Course Information

Course Code: **GST 203**
Course Title: Introduction to Philosophy and Logic
Credit Unit: 2
Course Status: Compulsory
Semester: 2nd
Required Study Hour: 4 hours per week
Year of Course Review 2018

Course Team

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Ice Breaker

Upload your passport and introduce yourself by stating your names, what you do for a living, your hobby, your expectation in this course and the name you would prefer to be called during this course.

NATIONAL OPEN UNIVERSITY OF NIGERIA

Course Guide

Introduction

Welcome **to GST 203: A Study Guide for the Distance Learner.** GST 203 is a two-credit unit course that has minimum duration of one semester. It is a compulsory course for undergraduate students in Science Programmes including Science Education in the university. The course guides you on the techniques of studying to achieve academic success through open and distance learning.

Course Objectives

By the end of this course, you will be able to:
1. Apply philosophical thoughts on daily activities
2. Integrate philosophical thoughts in different field of study.

Working through this Course

To successfully complete this course, read the study units, listen to the audios and videos, do all assessments, open the links and read, participate in discussion forums, read the recommended books and other materials provided, prepare your portfolios, and participate in the online facilitation.

Each study unit has introduction, intended learning outcomes, the main content, conclusion, summary and references/further readings. The introduction will tell you the expectations in the study unit. Read and note the intended learning outcomes (ILOs). The intended learning outcomes tell you what you should be able to do at the completion of each study unit. So, you can evaluate your learning at the end of each unit to ensure you have achieved the intended learning outcomes. To meet the intended learning outcomes, knowledge is presented in texts, video and links arranged into modules and units. Click on the links as may be directed but where you are reading the text off line, you will have to copy and paste the link address into a browser. You can download the audios and videos to view off line. You can also print or download the texts and save in your computer or external drive. The conclusion gives you the theme of the knowledge you are taking away from the unit. Unit summaries are presented in downloadable audios and videos.

There are two main forms of assessments – the formative and the summative. The formative assessments will help you monitor your learning. This is presented as in-text questions, discussion forums and Self-Assessment Exercises.

The summative assessments would be used by the university to evaluate your academic performance. This will be given as Computer Base Test (CBT) which serve as continuous assessment and final examinations. A minimum of three computer base test will be given with only one final examination at the

end of the semester. You are required to take all the computer base tests and the final examination.

Study Units

There are 23 study units in this course divided into five modules. The modules and units are presented as follows:

Module 1   An Overview of Philosophy
Unit 1   Definition and Scope of Philosophy
Unit 2   Methods of Philosophy
Unit 3   Branches of Philosophy
Unit 4   Philosophy and other Disciplines Contents
Unit 5   The Usefulness of Philosophy
Unit 6   Sources of Knowledge and Criteria for Knowing

Module 2   History and Development of Philosophy
Unit 1   The Ancient Age of Philosophy
Unit 2   Medieval and Renaissance Age of Philosophy
Unit 3   Modern Period of Philosophy
Unit 4   Philosophical Movements In The Contemporary Period
Unit 5   The Idea of African Philosophy

Module 3   Logic
Unit 1   Definition and Scope of Logic
Unit 2   Logic's Vocabulary I
Unit 3   Logic's Vocabulary Ii
Unit 4   Valid, Invalid, Deductive and Inductive Arguments
Unit 5   Language and Its Functions

Module 4   Fallacies and Definitions
Unit 1   Fallacies (Part One)
Unit 2   Fallacies (Part Two)
Unit 3   Definitions (Part One)
Unit 4   Definitions (Part Two)
Unit 5   Categorical Propositions Contents

Module 5   Argument Forms and Law of Thought
Unit 1   Argument Forms
Unit 2   Laws of Thought

References and Further Readings

Layman, C. 2002. *The Power of Logic.* New York: McGraw-Hill.

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Otakpor, Nkeonye. *A Preface to Logic.* Benin City: Omone Books, 2000.120

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Africa Analytical Publications.

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Gorsky, D.P. 1974. *Definitions.* Moscow: Progress Publishers.

Kahane, H. 1973. *Logic and Philosophy-A Modern Introduction.* 2nd edition.
California: Wadsworth.

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Wesley, Salmon. 1984. *Logic,* 3rd edition. Englewood Cliffs, NJ: Prentice-Hall.

Presentation Schedule

The presentation schedule gives you the important dates for the completion of your computer-based tests, participation in forum discussions and participation at facilitation. Remember, you are to submit all your assignments at the appropriate time. You should guide against delays and plagiarisms in your work. Plagiarisms is a criminal offence in academics and is highly penalized.

Assessment

There are two main forms of assessments in this course that will be scored. The Continuous Assessments and the final examination. The continuous assessment shall be in three fold. **There will be two Computer Based Assessment. The computer-based assessments will be given in accordance to university academic calendar. The timing must be strictly**

adhered to. The Computer Based Assessments shall be scored a maximum of 10% each, while your participation in discussion forums and your portfolio presentation shall be scored maximum of 10% if you meet 75% participation. Therefore, the maximum score for continuous assessment shall be 30% which shall form part of the final grade.

The final examination for GST 203 will be maximum of two hours and it takes 70 percent of the total course grade. The examination will consist of 70 multiple choice questions that reflect cognitive reasoning.

Note: You will earn 10% score if you meet a minimum of 75% participation in the course forum discussions and in your portfolios otherwise you will lose the 10% in your total score. You will be required to upload your portfolio using Google Doc. What are you expected to do in your portfolio? Your portfolio should be note or jottings you made on each study unit and activities. This will include the time you spent on each unit or activity.

How to get the Most from the Course

To get the most in this course, you need to have a personal laptop and internet facility. This will give you adequate opportunity to learn anywhere you are in the world. Use the Intended Learning Outcomes (ILOs) to guide your self-study in the course. At the end of every unit, examine yourself with the ILOs and see if you have achieved what you need to achieve.

Carefully work through each unit and make your notes. Join the online real time facilitation as scheduled. Where you missed the scheduled online real time facilitation, go through the recorded facilitation session at your own free time. Each real time facilitation session will be video recorded and posted on the platform.

In addition to the real time facilitation, watch the video and audio recorded summary in each unit. The video/audio summaries are directed to salient part in each unit. You can assess the audio and videos by clicking on the links in the text or through the course page.

Work through all self-assessment exercises. Finally, obey the rules in the class.

Facilitation

You will receive online facilitation. The facilitation is learner centred. The mode of facilitation shall be asynchronous and synchronous. For the asynchronous facilitation, your facilitator will:
- Present the theme for the week;
- Direct and summarise forum discussions;
- Coordinate activities in the platform;
- Score and grade activities when need be;
- Upload scores into the university recommended platform;

- Support you to learn. In this regard personal mails may be sent.
- Send you videos and audio lectures; and podcast.

For the synchronous:
- There will be eight hours of online real time contact in the course. This will be through video conferencing in the Learning Management System. The eight hours shall be of one-hour contact for eight times.
- At the end of each one-hour video conferencing, the video will be uploaded for view at your pace.
- The facilitator will concentrate on main themes that are must know in the course.
- The facilitator is to present the online real time video facilitation time table at the beginning of the course.
- The facilitator will take you through the course guide in the first lecture at the start date of facilitation.

Do not hesitate to contact your facilitator. Contact your facilitator if you:

- do not understand any part of the study units or the assignment.
- have difficulty with the self-assessment exercises
- have a question or problem with an assignment or with your tutor's comments on an assignment.

  Also, use the contact provided for technical support.

Read all the comments and notes of your facilitator especially on your assignments, participate in the forums and discussions. This gives you opportunity to socialise with others in the programme. You can raise any problem encountered during your study. To gain the maximum benefit from course facilitation, prepare a list of questions before the discussion session. You will learn a lot from participating actively in the discussions.

Finally, respond to the questionnaire. This will help the university to know your areas of challenges and how to improve on them for the review of the course materials and lectures.

CONTENTS

Module 1   An Overview of Philosophy

Introduction

This module will introduce you to the nitty-gritty in philosophy. The module is divided into six units as follows:

Unit 1   Definition and Scope of Philosophy
Unit 2   Methods of Philosophy
Unit 3   Branches of Philosophy
Unit 4   Philosophy and other Disciplines Contents
Unit 5   The Usefulness of Philosophy
Unit 6   Sources of Knowledge and Criteria for Knowing

Unit 1   Definition and Scope of Philosophy

Contents
1.0   Introduction
2.0   Intended Learning Outcomes (ILOs)
3.0   Main Content
     3.1   What is Philosophy?
     3.2   The Various Conceptions of Philosophy
         3.2.1   The Under-LabourerConception of Philosophy
         3.2.2   The Master Scientist Con Caption
         3.2.3   Philosophy as Clarification of Concepts
         3.2.4   Philosophy as The Love of Wisdom
         3.2.5   Philosophy as The Search for Truth
4.0   Conclusion
5.0   Summary
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1.0   Introduction

This study unit introduces you to the definition and scope of philosophy as a discipline. The unit will focus particularly on the controversial nature of the definition or conception of philosophy, it will consider both the layman and academics conceptions and understandings of philosophy.

2.0   Intended Learning Outcomes (ILOs)

By the end of this unit, you will be able to:

- Define philosophy as a discipline;
- Discuss the views about the conception of philosophy

3.0   Main Content

3.1   What Is Philosophy?

You need to know from the outset that: The term "Philosophy" lends itself to many interpretations, thus the answer to this three-word question is not as simple as it looks or sounds. And, because of the critical nature of the discipline no one philosopher can define philosophy in a way that will be acceptable to every philosopher. Unlike other disciplines such as economics, history, political science, biology etc. where students can give a straight forward definition of their respective discipline, this is not possible with philosophy.

There is no such thing as the exact or univocal definition of philosophy. What we have seen from history is that each philosopher defines philosophy from his or her perspective or that each philosopher defines philosophy based on what he or she perceives as the central problem(s) or what we may call the subject matter of philosophy. Since there are many problems or issues that philosophy grapples with, there are many definitions of philosophy. This may be the reason why Bodunrin (1981: 12) advises a new comer into philosopher, who wishes to define or know the meaning of philosophy, to always wait for one as he would have to settle for one or achieve this by himself or herself latter in the cause of his or her studying philosophy. Sometimes, it is often argued that you define philosophy by doing philosophy. Although, this approach may not be correct, because, it is not in all cases that you need to practice something before you explain or understand it. For instance, someone interested in the definition of death does not necessarily need to die before he explains or understands it. If he is told that the only way to define death is to die first, he is likely to give up the attempt. Even if the best way to define philosophy is to expose you to the rigours of deep philosophizing, this remains partial. What you should always have in mind is that when a student of philosophy asks a question "what is Philosophy" he has started philosophizing and to philosophize is to wonder about life and about the fundamental issues that borders on human existence.

3.2   The Various Conceptions of Philosophy

The problem with a definition of philosophy also arises due to the various 'conceptions' and 'misconceptions', understanding and misunderstanding of philosophy. Because of this, the discipline has been given various meanings or definitions. This section focuses on the different conceptions or definitions of the discipline from various groups or individual's perspective. This begins from professionals to the lay man and by 'lay man' I mean the average man in-the-street

3.2.1 Under- labourer Conception

This is in another word called the popular conception of philosophy. In this sense, the word philosophy is often used to characterize a person or a group of persons' attitude to life. Attitude here means the general pattern or the

habitual way of response of the person to events. Also, attitude, in a more developed sense, characterizes a person's expressed or observed world-view, which may be the sum of his assumptions, beliefs, attitudes, and prejudices which are partly inherited and partly acquired in the process of living (Akinpelu, 1981 :2). In this sense everybody is a philosopher in so far as everybody has a philosophy of life, that is, anattitude towards life. When we claim to have a personal philosophy of life, it refers to either or both two senses that we sometimes refer. Thus, why in the street you often heard people saying, 'My philosophy', 'His philosophy', and so on. If you ask a common man: "What is your philosophy of life"? You will get answers such as: "My philosophy of life is to take things gently" or You can see here that when we talk of a layman's conception of philosophy, it simply means, the sum of a person's beliefs, the main principles that control and guide a person's life. This view also suggests that at least most human adults have necessarily some philosophy of life, since it would be impossible to lead a human life without some forms of beliefs and definite principles to guide those beliefs. These includes among others various ideas about man and the supernatural realities, such as God, Soul, Spirits which governs human life and world-view. In Halverson view, this impression of philosophy is understood to have a very practical orientation. And a philosophy of life… include views on such things as the nature of man and man's place in the universe, some convictions about what things are worth for and so on (1967:4). In this conception, the term philosophy also refers to the profound sayings of the elders which are witty and pregnant with meanings. It is under-labourer because it does not capture the sense in which philosophy is understood technically speaking.

You must also know that this conception of philosophy also includes what can be regarded as the principle or ideology of an organization, group or government or the ways of running an institution or organization; hence, we talk of the philosophy of National Open University of Nigeria, (NOUN) and people sometimes says "No one understands the philosophy of this government" or "The party lacks any philosophical basis."

3.2.2 The Master Scientist Conception of Philosophy

This conception of philosophy is itself the result of philosophical doctrine that sees knowledge as exclusively depending on sense experience. Whatever cannot be observed or is not subject to objective verification cannot constitute knowledge.

In more recent times, this philosophical doctrine has come to be known as scientism. This conception repudiates knowledge that is not based on scientific method of enquiry. This impression or conception extols the sciences and treats the Humanities like a vast debating society or subject meant for those without serious academics or professional ambition. This conception is further a product of a lopsided view of technology. Most people tend to ascribe the credit for technological achievements to the physical sciences, whereas, in fact, technological progress is due to a combination of many aspects of human life including politics, law, education, art, commerce, and philosophy. Lack of appreciation for this according to Onigbinde

(1999:20) has made many to assume that only science, and no other field - can yield knowledge and understanding.

However, the implications and the inadequacies of this conception is not farfetched. The implication of restricting human knowledge to human experience is "half knowledge" or "lopsided knowledge". Reality goes beyond experimental and observable. This explains why the empirical disciplines cannot answer the question of purpose - why the universe exists in the first place. It is incompetent to explain the ultimate purpose of our existence or of the universe because of its empirical constraints but to argue that such questions cannot be fruitfully investigated because they fall outside the ambits of the empirical sciences is sheer intellectual dishonesty. Therefore, for us to have a more comprehensive and all-embracing conception of philosophy, we cannot afford to cage ourselves within the limited walls of experience and observables.

3.2.3   Clarification of Concepts

In this conception, philosophy is reduced to the role of clarification of the meaning of words and concepts. When we use such words like justice, good, bad, beauty, ugliness, what do we mean? To the advocates of this conception, the function of philosophy is to clarify the meaning of such words. To them, philosophy is a specialized field serving the sciences and aiding in the clarification of language rather than a broad field reflecting upon all of life's experiences   (Harold,   1964;   9). Certainly, this is one function of philosophy and not the main task or the only legitimate function of philosophy. To see it as the only legitimate function of philosophy is to have a narrow conception of philosophy and therefore of knowledge. This is because, it would limit what we call knowledge to statements about observable facts and their interrelations - that is to the business of the various sciences. But we know that knowledge generally used is not the prerogative of the sciences. We know and do have knowledge of ethical and theological principles and other value-laden theories. However, other connotations of philosophy have been noted. In this vein, philosophy has been variously conceived to be the Love for Wisdom, the Search for Truth, the Rational Explanation of Nature, the Search for the Ideal Life, the Concern with Human Experience and the Reminder of Familiar Facts of Everyday experience.

3.2.4   Philosophy as the Love of Wisdom

This connotation of philosophy is derived from the etymological meaning of philosophy. Etymologically, the word philosophy comes from the Greek words *Philos, Philia, Philein* which means friend, love, to love and *Sophia* which means wisdom. *Philia* refers to such concepts as friendliness, affection or any such concept conducive to the establishment of friendship between persons. On the other hand, *Sophia* as understood by Aristotle,refers to the highest intellectual and especially philosophical excellence of which the human mind is capable, and which is the result of studying nature for its own sake. In this sense, it is translated theoretical wisdom (Onyeocha, 1996:8). Wisdom

consists in the constant and unwavering disposition to seek the truth. Philosophy includes both the seeking of wisdom and the wisdom that is sought.

However, wisdom as used here is different from, though not opposed to knowledge in the sense of amassed information. This is because one could be wise without having much knowledge, just as one could have a lot of knowledge without being wise. Wisdom in the philosophical sense is a habit of applying the intellect in a systematic way as a guide and a beacon in one's activities. It is more a matter of temperament and character than of knowledge (Ibid: 11). In this connotation, the distinguishing mark of the philosopher i.e. friend or lover of wisdom, is the premium he or she places on the application of the intellect at both the practical and theoretical levels of operation. A philosopher in this connotation is therefore one who believes in the efficacy of intellectual effort and who uses whatever knowledge he or she can command to benefit mankind. Socrates, in his conversation with Phaedrus, gives his criteria for ascribing wisdom to anyone, namely, an originality of thought and a critical mind even about his or her own production. He says,

If the work had been done with knowledge of the truth. If he could defend his statements when challenged and would demonstrate the inferiority of his own writings out of his own mouth would be called, not wise, for that pertains to a god, but a lover of wisdom (Phaedrus 278d).

In the Phaedrus, Socrates goes further to contrast true lovers of wisdom to those who merely parade themselves as lovers of wisdom when in actual fact they are mere lovers of words. He calls them copyists and writers of certain types of poetry. The type of poetry that Socrates disparages here is the type that manifests neither a profundity of thought nor a depth of content. Socrates also excludes from the realm of true philosophers' certain types of law writers and speech writers who, in his words, have no other input than the juxtaposition and rearrangement of words and phrases in existing works. He calls them, *"those who have nothing to show of more value than the literary works on whose phrase they spend hours twisting them this way and that, pasting them together and pulling them apart"* (Phaedrus 278d).

3.2.5   Philosophy as the Search for Truth

There is no gainsaying the fact that philosophy and indeed philosophers have a penchant for certain and indubitable knowledge. When Rene Descartes, a mathematician, turned philosopher, declared his interest in philosophy, he was looking for a certain and distinct knowledge - knowledge that can be certain and distinct as mathematical truths are. The philosopher shuns the mundane and the bizarre affairs of life and goes for the fundamental, the originality, the unstuffy of all there is wherein the truth of reality lies. The philosopher's penchant for the truth is best seen in the description of the philosopher as given by the Greek thinker and mathematician Pythagoras (C. 600 BC), when he likened philosophers to spectators at the ancient games. In the order of importance, the philosophers, whom he compared with the spectators whose sole interest is the game itself, are superior to competitors
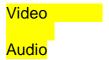
who are out to win prizes and commercials who *were out to make money from sales. Pythagoras had described himself as one who regards every aspect of reality with thoughtful attention for achieving a clearer, distinct and* more comprehensive understanding. Therefore, when Leon the tyrant of Phlius asked him who he was, Pythagoras replied, 'A philosopher', and went on to compare life to the great games, where some went to compete for the great games, where some went to compete for the prizes and others went with wares to sell. In his assessment, the best among them all were those who went as spectators, since their interest in the games is simply to relax and enjoy it - and get the first-hand information, the nitty gritty of the game. He compared the situation with the situation in real life where some grow up with servile natures, and others are greedy for fame and gain. Unlike both classes of people, the philosopher seeks for truth (Laertius, 1925: 11). The philosopher's superiority over these other classes of people lies in his constant disposition to spurn fame and profit and go for the truth.

4.0   Conclusion

Philosophy consists in the constant and unwavering disposition to seek the truth. In the light of this, Plato defines philosophy as a man whose passion is to seek the truth, a man whose heart is fixed on reality'. According to Aristotle, philosophy is rightly called the knowledge of the truth'. It is not out of place therefore to say that philosophy is synonymous with truth. Be that as it may, given the various conceptions of philosophy as outlined above, we submit with Omoregbe that philosophy is a rational search for answers to the questions that arise in the mind when we reflect on human experience. It is also a rational search for answers to the basic questions about the ultimate meaning of reality and of human life.

5.0   Summary

To recap what you have learned in this unit, click on the video below or copy the link and paste on a web browser. The video is a summary of what you have read in this unit. You could also click on the audio version and listen. You can also download them and play offline.

Video

Audio

6.0   References/Further Reading

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Russell, B. *A History of Western Philosophy.* New York: Simon and Schuster, 1945.

Unit 2   Methods of Philosophy

Contents

1.0   Introduction

By method here, we refer to the way by which the act of philosophy can be carried out. Thus, in this unit, you shall be examining the various ways by which philosophical processes have been carried out from the time of Socrates.

2.0   Intended Learning Outcomes (ILOs)

By the end of this unit, you will be able to:
- Explain the various methods in philosophy
- Demonstrate philosophical skills in evaluating how philosophers carry out philosophical activities

3.0   Main Content

3.1   Socratic Method

The Socratic method of philosophical consists in arguing out the entire process of the subject in question, in the manner of a dialogue. The *prima facie* view is refuted by exposing the inconsistencies and contradictions involved in accepting it as true. The teacher **professes entire** ignorance all the while, finally getting the truth from the mouth of the questioner himself, by the ingenious method of subtle examination, through the process of questioning and analysis. This technique of argument is based on a complete knowledge of the fundamental component elements of the subject of the argument and their relation to the constitution and condition of the intellect and reason of the opposite party concerned in the discussion. The Socratic method can be summed up in the following processes: (1) The assumption of an ignorance of truth by the teacher, which has been called the Socratic irony: This attitude of intellectual humility and basing oneself on the most

fundamental of propositions in an argument is, as with Descartes, essential to unravel the depths of truth. (2) The method of dialogue or conversation as an effective technique in the discovery of truth: This is based on a grasp of the presence of the knowledge of the true and the good in every person at the bottom of his being, in spite of hasty conclusions that one may make regarding things due to immature observations and pet prejudices. This common ground of truth among men can be brought out to the surface by careful analysis, argument and investigation, by question and answer. This is often called the art of philosophic midwifery. (3) The establishment of correct concepts or definitions before trying to know their application in life's instances. (4) The art of proceeding from the observed facts to more general truths, i.e., adopting the inductive method of reasoning. The method of Socrates is also deductive in the sense that it draws out the consequences and implications of certain concepts and judges their validity.

3.2   Synthetic Dialectic Method of Plato

The analytical method of Socrates was followed by the synthetic dialectic of Plato, which concerned itself with discovering the causal relation between thought and being. Plato's dialectic method mostly consisted in the grouping of scattered particulars into a single concept or idea and the dissection of this concept or idea into classes, i.e., the generalisation and arrangement of the idea. The arriving at a fact depends on the establishment of a correct concept or notion or principle. It is not possible to know, for example, what the true is or who a good man is, unless we first settle in our knowledge the nature of truth and goodness.

3.3   Pragmatic Method

According to the pragmatic method, everything is real when it tends to fruitful activity and results. The character of fulfilling the primal interests of man should be the guiding principle in philosophy. Human interest is the touchstone of philosophical endeavour, of all activity—physical, mental, moral or spiritual. Values are to be judged by results, and the test of truth is workability.

3.4   Skepticism

Philosophy is said to have begun with wonder. The marvel of creation evokes the admiration of man, and its mysteriousness excites his wonder; and this wonder naturally leads to a serious enquiry into the nature of things, given this, man became curious to know the truth behind the interesting wonder of the world. He investigates, speculates, argues and discusses, and comes to a settled opinion of the nature of things in this wonderful world. This becomes his philosophy. Modern man, however, seems to have stepped into the region of philosophy through doubt and skeptical thinking. Man commenced doubting the validity of authority and dogma no less than that of accepted traditional beliefs. Descartes readily comes to mind in this form of method. Descartes started with doubting everything, even the validity of thought itself. Later, Kant, too, followed the critical method of enquiry in philosophy. Bradley was of

the opinion that the chief need of philosophy is "a skeptical study of first principles." However, he adds: "By skepticism is not meant doubt about or disbelief in some tenet or tenets. It is an attempt to become aware and to doubt all preconceptions and the essence is to ensure certainty in the process."

3.5   Empiricism and Rationalism

Empiricism as a method of philosophy is mainly confined to sense-experience. It urges that all knowledge obtained by the senses is of what is already existent outside themselves and that reason has its function in carefully judging the nature of the perceptive material provided to it by the senses. The laws of reason, according to empiricism, are copies of and controlled by knowledge which is **posteriori**. No **a priori** knowledge in the sense of what rationalism contends to be present in reason is ever possible. Rational concepts are by-products of the experiential material. The source of knowledge is sense-experience and not mind or reason. The method of acquiring knowledge is inductive. Ideas are reducible to sensations. Knowledge cannot be gained by merely finding that the opposite, which is inconceivable, as rationalism holds, and truth cannot be established by the fact that to deny it implies, somehow, its reaffirmation. **A priori** knowledge independent of sense-experience is inconceivable. There are, therefore, no universal and necessary self-evident truths that are adumbrated by rationalism. So, goes the bold empiricism.

However, you need to know that this method has a defect. The defect of empiricism lies in the fact that the senses are untrustworthy as means of right knowledge. Therefore, we talk about appearance and reality in philosophy. The point is that things are sometimes not the way they appear to us Sense-precepts have being or reality only in relation to the constitutions of the respective senses, and never independently.

The method of rationalism takes reason to be the sole means of acquiring philosophical knowledge. According to it, the objective universe is known, arranged and controlled by the **a priori** laws of reason. The universe is considered an expression of the innate rational nature of the knowing subject. The criterion of truth is not sensory but intellectual, rational and deductive. This form of method is the mathematical methods. True knowledge is *a priori* and is independent of sense-experience. This knowledge is self-evident, and so it implies universal and necessary truths. But the point against this position is that rationalism taken exclusively, cannot escape the charge of being non-critical regarding its own position. How can the rationalist be sure that what he knows through his rational powers is uncontradicted knowledge?

3.6   Kant's Critical/Transcendental Method

The critical or transcendental method of philosophy employed by Kant takes stock of the arguments of empiricism and rationalism and builds a new system of tremendous importance in the history of philosophic thought. Kant follows the method of the analysis of the conditions and limits of knowledge. He

points out that, though the material of our knowledge is supplied by the senses, the universality and the necessity about it comes from the very nature and constitution of the understanding, which is the knower of all things in the world. But the world which we thus know through synthetic a priori knowledge is not the real world, for, it is built by the materials supplied by the senses, which gain the characters of universality and necessity when they are brought into shape by the categories provided by the understanding. The world of reality cannot be known by the powers that man possesses at present. If we had been endowed with a consciousness-in-general or an intellectual intuition uninfluenced by the judgments and categories of the understanding, it would have been possible for us to know the reality as such; but as this kind of consciousness is not possessed by us, we cannot know reality. What we know are just empirical facts or phenomena constructed by precepts and concepts common to all men. The postulates of reality that reason advances are only necessities felt by it and not realities in themselves.

3.7   Dialectical Method of Hegel

Kant's critical method was taken much further and completed by Hegel in a staggering system of idealism built by means of what he termed the dialectical method. This method of Hegel consists in the constructive dialectical process of opposition and reconciliation. Thesis, antithesis and synthesis are its moments. The existence of the finite and its assertion of itself as such is the thesis. This thesis naturally evokes the existence and assertion of the finite that is its opposite. This is its antithesis. The relation between the thesis and the antithesis implies a reconciliation of these two in a higher synthesis brought about by the evolving force of the Whole, which transcends the isolated factors of the existence and the assertion of the thesis and the antithesis. This reconciliation results in the cooperation of the thesis and the antithesis and in a blend of the existence and the assertion of the unity of the synthesis. Then this synthesis itself becomes a thesis to which there is an antithesis. The two again get unified and transcended in a still higher synthesis. This process of dialectical unification in higher and higher syntheses continues in various grades, progressively, until the Absolute is reached, where all contradiction is finally and fully reconciled.

4.0   Conclusion

The true philosophic method should not be lopsided, should not be biased to any or special dogma, but comprehend within itself the processes of reflection and speculation and at the same time be able to reconcile the deductive and the inductive methods of reasoning.

5.0   Summary

To recap what you have learned in this unit, click on the video below or copy the link and paste on a web browser. The video is a summary of what you have read in this unit. You could also click on the audio version and listen. You can also download them and play offline.

Video **https://youtu.be/sdMZJHLkphA**

Audio

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Unit 3   Branches of Philosophy

Contents

1.0   Introduction

This study introduces you to the major branches of philosophy. It is an opportunity for you to know the divisions and sub-divisions within philosophy.

2.0   Intended Learning Outcomes (ILOs)

By the end of this unit, you will be able to:

- Classify philosophy
- Differentiate the different branches of philosophy.

3.0   Main Content

3.1   Logic

You should always remember that whenever you asked, "what is Logic? It does not have a straight forward answer, which means no straightforward answer can be given to that question. Logic has been variously defined by different scholars. Copi for instance, defines "logic as the study of the methods and principles used in distinguishing good (correct) from bad (incorrect) reasoning" (1972). On the other hand, Nancy sees Logic "as the science that appraises reasoning as correct or incorrect" (1990:34). Kahane on his part defines logic as "an attempt to distinguish between correct (valid) and incorrect (invalid) arguments" (1968:2). According to DipoIrele (1999: 12) Logic is that "branch of philosophy that deals with the structure and principles of reasoning or sound argument." To Ade Ali, (2003:5), "Logic is a reflective study that provides the canons for judging and evaluation of correct reasoning…it is also the study of the principles of reasoning especially of the structure of proposition as distinguished from their content and of method and validity in deductive reasoning." What is common to all the above and other definitions of logic is that logic is not a clever way of dogging issues using a cunny means but rather it is a systematic expository study of how human beings ought to think if they are to reason correctly. It is the study of how to

ensure that your reasoning conforms to fundamental principles that governs correct reasoning.

Etymologically, logic as a discipline derives from the Greek word *Logos,* which means "Reasoned discourse." Its fundamental meaning is speech or statement in the sense that each speech or statement consists of coherent and rational arrangement of words. It is a tool for valid reasoning and essential weapon for philosophical reflection and for the separation of correct reasoning from the incorrect reasoning. You need to know that logic is an instrumental branch of philosophy. In point of fact, always remember that logic is the tool of philosophizing. Logic enables philosophers to make their arguments well stated and persuasive more than other people do. It also enables philosophers to make their position clear, well-articulated and to properly backed up their pronouncements rational, their reasoning precise, cogent and coherent.

The logician is most concerned with argument which can be described as a string of statement that can simply be divided into two parts namely premise(s) and conclusion. The premise(s) is also known as reason or reasons for the conclusion, while the conclusion is the claim that is been supported by the reasons. Before we go further, you must note that there two forms of argument, they are Simple argument and complex argument. A simple argument is one that contains one, two or three ideas. Normally, such arguments consist of two or three statements as premises with another sentence as conclusion. Example

1. Only students of National Open University of Nigeria study GST 203
   Ambali studies GST 203.
   Therefore, Ambali is a student of National Open University of Nigeria

2. All metals conduct electricity
   Copper is a metal
       Consequently, copper conducts electricity

You will observe from each of the above arguments, the claim (conclusion) is inferred (follow) from one or more of the premises. And in each case, there is a logical connection between the premises and the conclusion.

The second argument is a complex argument. This form of argument consists of as many arguments as possible with so many premises and conclusion(s). Complex argument could take various patterns like seminar paper, debate, a write-up. Structurally, a complex argument normally has a theme, with so many premises and conclusion(s).

Example:

There are two ways of dealing with criminals. Either rehabilitate them or punish them. Rehabilitation is not a viable option for the following reasons: One, the cost of rehabilitation has sky-rocketed. Two, rehabilitation is not effective: it does not deter criminals or would be criminals. Three, there are

conflicting methods of rehabilitation. Four, prisoners seem to be getting too good a lifestyle for what they have done. I suggest therefore that we should use the other option, that is, punish them (Achilike, 2010:18).

From this example, you will notice that identifying a complex argument involves a complex reasoning. But you will notice the following when you compare it with the simple sentence that you have read earlier.

1. It has very many major (claims) premises
2. It has mini-premises supporting each or some of the major premises
3. It has major conclusion, that is major theme or position being defended
4. It has additional supporting claims or auxiliary evidences for the position being defended.

What you learn from the above and which you must always remember is that any argument must have premises and conclusion. For your argument to be good or correct, your premise(s) must provide support to the conclusion. And the conclusion of any argument must follow or be inferred from the premises.
When we talk of argument in philosophy, there are basically two types of argument and these are *Deductive* argument and *Inductive* argument. So, in a way we can say that logic is the study of the criteria of differentiating correct from incorrect arguments.In logic, an argument is deductive when the conclusion follows from its premises with absolute necessity or certainty. Deduction is the process of moving from the general to the specific. In other words, in logic we deduce when we move from a proposition describing a condition that holds in all instances to an instance. The above examples are examples of deductive arguments.

However, inductive arguments are those in which the premises do not lead to the conclusion with certainty. Induction is based on "probability". For instance, when you say, "Most NOUN student are dark in complexion, Yisa is a NOUN student, therefore Yisa is dark in complexion." Here the word 'most' does not entail all the NOUN students. Therefore, one cannot conclude with certainty that Yisa is dark in complexion. Yisa could be among the few NOUN students that is not dark in complexion. You can see that there is no necessity in this conclusion. Probability is what characterizes it.

3.2   Epistemology

Epistemology is also one of the traditional branches of philosophy. Etymologically, it derives from two Greek words *Episteme* which means "knowledge" and *logos* which means "science of study, discourse or reasoning" Put together, epistemology is the study or the science of knowledge. It is the branch of philosophy which investigates the scope, source and limitations of human knowledge. In this branch of philosophy, the philosopher wishes to know what knowledge means. Is knowledge different from opinion and belief? Thus, epistemology tries to discover what knowledge is and how it differs from mere opinion or belief. It examines what constitutes

belief and what constitute knowledge? How does knowledge differ from belief? What does it mean to know and how do humans know what they claim to know? What can we know? Can we know anything with certainty or must we be certified with mere guess and opinion? Is there any limit to what we can know? What is the relation between knowledge and reality? Does all knowledge of the real world arise out of experience or do we have knowledge that is in some degree independent of experience? You must know that the recent trends in epistemological discourse have left these traditional problems of epistemology to the problem of epistemological justification. Hence, the question now borders on, how do we justify our claim to knowledge? There are however, some schools of thoughts in epistemology that you must know. The two school that will be mentioned here among others are the Sceptics and the foundationalists. The sceptics deny our ability to know anything for certain while the foundationalists believe on certain foundation upon which the superstructure of knowledge can be built.

3.3   Metaphysics

This has been defined as the science of being as being. 'Being qua tale'. This is the branch of philosophy that studies reality in its most comprehensive scope and fundamental principles. It is the science that tries to determine the real nature of things. For Plato it is the knowledge of the supra-sensible, therefore, real being existent in the ideal world and therefore explanatory of the realities of this transient world. According to Aristotle, all other disciplines study "aspects of reality or being, but none of them concerns itself with the study of being as such" (Mann, 1966:18). However, there must be a science of being, "a science of the first things or of the most real" (Mann, 1966:16).Indeed, the science of being would be the most basic for in a sense all other special sciences presupposed it" (Mann, 1966:16). That science according to Aristotle is Metaphysics. In his view, metaphysics studies the totality of things in the universe both the possible and the real, the visible and the invisible. Metaphysics is a general study of existence and reality. For Rene Descartes, it is the knowledge of things which lies beyond this sense experience. While for Thomas Aquinas, it is the ultimate explanation of the mystery of being visible and invisible, in the ultimate Being (causal and final) which is God.

The word metaphysics is derived from the Greek word *meta-ta-physika,* which means 'after the physics.' The word first used by Andronicus of Rhodes (around 70 B.C.), a commentator on Aristotle's works. He used the term to describe Aristotle's works which came after the discussions on the physical sciences. It was recorded that Aristotle wrote a series of books dealing with nature which he himself called "the physics". However, decades after Aristotle's death Andronicus decided to sort through his works and gave them titles. When Andronicus reached the batch of writings that followed "the physics" he did not know what to call them, so he invented a word "metaphysics". This means that the Greek word 'meta', 'after' also means beyond. In this sense, metaphysics means that which is beyond the 'physical eye' It discusses such problems as the problem of substance, appearance and reality, essence and existence, freewill and determinism, human destiny,

and many more. Various questions that are generated by metaphysicians includes the following among other ones: Why something instead of nothing? Is reality one or many?" Is the universe self-caused or does it involve the concept of a creator? What is the transcendent origin and foundation of this existence? Is reality essentially spiritual or material? Do persons have minds distinct from their bodies? What is mind? Is it a series of experiences? What is matter? Which is primary? What are their relationships? Are men free? Does God exist? What is the divine? If you look deep into these questions, you will discover that the answers lie beyond the boundaries of our experience. This simply means that the criterion for settling such question is not empirical possibility, but freedom from logical contradiction.

You should also bear in mind that even if Aristotle is considered as the founding father ofmetaphysics as a science of reality he was not the first to raise metaphysical problems. Metaphysics as an intellectual enterprise dates back to the pre-Socratic philosophers such as Thales, Anaximander, Anaximenes as well as Pythagoras, Parmenides and Heraclitus. The concern of these philosophers was the search for the primary stuff of the universe. They were also concerned with determining the ultimate constitutive elements and grounds for the unity of things.

3.4   Ethics

Ethicsis mostly known as "the branch of philosophy which deals with the morality of human actions in society" (Omoregbe, 1989:2). Etymologically ethics derived from the Greek word *Ethos* which means "custom" or "character"- it is a customary or acceptable way of acting. It is the philosophy of the morality of human conduct. Sometimes it is called "moral philosophy". It is the branch of philosophy that concerns itself with right, or wrong, and other issues related to evaluating human action. And you should always remember that Socrates was the first to systematize the discipline. He was the first to claim that "the unexamined life is not worth living". Socrates devoted all his life to a critical examination of human behaviour. He was the first to confess that "the only thing I know is that I know nothing". In his opinion, ethics is also referred to as the science of human conduct". It is the philosophical study of the so-called moral facts: namely such things as moral evaluations, commandments, norms, virtuous acts, the manifestations of conscience (Brugger:117) |. It in addition, a philosophical study of voluntary human action, with the purpose of determining what types of activity are good, right and to be done, or bad, wrong and to be avoided, so that humans may live well. Thus, ethics is the philosophical study of the activities that secure the good life for man. Its concern is with judgments of approval or disapproval, rightness or wrongness, goodness or badness, virtue or vice, desirability or otherwise of human actions or state of affairs (Idowu: 2010:11). Ethics compare what you do and what you ought to do. Ethics is not primarily concerned with facts or the "is", but rather with the "ought". In other words, ethics is not interested in the ontic but in the ontological question. Thus, the focus on the "ought" as primary mission is what differentiates ethics from other disciplines. You should also know that ethics is divided into **descriptive, prescriptive** or **normative,** and **meta-ethics.**

*Descriptive Ethics

The duty of descriptive ethics is to examine the moral views held by human beings or the society and to confirm whether these views are universal or not. In Udoidem's words: "The study of human actions centres on the description of … How human beings behave or act without actually making value judgments or prescribing what human beings should or should not do" (1992:70).

*Normative or Prescriptive Ethics

The main duty of normative ethics is to prescribe what ought to be both for humans and society. In other words, it prescribes that criteria for human actions properly be judged as morally good or bad.

*Meta-Ethics

It is the part of ethics that deals with the logic and language of ethical concepts and terms. In other words, meta-ethics is mostly concerned with the elucidation or description and implication of ethical terms such as "good", "bad", "right" "wrong", "ought", etc. It works hand in hand with normative ethics. As a normative discipline, ethics deals with questions such as: How do humans ought to behave?" What is morality? What is the nature of moral responsibility? What is the definition of good? What is the chief goal for which all men should strive? Is it accumulation of wealth or is it pleasure or happiness? Has man any final end? Is there any real difference between morally right and wrong actions? Or is it merely a matter of feeling? What is the role of punishment? Are moral judgments on what we ought to do objective or subjective or are they arbitrary?

4.0   Conclusion

The core branches of philosophy are logic, meta-physics, epistemology and ethics. These branches are characterised by their characteristics.

5.0   Summary

To recap what you have learned in this unit, click on the video below or copy the link and paste on a web browser. The video is a summary of what you have read in this unit. You could also click on the audio version and listen. You can also download them and play offline.

Video 1   https://youtu.be/eEFylNbfWgc
Video 2   https://youtu.be/HYV9BqnC4X4

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Unit 4   Philosophy and other Disciplines Contents

Contents

1.0   Introduction

Beside the four traditional branches of philosophy that you have learned above, there are other branches of philosophy which are often referred to as the philosophy of the infrastructure of disciplines. This study unit introduces you to the analysis of the relationship between philosophy and some other disciplines. Bearing in mind that there is no discipline *per se* that does not stem from philosophy as parent discipline (Unit 3), the focus in this unit will be specifically on the relationship between philosophy, the sciences, religion, education and law.

2.0   Intended Learning Outcomes (ILOs)

By the end of this unit, you will be able to apply philosophical thoughts in analysing the relationship between philosophy, science, religion, education and law.

3.0   Main Content

3.1 Philosophy and Science

You should bear in mind that until late 16 and early 19 centuries all scientific knowledge was within the ambit of philosophical inquiry. In other words, philosophy was the "science" per excellence. But according to Archie J. Bahm: As reflections upon problems became increasing, complex and as special techniques were developed, specialists limited the range of these inquiries, and the sciences were born. Among the first were mechanics, mathematics and astronomy. Among the latest were psychology and sociology. The romance of the maturing of these offspring of the fecund mother must be left to the history of science (1995:10).

The Nature of Scientific Knowledge

Unlike philosophy, science is best known as "an exact discipline". In line with this, *The Oxford Advanced Dictionary* also defines science as "knowledge

arranged in an orderlymanner, especially knowledge obtained by observation and testing of facts….” ForFrolov, the nature of scientific knowledge goes beyond this "positivist" definition. According to him, science is also "the field of research directed towards obtaining further knowledge of nature, society and thought"… It (science) is not limited to natural or exact sciences. Science is an integral system with its components flexibly correlated in history, study of nature, study of society, natural science (1984:372).

There is no doubt that science stemmed from philosophy. It is also true that as a discipline, science bears some specific characteristics different from philosophy. According to Harold H. Titus, scientific knowledge can be defined as: A system of man's understanding of nature, society and thought. It reflects the world in concepts, categories and laws whose truth is verified by practical experience. Science is the study of the totality of the concrete spheres of material reality. It is concerned to investigate and establish objective laws of nature by forming working hypothesis by which man may be enabled to harness nature to his purposes and transform his environment (1997:65).

From the above definition of science, it should be clear to you that the main purpose of science as discipline is to observe, understand natural phenomena and then control processes. To any scientist it is assumed that the universe, the orderly and natural phenomena are predictable and lawful.

Convergences and Divergences between Philosophy and Science

Always remember that it is improper to consider philosophy and science as competitors. Even though science originated from philosophy as a discipline their subject matter is different. The scientist main business is to explain natural phenomena, while a philosopher does not intend to do so. An average scientist always seeks for explanation while the philosopher basically seeks for justification. You should also know that the two main scientific purposes are prediction and control over phenomena. There are also six steps procedures in any scientific inquiry which one cannot avoid. These are: **observation, inductive generalization, hypothesis, attempted verification ofhypothesis, proof** or **disproof** and **knowledge.** Thus, prediction and control based on the laws of induction are what makes science not only original but also different from philosophy. As academic disciplines, their methodologies are quite different.

The philosopher's inquiry begins where that of the scientist stops. It may be difficult for a scientist to answer philosophical questions. Philosophy operates at a different level. A scientist cannot answer philosophical questions such as: is the world divided into mind and matter or is it possessed of independent power". Is the mind subject to matter or is it possessed of independent power? Has the universe any unity or purpose? Is it evolving towards some goal? Are there really laws of nature or do we believe in them only because of our inmate love of order? Does God exist? You can see that none of these questions can find answer in the scientist's laboratory. You should also bear in mind that even though the kind of knowledge that the scientist and philosopher seek is different, the purpose of their disciplines is often similar.

Because both of them are motivated by sheer curiosity and the satisfaction of having knowledge of the universe purely for the pleasure of the understanding.

3.2   Philosophy and Religion

The purposes of philosophy and religion are fundamentally opposed. A philosopher is always critical while a religionist is not. For a religionist, the role of reason is basically one of interpreting and defending the dogma derived from sources whose authority and truth is taken on faith. While any serious philosopher begins his investigations from a position of intellectual neutrality regardless of where his personal sympathies may lie. In philosophy, any known assumption is subject to critical scrutiny. While religion is purely dogmatic. In religion knowledge is sought principally to achieve what a given religion takes to be human kind's final happiness or destiny. While in philosophy, knowledge is sought simply for its own sake. Philosophy often questions the assumptions of religion.

You should also know that the purposes of philosophy should not be confused with those of the religious minister, the theologians, the psycho-analyst, pastors and imams. A philosopher is not a magician. Critical reasoning, neutrality and the desire for knowledge for its own sake are the basic concerns of a philosopher. It is in this sense that philosophy is very different from religion.

3.3   Philosophy and Education

This minor branch of philosophy refers to the study of the fundamental principles of the theory of education as distinguished from the science or art of education. That is, the empirical study of educational process and the techniques or methods of educational practice. For instance, to the pragmatists, the philosophy of education principally deals with values and goals of education which include the nature of humans as capable of being educated, the agent by which education is achieved, the characteristics of a truly educated person, the trained abilities acquired in education which help one to solve practical problems of life and control of his environment.

In this branch of philosophy, the philosopher examines the concept of education and what it means to educate and how best it can be achieved. He looks at stages involved in education and what the goals of ideal education are.

3.4   Philosophy and Law

The function philosophy performs in law is that it studies the nature of law and philosophical principles of law and justice with reference to the origin and the end of the civil law and the principles that should govern its formulation. A critical and philosophical look at law in its generality is the function of a discipline called jurisprudence which, as understood by lawyers, denote a working knowledge of a particular system of law with reference to the exercise

of private and public decision-making functions and scholarly critiques of the resulting actions. According to Pizzorni, there are three classifications of the main object of philosophy of law and these are:

1. the universal concept of law, that is its essential features which must be present in every juridical system
2. the foundation of law from which every legal system derives its origin and values.
3. The standard or criteria with which all existing laws are guided and evaluated, for the problem of the evaluation of law of law is the problem of the philosophy of law. (curled from Omoregbe, 1994:173)

Philosophy of law differs from the science of law. While the science of law deepens man's knowledge of laws or legal system, the philosophy of law broadens man's horizon and opens the human mind to see that there is more to the reality of law and legal experience than can be seen through the empirical study of law.

4.0   Conclusion

Philosophy share relationship with other field of study such as science, religion, education and law.

5.0   Summary

To recap what you have learned in this unit, click on the video below or copy the link and paste on a web browser. The video is a summary of what you have read in this unit. You could also click on the audio version and listen. You can also download them and play offline.

Video   https://youtu.be/Q-mntt1ROak

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Unit 5   The Usefulness of Philosophy

Contents
1.0   Introduction
2.0   Intended Learning Outcome (ILO)
3.0   Main Content
4.0   Conclusion
5.0   Summary
6.0   References/Further Reading

1.0   Introduction

This study is to introduce to you the usefulness of philosophy. It is an opportunity for you to know how useful philosophy is to human kinds and the environment. The usefulness of philosophy as discussed here will enhance your understanding of philosophy as distinguished from those who conceive it as an abstract contemplation and romance with the unreal far removed from practical living.

2.0   Intended Learning Outcome (ILO)

By the end of this unit, you will be able to analyse philosophy in terms of its usefulness and concept.

3.0   Main Content

The Usefulness of Philosophy

You need to know that those who conceive philosophy as an intellectually complex and as an abstract contemplation that is far removed from practical living, do not see any meaningfulness or relevance in philosophical enterprise. However, philosophy is both mentally and practically relevance to human kinds.
One of the usefulness of philosophy is that it helps to foster or develop the habit of reflections and thus further help us to enlarge the areas of our awareness to become more alive, more discerning, more critical, and to be more enlightened. The age in which we live is an age of uncertainty and change, when many of the older beliefs and the ways of doing things are inadequate. When this is the situation, we need a scale of values and a sense of direction. Philosophy provides this sense of direction. It provides us with a unity of outlook and response to the reality of the world in which we live and operate. It provides us with the parameters for discernment and for judging issues and articulating problems intelligently and critically.

Philosophy in the intellectual realm trains one to think clearly, critically and independently. Through, philosophy one can develop analytical abilities with which one can effectively handle both practical and abstract issues.

At moral level, it helps to provide insight in distinguishing among values and to identify for oneself what is best and most relevant. It enables one to distinguish which human behaviour is good, moral, acceptable and praiseworthy as against those that are bad, immoral, unacceptable and condemnable.

As a professional in any field, philosophy provides the intellectual background helpful to success. It challenges one to come up with one's own effective ways of solving problems that do not have readymade answer. Furthermore, it helps in the rationalization and organization of results of human inquiry, religion historical and scientific into consistent view world

4.0   Conclusion

Some persons hold the view that philosophy is an abstract and believe that philosophy has no practical relevance to humankind. But the usefulness of philosophy in the various field of study make the assertion to be untrue.

5.0   Summary

To recap what you have learned in this unit, click on the video below or copy the link and paste on a web browser. The video is a summary of what you have read in this unit. You could also click on the audio version and listen. You can also download them and play offline.

Video   https://youtu.be/F-ykSJRf4Bs

Audio

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Unit 6   Sources of Knowledge and Criteria for Knowing

Contents

1.0   Introduction

This study unit introduces you to the different sources and criteria for knowing. It is an opportunity for you to differentiate between common sense and philosophical understanding of knowledge, belief and opinion. The different sources of knowledge will be emphasized.

2.0   Intended Learning Outcomes (ILOs)

By the end of this unit, you will be able to:
- Differentiate between knowledge, opinion and belief.
- Discuss the common sense and philosophical understanding of knowledge, opinion and belief. Identify the different sources of knowledge.
- Discuss the criteria for knowledge.

3.0   Main Content

3.1   Difference between Knowledge, Opinion and Belief

Often, the terms knowledge, opinion and belief are used interchangeably and when considered at the surface level, it ordinarily looks as if there is no difference among them. In the daily life, it is easy for someone to say he "knows" when he should say he "believes". On the other hand, he "believes" when he should say he "knows". It is important to know that like philosophy, the question of knowledge is not an easy one. It is not easy to align our thoughts with reality. Our mind is always puzzled when it comes to adjusting

our beliefs to the knowledge of things in the world, so that our beliefs become grounded in evidence. Therefore, the relationship and the difference between knowledge, opinion and belief depend on the person's position.

3.1.1 Common-sense Understanding of Knowledge, Opinion and Belief

As stated earlier, often knowledge, opinion and belief are used interchangeably. This confusion mostly appears in common sense usage. To a layman knowledge implies many things. For instance, knowledge can even be synonymous with acquaintance. When a layman asks a question such as: "Do you know the Vice – Chancellor of the National Open University of Nigeria?" In his mind this question is the same as "are you acquainted with the Vice-Chancellor?" However, the truth is that you might know the Vice-Chancellor in the sense of being acquainted with him without knowing much about him. On the other hand, it is also possible to know a great deal about some other person which you have never met. For instance, as a student of philosophy, you know a great deal about Plato, but I am sure that you never met him. Also, in daily life, some people say they "know" while they mean "believe" or "think". For instance, when a layman says that a medicine is good. What he has in mind is "think" because he might have some authoritative persons saying it that 'that medicine is good'. Most of the time we hear people saying that they "know" that

Black men are cursed, nothing good can come out of them. They "know" that things will never work well for them. In the above statements there is an obvious confusion between knowledge, opinion and belief. And, this is what happens in the daily life of a layman.

3.1.2 Philosophical Understanding of Knowledge, Opinion and Belief

The philosophical understanding of knowledge is very different from that of the layman. For a layman, knowledge, opinion and belief are interwoven. But it is not possible in philosophy. For a philosopher, you say "know" when you possess information that is beyond doubt and the information is also true. Philosophical knowledge follows the logic of proposition. i.e. "I know that…" for example, "I know that Nigeria is the most populated country in Africa". "I know that Cameroon and Nigeria are neighbours". According to John Hospers, if we take the letter "X" to stand for any proposition, some requirements must be met in order for us to assert, truly that we know "X": "X" must be true", "We must have evidence for 'X', that is, reason to believe 'X', "Not only must 'X' be true, we must believe that 'X' is true", "There must be no counter – evidence". Hospers adds that: the moment you have some reasons to believe that a proposition is not true, this immediately negates a person's claim to know it. You cannot know 'X' if X is not true. If I say I know 'X', but 'X; is not true, my statement is self – contradicting for part of what is involved in knowing 'X' is that 'X' is true (1956:144).

According to him, "there may be numerous statements that you believe but do not know to be true, but there can be none, which you know to be true but don't believe... for believing is a defining characteristic of knowing. But

believing 'X' is not a defining characteristic of 'X' being true. 'X' can be true even though neither he nor I nor anyone believes it. After all, the earth was round even before anyone believed that it was (1956:145).

What matters here is that knowledge implies being sure, being certain. Also, believing is a pre-condition for knowledge. Because, when you know something, you have a right to a certain confidence in your belief as a true and reliable guide to action. Thus, you cannot say you know something which you are not sure of. But it is possible to believe something you are not sure of. You can believe in the existence of God, yet you are not sure of his existence. There is no problem in a statement such as "I think that God exists, but I am not sure". But you cannot say for instance that "I know he will come but I am not sure". Knowledge is more qualitative than opinion and belief. An opinion or belief cannot be true unless it is grounded or supported with evidence. Evidence is the unique characteristic of knowledge. That is why customs and some hereditary matters are always at odds with knowledge. You should know that it is not because some customs, beliefs or hereditary affairs are unquestionable that they are synonymous with knowledge. Some unquestionable beliefs are not well founded or grounded in evidence. Therefore, they do not constitute knowledge. Always remember that the knower must not only be able to adduce enough evidence but must also know that he knows his beliefs. For to know is to know that you know. It must be clear to you now that knowledge is quite different from opinion or belief. We have knowledge only when we can provide reasons and evidence for our claims. On the contrary, belief or opinion is based on inner, personal certainty and conviction. Knowledge is objective i.e. it must be communicable and verifiable.

3.2. Sources of Knowledge

One of the perennial questions in the history of epistemology that is theory of knowledge has always been: How does knowledge come about? How do we know propositions to be true? Or by what means do we come by our knowledge of the real world? Answers to these questions have been given through the following means: (a) Reason, (b) Sense experience (c) Authority (d) Intuition (e) Revelation/faith and (f) Mystical experience.

3.2.1 Reason

Rationalism is a school of thought in epistemology which holds that human beings can acquire knowledge of reality using our minds alone, by thinking or pure reason. To any rationalist, reason is a necessary ingredient for all our knowledge claims. This is one of the reasons why Aristotle defines man as "a rational animal". Thus, the ability to think is what is called reason. Any serious rationalist agrees that we cannot acquire knowledge through sense experience without the powers of reason. For them, it is true that our perceptual experience provides the raw material for judgments, but without reason, we cannot make judgments at all. For instance, to reason that the object in front of you is a blackboard you must first of all recognize it as a blackboard based on certain perceptual characteristics such as colour, smell,

taste, size, shape as they recur in your experience. Then, by way of abstraction, you can recognize a blackboard when there is a combination of these characteristics. To the rationalist therefore "… reason is the prima-matrix of human knowledge and with it alone the certainty of human knowledge is guaranteed" (Ayer, 1956:54). Prominent members of this school of thought are; Leibniz, Spinoza and Rene Descartes.

3.2.2 Sense Experience

Sense experience is another source of knowledge. The Empiricists are the proponents of sense experience theory. To any empiricist, as far as knowledge is concerned, only sense experience matters. In other words, empiricism is the philosophical theory which denies reason while insisting that experience is always the necessary ingredient in our knowledge claims of the natural world. This school of thought or group have Bishop George Berkeley who asserted *Esseestpercipii* meaning 'to be is to be perceived'. His position simply implies that what i.e. known, true and real is that which satisfies the sense experience condition. Other prominent members are John Locke and David Hume.

3.2.3 Authority

Authority is also considered as one of the sources of knowledge. Authority as source of knowledge occurs when we make certain claims to knowledge based on the authority of someone who is a specialist in the particular field of knowledge. "Magister *dixit*" i.e. the '*Master said*'. For instance, I know HIV is real because Prof. Isaac Adewole the Minister of Health in Nigeria said so.. Here, Prof. Isaac Adewole becomes an authority on the subject. But you should always remember that even as a source of knowledge, authority is a relative term. A man may be an authority in a certain field of knowledge like the Minister, however, this does not confer certainty on the claim being made even if he claims some knowledge of it. Aside, it is fallacious to reason this way.

3.2.4 Intuition

Another source of knowledge is intuition; Balm defines intuition as the "immediacy of apprehension" (1995:5). According to him:… Intuition is the name we give to the way
awareness apprehends when awareness apprehends appearance directly. No intuiting exists apart from awareness, no awareness exists without intuiting (1995:5). That is why you sometimes hear people say: "I have a sense of intuition". "I know by intuition that President Mohamadu Buhari will contest in 2019."

3.2.5 Revelation and Faith

These are also considered as sources of knowledge. It is common to hear people saying: "it was revealed to me in a dream" or "it was revealed to me by

God and I have faith in it". "My faith guides me in this matter and I know that it is certainly true".

4.0   Conclusion

This study unit dealt with different sources of knowledge and their criteria for knowing. It also emphasized the common sense and philosophical understanding of knowledge, belief and opinion.

5.0   Summary

To recap what you have learned in this unit, click on the video below or copy the link and paste on a web browser. The video is a summary of what you have read in this unit. You could also click on the audio version and listen. You can also download them and play offline.

Video   https://youtu.be/eYZCHcMwaHU

Audio

6.0   References/Further Reading

Ayer, A.J. The Problems of Knowledge. London: Penguin Books, 19541
Bahm, A.J. Epistemology. New Mexico: Archie J. Bahm Publisher, 1995.
Hospers, J. An Introduction to Philosophical Analysis. Revised edition. London: Routledge and Kegan Paul, 1956.

Russell, B. *The Problem of Philosophy. London:* Penguin Books, 1980.42

Discussion Forum

1. In your context, state and explain three main relationships between philosophy and academic discipline.
2. Philosophy is often regarded as an abstract course. In not more than 250 words, justify this statement.
3. Using your context, state two philosophical thoughts and explain why they are philosophical.
4. Post your answers on the discussion forum
5. Read the posts of two other persons and write you comment on each from philosophical view.

Module 2   History and Development of Philosophy

Unit 1   The Ancient Age of Philosophy
Unit 2   Medieval and Renaissance Age of Philosophy
Unit 3   Modern Period of Philosophy
Unit 4   Philosophical Movements In The Contemporary Period
Unit 5   The Idea of African Philosophy

Unit 1   The Ancient Age of Philosophy

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6.0   Tutor-Marked Assignment

1.0   Introduction

In this unit, you will be introduced to the history and development of philosophy, from the ancient age to the contemporary age. You will also read about the major pre-occupation(s) of some philosophers that were prominent in each of the stages of the development of philosophy. You need to know that these stages of development in philosophy are sometimes referred to as an age. So, we shall be talking about 'The Pre-Socratic Age', 'The Mediaeval Age', 'Modern Age', and so on.

2.0   Intended Learning Outcomes (ILOs)

By the end of this unit, you will be able to:
- Discuss or write about the philosophical events of the Pre-Socratic age
- Identify some of the philosophers that dominated the Socratic age
- Explain the main philosophical preoccupations or focus of the Ancient Age
- Explain the differences between the Pre-Socratic and the Socratic Era
- Explain the achievements of philosophy in the Ancient Age
- Demonstrate philosophical skills in analysing ancient age philosophy.

3.0   Main Content

The history of philosophy can be classified into the following:
1. Ancient Age, which include; Pre-Socratic, Socratic or Classical Philosophy, and some other Ancient Philosophical Schools
2. Medieval Age
3. Modern Age (Age of Enlightenment and Age of Reason)
4. Late Modern Age
5. Contemporary Philosophy

But in this unit, you will be examining the Ancient Age of philosophy

3.1   The Ancient Age

As stated earlier, each of the above classifications represent an age of development in philosophy. In other words, we can say that growth or development of philosophy is from Ancient Age to the Contemporary Age. Growing through these ages, philosophy has gone through various stages of transformations of moving from the Dark Age, to the age of enlightenment and the contemporary time.

3.1.1 Pre-Socratic

As you are aware, philosophy grew out of wonder and curiosity. What is known as Western Philosophy- by which we usually mean everything apart from the Eastern Philosophy of China, Indian, Japan, etc. really began in Greece in about 6th B.C. But, you need to know that before this period, the Greeks have always been asking questions on issues that concerns man and his existence. Theyask questions about reality, cosmos, and other fundamental matters that surrounds human existence. Answers to these questions are always sought through religion and mythology. However, at some point, answers to some of these questions are considered not rational enough, especially by Thales, Anaximander and Aneximenes as prominent figures. These group of thinkers were curious to know the ultimate source of things. Thus, the question; what is the ultimate source or primary source of all things? This question got different responses from the three philosophers and they attempt a more rational response to the above question and offer a rational explanation of the universe.

3.1.2 Thales of Miletus

He is usually considered the first proper philosopher, although he was just as concerned with **natural philosophy** (what we now call **science**) as with philosophy as we know it. Perhaps, you should note that Thales and most of the other Pre-Socratic philosophers (i.e. those who lived before Socrates) limited themselves in their discussions to what we can call Metaphysics. This is because they were preoccupied with inquiry into the nature of existence, being and the world. They were referred to as **Materialists,** because, they believed that all things are composed of material entity only). Also, they were mainly preoccupied with attempts to identify or establish what reality is without recourse to any kind of supernatural or mythological explanations. That is, they attempt to identify or establish that the world is made up of a single underlying item or substance. (This idea is referred to as Monisim in the latter years of the development of philosophy). According to Thales, he thought the whole universe was composed of different forms of **water.** In other words, according to Thales, water is the primary source of all things in the universe. It is the original element of which all things were made; water is the underlying unity in all things. Thales is also said to have predicted an eclipse of the sun which is believed to have occurred in 585BC.

3.1.3 Anaximander

He is the second Greek philosopher and he was a pupil of Thales. He was also from Miletus in Ionia. Like his master, he held that there must be an original element, a primary stuff of which all things were made. But he did not think it was water as Thales did. According to him, the primary source of all things cannot be any of the things we know because all the elements we know conflict with each other. If any of them were the original stuff, it would simply conquer and submerge the others. The source of all things must therefore be a **neutral element**, different from all the elements we know. It must be **infinite, boundless, eternal** and **indeterminate.** You also must know that Anaximander maintained that this world is not the only world that exist. He believed that there are many worlds and this world of ours is just one of them. He is said to have made the first map ever in history. He is also regarded as the early evolutionist, because he maintained that all living things originated from the sea and during time developed into various forms by means of adaptations to the environment. He believed that man also evolved from animals but not the kinds of animals we know. He is known to have maintained that the earth is like a cylinder in shape, a position that differentiate him from those who believed that the world is flat.

3.1.4 Anaximenes

He is also from Miletus and he is the third Greek philosopher. Like his predecessors, he also believes that there must be an original stuff from which all things are made, the primary source or underlying source of all things. To him, this is **Air** and not **Water**. Air is the original source and the primary element of all things. "Just as our soul being air, hold us together, so do breathe and air encompass the whole world". To explain his position, he

develops what he called the theory of **condensation** and **refraction.** When air rarefies, it become light and turns into fire; and when it condenses it become cold, thick and turn into winds, cloud, water, earth and finally stones, both hot and cold, light and thick things, indeed all things came from condensation and refraction. Thus, by these processes, all things came from air and will dissolve into air. To Anaximenes, the earth is flat and rests on air. Although, these three philosophers came from the same city called Miletus in Ionia and their philosophical discussion was referred to as the Ionian School of philosophy, however, this school of philosophy came to an end with the destruction of the city of Miletus by the Persian in 494BC.

3.2   Other Philosophers in the Pre-Socratic age

Another issue the Pre-Socratics wrestled with was the so-called **problem of change**, how things appear to change from one form to another. Some of the philosophers who engaged themselves in this issue are, Heraclitus, Parmenides, Zeno of Elea, Empedocles, Democritus and Pythagoras.

3.2.1 Heraclitus

In seeking for the primary source of all things, like the three Ionians, he thought that the original stuff from which all things were made is **Fire.** However, Heraclitus was more preoccupied with the problem of change in his philosophical enterprise. He believed in an on-going process of **perpetual change**, a constant interplay of **opposites.** Given his believe that everything in the universe undergoes perpetual change, he at a time asserted that "**Nothing is static, everything is in a state of flux".**

3.2.2 Parmenedes

On like Heraclitus, Parmenedes, using a complicated deductive argument, **denied** that there was any such thing as change at all, and argued that everything that exists is **permanent**, **indestructible** and **unchanging**. This might sound like an unlikely proposition, but Parmenedes' **challenge** was well-argued and was important in encouraging other philosophers to come up with convincing **counter-arguments**.

3.2.3 Zeno of Elea

He was a student of Parmenedes, and is best known for his famous **paradoxes of motion** (the best known of which is that of the **Achilles and the Hare**). His idea of **paradoxes of motion** helped to lay the foundations for the study of Logic. However, Zeno's underlying intention was really to show, like his master Parmenedes and all other before him, that all belief in **plurality** and **change** is mistaken, and that**motion** is nothing but an **illusion**.

Although, these ideas might seem to us rather simplistic and unconvincing today, we should bear in mind that, during this time, there was really no scientific knowledge whatsoever. Their attempts were therefore important first

steps in the development of philosophical thought. They also set the stage for two other important Pre-Socratic philosophers: Empedocles and Democritus.

3.2.4 Empedocles, Democritus and Pythagoras

These two, Empedocles and Democritus combined their ideas into the theory of the **four classical elements** (earth, air, fire and water), which became the standard dogma for much of the next two thousand years. Democritus later developed the extremely influential idea of **Atomism.** This theory simply states that all of reality is composed of **tiny**, **indivisible** and **indestructible** building blocks known as **atoms**, which form different combinations and shapes within the surrounding **void**.

Another early and very influential Greek philosopher was Pythagoras, who led a rather **bizarre religious sect** and essentially believed that all of reality was governed by **numbers**, and that its essence could be encountered through the study of **mathematics**. He is known for his claim that with figures the world can be constructed.

3.3 Socratic or Classical Age of Philosophy

3.3.1 Socrates

Philosophy really took off, though, with Socrates and Plato in the **5th - 4th Century B.C.** (often referred to as the **Classical** or Socratic period of philosophy). Unlike most of the Pre-Socratic philosophers before him, Socrates was more concerned with how people should **behave**, and so was perhaps the first major philosopher of Ethics. He developed a system of critical reasoning to work out how to live properly and to tell the difference between **right** and **wrong**. His system, sometimes referred to as the Socratic Method, was to break problems down into a series of questions, the answers to which would gradually distil a solution. Although he was careful to claim not to have all the answers himself, his constant questioning made him many enemies among the authorities of Athens who eventually had him put to death.

We must point out here that Socrates himself never wrote anything down, and what we know of his views comes from the *"Dialogues"* of his student Plato, perhaps the best known, most widely studied and most influential philosopher of all time.

3.3.2 Plato

In his writings, Plato was a pupil of Socrates. He blended Ethics, Metaphysics (the study of reality), Political Philosophy and Epistemology (the theory of knowledge and how we can acquire it) into an interconnected and systematic philosophy. He provided the first real opposition to the Materialism of the Pre-Socratic, and he developed doctrines such as **Platonic Realism**, **Essentialism** and **Idealism**, including his important and famous **theory of Forms** and **universals.** Plato believed that the world we perceive around us

is composed of mere **representations** or **instances** of the pure ideal Forms. The real world to him, had their **own existence** elsewhere. This idea of Plato is known as Platonic Realism. He used his theory of **World of Form** to develop and explain his epistemology, (he identified the four levels of knowledge namely imagining, belief, thinking and perfect intelligence). He also identified the soul as having three parts namely, **reason**, **spirit** and **appetite.** These three parts of man's soul are related to the three strata or classes in the society: the individual appetites represent the class of workers who satisfy these appetites (the craftsmen or artisans), there is a connection between the spirited element in man and the large-scale version of this force in the military (the guardians or the soldiers). Also, there is a deep connection between the rational element in men and the unique function of leadership in the ruler (the philosopher king). This tripartite distinction of the soul and the society was used to explain his idea of **Justice** both in the soul and in the state. Thus, to him, there will be justice in the soul if the three parts of the soul functions independently of one another and there will be justice in the state if each of the parts that is, the **artisan,** the **soldier and the ruler** operate without any interference. Plato developed a theory known as **Eudaimonism** This is the believed that **virtue** was a kind of **knowledge** (the knowledge of good and evil) that we need in order to reach the **ultimate good**, which is the aim of all human desires and actions. Plato's Political Philosophy was developed mainly in his famous book *"Republic"*, where he describes an ideal (though rather grim and anti-democratic) society composed of **Workers** and **Warriors**, ruled over by wise **Philosopher Kings**.

3.3.4 Aristotle

Aristotle was the third in the main trio of classical philosophers. He was Plato's student. He created an even more comprehensive system of philosophy than his master Plato. His philosophical works span across Ethics, Aesthetics, Metaphysics, Logic Politics and Science, and his work influenced almost all later philosophical thinking, particularly those of the medieval period. Aristotle was engaged in a system of logic called Deductive Logic, with its emphasis on syllogism. Syllogism is a system of logic where a conclusion, or synthesis, is inferred from two other premises, the thesis and antithesis. This system of logic remained the dominant form of Logic until the 19th Century. Unlike Plato, Aristotle held that Form and Matter cannot be separated, and cannot exist apart from each other. Although, he too believed in a kind of Eudemonism, Aristotle saw Ethics as a very complex concept and that human beings cannot always control our own moral environment. He believed that happiness could best be achieved by living a balanced life and avoiding excess by pursuing a golden mean in everything. This position is like his formula for political stability through steering a middle course between tyranny and democracy.

3.4   Philosophical Movements of the Socratic Age

It should be noted here that in the philosophical history of Ancient Greece, there were several other schools or movements that also held sway, in addition to Platonism and Aristotelianism. These movements or schools are:

- **Sophism: -**This group held a relativistic view on knowledge. In other words, they believe that there is no absolute truth and two points of view can be acceptable at the same time. Generally, they hold skeptical views on truth and morality (although, over time, Sophism came to denote a class of intellectuals who taught courses in rhetoric and "excellence" or "virtue" for money). Prominent members of this movement are Protagoras and Gorgias.

- **Cynicism**: - This group rejected all conventional desires for health, wealth, power and fame, and advocated a life free from all possessions and property as the way to achieving Virtue (a life best exemplified by its most famous proponent, Diagenes).

- **Skepticism** :- This is also known as Pyrrhonism after the movement's founder, Pyrrho, which held that, because we can never know the true in nner substance of things, only how they appear to us (and therefore we can never know which opinions are right or **wrong**), we should suspend judgment on everything as the only way of achieving inner peace.

- **Epicureanism :-** This group was named after its founder Epicurus, whose main goal was to attain happiness and tranquillity through leading a simple, moderate life, the cultivation of friendships and the limiting of desires (quite contrary to the common perception of the word "epicurean").

- **Hedonism:-**The Hedonists are of the view that pleasure is the most important pursuit of mankind, and that we should always act so as to maximize our own pleasure.

- **Stoicism :-** This theory was developed by Zeno of Citium, and later espoused by Epictetus and Marcus Aurelius), which taught self-control and fortitude as a means of overcoming destructive emotions in order to develop clear judgment and inner calm and the ultimate goal of freedom from suffering.

- Neo-Platonism :- This developed out of Plato's work, largely by Plotinus. It was largely a religious philosophy which became a strong influence on early Christianity (especially on St. Augustine), and taught the existence of an ineffable and transcendent **One**, from which the rest of the universe "emanates" as a sequence of lesser beings.

4.0   Conclusion

From the above, it is obvious that what started ordinarily as mere idea in the Pre-Socratic era has at the time of Aristotle become a discipline of inquiry that borders on human being, his existence and the nature of the cosmos with various ideas developed by individual philosophers and movements.

5.0   Summary

To recap what you have learned in this unit, click on the video below or copy the link and paste on a web browser. The video is a summary of what you have read in this unit. You could also click on the audio version and listen. You can also download them and play offline.

Video   https://youtu.be/G4FGP3u3SQE

Audio

6.0   Books for Further Readings

Hegel, Georg Wilhelm Friedrich; Brown, Robert F. *The History of Philosophy: Greek philosophy*. Clarendon Press. 2006.

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Unit 2   Medieval and Renaissance Age of Philosophy

Contents

1.0   Introduction

This unit is a further discussion of the development of the history of philosophy. In this unit, we shall discuss the age of philosophy that follows immediately after the Ancient age. This age is called the Medieval or the Middle age. We shall also discuss another age of philosophy that almost submerge into the medieval period that is the Renaissance. This is because sometimes, drawing distinction between the era and the medieval is difficult. Moreover, it was the era that is seen to have restored the philosophical enterprise from the dogmatism of the middle age.

2.0   Intended Learning Outcomes (ILOs)

By the end of this unit, you will be able to:
- Discuss the nature of philosophy in the medieval period
- Identify the various groups of philosophy that existed in the medieval period
- Explain the philosophical doctrines of the Islamic philosophers
- Explain the role(s) of the Christian philosophers of the age
- Justify the role of the renaissance group in liberating philosophy in the middle age.

3.0   Main Content

Medieval/Middle Age

This period was around **11th Century**, when there was a renewed flowering of thought, both in Christian Europe and in Muslim and Jewish Middle East. Most of the philosophers of this time were mainly concerned with proving the **existence of God** and with reconciling Christianity/Islam with the classical philosophy of Greece (particularly Aristotelianism).

3.1   Islamic Philosophers

3.1.1   Avicenna(11th century, Persian) :-

He is one of the great **Islamic philosophers** of the Medieval period. Avicenna tried to reconcile the rational philosophy of Aristotelianism and Neo-Platonism with **Islamic theology**. He also introduced the concept of the **"tabula rasa"** (the idea that humans are born with **no innate** or built-in mental content). His idea of **"tabula rasa"** later influenced British Empiricists like John Locke.

3.1.2 Averroes (12th century, Spanish/Arabic) :-

He is another Islamic philosopher whose **translations** and **commentaries** on Aristotle had a profound impact on the Scholastic movement in Europe, and he claimed that Avicenna's interpretations were a distortion of genuine Aristotelianism. It is important to state here also, that the Jewish philosopher Maimonides also attempted the same reconciliation of Aristotle with the **Hebrew Scriptures** around the same time.

3.2   Christian Philosophers

Before we discuss these Christian philosophers, perhaps it should be mentioned here that the Medieval Christian philosophers were all part of a movement called Scholasticism which tried to combine Logic, Metaphysics, Epistemology and Semantics (the theory of meaning) into one discipline, and to reconcile the philosophy of the ancient classical philosophers (particularly Aristotle) with Christian theology. Also, you need to understand the Scholastic method as a method that thoroughly and critically read the works of renowned scholars, note down any disagreements and points of contention, and then resolve them using **Formal Logic** and **analysis of language**.

3.2 1 St. Augustine

He hailed from Tagaste in North Africa. He was the first philosopher who introduced the problem of evil in the world of utmost important. To him, since God created all things and God is infinitely good, how then do we explain the existence of evil in a world that a good God created? This problem to Augustine possesses serious problem to the existence of God, who is said to be good, kind, powerful and the creator of all things. He known for his concept of time, which he believed to be an elusive concept. Thus, to him although we talk about Past, Present and Future, neither the past nor the future really exists, for the past is gone and the future is not yet, and the present is only a passing moment. He is also known for his idea that the concept of truth and God in some sense are within man, but since God is internal He also transcends man. His proof for the existence of God is that since every effect has a cause, the universe as an effect must have a cause. This cause must be God. Also, he argued that the universal conviction of mankind that God exists is proof of God's existence. If God does not exist hoe did the whole human race become convinced of his existence.

3.2.2 St. Anselm:-

He is best known as the originator of the **Ontological Argument** for the existence of God by abstract reasoning alone. St Anselm is often regarded as the first of the Scholastics. Another member of the Scholastic is St Thomas Aquinas. He is also known for his five rational proofs for the existence of God, and his definition of the cardinal virtues and the theological virtues. He is generally considered the greatest, and certainly had the greatest influence on the theology of the Catholic Church. Other important members of the Scholastics included Peter Abelard, Albertus Magnus, John Duns Scotus and William of Ockham. Each of them contributed slight variations to the same general beliefs. For instance, Abelard introduced the doctrine of limbo for unbaptized babies; Scotus rejected the distinction between essence and existence that Aquinas had insisted on; Ockham introduced the important methodological principle known as Ockham's Razor, that one should not multiply arguments beyond the necessary; etc.

It is important to mention here that the revival of classical civilization and learning in the 15th and 16th Century known as the Renaissance brought the Medieval period to a close. It was marked by a movement away from religion and medieval Scholasticism and towards Humanism (the belief that humans can solve their own problems through reliance on reason and the scientific method) and a new sense of critical inquiry.

3.3 Renaissance Age

This age is classified as the period of revival of classical civilization and learning, which occurred in the 15th and 16th Century. It was the age that brought the medieval period to a close. It was marked by a movement away from religion and medieval Scholasticism and towards Humanism (the belief that humans can solve their own problems through reliance on reason and the scientific method) and a new sense of critical inquiry.

Among the major philosophical figures of the Renaissance were:

Erasmus:- He attacked many of the traditions of the Catholic Church and popular superstitions, and became the intellectual father of the European Reformation;

Niccolo Machiavelli:- He was known for his acclaimed cynical and devious Political Philosophy. His political ideas have become notorious and has remained controversial among scholars.

Thomas More:- He was a Christian Humanist whose book *"Utopia"* influenced generations of politicians and planners and even the early development of Socialist ideas.

Francis Bacon:- He is an empiricist. His belief is that truth requires evidence from the real world. His application of inductive reasoning - generalizations based on individual instances - were both influential in the development of modern scientific methodology.

4.0   Conclusion

From the above discussion, it could be said that in the Middle age, philosophy was made to be subservient to religion. The philosophers of the age were predominantly religious fathers who employed philosophy to teach religious doctrine. However, the renaissance philosopher was those who delivered philosophy from the aprons of the religious father to which it was tied. They gave philosophy its freedom and make rationality its basis.

5.0   Summary

To recap what you have learned in this unit, click on the video below or copy the link and paste on a web browser. The video is a summary of what you have read in this unit. You could also click on the audio version and listen. You can also download them and play offline.

Video   https://youtu.be/gCaoeK6p9vY

Audio

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Unit 3   Modern Period of Philosophy

Contents

1.0   Introduction

Roughly speaking, the Age of Reason was in the **17th Century** and the Age of Enlightenment was in the **18th Century.** These ages recorded serious advances in science, the growth of religious tolerance and the rise of liberalism. These ages marked the real beginnings of modern philosophy. In large part, the period can be seen as an ongoing battle between two opposing doctrines, **Rationalism-** which is the belief that all knowledge arises from intellectual and deductive reason, rather than from the senses; and **Empiricism,** which represent the belief that the origin of all knowledge is sense experience.

2.0   Intended Learning Outcomes (ILOs)

By the end of this unit, you will be able to:

- Identify the various philosophical schools that emanated in the modern age
- Differentiate the philosophical believe and practices of these schools
- Explain the level of growth or advancement that philosophy has made
- Discuss the philosophical tenets of this period

3.0   Main Contents

Modern Age (Age of Reason and The Age of Enlightenment)

3.1   Rationalism

3.1.1 Rene Descartes

We must note here that the revolution that took place in philosophical thought in these two ages was sparked by the French philosopher and mathematician **René Descartes.** He was the first figure in the loose movement known as Rationalism, and much of subsequent Western philosophy can be seen as a response to his ideas. His method was known as methodological skepticism and its aim was to dispel Skepticism and arrive at certain knowledge. This method was to remove everything about which there could be even a suspicion of doubt (including the unreliable senses, even his own body which could be merely an illusion) to arrive at the single indubitable principle that he possessed consciousness and was able to think ("I think, therefore I am" *"Cogito ergo Sum"*). He then argued that our perception of the world around us must be created for us by God. He saw the human body as a kind of machine that follows the mechanical laws of physics, while the mind or what he called consciousness was a quite separate entity, not subject to the laws of physics, which is only able to influence the body and deal with the outside world by a kind of mysterious two-way interaction. This idea, known as **Dualism** (or, more specifically, **Cartesian Dualism**), set the agenda for later philosophical discussion of the **"mind-body problem"**. Despite Descartes' innovation and boldness, he was a product of his times and never abandoned the traditional idea of a God, which he saw as the one true substance from which everything else was made.

3.1.2 Baruch Spinoza

Spinoza happens to be the second great figure of Rationalism. He was the Dutchman. His conception of the world was quite different from that of Descartes. He built up a strikingly original self-contained metaphysical system in which he rejected Descartes' Dualism in favour of a kind of **Monism** where mind and body were just two different aspects of a single underlying substance which might be called Nature (and which he also equated with a **God** of infinitely many attributes, effectively a kind of Pantheism). Spinoza was a thoroughgoing Determinist who believed that absolutely everything (even human behaviour) occurs through the operation of necessity, leaving absolutely no room for free will and spontaneity. He also took the Moral Relativist position that nothing can be in itself either good or bad, except to the extent that it is subjectively perceived to be so by the individual (and, anyway, in an ordered deterministic world, the very concepts of Good and Evil can have little or no absolute meaning).

3.1.3 Gottfried Leibniz

He is the third great **Rationalist** and he was a German philosopher. In order to overcome what he saw as drawbacks and inconsistencies in the theories of the first two rationalists, Descartes and Spinoza, he devised a rather eccentric metaphysical theory of **monads** operating according to a pre-established divine harmony. According to Leibniz's theory, the real world is actually composed of eternal, non-material and mutually-independent elements he called **monads**, and the material world that we see and touch is actually just phenomena (appearances or by-products of the underlying real world). The apparent harmony prevailing among monads arises because of the will of God (the supreme monad) who arranges everything in the world in a deterministic manner. Leibniz also saw this as overcoming the problematic interaction between mind and matter arising in Descartes' system, and he declared that this must be the best possible world, simply because it was created and determined by a perfect God.

3.2 Nicolas Malebranche

Nicolas Malebranche, a French philosopher was also an important figure in 17th Century. He was a follower of Descartes in that he believed that humans attain knowledge through **ideas** or immaterial representations in the mind. However, he argued (more or less following St. Augustine point of view) that all ideas actually exist only in God, and that God was the only active power. Thus, he believed that what appears to be "interaction" between body and mind is caused by God, but in such a way that similar movements in the body will **"occasion"** similar ideas in the mind, an idea he called **Occasionalism**.

3.3 British Empiricism

Direct opposition to the continental European Rationalism movement was the equally loose movement of British Empiricism, which was also represented by three main philosophers, John Locke, Bishop George Berkeley and David Hume.

3.3.1 John Locke

He argued that all of our ideas, whether simple or complex, are ultimately derived from experience, so that the knowledge of which we are capable is therefore severely limited both in its scope and in its certainty. His idea represents a kind of modified Skepticism. He believed that the real inner natures of things derive from what he called their primary qualities which we can never experience and so never know. Locke, like Avicenna before him, believed that the mind was a **tabula rasa** (or blank slate) and that people are born without innate ideas, although he did believe that humans have absolute natural rights which are inherent in the nature of Ethics. Along with Thomas Hobbes and Jean Jack Rousseau, he was one of the originators of Social Contract Theory, which formed the theoretical underpinning for democracy,

republicanism, Liberalism and Libertarianism, and his political views influenced both the American and French Revolutions.

3.3.2 Bishop George Berkeley

The second of the British Empiricists chronologically was Bishop George Berkeley, although his empiricism was of a more radical kind, mixed with a twist of Idealism. Using cogent arguments, he developed the rather counter-intuitive system known as **Immaterialism** (or sometimes as Subjective Idealism), which held that underlying reality consists exclusively of minds and their ideas, and that individuals can only directly know these ideas or perceptions (although not the objects themselves) through experience. Thus, according to Berkeley's theory, an object only really exists if someone is there to see or sense it ("to be is to be perceived"), although, he added, the infinite mind of God perceives everything all the time, and so in this respect the objects continue to exist.

3.3.3 David Hume

David Hume was the third, and perhaps greatest, of the movement. He believed strongly that only experience and observation should be the foundations of any logical argument. Hume argued that, although we may form beliefs and make inductive inferences about things outside our experience (by means of instinct, imagination and custom), they cannot be conclusively established by reason and we should not make any claims to certain knowledge about them. Although, he never openly declared himself an atheist, he found the idea of a God effectively nonsensical, given that there is no way of arriving at the idea through sensory data. He attacked many of the basic assumptions of religion and gave many of the classic criticisms of some of the arguments for the existence of God (particularly the teleological argument). In his Political Philosophy, Hume stressed the importance of moderation, and his work contains elements of both Conservatism and Liberalism.

3.4   Some other philosophers of the period

Aside the above discussed philosophers, there were some other "non-aligned" philosophers of the period and many of were most active in the area of Political Philosophy. Some of them and ideas of their philosophical discussion are mentioned below.

- **Thomas Hobbes,** who described in his famous book *"Leviathan"* how the natural state of mankind was brute-like and poor, and how the modern state was a kind of "social contract" (**Contractarianism**) whereby individuals deliberately give up their natural rights for the sake of protection by the state (accepting, according to Hobbes, any abuse of power as the price of peace, which some have seen as a justification for authoritarianism and even Totalitarianism);

- **Blaise Pascal,** a confirmed **Fideist** (the view that religious belief depends wholly on faith or revelation, rather than reason, intellect or natural theology) who opposed both Rationalism and Empiricism as being insufficient for determining major truths;

- **Voltaire,** an indefatigable fighter for social reform throughout his life, but wholly cynical of most philosophies of the day, from Leibniz's optimism to Pascal's pessimism, and from Catholic dogma to French political institutions;

- **Jean-Jacques Rousseau,** whose discussion of inequality and whose theory of the popular will and society as a social contract entered into for the mutual benefit of all strongly influenced the French Revolution and the subsequent development of Liberal, Conservative and even Socialist theory;

- **Edmund Burke**, who was considered as one of the founding fathers of modern Conservatism and Liberalism, although he also produced perhaps the first serious defence of Anarchism.

3.5   Immanuel Kant

He was a German philosopher who appeared towards the end of the Age of Enlightenment. Kant made another paradigm shift as important as that which was made by Descartes some years earlier, and in many ways, this marks the shift to Modern philosophy. He sought to move philosophy beyond the debate between Rationalism and Empiricism and he attempted to combine those two apparently contradictory doctrines into one overarching system. A whole movement called **Kantianism** developed in the wake of his work, and most of the subsequent history of philosophy can be seen as responses, in one way or another, to his ideas.

According to Kant, Empiricism and Rationalism could be combined. He also believed that statements were possible that were both **synthetic** (a posteriori knowledge from **experience** alone as we have in Empiricism) but also **a priori** (from **reason** alone, as we have in Rationalism). Thus, without the senses we could not become aware of any object, but without understanding and reason we could not form any conception or idea of it. However, our senses can only tell us about the appearance of a thing, **phenomenon** and not the **"thing-in-itself,"** **noumenon**, which Kant believed was essentially unknowable, although we have certain innate predispositions as to what exists, which is known as Transcendental Idealism). Kant made a great contribution to Ethics with his theory of the **Categorical Imperative.** The theory simply state that we should "act only in such a way that we would want our actions to become a **universal law**, applicable to everyone in a similar situation". This theory is also interpreted as **Moral Universalism** and that we should treat other individuals as **ends in themselves**, not as mere means, which means **Moral Absolutism**, even if that means sacrificing the greater good. To Kant, any attempts to prove God's existence are just a waste of time, because our concepts only work properly in the empirical world (which

God is above and beyond), although he also argued that it was not irrational to believe in something that clearly cannot be proven either way.

3.5   Late Modern Period

Let it be stated here also, that the Modern period produced German Idealist philosophers and Romanticism Movements. Thus, philosophers like **Arthur Schopenhauer** whose philosophy was considered very singular and a product of the age. He was a thorough-going pessimist who believed that the "will-to-life" (the drive to survive and to reproduce) was the underlying driving force of the world, and that the pursuit of happiness, love and intellectual satisfaction was very much secondary and essentially **futile**. He saw **art** (and other artistic, moral and ascetic forms of awareness) as the only way to **overcome** the fundamentally frustration-filled and painful **human condition**.

The greatest and most influential of the German Idealists was **Georg Hegel**. Although, his works have a reputation for abstractness and difficulty, however, he is often considered the summit of early 19th Century German thought, and his influence was profound. He extended Aristotle's process of dialectic (resolving a **t**hesis and its opposing antithesis into a synthesis) to apply to the real world - including the whole of history - in an on-going process of conflict resolution towards what he called the Absolute Idea. However, he stressed that what is really changing in this process is the underlying "Geist" (mind, spirit, soul), and he saw each person's individual consciousness as being part of an Absolute Mind, which is sometimes referred to as Absolute Idealism.

Another important figure of this period was Karl Marx who was strongly influenced by Hegel's dialectical method and his analysis of history. His Marxist theory including the concepts of historical materialism, class struggle, the labour theory of value, the bourgeoisie, etc., which he developed with his friend **Friedrich Engels** as a reaction against the rampant Capitalism of 19th Century Europe, provided the intellectual base for later radical and revolutionary Socialism and Communism.

4.0   Conclusion

The general discussion of philosophy in this age was the focus on human survival as well as the composition of man. It also examined the nature of the human society as well as the history of human kind.

5.0   Summary

To recap what you have learned in this unit, click on the video below or copy the link and paste on a web browser. The video is a summary of what you have read in this unit. You could also click on the audio version and listen. You can also download them and play offline.

Video   https://youtu.be/3K4TXKVEIIY

Audio

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Unit 4   Philosophical Movements in The Contemporary Period

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1.0   Introduction

In this unit, you are going to learn about the various philosophical ideas in the contemporary time. We shall be talking about Pragmatism, Logical Positivism and the two philosophical movement trending in the contemporary age, which are Analytic and Continental philosophy.

2.0   Intended Learning Outcomes (ILOs)

By the end of this unit, you will be able to:

- Identify the various philosophical traditions that are thriving in the contemporary time
- Explain the philosophical traditions and the possible problems that may be associated with them
- Evaluate the relevance of philosophical theories to human development
- Analyse the impacts of philosophical theories on societal development

3.0   Main Content

3.1   Utilitarianism

In England, the Contemporary age began in the 19th Century. It recorded a very different kind of philosophy, which grew out of the British Empiricist tradition of the previous century. One of such philosophy is the **Utilitarianism movement.** It was founded by the social reformer, Jeremy Bentham and waspopularized by his even more radical protegé**John Stuart Mill**. The idea of **Utilitarianism**is a type of**Consequentialism**. It is kind of approach to Ethics that stresses an action's outcome or the consequence of an action. It

holds that the right action is that which would cause "the greatest happiness of the greatest number". This theory was refined by Mill to stress the quality not just the quantity of happiness, and intellectual and moral pleasures over more physical forms. He counselled that coercion in society is only justifiable either to defend ourselves or to defend others from harm (the "harm principle").

3.2   Pragmatism

As we have development and changes in philosophical tradition in England, so also was the development of philosophical tradition in America in the 19th Century. The most popular American movement of the late 19th Century was **[Pragmatism](#)**, which was initiated by **C.S Peirce** and developed and popularized by **William James** and **John Dewey**. The theory of Pragmatism is based on Peirce's "pragmatic maxim", that the meaning of any concept is really just the same as its operational or practical consequences. In other words, it means that something is true only insofar as it works in practice. Peirce also introduced the idea of Fallibilism, the idea that all truths and "facts" are necessarily provisional, that they can never be certain but only probable.

Furthermore, William James extended the idea of Pragmatism to serve as a method for analysing philosophic problems and as a theory of truth. On the other hand, John Dewey's presented his own **Pragmatism** as **Instrumentalism.** His idea of Instrumentalism simply stands for the methodological view that concepts and theories are merely useful instruments, best measured by how effective they are in explaining and predicting phenomena, and not by whether they are true or false. He also contributed significantly to the development of Philosophy of Education and to modern progressive education, particularly what he called "learning-by-doing".

3.3   Logical Positivism

European philosophy was not limited to the German Idealists in the Contemporary period. There was the French sociologist and philosopher Auguste Comte who founded the influential **Positivism** movement around the belief that the only authentic knowledge was scientific knowledge, based on actual sense experience and strict application of the scientific method. Comte saw this as the final phase in the evolution of humanity, and even constructed a non-theistic, pseudo-mystical "positive religion" around the idea.

The Logical Positivism which developed from Auguste Comte's Positivism campaigned for a systematic reduction of all human knowledge down to logical and scientific foundations and claimed that a statement can be meaningful only if it is either purely formal especially, mathematics and logic or if it is capable of empirical verification. The school grew from the discussions of the so-called **"Vienna Circle"** in the early 20th Century. The members of this group include the following philosophers among others: **Mauritz Schlick**, **Otto Neurath**, **Hans Hahn**, **Rudolf Carnap** and **Ludwig Wittgenstein** whose work *Tractatus*, published in 1921, was a text of great

importance for the group. *Tractatus* was the picture theory of meaning, which asserted that 'thoughts', as expressed in language, picture the facts of the world, and that the structure of language is also determined by the structure of reality. In the 1930s, A.J Ayer was largely responsible for the spread of this philosophical movement to Britain, even as its influence was already **waning** in Europe.

The philosophy of Soren Kierkegaard was also highly influential in the contemporary period. Having trained in Hegel's philosophy and not impressed by it, his philosophy could be a direct reaction against Hegel. He was an extremely religious man (despite his attacks on the Danish state church). But, his analysis of the way in which human freedom tends to lead to "angst" (dread), the call of the infinite, and eventually to despair, was highly influential on later Existentialists like Heidegger and Jean Paul Sartre.

3.4   Analytic Philosophy and Continental Philosophy

20th Century philosophy was dominated to a great extent by the rivalry between these two philosophical traditions; **Analytic Philosophy**, which simply express the mindset that philosophy should apply 'logical techniques' and be consistent with modern science; and **Continental Philosophy** which, in very general terms, rejects Scientism and tend towards Historicism.

3.4.1   Analytic Philosophy

An important idea that influenced the Analytic Philosophy tradition was the Logicism, which was developed during the late 19th Century by Gottlob Frege. Logicism attempt to show that some, or even all, of mathematics can be reduced to Logic. Frege's work revolutionized modern mathematical Logic. This idea was championed by Bertrand Russell and Alfred North Whitehead in the early 20th Century. They both wrote a book titled *Principia Mathematica,* a ground-breaking and monumental book that was particularly important milestone.

Both Russell and Whitehead went on to develop other philosophies. Russell's work was mainly in Philosophy of Language and the theory of **Logical Atomism**. Whitehead developed a metaphysical approach known as **Process Philosophy**, which posited ever-changing subjective forms to complement Plato's eternal forms.

Some other important philosophers in the Analytic Philosophy includes W.V.O. Quine, Gibert Ryle and in the early 20th century we have G.E Moore, a contemporary of Russell at Cambridge University. Moore's 1903 *"Principia Ethica"* has become one of the standard texts of modern Ethics and Meta-Ethics. The work inspired the movement away from Ethical Naturalism (the belief that there exist moral properties, which we can know empirically, and that can be reduced to entirely non-ethicalor natural properties, such as needs, wants or pleasures) and towards Ethical Non-Naturalism (the belief that there are no such moral properties). He pointed out that the term "good",

for instance, is in fact indefinable because it lacks natural properties in the way that the terms "blue", "smooth", etc, have them.

3.4. 2 Continental Philosophy

3.4.2.1 Phenomenology

On the Continental Philosophy side, an important figure in the early 20th Century was the German **Edmund Husserl**. He was the founder of Phenomenology a great and very influential movement of the Century. Husserl developed the idea, parts of which date back to Descartes and even Plato, that what we call reality really consists of objects and events (**phenomena)** as they are perceived or understood in the human consciousness, and not of anything independent of human consciousness (which may or may not exist). Thus, we can effectively, ignore sensory data, and deal only with the "intentional content" that is, the mind's built-in mental description of external reality, which allows us to perceive aspects of the real world outside.

3.4.2.2   Existentialism

Martin Heidegger, a formal pupil of Husserl attempted a decline of his master's philosophy- Phenomenology in his own philosophy. In his work titled *Being and Time* of 1927, Heidegger explained how Husserl's view (of man as a **subject** confronted by, and reacting to, **objects**) broke down in certain circumstances, and how the existence of objects only has any real significance and meaning within a whole social context (what Heidegger called "being in the world"). Heidegger argued that 'existence' was inextricably linked with time, and that being is just an on-going process of becoming. This line of thinking led him to speculate that we can only avoid what he called **inauthentic** lives (and the anxiety which inevitably goes with such lives) by accepting how things are in the real world andresponding to situations in an individualistic way. In his later work, Heidegger went so far as to assert that we have essentially come to the end of philosophy, having tried out and discarded all the possible permutations of philosophical thought.

Jean-Paul Sartre, along with his French contemporaries, Albert Camus, Maurice Merleau-Ponty and Simone de Beauvoir was considered the main figurehead of the Existentialist movement. Sartre, a confirmed Atheist and a committed Marxist and Communist for most of his life, adapted and extended the work of Kierkegaard, Nietzsche, Husserl and Heidegger, and concluded that "existence is prior to essence". This is because of his believe that humans are thrust into an unfeeling, godless universe against our will, and that we must then establish meaning for our lives by what we do and how we act. To Sartre, we always have choices (and therefore freedom) and that, while this freedom is empowering, it also brings with it moral responsibility and an existential dread (or "angst"). According to Sartre, genuine human dignity can only be achieved by our active acceptance of this angst and despair.

In addition to Existentialism, three main philosophical schools dominated Continental Philosophy in the second half of the 20th Century. One of the three schools is Structuralism, which is the broad belief that all human activity and its products (even perception and thought itself) are constructed and not natural, and that everything has meaning only through the language system in which we operate. The second school is the Post-Structuralism, which is a reaction to the first school- Structuralism. This second school Post-Structuralism stresses the culture and society of the reader over that of the author. The third school is called Post-Modernism. It is an even less well-defined field, marked by a kind of "pick'n'mix" openness to a variety of different meanings and authorities from unexpected places, as well as a willingness to borrow unashamedly from previous movements or traditions.

Michel Foucault the French radical philosopher has been associated with all of these movements. Much of his work are on language and, among other things, he has looked at how certain underlying conditions of truth have constituted what was acceptable at different times in history, and how the body and sexuality are cultural constructs rather than natural phenomena. Although sometimes criticized for his lax standards of scholarship, his ideas are nevertheless frequently cited in a wide variety of different disciplines.

Last but not the list that should also be mentioned is Deconstructionism (often called just Deconstruction). This is a method that focuses on literary criticism that questions traditional assumptions about certainty, identity and truth, and looks for the underlying assumptions (both unspoken and implicit), as well as the ideas and frameworks, that form the basis for thought and belief. The method was developed by the Frenchman Jacques Derrida (who is also credited as a major figure in Post-Structuralism). His work is highly cerebral and self-consciously "difficult", and he has been repeatedly accused of pseudo-philosophy and sophistry.

4.0   Conclusion

The unit examined some of the most influential philosophical groups or movement that dominates the philosophical discourse in the 19th and 20th century. It was pointed out that most of these movements were from but not so restricted to America and England, where philosophical traditions like Analytic and continental philosophy, Pragmatism, Logical positivism and many more are thriving. But we should be quick to say that in the contemporary time, African Philosophy has also come of age. But, our discussion of African philosophy shall be reserved for the next unit.

5.0   Summary

To recap what you have learned in this unit, click on the video below or copy the link and paste on a web browser. The video is a summary of what you have read in this unit. You could also click on the audio version and listen. You can also download them and play offline.

Video   https://youtu.be/mlXTa5PY36I

Audio

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Unit 5   The Idea of African Philosophy

Contents

1.0   Introduction

The search for African philosophy is dominated by the need for a new identity authentic to Africans and distinct from those imposed by western culture and tradition. Before now the beliefs of the Western philosophers was that two species of human beings exist. On one hand were the Westerners, who are seen and are believed to be the only set of human beings who could reason. And on the other side were the Africans, who lacks ideas and whom rational thought was considered impossible. For instance, some Western scholars like Hegel believed that Africans are people against which all reason could be contrasted, some believe even if Africans can reason, it is not as developed as what exists in the Western society. Since Africans are a special specie of human race, Africans cannot philosophize, understand or demonstrate any form of philosophical enterprise. This Unit is therefore an examination of these Western opinion on African philosophy with a view to show the meaning of African philosophy.

2.0   Intended Learning Outcomes (ILOs)

By the end of this unit, you will be able to:

- Analyse the philosophical existence in every culture
- Evaluate the idea of African philosophy in human believe.

3.0   Main Content

3.1   Meaning and nature of African philosophy

First begin by asking yourself some questions such as; were our forbearers' non-thinking creatures? Are we still thinking? Do we have a school of thought that equips our policy makers, guides our scholars and provide guidance for our development? Or are we just living on borrowed thought and precepts? All these questions arouse as a result of the perception of the Westerners about us and their declaration of our lack of philosophical truth like them.

You need to know that the Western civilization is based on the philosophy of the West- this philosophy supposedly emanates from Greece specifically Athens: men like Socrates, Plato, Aristotle, Pericles, Cicero, Archimedes and modern ones like Eistein, Heideggar, Hobbes etc. have contributed not only to the philosophical thought of the west, but laid the foundation of her science, technology and art. These thinkers provided valuable answers to issues wide ranging from morality, government, politics, religion and war. In universities across Nigeria, students are taught Western Philosophy, but what is fundamentally lacking is an understanding of their own philosophy. But do we Africans have philosophy? If we do, what is our philosophy, how do we describe or define African philosophy.

African philosophy can be formally defined as a critical thinking by Africans on their experiences of reality. Nigerian born Philosopher K.C. Anyanwu defined African philosophy as "that which concerns itself with the way in which African people of the past and present make sense of their destiny and of the world in which they live." If we accept this definition, then African philosophy is a critical reflection on African leaderships in the administration of their duties towards their citizens; the ethical life style. It will also provide possible solutions to the problems experienced in African governance, as we have observed about Western philosophy.

According to Joseph I. Omoregbe a philosopher is one who attempts to understand the world's phenomena, the purpose of human existence, the nature of the world, and the place of human beings in that world. Omoregbe believes that this form of natural philosophy is identifiable in Africa even before individual African philosophers can be distinguished in the sources.

3.2   Nature of African philosophy

African refers to sub-Sahara African and by simple definition Philosophy is thinking – to think, man requires a language. Thus, the postulation of early Western sojourners that once leaved in various parts of the African continent to have restricted to writing as the only means by which thinking is guaranteed. Writing is not a prerequisite for thinking. Aside this position and as noted in the history of philosophy, certain societies in the ancient time also

existed and the process of thinking was noted especially during the Pre-Socratic period of the development of philosophy.

As in most Western cultures, thinkers in Sub-Sahara Africa constituted a special class of people that sought to preserve their works in various forms and did so mostly through oral tradition. Morality, religion and politics were a major concern. But perhaps, due to the nature or peculiarity of their environments while the European philosopher was primarily occupied with issues of politics and morality his counterpart in Africa was more interested and concentrated in religion and morality. Thus, common to the tradition is the issue morality, which seems to be the core of philosophy. Morality which can simply be described as the question of what constitutes good or bad is an essential ingredient of any useable school of thought.

Furthermore, philosophy functions on three main attributes in a society. These attributes are: Culture, Civilization and Language. Since Africa have a language, civilization and culture the question we should then ask is, whether there were reasons behind our culture or not? If the answer is yes, the other questions that needs to be considered are: What did the definite departure point for the thinking African? Is there a uniform body of thought called African Philosophy? It is the last question that always generate arguments whenever attempt is made to justify the existence of African Philosophy. But then, all the arguments end up in revealing the multiplicity of religion, languages, cultures, civilizations various African society and as such what eventually become African philosophy in the contemporary time. There is multiplicity of ideas that results from the differences in customs, civilization and tradition but this cannot suggest that there is no African philosophy.

At the heart of most African Philosophy is the concept of communalism which is not socialism, communism, capitalism nor the other "isms" of the West. Most of African philosophies even though not written are encoded in wise sayings, proverbs which in the words of our fathers are the yam with which words are eaten. Take for instance the wise words of the people to the east of the Nigeria: that "if a child washes his hands, he shall eat with kings". This word epitomizes the fundamental philosophy of the Igbo people to the east of the Niger. Indeed, it shows the republican and egalitarian nature of that society that believes in absolute meritocracy: if the same saying were postulated in the Yoruba land it will be utter rubbish. In the traditional Yoruba land, royalty then age and then merit (wealth and accomplishment) is the order of precedence. There are thousands and thousands of such proverbs that epitomizes the beauty of the traditionalist approach to African thoughts.

It should be noted here that the disagreement on whether there is African philosophy, or the possibility of its existence also persist among African scholars as well, until now that we have professional African Philosophers, who now research and teach African philosophy in African Universities. One of the most basic disagreements among scholars concerns what exactly the term 'African' qualifies: the content of the philosophy and the distinctive methods employed, or the identities of the philosophers. On the former view, philosophy counts as African if it involves African themes such as perceptions

of time, personhood, space and other subjects, or uses methods that are defined as distinctively African.[2] In the latter view, African philosophy is any philosophy produced by Africans or by people of African descent, and others engaged in critiques or analysis of their works.

3.3   Currents in African Philosophy

3.3.1 Ethno- Philosophy

Ethno-philosophy has been used to record the beliefs found in African cultures. Such an approach treats African philosophy as consisting in a set of shared beliefs, values, categories, and assumptions that are implicit in the language, practices, and beliefs of African cultures; in short, the uniquely African word view. As such, it is seen as an item of communal property rather than an activity for the individual.

One proponent of this form, Placide Tempels, argued in *The Bantu Philosophy* that the metaphysical categories of the Bantu people are reflected in their linguistic categories. According to this view, African philosophy can be best understood as springing from the fundamental assumptions about reality reflected in the languages of Africa.

Another example of this sort of approach is the work of E. J. Algoa a Nigerian who argues for the existence of an African Philosophy of History stemming from traditional proverbs from the Niger Delta in his paper "An African Philosophy of History in the Oral Tradition." Algoa (Babalola: 1998**)** argues that in African philosophy, age is seen as an important factor in gaining wisdom and interpreting the past. In support of this view, he cites proverbs such as "More days, more wisdom", and "What an old man sees seated, a youth does not see standing." Truth is seen as eternal and unchanging ("Truth never rots"), but people are subject to error ("Even a four-legged horse stumbles and falls"). It is dangerous to judge by appearances ("A large eye does not mean keen vision"), but first-hand observation can be trusted ("He who sees does not err"). The past is not seen as fundamentally different from the present, but all history is contemporary history ("A storyteller does not tell of a different season"). The future remains beyond knowledge ("Even a bird with a long neck cannot see the future"). Nevertheless, it is said, "God will outlive eternity." History is seen as vitally important ("One ignorant of his origin is nonhuman"), and historians (known as "sons of the soil") are highly revered ("The son of the soil has the python's keen eyes").

In the same, there are several Yoruba proverbs that points to Metaphysics, Epistemology, Ethics, and so on. For instance, (prostration is not good conduct; one's intention exists in the mind already), which points to appearance and reality. (It is not understanding the *Ifa* message that makes one to look up, since the *Ifa* is not on the ceiling), this proverb emphasis the distinction between opinion and knowledge. There is the ethical proverb that emphasis sincerity and the need to keep promise made - (He who borrows one thousand, two hundred and refuses to pay has blocked one thousand, four hundred). However, these arguments must be taken with a grain of

cultural relativism, as there are so many cultures in Africa, with patriarchies, matriarchies, monotheists and traditional religionists among the population, and as such the attitudes of the two-society mentioned above cannot be taken to represent the whole of Africa.

Leopold Sedar Senghor also embraced this approach. His view in support of his approach is embodied in his concept *Negritude.* In the *Negritude,* he argued that the distinctly African approach to reality is based on emotion rather than logic, works itself out in participation rather than analysis, and manifests itself through the arts rather than the sciences. Other African philosophers who upholds the ethno-philosophy approach are John Mbiti, Cheikh Anta Diop and Mubabinge Bilolo, etc.

It is important to know that this approach has been criticised. The critics of this approach argue that the actual philosophical work in producing a coherent philosophical position is being done by the academic philosopher, and that the sayings of the same culture can be selected from and organised in many ways to produce very different, often contradictory systems of thought (Odimegwu etal': 2009).

3.3.2 Sage Philosophy / Philosophical Sagacity

Philosophical sagacity also known as Sage philosophy is a sort of individualist version of ethno-philosophy, in which one records the beliefs of certain special members of a community. It has also been viewed as midway between the claims of ethno-philosophers and the professional school. According to Odera Oruka, Sage philosophy is the expressed thoughts of wise men and women in any given community and is a way of thinking and explaining the world that fluctuates between popular wisdom (known communal maxims aphorisms and general common-sense truths) and dialectic wisdom, an expounded wisdom and a rational thought of some given individuals within a community. The position of this approach is that, although most societies demand some degree of conformity of belief and behaviour from their members, a certain few of those members reach a particularly high level of knowledge and understanding of their cultures' worldviews; such people are sages. In some cases, the sage goes beyond mere knowledge and understanding to reflection and questioning—these become the targets of philosophical sagacity (Odimegwu: 2009).

This approach wants whatever that will go by the name African philosophy must meet certain criteria which other philosophies like Western, Chines, Indian, etc. already have. One of such criteria is not to consider it as a communal enterprise but rather it should be seen as the work of an individual. This may explain why Odera Oruka the contended that philosophy is never a community patrimony which, as such, belonged to all members of the society. Philosophy as far as this approach is concerned is an individual enterprise. It is the conscious effort of an individual philosopher as he contemplates the universe and its reality. Thus, we can speak of individual philosophy as we speak of the philosophy of Plato, Aristotle, Hegels, etc.

One of the criticisms of this approach is that not all reflection and questioning is philosophical; besides, if African philosophy were to be defined purely in terms of philosophic sagacity, then the thoughts of the sages could not be African philosophy, for they did not record them from other sages. Critics argued further that the problem with both ethno-philosophy and philosophical sagacity is that there is surely an important distinction between philosophy and the history of ideas, although other philosophers consider the two topics to be remarkably similar(Okolo: 1990). The argument is that no matter how interesting the beliefs of a people such as the Akan or the Yoruba may be to the philosopher, they remain beliefs, not philosophy. To call them philosophy is to use a secondary sense of that term, such as in "my philosophy is live and let live.

3.3.3 Professional philosophy

Professional philosophy is usually identified as that produced by African philosophers trained in the Western philosophical tradition, that embraces a universal view of the methods and concerns of philosophy. Those philosophers identified in this category often explicitly reject the assumptions of ethno-philosophy and adopt a Universalist worldview of philosophy that requires all philosophy to be accessible and applicable to all peoples and cultures in the world. Professional philosophy insist that ethno-philosophy does not possess the ability to be critical which, is the most important characteristic of philosophy. To them artefacts of ethno-philosophy, myths, proverbs, folklores and indeed all the artefacts of ethno-philosophy are not criticized. That even if they entail wisdom such wisdom is not philosophic in nature.

It is emphasized by a member of the group that it is the philosophical texts, that is, writings of these professionally trained philosophers that can only qualify as African philosophy. 'African philosophy equals African literature. That is, the whole of philosophical texts produced by Africans'.

3.3.4 Nationalist and ideological philosophy

Nationalist and ideological philosophy might be considered a special case of philosophic sagacity, in which not sages but ideologues are the subjects. Alternatively, it has been considered as a subcategory of professional political philosophy. In either case, the same sort of problem arises with retaining a distinction between ideology and philosophy, and also between sets of ideas and a special way of reasoning. Examples include Nyerere's *U' jamaa*, Senghor's *Negritude. Nkrumaism,* etc.

3.3.5 The Hermeneutic Philosophy

This is a philosophical current which insists that philosophy in Africa should be hermeneutic in nature. Hermeneutics is a theory and method of interpretation, especially, the interpretation of philosophical texts. This current was suggested by a Nigerian philosopher Theophilus Okere (1983) after which

other philosophers like Tsenay Serequeberhan took the challenge (Makumba; 2007).

This philosopher does not want to be engaged in the debate like what ensued between the ethno-philosophers and the professional philosophers. To this current, myths, folklores, proverbs etc. are no philosophy. Philosophy is and will remain a conscious effort of a critical individual. However, the non-philosophy could form the philosophy of any race. It is from non-philosophy that philosophy arise (Oguejiofor: 2001). The emergence of philosophy from non-philosophy is made possible through the process of hermeneutics, which is interpretation. Thus, philosophy arises from non-philosophy when philosophers reflect on symbols of culture like myth, folklore and proverbs of the people and interpret them critically. It is therefore correct to say that the culture of Africa is of some relevance in the emergence of African philosophy.

3.3.6 Literary/ Artistic Philosophy

Literary and Artistic philosophers recognized that there are some African literary scholars whose writings reflects philosophical issues in their essays. These scholars are seen to be critical of the African condition in their works and they try to point out what existence entails in an ideal African situation. Scholars like Achebe, Soyinka, Okotp'iBtek and others are therefore recognized as been philosophical.

3.4 The Historical Trend

This idea was initiated by Oguejiofor (2000) he contends that the idea of philosophy has been in existence in Africa even before the development of the Greek philosophy. The argument then is that it is the African philosophy, through the Egyptian connection, that influenced the emergence of philosophy in Greece. The implication of this argument therefore, is that there would not have been what is called Geek philosophy today if African philosophy did not exist. Greek philosophy to them is nothing but child of Egyptian philosophy which is African.

Moreover, we can identify the influence of the Egyptian philosophy on Greek philosophy in two ways. First is from the point of the military invasion of Egypt by the Greeks during which the Egyptians were conquered. At this time all the works of the Egyptian philosophers were appropriated to themselves. The second has to do with the view that the people who we today referred to as Greek philosophers only repeated what they learnt at the feet of the great Egyptian philosophers who taught them. More so that Greek philosophers like Pythagoras, Aristotle and some others were trained in Egypt.

4.0 Conclusion

The contention of whether there is African philosophy or not has been laid to rest given the various African philosophers' views that have expound in this unit. Although, some positions may be contestable, however given the level of

the growth of African philosophy and its waves in the contemporary time the philosophy is assuming the same status with the western philosophy.

5.0   Summary

To recap what you have learned in this unit, click on the video below or copy the link and paste on a web browser. The video is a summary of what you have read in this unit. You could also click on the audio version and listen. You can also download them and play offline.

Video   https://youtu.be/deQ-k-zd7zg

Audio

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Discussion Forum

State five parables in your context and give the philosophical analysis. Post on the forum page.

Module 3   Logic

Introduction

This third module is made up of five (5) study units. (See below). It is a great opportunity for you to know about the definition and scope of logic (unit 1). This module will also teach you some basic concepts in logic such as statement/proposition, premise, inference, conclusion, valid/invalid argument, predicate, major, minor and middle term (unit 2 and 3). The fourth unit will teach you the meaning of inductive and deductive argument and how to identify them; how a deductive argument can be said to be valid or invalid, sound or unsound, and, how an inductive argument can be said to be weak or strong. The fifth and last unit will define language and state some of its functions.

Unit 1   Definition and Scope of Logic
Unit 2   Logic's Vocabulary I
Unit 3   Logic's Vocabulary Ii
Unit 4   Valid, Invalid, Deductive and Inductive Arguments
Unit 5   Language and Its Functions

Unit 1   Definition and Scope of Logic

Contents
1.0   Introduction
2.0   Intended Learning Outcomes (ILOs)
3.0   Main Content
        3.1   Definition of Logic
        3.2   Logical processes
        3.3   The Relevance of logic
        3.4   Logic and other disciplines
        3.5   Classification of logic
4.0   Conclusion
5.0   Summary
6.0   References/Further Reading

1.0   Introduction

The meaning and nature of logic as well as its relevance is crucial to the discussion of logic. Although, it will require more effort from you, it remains nevertheless the best channel that will help you to learn how to think critically. Thus, in this study, you will learn the meaning nature and functions of logic, the various processes of logic and their classifications, common errors in

reasoning that you would have to avoid, and effective techniques for evaluating arguments.

2.0   Intended Learning Outcomes (ILOs)

By the end of this unit, you will be able to logic in philosophical thoughts.

3.0   Main Content

3.1   Definition of logic

Let us begin by considering the origin of the word 'logic'. Etymologically, the word 'logic' is derived from the Greek word *logike,* meaning "possessed of reason, intellectual, dialectical, argumentative" (Fadahunsi & Adegboyega, 2010:94). Another account on the historical origin of logic says that it is from the word *logos. Logos* is an 'expression of reason or order in words or things, principle, mathematical ratio, thought or simply 'word' (Ogbinaka, 2000:187). In the history of philosophy, Parmenides was the first ancient Greek philosopher that developed some logical principles, and these are the principle of identity and the principle of non-contradiction. His logical construct of 'what is, and what is not' gives rise to the Aristotelian conception of 'Truth functional logic' (ibid). Although, he did not label his inferential analysis 'logic' but we can say that his metaphysical postulations provided the basis upon which Aristotelian and modern logic developed.

Having discuss a little on the origin of logic, it is important to point out that unlike philosophy itself, logicians seem to agree on what logic means or what it is about. Although, logic has been variously defined by different scholars. But then all this definition points towards the same subject matter of logic. For instance, Aristotle sees logic as the scientific study of fundamental principles of human thoughts and the laws that underline valid thought processes and discourse (Uduigwomen & Ozumba, 1995:155). Copi defines logic as the study of the methods and principles used in distinguishing good (correct) from bad /incorrect reasoning (1972). On the other hand, Nancy sees logic "as the science that appraises reasoning as correct or incorrect" (1990:3.4). Kahane on his part defines logic as "an attempt to distinguish between correct (valid) from incorrect (invalid) arguments" (1968:2). For Moses Oke, logic primarily "is the study of methods and principles used to assess the strength of the evidential link between the premises (supporting reasons) and conclusion (Claims) or arguments" (Oke, 1999:165-166). Basically, you can notice that in the above definitions the words which stand out clearly are reasoning and argumentation. Therefore, we can say that the study of logic is the study of correct and incorrect reasoning and arguments or that logic is the science of reasoning.

3.2   Logical Processes

Simple apprehension, judgment, reasoning and argument constitute what we call logical processes.

Simple Apprehension

Simple apprehension is the act by which the mind forms the concept of something without affirming or denying anything about it. For instance, if I say "look at that Ship" and stop there. This is a simple apprehension because I have not said anything about the Ship. I have neither affirmed nor denied anything about the Ship. Some philosophers and logicians have denied the possibility of a simple apprehension. According to them, there is nothing like simple apprehension.

Judgment in logic:
Judgment is known as the act by which the mind affirms or denies something of something else. For instance, if I proceed to say "look, that ship is big" then I have made a judgment by affirming the "bigness" of the Ship.

Reasoning and Argument
Reasoning and argument constitute the third and last stage of any logical process. It is also known as the act by which the mind passes from one, two or more judgments to a further judgment distinct from the preceding ones but implicitly contained in them. Besides simple apprehension and judgment, logic is strictly concerned with reasoning and argument.

3.3   The Relevance of Logic

Logic is of immense relevance so, it is very important to study it. It is the only discipline that strictly lays down the rules which the mind must follow to arrive at truth and thereby minimize if not totally eradicate error. In other words, logic works as a guide through the critical thinking process. As a discipline it will also equip you with the skills needed for effective and forceful presentation of your views. It forces people to think about the outcome of propositions before they ask questions. You need to know that until a beneficial question is discovered it is impossible to start the critical thinking process. Critical thinking involves asking many questions. The study of logic helps one to reason well by illuminating the principle of correct reasoning, explaining them, justifying them and exhibiting their effective use (Copi and Cohen, 2000: xiii). It helps us to avoid claims for which we do not have enough reasons. It help us to identify arguments where we might otherwise just see a set of unconnected or loosely related statement (Oke, 1998:17) Bello (2000:vii), describes the importance of logic when he asserts that a training in is an important one for society like ours which is aspiring to democratic life, because in a democratic society, persuasion, rather than coercion or force, is the method of winning others to one's point of view and in the business of persuading others, arguments are important. But you must know that to logic is sometimes perceived by its critics as a subject that has no practical use. This is not true. The abstractness of logic does not make it irrelevant at all. Indeed, it is not contradictory to say that logic is to life what oxygen is to life. We all need logic in one way or the other, in one form or another. We all need logic to communicate and interact in the society. Even to be illogical presupposes a logical action or decision.

3.4   Logic and Other Disciplines

Logic is an important area of philosophy. It is the tool with which philosophers performs their task of philosophizing. There is no way you can determine correct or incorrect reasoning without constructing arguments. And logic, being that branch of philosophy that draws the boundary between correct or incorrect reasoning, is very essential to philosophers. Therefore, it is not even an exaggeration to claim that logic is to philosophy what mathematics is to the sciences. Logic is even at the background of mathematics. Apart from philosophy, logic is important to other disciplines as well. Any good sociologist, historian, lawyer, politician, physician and so on, requires the services of logic like philosophy. So long as there is reason for arguments, classification and ordering of things, logic is always needed. As earlier stated, it is only logic that can bring light, the general laws and cannons to which reason must conform. Otakpor passionately terms logic as the "Queen of all disciplines" (1985:85-98). To him, it is obvious that "no scientist, historian, lawyer, engineer, etc. can afford to present his/her work in a disorderly manner and expect to be taken seriously because to be logical means to be orderly" (2000:5).

3.5   Classification of Logic

Traditionally, logic is divided into two main branches namely **formal** and **informal** logic, however, the study of logic has grown beyond these two to include prepositional logic, deductive logic, inductive logic, mathematical logic, Boolean logic fuzzy logic, modal logic, deontic logic and epistemic logic.

Formal Logic

Formal Logic is the study of inference with purely formal content, where that content is made explicit. Formal logic is often used as a synonym for symbolic logic. It is usually described as the logic of symbols and implication.

Informal Logic

This is the study of natural language arguments. The study of fallacies is an important branch of informal logic. The dialogues of Plato (Plato, 1976) are a good example of informal logic.

Mathematical Logic

This refers to two important areas of research and they are the application of the techniques of formal logic to mathematics and mathematical reasoning, and the other one is in the other direction, the application of mathematical techniques to the representation and analysis of formal logic. It is an extension of symbolic logic into other areas, to the study of model theory, proof theory, set theory, and recursion theory.

Boolean logic

This type of logic deals with the basic operations of truth values.

Deductive logic

It is concerned with inferential reasoning that follows necessarily from given premises. An inference is deductively valid if and only if the premise(s) follows from the conclusion or if there is no reason for us to accept the premises as true and reject the conclusion. In order words, the conclusion is derived from the premises or that the premises provides adequate support for the conclusion to hold.

Inductive Logic

This is the opposite of deductive logic. It is a logical process where a reliable generalization from observations is derived. Inductive logical evaluation require us to define a reliable generalization of some set of observations. To provide such definition it may take the form of mathematical models of probability. The process is such that the conclusion in any inductive reasoning is not supported in absolute term by the series of observations made.

Prepositional Logic

This form of logic is concerned with testing the truth-value validity of propositions through logical rules and principles. These includes, Truth Table Analysis, Truth-value Tree Analysis, Formal Proof of Validity and Deductions.

Fuzzy Logic

This is related to fuzzy set theory in mathematics. It simply says that truth values are not limited to truth or falsity. In this type of logic, what we have are: 'True';'False'; 'Rather false'; 'Rather true'; 'Not very true'; Not very false'; 'More or less False'; 'More or less true' (Alozie, 2003:17).

Modal Logic

Modal logic deals with the phenomenon that sub-parts of a sentence may have their semantics modified by special verbs or modal particles. For example, "We go to the games" and perhaps "We will go the games". More abstractly, we might say the modality affects the circumstances in which we take an assertion to be satisfied. According to Dele Balogun in Fadahunsi and Adegboyega (2010:102), the logical modalities of modality includes deontic and epistemic logic.

Epistemic Logic

This is the logic of knowledge and belief. It focuses on propositional knowledge and provides insight into the properties of individual knowers which has provided a means to model complicated scenarios involving groups

of knowers and has improved our understanding of the dynamics of inquiry. You need to know that this form of logic has many applications in computer science and economics.

Deontic Logic

This type of logic directly involves topics of considerable practical significance such as morality, law, social and business organizations (their norms, as well as their normative constitution), and security system.

4.0   Conclusion

There are different types of logic. These logics help in critical thinking and analysis.

5.0   Summary

To recap what you have learned in this unit, click on the video below or copy the link and paste on a web browser. The video is a summary of what you have read in this unit. You could also click on the audio version and listen. You can also download them and play offline.

Video   https://youtu.be/yPRSS6APMq0

Audio

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Unit 2   Logic's Vocabulary I

Contents

1.0   Introduction

This study unit introduces you to some basic concepts' logicians use. The unit will focus particularly on statement, proposition, premise, conclusion and inference.

2.0   Intended Learning Outcome (ILO)

By the end of this unit, you will be able to demonstrate the usage of logic vocabulary in expressing human behaviour.

3.0   Main Content

3.1   Statement and Proposition

There is no difference between a statement and a proposition in logic. The two terms are synonymous and thereupon interchangeable. However, logicians differentiate between statement and sentence. To them, even though the two terms are interwoven, they are not actually the same. For instance, in everyday English, a sentence is a set of words expressing a statement, a question or a command. Thus, whenever a sentence expresses a statement without question or command it can also be called logical statement. It should also be clear to you that in ordinary English, every logical statement is a sentence. But, as stated earlier not every sentence is a logical statement. It is only when a sentence can either be denied or asserted that is qualified as logical statement or proposition. For example, the sentence "Nigeria is rich" can be asserted as follows: yes Nigeria is rich. It can also be denied by stating as follows: No, Nigeria is not rich. Thus, the sentence "Nigeria is rich" because it can be asserted and can also be denied, is a logical statement or proposition. Any sentence expressing questions, commands etc. does not qualify as logical statement or proposition.

3.2 Premise

Premise is also one of the basic concepts in logic. It is known as evidence or reason. Basically, a premise refers to that proposition or statement, within an argument, which provides support for or grounds for asserting the conclusion of that argument. (Meneye Eze, 2003:18). In a valid argument, the premises imply the conclusion. Premise and conclusion are relative terms. Conclusion does not necessarily mean the last sentence. The premise in an argument A can be the conclusion in argument B and vice versa.
For example:

All men are mortal
Abiola is a man
Therefore, Abiola is mortal.

In this example, the first two statements or prepositions are the premises while the lastone is the conclusion.

Premise – Indicators

These are words and expression that indicate the premises within an argument. The following are some of the premise indicators. "since", "for", "as", "because", "in as much as", "for the following reason (s)", "given that", "in addition", "as shown by", "beside", etc… When a statement follows any of the listed words that statement is a premise. For example, "since the Vice-Chancellor is in School, there will be light today", in any argument, the statement or proposition that comes after the word "because" is usually a premise for instance:

1. "There will be light today, because the Vice–chancellor is in school"

2.   "Adamu will pass the test since he is ahead of his colleague in the exercise, beside, he is
     very brilliant".

Whenever any of the above listed words is used, it simply means that the sentence that follow is the premise of the argument. For example: there will be light today for, the Vice-Chancellor is in School. You must know that the list of premise locators cannot be exhausted. Those listed here are just few for you to know how to identify premise or premises in any argument.

3.3 Conclusion

In logic, conclusion is that proposition, in an argument, that is arrived at on the strength or basis of the information provided by the premises. Simply put, conclusion means to come or brings to an end. You should always remember that in any valid argument, the conclusion follows from the premises. For instance:

1. All philosophy students are wise

Aina is a philosophy student
Therefore, Aina is wise

2. Abuja is in Nigeria
   Nigeria is in Africa
   Therefore, Abuja is in Africa

Here, the third preposition in each of the two examples "Aina is wise" and Abuja is in Africa, are conclusions in each of the argument respectively. They are arrived at based on the information provided by the first two prepositions, which are the premises in the respective arguments.

Conclusion – Indicators

There are some expressions and words that function to indicate the conclusion within a passage. These are generally called CONCLUSION – INDICATORS. For example: "hence", "consequently', "therefore", "it follows that", "accordingly", "in sum", "for these reasons", "we may conclude", "we may infer", "thus", "so" etc. whenever any of these words begins a statement or proposition, it is obvious that such proposition is a conclusion.

3.4   Inference

In logic, an inference is the process by which one proposition is arrived at and affirmed based on one or more other propositions accepted as the starting point of the process (Copi and Coker, 2003: 6). It is mainly a mental activity of reaching a conclusion from a number of premises. For example:

All footballers are strong
Ronaldo is a footballer
Therefore, Ronaldo is strong

Here you can see that the conclusion "Ronaldo is strong" is inferred from the first and second
premises of the argument, that is it is derived from the first and second premises of the argument.

4.0   Conclusion

Statement and Proposition; premise, conclusion and inference are some of the basic concepts logicians use. However, there is a difference between statement/proposition and sentence.

5.0   Summary

To recap what you have learned in this unit, click on the video below or copy the link and paste on a web browser. The video is a summary of what you have read in this unit. You could also click on the audio version and listen. You can also download them and play offline.

Video   https://youtu.be/Og2Eq4LdhUU

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Unit 3   Logic's Vocabulary II

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4.0   Conclusion
5.0   Summary
6.0   References/Further Reading

1.0   Introduction

This study unit is the continuation of the preceding one (unit 2). It intends to introduce you to some basic concepts logicians use. But it focuses particularly on the definition, validity and invalidity of an argument; the subject or predicate term and major, minor and middle terms.

2.0   Intended Learning Outcomes (ILOs)

By the end of this unit, you will be able to:
- Differentiate between valid and invalid arguments
- Demonstrate logical skills arguments.

3.0   Main Content

3.1   Argument

An argument is a group of propositions that can be structured into two parts that ispremise(s)', which is also known as 'reason' and 'conclusion' which can also be known as 'claim'. The premises which are some of the statements in an argument is said to provide reason(s) for which the conclusion is affirmed. The conclusion which is part of the statements in an argument is affirmed based on the other statements, which are called premises. At least two propositions or statements form an argument otherwise it is not argument. But not all the statements are arguments. Some non-argumentative uses of statements such as in reports, illustration, explanatory statements, conditional statement etc…are sometimes confused with arguments.

As earlier stated, at least two statements or propositions form an argument. In the case of two propositions only one must be the premise while the other must be the conclusion. For instance:

"As soon as Ronaldo scores the second goal, the match ended."

Here the conclusion is "the match ended" while the premise is "Ronaldo scores the second goal". The expression "as soon as" stands as premise – indicator. When more than two propositions or statements form an argument, one must be a conclusion while the others must be premises Example;

All women are caring
Ada is a mother
Therefore, Ada is caring

You should always remember that no matter how many premises form an argument, an argument can never have more than one conclusion.

3.2   Valid and Invalid Arguments

An argument is said to be valid when the conclusion of that argument is derived from or follows from the premises. In other words, in a valid argument, it is necessary that if the premises are true, then the conclusion is true. Thus, in any valid argument, there is an absolute connection between the premises and the conclusion. In any valid argument, it is impossible for the conclusion to be false when the premises are true, for example:

"All Americans are proud Peter is an American Therefore, peter is proud."

What matters most here is the link between the premises and the conclusion rather than on the truth or falsity of the statements comprising the arguments, Example:

"All birds have beaks. Some cats are birds. So, some cats have beaks."

Here you can see that although the second premise is false, the argument is still valid. Because when the premises are assumed to be true the conclusion must be true also. In logic proper, an argument can still be valid when all the premises are false. For example:

"All men are monkeys. All monkeys are politicians. So all men are politicians."

However, it is not also advisable to hastily conclude that an argument is valid simply because its premises are all true. Example:

"Some Nigerians are bad. Ukwa is a Nigerian. Therefore, Ukwa is bad."

An argument can have true premises and true conclusion but may not necessarily be valid. Because sometimes, the premises may not support the conclusion in the right way. "Are the premises actually true?" "Is the argument valid?" These are two distinct and fundamental questions in logic. In logic proper, validity only preserves truth but cannot preserve falsehood. In all, you must know that a valid argument is concerned with the structure of the argument and not the content. An invalid argument is the opposite of valid

one. But invalid argument has a peculiar characteristic: for instance: it is not necessary that if the premises are true, then the conclusion is true.

In conclusion, any valid argument with all premises true is a sound argument. Any valid argument with at least one false premise in an unsound argument. All invalid arguments are unsound.

3.3 Subject or predicate Term

Remember that we can talk either of the subject term of a proposition or the subject term of a syllogism or of an argument. But always remember that in logic proper, you must talk of the subject term of a proposition. Syllogism is more than a preposition syllogism is an argument that contains and must contain three propositions, two of which are called the premises and one the conclusion. A typical case of a syllogism is:

All Black women are beautiful
Cacy Ngamen is a black woman
Therefore, Cacy Ngamen is beautiful

In this syllogism "Cacy Ngamen is beautiful" is known as conclusion and it necessarily follows from the first and second prepositions, which serve as premises of the syllogism. You can see that a whole syllogism can neither be asserted nor denied. But the sentence "Cacy Ngamen is beautiful" which stands here as a preposition can be asserted or denied. As the subject of the proposition it is called the subject term so "Cacy Ngamen is beautiful" is the subject term of the above proposition.

As it is with the subject term, so it is with the predicate term. The logician does not talk of the predicate term of an argument or syllogism. In logic, we talk of the predicate term of a preposition. For instance, in the preposition 'Cacy Ngamen is beautiful," the predicate of the preposition is 'beautiful". In conclusion, you should always remember that in logic proper, subject and predicate term are associated with individual propositions only. It does not matter whether that individual proposition is a premise or a conclusion.

3.4 Major, Minor and Middle Terms Major Term

Major, minor and middle terms are all parts of a syllogism. But unlike predicate or subject term as seen earlier, a logician can never talk of major, minor or middle term of a reposition. For instance, in an argument or in a syllogism, the predicate term of the conclusion becomes automatically the major term of the syllogism. For example:

All Cameroonians are footballers.
Etoo is a Cameroonian.
Therefore, Etoo is a footballer.

"footballer" is the predicate term of the conclusion, in the above example. But it automatically becomes the major term of the syllogism. So, "footballer" is the major term of the syllogism. You should always remember also that in

logic, the premise containing the major of the syllogism is referred to as the major premise of that syllogism. Thus, in the above example, the premise "all Cameroonians are footballers", which contains the major term of the syllogism (footballer) becomes the major premise of the syllogism, because it contains the major term of that syllogism.

Minor term

As it is with the major term, so it is with the minor term. That is, the logician does not talk of the minor term of a proposition, but rather of the minor term of a syllogism. Always remember that in any syllogism, the subject or the subject term of the conclusion becomes automatically the minor term of that syllogism, for instance:

All Cameroonians are footballers.
Etoo is a Cameroonian.
Therefore, Etoo is a footballer.

In the above example, Etoo is the subject term of the conclusion and it automatically becomes the minor term of that syllogism. So Etoo is the minor term of the above syllogism. In logic, the premise that contains the minor term of the syllogism is called the minor premise of that syllogism. Thus, in the above example the premise "Etoo is a Cameroonian" which contains the minor term of the syllogism (Etoo) is called the minor premise because it contains the minor term of that syllogism.

Middle Term

As it is with the major and minor terms, so it is with the middle term. That is, the logician does not talk of the middle term of a proposition, but rather of the middle term of a syllogism. Always remember that in any syllogism, the term that occurs in both premises but does not occur in conclusion in called the middle term of that syllogism. For instance:

All Cameroonians are footballers.
Etoo is a Cameroonian.
Therefore, Etoo is a footballer.

You can see that in the above syllogism," Cameroonians" is the middle term because the term (Cameroonian) occurs in both the major and minor premises but does not occur in the conclusion.

4.0   Conclusion

Logicians argue with subject or predicate term with major emphasis on predicate, subject, major, minor and middle terms.

5.0   Summary

To recap what you have learned in this unit, click on the video below or copy the link and paste on a web browser. The video is a summary of what you have read in this unit. You could also click on the audio version and listen. You can also download them and play offline.

Video

Audio

6.0   References/Further Reading

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Unit 4   Valid, Invalid, Deductive and Inductive Arguments

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2.0   Intended Learning Outcomes (ILOs)
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        3.1   Inductive Argument
        3.2   Deductive Arguments
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        3.4   Weak and strong inductive argument
        3.5   Sound and unsound argument
4.0   Conclusion
5.0   Summary
6.0   Reference/Further Reading

1.0   Introduction

This study unit introduces you to the analysis of inductive and deductive arguments. It will also teach you how a deductive argument is said to be valid or invalid, how an inductive argument is said to be weak or strong. This study unit will also teach you how to define and differentiate between sound and unsound argument.

2.0   Intended Learning Outcomes (ILOs)

By the end of this unit, you will be able to

- Differentiate between a valid and Invalid deductive argument
- Differentiate between weak and strong inductive arguments
- Differentiate between sound and unsound arguments
- Evaluate arguments in different contexts

3.0   Main Content

3.1   Inductive argument

An inductive argument is that kind of argument that its premise(s) only support, but do not guarantee its conclusion. Inductive argument does not claim that their premises, even if true, support their conclusions with certainty. Furthermore, in any inductive mode of reasoning, the conclusion logically implies an item of information not necessarily implied by the premises; "and that which can be confirmed or refuted only on the basis of evidence drawn from sense experience" (Ade-Ali, 2000:265). You also need to know that inductive argument is structured in such way that from one set of propositions (premises), it moves to another (conclusion); also proceeds from the experienced (particular) to the inexperienced (general); from the known to the unknown. For instance;

Mr. Roger Miller is a Cameroonian and a football player.
Mr. Etoo Fils is a Cameroonian and a football player.
Mr. Rigobert Song is a Cameroonian and a football player. Therefore,
All Cameroonians are football players.

You can see that in the above example, the conclusion that all Cameroonians are football players (general proposition) is arrived at by sampling some members of the class of persons who are Cameroonians. But for some logicians (Minimah & Inoka, 1997) there are also some "cases in which the propositions of an inductive argument which are used as premises and conclusions may all be either general propositions or particular prepositions". This is evident in the following arguments:

A.   All birds grow from infancy to adulthood
        All trees grow from infancy to maturity
        All men grow from infancy to adulthood
        Therefore, all living things grow infancy to adulthood (Minimah and Inoka, 1997:72).

B.   Idi Amin was a dictator and was ruthless
        Samuel Doe was a dictator and was ruthless
        Kabila is a dictator,
        Therefore, Kabila is ruthless.

Other facts that you must know about inductive arguments are; (a) all inductive arguments are invalid. This is because the premises do not support the conclusion. (b) the support offered by the premises of an inductive arguments to their conclusion is either high (strong) or low (weak) or none at all. For example:

Inductive arguments with high degree of support for conclusion:
        Almost all footballers are rich
        J.J. Okocha is a footballer
        It follows that J.J Okocha is rich

Inductive arguments with premises offering low support for conclusion:
        Dangote worked hard and became rich
        Otedola worked hard and became rich
        Saraki worked and became rich
        Therefore, all who worked hard will become rich

Inductive argument that do not support their conclusion
        Iron, a metal conduct electricity
        Copper, a metal conduct electricity
        Aluminium, a metal conduct electricity
        Therefore all metals expands when heated

3.2 Deductive Argument

Logicians define deductive argument as that kind of argument in which the premises do not only support but also guarantee the conclusion. In other words, the conclusion is directly inferred from the premises. It also means that the conclusion does not contain any new information aside those that we already have in the premises. Like what we have for inductive arguments, we also have different type of deductive arguments depending on the form the arguments take. We have those that move from general propositions as premises to a proposition as the conclusion. Example:

(i)   All NOUN Students have matriculation number
        <u>Adegboyega is a NOUN Student</u>
        Therefore, Adegboyega has matriculation number

(ii)   All lawyers are liars
        <u>Yakubu is a lawyer</u>
        Therefore, Yakubu is a liar

We also have those that move from general propositions to a general proposition as the conclusion. Example:

(i)   All lecturers are Saints
        <u>All Saints will go to heaven</u>
        Therefore, all lectures will go to heaven

3.3 Valid and Invalid Deductive Argument

A deductive argument is said to be valid if and only if (a) the premises imply the conclusion or (b) the premises entail the conclusion; or (c) the conclusion follows from the premises; or (d) the premises necessitate the conclusion; or (e) The conclusion can be inferred from the premises. It should be clear to you then that a valid deductive argument is an argument in which if you accept the premises to be true, you cannot deny or reject the conclusion. If you do so, you will be running into contradiction. You should also know that in logic proper, the words "true" or "false" are used to qualify statements or propositions. While "valid" or "invalid" are used to qualify arguments. In other words, we talk of "true" or "false" statements or propositions and "valid" or "invalid" arguments.

On the other hand, an invalid deductive argument is one that the premises do not support the conclusion. In other words, the conclusion cannot be inferred from the premises or that the premises do not necessitate the conclusion. Invariably, you can accept the premises of the deductive argument to be true and reject the conclusion without running into any problem.

3.4 Weak and strong inductive arguments

As noted earlier, valid or invalid are words used to qualify deductive arguments and while all inductive argument is said to be invalid, 'weak' or 'strong' are used to qualify inductive arguments. As stated earlier, on inductive argument is based on probability. That is why logicians rather use the words weak and strong. In an inductive argument, the words strong and weak are used to indicate the level and strength of evidence or data used as premises and the degree of certainty contained in the conclusion. Any inductive argument is based on probability. Therefore, its weakness or strength depends on the degree of evidence contained in the conclusion.

3.5 Sound and Unsound Argument

First, the words "sound" and "unsound" have nothing to do with an invalid and inductive argument. They are only used to qualify a valid (deductive) argument. In point of facts, all inductive arguments are unsound. Also, bear in mind that before an argument becomes sound or unsound it must be first of all valid. Thus, only a valid argument is said to be sound. A valid deductive argument is said to be sound if the premises of that argument as well as the conclusion are all true prepositions. On other hand, a valid argument is said to be unsound if the premises of that argument are either all false or contain a mixture of true and false prepositions, notwithstanding the truth value of its conclusion (Minimah and Inoka, 1997:74). Why is it possible that a deductive argument with false premises can be described as valid? Minimah and Inoka give us a simplified answer: The point is that the validity or invalidity of an argument does not depend upon the truth or falsity of its premises; since an argument (deductive) is said to have a pattern or structure or form, an argument is thereby valid if it conforms or tallies with that structure or form or pattern. (1997:74). In a deductive reasoning, the pattern or structure is what we mean by words such as imply, necessitate, followed by, entail etc. Minimal and Inoka further insist that "these words point to the fact that it is impossible for the premises of an argument to be all true while the conclusion is false. Once that happens then that argument is invalid" (1997:75). However, in their own understanding, "those words did not say that the premises could be a mixture of true and false propositions or false prepositions throughout while the argument still remain valid" (1997:75) Therefore, as stated earlier, the words sound and unsound only show the truth value of the premises contained in any argument. For example:

a. All NOUN students are dullard
All dullards will make heaven
    Therefore, all NOUN students will make heaven

b. All Nigerians are Africans
All Africans are whites
    Therefore, all Nigerians are whites.

You can see that in example (a), both the two premises plus the conclusion are false propositions yet the argument is valid, because the conclusion necessarily follows from the premises. Again, in example (b), the first premises has a true proposition, the second has a false proposition, while the conclusion is also expressed in a false proposition. But here again, the argument is valid because despite the falsity of the second premise and the falsity of the conclusion, the conclusion is validly derived from the combination of the false and true premises. So, in both examples (a) and (b), the arguments are valid but unsound. Unsound in the sense that the valid arguments have false premises and false conclusion, and in the second example, it has one true premises and one false premise with a false conclusion. Where a valid argument has all its premises and conclusion as true propositions, then that valid argument is also a sound argument.

However, you should always bear in mind that the fact that an argument has all its premises true does not necessarily mean that it must be valid. It is possible to an argument to remain invalid even if all its premises are true. For example:

All boys are dressed in shirts
Some girls are dressed in shirts
Therefore, some girls are boys

Thus, any argument in which all the premises are true but has the conclusion as false
preposition must be an invalid argument.

4.0   Conclusion

In philosophy, there are valid and invalid, weak and strong, sound and unsound arguments.

5.0   Summary

To recap what you have learned in this unit, click on the video below or copy the link and paste on a web browser. The video is a summary of what you have read in this unit. You could also click on the audio version and listen. You can also download them and play offline.

Video   https://youtu.be/fPy6aKodisY

Audio

6.0 References/Further Reading

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Unit 5   Language and Its Functions

Contents

1.0   Introduction

This study unit will introduces you to the definition and function of language. It will also teach you some models of linguistic Analysis.

2.0   Intended Learning Outcomes (ILOS)

By the end of this unit, you will be able to:
- Analyse the functions of language
- Evaluate some models of linguistic analysis.

2.0   Main Content

3.0   Logic and Language

Generally, you need to understand that the definition of logic as the science of laws of thought imply a mutual relationship between logic and language. This position is informed by the fact that processes of thought rely on logic to thrive and language on the other hand is better understood when logical processes are applied to remove ambiguity, vagueness and enhance clarity of thought on one hand and the use of language on the other hand. The dependency of logic and language on each other is reciprocal, as thought is believed to be prior to language but its (thought) process is made possible through embodying itself in language. This has made language to be vital to the development of logic. In other words, the mastery of language enhances logical discussions. as evident in the philosophies of the Sophists, Plato, Aristotle, etc.

It is important for you to note that logic is concerned with different forms of expression in language, but only in so far as they embody differences of type in the process of thinking. This position is further stressed by Uduma O. Uduma that since logic considers language essentially as an instrument of thinking, its aim is to handle the instrument so-as-to- make it a help and not a hindrance to correct thinking (Uduma 2015).

Aside from what we have said above about logic and its connection with language, it is equally important for you to know that as a primary tool of reason, language enhances the description and organization of human numerous experiences and make them to access the experience of other people. The human capability for language does not only distinguish them from other animals, it also gives them logical ability. Therefore, it is through the possession of language by human beings that their thought and conduct are made possible. Also, their possession of language enables them to organize their experiences systematically and produce valid inferences because with language they are well equipped with logical ability.

Perhaps one should make you to understand that language is a social product. Its most obvious function therefore goes beyond the provision of a framework for thought but also to serve as means of communicating and gives thought meaning. However, this position should not be taken to mean that without language thoughts cannot be meaningful rather, language is simply been presented as a necessity in society for the proper conveyance of human thought. In short, the relevance of language underpins its facilitation of intelligent co-operation in all human endeavour and the enhancement of civilization in human society.

3.1   Functions of Language

Asan important aspect of human culture, language has unlimited functions. This view is corroborated by Wittgenstein a philosopher of language in his work *Tractatus* (See Uduma: 2015)*.* Some of the uses of language he gave includes- giving orders and obeying them, describing the appearance of an object or giving its measurement, constructing an object from a description and many others. From Wittgenstein point of view, the functions of language have been classified into three headings, that is, **Informative**, **Expressive and Evocative.** We shall discuss each of these functions one after the other.

3.2   Informative Function

Here, the sole purpose of language is to communicate information. Language states fact, i.e. it gives information about fact. When language is used to describe the state of affair about a thing, event or situation, either it affirms or deny the affair language is said to be performing the informative function. Accordingly, science could be a good example of the informative function of language because it deals with what is factual. Thus, the following example, 'Politics is a game'. 'Nigeria is a country' states nothing else but facts as information is been given about "Politics" and "Nigeria". You should understand that information could be inform of a proposition or an argument. The information above can either be true of false, in which case we shall be talking about 'true and false proposition'. It could also be a misinformation and when it is considered in the realm of argument, we shall be talking about correct and incorrect argument.

However, irrespective of the status of the information, that is whether true, correct or otherwise, what is paramount is that it gives an information and the

informative function of language is concerned with the truth value of the proposition. Therefore, the informative function of language is important to logic.

3.3 Expressive function

Here, the sole purpose of language is to report feelings or attitudes of a person, writer, and speaker or to evoke feelings in the reader or listener. Thus, the expressive function of language is not about factual report of a state of affair but with expression of some sort of emotion. Language therefore performs the expressive function whenever it is used to arouse feelings or emotions which could be approval or disapproval (Uduma:2015). For instance, the common reference to black African man as *niggers* by the Westerners always arouse an emotion of disapproval, unlike when they are referred to as "black man" which often elicit some emotion of approval.

The expressive function of language is commonly used in political and religious discourses, warfare, science, etc. And best example of the expressive use of language is found in poetry. Consider the lines of this song from a soloist:

> *Amazing grace,*
> *how sweet it sound*
> *That save a wretch, like me*
> *I once was lost*
> *But now 'am found*
> *Was blind, but now I see*

The above is not an information but an expression of a feeling of an unmerited favour. From the above, it can be pointed out to you that the expressive function of language reveals the internal state of mind of a person, feelings and attitude and emotions. It is the kind of language function that is sometimes referred to as *emotional language function.* It is either, it evokes certain feelings or it express feelings and it can both evoke and express feelings.

3.4 Directive Function

This function of language is also known as **evocative function.** It is to cause (or prevent) an overt action. The utterance in a directive function of language operate as to evoke action from the hearer. The sense in which the word evoke is been used here is broader than in the expressive function of language. Here, the word *evoke* means to provoke or cause an overt action, to produce an action. This use is not the same as we have in the expressive function where the word evoke means to excite emotions or feelings, that is to cause, to express a feeling, an emotion or an attitude.

The sole purpose of language under directive function is to produce action. Thus, when a father tells his child "go and clean the floor" the intention is not to communicate any information nor is it to express or evoke any emotion or

feeling; it is intended to produce action, and that is for the child to clean the floor. Another example is when a policeman orders a person "go and park there".

We need to note here that directive function of language can be understood from three angles of a command, request and interrogation. The first two examples can be treated as commands, however it can be change to a request when a subtle means is introduced. For instance, when the word please is added, it becomes a request, e.g. "please go and park there" direct. The third sense which interrogative is usually inform of questions. For example, "where were you?" this is a directive requesting an answer.

You need to know that directive function of language does not any form of investigation on its truth value. This is because a command like "Get out!" can neither be true nor false. But then, a directive function of language may be definite, confused, either obeyed or disobeyed or disregarded in its command sense; it may be untimely, unauthorized, obliged or unexpected. Furthermore, in both the request and command sense it may be specific, reasonable, genuine, improper and sham, unspecific and proper.

3.5   Mixed functions of language

This function of language is arrived at because, it is observed that discourse can serve more than one function. In fact, most ordinary discourse are mixed and aside this, effective communication demand and are made possible by combinations of different functions of language.

When we give information to a group of trainees on the meaning of a concept, such that the information is describing certain phenomena or procedure prescribing or explaining the application of certain rules or terms, the information may also express and evoke sentiments or feelings, such information is therefore serving the expressive function, and may also seek to cause certain appropriate actions from the group. When we also consider sermons that are preached, generally, sermons are directive and are meant to shape or turn the hearers to a particular way of life as contained in it (sermon) and possibly to avoid an unacceptable lifestyle, it is also may evoke feelings of awesomeness or admiration in the hearers , thus serving the expressive function, and may also include some information about historical events or other variable phenomena. An example of such sermon was Stephen's address before the Sanhendrin (**Acts of the Apostles chapter 7)**

It is therefore possible for language to serve multiple functions. But, this not to say that the specific roles of language in certain discourses are valueless or less important. While in a discourse like biology, it is informative, in literary works it is expressive but in logic it is directive. Language also serves as directive in law that is to direct conduct.

3.6   Performative Utterances

This use of language is generally associate with a mixed function of language and sometimes with the informative function of language. As the name suggest, performative utterances refer to language which performs the action it reports. It is a different form of function of language.
The term was first introduced by J.L Austin in 1955. It includes such statements like "I promise to visit you tomorrow", "I shall contest the next election," etc. these utterances do not describe or report anything, hence they cannot be true or false. Each of them only constitutes doing something: visit you tomorrow, contest the next election. These sorts of utterances only involve doing, they cannot be true or false, but Austin maintained that they can be *infelicitous* that is abused. According to Uduma (2015), the abuse of these utterances however depends largely on the motive, circumstances or condition surrounding the utterances. For instance, the promise to visit may be made from insincerity or I may not be qualifying to context any election.

The main characteristics of performative utterances that attract philosophical interest are as follows:

1. It offers counter- instance to the verifications claim that only meaningful sentences are those which express true or false statements.

2. It belongs to the category of non-descriptive sentences; they are neither true nor false, but only felicitous or infelicitous.

3. It can do justice to the communicative and intentional aspects of language.

The main thrust of performative function of language is that stating is performing; saying is doing. When uttered in appropriate circumstances, they perform the act it appears to report or describe, they are tied in special ways to the circumstances in which they are uttered, and this is what doing justice to the communicative and intentional aspect of language means.

4.0   Conclusion

From the study of the functions of language in this unit, the various functions of language seem to correlate with the different forms of language. Thus, the declarative sentences appear to be informative; the imperatives are directive; interrogatives are directive and the exclamations are expressive. It may therefore be somehow difficult to identify form with function in language.

5.0   Summary

To recap what you have learned in this unit, click on the video below or copy the link and paste on a web browser. The video is a summary of what you have read in this unit. You could also click on the audio version and listen. You can also download them and play offline.

Video   https://youtu.be/p4r0LlSGzZU

Audio

6.0   References/Further Reading

Otakpor, N. 2000. *A Preface to Logic.* Benin City: Omone Books.

Uduma, O. Uduma. *Logic and Critical Thinking, (2nd Edition)* Ghana: Africa Analytical Publications, 2015.

Discussion Forum

Using logic, state and analyse five sentences from different scenario. Post your answer on the Forum.

Module 4   Fallacies and Definitions

Unit 1   Fallacies (Part One)

Contents
1**.**0   Introduction
2.0   Intended Learning Outcomes (ILOs)
3.0   Main Content
        3.1   Definition and Classification Of Fallacies
        3.2   Fallacies Involving Irrelevant Premises
4.0   Conclusion
5.0   Summary
6.0   References/Further Reading

1.0   Introduction

This study unit introduces you to the definition and classification of fallacies. Our emphasis here will be particularly on fallacies involving irrelevant premises.

2.0   Intended Learning Outcomes (ILOs)

By the end of this unit, you will be able to:

- Classify fallacies
- Evaluate fallacies.

It is hoped that at the end of this unit, you should be able to: -Define and classify fallacies-Know major Formal fallacies such as; Affirming the Consequent, - Denying the Antecedent, -Fallacy of Four Terms, -Existential Fallacy and Fallacy of Exclusive Premises.

3.0   Main Content

3.1   Definition and Classification of fallacies

Some arguments sometimes look so good and convincing, however, when we critically examine them, we realize that they are weak, deceptive, strong or full of errors. What logician therefore always do is to explain the causes of errors in arguments and to avoid them in reasoning. The best way to do this is to first recognize these errors of reasoning and avoid them completely. This is because, deceptive arguments are capable of misleading. You need to know that these kinds of reasoning sometimes look convincing and logically correct, without adequate carefulness one can accept them as true, valid and correct reasoning. These forms of reasoning are regarded as being fallacious.

One fact that you must note here is that fallacious argument or reasoning is not necessarily an invalid argument. Rather it is an argument that appears sufficiently acceptable, but which contains errors (Oke and Audu, 2006:107). Usually, a fallacy is committed in the process of moving from the premises of an argument to its conclusion. Because of these errors or mistakes, the premises do not justify the conclusion, or there is no proper link between the premises and the conclusion. In short, a fallacy is an error in reasoning that tends to be psychologically persuasive. It is an invalid argument that has the deceptive appearance of being valid.

According to Uduma O. Uduma (2015), the classification of fallacies can be dated back to Aristotle who gave two principal divisions namely (a) fallacies due to the misuse of language and (b) those which arose from defects of thought rather than of language. But the common classification are *Formal Fallacies* and *Informal Fallacies*.

3.1.1 Formal Fallacies

This kind of fallacies are concerned with the structure or form of an argument, rather than the content. *Formal fallacies* are also called *Pure Fallacy* what you must note about arguments in this fallacy is that they always violate a rule of the logical system of which the argument is a part. In this regard, invalid deductive argument is formally fallacious. Thus, formal fallacies are error(s) that evolve from neglect or deviation from formal rule of logic, which simply holds that premises must adequately support the conclusion and that if the premises of an argument is true, the conclusion must also be true.

Three examples of these fallacies are:

i.   The formal fallacy associated with the deviation from the Modus Ponens rule. This is called the fallacy of affirming the consequent
ii.   The formal fallacy that is associated with the deviation from the Modus Tollens' rule which is also known as the fallacy of denying the antecedent.
iii.   The formal fallacy of Four Term
iv.   Existential Fallacy
v.   Formal fallacy of Exclusive Premises

3.1.2   Fallacy of Affirming the Consequent

This is committed when the formal rule of affirming the antecedent or Modus Pollens is violated. You should know that the antecedent of any argument is the first part of the argument while the consequent is the latter part. They are like Cause and Effect. The rule of Modus Ponens states that in an argument, if a material conditional statement (the first premise), and its antecedent (the second premise) are true, then its consequent must be true (Achilike, 1999: 16). Thus, in the fallacy, the second premise of the argument affirms the consequent instead of the antecedent while the conclusion affirms the antecedent rather than the consequent. For example:

> If Tinubu is a leader then Tinubu is a politician
> <u>Tinubu is a politician</u>
> Therefore, Tinubu is a leader
> Schematically, we have
>
> If p then q
> Q
> Therefore, p

Here the argument runs contrary to the rules of Modus Ponens. Commonsensical, the second premise and the conclusion are faulty when compared to a properly constituted Modus Ponens rule. It is possible that Tinubu is not a leader and yet he may be a politician. This is shown below:

If Tinubu is a leader then Tinubu is a politician
<u>Tinubu is a leader</u>
Therefore, Tinubu is a politician

Schematically, we have

If p then q
        P
Therefore q
In this argument, unlike the first, the second premise is an affirmation of the Antecedent.

3.1.3   Fallacy of Denying the Antecedent

This fallacy occurs when the rule of Modus Tollens is violated the rule of Modus Tollens holds that in an argument, if the material conditional statement (first premise) is true, and its consequent is false, then its antecedent (conclusion) must be false. The fallacy of denying the Antecedent takes the form of an argument in which one premise is a conditional and the other is the negation of its antecedent from which the negation of the consequent is deduced as the conclusion of the argument. For example:

> If Tinubu is a leader then Tinubu is a politician

Tinubu is not a politician
Therefore, Tinubu is not a leader
Schematically we have
If p then q
Not p
Therefore not q

From this example, the second premise and conclusion are faulty.

3.1.4 Fallacy of Four Term

An argument in a categorical logic commits the fallacy of four terms if either there are more than three terms in the argument, or a term is assigned different meanings at different points in the argument.

3.1.5 Existential Fallacy

In categorical logic, a syllogistic argument commits the existential fallacy if its conclusion is a 'particular' proposition and both of its premises are 'universal' propositions. It is fallacious to derive a conclusion of a proposition from the argument whose premises are universal propositions. For example:

All Nigerians are human beings
All human beings are mortal
Therefore, Dele Giwa, a Nigerian was mortal

3.1.6 Fallacy of Excusive Premises

This fallacy occurs in any form of reasoning when the rule that every valid categorical syllogism must have at least one affirmative premise (A or I) is violated. The major characteristic of the fallacy of Exclusive Premises is that both premises are negative propositions (E or O). For example:

No goats are human beings
Some human beings are not rational
Therefore, some goats are not rational

3.2.0 Informal Fallacies

This fallacy is also known as *material fallacy.* It is informed of any argument that is psychologically persuasive but not logically persuasive. In informal fallacies, there are no mistakes in the formal structure of arguments rather, they are rooted in the failure of the evidence to be relevant to the conclusion or in some injustice and ambiguity (Adegboyega, 2010: 71). Informal fallacies rests on the content of the argument. Unlike formal fallacy, no any coded rules is violated. Individuals may fall into this error because of his or her carelessness, coupled with inattention or being misled by language problems. There are different types of informal fallacies and these are:

i.   Fallacies of Ambiguity,

ii.   Fallacies of Weak Induction,
iii.   Fallacies of Relevance; and
iv.   Fallacies of Presumption.

For this section, we shall focus on fallacies of Ambiguity and fallacies of relevance. the remaining two fallacies of Weal Induction and fallacies of Presumption shall be in the subsequent unit

3.2.1 Fallacies of ambiguity

These are linguistic fallacies. These fallacies occur when ambiguous words, phrase or statements occur in arguments without carefully attending to the ambiguity. You must know that ambiguous words are words that has more than one meaning in a statement or when it can be used in more than one way. For instance, the word "file" can be used to refer to metal tool with roughened surface or cover case for keeping papers together for reference purpose and it can refer to line of persons or one behind the other.

We shall focus here only on the four (04) major fallacies of ambiguity.

1. **Fallacy of Equivocation:** There are some words that contain more than one meaning. The fallacy of equivocation occurs when such a word is used in a manner that implies different meanings or senses of the word within the same context. For instance: only man is rational. But no woman is a man. Therefore, no woman is rational. This is a fallacy of equivocation because the word "man" is used with two different senses within the same context. In the first sentence, the word "man" means "humans" while in the second, it means "male humans".

2. **Fallacy of Amphiboly:** The fallacies of amphiboly and ambiguity are very similar. The only difference is that in the fallacy of amphiboly, the double meaning is due to syntactic or sentence structure such as a grammatical error or a mistake in punctuation. The fallacy of amphiboly is more subtle and harder to detect than that of Equivocation. It mostly occurs when we misinterpret someone's original statement or intention. Here are typical cases. "Tunde removed the egg from the cup. So, Samuel broke it." Although, we know the meaning of the word 'it', but what this word refers to is not clear to us. What did Samuel break? Is it the glass cup or the egg?

3. **Fallacy of composition:** There are two major ways of committing the fallacy of composition. These are: 1.) When a part is identified with the whole. That is, the parts have the attribute "X" therefore the whole has attribute "X". For instance, i.) Each of the parts of this car engine is very light, therefore the car engine is very light. ii.) Each player on the football team is outstanding. Hence, the team itself is outstanding. The fallacy of composition is committed here because even though the car engine is made up of very light parts but when put together the car engine itself becomes very heavy. It is the same with the football team. Even though each of the players is outstanding and there is a lack of team work or

insufficient opportunity to practice together the team may not be outstanding. 2.) The second kind of the fallacy of composition is committed when there is confusion between the "distributive" and "collective" use of general terms, for example:

Elephants eat more than humans. So, elephant taken as a group eat more than humans taken as a group". There is a fallacy of composition here because in the premises: "Elephant eat more than humans", the attribute of "eating more than" is predicated distributively, that is, each individual elephant is said to eat more than any individual human eats. However, in the conclusion, the attribute "eating more than" is predicated collectively; that is, elephant taken as a group are said to eat more than humans taken as a group which is not true. Because there are so many more humans than elephant.

4. Fallacy of Division
The fallacy of division is nothing more than the opposite of composition. In the fallacy of division, if the whole has the attribute "X", therefore the parts must have the attribute "X" as well.

Example: "the airplane is heavy, so each of its part is heavy". There is a fallacy of division here because some of the parts of a heavy air plane may be very light. Here is an example of the second type of division fallacy;

the soccer team is excellent. Hence, each member of the team is excellent. There is a fallacy of division here because a team may be excellent due to team work and few outstanding players and yet have members who are not themselves excellent players.

3.2.2   Fallacies of Relevance

These fallacies present the premises of arguments in such a way that their conclusion could be doubted. That is, given the premises of an argument, we do not have a strong conviction or confidence for accepting the conclusion of such argument. Some of these fallacies are discussed below:

A. Fallacy of Attacking the person (*Argumentum ad Hominem*)

The main business of this fallacy is to attack the person who advances an argument rather than providing a rational critique of the argument itself. The attacker's main objective is to make it assertion acceptable. This fallacy is informed of character assassination. For instance:

Mr. A: President Umaru Musa Yar'Adua of the Federal Territory of Nigeria will be the next African Union Chairman

Mr. B: Mr. Umaru Musa Yar'Adua is the president of one of the most corrupted countries in the world.

Therefore, it is impossible for him to become the future African union

chairman.

An argument against the person does not always involve outright verbal abuse. Subtle ways are sometimes used but with the sole aim of discrediting an opponent by suggesting that the opponent's judgment is distorted by some factor in his or her circumstances.

This form of argument is sometimes called the circumstantial ad hominem. For instance, during the celebration of their marriage, Mr. and Mrs. Kule refused to serve beer to their guests. They claimed that no born-again child of God would either drink or serve beer to other persons. Here, you can see that Mr. and Mrs. Kunle commit the circumstantial form of the argument and hominem fallacy. You should always remember that the attack in the argument against the person can take three forms:

i.   Abusive: direct personal attack on the opponent.
ii. Circumstantial: attempt to discredit by calling attention to the circumstances or situation of the opponent.
iii. *Tu quoque*: this is committed when in an argument, rather than defending oneself, the arguer is being found guilty.
iv. The fallacy of attacking affiliation: this is occurring when in an argument, it is concluded that a people should either be accepted or rejected because he belongs to a group or association which one does not like or that is unpopular with one's audience.

b.   Appeal to Force (*Argumentum ad Baculum*)

The word *Baculum* is a Latin word which stands for "staff". Here, the word 'Staff' is seen as a symbol of power. *Argumentum ad Baculum* fallacy is mostly used whenever a conclusion is defended by a threat to the well- being of those who do not accept it. The threat can be physical, moral or psychological. It can be implicit or explicit. Here is the case of a physical threat: "Godwin, I don't want to see you driving any car to campus whenever you have my class. Do you realize I am your teacher and I am the alpha and omega of this course? I am the one who will determine whether you pass or fail at the end of the semester. It is better you comply or else you will fail this course" You can see here that there is no logical link the threatened "you will fail" on the conclusion. Of course you will agree that there is nothing bad in Godwin a car to campus. But it is probable that the threat might induce Godwin to accept the conclusion. Another example is the case of a psychological threat: "Listen, Valerie, I know you disagree with my view about the building project. You have made your disagreement clear to everyone. Well, it time for you to see that you are mistaken. Let me get right to the point. I know you have been lying to your husband about where you go on Wednesday afternoons. Unless you want him to know where you really go, its time for you to realize that I have been right about the building project all long. You follow me?" (Layman, 2002, p. 127). You can see here that even though the threat to expose the lie has no relationship with the building project, it may still work because fear is a strong motivator, and it can influence, some one's thinking.

c. Appeal to Popular feeling/ Mob Appeal (*Argumentum ad Populum*)

Remember that "Populum" is a Latin word with stands for "people" or "notion" so *argumentum ad populum* occurs when you try to persuade someone or a group by appealing to their emotion, feeling and sentiments. This is mostly used in political campaigns, public debates and advertising. Here is a typical case of political campaign: "I look out at you all, and I tell you, I am proud to be here. Proud to belong to a party that stands for what is good for America. Proud to cast my lot with the kind of people who make this nation great. Proud to stand with men and women who can get our nation back on its feet. Yes, there are those who criticize us, who label our view of trade agreements as 'protectionist'. But when I look at you hard- working people, I know we are right, and the critics are wrong" (Layman, 2002: 128).

You can see that the sole purpose of this speech is to persuade the crowd no matter what. It is fallacious because the premises to the effect that "I am proud to be associated with you" and "you are hardworking people" are irrelevant to the conclusion: "our view of trade agreements is right". Also bear in mind that you do not necessarily need to address a large group before you commit this kind of fallacy. Whatever you try to convince by appealing to the need of or acceptance of your view by other people, makes you to commit the fallacy. Here is an example: Miss Riley, are you saying that President Bush made a moral error when he decided to go to war with Iraq? I cannot believe my ears. That is not how Americans feel. Not true Americans, anyway. You are an American, aren't you Miss Riley? (Layman 2002: 128).

This is a fallacy because there is no logical connection between the fact that Miss Riley is an American therefore Iraq war must be justified.

d. Appeal to pity *(Argumentum ad Misericordiam)*

Misericordiam is a Latin word that stands for "pity" or mercy". So, *argumentum ad misericordiam* is a fallacy that attempt to support a conclusion simply by evoking pity in one's audience even though the statements that evoke the pity are logically unrelated to the conclusion. For example: "I want to build more schools, more hospitals, and create more employment opportunity. If you don't vote for me this second term, I cannot achieve these, therefore vote for me the second term" (Adegboyega, 2010: 79). The appeal to pity is mostly used by politicians during campaign for election and by lawyers. The lawyer's main objective is to get the court to accept the conclusion that a client is innocent or at least to obtain a reduction in the measure of punishment.

e. Fallacy of Irrelevant conclusion (*Ignoratio Elenchi*)

This fallacy is also celled fallacy of ignoring the issue. This is because the conclusion that is drawn in the argument is irrelevant to the premises, i.e. *non sequitur*. For example: "The members of the National Assembly have been accused of official misconducts. Therefore, the Assembly complex should be closed down"

f.   Red-Herring Fallacy

It is committed when the person responding to an argument fails to address whichever issue(s) the arguer has raised. In a way, the respondent distracts the arguer's attention because the respondent is evasive. **Example:**

> **Okon:** "The use of condom during sex should be encouraged. This is because it prevents un wanted pregnancy among youths"

> **Ekket:** Mr Okon, are you a Christian or a Muslim?

> **Okon:** I am neither a Christian nor a Muslim. I am a traditionalist.

Here, Ekket did not address the issue that was raised in Okon had raised in his argument rather he only distracts his attention.

g.   Fallacy of Accident

This fallacy is committed when a claim is based on a rule that is generally valid, but the arguer fails to see the case at hand as an exception. It is common among legalist, moralist, educationists, and other social theorists who always infer answer to specific human issues from some absolute moral, legal, educational and other social rules (Ibid.). For example, these set of people can reason that given that lying is bad, and then one should not tell lies, even to save life of an innocent being. Or, given that the idea of murder is bad, it is unhuman to commit abortion, even if it is to save life of the mother or even when the foetus is to be epileptically defective.

4.0   Conclusion

Fallacies ambiguity and relevance are things worthy of note in our daily activities.

5.0   Summary

To recap what you have learned in this unit, click on the video below or copy the link and paste on a web browser. The video is a summary of what you have read in this unit. You could also click on the audio version and listen. You can also download them and play offline.

Video   https://youtu.be/YZzSLJ1_qtM

Audio

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Unit 2   Fallacies (Part Two)

Contents

1.0   Introduction

As already stated, although studies units are autonomous, they are interconnected as well. This study unit is the continuation of the preceding one. But here, we will particularly be discussing the fallacies involving weak induction and fallacies of presumption.

2.0   Intended Learning Outcomes (ILOs)

By the end of this unit, you will be able to evaluate fallacies of presumption and weak induction.

3.0   Main Content

3.1.   Fallacies of Presumption

This fallacy is committed, when there is the assumption in the argument's premises, of what the arguer is out to prove. We shall discuss three of these types of fallacies and these includes the fallacy of complex or loaded question, fallacy of leading question and begging the question (*Petito-principii*).

3.1.1. Fallacy of Complex or loaded Question

This fallacy of complex question is committed when two or more questions are asked together at once and as an answer to one question allows one to draw a conclusion regarding the other question. Example of such fallacy: "Have you stopped beating your wife?" here the questioner thus assumes the person addressed has a wife, and beats his wife. Hence, it is a complex question to answer.

3.1.2 Fallacy of Leading Question

This occurs when an arguer attempts to base his claim on a 'prepared' answer, such as a witness under cross examination. For example, "You don't know any of the accused person; do you? No, I don't. This fallacy is

commonly used by Lawyers and any other investigative officers to extract information from suspects and criminals.

3.1.3. Fallacy of Begging the question (*Petito-pricipii*)

Petito-pricipii is a Latin word which means Begging the principle. The fallacy of Begging the question is any form of argument whose conclusion is nothing more than a restatement of one of the premises. This form of fallacy is otherwise called *Circular reasoning*. Example "God exist because the Bible tells us so, we know that whatever the Bible tells us must be true because it is the revealed words of God

3.2   Fallacies of Weak Induction

These fallacies are committed, when in an argument, the premises offer some but not enough evidence for the conclusion. Some of these fallacies are discussed below.

3.2.1   Fallacy of Appeal to Authority (*Argumentum ad Veracudiam*)

This is a fallacy based on accepting uncritically the judgment of an expert merely because he is an authority without mindful of the evident contained in the premises of the argument which ought to indicate the conclusion. For example: "Rev. Father Kuka has claimed that marriage must be between a man and a woman. Therefore, gay marriage should not be legalized."

3.2.2 Fallacy of Appeal to Ignorance (*Argumentum ad Ignoratiam*) The appeal to ignorance means that the conclusion of an argument is proven simply because nobody has proved the opposite. Here is a typical example: "After centuries trying, no one has been able to prove that reincarnation occurs. So, at this point, I think we can safely conclude that reincarnation does not occur." You can see that this fallacy has its own limits. That it has not been proven may be erroneous. This logic cannot hold in scientific matters mostly based on hypothesis and "wait and see" attitude.

3.2.3   Fallacy of False Cause

There are many forms of false cause fallacy (Uduma: 2015). But the most common form is called in Latin *post hoc, ergopropter hoc,* which means "after this, therefore because of this". Generally, a false cause fallacy occurs when the arguer illegitimately assumes a possible cause of a phenomenon to be the only cause although reasons are lacking for excluding other possible causes. Here is an example: "Since I came into office 2 years ago, the rate of violent crime has decreased significantly. So, the longer prison sentences we recommended are working. "(Layman, 2000: 151). There is false cause because the longer prison sentences may be a causal factor, but the simple fact that the longer sentences preceded the decrease in violent crime does not prove this. There is no doubt that other causal factors need to be considered.

3.2.4 Slippery Slope

A Slippery Slope argument, of course fallacious, has a unique structure as follows:

There is a slope- a chain of causes. It is slippery. Therefore, if you take even one step on the slope, you will slide and fall all the way to the bottom. Since the bottom is a bad place to be, you should not take the first step. Slippery slope fallacy occurs when in argument, it is concluded that an event should be prevented from happening due to the belief that its occurrence will bring the occurrence of certain other events we do not want or wish to have them happen.

Example: "If there is labour strike, schools will not run, pupils will stay at home, market will be closed, the economy will be affected. So, strike should not be allowed, or labour strike should be prevented or avoided" (Fadahunsi and Adegboyega, 2010: 88).

The major problem with arguing this way is that unwanted events may not follow from the event that the claim advocates should be prevented.

3.2.5 Fallacy of Hasty Generalization

This fallacy is an argument which applies not only to the premise cases, but also to cases that are different in kind from those referred to in the premises. For example: someone who has observed the performance of most logic students at interviews and then concludes that the understanding of logic enhances human skill at answering questions, thus, its study must be enforced in schools.

3.2.6 Gamblers' Fallacy

This fallacy is committed when one argues that given the sequential or the frequent occurrences of an event in series, the probability of its (the event) re-occurrence will increase. For instance: "Socrates played Ludo game 10times and he lost, therefore, the probability that he will lose the 11th game has decreased."

You need to know that the winning or losing of the game at the 11th time should be seen on 50-50 basis. The game can end in either ways for Socrates irrespective of the previous sequential frequent occurrences.

3.2.7 False dilemma

In logic, the fallacy of false dilemma simply means that you use a premise that unjustifiably reduces the number of alternatives to be considered. In other words, there is a fallacy of false dilemma when the arguer assumes without justification, a limited number of possible alternatives when there is more than that.

Here is a typical case:

"I'm tired of all these young people criticizing their own country. What I say is this, Nigeria, love it or leave it! And since these people obviously do not want to leave the country, they should love it instead of criticizing it".

There is a fallacy of false dilemma here because the argument presupposes that there are only two options: either you love Nigeria (uncritically) or you emigrate. However, you should know that there are other possibilities or alternatives. You should also know that an argument cannot be called false dilemma unless you are able to specify at least one alternative that has been ignored. You should also remember that it is not every false cause fallacy that involves the unwarranted assumption that if X precedes Y, then X causes Y.

4.0 Conclusion

This study unit dealt with fallacies of ambiguity and unwarranted assumptions.

5.0 Summary

To recap what you have learned in this unit, click on the video below or copy the link and paste on a web browser. The video is a summary of what you have read in this unit. You could also click on the audio version and listen. You can also download them and play offline.

Video   https://youtu.be/6FCb145LR30

Audio

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Unit 3   Definitions (Part One)

Contents

1.0   Introduction

A definition is a *sine qua non* tool for effective communication. We cannot avoid vagueness, ambiguity or equivocation unless we rightly define our words or terms. It is the major means through which we understand the meaning of words. It is different from explanation, verbal definition, translation or mere interpretation. It is true that definition contains all of them, but they are not identical. Definition is different from them in the sense that it is sharp, short, delimited and consisting of the word to be defined, that is, the definiendum (which may be a single word) and the expression which defines the expression that is, the definitions (which must contain more than one word) (Stebbing:1993).Although, there are many types of definitions, this section introduces you to the major types of definition that are most helpful in clarifying and sharpening arguments.

2.0   Intended Learning Outcome (ILO)

By the end of this unit, you will be able to apply basic philosophical definitions - Lexical, theoretical, intentional, extensional, denotative and connotative in solving philosophical challenges

3.0   Main Content

You need to know from the outset here what definition is. Definition of a thing has been described as statement of essence of a thing. This description was given by the classical thought and it has its origin in Aristotle's assertion that an object's essential attribute forms its "essential nature". Thus, in defining such object its essential attributes must be included. You need to know here that the classical idea of definition has led to philosophers' distinction between 'nominal' and 'real essence'. That is, while the name 'home' (nominal) is meaningful and we may know it, however, we may not know the essential nature (real essence) of home. Thus, the meaning of a name is distinct from the nature a thing may have in order that the name apply to it.

As distinction can be drawn between nominal and real essence, philosopher over the years have also make distinctions between nominal and real definition. A 'nominal definition' one that explain what a word means. That is, it says what the nominal essence is (see the above example). 'Real definition' on the other hand expresses the real nature of a thing.

Let us ask ourselves a question here, why do we engage ourselves with drawing this distinction here especially the about the notion of essence in definition? The reason for this is that there are certain intrinsic elements about that which is to be defined (*definiendum)* which, that which is doing the defining (*definiens)* must capture without which the *definiens* will not have same meaning with the *definiendum,* which may lead to ambiguity and vagueness (Uduma: 2015).

As stated earlier, although, there are many types of definition, this section is to introduce you to the major types of definition that are most helpful in clarifying and sharpening arguments.

3.1   Major types of definitions

In most introductory logic textbooks, we can identify at least seven (07) major types of definitions. This section will focus only on the lexical, theoretical, intentional and extensional definitions and Denotative and Connotative.

3.2   Lexical definition

A lexical definition is identical with a dictionary definition. It is the conventional or established meaning of a term. It is a definition that is usually expected from request for definition. Such definition is usually stated as simply as possible in other to convey information to the widest audience. This form of definition also reports a meaning the definiendum already has: it does not give the definiendum a new meaning. In short, a lexical definition is descriptive, reporting actual usage of the term, within speaker's usage of the term, rather than prescriptive, which would be to stick within a version regarded as "correct" regardless of drift in accepted meaning.

We need to state here that since lexical definitions report actual usage of terms, lexical definitions may be either true or false (Uduma:2015). If the definition (the definiens) conforms to (that is give true report) how a language community uses the definiendum this definition will be true, but it will be false if the definiens does not conform to (that is gives false report) the meaning a particular community attaches to the definiendum. For instance, the definition of "garage" as a building where cars are packed is true because it reports (conforms to) how the English-speaking people use it. But the definition of "garage" as a place of worship is false because it does not agree to its usage in the English language.

You should not that while this kind of definitions may be false or true, it still does not have anything to do with the question of whether the definiendum names any "real" or "existent" thing. Therefore, the definitions of all words with

long established usage like *unicorn,* as "animal like a white horse with a long straight horn growing on its head" is a lexical definition, and it is true, because of the definiendum (*unicorn*) is meant by the way the definiens uses it.

3.3Theoretical definition

This kind of definition has been described as a special brand of stipulative and précising definitions. It is distinguished from the two by the attempt of the two establish the use of this term within the context of a broader intellectual framework. This form of definition expresses the meaning of a word based on available theories in specific discipline.

Theoretical definitions is directed at developing coherent theoretical account of the subject at hand. The definition does not attempt overcoming ambiguity or to achieve precision rather it focuses on formulating a theory within which a fully correct definition of important terms could be stated.

This form of definitions is found in disciplines that do formulate theory and such theories requires precise definition and results of such theories are always accepted as correct. Scientific disciplines a good example of this definition. In this kind of discipline, the definition of term is not likely to contradict another definition based on another theory as we may have in other non-scientific disciplines like Arts and Social Sciences.

3.4   Intentional and Extensional definitions

You cannot attain clarity about meaning unless you succeed in distinguishing between intentional and extensional definitions. According to Copi, (1978) an intentional definition is "the collection of properties shared by all and only those objects in a term's extension". For instance, the intentional definition of a term like **Zebra** refers us to a certain four-footed animal that has white and black stripes throughout the body. This is the intentional definition of **Zebra** because Zebra as a species falls under this characterization. So only Zebras as a species have the distinctiveness and universality of the definition as it applies to them. In other words, the extension of a term consists of the set of things to which the term applies while the intension of a term consists of the properties a thing must have to be included in the term's extension. And, according to Salmon Wesley, since you can specify the meaning of a word through its extension or its intension, the distinction between extensional and intentional definitions becomes very necessary in language (1984). There are two types of extensional definitions: nonverbal (or ostensive) and verbal. Ostensive definition occurs when you attempt to specify the meaning of a term by pointing to objects in its extension. For instance, if you want to teach someone the meaning of the word "car", you simply need to point to a car and utter the word "car". Keep in mind also that this definition does not go without some problems. For instance, there are cars with different shapes, sizes and makes. In verbal definition we rely on signification, that is, we use verbal definition to specify the meaning of a term. Here is an example of an enumerative verbal extensive definition: "Philosopher" means someone such as Socrates, Plato, Aristotle, Descartes, Kant, or Hegel (Layman: 2000).

Let us first state in clear term that intentional definitions are applicable to things that have clearly-defined set of properties. It can also be applied to sets that are too large to list in extensional definition. Thus, as opposite of extensional definition, the intentional definition of a term states the necessary and enough conditions for a thing being a member of a set, that is, the set of features which are shared by everything to which it applies. For example, an intentional definition of "spinster" is "un married woman" being an unmarried woman is an essential property of something referred to as a spinster. So, we can say that it is a necessary condition as one cannot be a spinster without being an unmarried woman. It also remains enough condition that any unmarried woman is a spinster.

From our discussion of both intentional and extensional meanings, we can say that they are closely connected to each other or that they are interrelated. Most times we sometimes feel that the intension of a concept or term determines its extension that we decide whenever we encounter any new furniture whether it belongs among the chairs by seeing whether it has the relevant features. Thus, as the intension of a general term increases, by specifying with greater details those features that a thing must have for it to apply, the term's extension tends to decrease since fewer items now qualify.

3.5   Denotative and Connotative Definition

These two kinds of definition suggest the possibility of the definition of a general term which can be done in two ways. A denotative definition attempt to identify the extension of the term in question. In which case we could provide a denotative definition of the phrase "this okada riders" simply by listing all the names of those who constitutes the "okada riders". Of course, a complete listing of the things to which the general term applies may be cumbersome in many cases, but this can be achieved by listing smaller group of individuals or simply by stating few examples. Although, there may be some cases where this may not be possible this is where the connotative definition become useful.

A connotative definition tries to identify the intention of a term by providing a synonymous linguistic expression or an operational procedure for determining the applicability of the term. It should be noted that it may not always be easy to come up with an alternative word or phrase that has the same meaning or to specify a concrete test for applicability. But when this work, connotative definition provides an adequate means for securing the meaning of a term.

4.0   Conclusion

Philosophical definitions are useful in solving challenges.

5.0   Summary

To recap what you have learned in this unit, click on the video below or copy the link and paste on a web browser. The video is a summary of what you have read in this unit. You could also click on the audio version and listen. You can also download them and play offline.

Video   https://youtu.be/0ejaDiKyx4o

Audio

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Unit 4   Definitions (Part Two)

Contents

1.0 Introduction

This study unit is the continuation of the preceding one. It introduces you to three major types of definitions.

2.0   Intended Learning Outcome (ILO)

By the end of this unit, you will be able to solve daily challenges in communication using stipulative, recursive, persuasive, precising, genus and difference definitions.

3.0   Main Content

3.1   Stipulative Definition

As a writer or speaker, you are free either to introduce a new word into language or to give a word a new meaning. Once you do that, you are stipulating. A stipulative definition therefore is one that a term whether new or existing is given a new meaning for the purpose of argument or discussion in a given context (Uduma: 2015). A major feature of this definition is that it freely assigns meaning to a completely new term creating a usage that had never be in existence. It specifies or stipulates the meaning of a word or phrase. The goal of this definition is to propose the adoption of shared use of a novel term, that has no existing standard it can be compared with and the definition stands correct always except it turns out to be useless or inapt. For instance, it is on record that until the year 2000, the word "double-dodge" had no generally accepted meaning. "Double–dodge" means the anticipatory movements people commonly make when they nearly collide with some person (as when walking toward each other in a confined space) and are trying to avoid such collision" (Layman, 2000: 98) For instance: "Rebecca and Eduardo nearly ran into each other in the hallway; but at the last moment they double – dodged and then came to a full stop, whereupon Rebecca burst into

laughter. Thus, even though the "double – dodge" is stipulated here, we still understand the full meaning of the above expression.

Always keep in mind that any stipulative definition is a recommendation or proposal to use a term in a certain manner. And, the meaning or definition that may be given to a new or currently existing term may, but not necessarily, contradict the lexical definition of the term. That is why as a recommendation or proposal, a stipulative definition is neither true nor false, accurate or inaccurate, correct or incorrect. This is responsible for the differences between this form of definition and lexical definition. A stipulative definition is a form of proposal or resolution to use the term to mean whatever it is used for. In those regard, a stipulative definition is directive and not informative.

3.2   Recursive Definitions

This definition is sometimes referred to as Inductive definition. It is a form of definition that defines a word in terms of itself, although in a useful way. Recursive definition consists of three steps:

1. At least one thing is stated to be a member of the set being defined, this is sometimes called a "base set"
2. All things bearing a certain relation to other members of the set are also to count as members of the set. It is this step that makes the definition recursive.
3. All other things are excluded from the set

For example, a natural number can be defined as follows (after Piano);

1. "0" is a natural number.
2. Each natural number has a distinct successor, such that: the successor of a natural number is also a natural number, and no natural number is succeeded by "0"
3. Nothing else is a number

Here "0" will have exactly one successor, which for convenience we call "1", in turn, "1" will have exactly one successor, which we would call "2", and so on. You will notice that the second condition in the definition itself refers to natural numbers and hence involves self-reference. Although, this kind of definition involves a form of circularity, it is vicious, and definitions is quite successful.

3.2   Persuasive Definition

Whenever a definition attempt to attach emotive meaning to the use of term and thereby confuse the literal meaning of the term, such definition is said to be persuasive. In other words, a persuasive definition is one that has its term defined in such a way as to be an argument for a position. It is deceptive in that it has the surface of a dictionary definition. This is what make persuasive definition to be different from lexical definition. Lexical definition aims to be neutral to all usages. Persuasive definitions are usually formulated to influence the attitude, excite or stir the emotion of its hearers or readers. It is

on this ground that a persuasive definition is always rejected as it is often considering to be fallacious.

This form of definitions is common in politics, sex and religion. An example of this definition is found in Ambrose Bierce in *The Devils Dictionary* when he defines "heathen" as a "benighted creature who has the folly to worship something that can see and feel". According to Uduma, a lexical definition of would be couched as "one who does not believe in the *Christian God*" or "one who does not follow an established religion". What Bierce was defining was an attempt to present as foolish those who believe in what cannot be seen or feel in other that he might make a case for the heathens.

3.3   Precising Definition

Précising definition is a form of definition that is used in contexts where the vagueness of a word, term proposition is unacceptable. It is developed to take care of the ambiguity or vagueness that some other forms of definitions, particularly stipulative and lexical definitions may give up on. This definition extends the lexical of a term for specific purpose by including additional criteria that narrow down the set of things, meeting the definition. This sort of definition begins with the lexical definition of a term but then propose to sharpen it by stipulating more narrow limits on its use. In this regard, précising definition combine two techniques to arrive at its form of definition. That is the techniques of the lexical and stipulative definitions. This is done to reduce vagueness of a word or phrase. To this effect, persuasive definition is seen as a form of stipulative definition which attempt to describe the "true" or "commonly accepted" meaning of a term, while stipulating an alter use, perhaps as an argument for some specific views (see C.L Stevenson as quoted by Uduma: 2015). But then, the lexical part must be correct and the stipulative portion should appropriately reduce the vagueness.

We need not to confuse the pecising definitions combining the lexical and stipulative techniques for its use to mean that it is the same with the latter two. Précising definition differs from both lexical and stipulative definitions. One point of difference is that while stipulative definition freely assigns new meaning to a completely new or currently existing term creating a usage that have never previously existed, that which is to be defined (definiendum) of précising definition is not a new term but one whose usage is established, although vague. Précising definition does not in any way freely assign any meaning to its definiendum, they must remain true to established usage. However, précising definition must go beyond established usage if the vagueness of the definiendum is to be reduced. For example, a dictionary may define the term "student" as "anyone attending an educational institution of any type or someone who studies something". However, a travelling agency or movie theatre may propose a précising definition for the word "student" of "any person under the age of 18 enrolled in a local school" for them to determine who is eligible to receive rebate or discounted tickets".

3.3   Definition by Genus and Difference

The method of definition by genus and difference is very important in language and logic. Indeed, it is known as one of the best ways to reduce ambiguity and vagueness. The definition by genus and difference also encompasses some other methods of definition such as: stipulative, précising or real, theoretical and lexical definitions. It is a kind of definition in which a word or concept that indicate a specific type of item is described first by a category, *genus*, then distinguished from other items in that category by *differential.* The differentiae of a species are the species' properties that other members of the genus do not have. In short, the genus is the broad category, the species is a type within that category, and the differentiae are the distinguishing characteristics of the specie. The words *Definiendum* and *definiens* are two key words you must master before you can understand the method of definition by genus and difference. The *definiendum* stands for the word being defined while the *definiens* is the word or words that do the defining.

You also need some clarifications concerning proper sub-class, genus, species and difference. For a class X to be a proper sub-class of another class Y, every member of class X must be a member of class Y. For example, the class of collies is a proper sub class of dogs. For the above explanation, it is clear that the species is simply a proper sub class of the genus 'dog.' You should also note that the way these terms are used here is different from the use they are given in biology. In logic, the difference is the attribute that distinguishes the members of a given species from the members of other species in the same genus (Layman, 2000:101).The process of constructing a definition by genus and difference is as follows:

1.   Choose a term that is more general than the term to be defined and name its genus.

2.   Find a word or phrase that identifies the attribute that distinguishes the species in question from other species in the same genus. In constructing this kind of definition, we begin by identifying a familiar, broad category or kind (the genus) to which everything our term signifies (along with things of other sorts) belongs; then we specify the distinctive features (the differentiae) that set them apart from all other things of this kind. For instance, if we are to define the phrase human being following the ancient Greek view point; we shall say that human beings are members of a species. So, we ask what the genus, or general category, of species is; we would say that the genus is animal. The genus, then, is animal and the species is human being. What is the differentia of the species, that is, the distinguish characteristics, that is properties that human beings have, that other animals do not have? From the ancient Greek view, it is *rationality*; the things that humans have that other animals do not have is *rationality.* So, rationality is the differentia of the human species according to the ancient Greeks; thus Aristotle said, "Man is the rational animal". By this he meant to be giving a

definition of "man" or "human being". The point we should note is that thus definition is used to categorise different plants, animals and other things into biological categories. But then, its use is not restricted to science. The idea behind this definition is the natural thing to do if we are to explain the meaning of a word to someone.

According to Uduma O Uduma (2015), there are at least six (6) criteria we need for this method of definition by genus and difference to be adequate.

Criterion 1:   Avoid Circularity: A circular definition uses the term being as part of its own definition, it cannot provide any useful information. When this rule broken, the situation will be of two folds. It is either audience already understood the meaning of the term or it cannot understand the explanation that includes that term, which eventually defeat the purpose of the explanation. For instance, if the term "bachelor" is defined as "an unmarried man" or "Metaphysics" is defined as "systematic study of metaphysical issues". Such definition offers no information.

Criterion 2:   Focus on Essential Features: A good definition must state enough essential characteristics so that through them the term tries to point out the features that are essential to the designation of things as members of the relevant group. In other words, a definition must not mention trivial characteristics.
.
Criterion 3:   Capture the correct Extension: the definition must apply to the same thing as the term being defined. It must neither be too broad nor too narrow. For instance, when a "bird" is defined as "warm blooded animal". This definition is too broad as it has included all the other animals that are not birds.
Or, when it is defined as" feathered egg-laying animal". This is also too narrow as the male birds have been excluded.

When it is defined as "small flying animal", this is too broad and too narrow. It is too broad because it has included "bat" which is not a bird and too narrow because it has excluded "Ostriches"

Criterion 4:   Definitions should avoid figurative or obscure language: A definition is meant to explain the meaning of a term to someone who is not familiar with its proper application. Thus, language that does not help such a person learn how to apply the term should be avoided. Otherwise, the purpose of the definition is defeated

Criterion 5:   Definitions should be affirmative rather than negative: definition is not expected to be negative where it can be positive. It is what a term is not, when of course what is meant to achieve is to make what the term is known to the audience
.
Criterion 6:   Avoid definition by example: Since examples are by themselves not enough to define a term, it should be avoided. The only time this may not

matter could be when the audience already have some larger or context of the term.

4.0   Conclusion

We have some other forms of definitions in this unit. However, it is important to note their limitations to definition in language. This is because, English language contain finite number of words. Thus, any comprehensive list of definitions must either be circular or leave some terms undefined. Especially if every term of every *definien* must be defined, this process will have to continue ad infinitum. As a matter of fact, there are some terms that cannot be defined, e.g. "*generalisma*", "unity", and so on. This is because we cannot assign any higher genus under which they may fall.

However, to avoid this, some philosophers have argued for us to leave some terms undefined. For instance, Wittgenstein rejected he very idea that every explanation of the meaning of a term needed itself to be explained. To him, there is no need to support an explanation with another explanation. John Locke on the other hand simply conclude that we cannot define individuals. This is because names are learned by connecting an idea with sound, so that speaker and hearer have the same idea when the word is used. This to him is not possible when no one else is acquainted with the particular things that has fallen under our notice. All these positions point to the limitations that are inherent in definitions

5.0   Summary

To recap what you have learned in this unit, click on the video below or copy the link and paste on a web browser. The video is a summary of what you have read in this unit. You could also click on the audio version and listen. You can also download them and play offline.

Video   https://youtu.be/3DG1M2rix_Y

Audio

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Unit 5   Categorical Propositions Contents

Contents

1.0   Introduction

This study unit introduces you to different types of categorical propositions. It will focus specifically on what logicians call categorical propositions such as universal affirmative and negative, particular affirmative and negative. As stated earlier (module 2, unit 2) in logic proper statements and proposition are synonymous and therefore interchangeable. So to a logician, a proposition is that statement that can both be denied or asserted. These propositions are of four (04) types and form two pairs, each pair having two propositions with it. The two pairs derive their names from the Latin words *Affirmo* and *Nego* which stand for affirmative and negative, respectively. Under *Affirmo* we have universal affirmative and particular affirmative while in *Nego* we have Universal Negative and Particular Negative.

In its standard form, a categorical proposition is as follows: quantity/subject, class/quality, copula/predicate class. The quality also understood as the number of members of the subject class is usually indicated by quantifiers such as All and Some. While the quality is the affirmation or negation of the verb/copula is, which (1)is taken as a symbol not of identity but of inclusion. There is also a short hand way of expressing the categorical positions individually. A is for universal affirmative: All S is PE. is for Universal Negative: No S is PI is for particular affirmative: Some S is P O is for particular Negative: Some S is not P.(1)

This study unit on the "types of propositions" has been taken with little modification from N. Otakpor, *A Preface to Logic* (2000).

2.0   Intended Learning Outcomes (ILOs)

By the end of this unit, you will be able to solve philosophical issues using categorical propositions.

3.0   Main Content

3.1   the Universal Affirmative Proposition (All S Is P)

The universal affirmative proposition contains two major distinct characteristics. First, as a proposition, it always makes a universal statement, that is, a statement which embraces all the persons, objects or concepts belonging to any particular class. Secondly, a universal affirmative proposition always makes positive statement or affirms something about the universal class. For instance, a statement such as, "All Humans beings" falls under the category of a universal proposition. You can see that in the statement "All Human Beings" includes everyone: men, women, boys and girls of all ages. It also includes all the races. In fact, the statement "All Human Beings" simply refers to all those who have human attribute. Besides, if you go on to say. "All Human Beings are Mammals," then you will be making a universal affirmative proposition. You will be saying something positive or affirming something about all human beings, that is, that they are mammals. Your statement is categorical because you have not expressed any doubt about whether they are mammals (Otakpor, 2000: 58).

You should also keep in mind that the use of the adjective "All" to stress the universal character of this proposition is not always necessary. It is conventionally understood that some propositions without the adjective "All" can be universal. For instance, the statement. "Beings are mamals"" clearly implies that all human beings are mammals. The adjective "All" is also called a "Quantifier". Here are some examples of Universal Affirmative prepositions: (a) Bride prices should be abolished (b) Men should contend themselves with one wife. (c)All politicians are liars. (d) All private schools are profit –making. e) All educated Nigerian girls are proud. (f) All taxi drivers have clear vision. (g) All policemen take bribes. (h) All economists are stingy. (i) All these propositions are from Otakpor, 2000, P59.

If you look carefully at the above propositions, you will discover that most universal propositions are not often true. They may be persuasive because they are widely believed.

These examples also expose you to the danger of making broad assertions or claims.

3.2   The Universal Negative Proposition (No S is P)

The universal affirmative and universal Negative propositions share the same characteristics. The only difference lies in the fact that one affirms while the other denies. That is, the universal affirmative proposition makes affirmative statements while the universal Negative makes negative statements. For example, if the universal affirmative proposition says, "All Human beings are mammals", the universal Negative proposition will say "No human beings are mammals". However, they make an all- embracing and sweeping general statements which may sound plausible, but which may be false (Otakpor,

2000:64). Other examples are; Bride prices should not be abolished (b) Men should not contend themselves with one wife. As stated earlier, universal propositions mostly depend on public bias or prejudice either for or against something, persons, a class or objects. For this reason, it is not often true.

3.3   The particular Affirmative proposition (S is P)

As already stated, we have two pairs of categorical propositions: Affirmative and Negative. Under the pair of Affirmative we have the Universal Affirmative and the particular Affirmative proposition. The difference between the two lies in the fact that the particular Affirmative proposition makes a statement about some but not all of the members of any class of objects or persons. For instance, if you make a statement such as "some students are lazy" you are simply making a particular affirmative preposition. You are making a positive statement about some members of the class of students, that is, that "some students are lazy", not that all students are lazy.

3.4   The Particular Negative Proposition (Some S is not P)

It is the opposite of a particular Affirmative proposition. Although it belongs to the pair of Negative affirmative proposition it still remains different from the universal negative. The particular negative proposition denies something about some members of a class. For instance, if you say that some taxi drivers are not drunk. You are making a particular negative proposition; you are simply denying the attribute of being drunk to some, but not all taxi-drivers.

4.0   Conclusion

This study unit dealt with the different types of propositions. It dealt specifically with what logicians call categorical propositions.

5.0   Summary

To recap what you have learned in this unit, click on the video below or copy the link and paste on a web browser. The video is a summary of what you have read in this unit. You could also click on the audio version and listen. You can also download them and play offline.

Video   https://youtu.be/f7yLGIGPLEY

Audio

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Discussion Forum

1. Match the definition on the left to the letter of the item on the right that best characterizes it.

i.	"Tall man" means male human over 6 feet in height.	A. Enumerative definition
ii.	"Tome" means large book	B. Definition of sub class
iii.	A "sound argument" is one that	C. Lexical definition
iv.	Has only true premises	D. Stipulative definition
v.	Is valid (i.*e., its conclusion cannot false while its premises are true)*	E. Précising definition *be*
vi.	"Humans" means rational	F. Theoretical definition

2. Identify one defect in each of the following definitions, using the six criteria for definition by genus and difference.

   i.   "Penguin" means bird that can't fly, but not an Ostrich, Cassowary, or *Emu.*
   ii.   An "Octagon" is a figure shaped like a stop sign.
   iii. A "triangle" is a closed – plane figure having three sides of equal length.
   iv.   An "ellipse" is a cross between a circle and a rectangle.
   v.   "Homosexual" means a man who is erotically attracted exclusively (or at least primarily) to other men.
   vi.   A "wealthy person" is one who has as much money as Bill Gates or Aliko Dangote.
   vii. "Evil" is defined as the darkness that lies within the human soul.
   viii. "Blue" means having a bluish colour.
   ix.   Time is the great container into which we pour our lives.
   x.   "Oligarchy" means a form of government in which the ruling power belongs to a few persons.

Post your answers on the forum page. Among the posts of your colleagues, select two and comment on the posts.

Module 5   Argument Forms and Law of Thought

Unit 1   Argument Forms

Contents

1.0   Introduction

This study unit introduces you to the various forms of arguments in philosophy and logic

2.0   Intended Learning Outcomes (ILOs)

By the end of this unit, you will be able to analyse arguments forms in solving communication issues.

3.0   Main Content

3.1   Argument forms

Having defined and discussed what statement and statement forms are all about, you should always remember that an argument form is to arguments what statement form is to statements. Logicians define an argument form as 'any sequence of symbols containing statement variables but no statements; such that when statements are substituted for the same statement variable throughout the result is an argument. There is at least one fundamental difference between statement form and argument form. In the statement form and its substitution instances while in that of argument form reference is made to argument form and its substitution instances.

3.1.1 Modus Ponens

This is the simplest type of valid argument form that is constructed with hypothetical conditional statements. The argument form of Modus Ponens can be read as follows:

If this happens, then that will follow
This happens
Therefore, that follows.
In a symbolic form the argument form of Modus Ponens become thus:
p ⊃ q
P
Therefore q

Of course, 'p' here represents the antecedent while 'q' represents the Modus Ponens argument form corresponds to the first rule of inference earlier stated. You should also keep in mind that Modus Ponens is any argument that affirms the antecedent of the first premise in the second premise and affirms the consequent of the first premise in its conclusion. For instance, when we say:
If all men are mortal, then Bola is mortal

All men are mortal
Therefore, Bola is mortal
The form of this argument is as follows:

P ⊃ q
P
Therefore. q

However, you should bear in mind that any argument form that denies the antecedent is invalid and therefore commits the fallacy of Denying the Antecedent.

3.1.2 Modus Tollens
p ⊃ q
-q
-P

From the above you can see that the characteristics of Modus Tollens argument form is that it always denies the consequent. So, you should always remember that any argument that denies the consequent of the first premise, in the second premise, in its conclusion, is of the Modus Tollens form. For instance, when we say:

If all men mortal, then Bola is mortal
Bola is not mortal
Therefore, All Men are not mortal

The form of this argument is as follows:

P ⊃ q
-q
Therefore –p

3.1.3 Hypothetical Syllogism

p ⊃ q
q ⊃ r
Therefore, p ⊃ r

What makes Hypothetical Syllogism unique is that the first premise and conclusion have the same antecedent, the second premise and conclusion have the same consequent and the consequent of the first premise is the same as the antecedent of the second premise. So, any hypothetical syllogism that follows the above character is a valid one. For instance, when we say:

If Bola is a father then he has children
If he has children then he has a wife
Therefore, if Bola is a father then he has a wife

The form of this argument is as follows:
p ⊃ q
q ⊃ r
Therefore p ⊃ r

3.1.4 Disjunctive Syllogism

P v q
- p
Therefore q

As the name says, disjunctive syllogism is that form of argument that has a disjunction as first premise. It is unique in the sense that although the second premise always denies or contradicts one of the two disjuncts of the first premise, it goes on to validly infer, in the
conclusion, that the other disjunct is true. Take the following example:

Either Tope will cook or Tope will eat in the restaurant.
Tope will not cook.
Therefore Tope will eat in the restaurant.
The form of this argument is as follows:
P v q
-p
Therefore q

Always remember that in a Disjunctive Syllogism any of the two disjuncts can be negated. And, if the first disjunct for instance is negated the second become automatically true and vice versa. This is the principle of any Disjunctive Syllogism.

4.0   Conclusion

This study unit dealt with the rules of inference and Argument forms. It is clear to younow that logicians acknowledge at least four common forms of arguments which are, Modus Ponens, Modus Tollens, Hypothetical syllogism and Disjunctive syllogism

5.0   Summary

To recap what you have learned in this unit, click on the video below or copy the link and paste on a web browser. The video is a summary of what you have read in this unit. You could also click on the audio version and listen. You can also download them and play offline.

Video   https://youtu.be/oRXvd9OkpKE

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Unit 2   Laws of Thought

Contents

1.0   Introduction

This study unit introduces you to the laws of thought as laid down by Aristotle. According to the Greek philosopher (Aristotle), these principles or laws can be classified as follows: law of identity, law of Non-contradiction and law of excluded middle.

2.0   Intended Learning Outcome (ILO)

By the end of this unit, you will be able to analyse sentences and statements using the law of thought.

3.0   Main Content

As stated earlier, Aristotle laid down these three principles or laws of thought which are our main concern in this unit. These laws are: 1) law of identity 2) law of Non-contradiction and c) law of excluded middle.

3.1   The law of identity

The law of identity is always stated as follows: "A is A". Here "A" stands for anything whatever. The originality of this law is that it simply states that anything is what it is. For example, "A is A"; "B is B" and "C is C", everything you say presupposes that thing. For instance, if you speak of a car you are presupposing that 'a car is a car'. You should also keep in mind that the law of identity "A is A" does not give you specific information concerning the qualities of A: it only tells you that "A is A" that is, whatever "A" happens to be, the thing is itself and nothing else. It does not matter what the "A" is made to represent. The law of identity is always true. Logicians call it a tautological statement because the statement "A is A" is a necessary truth. Moreover, the statement "a car is a car" can neverbe false.

3.2   The law of Non-contradiction

The law of non-contradiction states that nothing can be both 'A' and not 'A'. According to the law, if this is 'A' then it cannot at the same time be '–A'. For instance, if this is a chalk, it cannot be anything else than a chalk. If this is a house, it cannot be anything else than a house. It must be one or the other. It cannot be both. It must either be 'A' or not 'A'. If it happens to be 'A' and not 'A', then it becomes self–contradictory. The only way to avoid self–contradiction is to obey the law of non–contradiction.

3.3   The law of Excluded Middle

The law of excluded middle is the third law of thought and it states that everything is either A or not A. As it indicates, the law of excluded middle excludes the middle ground between A and not A. According to the law, everything must choose to be either A or not A. It cannot choose to be neither. For instance, this is either a car or not a car. It cannot be neither a car nor not a car. It must be either a house or not a house. It must be one or the other. According to the law of excluded middle, you cannot refuse to be this and also refuse to be the other. The overall aim of these laws of thought is to set patterns for anyone who wants to think and speak correctly. Their main duty is to ensure consistent and non – self-contradictory thinking, speaking and writing. For instance, the law of identity tells you that a thing is what it is and nothing else. The law of non-contradiction tells you that a thing must be one thing or another thing. It cannot be that very thing and be another thing at the same time. The law of excluded middle tells you that a thing must be one thing or not that very thing. It cannot be neither that very thing nor not that very thing. It must be one or the other. These laws of thought are very important because they are presupposed in all our speech whenever we speak about anything.

4.0   Conclusion

This study unit dealt with different laws of thought. There are generally three standard laws of thought laid down by the Greek philosopher Aristotle (384 – 322 BC) These laws are:

1.   The law of identity
2.   The law of non – contradiction
3.   The law of excluded middle.

5.0   Summary

To recap what you have learned in this unit, click on the video below or copy the link and paste on a web browser. The video is a summary of what you have read in this unit. You could also click on the audio version and listen. You can also download them and play offline.

Video   https://youtu.be/nS-AyXqbLNY

Audio

6.0   References/Further Reading

Neneye, E P. 2003. *Introduction to Logic and Philosophy.* Owerri: Prosperity Publishers.

Otakpor, N. 2000. *A Preface to Logic.* Benin City: Omone Books.

Uduma, O. Uduma (2015). *Logic and Critical Thinking, (2ⁿᵈ Edition)* Ghana: Africa Analytical Publications.

Discussion Forum

In your context, identify two issues each that involve argument forms and law of thought. State the issue and analyse. Post to the forum page.