idea that it is something mysterious that goes on “inside the head”. Even so, training in the techniques of inquiry should be a part of the education of young children. And adults, too, if they are to continue to grow, must make the improvement of their inquirential skills a part of a program of life-long learning. The goal of successful inquiry is for Dewey more than a simple return to the prior status quo. Successful inquiry results in growth, and in the enrichment of the meanings of our experiences. Dewey contrasted disciplined experimental inquiry to other methods that have historically proven to be of less value in the settlement of belief, such as luck, tenacity, authority, and appeals to whatever seems *a priori* “reasonable”. The problem with such methods is that whenever they are employed inquiry is cut short and intelligence invariably suffers. Luck is not reproducible; tenacity lacks a social dimension; authority discourages individual effort; and appeals to *a priori* “reasonableness” exclude experimentation. Reading this the other way around, we can see that, for Dewey, inquiry is experimental; it requires individual effort; it is situated in a social context; and it is the best way so far devised to secure what we determine to be the good things of life. Unlike all its alternatives, inquiry is self-correcting.⁶

1.3.2 Charles Sanders Peirce and the Nature of Inquiry

It is the belief among some that it was with the work of Charles Sanders Peirce (1839-1914) that American philosophy really came of age. Around 1872, C. S. Peirce joined William James, Chauncey Wright, Oliver Wendell Holmes, and others in a discussion group known as the “Metaphysical Club”, in Cambridge. Peirce was a highly original thinker. Like many another nineteenth century philosopher, he took as his starting point the philosophy of

Immanuel Kant, whose *Critique of Pure Reason* he claimed to know almost by heart. His work ranged widely, not only over logic in the narrow sense, but also encompassing theory of language, epistemology, and philosophy of mind.⁷ He was the originator of one of the most influential American schools of philosophy, namely pragmatism. Peirce is also noted to have discussed how inquiry ought to be carried out; and this, it can be said, underlie his philosophy. Let us look at what Peirce says about the nature of inquiry.

In his article, “The Fixation of Belief”, Peirce attacks traditional epistemology for constructing thought as the detached acquisition of truth. Rather, he emphasizes that thought has the job of producing beliefs. For Peirce, beliefs are neither not pieces of mental ‘furniture’ residing in the mind, nor are they momentary psychological states. Instead, our beliefs guide our desires and shape our actions. To the question of whether it matters how we arrive at beliefs, Peirce answers in the affirmative; for, according to him, ends cannot be separated from the means we use to achieve them. He therefore enunciates four ways to achieve belief of which only one will prove to be satisfactory.⁸ The first way of eliminating doubt is what Peirce calls the *method of tenacity*. This method involves setting rationality aside and clinging to personal opinions with determination and perseverance. Admitting that the method of tenacity would work for someone who may never have his ideas subjected to analysis, Peirce avers that employing this method may cause doubt to rise when the beliefs arrived at through this method are subjected to rational scrutiny. The second way of fixing belief is the *method of authority*. This is the method employed by a community of believers who allow their beliefs to be dictated by an authority or by an institution. It corrects the problem of the first method; for this one will ensure that an individual’s beliefs are consistent with that of the community. Peirce says that great

civilizations, such as ancient Egypt and medieval Europe, have been built on this method. The third method is the *a priori* method. It is better than the two first methods, on the grounds that in using the *a priori* method, one arrives at beliefs after a process of reflection. By the *a priori* method, Peirce does not mean basing beliefs on logical necessity, but embracing beliefs because they are “agreeable to reason”. However, what is “agreeable to reason” is very subjective, for it is based on personal inclinations and sentiments. Peirce thinks that the adoption of the *a priori* will lead to the absence of a settled or agreed opinion, because each thinker who uses the *a priori* method has different preferences about what he or she personally considers to be beyond doubt.⁹

In Peirce’s view, the problems with the previous three methods illustrates that what is important is not just finding belief, but finding it in a certain way. What is needed is a method of fixing belief that does not depend on our human idiosyncrasies but on some “external permanency”. The method must be such that the ultimate conclusion of every man shall be the same. To this end, Peirce proposes the fourth and final method, the *method of science*. By this, Peirce does not necessarily mean what is done by scientists in laboratories, but instead what could be broadly considered an empirical procedure. The fundamental hypothesis underlying this method is that there are real things, whose characters are entirely independent of our opinions about them; those realities affect our senses according to regular laws, and by taking advantage of the laws of perception, we can ascertain by reasoning how things really and truly are (Ibid: 464). For Peirce, this fourth method has been successful in helping us resolve doubts, because the method will lead to its own confirmation when applied. Although the other methods make it possible to maintain an internally coherent system, they do so at the expense of being immune from all correction. In contrast, the method of science is error revealing and self-

corrective, since it is tested against what is independent of our cherished beliefs or wishes.

The relation of Peirce's thesis on the nature of inquiry reflects in his pragmatic theory to the effect that the beliefs we seek through inquiry will only be meaningful and useful if they are clear. To this end, Peirce's pragmatism can be considered as a rule of procedure for promoting linguistic and conceptual clarity. Pragmatism was the most influential philosophy in America in the first quarter of the twentieth century. As a movement it is best understood, in part, as a critical rejection of much of traditional academic philosophy and, also, as a concern to establish certain positive aims. It is in these respects, rather than because of any one idea or exclusive doctrine, that pragmatism has been the most distinctive and the major contribution of America to the world of philosophy. The historical occasion of the birth of pragmatism is complicated because it was to some extent the product of cooperative deliberation and mutual influences within the "Metaphysical Club". In this sense, Pragmatism is often spoken of as a theory of meaning first developed by Charles Sanders Peirce in the 1870s; revived and reformulated in 1898 by William James, primarily as a theory of truth; and further developed, expanded, and disseminated by John Dewey.¹⁰ One important point of distinction between Peirce's conception of pragmatism and that of James is Peirce's emphasis on viewing pragmatism as method. Indeed, he often remarked that pragmatism is not a philosophy, a metaphysic, or a theory of truth; it is not a solution or answer to anything, but a technique to help us find solutions to problems of a philosophical or scientific nature. One of Peirce's best-known statements of the technique was in "How to Make Our Ideas Clear" where he says that in order to ascertain the meaning of an intellectual conception one should consider what practical consequences might conceivably result by necessity from the truth of that conception;

and the sum of these consequences will constitute the entire meaning of the conception. Peirce considered pragmatism a method of ascertaining the meaning of hard words and abstract concepts or, again, a method of ascertaining the meanings, not of all ideas, but intellectual concepts, that is to say, of those upon the structure of which, arguments concerning objective fact may hinge. Thus, for Peirce pragmatism is a method of clarifying the meaning of various words, ideas, concepts and sometimes of objects.

Study Session Summary



Summary

In this study session, you examined the notion of inquiry, and see whether it differs from process skill. Our emphasis was on philosophical inquiry, as a unique form of inquiry that involves conceptual and logical analysis, positing and explaining distinctions, evoking shared ideas and values. We capped this session with reviews on philosophical proposition of John Dewey and Charles Pierce.

Assignment



Assignment

1. Point out the features of inquiry.
2. In what way(s) would you account for the distinction(s) between inquiry in science and inquiry in philosophy?
3. How would you reconstruct the idea of 'inquiry' in relation to pragmatism?
4. What do you consider as the major contribution(s) of John Dewey to the understanding of the nature of 'inquiry'?

Endnotes

¹ Alvin, F. N. 1976. *Inquiry and Reality: A Discourse in Pragmatic Synthesis*. Fort Worth, TX: The Texas Christian University Press. p. 58.

² Mike Padilla.2010. Inquiry, Process Skills, and Thinking. *Science in Science and Children* Vol. 48. Issue: 2. p. 8.

³ Donald, P. 2005. Was “Inquiry” a Mistake? It’s All in the Name. *Journal of College Science Teaching*, Vol. 35 Issue: 1. p. 60.

⁴ Linda Froschauer. 2010. Inquiry: Process Skills. *Science and Children* Vol. 48. Issue, 2. p. 6.

⁵ Larry Hickman. 1997. Inquiry: A Core Concept of John Dewey's Philosophy in *Free Inquiry* Vol. 17. Issue: 2. p. 21.

⁶ Larry Hickman. 1997. Inquiry: A Core Concept of John Dewey's Philosophy.

⁷ Larry Hickman, Inquiry: A Core Concept of John Dewey's Philosophy. p. 35.

⁸ Lawhead William, 2002. *The Voyage of Discovery*. United Kingdom: Wadsworth. p. 463.

⁹ Lawhead William, *The Voyage of Discovery*. p. 463.

¹⁰ Thayer, H.S. 1967. Pragmatism. *Encyclopedia of Philosophy*, Vol. 7. Donald M. B. ed. New York: Thomson Gale. p. 744.

Study Session 2

Myth as Method of Philosophical Inquiry

Introduction

In this study session, our focus is to examine the nature of myth. We will also contrast mythical thinking against philosophical thinking.

Learning Outcomes



Outcomes

When you have studied this session, you should be able to:

- 2.1 discuss myth in relation to philosophical inquiry.
- 2.2 explain the term ‘myth’.
- 2.3 trace the origin of myth.
- 2.4 contrast mythical thinking against philosophical thinking.

2.1 Justification for Myth as a Method of Philosophical Inquiry

In this sense, we may begin by stating that mythical thinking is taken as a true objective story, which accepts myth as a sort of allegory. It makes sense to contend that mythical thinking – an activity of the human mind relating to things through myths – represents a way of knowing and understanding. However, myths have been discounted by some as folk stories – and, so, unreliable – because they are held to make up a body of assumed knowledge about the universe, the natural and the supernatural worlds. In fact, from the time of the Greek Sophists to this day, myths have “assumed a rather pejorative and often negative meaning.”¹ But we should not forget that even the great Greek philosophers, like Plato and Aristotle, did not discard mythologies as complete absurdities.

The former, for instance, made use of myths as allegories in several of his dialogues and the latter acknowledged that, with regard to heavenly bodies, some mythical data might correspond to reality. Robert C. Solomon and Kathleen M. Higgins explicate further that:

The first Greek philosophers were steeped in mythology... and some of the greatest breakthroughs in philosophy – made by Pythagoras, Parmenides, and Plato, for example – involved the flat rejection of materialist explanation of the world. They often wrote in riddles and allegories, and they more often sounded like mystic poets than contemporary science professors.²

In modern times, largely owing to the prodigious breakthroughs of science, it is common knowledge that critics often argue that “a mythological narrative can embrace contradictions and absurdities.”³ These critics often maintain the empiricist stance and hold the facile assumption that new knowledge about the world cannot be acquired through mythology since the latter would need only the aid of either intellectual intuition or deductive reasoning for its veracity or meaningfulness. In short, these critics tersely fail to see any relation between science or modern knowledge and mythology. However, it is particularly striking to know that:

Modern science did not evolve in its entirety as a rebellion against myth, nor at its birth did it suddenly throw off the shackles of myth. In ancient Greece the naturalists of Ionia (Western Asia Minor), long regarded as the originators of science, developed views of the universe that were in fact close to the creation myths of their time. Those who laid the foundations of modern science, such as Nicholas of Cusa, Johannes Kepler, Sir Issac Newton, and Gottfried Leibniz, were absorbed by metaphysical problems of which the traditional, indeed mythological, character is evident.⁴

2.2 The Meaning of Myth

The term “myth” has been defined by many scholars in different ways that its definitions “are so varied and irreconcilable.”⁵ For instance, Bolaji Idowu defines myth as “a vehicle conveying a certain fact or a certain basic truth about man’s experiences in his encounter with the created order and with regard to man’s relation to the supra-sensible world.”⁶ In a similar vein, Anthony Mercatante defines a myth as “an anonymous traditional story, orally passed on from one generation to the next, believed to be literally true by the culture that produced it, about gods and goddesses, heroes, heroines, and other real and fantastic creatures, taking place at primeval or remote times.”⁷ However, Williams Bascom’s definition of myth is copious and most illuminating. According to Bascom:

Myths are prose narratives which, in the society in which they are told, are considered to be truthful accounts of what happened in the remote past. They are accepted on faith; they are taught to be believed; and they can be cited as authority in answer to ignorance, doubt, or disbelief. Myths are the embodiment of dogma; they are usually sacred; and they are often associated with theology and ritual. Their main characters are...animals, deities, or culture heroes, whose actions are set in an earlier world, when the earth was different from what it is today, or in another world such as the sky or underworld...⁸

From the foregoing, a mythology is therefore “a body of myths, especially those dealing with the gods and heroes of a particular people.”⁹ It should be noted here that people look at myths with different frames of mind or thought-patterns since human beings have various ways of relating to things. This means that each mind-set or thought-pattern will receive or use myths according to its own characteristics. In other words, we may speak of (i) mythical thinking, where myth is taken as a true, objective story; (ii) rational

thinking, which accepts myths as a sort of allegory (iii) symbolic thinking, which finds in myths some of the symbols needed to reach the deep and true side of things. “Symbols” is itself an expression which receives various meanings or interpretations. What is referred to here is a type of sign which has a special relation to what it signifies. For example, water signifying life, or death, or cleansing. In short, mythical thinking, which is an activity of the human mind relating to things through myths, represents a way of knowing and understanding. There are, however, different meanings that are attached to the expression “myth”. It is possible to distinguish at least four meanings of the expression. “Myth” could mean:

- (i) A story of beginnings;
- (ii) An intuitive, imaginary, usually personified view of life.
- (iii) An image, a parable, an allegory used to explain human life and the world;
- (iv) A legend, a story used by primitive minds who do not know better.

Despite these different meanings given to the expression, ‘myth’, some features that be seen to characterize the understanding of myth. In this vein, mythical thinking can be understood to give form to the world in which people live, thereby liberating them from chaos and from a feeling of insecurity in the cosmos. As such, it unveils the meaning of things, overcoming meaninglessness and integrating individuals into a totality (society, the universe, the divine) by fostering harmonious relations instead of hostility. It also provides motivation and inspiration in life (particularly in social life) e.g. funeral ceremonies whereby the dead are believed to look back at how their lives are being celebrated.

As a way of knowing, mythical thinking appears to connote a global knowledge; referring to everything without going into so many details. It is a participatory kind of thinking, in which the

person is fully immersed or absorbed, making great use of the imaginary power of the mind. Myth as a way of knowing is received or revived with the help of rites (including gestures, songs); that is lived socially as part of the individuals belonging to a group, and transmitted by tradition backed by authority.

2.3 The Origin of Myths and Some Greek Philosophers on Myth

A description of the characteristics of mythical thinking leaves open the question of the origin of myths. We have looked at mythical thinking as a method of arriving at some knowledge of the world by use of existing myths. But who produced the myths themselves and how did it all happen? Some people take it for granted that there existed mythopoeists or real creators of myths, in various societies. The activity of mythopoeists can easily be imagined. As such, myths may have been the result, in some cases, of existential intuitions or of an immediate knowledge of aspect of reality. In other cases, they may represent the outcome of a wise and reflective observation of things by gifted individuals, coupled with an effort to understand what was happening in the world or society. In either case, one could say that the people who consciously produced myths (if that is the way things took place) were not enclosed in some of the limitations proper to mythical thinking. Having looked at a possible understanding of the origin of myths, let us examine some Greek philosophers on the idea of myth.

A brief review of the opinions of Greek philosophers on myths confirms the fact that early philosophy in Greece coincided with a certain movement away from myths. **Xenophanes of Colophon**, known as one of the critics of anthropomorphism and mythology, asserted that people create gods only in their own image, and that

any animal, if it believed in gods, would picture them as animals. Thus, Xenophanes has left critical reflections about God and the gods. He was taking a distance from traditional religious beliefs.

Heraclitus of Ephesus, often referred to as a Greek materialist philosopher and dialectician, wanted people to act or speak as if they were awake, not asleep. What matters, in this view, is to search for oneself.

Democritus of Abdera, also a Greek materialist philosopher and disciple of Leucippus, intended to free people from the fear of the gods and of death, a fear based on wrong beliefs.

Plato recognized that some of the traditional myths may be true or may at least contain elements of truth. Plato himself made use of myths as allegories in several of his dialogues.

Aristotle had doubts about mythical stories concerning animal life. These stories should be either accepted or rejected after careful and accurate observations of facts. With regard to heavenly bodies, he acknowledged that some mythical data, fruits of genuine insights, might correspond to reality.

2.4 Philosophical Thinking contrasted with Mythical Thinking

In discussing the contrast between philosophical thinking with mythical thinking, it would be perhaps instructive to begin by looking at the origin of philosophical thinking in relation to mythical thinking. In this vein, Mircea Eliade, a renowned historian of religions (d. 1986), states that a conscious and definite process of demythicization took place in pre-Socratic Greece, in Upanishadic India, and in Egypt. According to him, there was indeed a certain moment in history when some people began to lose interest and faith in the divine history transmitted by myths, while claiming still to believe in traditional gods. In his opinion, “The history of religions here finds the first example of a conscious and

definite process of “demythicization”. To be sure, even in the archaic cultures, a myth would sometimes be emptied of religious meaning and become a legend or a nursery tale; but other myths remained in force. In any case, in pre-Socratic Greece and Upanishadic India, there was no question of a cultural phenomenon of the first importance, whose consequences have proved to be incalculable. For after this “demythicization” process the Greek and Brahmanic mythologies could no longer represent for the respective elites of those countries what they had represented for their forefathers.

For these elites, the essential was no longer to be sought in the history of the gods but in a primordial situation, preceding that history. It was an attempt to go beyond mythology as divine history in order to reach primal sources from which it was believed the real had flowed, to identify the womb of being. It was in seeking the source, the principle, the *arche* that philosophical speculation for a short time coincided with cosmogony; but it was no longer the cosmogonic myth, it was an ontological problem. In this regard, the ‘essential’ is reached, then, by a prodigious “going-back” accomplished by an effort of thought. As such, it could be said that the earliest philosophical speculations derive from mythologies; that is, systematic thought (philosophy) endeavoured, in its emergence, to identify and understand the “absolute beginning” of which the cosmogonies tell, to unveil the mystery of the creation of the world; in short, the mystery of the appearance of being. It is to be noted, however, that the “demythicization” of Greek religion and the triumph, with Socrates and Plato, of strict and systematic philosophy, did not finally do away with mythical thought.

Turning our attention to the examination of the contrast between myth and philosophy, from its origins onwards, philosophical thinking has developed characteristics which make it

different in some ways from mythical thinking. Let us summarize these characteristics thus:

- a. Philosophers to take a distance from traditional beliefs or opinions, not to reject them all, but to examine them critically by means of reason and its arguments.
- b. Human reason thus gains a certain autonomy, which invites to a personal enquiry all kinds of areas of knowledge: natural phenomena, moral behaviour, religious attitudes and beliefs and so on.
- c. Note however that, for quite a long time, no distinction will be made between philosophical enquiries and scientific activities. Philosophers were, for the most part, interested in knowing things as fully as they could, by different means but within one search for knowledge or science.
- d. The passage that took place from mythical thinking to a rational critical approach of reality should not lead us to consider that mythical consciousness was dealing exclusively with images supported by feeling. Human reason was at work in people who were at the level of mythical thinking.

Study Session Summary



Summary

In this Study session, the notions of mythical thinking and philosophical thinking were examined as methods of rational inquiry. While myths was understood as prose narratives are considered to be accounts of what happened in the remote past, philosophical thinking was understood to be an attempt at employing reason in the search for rational understanding. To this end, whereas myths are taken to be embodiments of dogma, philosophy is taken to espouse doctrines arrived at through reasoned inquiry.

Assignment



Assignment

- 1) What do you understand by mythical thinking?
- 2) How would you describe mythical thinking as a form of rational inquiry?
- 3) What is rational or philosophical thinking?

Endnotes

¹ Madu, R.O. 1992. *African Symbols, Proverbs and Myths: The Hermeneutics of Destiny*. New York: Peter Lang. p. 232.

² Hallen, B. 2002. *A Short History of African Philosophy*. Bloomington: Indiana University Press. p. 12.

³ Hallen, B. *A Short History of African Philosophy*, p. 15.

⁴ "Myth and Mythology," *The New Encyclopedia Britannica*. Chicago: Encyclopedia Britannica, Inc., 2000. p. 720.

⁵ Day, M.S. 1987. *The Many Meanings of Myth*. New York: Lanham. p. 2.

⁶ Idowu, B. 1973. *African Traditional Religions: A Definition*. Ibadan: SCM Press Ltd. p. 84.

⁷ Mercantante, A.M. 1988. *The Facts File Encyclopedia of World Mythology and Legend*. London: Oxford University Press. p. xiv.

⁸ Bascom, W. The Forms of Folklore: Prose Narratives, *Journal of American Folklore*, 2: 4.

⁹ *The New Penguin English Dictionary*. London: Penguin Books Ltd., 2000. p. 918.

Study Session 3

Philosophy as Rational Inquiry

Introduction

Though, we often talk about philosophy, and even claim to be sometimes engaged in philosophy as an activity, it remains a matter of fact that defining philosophy is a difficult task. That is, it is “difficult to determine whether any common elements can be found within the diversity of meanings given to philosophy and whether any core meaning can be discovered for philosophy that could serve as a universal and all-inclusive definition.”¹ Part of what has been identified as what makes it difficult is the difficulty in finding “a consensus among philosophers about the definition of their discipline is precisely that they have frequently come to it from different area of experience upon which they find it especially necessary to meaningful reflect.”² As such, it would be most appropriate to attempt what has often been referred to as a working or tentative definition. We shall carryout this attempt by sampling opinions of philosophers about their own endeavours. Then we shall try to identify characteristics and areas of philosophical activity.

We will also discuss the relations between philosophy and other concerns of the human mind: science, faith, and a certain art of living, in order to clarify the position of philosophy in rational inquiry. Finally, a number of attitudes which have proved to foster philosophical thinking at different periods of history will be examined.

Learning Outcomes



Outcomes

When you have studied this session, you should be able to:

- 3.1 discuss the essential features of philosophy as a discipline.
- 3.2 discuss the contributions of philosophy in any rational inquiry.
- 3.3 point out the relations of philosophy with science.
- 3.4 present at least two philosophers perspective on philosophy.

3.1 Defining Philosophy

Even if the task is difficult, we should formulate at least a tentative definition of our subject. And so, let us begin the discourse here by first attempting a working definition of philosophy. To this end, *Philosophy can be defined as a rational inquiry into the meaning and deeper principles of reality (in a broad sense)*. In sampling the views of philosopher about philosophy, the following opinions of famous philosophers will bring to light how the discipline has been variously understood. Three notions come from antiquity (Plato, Aristotle and the Hellenistic Period), three from the modern age (Hume, Kant and Marx) and three from 20th century (Maritain, Jaspers analytic philosophers).



Note

It is important to note that the understanding of philosophy proposed by an author is obviously connected with the basic insights and the whole system proper to that author or to a school of thought.

3.1.1 Views of Philosophers

Plato

Philosophy gives access to true reality, which lies in a separate world of ideas or forms. Philosophers discover there what things truly are. Thus they become able to guide people and cities towards a good way of life.

Aristotle

He agrees with the moral and social concerns of his master Plato. He considers that philosophy is an investigation of the causes and principles of things, but he adds that such principles are to be found in the reality of the natural world, not in a separate world.

Stoics and Epicureans

In the period after the death of Aristotle, the Greek city-states went into decay under the Hellenistic kings. Life became troubled and insecure. Some philosophical schools appeared which wanted to provide their followers with an art of living. For example, the stoics and the Epicureans offered their adherents a way of achieving the most satisfactory personal life.

David Hume

Philosophy is, for Hume, a science of human nature, based only on sense experience and observation. Understood in this sense, philosophy provides the only solid foundation for other sciences.³

Immanuel Kant

Philosophy must be critical, that is, it must be concerned with the analysis of the conditions of possibility of knowledge for human reason. The critical question, in Kant's sense of the word, becomes therefore, "What and how much can understanding and reason know, apart from experience?"

Karl Marx

For Marx, though philosophers have only interpreted the world differently, where they ought to have changed it, philosophy ought to be the instrument to be employed if man would change his world.

Jacques Maritain

For Maritain, Philosophy is not "wisdom of conduct or practical life that consists in acting well, it is a wisdom whose nature

consists essentially in knowing. “How? Knowing in the fullest and strictest sense of the term, that is to say, with certainty, and in being able to state why a thing is what it is and cannot be otherwise, knowing by causes.”⁴

Karl Jasper

The task of philosophy is not the same as that of science. Its task is to deal with human existence, with a person’s immediate experience. Philosophizing means communicating not about objects (as is done in the so-called objective knowledge of things) but about the personal or subjective awareness of what an individual is.



Tip

Analytic philosophers

Philosopher’s task is to clarify the meaning of language, to unpack complex problems originating in an imprecise use of language, to enquire into what it really means to say so and so. For instance, Ludwig Wittgenstein, in the second period of his philosophical activity, claimed that philosophy is a battle against the bewitchment of our intelligence by means of language.

3.2 Traits of Philosophical knowledge

We have just illustrated great differences among philosophers in their notion (and practice) of philosophy. The awareness of such a great variety could discourage us from trying to describe what philosophical knowledge really is. And yet it remains possible to bring forth a number of features that seem to belong to philosophy. Among these features include a search for knowledge, knowledge of what is fundamental in the objects of human experience and an enquiry into the whole of reality. Philosophy_wants to investigate everything. It tries to understand by means of reason (which comprises intuition as well as reasoning) whatever is given in experience: self-experience, the life-world (according to E. Husserl), but also data gathered and probed by the sciences.

Furthermore, philosophy may be understood as inclusive of what has been referred to as fundamental inquiries and special inquiries. Fundamental inquiries are undertaken in two sub-areas: theoretical philosophy and practical philosophy. Theoretical philosophy includes *Ontology or Metaphysics*, which is a study of basic categories and structures of whatever exists; *Anthropology*, which is a reflection on the essential features of human being (individual and social) and sometimes said to belong to special metaphysic. In English-speaking circles, it is usually reduced to philosophy of mind. There is also the aspect of *Cosmology or Philosophy of nature*: this is a study of the nature of knowledge and of how it can be achieved. Closely related to this is the *Theory of knowledge or Epistemology*, which is a study of the nature of knowledge and of how it can be achieved. Another aspect of this area of philosophy is *Logic*. It is a study of the forms of valid reasoning, and is considered one of the conditions for philosophical activity. Practical philosophy includes *Ethics or Moral Philosophy* which is a study of good and evil, of right or wrong, of the principles of morality (individual and social); *Poetics or Philosophy of Doing or Producing*, which includes *Aesthetics* (a study of the basic principles of the appreciation of art, including what makes something a work of art and how we interpret it) and *Philosophy of Technique* (a reflection on technical activities, their place, role and value in human life).

Special inquiries here refer to the group of the so-called “philosophies of” and some recent developments in anthropology. They often contain two parts: a reflection on an aspect of reality and an epistemological reflection on the disciplines that deal with that aspect of reality (e.g. historical events). Some examples of this aspect of philosophy include: *Philosophy of Science*, which is a study of the methods for establishing scientific knowledge. It can be

developed with regard to particular science: biology, physics, and so on. Social and Political philosophy: a study of the fundamental principles of society and state. Philosophy of Social Science: a study of the basic categories of social scientific theories and of the methods for establishing social scientific knowledge. Philosophy of Law: reflection on the juridical order. Philosophy of Work, of Play: a development of philosophical inquiry about ordinary human activities. Philosophy of Religion: a study of the significance of religious practices. Philosophy of Language: a study of the basic structures of language and of how language connects with the world. Hermeneutics: a study of the processes of interpretation and their conditions. Philosophy of History: a reflection on the course of events and on the status and the methods of historical knowledge. Though no distinctions were stated between philosophy and the sciences; it to be noted that there are, however, some texts of Aristotle which distinguish between physics, Mathematics, and First Philosophy (or Metaphysics).⁵

The philosophical attitude is characterized by a rational search for the understanding of things by means of arguments that need to be probed by reason. Such arguments are expected to follow the laws of logic, but there may also be philosophy, insights and convictions that do not arise from logical argumentation (for example, in the perception of values). Science, for its part, consists largely in a combination of experimental data and logical laws. Theoretical developments may occupy a greater place in some sectors of scientific knowledge. The actual contribution of such theoretical elements towards knowledge of reality is judged, by and larger, in the light of a philosophical background (be it realist, empiricist, or idealist)

In the Modern Age, new developments took place which gave a distinctive character to scientific activities. Francis Bacon

(1561 – 1626) and Galileo Galilei (1564-1642) described the method and purpose of scientific knowledge. For Galileo, scientific work must be based on an experimental method (with systematic observations and upon a mathematical reading of the universe. The cosmos is like a large book which can only be read in the language of mathematics. Philosophy, says Galileo, delights in the search for essences (or essential characteristics), but modern science is happy with its knowledge of some properties of natural beings. “In our enquiries we either attempt to penetrate the true, inner essence of natural substances, or we limit ourselves to knowledge of some of their properties. I hold the first thing impossible... But if we want to bring our attention to grasping some properties of things, then it seems to me that we must not despair of our ability to acquire it...”⁶ Galileo did not object to a philosophy which would look for a general view of the universe (a cosmology), but he gave a new object to scientific work, distinct from the philosophical one.

In a similar vein, Descartes (1596-1650) held that a new philosophy can provide useful concepts to science. He was both a philosopher and a man of science. He discovered things in mathematics and practiced the experimental method. At the same time, He developed basic philosophical notions which were consonant with the new approach of natural science. For example Descartes’ distinction between two main kinds substances (mind and matter) included a definition of ‘matter’ as ‘what is extended’. One of the characteristics of extended matter is that it can be measure. A scientific observation concerns mainly measurable things. What is measured can be compared, related to other things, with the help of mathematical formulae or through logical relations. All of this is typical of modern science. It can be said indeed that Descartes’ philosophical endeavour provided a number of fundamental concepts which could go together with the recent developments of science in the 17th century.

The Influence of Empiricism

Empiricism is a large current in the history of philosophy. One of its great representatives, David Hume (1711-1776) proposed philosophical reflections which have greatly influenced the general understanding of scientific activity. Hume claims that our knowledge of things can be based only on sense-data, i.e. whatever we come to know through the activity of our senses. Hume's notion of causality as the constant conjunction between two sense impressions (and nothing more...) moves the foundation for all inquiries into necessary and universal scientific laws. Nothing in our sense experience indicates a necessary connection between a cause and its effect. "No possible experience can ever indicate that similar past (or present) connections between natural events will apply in the future as they have occurred in the past that the future will be similar to the past".⁷

Also Immanuel Kant (1724-1804) through his critical philosophy brought a new understanding of the relation between the mind and its object. Kant wanted to justify the findings of science (e.g. the universal and necessary laws of physics) against the attacks of Hume's empiricism. He came to think that the mind is shaping or moulding its known object by means of some structures (or categories) of the understanding, which are applied to sense data. Kant's critical approach is used up to this day in some scientific circles to explain the theoretical part of their work. Scientists with a leaning towards Kant consider that their hypotheses or theories are not a reflection or a picture of reality; they are rather the produce of the scientific mind which shapes through them the multiplicity of data provided by observations and experiments.

3.3 Relations between Philosophy and Science(s) Today

There are various ways of looking at the relations between scientific and philosophic activities today. A leading one in English-speaking circles considered that philosophy can still render a (limited) service, namely, to check whether scientific language contains any logical ambiguities so as to attempt to remove such ambiguities. Otherwise, the undertakings of philosophy are thought to have become irrelevant. Other views are more open to fruitful relations between science(s) and philosophy. Particular science have their own purpose and method, which, many would agree, are limited in scope and thus call for a collaboration with other sectors of scientific research and with people engaged philosophical reflection. The idea and practice of interdisciplinary activities has gained lots of ground. Philosophical is expected, especially in the so-called human science, to provide some fundamental views and insights about the meaning, the foundation, the purpose, or the value of reality. For instance, philosophy is expected to provide a coherent understanding of the human person and of its relations to the world and to others.⁸ In all philosophy can be viewed from the following perspectives: philosophy as a search for knowledge, Philosophy as knowledge of what is fundamental in the objects of human experience, Philosophy as an enquiry into the whole of reality.

3.4 Perspectives on Philosophy

Philosophy as a search for knowledge

Philosophy is certainly, in its own way, a search for knowledge and truth. As it progresses in its enquiries, it discovers elements of knowledge which it organizes into a system. From that point of view, philosophy can even be called a science. However, the

method of philosophy is different from that of the natural sciences. The latter are bound, for example, to start from the observation of sense data; philosophy, in some of its enquiries, is not bound in the same way: it may start from the inner experience of persons.

Philosophy as knowledge of what is fundamental in the objects of human experience

Philosophy also starts from experience, if one agrees that experience is not limited to sense experience. Philosophy builds on the experience of ordinary life-the “life world” as some authors call it (which is manifested, for instance, in ordinary language). But it will also consider all data of human experience, and for that of human experience. It tries to understand rationally the whole of human experience, and for that purpose it enquires into the principles, the foundations, the conditions or presuppositions of experience. As a rational underrating, philosophy is critical- in the ordinary sense – and it makes use of argumentative skills. It wants to address all reasonable minds.

Philosophy as an enquiry into the whole of reality

Philosophy is interested in the whole of reality. Moreover, its concern is holistic. That is why, like theology, it can be called a universal science, because it intends to investigate all that belongs to human experience. However, philosophy represents an organized body of knowledge that can be distinguished from other disciplines. The whole body of knowledge can be divided into various groups. A first distinction is made between: general sciences (philosophy and theology), and particular sciences. Then the so-called particular sciences can be divided into: formal science (like logic and mathematics, which study formal systems), and facts-related science (either empirico-formal or hermeneutical). On the one hand, empirico – formal sciences (like physics, biology....) are concerned with a reality that can be grasped empirically-

through experiments-but they also make use of the resources of formal sciences. On the other hand, hermeneutical sciences try to interpret human reality in its actions or in its works. They are also called cultural science. They include humanities (like history, language, arts, religion...) but also social and economic sciences.⁹ Philosophy is universal in its scope. It can be practiced in relation to a very broad area of inquiry (e.g. the characteristics of whatever exists, of all human beings, of nature). But it can also be practised with regard to a more limited area or a special activity. Hence, the distinction used below between fundamental and special enquiries.

Study Session Summary



Summary

From the foregoing, it may be said that one of the functions of philosophy is to aid in the search for knowledge. Indeed, philosophy contributes to man's ability and capacity to pursue happiness and fulfilment of life. Acquired wisdom, termed philosophical wisdom, which is the fruit of a coherent personal reflection, based on solid argumentation, well connected with a general world view. Personal reflection so understood was represented in this Study Session in looking at the various sides to philosophy, such as practical philosophy and special philosophy. It was also studied the place and relation of philosophy with regard to the sciences.

Assignment



Assignment

- 1) How would you construct your understanding of philosophy as a rational inquiry?
- 2) How would you delineate the relationship between philosophy and the sciences?

Endnotes

¹ Cf. philosophy, History of Western. *The New Encyclopedia Britannica Macropaedia*, 15th ed., vol. 14. p. 248.

² Cf. philosophy, History of Western. In *The New Encyclopedia Britannica Macropaedia*, 15th ed., vol. 14. p. 248.

³ See Copleston, F. *A History of Philosophy*, vol. V, p. 261.

⁴ Maritain, J. 1989. *An Introduction to Philosophy*. Westminster MD. p. 60.

⁵ See, Aristotle, *Metaphysics* 1025 b- 1026 a 32.

⁶ Galileo, G. Third Letter to Mark Welser. In *Opere*, V, pp. 187-188, quoted by E. Agazzi, *Philosophies, Science, Metaphysique*, Fribourg, Editions Universitaires, 1987, p. 47; transl. from the French is mine.

⁷ Angels, P. 1981. *Dictionary to Philosophy*. s.v. "Skepticism (Hume)". p. 260

⁸ Angels, P. *Dictionary of Philosophy*, "Science, Philosophy of", s.v.i (am) H(acking), "Philosophy of Science", In *The Concise Encyclopedia of Western Philosophy & Philosophers*, ed. J.O. Usmon & J. Ree, rev. ed., London & new York, Routledge, 1991, S.V.

⁹ See, for the distinctions above, Jean Ladriere. 1972. *Language and Belief*, tr. G. Basden. Notre Dame N.D. University Press. pp. 17-18.

Study Session 4

Science as a Rational Inquiry

Introduction

In this Study Session, you will examine the fundamental issues in science as a rational inquiry. To this extent, you will look at the utility of the scientific method. The Study Session therefore discusses the notion of science; the tenets and goals of science and a critique of it. It also discusses the objectivity, efficacy and truthfulness of science.

Learning Outcomes



Outcomes

When you have studied this session, you should be able to:

- 4.1 point out reasons and grounds for the understanding of science as a rational discourse.
- 4.2 describe the nature of science as an activity that is engaged in search for truth.

4.1 Notion of Science

Let us begin this discussion by looking at the notion of science. Science as we have come to know it today is essentially the idea of the founder of the Royal Society of London (1662) in which Christopher Wren, Robert Boyle were founders. It is a quest and interest in the new philosophy of natural sciences that was then emerging with the experimentations and observation of men like Nicolas Copernicus, Galilio Galilei, William Gilbert and Johannes Kepler.¹ Etymologically, science is a Greek word “scientia” which means “knowledge” and the German word “wisenshaft” which mean systematic organized knowledge. And so, science has been

taken to mean knowledge; the synthesis of the systematic study of every aspect of our experience of reality, especially objective reality usually with the aim of reducing it to a logically consistent system of order.² By this, science is not only a body or a system, it is also a process, the process of gaining knowledge based on repeated observation in controlled conditions (experimentation) and attempting to explain what causes those observation (theorizing) through constructing hypothesis that can be tested experimentally. To this extent, science is the study of the natural world through observation, identification, description, experimental investigation and theoretical explanations.³ Science thus is a way of acquiring knowledge following certain universal methodology whose central theme is the testing of the hypothesis and making predictions for the purpose of a better understanding of the universe.

The above definition/meaning of science lends credence to the basic worldview in science. These worldview involves the fact that;

- a. Science demands evidence; the world is understandable
- b. Science is a blend of logic and imagination
- c. Science explains and predicts
- d. Scientists try to identify and avoid bias
- e. Science is not authoritarian, and that
- f. Scientific knowledge is durable.⁴

These features as well lend credence to the distinction that scholars like Melvin Merkin between science and arts, religion, philosophy and other fields. Merkins asserts that science is self-testing, self-correcting and objective.⁵ the import of this is that science is not authoritative. Thus, it becomes obvious that the fundamental reason science seems to differ from other forms of inquiry is its method. This is the method that lays uncanny emphasis on the need and significance of proof which must involve a conduct of experiment

and performance of careful observation. Such method called scientific method involves these steps.

- (i) **Observation:** Tentative statement about the natural world leading to deduction that can be tested and verified.
- (ii) **Theory:** An integrated conceptual framework for reasoning about a class of phenomena, which is able to coordinate existing facts and laws and sometimes provide predictions of new, ones. Theories explain why laws and facts are true or how they work. Theories are the end point of science
- (iii) **Law:** Law in science is statement of an observed regularly among fact, often expressible as a simple mathematical relationship.⁶

However, a cursory look at this method reveals not only the strengths in it but also its weaknesses. A good starting port for doing such would be a look at the perceptions of scientific enquiry amidst the question of the possibility truth in observation (facts) which is the bedrock of science.



What in your opinion is the goal of science?

4.2 Positivism as a Major Orientation in Science

The positivist conception of science holds as its main position that there are only two types of meaningful statement. These are analytic and synthetic proposition. Synthetic statements are true by virtue of experience or verifiability or a posteriori while statements are analytic if it is true by virtue of meaning. And any statement that doesn't belong to these categories are non-sensical and meaningless. Example of these are mathematical statement, observational statements, and so on.⁷ The patron oracle of positivism, David Hume, writes on *relation of ideas and experience* that impressional ideas and observational ideas are the only source

of genuine knowledge.⁸ This approach is what is later tagged verificationism. And it stands in opposition or rejection to all form of metaphysical knowledge. It buttresses such with the fact that scientific laws that universal and as such pushes science to the objectivist corner of knowledge; thus holding it as the paradigm of genuine knowledge.

What are facts? Facts are repeatable observation/experimental events. Facts in philosophy are a state of affairs fact. It is what is observable and that truth can be known truth in science is correspondence to fact. It is worth of note that even the correspondence theory have it that truth are not fact but are correspondence to fact what makes thus problematic is that the definition itself is circular and, thus, by observation, in science, we mean coming to experience one's environment, The aim of observation is a search for an in dubitation truth. That would be understood as the external world and how to consistently, critically and truthfully pursue it. At this juncture the relevant question is the extent to which man is capable of adequate and truthful observation, the one, observation that would be free from bias, prejudice and subjectivity.

4.2.1 Observation and the Problem of Appearance and Reality

The problem of how to reconcile the common-sensical view of that our perception gives us the truth with the philosophically eye-opening case of misperception, delusion, illusion, phantasmagoria etc. for we know that we are often faced with certain objects which when view casually seem to be unproblematic but on a closer look we discover that our initial perception is not exactly as we had thought them,⁹ how do we explain relations between objects in physical objects? This leads to the issue of the observable and the unobservable parts of the objects, and in fact why scientist trust

microscope as against the naked eyes. This snowball into the discourse of wave motion, the current of electricity, the atoms, neutron, proton etc. and all the unobservable architectonics of matter as we deal with in modern physics with their quanta an indefinitely unfathomable depths leads to the problem of acquisitive and description. Also is the question of how we can have a direct acquaintance with the object of sense data, and when we describe it, are we describing the ephemeral aspect of the object or the substantial. Again, one would question how we have come to the conclusion of having knowledge about these objects of knowledge via acquaintance or description. Such questions are important because knowledge episteme and unmistakable awareness of what is presented to us. The last of such questions that make problematic scientific observation is on how we know when we are consenting or dissenting through the testimony of our sense perception and when we are acting from the unconscious assistance of the records of memory.

The causes of the obvious inadequate in the reactions, of scientists to the about germane questions result in obvious shift in the truths that scientists have given down ages J.C. Maxwell captures this where he says

...the history of restricted to the enumeration of successful investigations. It has to tell of unsuccessful exguins and to explain why *some* ablest of men have failed to find the key to knowledge.¹⁰

The reality of this is obvious of the numerous revolutions and inventions that have taken place within science; from Galileo, Newton to Einstein et al” This no doubt is obvious of some inconstancies found in scientific law and theory. Thus, it becomes pertinent to view science from Popperian angle (verisimilitude;) conjectures and refutations.’² And indeed this has expressed

Olusegun Oladipo's allusion that philosophy, science and even arts cannot be a search for truth but are attempt to perpetually have a better understanding of nature and the place of man in it.¹¹

4.2.2 An Appraisal of Induction

From the foregoing analysis it is reasonable to state that science starts with observation. Observation supplies a secure basis upon which scientific knowledge can be built, and scientific knowledge is derived from observation strictly by induction. Induction is the method of reasoning which obtains or discovers general laws from particular facts or examples. It is a production of facts to proof a general statement.¹² However, many have perceived inadequacies in this method. Bertrand Russell has sited this with this story of the inductivist turkey to show that our knowledge of the past which scientists work of positivism and inductivism cannot guarantee our justification in believing that the future will follow after the same pattern.¹³ In line with David Hume, Russell holds that inductive principle is incapable of being proved by an appeal to experience, However, Russell argues that:

Induction is indispensable in our scientific enquiry for its high probability status notwithstanding. We must accept the inductive principle on the ground of its intrinsic goodness and forego all justification of our expectations about the future any contrary this lead to the stoppage of all enquires and the very hope of existence will also be adversely affected.¹⁴

The import of this is that many like Popper, Kuhn, and so on, who have argued against induction are not realistic and sincere enough because what we call deductive method is a disguised form of induction.¹⁵ However, the emphatic limitation of induction at giving accurate prediction makes the goal of science problematic.

In an attempt to unravel such problem on the inductive method of science, in line with T. S. Kuhn, Ayo Fadahunsi has noted that there can be no uniform methodology in the acquisition of knowledge. This allusion gives credence to the impossibility of tire Scientists' campaign that employs everyone to think, and reason the same way. The disaster such an agenda can poise is what I Hacking sees when he writes that to compel people to reason in approved ways is to limit us and our potentialities for novelty.¹⁶

Science, Truth and Philosophy

It is a belief among scientists that their method reveals truth whereas the question of the constituent of truth is a contestable one many have talked about truth from different perspectives. In epistemology today, we talk about truth from correspondence coherence, pragmatic, reliability, social-praxical and humanist perspective we even talk of societies, communities as providing the criteria for truth. However, many a scientists have held that truth is a matter of agreement or coherence with other ideas of judgments taken to be acceptable or as corresponding to facts as we have in correspondence theory of truth.¹⁷ Taking science as a body of knowledge, it becomes obvious it has always being its agenda to unravel the reality of the unfolding truth. But as a matter of fact science has in many ways told mankind truth about existence. However, its route to knowledge is nevertheless applicable only to those aspects to natural order which satisfy certain conditions which themselves are not universally agreed upon by scientists and philosophers of science. This lend evidence to the contradiction between science worldview that scientific ideas are subject to change and in fact that science is yet and cannot provide complete answer to all questions, especially the fundamental ones.¹⁸

**Tip**

It is important to state that science and metascience cannot be far from each other but be brought together to understand and make better the human world.

Study Session Summary

**Summary**

It is not a gainsaying that science is today seen as the omnipotent of knowledge. The reality of this is based not only on how science has helped mankind in transforming his natural world and as such seen on how even arts have been compelled to have scientific stature. This extension of it is seen in how science has been extended to investigate other spheres of life, for example society, man et al. However, fundamental way to understanding of reality is to look at it holistically. This obviously makes us see why the major preoccupations of our time have been to bring different perspectives into synoptic view. Thus, hinging on the short fall of the scientific methodology and its inability to achieve certain goals and looking at the very fact of some other modes of knowing. It becomes pertinent that intuition, mysticism and spiritualism has always been and serves not only as complement but also supplement in matter of life where science has failed or has not been able to meet up with the existential challenges.¹⁹ The reality of this is seen in the recent development in sciences that regard practices such as acupuncture et al as science. The obvious similarities between science and other modes of knowing rest on man's capacity for rationality. It is this capacity that enables man to speculate about the unknown and make predictions. Science does this and other modes of knowing use it too.

Assignment



Assignment

- 1) How is science a rational inquiry?
- 2) State and explain the various stages of the scientific method?

Endnotes

¹ Newton-Smith. W.H.1951. *The Rationality of Science*. London: Routledge and Kegan Paul. p. 129.

² Newton-Smith. W.H. *The Rationality of Science*, p. 129.

³ Carrier, L.S. 1993. The Roots of Knowledge. *Pacific Philosophical Quarterly* London. p. 74

⁴ Ogundare. Z.B. 2000. Truths and Verisimilitude in Karl Popper's Epistemology. *Journal of Philosophy and Related Disciplines*. Vol. 1, No 1. p. 107 (12)

⁵ See Melrin Merkin as quoted by G. M. A. Ayodele. 2004. Understanding Philosophy Science and Technology. Olusegun Oladipo, et al. eds. *Philosophy, Logic and Issues in Technology*, Ibadan Hope Publications. p. 48

⁶ See Melrin Merkin as quoted by G. M. A. Ayodele article title Understanding Philosophy Science and Technology, in Olusegun Oladipo, et al (eds.) *Philosophy, Logic and Issues in Technology*, p. 48.

⁷ Schlick, M. *Logical Positivism*.

⁸ David Flume. *Essays Concerning Human Understanding*, L A Selby. ed. London: The Clarendon Press. p. 13

⁹ Russell, B. 1979. *Problem of Philosophy*. New York: Routledge, Allen and Ulwin.

¹⁰ Rosenthal-Shaneidner, 1980. *Reality and Truth: Discussion with Einstein*. Von Lame: Wayne State University Press. p. 73.

¹¹ Olusegun Oladipo, 1992. *The Idea of African Philosophy*. Ibadan: Hope Publications. p. 7.

¹² Newton-Smith, W.H. 1951. *The Rationality of Science*. London: Routledge. p. 76.

¹³ Russell, B. *Problem of Philosophy*. New York: Routledge, Allen and Ulwin, 1979.

¹⁴ Russell, B. *Problem of Philosophy*.

¹⁵ Hacking, I. Language, Truth and Reason. N. I. Hollis and S. Lukes. eds. *Rationality and Relativism*. Oxford: Basil Blackwell. p. 82.

¹⁶ Olu Owolabi, K.A. 2004. *Issue and Problems in Epistemology*. Ibadan: Hope Publications.

¹⁷ Olu Owolabi, K.A. *Issue and Problems in Epistemology*.

¹⁸ Ayo Fadahunsi. 2003. *Philosophy, Science and Technology*. Ibadan, Hope Publication. p. 49.

¹⁹ Ayo Fadahunsi, *Philosophy, Science and Technology*. p. 49.

Study Session 5

Knowledge / Belief Distinction

Introduction

In this Study Session, we shall attempt to explore the meaning and nature of knowledge.

Learning Outcomes



Outcomes

When you have studied this session, you should be able to:

5.1 describe the nature of knowledge.

What is Knowledge?

The branch of the discipline of philosophy referred to as Epistemology or “theory of Knowledge,” is generally accepted to be concerned with the nature of knowledge. To that extent, it focuses on issues such as “the origin of knowledge; the place of experience in generating knowledge, the possibility of knowledge, the relationship between knowledge and certainty, the possibility of universal scepticism and the changing forms of knowledge that arise from new conceptualizations of the world.”¹ And so, the history of the discourse of epistemology can be described as the attempt to delineate the meaning and nature of knowledge. To this end, at least in the traditional sense, knowledge has been regarded by not a few scholars as “Justified True Belief.” By this, it is implied that for any claim or proposition to count as knowledge, such claim must be a belief that is true, and must be justified. Schematically, this is given as:

S knows that p, iff;

P is true, and

S is justified in believing *that* p.

where S refers to the epistemic agent, p to the proposition known.

The discipline of epistemology confirms the importance of the idea of “knowledge”. The defining attribute of epistemology is the idea of knowledge or cognition. The question that we need to ask is: what do we mean by knowledge that epistemology has as its main focus? Knowledge refers to

1. The cognitive aspect of consciousness in general, to know means to perceive or apprehend or to understand or comprehend.
2. Knowledge is also used in contrast to mere opinion sometimes called belief. In this application it signifies certitude based on adequate grounds. There may be belief or subjective certitude without objective foundation.
3. Knowledge is further used for what is “known” as such. Thus we speak of chemistry as a body of knowledge. Knowledge is used as a synonym for cognition and also to specify a specific cognition. That is the cognition that satisfies three conditions which are (1) Truth (2) Self-satisfying and indubitability (3) logically impossible to falsify.

The above meanings of the concept, knowledge, has implicitly defined the scope of epistemology. Epistemology is interested in the discussion and analysis of the process of interaction of the human mind (subject of knowledge) with the external world (object of knowledge). It is the task of epistemology to understand the process of how humans become conscious of external objects. But we need to mention that epistemological analysis of consciousness differs from the psychological investigation of it. While the latter is interested in the description of

the process of cognition by employing the empirical method, the former investigates cognitive materials in order to apprehend and prescribe the appropriate means of understanding external realities. Epistemology therefore concerns itself with the study of the processes of perception and other modes through which human beings interact with external objects.

Another dimension of epistemology, which has been exposed by the analysis of knowledge above, concerns the role that epistemology performs in distinguishing knowledge or justifiable belief from opinion or subjective belief. Historically, epistemology started from the Socratic-Platonic desire to confront the sophists who denied the possibility of objective knowledge. A major aspect of the epistemological programme up till now is the mission of providing the basis for distinguishing objective knowledge from mere opinions. How do we arrive at the criteria for accepting some beliefs as objective knowledge and rejecting others? This issue of epistemic justification is one of the cardinal problems of epistemology that shall also engage our attention.

The third dimension of epistemology that earlier analysis of knowledge have identified relates to the concern of the epistemological enterprise for knowledge produced in other disciplines. The fact that knowledge refers to the system of beliefs in other disciplines apart from philosophy, signifies that epistemology is interested in how knowledge is acquired and justified in other areas, particularly science which has been adopted as the paradigm or archetype of knowledge. It is in this respect that epistemology is strongly linked to the “Philosophy of science”. One can even say that the latter is a sub-branch of the former; in the sense that philosophy of science employs the basic tools of epistemology for the evaluation of scientific knowledge.

Finally, let us mention that our discussion of the dimensions of knowledge indicates that the issue of what constitute knowledge

or the conditions that a knowledge claim must satisfy is a serious one in traditional epistemology. What is it for any idea to be called knowledge? What are the conditions that a knowledge claim or body of knowledge must satisfy before it can be accepted as such? Questions of this nature are taken seriously in epistemology. These questions indicate that the definition of knowledge is not taken for granted in epistemology. In fact, serious polemic surrounds the exercise of defining knowledge in philosophy. Like many concepts in philosophy, knowledge “is so fundamental and general that it includes itself in its own scope.” The peculiar problem that confronts concept of this nature has been explained by P.C. Jones in the book: *The Nature of Knowledge*. According to him, “an explanation of knowledge must be in terms of something more fundamental than knowledge and that obviously is something unknown.” In examining this issue, we shall focus on how traditional epistemology been able to resolve this dilemma; as well as what has been its reaction to the issue of the conditions of knowledge? These shall engage our attention in the next section.



What do you think is the central focus of the discipline of epistemology?

Accounts of Knowledge: Traditional Versus the Gettier Problem

The attempt at defining knowledge is as old as epistemology itself. This desire to define knowledge can be seen in Plato’s dialogue: *Theaetetus*. It was from this dialogue that the traditional account of knowledge as “justified true belief” emanates. Precisely, the definition of knowledge supplied here is: “true belief plus (logos) account”, which has been interpreted to mean “justified true belief”. It is rather surprising that this definition of knowledge that Plato himself vehemently opposed in the *Theaetetus* turned out to

become the acceptable definition of knowledge in traditional epistemology. The traditional account of knowledge is this:

X knows that P, if and only if:

- a. X has a belief P.
- b. P is true
- c. X is justified in believing that P is true.

From this, we can infer that there are three conditions of knowledge namely (i) belief (ii) truth of belief (iii) justification of belief. This definition of knowledge can be further illustrated by this example:

Mr. A knows that Abuja is the capital of Nigeria if:

- i. Mr. A has a belief that Abuja is the capital of Nigeria
- ii. This belief that Abuja is the capital of Nigeria is true
- iii. Mr. A is justified in having this belief.

This traditional account of knowledge used to be the acceptable definition of knowledge. However, in 1963 it was challenged by Edmund L. Gettier in his short essay: “Is Justified true belief knowledge?” The aim of this influential essay is to refute the conception of knowledge as “justified true belief.” Gettier’s points was that, while the three conditions of knowledge as “justified true belief” may hold for an agent, such agent could not be said to know on the grounds that such agent arrived at such through lucky guess. Gettier demonstrated his position with two counter examples showing the possibility of having “justified true belief” without having knowledge. The implication of these examples of Gettier is that there is the need for a *fourth condition of knowledge*. The problem generated by Gettier’s counter examples and the quest for a fourth condition knowledge has been tagged the “Gettier Problem”. Let us now examine the counter example supplied by E. L. Gettier.

In the first case, Gettier made us to imagine two applicants for a job: Mr. Smith and Mr. Jones. According to him, the following proposition is made by Mr. Smith.²

A. Jones is the man who will get the job, and Jones has ten coins in his pocket.

The first conjunct in the propositions made by Smith is a product of the statement of the employer that Mr. Jones will be employed. The Second conjunct is based on the firsthand experience of Smith who counted the coins in Mr. Jones pocket. Assuming Smith goes on to make an inference from this conjunctive proposition that:

B. The man who will get the job has ten coins in his pocket:
But supposing B is true, though the man who gets the job is Mr. Smith himself, who accidentally has ten coins in his pocket; can we say that proposition B, which fulfils the “justified true belief” condition, is a knowledge claim? Gettier argues that though proposition B satisfies the three conditions of justification, truth and belief, it is not a knowledge claim because it is an inference from a false proposition – proposition A. thus, that proposition B is true is a matter of coincidence.

In the second counter example given by Gettier, he imagined another proposition made by Mr. Smith to the effect that:

C. Jones owns a Ford car.

Gettier imagined further that Smith’s proposition is based on the evidence that Jones drives a Ford car, in which Smith once had a free ride. Supposing that Smith has another friend named Brown whose whereabouts is unknown to Mr. Smith, Smith constructs three sets of disjunctive propositions from the combination of these propositions, and merely guesses where his friend (Mr. Brown) may be living at the time he was making the propositions. The propositions are:

D. Jones owns a Ford car or Brown is in Boston

E. Jones owns a Ford car or Brown lives in Barcelona

F. Jones owns a Ford car or Brown lives in Brest-Litovsk.

Gettier goes further to maintain that the propositions will be assumed true by Smith because he feels that the first disjunct,

which is common to the three propositions is true. It is, however, discovered that proposition, E is the only correct proposition, not because it's first disjunct is true, but because, by mere coincidence, the second disjunct is; that is, Brown lives in Barcelona. But the first disjunct is false, because Mr. Jones drives in a rented Ford car. Can we say that proposition E is knowledge? Gettier agrees that proposition E is "justified true belief", but it is not knowledge because it is a product of mere coincidence. Gettier therefore concludes that it is possible to have "justified true belief" without knowledge. Gettier's counter examples and the demand for a fourth condition of knowledge has generated many reactions in epistemology. Post Gettier attempts at repairing the traditional account of knowledge can be categorized into four trends according to Jonathan Dancy in his book *Introduction to Contemporary Epistemology*.

The first category of attempts at repairing the traditional account of knowledge is based on the claim that the definition of knowledge should clearly indicate that the constituent's belief should not be inferred from a false belief. An example of this type of effort is in Michael Clark's article. The fourth condition of knowledge according to Clark is this: "the believer's ground for believing a claim does not include any false belief." In a nutshell, the traditional account of knowledge is being repaired by merely adding a fourth condition which is that there should not be present in any set of beliefs that seeks to graduate to knowledge, "relevant falsehood". But this amendment has been criticized for being too strong such that it will be "impossible for any of us to know anything". With this new suggestion we may find it difficult to have a set of beliefs without the prevalence of relevant falsehood. Knowledge will therefore be rare to get.³

The second sets of post-Gettier account of knowledge say that the fourth condition of knowledge is that there should not be

within the system of belief certain “truth which would have destroyed the believer’s justification.” This position has been held by Lehrer and Parsons. Their claim is that “justified true belief” can still be knowledge on the conditions that there is no other truth that can defeat the justified belief. This category of attempts at solving the Gettier problem has been tagged the “defeasibility approach.” The defeasibility approach is related to the third sets of amendment which says that the fourth condition of knowledge is reliability. The reliability approach to the definition of knowledge says that knowledge is justified true belief derived from a reliable method.⁴

The last attempt at solving the Gettier problem which we will examine and consider as the most feasible is the “conclusive reason” approach. According to this attempt at repairing the traditional definition of knowledge, justified true belief can still be knowledge if it is based on conclusive reason. By conclusive reason we mean that if P is the conclusive reason for Q, then P cannot be true if Q is false. In essence, if a particular proposition is knowledge then the reasons for making it knowledge must be conclusive. This can be so if and only if the reasons cannot be true while the conclusion is false. This approach has also been criticized. Jonathan Dancy argues that this approach will also make knowledge a rare phenomenon.⁵

All these objections and criticisms of post-Gettier attempt at redefining knowledge merely point to the fact that the ghost of Gettier counter examples will continue to haunt epistemology for long. The various attempts at repairing the Gettier traditional account of knowledge complicate rather than improve the situation. John L. Pollock is therefore right when he says:

As the literature on the problem has developed, the proposals have become increasingly complex in the attempt to meet more and more complicated counter examples to simple analysis. The result is that even if some very complex analysis should

turn out to be immune from counter example, it would seem ad-hoc.⁶

In retrospect, we need to say that “Gettier problem” is a typical example of epistemological problem. The desire of epistemology to justify human cognitions makes it imperative for it to be very critical of all ideas. This critical nature explains the reason why it is nearly impossible for philosophy to arrive at the definition of concepts including the most basic ones such as knowledge. Such a definition needs to be absolutely acceptable to the most critically minded of philosopher, this may rather be difficult. But that simply explains the reason why philosophy is a critical and polemical enterprise.



Serious polemic surrounds the exercise of defining knowledge in philosophy.

Study Session Summary



Summary

In this Study Session, attempt was made at examining the dimensions of knowledge, which indicates the issue of what constitute knowledge or the conditions that a knowledge claim. Questions such as; what is it for any idea to be called knowledge? What are the conditions that a knowledge claim or body of knowledge must satisfy before it can be accepted as such? showed the serious nature of inquiry in epistemology. These questions indicate that the definition of knowledge is not taken for granted in epistemology.

Assignment



Assignment

1. What you understand by the traditional account of knowledge?
2. How would you represent the traditional account of knowledge in the light of the counterexamples of E. Gettier?

Endnotes

¹ Simon Blackburn, *Oxford Dictionary of Philosophy*. Oxford: Oxford University Press. p. 118.

² Gettier, E.L. Is Justified True Belief Knowledge? *Analysis*, 23: 121-123.

³ Dancy, J. 1991. *Introduction to Contemporary Epistemology*. New York: Basil Blackwell Ltd.

⁴ Dancy, J. *Introduction to Contemporary Epistemology*.

⁵ Dancy, J. *Introduction to Contemporary Epistemology*.

⁶ Pollock, L. 1999. *Contemporary Theories of Knowledge*, 2nd ed. Boston: Rowan and Littlefield Publishers, Inc.

Study Session 6

Truth and Justifications

Introduction

In our earlier discussion of knowledge, we stated that knowledge has three major conditions namely; *justification*, *truth* and *belief*. In this session, we shall discuss the problems and theories about the idea of truth in traditional epistemology. What is it for any claim to be described as true? What are the conditions of truth? This question as it will be expected of philosophical questions has generated serious controversy.

Learning Outcomes



Outcomes

When you have studied this session, you should be able to:

- 6.1 delineate in clear terms the nature of truth and justification as regards the theory of knowledge.
- 6.2 locate the place and importance of truth and justification to the enterprise of epistemology.

6.1 Correspondence Theory of Truth

Let us begin this discourse by examining the notion of the correspondence theory of truth. Correspondence theory of truth defines truth as correspondence between human judgment and facts. To this theory, truth refers to the relation between beliefs and facts. A statement is true according to correspondence theory of truth, if the belief conforms to a fact. A true statement according to correspondence theory is that which has a belief that confirms what a matter of fact is. For example, if a man has the following beliefs:

1. Abuja is the capital of Nigeria.

2. A dog is a domestic animal

Beliefs are true according to “correspondence theory” if they agree with the facts. If we discover upon verification that there are facts to confirm the two propositions, then the beliefs are true. But if on the other hand the beliefs cannot be confirmed by facts then the beliefs are not true.

The correspondence theory of truth, from the explanation given conceives truth as basically an affair between judgment and external realities. The theory believes that if there is an agreement between a position made and the reality on the ground then truth is established. We can say that the correspondence theory gives consideration only to empirical statements or beliefs about empirical facts neglecting other forms of beliefs.¹ This is because it is only in the case of empirical statements or beliefs that truth can be defined as a relation between beliefs and facts. In essence, correspondence theory of truth does not accommodate non-empirical beliefs. For example, how can correspondence theory account for the truth of beliefs such as these?

1. God is an omnipotent being
2. Man is a moral animal
3. Every man is destined to live the way he lives.

The objection raised against correspondences theory of truth is that it is an inadequate theory of truth. The inadequacy stems from its narrow conception of truth as being applicable only to empirical matters.

Correspondence theory of truth has also been criticized for being simplistic and trivial. It is so because if all the theory says about truth is a relationship between facts and external objects, then it is too trivial to be considered a theory. This theory merely repeats the common sense idea of truth. A theory of truth should strive to do more than merely asserting that truth is an agreement of facts and beliefs.² Certain fundamental questions can be raised about the

position to the effect that “truth is the agreement of facts and beliefs.” For instance, what does it mean for a belief to agree with facts? This question cannot be taken for granted. Correspondence theory of truth needs to tell us precisely the meaning of the word “correspond”. It can even be argued that “correspondence with fact” can mean the same thing as “coherence” which is the central term in the opposing theory of truth: coherence theory of truth. How then is correspondence theory unique and distinct from its rival? The equivocation and ambiguity of the central term in correspondence theory put a serious question mark on the entire claims of this theory.

6.2 Coherence Theory of Truth

Coherence theory of truth views truth as a relation between judgment and the system to which it belongs. A statement or proposition is considered true or false by coherence theory depending on its consistency with the other group of propositions that it shares the system with. Coherence theory of truth regards propositions as forming a system such that its falsehood or truth depends on whether or not it coheres with the system it belongs to. Their idea of truth has been explained in this manner:

Truth is the approximation of thought to reality. It is thought on its way home. Its measure is the distance thought has travelled, under guidance of its inner compass, towards that intelligible system which unites its ultimate object with its ultimate end... the degree of truth of a particular proposition is to be judged in the first instance by its coherence with that further whole, all comprehensive and fully articulated, in which thought can come to rest.³

The coherence theory of truth has been presented and defended by idealists such as Bradley and Blanshard. These

idealists assume that beliefs are organized in a systematic arrangement; and the system must be complete and comprehensive. In a coherent system it is taken that no proposition would be arbitrary, every proposition would be entailed by others jointly and even singly, no proposition would stand outside the system.⁴

The position of the coherence theory of truth can be illustrated in this manner. Let us assume that the beliefs that we will give below belong to the same system.

1. If you drop an egg on the floor, it will break.
2. If you drop a china plate on the floor it will break.
3. If you drop a bottle on the floor, it will break.
4. If you have magic powers; if you drop an egg on the floor, however hard the surface of the floor is, it will not break.

We can see that proposition A-C coheres: that is, they are consistent with the system of beliefs and can therefore be declared true, while proposition "D" does not and can be declared false. But the coherence theory of truth appears only to be an improvement on the correspondence theory of truth because it can account for the truth of many beliefs, but serious objections can be raised on the adequacy of this theory itself. The most popular criticism against coherence theory of truth is that it is too permissive as a theory of truth such that so many propositions can be considered to be true just because they cohere with the system to which they belong. How then do we evaluate the many systems that serve as the determinants of truth for propositions? This objection has been presented by Jonathan Dancy in his book: *Introduction to Contemporary Epistemology*. His position is that it will be difficult to affirm legitimately that one system of beliefs is better than the other with the coherence theory of truth. He goes further to say that the notion of truth which this theory will present will be relative to the system to which the beliefs belong.⁵ It is for this reason that coherence theory of truth has been rejected.

What is wrong with truth of belief being relative to the system to which it belongs? The objection against coherentism is borne out of the traditional philosophical assumption that there should be absolute, objective and immutable truth. But as we mentioned during our earlier discussion of skepticism, this orthodox conception of truth and knowledge may be difficult to sustain. Truth and knowledge can only make meaning within of truth is unnecessary apart from being very difficult to attain. This is precisely the assumption behind the pragmatic theory of truth that we shall examine next.

6.3 Pragmatic Theory of Truth

This theory of truth considers the idea of truth to be an affair of practical experience. Pragmatic theory of truth considers the truth of a proposition to be determined by its practicality. A proposition is true if whatever it affirms is practicable and realizable; while it is false if it is not. Chisholm defines pragmatic theory of truth as the theory which accepts that a belief is true if and only if the belief has practical implication.⁶

Pragmatism is relatively difficult to pin down. Its position is rather elusive and ambiguous. According to its advocates – C .S. Pierce, William James, John Dewey and F. C. S. Schiller – the pragmatic theory of truth is understood to be the agreement of an idea with reality. The agreement of an idea with reality needs further explanation according to pragmatic theory of truth. It means more than an idea being a mental image, it also involve other non-empirical ideas such as mathematical, religious and metaphysical ideas. It is in this respect that chiller says that an assertion is true “if and so far as an assertion satisfies or forwards the purpose of the enquiry to which it owes its being”.⁷

However the major objection against pragmatic theory of truth is that it extends our conception of truth beyond the way we

ordinarily use it. Truth in ordinary usage means agreement with reality, but with the pragmatists it connotes “usefulness”, “desirableness”, “satisfactory” and “expedient”.⁸ With this situation, the pragmatists will not allow us to distinguish effectively between accepting something and accepting something as true. There is always a distinction in ordinary language between what is objectively true and what is taken to be true by some group of people. This distinction has disappeared with the pragmatic theory of truth. But we need to mention that pragmatic theory of truth is an attempt to make the issue of truth more realistic. Not only that, with this theory, the entire epistemological project will abandon its dogmatic tendency and become more humanistic. Humanistic in the sense that truth will connote practicality with human experience.



How will you define Truth?

6.4 Theories of Epistemic Justification

How do we justify our knowledge claim? How do we know that an ordinary belief is capable of being elevated to the level of justified belief? As we mentioned earlier, justification is one of the conditions of knowledge in the traditional account of knowledge. Even without satisfying the fourth condition of knowledge demanded by post-Gettier analysis of knowledge, the problem of justification of knowledge is still a nagging one. Philosophers throughout history have given so much attention to the problem that a writer was tempted to say that epistemology is more of a theory of justification than a theory of knowledge.⁹

Traditionally the enterprise of epistemology has been dominated by two theories of justification: foundationalism and

coherentism. This section will now be devoted to a critical discussion of the two and the third theory which has been developed in recent times to meet the challenges of two traditional theories.

6.4.1 Foundationalist Theory of Justification

Foundationalism is the most popular theory of justification. It is the position that all beliefs are two kinds: basic beliefs that are self-justifying and non-basic belief that need to be justified by their inferential relationship to the basic beliefs. Foundationalism as a theory of justification posits that some beliefs are incorrigible and infallible and so does not need to be justified; those beliefs are said to be self-evident or derived from intuition. The claim that some beliefs are infallible, self-evident or derived from intuition is fundamental to the argument of the foundationalists. They argue further that other beliefs – non-basic beliefs – can only be justified, if and only, if they are inferentially related to the self-evident ones which they call the foundational beliefs.

The most popular example of a foundationalist theory is the view expressed by Rene Descartes. Descartes in fact introduced the architectonic imagery by affirming the need for a deconstruction of epistemic superstructure until one gets to a solid based upon which he can erect other forms of epistemic beliefs. As we are well aware, the foundation of his epistemology or what we can today call his “basic belief” is the claim “*Cogito ergo sum*”, “I think therefore I am”, while other beliefs which are derived inferentially from it are the non-basic beliefs.

The position of the foundationalists is basically that any belief can either be justified if it is self-evident such as: “I think therefore I am” or “ $2+2=4$ ”, while other beliefs which are not self-evident are justified by their relationship to the basic ones. We can say for example that the belief “2 oranges and another 2 oranges

will be 4 oranges” can be derived inferentially arranged has created that architectural model in the mind of people. The foundationalist, taking inspiration from the Cartesian metaphor, conceive beliefs as a superstructure with the basic belief serving as the foundation, while non-basic beliefs represent the structure itself. Like a good architecture, to continue with the metaphor, the foundationalist believes that the survival of non-basic beliefs rest on the support supplied by the foundationalist beliefs, just as the survival of an edifice rest on the strength of its base. In essence, the justification of the non-basic beliefs depends absolutely on the strength of the basic beliefs.

Foundationalism, from what we can see, has its inherent problems. The most evident is the attempt to maintain that some beliefs are self-evident and infallible. What do they mean by an infallible belief? One may be forced to further question this claim by asking: can a belief be self-evident such that it will be impossible for the belief to exist without being justified? Do we have certain beliefs that do not need any justification? Can we ever talk of an incorrigible and self-evident belief in impossible to achieve this? Most of the objections raised against foundationalism have been on these questions. In essence, we can say that the incorrigibility factor is the Achilles’ heel of foundationalism.

Another serious criticism against the argument of foundationalism is the point that the foundationalist in terminating the regression of justification. What is the explanation for refusing to justify basic beliefs? Why do we have to terminate the infinite regression; that is the obvious conclusion of the foundationalist argument? It has been argued that foundationalism either sustains the infinite regression or gives a very rigorous explanation for terminating it. The foundationalists have refused to do this. Without adequate conviction that the termination of the regression is not arbitrary the foundationalist cannot sustain its theory.

Objection has also been raised against the way the foundationalist conceives beliefs as linearly and hierarchically arranged. It has been argued that the assumption that beliefs are orderly arranged in whatever form is a misconception of the way beliefs are in reality. Beliefs in their natural setting are not “developed in a constructive manner which can make us think of a linear or hierarchical order of epistemic claims.”¹⁰ If the assumption that informs foundationalism is a misconception then the entire foundationalist programme can be questioned.

On the whole, the various arguments against foundationalism have made the theory to be unpopular in recent times. Due to this, many people who still want to subscribe to some of the basic views of the theory. It is now very popular to make a distinction between classical foundationalism and the minimal or moderate foundationalists. The minimal foundationalist accept the “model of distinguishing basic from non-basic beliefs but rejects the possibility of an infallible belief system and accepts fallibilism; the theory that many of our most cherished beliefs would be false.”¹¹ The acceptance of fallibilism is the hall mark of contemporary foundationalism.

6.4.2 Coherentist Theory of Justification

Coherentism as a theory of justification is the traditional rival of foundationalism. The coherentist disagrees with the basic positions of foundationalism that beliefs are hierarchically arranged and that some beliefs are superior to others. Their position is that beliefs are justified by their coherence with the system to which they belong. Beliefs, according to this theory, are related because all beliefs belong to a particular system of beliefs. In as much as all beliefs are within a system, then the justification is a matter of locating the exact system to which a belief belongs and checking

whether the belief is consistent and coherent with other beliefs within it.

The coherentist tries to avoid the problem of foundationalism, particularly the hierarchical arrangement of beliefs and the assertion that some beliefs are incorrigible. They also claim that the infinite regression dilemma cannot be a problem to their own theory of justification in as much as their beliefs are of equal status. There is no need for the infinite regression with coherentism, since the justification of the coherentist can only be effected by the consistency of beliefs to the entire system. The difference between coherentism and foundationalism can be aptly summarized thus:

For the coherentist knowledge is not a Baconian brickwall with block supporting block upon a solid foundation, rather an item of knowledge is like a mode of spider's web which is linked to others by thin strand of connection each alone weak but altogether adequate for its support.¹²

But has coherentism presented a better mode of justifying epistemic claims? The answer is obvious. Coherentism also has its inherent pitfalls. The most damaging of the weaknesses of this theory is its permissive tendency, with coherentism, the process of justification has become simplistic and trivial to the extent that any belief can be justified by mere consistency with the system to which it belongs. Any belief will therefore easily pass the coherentist's test by being consistent with the system, even if the belief is invalid and obviously senseless.

What we consider to be the most serious problem of coherentism is that it merely pretends to be antagonistic to foundationalism while it still subscribes to the basic assumption of this foundationalist theory of justification. Although superficially, one may tend to see an opposition in the views of foundationalism

and coherentism, a deeper analysis will reveal that their differences are not fundamental. The two theories of justification agree on the assumption that knowledge is a systematic, orderly and related body of beliefs. This assumption informs the desire of both foundationalism and coherentism to seek a grandiose system of justification for all beliefs independently of the situation and context that generate each belief. But the truth is that belief by its very nature is unique to the situation that generates it. It should not be linked with other beliefs neither should its justification depend on other beliefs. The mistake of seeing beliefs as interrelated is at the base of the two traditional theories of justification. The new theory of justification, contextualism seeks to avoid this fundamental misconception.

6.4.3 Contextualism Theory of Justification

The most recent theory of epistemic justification is contextualism. This theory of justification assumes that the act of justification demands the validation of a belief within the context that generates it. Contextualism stands in opposition to foundationalism and coherentism that maintain a strong relationship between beliefs and based the idea of justification on this relationship. Contextualism maintains that the genuine problem of justification is the justification of a particular epistemic claim rather than the validation of all beliefs. It also accepts that fallibilism is a tenable position since humans are themselves fallible.

Contextualism which has its greatest advocate in the American philosopher, David Annis, seeks to transcend the absolutism of traditional theories of justification. The theory realizes the difficulty that will always attend the desire to justify all epistemic claims independently of how they are produced. It therefore assumes that since beliefs are made within social context

their justification should respect these contextual parameters. David Annis explains the process of justification in contextualism thus:

When asking whether “S” is justified in believing “H” this has to be considered relative to an issue context. Suppose we are interested in whether Jones, an ordinary non-medically trained person has the general information that polio is caused by a virus. If his response to our question is that he remembers the paper reporting that Salk said it was, then this is good enough. He has performed adequately given the issue context. But suppose the context is an examination for the M.D. degree. Here we expect a lot more if the candidate simply said what Jones did, we would take him as being very deficient in knowledge. Thus relative to issue-context a person may be justified in believing ‘H’ but not justified relative to another context.¹³

Contextualism as theory of justification attempts to overcome the obvious shortcomings and misconceptions of the two traditional theories of justification. The main difference between this theory and the other two is that it sees the genuine question of justification as: (a) how can I justify a particular epistemic claim? This question is more appropriate than the pseudo question that foundationalism and coherentism seek answer, i.e. (b) how can we justify all epistemic claims? Contextualism unlike foundationalism and coherentism realizes that beliefs are contextual and peculiar to the situation that generates them. Unlike the two traditional theories of justification, contextualism conceives knowledge not as a systematic and orderly enterprise, but as a diverse collection of ideas. This theory regards justification not as an abstract process that can be affected independently of the epistemic claims itself but rather as the act of investigating the situation that generates the claim.

The potential objection against contextualism, its acceptance of relativism, is not a serious problem. It is not, because relativism

cannot be a liability to epistemology theory any more. In as much as knowledge by its very nature is relative to situations, then its justification should also manifest this relativism. The American philosopher, W. V. O. Quine has called for epistemology to be naturalized.¹⁴ The spirit behind this demand is that contemporary discourse of epistemology ought to give expression to the yearning of human beings for relevant, realistic and practicable reflections and theories. Only such realistic epistemology can improve the quality of human knowledge and not the idealistic and hair-splitting enterprise of traditional epistemology.



How would you represent the concept of truth within traditional epistemology?

Study Session Summary



Summary

We discussed the problems and theories of epistemology. Our discussion has revealed certain facts about epistemology. A significant feature of epistemology is its critical tendency. This critical attitude has generated many of the problems and theories that still dominate the enterprise of epistemology today. The same critical spirit informs the contemporary demand that epistemology should do away with any form of dogmatism and become realistic. Virtually all theories of epistemology are presently responding to this new demand. As a reaction to this new demand, skepticism is still part of the contemporary epistemology in as much as it promotes the critical attitude. But the dogmatic form of it can no more be tolerated. Fallibilism which was hitherto avoided by traditional epistemologists is presently being accommodated. In the same vein, the quest for immutable and absolutely certain knowledge is no more fashionable. In essence, one can observe a

closing of rank in epistemology. All this is pointing to the fact that the practitioners of epistemology have started realizing that knowledge is and ought to be a human affair. If the purpose of knowledge is to promote human interests then epistemology should manifest the human nature as dynamics being.

Assignment



Assignment

1. What are the theories of truth studied in this Study Session? Discuss, at least, one.
2. What is the Correspondence theory of truth?

Endnotes

¹ Woozley, A. D. 1978. *Theory of Knowledge*. London: Hutchenson & Co. Publishers. p. 126.

² Woozley, *Theory of Knowledge*. p. 127.

³ Woozley, *Theory of Knowledge*. p. 127.

⁴ Blanshard, B. 1939. *The Nature of Thought*. London: Allen and Unwin. Pp. 265-266.

⁵ Jonathan Dancy. 1985. *An Introduction to Contemporary Epistemology*. New York: Basil Blackwell Ltd. p. 115.

⁶ Roderick Chisholm. 1987. *Theory of Knowledge*. New Delhi: Prentice Hall. p. 97.

⁷ Schiller, F.C.S. 1907. The Ambiguity of Truth. *Studies in Humanities* Vol. V

⁸ White, A. 1970. *Truth*. London: Macmillan. p. 123.

⁹ John Kekes. 1977. Recent Trends and Future Prospects in Epistemology. *Metaphilosophy* Vol. 8. No. 52 & 53. p. 89.

¹⁰ Will, F. L. 1974. *Introduction and Justification*. London: Cornell University Press. p. 237.

¹¹ Pojarn, L.P. 1993. Theories of Justification (1): Foundationalism and Coherentism. In *The Theory of Justification: Classical Contemporary Readings*. California: Wadsworth, Inc. p. 189.

¹² Nicholas Rescher. 1973. *The Coherence Theory of Truth*. Oxford University Press. p. 319.

¹³ See his article, David Annis. 1978. Contextualist Theory of Justification. In *American Quarterly* Vol. 15. No. 3. Pp. 218-219.

¹⁴ Quine, V.W.O. 1969. Epistemology Naturalised. In *Ontological Relativity* New York: Columbia University Press. pp. 69-90.

Study Session 7

Role of Scepticism in Rational Inquiry

Introduction

A very important trend in the traditional epistemology is skepticism. Skepticism as an orientation in traditional epistemology is constantly challenging the quest for absolutely certain knowledge. The skeptics deny the possibility of the certainty of epistemic claims. In fact, there is a sense in which the entire project of traditional epistemology is an attempt to meet this skeptical challenge by proving that knowledge is possible. Skepticism as an idea connotes the critical spirit: the tendency of not being easily satisfied with simple or superficial evidence and striving to accept only incorrigible beliefs that are absolutely certain. It is difficult to begin to describe the features of skepticism because skeptics have diverse reasons and objectives for questioning and denying the certainty and objectivity of epistemic claims. In this Study Session, you shall examine the role of skepticism in rational inquiry.

Learning Outcomes



Outcomes

When you have studied this session, you should be able to:

- 7.1 define skepticism.
- 7.2 identify the features of scepticism as a rational inquiry.

7.1 Overview of Development of Scepticism in Philosophy

It is, perhaps, instructive to begin with a brief representation of the developments of scepticism within the discipline of philosophy. Historically, sceptical philosophical attitudes began to appear in [pre-Socratic](#) thought. In the 5th century BC, the [Eleatic](#) philosophers, known for reducing reality to a static One, questioned the reality of the sensory world, of change and plurality, and denied that reality could be described in the categories of ordinary experience. On the other hand, the Ephesian philosopher of change [Heraclitus](#) and his pupil Cratylus thought that the world was in such a state of flux that no permanent, unchangeable truth about it could be found; and [Xenophanes](#), a wandering poet and philosopher, doubted whether man could distinguish true from false knowledge.

A more developed Scepticism appeared in some of [Socrates'](#) views and in a couple of the [Sophists](#) (see below [Sophists](#)). Socrates, in the early Platonic dialogues, was always questioning the knowledge claims of others; and in the [Apology](#), he said that all that he really knew was that he knew nothing. Socrates' enemy, the Sophist [Protagoras](#), contended that man is the measure of all things. This thesis was taken as a kind of sceptical relativism: no views are ultimately true, but each is merely one man's opinion. Another Sophist, [Gorgias](#), advanced the sceptical-nihilist thesis that nothing exists; and if something did exist, it could not be known; and if it could be known, it could not be communicated. However, the putative father of Greek Skepticism is [Pyrrho of Elis](#) (c. 360–c. 272 BC), who tried to be a living sceptic. He avoided committing himself to any views about what was actually going on and acted

only according to appearances. In this way he sought happiness or at least mental peace.

The first school of sceptical philosophy developed in Plato's [Academy](#) in the 3rd century BC and was thus called “Academic” Scepticism. Starting from the sceptical side of Socrates, its leaders, [Arcesilaus](#) (316/315–c. 241 BC) and [Carneades](#) (214/213–129/128 BC), set forth a series of epistemological arguments to show that nothing could be known, challenging primarily the two foremost schools, those of the Stoics and Epicureans. They denied that any criteria could be found for distinguishing the true from the false; instead, only reasonable or probable standards could be established for knowledge. This limited or probabilistic scepticism was the view of the Academy until the 1st century BC, when [Cicero](#) was a student there. His *Academica* and *De natura deorum* are the main sources for knowledge of this movement. (St. Augustine's *Contra academicos* is an answer to Cicero's views.)

The other major form of ancient scepticism was [Pyrrhonism](#), apparently developed by medical sceptics in Alexandria. Beginning with [Aenesidemus](#) (1st century BC), this movement, named after Pyrrhon, criticized the Academic Sceptics because they claimed to know too much, namely, that nothing could be known and that some things are more probable than others. The Pyrrhonians advanced a series of [tropes](#), or ways of opposing various kinds of knowledge claims, in order to bring about [epochē](#) (suspense of judgment). The Pyrrhonian attitude is preserved in the writings of one of its last leaders, [Sextus Empiricus](#) (2nd or 3rd century AD). In his *Outlines of Pyrrhonism* and *Adversus mathematicos*, Sextus presented the tropes developed by previous Pyrrhonists.

The 10 tropes attributed to Aenesidemus showed the difficulties to be encountered in ascertaining the truth or reliability

of judgments based on sense information, owing to the variability and differences of human and animal perceptions. Other arguments raised difficulties in determining whether there are any reliable criteria or standards—logical, rational, or otherwise—for judging whether anything is true or false. To settle any disagreement, a criterion seems to be required. Any purported criterion, however, would appear to be based on another criterion, thus requiring an infinite regress of criteria, or else it would be based upon itself, which would be circular. Pyrrho’s philosophical method consisted in confronting every possible belief with a plausible opposite belief, and he refused to personally commit himself to any positive belief.

Apart from Pyrrho, Protagoras is another notable sceptic whose philosophical views are quite famous. Protagoras is known to have fore born the relativistic school of thought in philosophy with his claim that man is the measure of all things. This implies that man’s perceptual information is the standard for measuring truth; that is, there cannot be objective truth. He was also famous in his time for his sceptical agnosticism regarding the existence of gods. Protagoras sceptical theory was attacked by Plato who argued that it is self-refuting. For if all subjective beliefs are equally true, and then the belief that ‘some subjective beliefs are not true’ is just as true as any other. David Hume is another prominent philosopher whose scepticism flourished in the seventeenth and eighteenth centuries. Hume attacked the principle of induction in science as being an error in reasoning due to the fact it erroneously depicts the future to be similar to the past.

The importance of skepticism is easily demonstrated by the fact that historically speaking, epistemology did not begin until the Greek Sophists actually began to manifest skeptical tendencies by denying the possibility of objective knowledge. Protagoras’ claim that “man is the measure of all things” is the appropriate genesis of

epistemology. Georgia's, another Sophist, further denied the possibility of knowledge and thereby spur the Greek thinkers into positive reflection on how to defend objective knowledge. According to Georgia's:

- (i) Nothing exists.
- (ii) If anything exist, it cannot be known and
- (iii) If it can be known, it cannot be communicated to others.

With these three propositions of Georgia's, we can discern the programme of skepticism in its original form. Skepticism strive to establish that there is the need to cast doubt on the existence of all things, if that is not possible, then we can deny knowledge in whatever form, but if that is not impossible, we can affirm that objective knowledge is unattainable. Throughout the history of epistemology, skepticism has been acting as the propelling force behind the enterprise. As A. J. Ayer says:

... These skeptical challenges... supplies the main subject matter for what is called theory of knowledge; and different philosophical standpoints are characterized by the acceptable or denial of different stages of the skeptic's argument.¹

What are the arguments of the skeptics? What evidence do they have for denying the possibility of knowledge? There are variations in the arguments of the skeptics. But the summary of the arguments of the skeptic can begin to doubt all epistemic claims because the source of most knowledge: sense experience is prone to error. Experience has revealed that our senses sometimes can be deceitful and unreliable. Is it not logical and sensible to conclude that attaining reliable knowledge through sense experience is impossible, in as much as those senses are capable of deceiving us?

Even if we want to rely on our sense experience for knowledge, can they be reliable as the sources of all knowledge? Do we need to rely on them for knowledge of what will happen in

the future? In essence, if our senses have been right in telling us that the sun rises from the East, what guarantee do we have that it will not rise from the West tomorrow? This is the gist of David Hume's skeptical argument against causality and induction.² The position David Hume held that the belief that "experience is a reliable guide cannot be justified."³ Even if our experience cannot be deceitful, how are we sure that they are reliable on the knowledge of future events? Can experience be a justification of our knowledge about the future?

Another skeptical argument is directed at theoretical knowledge. According to some skeptics, even the knowledge from abstract entities, the type we have in mathematics, can also be doubted because we often make mistakes about the simplest deductive and mathematical inferences. If such mistakes are possible, then how are we sure that the inference from mathematical axioms are not false? If there is the possibility of error in the analysis of the simplest mathematical problems then it is logical to begin to cast doubt on all our mathematical inferences.

The next skeptical argument that we want to consider now is the argument about the similarity between actual reality and state of dream. Some skeptics argue that since it is difficult to know the difference between reality and state of dreaming, then it is sensible to begin to regard all our experiences as a dream from which we can wake up one day. Just as we often confuse our dreams with reality, so it is possible that actual experience can later turn out to be a dream. Relying on this, the skeptics argue that knowledge from actual experience should not be taken as absolutely certain.

The last in the series of the skeptical argument was that of Rene Descartes in his bid to present all the possible and potential argument of the skeptics and then debunk them. According to him it is possible for us to be constantly deceived by an "evil genius"

such that all the knowledge that we operate with are given to us by this evil spirit who desires to deceive us always. If this is possible then all our knowledge are deceitful and unreliable. They are susceptible to doubt because it is possible that this evil spirit is just trying to deceive us by giving us all our knowledge.

Having examined all the arguments of skepticism, it is necessary to define skepticism. In a nutshell, skepticism can be described as a doctrine that challenges all our cognitive claims by providing arguments and reasons why those cognitive claims should be doubted. The essential thesis of skepticism is this:

By skepticism about X (where X could mean any empirical claim) I shall mean or view that some hypothesis about X is no less reasonable than its denial, which means that there is no more reason to believe that X exists than that X does not exist and that it is consequently unreasonable to believe that X exists.⁴

Skepticism is therefore an orientation that believes that knowledge claims cannot be justified because of some natural problems about our interaction with the external world.

We need to mention that skepticism is of two types, the “positive mild skepticism” and the “negative universal skepticism”. Positive skepticism is the desire to question the naïve realism of ordinary life. It is the tendency of being very careful and meticulous with all beliefs. The objective of this type of positive skepticism is not to deny knowledge. It aims to raise the standard and quality of epistemic claims. It is this type of skepticism that is inevitable for the enterprise of philosophy. The other variant of skepticism, that is, the “negative universal skepticism” is the pessimistic and dogmatic refusal to accept any epistemic claims as certain. This form of skepticism posits that certainty of knowledge is not possible or attainable now or in the future. The universal

skeptic “takes an all-out position that does not spare any sort or form of knowledge... all knowledge is questioned by him as lacking total certainty.”⁵

There is no doubt that skepticism of the positive sense is necessary for philosophical inquiry, but the negative form of it and the wholesale denial of certainty cannot be sustained. To maintain that we cannot have epistemic certainty in whatever form is to embark on the path of anarchy and nihilism in epistemology and social activities. Even the claim that there is no justifiable knowledge is self-contradictory since the very awareness of universal ignorance is a form of knowledge. Nevertheless, this type of argument against skepticism is trivial, and simplistic. As Blake says, such a dialectical refutation of skepticism “is too weak to confront the sporadic arguments supplied by the skeptics throughout the ages.”⁶

However, the claim of universal skepticism can still be criticized on the ground that the idea of universal ignorance which the skeptics profess depends on the idea of knowledge for it to be meaningful. The proposition: “there is no knowledge” can only be made if one understands and has an idea of knowledge. If the skeptics have such an idea then their claim that “there is no knowledge” can only be made if one understands and has an idea of knowledge. If the skeptics have such an idea then their claim that “there is no knowledge” cannot be sustained. Knowledge as a polar word can only be meaningful in relation to its opposite, i.e. ignorance, error. It is only a person who has a good idea of knowledge that can deny that it does not exist. The denial of knowledge by the universal skeptics indicates that they have this idea, which refutes their claim that knowledge is not possible. We know that a form of knowledge which the skeptics have is clear refutation of the absolute denial of knowledge.

Skepticism of the negative variant has its origin in the extremism of traditional philosophy. A look at traditional philosophy will reveal that there is always a tendency to maintain extreme positions. It is either that traditional philosophers are striving to attain absolutely certain and immutable knowledge or they are totally denying it. Extreme skepticism is a product of this; a response against the belief that absolutely certain knowledge is attainable. John Russell in his article, "Pragmatism as the salvation from philosophic doubt" asserts that universal skepticism is a reaction to the quest for absolute and final truth in traditional epistemology.⁷ He says that it is in the bid to caution this absolutism that universal skepticism emerged.⁸ Truth and knowledge according to Russell should be considered as purely processes of human experience and therefore susceptible to change. If they are seen as such, then the skeptical denial of certainty of the universal form will not occur. The extreme philosopher who desire to have an absolutely certain and immutable knowledge and truth is not different from the skeptic who denies the possibility of any knowledge. According to him, "the dogmatists and the destructive skeptic were both wrong, since between the two views lays a new outlook, which is constructive skepticism."⁹

Study Session Summary



Summary

Constructive skepticism or positive skepticism as we earlier called it is desirable for epistemology. It will constantly caution and remind us of the need to scrutinize epistemic claims. The enterprise of epistemology is unique and worthwhile because of this capacity to distinguish knowledge from mere opinion. But the extreme variant of skepticism should be discouraged because it will create nihilism, despair and frustrate rational discourse which

is the essential goal of epistemology.

Assignment



Assignment

- 1) State and explain the scepticism of Rene Descartes.
- 2) How would you represent the role of skepticism in the discipline of epistemology?

Endnotes

¹ Ayer, A.J. 1956. *The Problem of Knowledge* Middlesex: Penguin Books Ltd. p. 37.

² Hume, D. 1902. *Enquiries Concerning Human Understanding*. L.A. Selby-Bigge. ed. Oxford: Clarendon Press.

³ Hume, *Enquiries Concerning Human Understanding*. p. 35.

⁴ Slote, M.A. 1970. *Reason and Scepticism*. London: Allen & Unwin Ltd. p. 17.

⁵ Bewaji, J.A.I. *Scepticism and Empirical Knowledge*. An Unpublished Thesis Submitted to the Department of Philosophy, University of Ibadan, Ibadan. p. 261.

⁶ Blake, R.M. 1924. A Criticism of Skepticism and Relativism. *Journal of Philosophy* Vol. 21. No. 10. p. 253.

⁷ John Russell. 1907. Pragmatism as the Salvation from Philosophic Doubt. *Journal of Philosophy* Vol. 4. No. 3.

⁸ John Russell, Pragmatism as the Salvation from Philosophic Doubt. p. 57.

⁹ Popkin, R.H. 1969. *History of Skepticism: From Erasmus to Descartes*. Assen. Ven Gorcum. p. 143.

Study Session 8

Belief and Scepticism

Introduction

Generally speaking, scepticism is the philosophical attitude of doubting knowledge claims set forth in various areas. Sceptics have challenged the adequacy or reliability of these claims by asking what these knowledge claims are based upon or what they actually seek to establish. They have raised the question whether such claims about the world are either indubitable or necessarily true, and they have also challenged the alleged grounds of accepted assumptions. Practically everyone is sceptical about some knowledge claims; but the sceptics have raised doubts about any knowledge beyond the contents of directly felt experience. The original Greek meaning of the term “Scepticism” is *skeptikos* which denotes “an inquirer,” someone who was unsatisfied and still looking for truth. Thus, anyone who attempts to raise critical questions about things, ideas, intellectual world-views or ideologies, can be said to have developed the sceptical attitude.

The sceptical attitude deeply involves that art of raising questions about things, especially opinions, claims to knowledge and general world-views. If you are asking questions, for instance, about why you are born to be a man or woman, why you are born into your family and not another, why you have to accept certain ideas or why you are either a Christian or Muslim, you are displaying the sceptical attitude. We all display the sceptical attitude in life whether knowingly or unknowingly. In fact, man cannot do without asking questions because he is essentially a rational being. It follows that scepticism is an important

philosophical attitude as well as an intellectual temperament that aids people to live an examined life. It is, however, important to note that due to the various temperaments exhibited by human beings and the different levels at which we question ideas or facts, there are various dimensions to the scepticism which we shall concern ourselves with in follows.

Learning Outcomes



Outcomes

When you have studied this session, you should be able to:

8.1 describe the relationship between scepticism and belief.

8.2 highlight the point of overlap or inclusion and exclusion.

8.1 Essence of Scepticism

Philosophers are often criticized as unrepentant sceptics who do not believe in the existence of God. In fact, one of the popular misconceptions about the philosophical discipline is that it makes people become atheists and or develop strong anti-religious views. But whether we accept this view or not depend on how much we known or understand about the philosophical discipline. There are many religious apologists who are quite impatient with the philosophical discipline because they think it poses a threat to the flourishing of their religious ideals and prevent them from propagating their religious beliefs to others. Strictly speaking, philosophy is not all about scepticism. Scepticism is only an orientation in philosophy which denies the possibility of knowledge and raises doubt on certain aspects of human ideas and experience like religion, ethics, morality, induction etc. Thus, scepticism is essentially related to what we decide to belief.

Deciding to Believe

Whether we choose to accept the arguments of the sceptics on the refutation of religious claims or we accept those of the religious

believers, it all depends on what we decide to believe. Often times, people choose to believe what they want or the views that seems most plausible or acceptable to them. This explains why we can have opposing views between the sceptics of religion for instance, and the religious believer. However, what we believe is balanced by what we doubt; reasons for doubting take their place together with reasons for believing. Belief is often complemented by doubt in the thinking of religious believers themselves. The evidence for this claim is revealed by the accounts of the lives of religious people sometimes refer to periods during which they had to struggle to maintain belief in the face of pressing doubts. What this suggests is that many religious people come to hold certain beliefs after some periods of doubting or confrontations with doubt. It is through doubting that people come to accept some sets of beliefs as either true or false.



What is understood as the general sceptical attitude?

In a way, one can argue that it is quite impossible for someone to hold some religious beliefs without first conquering doubt. For instance, if a person who claim to belief that man was created by God would have personally pondered or doubt whether God actually exists. It is after one overcomes this doubt about whether God exist that one can come up with the belief that human beings were created by God. It is logically impossible to accept that God is the creator of all existent things while at the same time doubting whether God exists. Here what we are referring to is the religious phenomenon commonly described as that of struggling to overcome doubts and to maintain religious beliefs. It might be said that the accounts of this (alleged) phenomenon are mis-descriptions: that what is happening in a man in such a case is, for example, a struggle to prevent himself from dwelling upon certain

sceptical thoughts, but not a struggle to prevent himself from ceasing to believe something. The notions of making believe something, or preventing oneself from ceasing to believe something, are undeniably odd. In the face of any religious doctrine, lies the confrontation with scepticism because human beings tend to struggle with a lot of sceptical thoughts before even after they have decided to belief certain religious tenets. This sort of explains the importance of scepticism in the process of human's decision to belief.

Another thing we need to note about the decision to belief is the role of the human will or rational understanding in the formulation of belief. There are some religious believers who are of the view that the issue of belief is not dependent on human will because there are some kinds of beliefs that human beings do not necessarily choose to belief – they just belief as a matter of rational commitment. Those who hold the view may likely argue, for instance, that we do not choose to believe that the grass is green, we may readily agree that this is so; greenness of grass is not the sort of thing that we choose to believe or not believe. But whatever is to be said about belief, religious commitment is something that is does not seem improper to describe as sometimes 'an affair of the will'. Here, what we are trying to emphasise is the fact that rational commitment is very crucial in the process of deciding to belief.

What then do we mean by rational commitment? Rational commitment refers to the commitment that follows a possibly lengthy process of weighing-up various considerations – might sometimes be said to be 'an affair of the will'. A man who commits himself in this way, as opposed to one who 'merely' (without much thought) commits himself, could be said to be deciding upon or choosing a commitment, to devote himself to a certain cause. Both in maintaining faith in the face of returning doubts and also in the

original commitment to religious belief it would seem to be possible to say, if one wishes to use this terminology, that the will is active. There are religious believers who never suffer from doubts, as there are believers who just grow into religious commitment. If all religious believers were like this then religious commitment might with more plausibility be said never to be an affair of the will. But they are not all like this. Apart from the issue of rational commitment, we can also talk about the issue of religious doubt and scepticism.

8.2 Types of Scepticism

Since ancient times, sceptics have developed arguments to undermine the contentions of dogmatic philosophers, scientists, and theologians. The sceptical arguments and their employment against various forms of dogmatism have played an important role in shaping both the problems and the solutions offered in the course of Western philosophy. There is a sense in which one can argue the historical transformation of ideas in Western philosophy has been deeply influenced by scepticism. The point we are making here is that it was as a result of scepticism that certain sets of ideas have been found to be inadequate and moribund and as such it has subsequently led to the fashioning of new ideas in place of the old ones. Thus, scepticism, in a way has contributed to the development of the philosophical discipline especially as it concerns the development of ideas, theories or philosophical world-views.

Also, it should be noted that scepticism developed with regard to various disciplines in which men claimed to possess knowledge. For example, scepticism have questioned whether one could gain any certain knowledge in [metaphysics](#) (the study of the nature and significance of being as such) or in the general sciences. In ancient times a principal form of scepticism was medical

scepticism, which questioned whether one could know with certainty either the causes or cures of diseases. However, in the area of [ethics](#), doubts were raised about accepting various mores and customs and about claiming any objective basis for making value distinctions. Scepticisms about religion have questioned the doctrines of different traditions. What all of these suggests is that the philosophical temperament known as scepticism can be looked at from various perspectives. In this discourse, we shall consider the following varieties of scepticism: Philosophical Scepticism, Ordinary Scepticism, Methodological Scepticism, Limited Scepticism, Total or Global Scepticism.

8.2.1 Philosophical Scepticism

Philosophical scepticism is focused on raising critical questions or doubt about philosophical world-views or positions. It can take two forms. The first form of philosophical scepticism refers to the casting of doubt on beliefs and theories that seem to most people to constitute knowledge, while the second form has to do with the positive denial of common propositions which most people take for granted. This simply refers to the act of challenging conventional views; it does not often matter to the sceptics whether they would attract animosity from the public for holding seemingly unconventional views. But what is of principal interest to the philosophical sceptic is to show the unreliability or weakness of widely accepted views and popular beliefs. A good example of a philosopher who has exhibited this type of scepticism is Bishop George Berkeley (1685-1753) who positively denied the existence of material objects. It was Berkeley who raised serious doubt about perceptual content of our observation of the external world. His philosophy was directed at declaring the unreality of matter and emphasizing ideas as the basis of human perception.

8.2.2 Ordinary Scepticism

This is the type of scepticism often expressed by the layman as ordinary distrust; this is why it is also known as ordinary cynicism. If for instance, you have a business deal with a friend who offered to buy goods from you in credit, and you refused to sell to him/her because you doubt whether he will be able to pay for it as at when due, you are expressing ordinary scepticism. Ordinary scepticism mostly reflects in our everyday life-experience especially as it concerns our dealings with people in the society. It could also come in form of a refusal to accept what others consider or belief to be true, especially when one has reason to doubt these accepted beliefs or positions. The ordinary sceptic may just be content with being cynical about ideas or opinions expressed by people around him, but he does not go ahead to construct any particular procedure or methodology in doubting people's knowledge claims. This is why he is different from the methodological sceptic.

8.2.3 Methodological Scepticism

Methodological scepticism is the view that knowledge cannot be achieved except by temporarily rejecting as false every proposition that can possibly be doubted. It is a form of scepticism that seeks to question one's fundamental or foundational beliefs in order to determine their veracity or dependability. This kind of scepticism thrives on the assumption that it is by doing this that one will eventually reach knowledge in the form of propositions which are impossible to doubt. Methodological scepticism is often attributed to Descartes who came up with the sceptical position known as *methodic doubt*. Methodic doubt literally translates to "doubting everything". Descartes proceeded by subjecting everything he was previously aware of to serious doubting up to the point that he attempted to deny everything except one thing which was unable to doubt – that is the fact that he was a thinking being. It is upon this

premise that he claimed to have discovered an absolutely doubt-free principle, which is “I think therefore I exist”.

8.2.4 Limited Scepticism

Apart from these varieties of scepticism discussed above, there are also two other kinds of scepticism that we will also like to look at, namely limited and total or global scepticism. The need to look at these two distinctions about scepticism is informed by the fact that not all sceptics agree on what they actually doubted or attempted to deny. While some doubted the possibility of knowing anything at all, some actually agree that we can know something but what we can know is only limited to certain factors like our perceptual evidence, and scientific evidence. Here, we shall concentrate on an exposition of limited scepticism. Limited scepticism involves doubting, or rejecting, the possibility of genuine truth and knowledge in some or one particular field. For example, when someone can raise sceptical questions about morality or about induction, that person can be regarded as a limited sceptic because the form of scepticism is directed towards a particular area of human inquiry. Also, in the eighteenth and nineteenth centuries, this form of scepticism was predominant in that a lot of critical questions were raised about whether the five senses can be relied on to give knowledge about the material world. Another point we also need to bear in mind that limited forms of scepticism have a tendency to expand; for instance, doubts about the existence of other minds can lead into doubts about personal identity.

8.2.5 Total ('global') Scepticism

As the name implies, this form of scepticism doubts the possibility of man knowing anything for certain. It can be described as the sceptical view that doubts everything. If an individual claims not to believe anything because he does not believe that human beings can possess knowledge, that individual is simply expressing global or

total scepticism. This sceptical position could also lead to absolute nihilism, also known as the absence of belief or the total suspension of belief in matters of knowledge. It is also important to note that it involves the idea that there is no such thing as knowledge, no such things as reason. According to this view 'truth', 'knowledge' and 'reason' are meaningless words, mere empty noises. Total scepticism is one of the most challenging views in the philosophical discourse because it seeks to deny the possibility of acquiring knowledge.

There is no doubt that in Western thought scepticism has raised basic epistemological issues. In view of the varieties of human experience, it has questioned whether it is possible to tell which are veridical. The variations that occur in different perceptions of what is presumed to be one object raise the question of which is the correct view. The occurrence of illusory experiences raises the question of whether it is really possible to distinguish illusions and dreams from reality. The criteria employed can be questioned and require justification. It includes raising the following kind of questions: on what basis does one tell whether one has the right criteria? On what standards does one determine the correctness of the criteria? The attempt to justify criteria seems either to lead to an infinite regress or to just stop arbitrarily. If an attempt is made to justify knowledge claims by starting with first principles, what are these based upon? Can it be established that these principles cannot possibly be false? If so, is the proof itself such that it cannot be questioned? If it is claimed that the principles are self-evident, can one be sure of this, sure that one is not deceived? And can one be sure that one can recognize and apply the principles correctly? Through such questioning, sceptics have indicated the basic problems that an investigator would have to resolve before he could be certain of possessing knowledge; *i.e.*, information that could not possibly be false.

Critics have contended that scepticism is both a logically and a humanly untenable view. Any attempt to formulate the position will be self-refuting since it will assert at least some knowledge claims about what is supposed to be dubious. For instance, Plato rejected the doctrines of Protagoras on the grounds that they are self-refuting. More so, global scepticism (earlier discussed), is quite a difficult view to hold. This stems from the fact that global sceptics tend to rely on the concepts they pretend to abolish. Thus if global sceptics believe ‘it is true that there is no such thing as truth’, it is clear that they have refuted themselves. This is because if they logically deny that they do not have any knowledge of truth, then they cannot claim to know even their sceptical views. David Hume is another thinker that has also attempted to refute scepticism. The arguments Hume offered as objections to scepticism rests on the premise that reason, on the one hand, and human nature on the other, are in conflict. He holds that reason tells us that personal identity is a myth and that morality is not based on objective truths but on sympathy and social convenience. In his view, he believes that the human senses cannot give us indubitable information about the existence or nature of an external world. It is upon this assumption that he declared that reason tells us that induction is unsound and that deduction cannot generate new knowledge.

Study Session Summary



Summary

In sum, the history of philosophy can be seen, in part, as a struggle with scepticism. Scepticism throughout history has played a dynamic role in forcing dogmatic philosophers to find better or stronger bases for their views and to find answers to the sceptical attacks. It has forced a continued re-examination of previous

knowledge claims and has stimulated creative thinkers to work out new theories to meet the sceptical problems.

Assignment



Assignment

- 1) What are the various types of scepticism studied? Explain two.
- 2) What do you understand as Philosophical scepticism?

Study Session 9

Bacon and the Methods of New Science

Introduction

Francis Bacon proposed the methods of a New Science precisely to offset the negative effects of our most familiar fallibilities and least

attractive character traits that impede the successful pursuit of truth. He thoroughly analyzed and commented on these foibles of human nature in a famous passage from one of his best-known works. This analysis is referred to as Bacon's "Four Idols" given as the Idols of the Cave, Idols of the Tribe, Idols of the Theatre and Idols of the Marketplace. This Study Session shall examine the philosophy of Bacon by looking at the understanding of these idols.

Learning Outcomes



Outcomes

When you have studied this session, you should be able to:

- 9.1 analyse the philosophy of Francis Bacon in relation to roles of 'idols' in rational inquiry.

9.1 A Review of Bacon's Idols

The "*Idols of the Cave*" refers to the tendency of the individual to favour his or her own intuitions and subjective experience over everyone else's. The individual tends to distort observable reality in peculiar ways according to his own preferences, biases, idiosyncrasies and personal distortions due to education, habituated conditioning, accidental circumstances and social status. Then there are characteristics that all humans share in common, which also interrupt clarity of experience, and these Bacon called the *Idols of the Tribe*: sloth, pride, vanity, gullibility, the desire for a sense of security and control, the biological need to quell the stress of uncertainty. The *Idols of the Theatre* are those preconceptions that are accrued through reading "the various dogmas of philosophies, and also from wrong laws of demonstration... in my judgment all the received systems are but so many stage-plays, representing worlds of their own creation after an unreal and scenic fashion." The *Idols of the Marketplace* are the obscurities and vagueness of expressions that plague communication among men, due to the

inherent confusions of “ill and unfit choice of words (which) wonderfully obstructs understanding.”(These) idols are the most troublesome of all... for men believe that their reason governs words; but it is also true that words react on the understanding; and this it is that has rendered philosophy and the sciences... inactive”.

Bacon believed that we could overcome these liabilities of human character and human sense experience by being aware of them and consciously training the mind to systematically avoid their pitfalls.

[Just] as an uneven mirror distorts the rays of objects according to its own figure and section, so the mind, when it receives impressions of objects through the sense, cannot be trusted to report them only, but in forming its notions mixes up its own nature with the nature of things. [I]t is a great error to assert that the sense is the measure of things.

The Great Instauration (1620)

To overcome these idols or phantoms of the mind, Bacon stressed the need to follow special disciplines and to qualify every conjecture. Bacon advised these pragmatic rules:

- Turn away from established authority figures and dogma; avoid consulting politically powerful experts and traditional or received wisdom; adopt a try-it and see for you approach to discovery.
- Rely upon first-hand investigation, accumulate such systematically acquired first-person experience and make tentatively several competing proposals on the basis of it.
- Strive for degrees or grades of certainty.
- Reject absolutist claims to inviolable knowledge; rely ultimately in mathematical representations to ensure clarity and precision of expression.

Francis Bacon did regard adherence to this regime as a virtue in itself. He was not advocating a new religion. On his conception, good science was neither detached from worldly and practical concerns nor disinterested in civil society. Rather, Bacon urged that the institutions of the New Science should be broadly political and civic organs of partnership between entrepreneurs, scholars, and the ruling elite in the interest of promoting social welfare. The methods of the New Science should be judged by their observable results in the advancement of social welfare.



What is the role of Francis Bacon's idols as regards our pursuit of the truth?

Bacon published his views about the social responsibility and obligations of theoreticians and experimentalists to assist in the good governance of society. He actively promoted self-disciplined experimental scientists as the fittest of all citizens for advising the royal court in its service to the common weal, in policy making and social planning, and generally in the pursuit and development of knowledge. As an administrator and member of the royal court in various capacities, he was very explicit in his suggestions about how these civic duties should be carried out. He was the first to propose to King Charles the need for a formal organization through which industrial entrepreneurs, natural philosophers, and experimentalists could liaise. Bacon's vision inspired the founding of the Royal society of London in 1661, 35 year after his death.

In his *New Atlantis* (1624) Bacon described his ideal of a society where scientists are the chief administrators controlling state policy, a utopia where political strategy is abandoned and replaced by scientific expertise. In many ways Bacon's utopia anticipated the mannerisms and protocols of modern research

institutions today and some of the ideals and norms of contemporary technocratic cultures:

- (i) Progress of the whole society is the goal and responsibility of the modern scientist.
- (ii) Scientists take the role of former occult high priests in society, wearing special robes and enjoying regal transport to display their importance in public.
- (iii) Scientific communities represent the executive decision-making agency of the state.
- (iv) Royalty and officials come for consultations on matters of state policy; these consultations are held in secret and their results are withheld in the interest of public safety.
- (v) Knowledge is the private property of the research group; it is not automatically conferred to the public domain.
- (vi) Scientists decide what results to promulgate to society at large.



How does Francis Bacon's "idols" blur the mind as it engages in rational inquiry?

Study Session Summary



Summary

Bacon's contribution to the history of philosophy can be seen in three folds:

- i. he was an early leader in the empiricist movement that would later become an important school of thought in the rational search for knowledge;
- ii. he was a pioneer in the attempt to systematize the scientific method; and
- iii. he was the founder of the modern understanding of

inductive logic.

All these Bacon was able to achieve by beginning with his analysis of the idols of the mind.

Assignment



Assignment

1. Identify and explain the “Idols” of the mind according to Francis Bacon?
2. What are the points on which Bacon stressed if we must overcome the idols of the mind?

Study Session 10

Descartes' Methodic Doubt

Introduction

In modern terms, discourses within the philosophical enterprise ranges from discourses on issues and problems that bother man, nature and reality to discourse on those who can be referred to as authors of philosophical ideas, theories, systems and traditions. Our concern in this work is of the second kind of philosophical discourse and of immediate attention here is the philosophical idea of Rene Descartes, who has been celebrated often times as the founder of modern philosophy.

Learning Outcomes



Outcomes

When you have studied this session, you should be able to:

10.1 analyse the nature of Descartes' doubt.

10.2 state the importance of the doubt of Rene Descartes.

10.1 Biography of Descartes

Descartes was a son of a councilor of the parliament of Brittany. He received his education at Jesuit College of LA fliche, 1604-1612, where he got acquainted with mathematics. By 1612, he retreated to Freiburg saint, Germany where he got busy with geometry. He became wary of social life and was used to keeping an isolate/solitary lifestyle so that he had few friends. By 1617, he enrolled in the Dutch army. By 1619, he also enlisted in the Bavarian army to play part in the 30years war that was to ensue. It was said that Descartes was allergic to cold and so kept himself warm in a stove for sometimes, during which he nearly completed

his philosophical meditations. By 1621, he gave up fighting and relocated to Paris in 1625. Again in 1628, against the Huguenot stronghold (La Rochelle), he joined the army and after the scenario lived in Holland to avoid persecution. Descartes has been described by scholars as a practicing catholic and an ardent believer of Galileo Galilei's science (which was then was perceived heretical) and Thomas Aquinas' argument for the existence of God. As a result of sentiments for Galileo's science, Descartes became philosophically purged and *Le Monde* (The World), one of his published book became a result of this. In this book he maintained the Galilean point of view about the earth's rotation and the infinitive nature of the universe; the book was published much later after his death.

Descartes was frequently noticed in the vicinity of Holland, France and England, during his life time. Most importantly, the record of his stay in Holland has been emphasized by most scholars because of the aura/atmosphere of intellectual engagement that Holland provided for most scholars (even the absurd ones). It is the belief that Holland was an academic shelter/center in the world during the 17th century that provided solace for other thinkers like John Locke, Hobbes and even Spinoza. As much as Descartes avoided being obvious and glaring like Galileo, the hand of the protestant sect would not let him be as accusations were brought against him of inducing atheism as against the authority of the church. With the network of influence he had garnered with the Roman Catholic Church through his years a Jesuit College, he was able to persuade the church that he was an adherent ecclesiast, who believed that the church should not be less tolerant of modern science.

Perhaps, this could have been what set him aside from Galileo who was more than nothing, a natural scientist. Besides

this, the intervention of French Ambassador Chanut and the Prince of Orange waded off most of these attacks. This episode became significant for the turnaround in the church that is, the disunity in the church as the protestant bigots began to seek subordination also from the state, thus turning away from the powers and authority of the church. By 1649, Descartes was rolling seawards towards the Queen of Sweden: Queen Christiana, whom through the connection of Ambassador Chanut had sought to receive tutelage under Descartes. Exercising her sovereign powers, the Queen had Descartes beckon to her intellectual call as early as five in the morning in the cold Scandinavian winter. Being allergic to the cold, the health Descartes began to fail him, so that by 1650, he breathes his last due to the unbearable cold.

Descartes by the end of his life had some of these text published to him name: *Principle of Philosophy* (1644), *The Discourse on Method* (1637), *De La Formation Du Foetus*, *Essais Philosophique* (1637), *The Meditations* (1642), *Seeking the Truth in the Sciences*, *Passions of the Soul* (1649). ‘Rules for Direction of the Mind’ and ‘La Monde’ were published after his death. His ideas are renowned and reflected in his influence over Geulinx which much later was to inspire Malebranche and Spinoza. Of course, there seems to be no doubt that Descartes influence knows no bound even in the contemporary times as most of his insights till date spurred so many debates; the mind and body debate is indeed one of great significance.

Born 1591, Descartes intellectualism grew under the heavy influences of physics, astronomy, geometry, mathematics and theology. His philosophical

input deviated from the previous philosophical systems/methods, as he attempted to build a philosophical edifice that seem different from the Socratic dialectical method and the Aristotelian virtues/logic. This input marked a new direction for the progress of science. Little wonder then, that because of this philosophic innovation, Descartes became dubbed as the founder of modern philosophy. To this extent, scholars, for instance Russell is won't to regard Descartes not merely as a philosopher but a discoverer and explorer. It is however not enough to adulate the relevance of Descartes to the philosophical enterprise; it would be adequate to arouse our critical rationale in specific terms about what made him worthwhile as the founder of modern philosophy. What where his philosophical speculations? I what manner/style was his philosophical insight a land mark in the enterprise such that his contribution to a certain extent marked the beginning of another era of philosophizing? Can it be said that his pursuit of 'clear and distinct' reflection as couched in his methodological skepticism remains the 'Archimedean font' (as he called it) from which all knowledge of certainty arise? What are the perceived loose ends in Descartes philosophy? These amongst others would be the central focus of our engagement in the discourse as we attempt to deliver a critical overview of the Cartesian order of philosophy. Be that as it may, we would not attempt placing the cart before the horse; we find it necessary to briefly account for life and background of Rene Descartes as an individual and thinker to deliver the current of influences that shaped his philosophical ideas.

10.2 Descartes' Foundation of Doubt and Certainty as the Criteria of Truth

His two books; 'Discourse on Method' and 'Meditations' delivers in detailed style his epistemological agenda which emerged out of doubt on everything he could afford to doubt. The method of proceeding from doubt to the "Archimedean point", that is certainty, is what is called the methodological skepticism/methodic doubt. The intention of this Cartesian methodological mode is to seek a ground/basis for his philosophy (ideas and beliefs). To begin with, Descartes found it necessary to apply this method to things he directly apprehends and believes he knows from his immediate sense experience and perception. In the process of subjecting his (acquired) sense induced knowledge and experience to this methodic skepticism, he found himself at a cross-road; not certain or unsure whether what he perceives by his senses were not also perceived as it were in his dreams; when he believed that he was awake rather than on his bed. It became complicated

for Descartes to claim for certain that his thought in real life is clear and distinct from those he has as when in a dream. In fact even his present consciousness would not avail him of this complication; as to whether he is caught in the world of his dreams or is awake or better still navigates between the two.

In his attempt to relieve himself of the complication, Descartes turned to the certainty of mathematical/arithmetical principles, assuring himself that earlier in the state of awareness or dream, the self-evident beliefs gained through intuition and deduction (on the basis of self-evident truth /principles) that $2+3=5$ stands out. But then, Descartes becomes puzzled about the basis of the self-evident mathematical principles. What if he is actually mistaken that $2+3=5$ instead of 7; then is God who implants such innate/inborn beliefs in him the cause of these false mathematical principles in his mind? Yet, Descartes refuse to relief his consciousness of this guilt of mistaken/false beliefs and illusion; he proceeded to question the basis or source of his belief in God. But the nature of God (as his faith informs him) is perfect and infinite, then could God be the author of this illusion in his sensory state?

Here the suspicion of Descartes began, that God is not known for imperfection, talk less of being an author of errors, false beliefs or illusion, something other than God must be at work. At this point, Descartes stumbled on the possibility of a powerful imperfect being, a demon/evil spirit; perhaps a deceitful one that is responsible for fusing the logic of imperfection, error and illusion into his mind, rendering his ideas 'unclear and indistinct' between the dream world and real life. It seems that at this juncture, Descartes methodology was reaching its climax as a failed system that has not been able to provide any progressive insight to the foundation of knowledge. Alas! Descartes discovered that it has as far led to a progressive rather than a regressive discovery as he

became stunned that the only certain criteria for his false beliefs that is in doubt is the fact that he is sure and certain at least that he is doubting.

With this resolution, Descartes became convinced that he had at least achieved the Archimedean point (of certainty) that he set out to unravel. In applying his method to the notion that 'I am in doubt,' he ends proving the certainty that he is actually in doubt. This Archimedean point was however yet to blossom into a philosophical system which was to begin the Cartesian school of thought. This was to come through as Descartes realized that to doubt/think, he must exist and thus arrived at the conviction that as long as he doubts, he exists. This notion became forged into his popular dictum (as noted in the 'Discourse'); "cogito ergo sum" – I think therefore I am. For Descartes, this Archimedean point of view cannot even be dislodged by the deception of the powerful demon/evil spirit even though he became submerged in between the worlds of awakesness and dream. He does not only doubt, think or have consciousness, he exist as a conscious/thinking being. Whatever the content of the doubt or the thought is, is another issue entirely but the certainty here is that it is impossible to deny this occurrence. On the one hand, Descartes is certain of his doubt/thought or consciousness and on the other hand, as a consequence of this, is his self, existence or 'being.'

One needs to at first understand Descartes epistemological attempt before embarking on its evaluation. Descartes was not just interested in clamouring for the idea of God but was experimenting his intellect to dust off every set of unclear and indistinct thought that lead to the path of doubt instead of the path of knowledge and certainty. To be precise, Descartes argument was tailored towards discovering the solid foundation for certainty or knowledge, even though his approach may be tagged scientific. Unlike his

predecessors, Descartes exudes an odour of individualistic or self-searching outlook on those ideas belief and experiences that have been taken for granted as certain and thus his epistemic pursuit was in search of an unhindered 'clear and distinct' reflection which as he suggests must be cultivated through doubting as much as one can, to discover the path of illusion or error and the point of departure into certainty. His approval of this methodological skepticism as an epistemic framework is one that gear up every individual to employ the introspective power of thought to discovering and justifying what is known and unknown. This way, one would not misinterpret Descartes epistemological agenda from a pessimistic point of view as one that attempts to hoist the possibilities of all forms of knowledge and hence leads to global skepticism. On the contrary, Descartes intention through his method is one of a guise, an obstinate and optimistic remedy that attempt to formulate a sort of universal science through which every individual can leap to respond with certain disposition to every other questions.

Despite the attainment of this 'clear and distinct' idea that aided Descartes to overcome skepticism, further complications emerged. Notable here is the metaphysical explication that his epistemological led to, which till date seem to have driven Descartes philosophy within the arena of contemporary discourse that is loaded with unanswered/inadequate response with implication on the existence of the 'self and other,' cause and effect, mind and body and not of least concern; the existence of God.

Study Session Summary



Summary

Descartes' legacy to the history of philosophy, as well as to the history of ideas, is not so much his answers as it is the questions he raised and the method he employed in his rational inquiry. These are of such lasting importance that philosophers and scientists, even to the present times, are still trying to come to terms with the Cartesian agenda. Some points of Descartes' legacy include, among other, his idea of certainty and the goal of achieving a universal science in the rationalistic tradition.

Assignment



Assignment

- 1) How would you reconstruct the Methodic doubt?
- 2) How is the "cogito" central to Descartes' search for certainty?

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