3 STUDY UNIT 2. THE PRE-SOCRATICS, SOCRATES, PLATO AND ARISTOTLE

Learning Outcomes

In the previous chapter we conducted a brief survey of the history of Western philosophy's reception and practice in South African universities since their establishment. We now turn to the internal history of Western philosophy and its development amongst the Greeks. When you have completed this study unit, you should be able to:

- explain why we need to understand the history of philosophy before we can understand what philosophy is,
- give an account of the *Arche* as found in the concepts of the Milesian philosophers identify the various relevant features of pre-Socratic thought that constitute the philosophical background to Socrates's approach to philosophy,
- explain and evaluate the theories of knowledge and reality proposed by Plato and Aristotle give an account of Aristotle's concepts of substance and cause by providing examples of the application of his doctrine of cause,
- briefly explain the concepts and methods of analysis that will enable you to gain a gradual understanding of the subjects covered by epistemological and cosmological/metaphysical inquiry and assessment.

3.1 Introduction

There is an awful caricature that, for good reason still exists in many people's minds. It is the picture of a philosopher who was a balding, middle aged, acerbic eccentric white male (usually a professor) who peruses a narrow band of knowledge found within ancient musty books and obscure academic journals. These publications are disconnected from other fields of knowledge and radically disconnected from the daily experience of most people. So that as the cliché goes he knows more and more about less and less. This disconnected modus operandi became epitomised and rightly caricatured. Sir Ken Robinson recently observed that possibly a university professor's body was only a biological machine to transport his mind to meetings. Today that has all changed. Maybe the idea of thinking as a detached mental process is outmoded, we should possibly use the neologism "perfink" (i.e. we perceive, feel and think simultaneously (Bruner 1986:118). Some of us might be middle aged and some bald but we as philosophers comprise a richly textured slice of humanity. There are philosophers from across the entire spectrum of humanity, young, old, gay, straight, spiritual, atheists, third world, fourth world, scientists, authors, engineers, artists, women, men, hermaphrodites and the list goes on. In fact many people recognise that today you do not have to be a salaried professional academic to be a philosopher it is a radically democratised way of being-in- the- world.

We would therefore encourage you as our student to adopt a more holistic approach to this subject, since you are a philosopher-on-the-journey. While you will be examined on the contents of this study guide and not the entire history of human consciousness, we recommend that you also begin to open your being to other possibilities! The study of philosophy becomes very exciting, as does any other academic discipline, if it is a daily lived experience, not something you have to do in order to pass an exam but something you want to do because it enriches your life.

So here are some suggestions about how you could expand your philosophical interests beyond our study guide and please do. It would, in our estimation, be really tragic if the only philosophy you read this year was the study guide. We all are our history to a greater or lesser extent, and that includes all the philosophers you will study.

The historical period that a philosopher is born into the dominant socio-political-cultural grouping s/he was socialized into the gender of the philosopher. Philosophy is located within the complex folds of history. Philosophers were and still are people who larger historical processes shape. This means that despite often being revolutionary thinkers, a philosopher is trapped within her particular historical period's world view. If you become interested in philosophy, you will enrich your academic journey by developing a parallel interest in history. As recently as a hundred years ago many academics erroneously believed that philosophy was pure objective reason, thought through by white European men and that the ability to reason could be taught decontextualised from history. When you begin to understand the world views that many philosophers lived inside of, fascinating philosophical questions appear about the nature of human consciousness. Here are two examples. Have you ever wondered how in ancient history some people claimed to literally “hear the voice of God?" Well according to Julian Jaynes this might actually have occurred because of how the human mind was structured then, you can read more about that provocative thesis in The origin of consciousness in the breakdown of the bicameral mind (1990) We shall begin this study unit by explaining what is understood by philosophy in the Western tradition by examining the questions posed by the earliest Western philosophers. These early philosophers are usually referred to as the philosopher- scientists; you will find out why when you read about them. Their ideas differed from their predecessors in that their philosophy did not include myth. In various ways, the philosopher- scientists' elucidation of their ideas marks the origin of Western philosophy. The general characterising feature of philosophy that is, the ongoing debate about various problems is indicated in the way philosophy systematically explores the different perspectives concerning the nature of knowledge and reality.

We shall briefly look at the opposing approaches of Parmenides and Heraclitus, whose significance as philosophers lies in the way in which Socrates and Plato both attempted to overcome the impasse created by their opposing views. We shall introduce you to the defining themes of all epistemological and metaphysical enquiry by giving you a detailed outline of Plato's theories of knowledge and reality. Epistemology is the study of the relationship between knowledge, truth, belief, and justification; metaphysics is the study of questions concerning the meaning of underlying substance and causal connections. We shall gradually encourage you to form your own responses to the views of this classical Greek philosopher. Finally, we shall turn to the other great classical Greek philosopher, Aristotle, and follow the same methods and procedures with the aim of explaining his views on epistemology and metaphysics.

3.2 What Is Philosophy?

“Philosophy" is a word much used and little understood; a fact which is perhaps not very surprising, because philosophers themselves disagree about its precise meaning, as they do about much else. This uncertainty of meaning is not only the only thing that is likely to confuse you. To make matters worse, the subject-matter of philosophy is also rather technical and obscure, and you may also find this discouraging. However, if we take the right approach, you should be able to cope with philosophy, because the study of philosophy is really about very familiar issues. All that is difficult and unfamiliar about it is the rigorous analysis of well- known concepts and ideas.

Before continuing, though, we want to make a few suggestions. In recent years this literary genre, alongside management literature and books on esoteric subjects has mushroomed. Philosophy has come out of the academic closet in many ways. It is becoming along with poetry the in vogue cocktail party guest. One of the more productive ends of this spectrum would be to read these popular books that are written by academic philosophers. Here you will find philosophical arguments presented in light, refreshing prose that will entice you to read more. You will not pass your exam by only reading The Complete Idiot's Guide to Philosophy (2002) or Philosophy for Dummies (1999) but we guarantee it will enlarge your understanding and will help you with some of the difficult parts of this guide. There are other very useful introductory texts such as the Introducing ... series (introducing books .com), which combine high class graphic art and philosophical text to explain individual philosopher's theories. If thematic philosophical themes interest you read some of Alain De Botton works for example How Proust can change your life (1997) and The Consolations of Philosophy (2001), then are also philosophical novels which use this genre to teach philosophy one of the most popular in recent year has been Sophie's World (2007).

We cannot guarantee that all of what you read in this arena is soundly substantiated or argued, however it will certainly whet your appetite for more philosophy. That after all is said and done might be more important in the long run than fretting endlessly about making a few philosophical faux pas these authors might commit. As a not strictly popularist but certainly easy to read introduction to the subject we would recommend Rethinking Truth (2006) and Rethinking our World (2007). Philosophy has gone digital. The web fairly groans with the weight of it, in 2010 we typed the word “philosophy" into Google advanced search and it confirmed 85,000,000 hits. So there is a great deal out there even if you are far from an academic library. Where do you start? A very basic place would be Wikipedia an on line community web based encyclopaedia open to all. Then you could move on to another highly respected creative commons site The Stanford Encyclopaedia of Philosophy (http://plato.stanford.edu/contents.html) is a premium, very high quality shareware source. The Internet Encyclopaedia of Philosophy http://www.iep.utm.edu/ all of these sites are free open source sites. Have you ever participated? In an online philosophical conversation? You can and might even meet other people from all over the world like you with this interest. Both Facebook and LinkedIn are social media sites that have a host of philosophical forums. Go and join one that appeals to you. If you keep to writing in quite a clear academic style these forums will provide a wonderful place for you to practice your philosophical debating skills. Here is a site which rates the top philosophy blogs http://www.blogtopsites.com/philosophy/. There is also a forum for blacks in philosophy called the society for black philosophers which hosts a page on Facebook at https://www.facebook.com/groups/SAblackphil/. It deals with issues related particularly to blacks as a marginalised group and their experiences and agenda in South African philosophy.

Then what about blogs? These are sites that are run by individuals that have an interest in philosophy. Many blogs have moved out of the purely personal expressivity mode and now are run by professional and interested people who want to share their philosophical view with others. At the time of writing this guide we would recommend http://virtualphilosopher.com/. Both of these are well worth looking at. How about going to and setting up your own blog, then invite some of the other students studying this module to join you? You could also set up a wiki, an enabled discussion platform. Now as we pointed out earlier, even professional philosophers are unlikely to arrive at a consensus about what constitutes philosophy, so there is no point us giving you a definition at this early stage.

The only way to discover what philosophy is, is to do it and to construct a definition as we proceed. Let us begin with a very simplistic and provisional definition and then qualify and modify our definition as we become better acquainted with the discipline of philosophy.
This is the traditional method of philosophising, by the way: a continual debate, or running self-criticism, in which insights are acquired and developed by a continual discussion.
This is why philosophers always appear to disagree: they are pursuing the method of developing a theory by progressive criticism. Their disagreement is therefore by no means a sign of stupidity or ignorance far from it. Instead, it is a sign of progress and vitality in the pursuit of the proper method of acquiring knowledge and wisdom. Here are two very rough, but we think, basic enough definitions of philosophy for you to begin to work with. Philosophy is the rational justification of our intuitive perceptions about the what, the how and the why of existence. Put in slightly more abstract terms A piece of [philosophical] knowledge is never false or true - but only more or less biologically and evolutionary useful. All dogmatic creeds are approximations: these approximations form a humus from which better approximations grow (Ernst Mach).

Try this small philosophical experiment before you begin this course write down your definition of philosophy, when you have completed your studies go back and see what has changed. My definition now (date.....) My definition after the completion of my course (date.....).

All knowledge advances by discussion, including in the sciences. What is agreed and accepted is no longer of vital interest. The growing point of every branch of knowledge is the region of perpetual debate. This is more obviously the case in philosophy because philosophy is the intellectual discipline par excellence what the 19th century philosopher Hegel called “the thinking study of things". This is why, eventually, every science, in its attempts to interpret factual discoveries, becomes philosophical. How, then, should we describe the philosophical method? Philosophising is a method which tries to define some concept provisionally, as that concept appears to common sense (eg the common sense concept of justice). The philosophical method will then examine the definition, develop its implications to discover whether these implications are self- consistent, and correct this definition wherever it is found wanting. In doing this, philosophising will lead to a different definition and a new theory of the defined concept. Philosophy will then proceed with a critique of this new definition and theory and, in the process; this will lead to more disagreement and more advancement. This form of discussion characterises every good philosophical treatise. Indeed, the individual philosopher, if she is worthy of her calling, argues with herself, criticises the work of her predecessors and her colleagues, seeking not just to refute them but to discover what is reasonable, coherent, and true. Thus the history of philosophy also becomes a dialogue and a discussion one which is never stale or dead because the issues are still current and are always, in some way, directly or indirectly, the concern of every thinking person. (See Stumpf & Abel 2002:6;19; 551;566.)

3.3 Philosophy and the History of Philosophy

Like every other intellectual endeavour, philosophy is rooted in history, and can be properly understood only in the light of its past. We cannot fully understand contemporary philosophy or what modern philosophers are doing apart from their historical background, because the work of modern philosophers is, to a very large extent, a reflection upon the work of their predecessors. Nobody can develop an adequate philosophy for herself in complete ignorance of the philosophy of the past.

This is self-evident if one considers that philosophy arises out of our ordinary everyday ideas and experiences; also, these “ordinary everyday ideas and experiences'' are themselves the products of a particular way of living which has developed during the course of past centuries. And this way of thinking itself is saturated with concepts contributed by past thinkers.
We have incorporated these ideas and concepts “unconsciously'', without clear awareness of their origins, into ways of thinking and acting which we take to be “natural'' to us. For instance, we take it for granted today that no theory about what happens in the world around us is of much value unless it is based upon, and can be tested by, observation and experiment. But before the 17th century this approach would not have occurred even to highly educated and intelligent people; until the 17th century, everyone would have almost certainly rejected personal observations in preference to statements backed by high authority.

The modern outlook has been assimilated from our Renaissance predecessors. However, we tend to be unaware of this fact, but take it as the natural attitude of all intelligent persons. It is these sort of ideas that we are called upon to examine in philosophy and we cannot do this if we accept them in their confused popular forms and in ignorance of their historical origin and development. As we have indicated above, these ideas are, for the most part, based on philosophical theories which, in the course of time, have become accepted as true. However, to properly understand these ideas, as philosophers we must know how and when they originated. And, to understand their history, we must not only study past theories, but must rethink them, redevelop them in our own thought, and thus enable ourselves to formulate new ideas that go beyond those of our predecessors.

We now need to look at the origin of the word “philosophy''. “Philosophy'' is derived from the Greek *philein*, literally meaning “to love'' and *sophia* meaning “wisdom'', so philosophy literally means the “love of wisdom''. But what is this ``wisdom'' that the philosopher loves, seeks, and pursues? There is no specific answer to this question because every person is, in a sense, a philosopher, or has her philosophical moments. The activity which the ancient Greeks themselves came to recognise by the title ``philosophy'' (the word was apparently first used as a self- ascription by the 6th century BCE Greek thinker, Pythagoras) was preceded by a phase of thought that is usually called mythological.

3.4 The Beginnings of the Philosophical Thinking in Greece

To understand Plato, we must first understand the origins of his thought. Plato's philosophy is the product of reflection upon the thought of the two preceding centuries, one of the most intellectually productive periods of human history. In line with the method of contextualisation of ancient Greek thought, we need to begin by briefly examining the principal features of Greek mythological thought. In mythological thought, the mind is held in thrall by sense impressions. Exposure to the world of natural phenomena led the people of ancient Greece to form anthropomorphic plastic images of these phenomena. In mythological thought, natural events, such as thunderstorms, are represented as giants or gods, and nature becomes peopled with evil demons and good gods, to whose mercy which human beings feel exposed. Starting with their own subjective experiences, the mythologically-oriented Greeks peopled the universe with many gods and goddesses, all of whom personified natural phenomena such as the heavens, earth, sea, and underworld (the realm of the dead), as well as wisdom, peace, war, and fertility.

Let us take a closer look at the polytheistic world of Greek mythology. In the poems of the Greek epic poets, Homer and Hesiod, the family of the gods serve as the personification of natural phenomena. In his epic poems (Iliad and Odyssey) Homer represents the gods as aristocratic heroes who maintain order on earth and who nonetheless mingle freely with earthly mortals. Zeus, the father of the gods, rules the earth from his throne on Mount Olympus, yet becomes involved in human events such as the Trojan War.
The popularisation of these myths led to Homeric mythology becoming the object of public worship in Greek city-states such as Athens and Miletus.

The poems of the 7th century poet, Hesiod are, in certain ways, an extension of those of Homer. In his Theogony (a book dealing with the origin of the gods) Hesiod accounted for the origin of Zeus. Originally, there was only Chaos, a barren shapeless mass, which co-existed with Eros, the life-giving principle. Heaven (Uranus) and Earth (Gaia) were the first gods to spring from Chaos. From them Time (Cronos), that is, birth, change, and death, arose. Chronos's son was Zeus who, like the other children of Cronos, would have been destroyed by his father, Time, were it not for the intervention of his mother, Rhea. His conquest of his father gave him immortality and he imposed order on the universe by defeating the forces of destruction.

Do not make the mistake of thinking that mythological thought is pure imagination, with no objective foundation. Like philosophical or scientific thought, mythological thought consists of reasoned statements about underlying facts. In mythological thought, there is an attempt at discerning and establishing order. In the Homeric epic, it was the gods, who, as the guardians of the city- state, provided a firm basis and continuity for the then aristocratic political order. In the didactic poems of Hesiod, the gods became the forming principle of the universe and its phenomena. It was through Eros that form was bestowed on Chaos and that harmony, balance, and justice were recognised in the interplay of opposites: day and night, warm and cold, summer and winter, male and female. The essential difference between scientific/philosophical thought and mythological thought is that, in mythological thought, the mind is wrapped up in cosmic events to such an extent that the testimony of the senses is accepted and received in a naive, and totally uncritical, manner. But it was this same understanding which enabled the ancient Greeks to create their beautiful works of sculpture, architecture, and painting. While their sense of beauty and harmony may be said to constitute one of the principal features of philosophical thinking, the experience of the fearsomeness of nature created in Greek society a definite feeling of the tragic, of the inevitability of fate, as found in so many Greeks sagas and legends. The evolution of philosophical thought from mythology may be seen as the outcome of humankind's changing experience of reality and the specific needs arising from this changing reality. This is why the concept of knowledge changes and why the first philosophers came into conflict with the advocates of the traditional values of the city-state, values that were based on the mythology of Homer. Greek philosophy is usually taken to begin in the 6th century BCE, with the Ionian School or the Milesians, named after the city of Miletus, on the Ionian coast. The three best-known of the Milesian philosophers were: Thales (±625-545 BC), Anaximander (± 611-545 BC), and Anaximenes (±585-525 BC).

To understand the beginnings of Greek philosophy, we need to understand its historical context. The Greek city-state of Miletus increasingly needed to trade with people across the seas, a fact which modified its outlook and, eventually, changed its economic, social, and political conditions. Greek philosophy is mainly the offspring, as it were, of material and economic needs and interests.

The change from an agricultural society to a society of sea-faring traders focused the Greeks' attention on the need to study the cycle of winds, the tides, the seasons, and the stars. In the process, the Greeks discovered in nature a rhythm and regularity, an eternal cycle of rise and decay, which convinced them that there was a life-forming principle that governs the world. It is thus hardly surprising that the earliest western philosopher, Thales, was also a noted astronomer.

3.5 Pre-Socratic Philosophy: The Quest for The First Cause (Arche)

The Milesians were all preoccupied by a single problem, namely: What is the first governing principle of the world by which chaos (unformed or amorphous matter) is turned into cosmos (formed or intelligible matter)? They each suggested different answers to this question. The prevailing wisdom of the time, which was part of Greek mythology, was that there are four basic elements, namely Air, Earth, Fire, and Water. However, the Milesians disagreed with this view, and claimed that a single element was somehow more basic than the others. Such a reduction of the many (in this case, four) to the one is called monism. The Milesians defended their positions, although the details of their arguments are unclear, having been transmitted by various sources, and preserved only in fragments. Nevertheless, as philosophers, we will try to reconstruct their arguments.

3.5.1 Thales

Thales suggested that the underlying first principle was Water. He may have thought that, if the initial state of things was a mass of water, and the earth arose out of water, what is underneath the earth, supporting it, but the water out of which it arose? If there was, in the beginning, nothing else to support water why should water need support now? This view is not surprising in a dry region like Asia Minor, where water is felt to be the very elixir of life. Perhaps Thales was impressed by such considerations as the deposit of soil (silt) at the mouth of rivers as an instance of Earth arising out of Water, just as, in a different way, ice solidifies from the liquid water. Another consideration linking the traditional view of the four elements is: (1) the phenomenon of spring water gushing from the earth; furthermore, (2) water can be changed into air when it evaporates; water vapour becomes liquid as rain; (3) water takes on the appearance of fire when a volcano erupts. Whatever it was that impressed Thales, there is no question that, like the other Milesians, and he saw the Arche itself as being alive. The view that matter itself is alive is called hylozoism. Despite its primitiveness, hylozoism was a forerunner of the modern scientific concept of matter in motion.

3.5.2 Anaximander

In a manner characteristic of philosophy, Thales's view was criticised by fellow Milesian, Anaximander. Anaximander's purpose was to describe the inhabited earth geological, biological, and cultural. Anaximander was at once astronomer and geographer, cosmogonist and genealogist, meteorologist, biologist, anthropologist, and historian in short, he was profoundly committed to the knowledge of all that there is in this world.
One of his most striking hypotheses is that the cosmos of earth, sun, moon, and stars is not unique. Anaximander claimed that there is, at any moment, an unlimited number of such worlds, all of which arise from “the unlimited" (*apeiron*). This *apeiron* is that from which all the worlds and all that is in them are separated out and into which they are again absorbed. It is a boundless expanse of infinitely different ingredients. So Anaximander's objection to Thales is that, since water is quantitatively exhaustible, it could not be the *arche*.

The *arche,* therefore had to be something in which the elements rested in a perfectly unmixed state, hence his conception of the *apeiron*.

3.5.3 Anaximenes

Anaximander's successor, Anaximenes, lacked his predecessor's encyclopaedic interest, but focused upon precisely those aspects of the physical processes concerning which Anaximander's account was vague and unsatisfactory. The numberless differences in our world had not really been explained by Anaximander at all. (For example, Anaximander made no attempt to explain the process of “separating out" or even what it logically involves.) Anaximenes suggested a single natural operating mechanism, for which he found evidence in the physical world. This was the mechanism of condensation-rarefaction. All change of every kind he regarded as the result of this one mechanism. For example, if we compress the air we exhale with our lips it appears cold; if we relax our lips in exhalation, it is rarefied and becomes hot. If then it is compressed further, it becomes water and finally earth and stones; but if further rarefied, it becomes fire. These changes of one thing into another are really an indication of a change in the density of the underlying element which Anaximenes called air. Anaximenes's analysis of all objects and events in the physical world as aspects and functions of a single quantitative process is the ultimate achievement of Milesian philosophy.

NB! Point/Points to ponder

Why do you think the problem of the arche arose when it did among the ancient Greeks?

Feedback

The lifestyle of the inhabitants of Miletus gradually changed from being an agricultural one to a maritime one. Their increasing reliance upon regularity in natural occurrences (tides, winds, etc.) encouraged them to find out as much as they could about the patterns in nature. However, just why they thought a single cause was better than a variety of causes is unclear, even today.

Points to ponder

Anaximenes claimed that water is air that has been re-arranged by compression, and that air is water that has been re-arranged by rarefaction. Does it therefore follow that nothing is anything but a different degree of anything else, and that only the process itself remains fixed?

If all is one and unchanging, how can it appear to be many and variable?

3.6 Other Significant Pre-Socratics

The Milesians' crude materialistic approach to the problem of the Arche’ was opposed by both Heraclitus (± 540-470 BCE) and Parmenides (±540-480 BCE). Both thinkers thought that the arche was not accessible to sense perception, but could only be grasped by rational insight and intuition. Nor could the arche, like Anaximander's apeiron, merely be said to contain all the elements in an unmixed state. However, Heraclitus and Parmenides gave diametrically opposed accounts of the nature of underlying reality.

3.6.1 Heraclitus

Rather than search for an underlying unity, Heraclitus got rid of the difficulty of reconciling permanence and change by claiming that nothing in the universe is permanent. Everything, he claimed, is continually changing. All things are in a constant state of flux. “One cannot step into the same river twice." Heraclitus regarded Fire as the ultimate reality because, like nature itself, Fire is forever passing away and renewing itself. The universe, he believed, was a perpetual conflagration in which solid earth melted to water and evaporated to air which was then transmuted into fire. Smoke and ash from fire descended upon earth and were rekindled into fire, thus beginning the cycle again. “The world is an ever-living Fire, with measures of it kindling and measures going out."

In addition to the doctrine of change, Heraclitus recognised a principle of nature which he called the logos. The logos is the principle that everything changes. It is a universal principle and remains unchanged. The logos states that all things pass into their opposites, or are constituted by the union of their opposites. The union is not permanent, but a tension between forces driving them either on the path to Fire which is, at the same time, the starting point of the endless repetition of the cycle of transformation.

Heraclitus's disciple, Cratylus, saw that if one took this theory seriously, no permanence would be left, not even the permanence of the law of change. If everything changes, even the words we use, the meanings they have will constantly change. In other words, we could not have a constant language to describe the world we live in. So Cratylus concluded that one cannot step into the same river even ONCE, because, by the time one stepped into it, the river had changed. Because he thought that word-meanings were constantly changing (indeed, the speaker, the words, their meanings, and the listener, all change), it is said that Cratylus therefore refused to make statements. Instead, he would just wiggle his little finger when spoken to, to indicate that he had heard. It would have been futile for Cratylus to make any response, for the universe would not stand still long enough for him to make his response!

Implications of Cratylus's Thought

In Cratylus's thought, it is clear that certain presuppositions (which we commonly make) about knowledge are in operation. To begin with, it is assumed that only what is true can rank as knowledge and that truth is absolute - either all or nothing. In other words, what is not quite true is not true at all and so is not knowledge. It is also assumed that what is true is always true, which means that the object of knowledge must be true and unchanging. What constantly changes cannot be an object of knowledge.
What changes never remains (and so never properly is) what at any moment it is said to be. Instead, it is constantly becoming something else what it is not. It neither is nor is not precisely anything and yet it is both something and something else a very confusing state of affairs indeed!

3.6.2 Parmenides

Recognising that the doctrines of Heraclitus and his followers led to absurdities, Parmenides took the view that what we call change is an illusion. One may briefly summarise his argument as follows: true change must mean that something that was not at one time, later comes into being. But how can something come into being? Only in one of two ways: either from something else or out of nothing.
If it comes out of something else, it already existed; if it came out of nothing, then "nothing" must be treated as though it had some being; otherwise it would be absurd to think that something could come out of nothing, or out of nonbeing. Either way, then, the phrase "comes into being" must mean that what we call change refers to what already exists, in which case there is no real change.

This conclusion can also be reached by reasoning as follows: what is could never have come into being, because that would imply a time when it was not when nothing was which is impossible. It could not come into being from what is other than being, because there is nothing other than being. For the same reason, "what is" cannot cease to be for then it would pass into what is not being and that, too, is impossible. Likewise, if being is identical with itself, it must be indivisible because if "what is not, is not" and "being is", it follows that what could divide any one portion of it from any other could only be "what is not". If it were anything else, it would be identical with being and there would be no division. It follows, further, that no part of being can be other than or different from any other part of being, because what is other would be other than being not being and there is no not being, and so no other.

Parmenides concluded thus that being is one, uncreated and indestructible. There is no "other" and so there cannot be a "many" or more than one. Because there cannot be a change within the one, there can be no movement, for movement is a form of change. There is no place where "what is" is not, so "what is" cannot move. Consequently all variety, movement, multiplicity, difference, and so on, is illusory and mere appearance. The theories describing the world in these terms are what Parmenides called "The Way of Belief " as opposed to his way, which was "The Way of Truth".

Parmenides was quite unable to offer any explanation as to how the nature of the real (i.e. Being) could make the variety of appearances possible. According to Parmenides's theory, no such appearance could occur, and our experience is thus left unexplained by Parmenides's theory.

The significance of this logical, but peculiar, argument is seen when we contrast it with the views of Heraclitus. Whereas Heraclitus recommends disregarding sensation and paying attention to a logos which we may discover through introspection, Parmenides denies that introspection is any more reliable than sensation. The logos which Parmenides recommends us to follow is pure reason, which is the source of Being itself: the structure of rational thought reflects the nature of Being itself. Parmenides's argument sets out to prove that the identity of what is precludes the possibility of any characteristic except just being. The essential nature of Being, the inner necessity that a thing is identical with itself, does not permit it to come to be nor to pass away.

The impossibility of any and all process is established by the logical consequences of identity. In opposing the featureless Being to the world of apparent change, Parmenides established a dualistic picture of the universe.

This duality is overcome only by suspending the senses and, along with the senses, all spatial and temporal motion and by pure thinking. In other words, by tracing the One in the Many. This view of the One in the Many makes Parmenides the precursor of Plato.

Point/Points to ponder

Pre-Socratic thinkers were especially preoccupied with the search for the single substance (the One) underlying the apparent diversity (the Many) in nature. Explain how their interaction in dialogue advanced the philosophical quest.

Feedback

The groundwork for the thought of the ancient Milesian cosmologists was the then current theory that the world consists of four basic elements (air, earth, fire, and water). All pre-Socratic philosophers, however, considered that ONE element was more basic than any other (they were monists). Thales decided that water is somehow the most basic element. Anaximander disagreed and settled upon an unspecified element that he saw as undergoing transformation. Anaximenes was unhappy with the vague account of transformation suggested by Anaximander and suggested another element and, more importantly, a detailed account of the process. Heraclitus took a broader view of the process of transformation and identified fire as the symbol of eternal change. Parmenides totally disagreed with him and, indeed, with all his predecessors. Parmenides tried to show the contradiction involved in speaking about change when the language of change is subjected to strict logical analysis. His peculiar conceptual logic serves to elucidate some of the implications of such strict logical thought.

3.7 The Sophists

The Sophists were a group of 5th century (BCE) professional educators. They did not pursue truth for its own sake but, instead, counselled their students or clients on how to win their cases before the law courts. The 20th century British philosopher Bertrand Russell compared the Sophists to American corporate lawyers! The Sophists emphasised persuasion rather than knowledge as the ultimate goal of argument. They represent a shift in interest away from the problems of explaining nature to the problems of explaining human conduct and relationships. The following principal ideas were characteristic of the Sophists' approach to knowledge:

- Philosophy has proved that no two philosophers think alike. If there is no change, there can be no knowledge because, in that case, we cannot describe anything. (Because description implies that a thing which is identical with itself is also something else.)
- If things change, the same is true because, where nothing persists, we cannot attribute anything to anything.
- If we can know things only in so far as they influence our senses, we also cannot know, because then the nature of things eludes our grasp.
- We cannot solve the riddle of the universe.

From this it is evident that the Sophists realised that the human mind plays an important part in the acquisition of knowledge. If Heraclitus had overlooked the fact that knowledge acquired through the senses would never provide certain knowledge, Parmenides, by assuming the competence of reason to reach the truth, had neglected to criticise reason itself. The Sophistic position on knowledge is that there is no objective truth - only subjective opinion. The individual is a law unto himself in the matter of knowledge.

Point/Points to ponder

Many people, before they have studied philosophy realize that there seem to be two sets of laws that operate in the world. There are for example the laws of nature, gravity being the obvious one. If I decide to jump out of a 5 story building I will hit the ground and the impact will kill me. Everybody else who similarly attempts this feat without a safety net will in all probability also die. The laws of nature thus appear to be universal.

Then there are laws that appear to belong to particular societies. For example different religious groups stop work and celebrate different days of the year they deem sacred. These laws for these observances only apply to followers of these societies. Thus laws pertaining to religious customs appear to be particular to a given religious group. The Sophists moral genius, or some would argue infamy, was that they on the back of the expansion of the Greek empire under Alexander the Great learnt about and accepted this cultural relativity, especially in the area of ethics and morality.

In our day many postmodern philosophers adopt the Sophist stand point. Here is one example, it comes from John Caputo's book Against Ethics (1993). Notice what he is saying that there is only meaning to be found in singular events. There are no laws endorsed by God or any system of philosophy that we can claim are universal and thus gives us a way to interpret the ultimate meaning of our lives.

"It does not take much for the tenuous gossamer web of life to come apart. A stray bullet, a stray chromosome, a stray virus and wanton cellular division - and the flesh is hopelessly ruined. Events strike a very delicate balance; they form frail, fragile, vulnerable configurations and micro connections. They are easy prey to chance and misfortune and mishap. Joy is sustained on a tissue-thin surface, a tissue of flesh. [...] To speak of what happens is to give up looking for the meaning of events, because while events give joy or sorrow, they do not, as a whole have Meaning. While there are numerous meanings in events, there is no meaning to events overall, no overarching meaning which is their point, their logos or telos, their sum and their substance. The sum and substance of events are nothing other than the events themselves. There is no deep structure that sustains what we believe or cherish, what we savour in life, none at least that we know of." (Caputo 1993:234-235)

If you find Caputo's statement shocking ask yourself why. Could you find the moral motivation from this sort of belief to live a moral or even meaningful life? The Sophists claimed you could if you were brave enough to accept this radical scepticism.

3.8 Socrates

We have no written records of the ideas of the historical Socrates, any more than we have of Thales. What we do have are the writings of his famous pupil, Plato. Because the dialogues of Plato are the only worthwhile source for the philosophy of Socrates, it is usual to attribute the following ideas to Plato (who used the name "Socrates" as a character in his philosophical dialogues) rather than to Socrates. One of the most striking characteristics one encounters in reading Plato's dialogues is the practice of the Socratic method. In Plato's dialogues, the Socratic method takes the form of a systematic questioning, a search for a defensible (acceptable) definition of a word. Such a definition would give an exact account of the essential nature of the object to which it referred. By "essential" is meant something which is peculiarly central to the object.

This essential then needs to be stated in a way that gives us, in a nutshell, enough information to tell us what that object really is.
Socrates suggested no formal rules for arriving at satisfactory definitions. Instead, his approach was the argument of negativity. In other words, he would argue that, merely enumerating instances of, say, “true" statements could not serve as a definition of justice. Instead, he supposed that, because all true statements were called “true", there was something they had in common apart from the use of the term “true" and it was this “something" that was to be defined or accounted for. Also, Socrates would not accept as a definition a word or phrase that contained, either explicitly or tacitly, the word to be defined because, he claimed, this was circular reasoning. If a suggestion passed these grounds, it was then tested by reasoning. Socrates took the definition as one of the premises (initial assumptions) of the argument, the others being agreed upon, sometimes after yet further consideration. Deductions were then made from this set of premises, and the result might be unsatisfactory either because a contradiction was reached or because a conclusion was drawn which was in conflict with the obvious facts. In either case, it followed that there was something wrong with the premises. Since all of these except the suggested definition had been agreed upon, it had to be the definition itself which was faulty, and which therefore had to be rejected.

Below is an example of the famous Socratic Method. Read this famous dialogue of Socrates (in reality, this was written by Plato). It could have been based on one of the memorable conversations he had with Socrates or he was present when this occurred or he wrote it to illustrate the discursive method his teacher used.

Now try answer these questions based on the sections of text we have highlighted, this might help you see the genius at work here.

1. Why does Socrates ask such a simple question?

2. What is the purpose of the ambiguity that Socrates creates?

3. At this stage of the argument Laches' definition of courage has changed quite considerably. Do you think it is a better definition? Why?

4. At this point in the argument how would you describe Laches' feelings? If you think he is becoming frustrated, you would be correct. Why would a great teacher like Socrates want to provoke his pupil like this? If you study philosophy, are you comfortable being provoked, or as we might say in a more contemporary image, “pushed out of your comfort zone”?

Soc. Then, Laches, suppose that we first set about determining the nature of courage, and in the second place proceed to enquire how the young men may attain this quality by the help of studies and pursuits. Tell me, if you can, what is courage?

La. Indeed, Socrates, I see no difficulty in answering; he is a man of courage who does not run away, but remains at his post and fights against the enemy; there can be no mistake about that.

Soc. Very good, Laches; and yet I fear that I did not express myself clearly; and therefore you have answered not the question which I intended to ask, but another.

La. What do you mean, Socrates?

Soc. I will endeavour to explain; you would call a man courageous who remains at his post, and fights with the enemy?

La. Certainly I should.

Soc. And so should I; but what would you say of another man, who fights flying, instead of remaining?

La. How flying?

Soc. Why, as the Scythians are said to fight, flying as well as pursuing; and as Homer says in praise of the horses of Aeneas, that they knew “how to pursue, and fly quickly hither and thither"; and he passes an encomium on Aeneas himself, as having a knowledge of fear or flight, and calls him “an author of fear or flight".

La. Yes, Socrates, and there Homer is right: for he was speaking of chariots, as you were speaking of the Scythian cavalry, who have that way of fighting; but the heavy-armed Greek fights, as I say, remaining in his rank.

Soc. And yet, Laches, you must except the Lacedaemonians at Plataea, who, when they came upon the light shields of the Persians, are said not to have been willing to stand and fight, and to have fled; but when the ranks of the Persians were broken, they turned upon them like cavalry, and won the battle of Plataea.

La. That is true.

Soc. That was my meaning when I said that I was to blame in having put my question badly, and that this was the reason of your answering badly. For I meant to ask you not only about the courage of heavy-armed soldiers, but about the courage of cavalry and every other style of soldier; and not only who are courageous in war, but who are courageous in perils by sea, and who in disease, or in poverty, or again in politics, are courageous; and not only who are courageous against pain or fear, but mighty to contend against desires and pleasures, either fixed in their rank or turning upon their enemy. There is this sort of courage-is there not, Laches?

La. Certainly, Socrates.

Soc. And all these are courageous, but some have courage in pleasures, and some in pains: some in desires, and some in fears, and some are cowards under the same conditions, as I should imagine.

La. Very true.

Soc. Now I was asking about courage and cowardice in general. And I will begin with courage, and once more ask: What is that common quality, which is the same in all these cases, and which is called courage? Do you now understand what I mean?

La. Not over well.

Soc. I mean this: As I might ask what is that quality which is called quickness, and which is found in running, in playing the lyre, in speaking, in learning, and in many other similar actions, or rather which we possess in nearly every action that is worth mentioning of arms, legs, mouth, voice, mind - would you not apply the term quickness to all of them?

La. Quite true.

Soc. And suppose I were to be asked by some one: What is that common quality, Socrates, which, in all these uses of the word, you call quickness? I should say the quality which accomplishes much in a little time whether in running, speaking, or in any other sort of action.

La. You would be quite correct.

Soc. And now, Laches, do you try and tell me in like manner, What is that common quality which is called courage, and which includes all the various uses of the term when applied both to pleasure and pain, and in all the cases to which I was just now referring?

La. I should say that courage is a sort of endurance of the soul, if I am to speak of the universal nature which pervades them all.

Soc. But that is what we must do if we are to answer the question. And yet I cannot say that every kind of endurance is, in my opinion, to be deemed courage. Hear my reason: I am sure, Laches, that you would consider courage to be a very noble quality.

La. Most noble, certainly.

Soc. And you would say that a wise endurance is also good and noble?

La. Very noble.

Soc. But what would you say of a foolish endurance? Is not that, on the other hand, to be regarded as evil and hurtful?

La. True.

Soc. And is anything noble which is evil and hurtful?

La. I ought not to say that, Socrates.

Soc. Then you would not admit that sort of endurance to be courage ± for it is not noble, but courage is noble?

La. You are right.

Soc. Then, according to you, only the wise endurance is courage?

La. True.

Soc. But as to the epithet ``wise'' ± wise in what? In all things small as well as great? For example, if a man shows the quality of endurance in spending his money wisely, knowing that by spending he will acquire more in the end, do you call him courageous?

La. Assuredly not.

Soc. Or, for example, if a man is a physician, and his son, or some patient of his, has inflammation of the lungs, and begs that he may be allowed to eat or drink something, and the other is firm and refuses; is that courage?

La. No; that is not courage at all, any more than the last.

Soc. Again, take the case of one who endures in war, and is willing to fight, and wisely calculates and knows that others will help him, and that there will be fewer and inferior men against him than there are with him; and suppose that he has also advantages of position; would you say of such a one who endures with all this wisdom and preparation, that he, or some man in the opposing army who is in the opposite circumstances to these and yet endures and remains at his post, is the braver?

La. I should say that the latter, Socrates, was the braver.

Soc. But, surely, this is a foolish endurance in comparison with the other?

La. That is true.

Soc. Then you would say that he who in an engagement of cavalry endures, having the knowledge of horsemanship, is not so courageous as he who endures, having no such knowledge?

La. So I should say.

Soc. And he who endures, having a knowledge of the use of the sling, or the bow, or of any other art, is not so courageous as he who endures, not having such a knowledge?

La. True.

Soc. And he who descends into a well, and dives, and holds out in this or any similar action, having no knowledge of diving, or the like, is, as you would say, more courageous than those who have this knowledge?

La. Why, Socrates, what else can a man say?

Soc. Nothing, if that be what he thinks.

In this section we shall focus on the problems associated with definitions (ie philosophical problems) in the sphere of knowledge epistemology. Epistemology is the theory or science of the methods or grounds of knowledge. Basically, epistemology wrestles with the question *What can I know?* Our historical account so far has been an exercise in the practice of the epistemology and metaphysics *(What is the fundamental nature of reality?)* of the pre-Socratic thinkers. When we turn to Socrates, though, we are introduced to the entire range of philosophical problems from problems concerned with knowledge *(epistemology);* with underlying reality *(metaphysics);* with grounds for distinguishing good from evil *(ethics);* and with grounds and principles upon which laws and states are constituted *(political philosophy).*

3.8 PLATO

1. We are incarnated into the physical world of the senses and lose our memory of our prior existence in the world of the Forms.

2. We perceive the physical world through our senses but intuitively know that because it is always changing, it only appears real.

3. In order to have essential knowledge then we need access to knowledge that is unchanging and eternal which is located in the world of the Forms.

4. For the above to happen we need to be able to remember the eternal truth and perfection that existed in the eternal world of the Forms. This can only happen if we spend time being educated by philosophers, spend time in intellectual contemplation and abstain from over indulging our physical appetites.

At the heart of Plato's philosophy lies his belief that the ordinary world we know through our five senses cannot be fully real. Plato thought that this world is filled with change and decay (as Heraclitus and Parmenides had shown). But if we can ever be said to know something, that which we know must be true, and always remains true despite changing and deceptive appearances. So unless one adopts the methodic doubt of the Sophists that knowledge is unobtainable, there must be a world of stable and perfect objects behind the changing objects of sense perception. The ultimate task of the philosopher was to explore this world. This was Plato's way of resolving the dilemma faced by the successors of Heraclitus and Parmenides - it was his (and Socrates's) answer to the Sophists.

What are the characteristics of Plato's theory of knowledge? Well, basically, he argued that knowledge is inseparable from ethics - knowledge is virtue *(arête).* "Virtue" did not have the same meaning for Plato as it does for us. The western concept of virtue comes from the Christian heritage, whether or not we are Christian believers. For the Greeks, *arête* could not stand on its own as "virtue" can for us. For them, to be virtuous or to be good was to be virtuous in respect of something or to be good at something. So one would talk of a governing *arête* (good at governing), or a military *arête* (good at military affairs). Plato speaks of the *arête* of dogs and horses, that is, their ability to perform their special function as dogs and horses. Plato reasoned that there must also be a human *arete,* shown by a person who was good at being a person, that is, at performing specifically human functions. The virtuous person was good at conducting his or her life as a human being.

Plato would only accept as knowledge what was completely beyond doubt and **necessarily** true. What was true but might have been otherwise, that is, what was a **contingent**, rather than a necessary truth, could only be an object of opinion. At best, this could be held as true belief, never as knowledge. For example, it is necessarily true that circles are round. However, it is only contingently true that balls are round. But one does not know that circles are round merely by looking at circles. The ideas of roundness being identical to circularity are arrived at by rational intuition (see below). One "sees" this in one's "mind's eye", as it were. This kind of "seeing" is very different from visual seeing, for instance. In fact, Plato believed that the bodily senses interfere with the pursuit of knowledge because they naturally lead to feelings and desires and these distort our powers of judgment and infect them with prejudice. Sense perception often misleads us and subjects us to illusion.

If we are to know to discover the truth about things we can only do so, said Plato, by gradually ceasing to rely upon the information of our senses and seeking, instead, that which is solely intelligible. A first approximation of examples of these readily available, intelligible items of knowledge are mathematical truths.
The Platonic upliftment of thought even in fact becomes mystical. In its pursuit of knowledge, the soul (or mind) withdraws, as it were, from the body, suppresses the passions and desires to which the body gives rise, and confines itself to its special activity, namely, thinking. It is through pure thinking that one achieves wisdom. Wisdom is taken as the ultimate good because thinking and knowing are alleged to be the pure activity of the soul, doing what it can do best and what it can do better than any other agent. Since the philosopher pursues wisdom and truth, the philosopher must keep his soul pure of bodily contamination, from passion and desire and free himself from sensory illusion. The philosopher can never hope to do this completely until he dies, for death is the separation of soul from body. Consequently, said Plato, the philosopher will welcome, rather than fear, death (Stumpf & Abel 2002:265-271).

It was suggested above that one does not know that circles are round merely by looking. How do we determine what the real size and shape of bodies are? In the case of size, do we not rely upon measurement? But measurement requires the precise comparison of quantities, something which our senses cannot do. Furthermore, mere comparison is not enough we need to adopt precise units and count them. So we must use numbers. But these are not objects of sense perception. The notion of unity is purely ideal. We can, no doubt, apply it to whatever sensory object we please we may use any convenient quantity or thing as a unit (consider, for instance, the way we teach children arithmetic). But what a unit is, as such, we can never perceive directly. Unity is purely conceptual.

Likewise, shape and the precise determination of shape, involve the use of geometrical concepts such as point, line and curve. Although these can be represented in sensory fashion, we never take the sensory diagram as more than an approximate illustration, nor is it ever completely accurate. Hence the ideas of line, circle, angle, etcetera are all ultimately abstract ideas, never strictly realisable in material media. So perhaps Plato has a point, after all.

3.8.1 Knowledge and the reality of Forms *(Universals)*

In a well-known passage from his book Republic, Plato distinguishes between knowledge and opinion. He argues that knowledge is of the real, but that opinion is only of what seems to be the case but is in some way doubtful, confused or fluctuating, or all three together. Since, by definition, knowledge must imply truth, Plato thinks that the proper object of knowledge is actual reality (what the Greeks called Being). Plato then asks what would be the proper object of ignorance, and gives the obvious answer that it would be nothing (Nonbeing). He then makes the assertion that the object of opinion is a combination of being and nonbeing, which he calls Becoming. For instance, we could say that a boy is a man, yet he is not a man but only a child. To give a precise account of anything that changes continuously we have to make seemingly contradictory statements about it. Or, take another example: no human being adequately represents or embodies what we mean by humanity, yet everyone does in some way represent and embody what we mean by the term. So, here again, we tend to say “it is" and “it is not" of the same object. In all such cases Plato thought the object of our awareness is imprecise, uncertain, and indeterminate. We can only have opinions about such matters, never knowledge. What is real must be unchanging, absolute, and universal.

Let us approach the matter in a different way. How do we characterise any object we try to know? We specify its particular attributes and properties. For example, let us consider how we try to know what a box is, or how we try to describe it accurately. First, we specify its shape, its size, its colour, the material out of which it is made, the use for which it is intended (its function), and so on. The box has any one of these properties in common with many other things if it is brown; other things (which are not boxes) are also brown. Each general term applying to a special property is common to many other kinds of object. Each is a universal and the box is described by means of a number of different universals. In order to know what the box is like we must know each of the universals we apply to it in description independently of, and prior to, knowing about the box itself. For example, we cannot say that it is rectangular unless and until we know what it is to be rectangular. Now there is a general character which a box shares with all other boxes, whether the box is used to hold pins, or cards, or apples. We may, for convenience, call it “boxness". Again, if we did not know what this was we could not recognise or identify boxes when we saw them. At the same time, no individual box is identical with boxness.

These universals are usually translated by Plato's translators as Forms (Stumpf & Abel 2002:38). The Forms are similar to mathematical entities in that they are not accessible to sense perception it is just as difficult to find a perfectly just act, good person or beautiful statue in the experienced world as it is to find a perfectly straight line or pair of parallel lines. In addition to beauty, justice, and goodness, Plato recognised Forms for the horse, the mountain, and so on. Generally speaking, there is a Form corresponding to every kind of thing there is. But the Forms, for Plato, are not merely concepts or ideas in our minds. They were supposed by him to exist quite independently of us and our thoughts. For Plato, they were the permanent objective reality to which, if we applied our mental powers, our concepts might correspond. Plato took a realist view of Forms (universals). This means that, whatever reality is ascribed to the objects which we are aware of through sense perception, is based on the fact that these objects of sense perception share, though to a limited and imperfect extent, in the nature of the Forms (universals).

The particulars which we perceive, for instance, particular acts of justice, particular beautiful things, exist as just acts and as beautiful things by virtue of their participation in the Forms justice and beauty. Likewise, particular mountains and horses exist as mountains and horses in virtue of their resemblance to the Form mountain and the Form horse. Though it is not possible to have knowledge of any particular which is observed we may aspire to knowledge of the Form. For instance, we cannot have knowledge of any particular horse because of its ever- changing qualities, but we can aspire to knowledge of the Form horse because the Form would have the permanent and unchanging qualities which are essential to the nature of all horses.

You may now appreciate the philosophical interest of the dialogue as to the essential nature of piety (holiness) which is your first textual reading (Stumpf & Abel 2002:6-19). If we can find the essence of piety (not just an accidental property), we can apprehend the Form, and so acquire knowledge of piety. But the question which immediately arises is how can we know the nature of the Forms without being presented with these imperfect copies which will always tend to mislead us in our pursuit of the truth (the Forms)? Plato recognised that he could not demonstrate the existence of Forms by means of rational deductive argument. He also acknowledged that, in the end, his account had to be accepted on the basis of an intuitive belief that ultimate reality is immaterial and not accessible to sense perception.

But we should not on such grounds immediately dismiss the Platonic theory, for any theory that we give about the nature of the world must ultimately rest on intuitive beliefs which cannot be rationally justified.

As can be seen from another reading (Stumpf & Abel 2002:38-43), Plato is well aware that our primitive and unreflecting belief is that the external world which we know through our sense perceptions is the real world. Through metaphor he hopes to convince his readers that this belief is mistaken. If we rely on sense perception, we remain like the prisoners in the cave and are aware only of shadows which we take to be reality. But if we use our understanding and aspire to the light (i.e. try to become enlightened) then the bonds of sense perception may be broken. At first we shall feel puzzled and afraid, but once we have become used to the light we shall appreciate that we have knowledge that was not available in the cave. However, if we go back to the cave, we may find ourselves laughed at and even in danger because, having been enlightened, it will be difficult for us to see things as we used to see them and in the way that those in the cave still see them.

It has perhaps occurred to you that Plato has to explain, more explicitly, how it is that we possess even the beginning of the notion of Forms. He has to explain how we come to apprehend Forms so that they can illuminate us, so that we thereby begin to come to an understanding of true reality. Plato's explanation is that, by thought, we can remember the world of Forms which the soul inhabited before its earthly life began. Plato's “Theory of Forms" depends on acknowledging that the soul is immortal, or, at the very least, that it existed before it came to the material world.

3.8.2 The doctrine that knowledge is anamnesis *(recollection)*

Plato thought that the immaterial soul is independent of, and superior to, the material body. This view of the body and soul as two different substances is a form of dualism which is the dominant tradition in western metaphysics. As we shall see later, Plato's dualism is in many ways similar to that of the 17th century French philosopher Rene Descartes, whose version also landed him in insurmountable difficulties. In any case, Plato thought that the soul belongs to the changeless world of Forms rather than to the changing world of sense perception. After death, the soul might go back to the world of Forms, although it might return once more to the material world at some later stage. But each time it returned within a body it was as though it had been once more imprisoned. It longed for release in order to return to the world of Forms. While in a material body the soul became polluted, and for this reason it would at least partially forget the world of Forms. Sense perception might serve to remind the soul of that world, but it could only begin to apprehend Forms because it had once known them fully. This explains the sense of familiarity with which people grasp a new point, the flash of recognition which accompanies new knowledge. As Williams (1967:69) puts it, it is “the power of a priori reason to grasp substantial truths about the world" which constitutes the essence of knowledge. But Plato wants to establish more than this. The anamnesis argument is not only that the soul is the principle of life it is also reason (or mind). It is by the exercise of reasoning that the soul/mind awakens to its true potential and may eventually transform the objects of its understanding from a lowly condition of mere opinion to the supreme state of knowledge.

One might well wonder why Plato placed such emphasis upon anamnesis and why knowledge was possible only if there was recollection. Well, Plato had to suggest some basis or grounds for knowledge and, since he rejected the implications of relying upon sense perception, the source of knowledge must be the mind. Still, one might wonder why it was that the mind did not arrive at knowledge by interpreting the data of sense. Plato did concede that true belief (which is based upon sense perception) might prompt the mind, but it was prompted to remember. As noted above, Plato thought that merely by perceiving imperfect particular things, we could not possibly comprehend the corresponding Form the best that perception could do was to remind us of the Form. For example, no two lines are of exactly equal length, and no two objects are of exactly equal weight, yet we do have an understanding of equality, that is, of the Form equality. Since we cannot possibly have received this apprehension by direct observation, we must have remembered it. We must have been reminded by the nearly but not quite equal things which we observe in the material world, of the absolute equality which we knew in the world of Forms. Similarly, there is no object in the material world which is completely and absolutely beautiful, but observation of objects which reveal beauty in some degree would remind the mind of the Form of beauty it had known previously.

3.8.3 Summary

It may be useful at this stage to provide a brief summary of the chief aspects of Plato's theory of knowledge:

- Knowledge is permanent and certain, that is, it is not subject to correction.
- It is not possible to claim knowledge on the basis of sense perception and therefore it is not possible to claim knowledge of any object or event in the material world. The best we can aspire to is true belief.
- True belief can guide us and prompt the mind to remember the world of Forms.
- Forms are eternal and changeless and therefore they can be the objects of knowledge.
- Forms cannot be perceived by the senses; it is only the mind which makes us aware of them.
- Thus we can know only by virtue of our mind, and by its capacity for recollection.

Point to ponder

Taking the above into consideration, plus the remarks made in the final paragraphs of 2.9 about mathematics, do we need to suppose the existence of Forms and the pre-existence of the mind.

Feedback

Mathematics is a form of knowledge that is independent of experience in a way that empirical sciences (e.g. chemistry) are not. But for that very reason we do not need to suppose pre-existent minds to explain how we may acquire it. All that is required is an understanding of the meanings of the terms used, such as straight line, triangle, or the words for numbers, together with certain assumptions about them which, in the case of Euclidean geometry, are derived from our experience of the world about us. They remain assumptions, however, and we argue only that if they are true, certain theorems resulting from them are also true. If a geometrical proof is set out formally, some of these assumptions will be treated as starting points (axioms), and the special terms used will be defined carefully. It then becomes clear that all we need for knowledge of geometry is the ability to understand these axioms and definitions plus the ability to draw deductive conclusions. This is the ability we use when we infer from the statement that Ben has a brother-in-law that Ben has a married sister. Plato's argument proves only that people naturally have this kind of reasoning ability and not that they existed before birth!

Point to Ponder

How does Socrates's claim to preach a doctrine of ignorance differ from that of the sceptical Sophists?

Feedback
The Sophists adopted a Parmenidean sceptical approach to the problem of knowledge and defended any thesis as providing an opportunity to demonstrate their dialectical (argumentative) expertise. Socrates, however, sought intellectual (philosophical) clarity as an end in itself, even if that meant challenging common sense opinion. A belief which is difficult to grasp other-worldly truth underlies Socratic dialogue, whereas the sole aim of the reasoning of the Sophists was the transmission of technical expertise.

Points to ponder

Why did Plato think that virtue depends on knowledge?

Does Plato's allegory of the cave explain how we come to have knowledge of the Forms?

3.8.4 The relationship between knowledge, truth, belief, and justification in Plato

The meaning of the word “knowledge” is such that, if I claim to know something, that something must be logically true if I am making a serious claim to knowledge. In his writings Plato argues that knowledge must be true: if something is not true, he says, we cannot know it. According to Plato, it is only in so far as an individual mental state participates in the truth that we can call this mental state “knowing”. And, as we have seen, truth, for Plato, consists essentially in the degree to which any particular thing conforms to the archetype of that thing in the realm of Forms. Knowledge consists fundamentally in perceiving the conformity (or extent of this conformity).

As far as the mental states involved in the process of knowing are concerned, modern thinkers often tend to contrast *knowledge* with *belief.* This is possibly because knowing implies some kind of acceptance or assertion of a fact: “This is dog”, “A cold wind is blowing”. The question of knowing would not arise unless there was someone who claimed to know something. For Plato, as for anyone who overemphasises the role of reason, knowledge is an individual intellectual state or act of recognition of the truth. Knowledge is all inside the head what lies outside in the material world are just the contingent, deceptive appearances of knowledge (See Stumpf & Abel 2002:29-43). Following the established procedures and focusing the mind upon the Forms will lead to knowledge of what our minds have previously “forgotten".

But Plato sees that more is needed to explain how people come to have knowledge of the physical world. In one of his dialogues he speaks of the necessity of knowledge being “tethered" to the real world. He seems to mean that there must be some link between the thing or fact which is known, and the belief that this thing or fact is true. The knower cannot just come by his or her piece of knowledge by sheer accident, or acquire it coincidentally. Plato seems to be suggesting the need for some kind of justification, a kind of “reason-giving" step. Certainly one might want to argue that because, for Plato, there is such a chasm between knowledge and belief, it would be ridiculous to suggest that he might accept the popular philosophical definition of knowledge as being equivalent to *true justified belief.* What is interesting to us is that his writings demonstrate a fair degree of sensitivity to the modern position.

3.8.5 Criticism of Plato's theory of knowledge

Like all good philosophers, Plato was quite critical of his own philosophy. Having anticipated weaknesses in his philosophy (which others, of course, were not slow to identify), Plato constantly subjected his philosophy to self-criticism. The main difficulties are to explain how the Forms are related to one another and to the particular things which exemplify them. Consider the Form of virtue. How is it related to the Forms of courage, self-control, justice, as well as to the moral qualities that go by these names in individual men and women? Is virtue (or goodness) the Form of all of these or is it not? And what about special Forms of, for instance, courage? There is physical courage, moral courage, cool, calculated fearlessness, to mention just three. Must each of these types of courage have a separate Form, in addition to the more universal notion of courage?

We can continue this criticism in another way. Consider animals. They all participate in the Form “animality''. But does not each of them also participate in the Form of its own species: horse, dog, and so on? If so, will there not also be Forms of sheep-dog, bull-dog, etcetera? But if there are also these “sub- Forms,'' why not go on until we can particularise completely and have a separate Form for each individual thing?

Another difficulty is to understand how things “participate'' in the Forms. Is one to say that the Form as a whole is in each particular thing? Surely not, for the Form is one and single, whereas the particulars are indefinitely many. If the Form were, as a whole, in each particular, there would be as many copies of the Forms as there are particulars. But if each particular contains only a part of the Form, this would fragment the unity of the form and leave us with no deciding principle on how it is to be divided. The notion of participation is explained in the Republic as being similar to the relation of a physical thing to its shadow. However, the analogy breaks down at just the point at which it is supposed to help us.
The relationship between object and shadow is spatio-temporal. But how can this spatio-temporal relationship throw any light on a relation that cannot be spatio-temporal, since one of the two terms in the relationship (the Form) is, by definition, non-spatial and non-temporal? In the absence of any answers to these questions, Plato's theory of Forms stands condemned.

Does it help to say that the particulars imitate or approximate to the Form? If we do, we are alleging that the particulars are like the Form in some way and in some degree. But, as we have seen above, they are not similar to it in all respects. There must, then, be some special respect in which they are alike. But it is just because the particulars resemble each other in a special way that we bring them under the Form, so should we not do likewise with the Form and the particulars if the relationship between them is imitation or likeness? Should we not suppose yet another Form (as one term of the relation of similarity) and the first Form (as the other)? If so, we shall then be in need of yet another Form to explain the relation of the first (and the particulars) to the second, and so on indefinitely. This, in effect, is Aristotle's criticism, commonly known as “the third man argument”: if the Form of Man is the thing that all men resemble, is it not just another man? If it is not, how can men resemble it?

Plato faces an impasse. If the Forms are not distinct from particulars, they would not be true objects of knowledge, for there would be nothing to have knowledge of. If, on the other hand, they are quite separate from the particulars, they are unknowable because no satisfactory theory uniting Form to particular has been given. Plato's theory of Forms would appear to be beyond rescue.

Point to ponder

Can you think of any criticisms of your own against Plato's theory of Forms?

Feedback
It may have occurred to you that certain general terms are basically relational. For example, terms such as “tall”, “short”, “heavy”, and “light” seem to have no absolute meaning, but imply some reference to a standard of comparison. Without such a reference the term is without meaning. There can be no Form of tallness, since if there were to be, the same individual would be “tall” when compared with one individual and “short” in comparison with another. Or consider a heap of salt. If one were to add a bit of salt to it, the heap would increase in size; but if one were to add a piece of “smallness” to something, that something would logically decrease in size. So one must either deny that relational qualities can possibly be Forms, or be led into contradiction.

Point to ponder
Do you agree with Plato that universals must be known prior to our being able to know the individual things to which we apply them as descriptive terms?

Feedback: A realist approach to universals, such as that taken by Plato, implies that classes are themselves objects of knowledge and completely independent of particulars as objects of knowledge. The difficulties encountered in explaining just how each can be equally legitimate objects of knowledge within the confines of a coherent epistemology suggest problems for the defence of a realist position on universals.

3.9 ARISTOTLE

1. We perceive the world through our senses but realise that our perceptions are only partial representations of reality because the world is constantly changing from potentiality into actuality.

2. In order to discover the essence of what we perceive, we have to use our reason to arrive at the qualities of a thing that are unchanging.

3. This is firstly done by categorising all knowledge at its lowest level as contingent (undifferentiated and changing, e.g., plants), then universal or genus (qualities shared by a particular group e.g., trees) and finally essential or species (qualities uniquely specific e.g., oak trees that have acorns). Essential qualities answer the question why by establishing a chain of cause and effect reasoning.

4. Essential properties can also be inductively arrived at by understanding the four causes (reasons) that give rise to existence.

A solution to the problem we have been examining was suggested by Plato's famous student, Aristotle (384-322 BCE). Aristotle agrees with Plato that the ever-changing particulars cannot be objects of knowledge as particulars, but he thinks that sense perception can, and indeed must, play a part in the acquisition of knowledge. This is because he has a different view of the nature of the particulars and of the relation of Forms (universals) to particulars. This means that he has a different view of how we come to apprehend Forms.

Aristotle does not think that Forms can exist independently of particulars. The relationship between them is not comparable to the relationship between an object and its shadow. He thinks that Forms and particulars are interdependent; in other words, neither can exist without the other. For example, a particular horse can only be a horse because there is a Form horse the complex of characteristics the possession of which by a creature makes it a horse but the existence of the Form horse depends on there being at least one particular horse.

Moreover, Aristotle does not believe that our knowledge of Forms is innate, depending on recollection from an existence in the world of Forms. Plato, you will remember, claims that sense perception might help to remind us of our innate memory, but Aristotle maintains that sense perception is required for the development of our ability to apprehend the Forms. In Aristotle's thought, sense perception is not just an aid it plays an essential role. According to Aristotle (1953:13), “the act of sense perception is of the particular but its content is Universal". To illustrate his point: we can only recognise Winnie Mandela as a woman if we already understand what it is to be a woman. In other words, we must apprehend the universal (the Form) in order to interpret the particular; but we have to have sense experience of particulars to apprehend the universal.

An established hierarchy of Forms gives us a classifying scheme and any Form can be defined by its place in the scheme. The lowest Form is a species, which is contained within a higher Form, its genus. A species is distinguished from other species in the genus by its unique and essential characteristics. For example, the species “Man" belongs in the genus animal, and is differentiated from other animals by its unique and essential characteristic of rationality therefore “Man" is the species of rational animal. (In fact, Aristotle classed “Man" *as political animal*, “political" meaning “living in a social group" and deriving from the Greek *polis* [city]. The specification “rational" comes from medieval philosophers.)

As mentioned earlier, an important feature of Aristotle's scheme of classification and of knowledge is that it is only possible to have knowledge of Forms, not of the particulars which make up the species. This is because particulars cannot be defined. To appreciate this we must understand the difference between a definition and a description. A particular can be described and identified, but it cannot be defined. That is, there are no properties which are essential to it *as a particular*, no properties which are required to make it the particular object which it is. For instance, consider a particular woman, Winnie Mandela. She can, of course, be described: in 2019, she was the late former wife of the late former President of South Africa, she was a South African political figure, she was a divorcee, she had two daughters, and she was a certain weight, and so on. These descriptions identify her, but are any of these properties essential to her being Winnie Mandela? Would she be regarded as Winnie Mandela if she lacked any or all of these? As *an individual* she has no essential properties and therefore she cannot be defined. The essential properties she does possess she possesses as a member of the human species!

3.9.1 Aristotelian epistemology

The classificatory scheme of knowledge devised by Aristotle can be more fully explained if one considers various examples. Let us first consider geometrical figures. One must appreciate that defining properties (or attributes) are essential to a geometrical figure being that figure, and that further properties can be logically deduced from these essential attributes. For instance, the defining and essential attribute of circles is that all points on the circumference are equal distances from the centre, and all figures with all points equal distances from their centre are circles.

Taking this definition along with various other geometrical axioms that effectively enable the construction of a hierarchy within the classifying scheme, we can deduce other attributes of circles and thus obtain scientific knowledge this being knowledge which cannot be otherwise.

But the situation is different when we come to consider objects in the world. For even if we assume that species (e.g. human beings or horses) have essential attributes (and we shall question this assumption later) we cannot hypothesise these in the same way as we can the attributes of a geometric figure. However, Aristotle does not think that it is impossible to discover these essential attributes. He appreciates that we cannot start by defining an existent species in the way that we can define a mythical creature like a winged horse, but he thinks that there is a defining attribute (or, sometimes, a set of defining attributes), and by observing the particular individuals, this defining attribute can be discovered. This process of generalising, that is, making general assertions about properties by appealing to evidence from observation of particulars, is known as induction. It is important to note that Aristotle did not think that induction must necessarily lead to knowledge of essential attributes. Instead, his view is that it is a method a guide to possible essential attributes. The method of induction cannot give us certain knowledge because, even if an attribute were observed to be common to all individuals of a species and unique to those individuals, it might not be an essential attribute.

For example, observation shows that all human beings are featherless bipeds (two-legged creatures) and that only featherless bipeds are human beings, so it may be assumed that this is an essential attribute, one which is universal. But Aristotle would have denied this. He would accept that it is universal, but deny that it is essential. In other words, although as a matter of contingent fact all human beings are featherless bipeds, that attribute is not necessarily part of the essential nature of human beings. It might be, but this must be established by means other than observation. To show that it is essential, we must show why human beings possess the attribute, otherwise it can only be rated as an accidental or contingent property, just as the attribute of loving God is an accidental or contingent property of piety (See Stumpf & Abel 2002:6-19).Aristotle (1953:75a) holds that such contingent or accidental properties could not give knowledge

> since accidents are not necessary, one does not necessarily have reasoned knowledge of a conclusion drawn from them. (This is so even if the accidental properties are invariable ... for though the conclusion be actually essential, one will not know it is essential nor know its reason); but to have reasoned knowledge of a conclusion is to know it through its cause.

It is only if causal connection can be established that it becomes justifiable to assert that a property is essential and therefore necessary. Having shown a causal connection, a plain fact becomes a reasoned fact. For example, take the plain fact that the planets do not twinkle; non twinkling is an attribute of all planets. It is made into a reasoned fact by the causal explanation that the planets are nearer than the stars to the earth.

Aristotle (1953:93a 16; 93a 3) emphasised that we have to observe the plain fact in order to be able to show that it is a reasoned fact, although the fact and its reason may be apprehended simultaneously:

> When we are aware of a fact we seek its reason and though sometimes the fact and reason dawn upon us simultaneously, yet we cannot apprehend the reason a moment sooner than the fact; and clearly in just the same way we cannot apprehend a thing's definable Form without apprehending that it exists, since while we are ignorant whether it exists we cannot know its essential nature.

> Moreover we are aware whether a thing exists or not sometimes through apprehending an element in its character, and sometimes accidentally, as, for example, when we are aware of thunder as a voice in the clouds ... As often we have accidental knowledge that the thing exists, we must be in a wholly negative state as regards awareness of its essential nature; for we have not got genuine knowledge even of its existence, ... the degree of our knowledge of a thing's essential nature is determined by the sense in which we are aware that it exists ... [And] to know its essential nature is, as we have said, to know the cause of a thing's existence, and the proof of this depends on the fact that a thing must have a cause.

So, Aristotle's answer to the question about how we know that we have indeed obtained knowledge and a true understanding of reasoned fact is that we know this by intuition or what he called nous. Nous is a superior kind of apprehension. It is more reliable than deduced, scientific knowledge, since truth is known directly. If you go on to study our 3rd year course in Modern Western Philosophy you shall go on to see that the 17th century philosopher, Descartes, had precisely the same opinion regarding the superiority of intuitively apprehended truths over those which were arrived at by demonstration, that is, by logical deduction.

3.9.2 Summary

At this stage a summary of the important features of Aristotle's analysis of knowledge may be helpful:

- Like Plato, Aristotle was a realist; the Forms have an objective existence about which he was as sure as he was of the existence of physical objects.
- Unlike Plato, Aristotle believes that Forms cannot exist without particulars: they are interdependent.
- For Plato, knowledge can only be gained by recollecting the Forms which the mind had known in its pre-bodily existence. For Aristotle, knowledge is gained with the help of the sense perception of particulars.
- All Forms have necessary attributes which define them and on the basis of which (along with their relations to other Forms) their properties can be logically deduced. Observation helps us to discover essential properties by showing the plain facts of association of properties.
- Nous (intuition) reveals causes of associations and therefore reveals reasoned facts.
- Reasoned facts are the basis of scientific knowledge and further scientific knowledge is reached by deduction. This knowledge is necessary it cannot be otherwise.
- Empirical inquiry (inquiry into the world as we perceive it), therefore, can give us knowledge which is as certain as mathematical knowledge.

As far as the relationship between knowledge, truth, belief, and justification are concerned, Aristotle accepted the general conditions that knowledge was connected to truth, to belief, and to justification. But in his case, the “mental state" aspect represented by the belief condition is not very strong. In fact, Aristotle's work is inspired by a vision of empirical knowledge as a body of facts, collectively put together by individuals over the whole course of human history, for him empirical knowledge included only those truths which have withstood the trials of reality over a long period. The question of which specific mental states (beliefs?) are preconditions for the accumulated theories of science, or whether these individual beliefs were justified or not, is not an issue for Aristotle.

He is more concerned with the justification of a scientific statement - of whole systems of statements, that is, of theories, or of science as a whole - than with a single psychological state of believing something to be true.

However, Aristotle places great emphasis upon the other two conditions. Truth, for him, is not the faithfulness of an entity to a general type or Form, which reason allows us all, in some degree, to perceive. Knowing is not recognising, in an internal act, that something is a fairly faithful representation of its type. In a well-known passage of his Metaphysics Aristotle writes that “to speak the truth is simply to say of what is, that it is, or of what is not, that it is not; and to speak falsely is to say of what is, that it is not, or of what is not, that it is". It is the whole act of predication that Aristotle sees as important in analysing truth. The attribution of truth is restricted to the statement of fact facts being made up of particular things (eg a cat) and their predicates (qualifying terms e.g. black). So, for Aristotle, we can establish truth, or likely truth, by observing the world as closely and carefully as possible. Compared with Plato's view, this is an empirical and external view of truth.

Aristotle also pays close attention to justification. He emphasises the need for extensive and careful observation, and places a high value on the tireless investigation of scientific matters, an investigation which, in principle, might be never-ending since new evidence is always coming to light. This is where the individual scientist’s basic justification lies in her application of technique and the manner of her inquiry. Since an individual observer does not have unlimited ability or time for investigation, Aristotle is prepared to allow that scientific truths can be accepted on the strength of expert testimony. He himself kept up professional contacts with fishermen, bee-keepers, hunters, farmers, and the like, so that he could learn from the experts about any new or strange things discovered in the natural world that they dealt with every day. So another source of justification for Aristotle is reliable evidence from an expert source or authority.

It is evident that Aristotle was a scientist just as much as he was a philosopher. The force which drove him, and the source of his enormous intellectual energy, was a passionate desire to know, to increase the sum of human knowledge, to discover the truth about the world and everything in it. We observed earlier that Aristotle wanted to know the reasoned fact why things are as they are. Why do magnets attract iron? Why are fish able to breathe under water? Why does an acorn turn out always to be an oak, and not a pine or a willow? These questions aimed at an explanation of the data, which took the form of a general theory or covering principle under which all instances of some sort could be included. This is the structure of all scientific explanation. For instance, if the question is *Why do fungi grow in dark, damp places*?, the answer would be: *Because the moisture in such places causes their spores to germinate.*

Consider another example of the sort of questioning that motivated Aristotle: *This child has a headache, a rash and a sore throat, but why?* It is not sufficient merely to observe the child's condition what is needed is to get at the causal structures operating in the material world which determine the nature of things, and, moreover, give the knower the power to predict and control her environment. Knowledge of the child's condition would include being able to say: *The child has measles. That is what is causing these symptoms. We can expect a fever to develop and last for three or four days, this being yet another effect of the virus.*

This kind of explanation depends on the structures of cause and effect that govern the physical world. We know that fungi grow in damp places, and we know why they do when we know the general law: moisture causes fungi spores to germinate.

We know that this is a case of measles when we know that these symptoms are effects of the virus, and we can then predict the temperature increase since it is also invariably an effect of the virus. For Aristotle, the sort of understanding (nous) which real knowledge involves is a grasp of the cause- effect relations that hold true in the world of physical things.

Point/Points to ponder

How do you think we can know that we have indeed found a true definition and a true cause (“reasoned fact")? How does Aristotle explain the transition from plain fact to reasoned fact?

Feedback

When we are aware of a fact we seek its reason and, although sometimes the fact and reason dawn upon us simultaneously, yet we cannot apprehend the reason a moment sooner than the fact; clearly, in the same way, we cannot apprehend a thing's definable Form without apprehending that it exists since, while we are ignorant of its existence, we obviously cannot know its essential nature. Moreover, we are aware whether a thing exists or not sometimes through apprehending an element in its character, and sometimes accidentally, as, for example, when we are aware of thunder as a voice in the clouds. Since we often have only accidental knowledge that the thing exists, we must be in a wholly negative state about our awareness of its essential nature; for we have no genuine knowledge even of the thing's existence. The degree of our knowledge of a thing's essential nature is determined by the sense in which we are aware that it exists. And to know its essential nature is to know the cause of a thing's existence, and the proof of this depends on the fact that a thing must have a cause.

Point to ponder

For Plato the ultimate real features of the universe are the Forms; for Aristotle they are the individual things that make up the world. Which view do you think is correct and why?

Feedback

As a pointer to a response to this complex question, one might suggest the following. One could argue that neither is correct that talk about “the ultimate real features of the universe" is idle, etcetera but that would not be a philosophical answer. Clearly some (brief) exposition of both Plato's and Aristotle's metaphysical views is required, together with critical evaluation of the limitations of each. That would be the correct interpretation and response to this somewhat difficult question.

3.9.3 The doctrine of the four causes

There are, according to Aristotle, four general kinds of cause which may operate in determinative way on anything, or be given in answer to the question of what something is, or why something is the case. The material cause of anything is the stuff of which it is composed, its constituent matter. Thus Aristotle says that the material cause of a statue might be bronze, of a tray, silver. It certainly makes sense to say, in reply to the question: What is the statue/tray?, “It is bronze/silver". Furthermore, it is an important part of the knowledge of anything to know what it is made of, since we may assume its properties are dependent, to a large extent, on what kind of stuff the thing is.

The second kind of cause Aristotle identified is usually referred to as the formal cause. Here we have to do with the shape, pattern, composition or structure of something. The statue's shape might be that of a horse, or of a little boy. Form is always distinguishable from matter. The same form might be realised or represented in a variety of materials the statue could be bronze, wood, clay, etcetera and yet be exactly the same shape every time. These first two kinds of cause (and, as we shall see, the last kind as well) are not dynamic causes, in the sense of forces bearing upon the object and bringing about some change in it, nor are they objects different from their effects.

The third cause is dynamic and distinguishable from its object. It is the efficient or motive cause the initiator of the process by which something comes into being, sometimes natural, sometimes involving a deliberate action. In the example of the statue, the efficient cause is the sculptor who works with the materials, moulding the clay and casting the bronze to produce the finished work. Again, consider, this cause in connection with the questions of "What?" or "Why?". The questions What is the statue? Why did the statue come into being? are quite adequately answered by saying: the statue is the result of a moulding and casting process, and it came about because the sculptor planned and executed it so.

The fourth Aristotelian cause is the final cause. This is the goal or end of anything; in other words, for the sake of which something occurs. The final cause of the statue, for instance, is to give aesthetic pleasure. Notoriously, works of art do not have a practical purpose, so the statue does not provide the best example of a final cause. But take something like a claw hammer, and ask "What is it?", and the answer "Something for driving in nails and levering them out" is perfectly acceptable. It is perhaps odd to call the purpose of anything, its "cause", but its purpose does determine what kind of thing it is, and reference to its goal certainly helps us to explain something.

Point to ponder

Explain what a motor car tyre is, in terms of the four causes. Begin each of the four answers with "A motor car tyre is ...".

Feedback

Material cause: a motor car tyre is **made of** rubber with chemical additives, sometimes with steel wire reinforcing, and a steel rim.

Formal cause: a motor car tyre **is patterned on** a circle, about 20 centimetres deep, with a textured surface.

Efficient cause: a motor car tyre **is produced by** melting and moulding rubber.

Final cause: a motor car tyre **is aimed at** producing a safe, smooth car/road interface. Something of this sort would have done. Note the characteristic phrases in bold type!

3.9.3.1 Metaphysical implications of the doctrine of the four causes

Aristotle sees knowledge as an ordinary matter which is within the grasp of all those who take enough pains to observe the world around them. It is not, as Plato believed, a mystical communion with ghostly Forms that only the exceptionally gifted person, the Philosopher-King, blessed with Reason in the highest degree can achieve in full, and which most ordinary people are destined never to have.

Can we understand everything, then? Yes, says Aristotle, except those things which happen by accident and are not determined by causal laws. If we cannot understand something, for example, why a man of 20 goes bald, when normally baldness is caused by the ageing process, then we cannot understand it precisely because we cannot assign a cause to it. That which happens by chance does not happen in accordance with a causal law, and is not knowable in the full sense because we cannot understand or explain it we just observe it uncomprehendingly.

The second point to be made about this doctrine is that it goes hand in hand with a particular theory of what there is (ie a metaphysics). Observable causal relations are the route to knowledge, the objects of knowledge being the things that are fixed by those relations, and these things are ordinary physical objects like tables, cats, and cups.
There is no hierarchy of being with Forms at the top and physical objects at the bottom, as we find in Plato. The physical objects of knowledge are all there is. For Plato, “the real" is identical with “the true"; reality is the suprasensible world of Forms accessible only to the faculty of reason. The real cat is the archetypal Form of the cat in this world and not the imperfect thing on the mat which could call itself “a real cat" only in so far as it exemplified the perfect Form of cathood. For Aristotle, on the other hand, “the real" is synonymous with “the material". Reality has to be contrasted with the unobservable or the insubstantial. If we cannot perceive it, it is not real. Aristotle's real cat is the furry four-legged piece of matter lying on the mat.

Summarising his four causes Aristotle notes that “all things that come to be come to be by some agency and from something, and come to be something". He goes on to elaborate his notion that form and matter never exist separately. In nature, generation of new life involves, according to Aristotle, first of all an individual who already possesses the specific form which the offspring will have (the male parent).There must then be the matter capable of being the vehicle for this form (this matter being contributed by the female parent). From this comes a new individual with the same specific form. In this example, Aristotle indicates that change does not involve bringing together formless matter with matter-less form. On the contrary, change occurs always in, and to, something that is already a combination of form and matter and that is on its way to becoming something new or different.

As we have seen, Aristotle asked the question: What is the essence of things? This question also has metaphysical significance and is answered in terms of Aristotle's concept of actuality which represents the dynamic relationship between matter and form. According to Aristotle, matter is potentiality and form is actualised matter. In contradiction to Plato's dualism whose substances are Forms, of which the phenomena of the world are mere imitations, Aristotle argues that the particular substances are first substances in which through their form the universal is expressed. The first substances are thus real they are the foundations of experience, without which the universal could not be understood. The universal is a posteriori, in other words, it follows experience and does not precede it, as Plato claims. All things, says Aristotle, are involved in processes of change. Each thing possesses a power to become what its form has set as its end. There is, in all things, a dynamic power of striving toward their “end". Some of this striving is toward external objects, such as when a man builds a house.

But there is also the striving to achieve ends that reveal one's internal nature, such as when a person fulfils her nature as a person by the act of thinking. This self-contained end of anything Aristotle called its entelechy. It is the idea that things have ends which leads Aristotle to consider the distinction between potentiality and actuality. This distinction is used by Aristotle to explain the processes of change and development.

If the end of an acorn is to be a tree, in some way the acorn is only potentially a tree but not actually so at this time. A fundamental mode of change, then, is the change from potentiality to actuality. But the chief significance of this distinction is that Aristotle argues for the priority of actuality over potentiality. That is, although something actual emerges from the potential, there could be no movement from potential to actual if there were not first of all something actual. A girl is potentially a woman, but before there could be a girl with that potentiality, there had to be prior to her an actual woman.

Since all things in nature are similar to the relation of a girl to a woman or an acorn to a tree, Aristotle was led to see in nature different levels of being. If everything were involved in change, in birth and decay, everything would partake of potentiality. But we have seen that, for there to be something potential, there must already be something actual. To explain the existence of the world of potential things, Aristotle thought it was necessary to assume the existence of some actuality at a level above potential or perishing things. He was led to the notion of a Being that is pure actuality, without any potentiality, at the highest level of being. Since change is a kind of motion, Aristotle saw the visible world as one composed of things in motion. And to explain motion ultimately led Aristotle to speak of the Unmoved Mover.

Point to ponder
The central concern of metaphysics is the study of substance, the essential nature of a thing. How does Aristotle's theory of reality (metaphysics) clarify this issue?

Feedback: Aristotle draws a distinction between matter and form. According to Aristotle, matter is potentiality and form is actualised matter. He believes that the particular substances are first substances in which through their form the universal is expressed. The first substances are thus real they are the foundations of experience, without which the universal could not be understood. Each thing possesses a power to become what its form has set as its end. There is, in all things, a dynamic power of striving toward their “end." Some of this striving is toward external objects, such as when a man builds a house. But there is also the striving to achieve ends that reveal one's internal nature, such as when a person fulfils her nature as a person by the act of thinking. This self-contained end of anything Aristotle called its entelechy. Substances are beings which have fulfilled their entelechies.

3.9.3.2 The Unmoved Mover

For Aristotle, the Unmoved Mover does not mean the same thing as a first mover, as though motion could be traced back to a time when motion began. Nor is the Unmoved Mover considered by him a creator in the sense of later theology. From the previous distinction between potentiality and actuality, Aristotle concludes that the only way to explain how motion or change can occur is to assume that something actual is logically prior to whatever is potential. The fact of change must imply the existence of something actual, something purely actual without any mixture of potentiality. This Mover is not, according to Aristotle, an efficient cause in the sense of exerting a power or force, or as expressing a will.
Such acts would imply potentiality, as, for instance, when one says that god “willed" to create the world. This would mean that before God created the world, he was potentially capable of creating it, or intended to create it.

Aristotle does not think of the Unmoved Mover as a Being that thinks or prescribes purposes for the world. In a sense, the Unmoved Mover does not know anything. It is not a kind of being. Instead, it is a way of explaining the fact of motion.

All nature is full of striving to fulfil all its particular entelechies. Each thing is aiming at perfecting its possibilities and its end, aiming that is, at becoming the perfect tree, the perfectly good person, etcetera. The totality of all these strivings constitutes the large-scale processes of the world order, so that one might say that all reality is in the process of change moving from its potentialities and possibilities to the ultimate perfection of these potentialities. To explain this comprehensive or general motion, to make it intelligible, Aristotle introduces the notion of the Unmoved Mover as the “reason for" or the “principle of " motion. Hence, it is the actual as well as the *eternal* principle of motion.

From the point of view of the doctrine of the four causes, Aristotle considers the Mover as the final cause, in the way that the form of woman is in the girl, directing the motion of her change toward a final, that is, a fixed and appropriate natural end. By being a final cause, the Unmoved Mover thereby, in relation to the world, becomes also efficient cause through the power of attraction, by inspiring the striving towards natural ends, a process that goes on eternally. Aristotle's Unmoved Mover is found within the world, and makes the world an intelligible order.

3.9.4 Critical observations

Here we must begin to assess and criticise: we need to sift among these views and find which, if any, among them remains defensible. We can accept, in a general sense, the reliance on reasoned understanding (nous) because, in the end, we must rely upon our intuition we must trust our powers of thought and reason. But we can object to the assumption that reason is an infallible guide to causes of events in the world, and that it can show us that attributes are necessarily associated. We must also object to the assumption that there are some properties which are necessarily associated and so we must object to the inference, from that assumption, that a system of classification based on supposedly necessary associations of properties will reflect a necessary order in nature.

The view that knowledge about the world could be found by making logical deductions based on associations of essential properties, and that this knowledge was certain and beyond dispute, persisted well into the 17th century. This view of knowledge later permeated the philosophy of Descartes and Locke's view of empirical knowledge. Both the rationalist Descartes and the empiricist Locke regarded mathematical knowledge as the paradigm of knowledge. It was the paradigm of knowledge because mathematical knowledge could be arrived at by deduction from the defining (and therefore the essential) properties of mathematical entities.

We learn by experience that certain properties are regularly associated and therefore that certain schemes of classification are useful. We may indeed feel that there is some logical inevitability about familiar associations: we have an expectation that the transparent odourless liquid coming from the tap must quench our thirst if we drink it, must boil if we heat it, must eventually solidify if we cool it, etcetera. But as modern empiricist philosopher Hume argued that there is, in fact, no logical justification for these expectations. Familiarity masks the fact that the associations are contingent and not logically inevitable.

Systems of classifications may help scientists to discover unknown species. Observation of properties of chemical elements led to creation of the periodic table, an extremely successful classificatory device. When it was first proposed, in 1869, the periodic table was, like classifications of plant and animal life, based on empirical facts, not on reasoned facts. But, while we may recognise the value in this Aristotelian device, we do not thereby conclude, as Aristotle does, that necessary associations of properties exist.

After the acceptance of the electronic theory of atomic structure it could be said that the periodic table represents a necessary classification, but it was only necessary in relation to the theory; it was not necessary in an absolute sense. So, although it is true that many of our scientific laws are deduced from an explanatory theory (for instance, Newton's laws of motion, which he deduced from his theory of gravitational attraction) we differ from Aristotle in that we do not therefore regard these scientific laws as embodying logically necessary truth. We may have found a reason for the fact, but that does not guarantee essential or indubitable knowledge. Whether our theories are speculative conjectures or well-established, they are always subject to correlation and even to rejection.

Neither Plato nor Aristotle considered the possibility that different kinds of knowledge, that is, knowledge about different kinds of objects (mathematical entities as opposed to empirical facts) might be justified in different ways. For them, all knowledge had to be logically necessary and beyond any doubt. For Plato, the objects of knowledge were Forms, intuitively apprehended by mental contemplation. For Aristotle, there could only be knowledge of existing entities in so far as the properties of a species (their universal attributes) are concerned. So to have knowledge (nous) of the “Evil Eye", of the black cat, would be identical to linking various particular and evident facts seeing the universal (cat-ness) in that particular cat.

Points to ponder

Are classifying schemes merely devices for grouping entities together on the basis of certain property(ies) which they happen to have in common?
If they are, the association of these properties is a contingent association, not a necessary association. Is essential knowledge still possible?

Do you agree with Aristotle that scientific laws embody logically necessary truth?

Feedback: Aristotle did not consider the possibility that different kinds of knowledge, that is, knowledge about different kinds of objects (mathematical entities as opposed to empirical facts) might be justified in different ways. For him, all knowledge had to be logically necessary and beyond any doubt. Before Hume (1711-1776), Aristotle and the philosophers and scientists who came after him continued to believe in the possibility of discovering the true causes of physical events. Aristotle thought that this would provide the logically necessary connection between events. He believed that this logically necessary connection must be deduced from intuitively self-evident premises, and, taking this as his starting point, he explored nature, developing his theory of the four causes as a consequence of his view of logical necessity. But modern scientists are unanimous in siding with Hume against Aristotle on this matter.

3.10 Summary

In this study unit we introduced you to the discipline of philosophy by pointing out that philosophy is actually an ongoing discussion between various thinkers on some very fundamental, yet quite general, issues. The issues we examined here are What is knowledge? (theory of knowledge, epistemology) and What is reality? (metaphysics). We explored the questions and answers suggested by the earliest thinkers in the Western tradition in these areas of inquiry. By tracing the debate among the Milesians concerning the first cause (arche), you were shown how philosophies “develop" over time.

At the core of this study unit are the philosophical positions of Plato and Aristotle. However, in order to adequately understand their approaches we needed to explore the debates among their predecessors. This led us to a brief examination of the contributions of Heraclitus and Parmenides to philosophical dialogue. The further dispute between the conflicting approaches of the Sophists and Socrates served as the setting for introducing Plato's epistemology and metaphysics.

Aristotle sees knowledge as an ordinary matter which is within the grasp of all those who take enough pains to observe the world around them. Knowledge is not, as Plato believed, a mystical communion with ghostly Forms that only the exceptionally gifted person, the Philosopher-King, blessed with Reason in the highest degree, can achieve in full, and which most ordinary people are destined never to possess. However, both philosophers have a concept of knowledge as a necessary relation between events and both philosophers believe that this knowledge lies within our grasp if we adopt the procedures and methods which they recommend. Although it is not always made explicit, the intention lying "behind" this introductory study of epistemology (and metaphysics) is to encourage you to reflect on the bases of your own experiences, beliefs, and knowledge claims.

3.11 Self-Assessment Questions

We suggest you treat these questions as a kind of revision exercise. Please note that many of them are not intended to be examples of questions which may be set in your examinations. Instead, they should be regarded as drawing attention to parts of the study material which require further consolidation and reflection. After formulating your responses to these questions, you should be in a better position to develop your ideas in the systematic manner required to answer the longer, essay-type examination questions. You will receive some examples of examination questions in the follow-up tutorial letters which will be sent to you some time after the assignment closing dates.

1. How would you describe the philosophical method? (You will definitely not be asked this kind of question, but you ought to be able to formulate your own answer to it by the time you have worked through this module.)

2. Describe the main differences between mythological and scientific/philosophical thinking.

3. "Milesian philosophy is the earliest attempt at providing a scientific view of the universe." Discuss. (This is a complex question and one that might appear as an examination question.)

4. How do early Milesian philosophers and Heraclitus explain the fact of change? Which of them, if any, do you agree with? Give reasons. (This, too, requires a lengthy answer.)

5. What a priori arguments does Parmenides give concerning the nature of Being?

6. What would you say is an epistemological question? Give a few examples of your own. (This is definitely not a suitable examination question. However, it is vital that you reflect upon and answer this question if you want to gain clarity about philosophy and the philosophical method.)

7. Do you think that the Socratic method is preferable to the approach of the Sophists? Why?

8. Explain the progress of thought from imagining to intelligence as Plato depicts it in his simile of the divided line.

9. Comment on the significance of Plato's allegory (or simile) of the cave for epistemology.

10. Do a beautiful sunset, a beautiful horse, a beautiful song, and a beautiful painting have something in common? If so, is that “something" physical?
11. Briefly describe the chief aspects of Plato's theory of knowledge. (This question might be used as a possible examination question.)

12. Is Plato correct that the objects of knowledge must be unchanging?

13. What do you consider the most powerful objection against Plato's theory of Forms? Why?

14. Describe the four causes of things or events as outlined by Aristotle.

15. How does Aristotle's concept of the Unmoved Mover compare with your concept of God?

16. Assess Aristotle's contribution to epistemology. (This question is much too difficult to be used as a possible examination question, but it may form part of an examination question.)

17. Compare and contrast Aristotle's view of knowledge with that of Plato's. (This question is much too difficult to be used as a possible examination question, but it may form part of an examination question.