

Pathways to Philosophy

PROGRAM C: ANCIENT PHILOSOPHY

The First Philosophers: Unit Two

22. DID Thales discover philosophy, or did he invent it? In surveying the achievement of the very first individual we recognize as a 'philosopher', we are made to confront an issue that throws into question the very purpose of our inquiry. To say that Thales *invented* philosophy implies more than that he just devised techniques for doing philosophy. The implication is that there were no philosophical problems waiting to be solved, or questions waiting to be asked, but rather that Thales himself is ultimately responsible for those problems and questions existing at all. In other words, all that Thales achieved was to draw up the rules of an intellectual game that over the centuries has been played in our Western Civilisation – with occasional intervals – right down to the present day. (In China and India, according to this view, a similar, though perhaps not identical game was 'invented'.) In another world – say on Mars – another individual might have invented a different game with different rules. The consequences of that supposition are incalculable. Our present-day counterparts in that other world, if the supposition is indeed coherent, would think and reason in a manner and according to rules that we should find simply incomprehensible. There would be no possibility of 'philosophical' discussion or argument with the individuals belonging to that world.

23. You might think that the possibility we have just raised is not a very serious problem. Almost certainly, there is no intelligent life on Mars, and, for all we know at the present time, we represent the only intelligent life in the universe. Speculation over whether there actually is intelligent life somewhere in the universe, however, is beside the point. If our view of the

nature of philosophy leads us to conceive that an alternative 'intellectual game' might have existed in its place – on some *possible* world – that idea in itself has far-reaching consequences that threaten to destroy the credibility of philosophy as a form of inquiry and intellectual discipline. For it implies that whatever 'truths' we might suppose our philosophical inquiries to uncover are merely relative to our rules, the consequences of the way our game of reasoning is played. And that seems very close to saying that philosophy is no more concerned with truth – with the way things are, or must be – than a game like chess or bridge.

24. To say that Thales *discovered* philosophy, on the other hand, would imply that in some deep sense there is no alternative way to think and reason about the ultimate nature of things. The questions of philosophy are in some sense posed to us by the world itself, just like questions of physics or chemistry, rather than being merely a human creation. Philosophical reasoning is not a game, that might be replaced by a different game, played according to different rules. The rules we reason by, the rules Thales discovered, are the only rules – the absolutely necessary rules irrespective of time or place – for coherent thought about what might, or must be. Now that claim might well sound to the reader like the height of arrogance. How can we, from our restricted, parochial viewpoint, legislate about the rules and essential nature of philosophical thinking for the entire universe? – The answer is simply that the alternative is far less palatable.

25. We are not now talking about the rules of pure logic, such as 'If it is the case that P, then it is not the case that not-P', or 'It is not the case that both P and not-P'. (Just replace 'P' by any English sentence, and make the appropriate adjustments for 'not-P'.) There are strong reasons for believing that rules such as these govern all discourse whatsoever. We are looking for something more substantial, something distinctively 'philosophical'. We should not expect Thales to have explicitly formulated any such rules, indeed they might be difficult to formulate even now. But perhaps we can discover the underlying ideas that implicitly guided his thought. One such idea is the notion, as we expressed it last time, 'that the basic structure of the universe *conforms to reason*' (unit 1/para. 11 = '1/11'). A vital component of that idea might be expressed as follows: the way the universe is ultimately ordered is

capable, in principle, of being comprehended by beings with minds structured in the way our minds are structured. There is a natural fit between the way we think and the way things are, even though at times - perhaps even the majority of times - our thinking leads us astray. However far we stray from the right way of thinking about the ultimate nature of things, we possess the power to correct our error, to realign our thoughts with reality.

26. It is true that philosophers at the present time have come to question that idea, at least in its strongest interpretation. Perhaps there are, after all, limits to what we can think and conceive that prevent us from learning about certain aspects of the way things are. One philosopher has recently suggested that the relation between consciousness and brain processes will never be fully comprehended, even if as the result of advances in neuro-science and artificial intelligence we come to possess a complete map of the brain and the 'program' according to which the brain works. The vital link between matter and conscious experience will continue to elude us. That claim has been heavily disputed. But even if it were to become widely accepted amongst philosophers, the conclusion one would draw is merely that there was an outer limit to the range of philosophical truths we were able to discover with our limited human mental capacities, not that the truths we claimed to have discovered as the result of our philosophical inquiries were, in reality, merely our own inventions.

27. It was Thales' successor, Anaximander, who produced the first recorded example of a philosophical argument, and, in doing so, gave expression to a principle that has acquired very considerable notoriety in the history of human thought. Let us first recall the background. Last time, we considered Thales' answer to the question why, if all things fall down, the Earth stays where it is. You might think that that's a bit like asking, 'If all the world were apple pie...'. We know that 'all things fall down' only describes the way things appear. In reality, all matter is governed by the law of gravitation. The point, however, is to test the validity of certain fundamental methods of reasoning. An argument obviously cannot be relied on to lead to a true conclusion, if it is based on false premisses. Yet the argument itself may be valid, and indeed have far wider application than to the single case under discussion.

28. In this light, the principle Thales implicitly appealed to, that something that extends downwards forever cannot fall because there is no space for it to fall into (1/19), can be seen to possess a considerable degree of philosophical sophistication. The infinite ocean on which the Earth floats stays where it is because it has nowhere to go. Here is perhaps an alternative that Thales might have considered (one that as far as we know, none of the pre-socratic philosophers did consider): that the Earth *does* 'fall down'. Only, we do not notice the continual motion downwards into infinite empty space because everything in the world is falling together! Rejecting Thales' solution, Anaximander, as Aristotle reports, came up with an extremely ingenious argument that preserved the common-sense belief that the Earth stays put, but in a way that required a huge leap away from what was then the common-sense picture of the world as it appeared to sense perception:

There are some who say, like Anaximander among the ancients, that [the earth] stays still because of its equilibrium. For it behoves that which is established at the centre, and is equally related to the extremes, not to be borne one whit more either up or down or to the sides; and it is impossible for it to move simultaneously in opposite directions, so that it stays fixed by necessity.

Kirk, Raven and Schofield ('KRS') §123, p.134. Cf. McKirahan ('MK') §5.13, p.40; Barnes *Presocratic Philosophers* ('JB') §10, p.23-4.

29. Anaximander's idea was that in order for a thing to move, there must not only be somewhere for it to move to, but in addition there must be a *reason* why it should move in that particular direction, rather than in some other direction. Any object above the surface of the Earth has, one may suppose, greater reason to move towards the Earth than in any other direction. That is the explanation why 'all things fall down'. But the Earth itself, according to Anaximander, is at the centre of a completely *symmetrical* universe. Instead of asking why the Earth stays still, we ought to ask what could possibly induce the Earth to move. This may be resolved into two questions: why should it not move from side to side? and why should it not move up or down? If there were any reason at any time why the Earth should start moving East, for

example, then in a symmetrical universe there would be just as strong a reason for it to move West. Since it cannot move in two opposite directions at once it stays still. The very same argument applies to movement up or down. If in a symmetrical universe there was any reason for the Earth at any time to move down, then there would be just as strong a reason for it to move up. On the hypothesis of perfect symmetry, therefore, it would be irrational for the Earth ever to move either down or up. Combining the two arguments, the Earth necessarily remains fixed in the same place.

30. Now one might think that there is an obvious objection to the application of this argument deriving from our simple observation of the heavens. One does not need a telescope to observe that the universe appears to be quite unsymmetrical. Anyone can see that the sun and moon, and also the stars, occupy different positions in the sky at different times. In that case it would be false to say that any reason why the Earth should move East would necessarily be countered by an equal reason for the Earth to move West. It is logically possible that overnight the sun will acquire the power to attract the Earth towards it, so that when the sun rises tomorrow the Earth will start moving East! A superficial response to that objection would be to deny that the heavenly bodies could ever have the power to cause the Earth to move. If Anaximander had made that concession, however, it would have seriously weakened his philosophical argument, as an explanation of why the Earth stays where it is. As long as the sun, moon and stars occupy different positions at different times, the Earth will not be 'equally related' to what is above or below it, or to one side or another. And that inequality would be enough to provide a *possible* reason why the Earth should move in one direction rather than another. Anaximander's solution to the problem was far more radical: the heavenly bodies are not what they appear to be to our Earth-bound observation. In reality, they consist of rings of fire enclosed in pipes, encircling the Earth. Their apparent 'position' is only the place of circular breathing holes where the fire comes out!

31. One cannot but admire the neatness of Anaximander's solution. The absence of asymmetrical reasons for motion in a particular direction does not require - as one might naively suppose - a universe structured as a uniform shell, with no differentiation whatsoever. All that is needed is that the centre

of each ring of fire coincides with the centre of the Earth. Yet clearly there is still an unresolved clash with observation. Even if the sun is, in reality, a ring encircling the Earth, Anaximander must concede that the light from the sun does indeed appear to occupy a particular place in the heavens at a given time. Why should the very light of the sun – the position of its circular ‘breathing hole’ – not acquire the power to attract, or repel, the Earth? No amount of ingenuity will help Anaximander escape that objection. Even if he produced a more complicated theory which explained why the light of the sun only *seems* to come from a particular direction, there would, ultimately, have to be some asymmetrical feature of the universe accounting for the occurrence of that perception. The only remaining expedient would be to deny that there is anything beyond the Earth corresponding to what we perceive as the ‘heavenly bodies’, and to explain the apparent agreement amongst our perceptions of the sun, moon and stars as a mass hallucination induced by a devious Creator. That radical solution, though extremely effective, destroys the explanatory power of any theory one puts forward to account for the structure of the heavens. If all we seem to see as we look ‘above’ us is merely an experience induced in our minds, then however differently the world might appear to us would receive the same uniform, and virtually empty, ‘explanation’.

32. Even though Anaximander’s theory cannot ultimately be squared with observation, however, it should not automatically be rejected on that account. For all that was known at the time, it might still have been the best theory out of all the conceivable alternatives. Ultimately, a defender of Anaximander would say, there is no purely philosophical reason why the Earth stays still; there are contingent factors involved. Nevertheless, his philosophical argument still has a contribution to make to that explanation. However, let us focus now on the form of the argument itself. In reasoning as he did, Anaximander took the first step from physics to metaphysics; from speculating how the world might be to arguing how it must be (1/12). The general form of his argument that has since had a long and controversial history. The idea that no event or state of affairs can result from a purely random ‘selection’ between two equal possibilities later developed into the law of causality. It became, for a while, one of the tasks of metaphysics to prove that every event necessarily results from a cause which determines that

that particular event should occur and no other. Another development from Anaximander's argument was the more general 'Principle of Sufficient Reason', which the philosopher Leibniz used to prove his notorious proposition, satirised by Voltaire in his novel *Candide*, that this world is the 'best of all possible worlds'. (Voltaire added: '...and everything in it is a necessary evil'!) Leibniz argued that God could never have chosen to create a worse world when He could have created a better one. But nor could He have been faced with having to choose between two equally good worlds, for then, despite all His power, He would have been incapable of finding any reason for bringing one into actual existence in preference to the other. Since the world does exist, and since there must be a sufficient reason why it exists, it must have been chosen as the best of all possible worlds by an all-powerful Deity, who, being necessarily existent, contains within Himself the sufficient reason for His own existence.

33. Now to bring this argument down to Earth, one might compare the case of the ass placed at an equal distance between two equally tempting baskets of food: according to the medieval logician Buridan (who was echoing Aristotle's more blatantly absurd example of a hungry man), the ass would necessarily die of starvation! The obvious question to ask here is how one could be sure that the hapless animal would indeed be incapable of moving. Perhaps, for no reason at all, the ass might wander towards the basket on the left. In fact, we can be pretty sure that the ass would move. (In principle, all one needs is a mechanism in the brain that does the mental equivalent of flipping a coin. Flies, on the other hand, with their simpler nervous systems, can sometimes be caught if one approaches slowly in two opposite directions at an axis at right angles to their line of sight.) What Buridan's example shows is that while one may, on philosophical grounds, continue to maintain that things absolutely never happen the way they do without a sufficient reason, defenders of the principle have work to do in explaining away apparently contrary examples. Ultimately, the principle can only be held by its adherents as a fundamental matter of faith, which cannot be justified on the basis of the observation of mere facts, or indeed on the basis of any more basic principle.

34. As far as the so-called law of causality is concerned, Physicists today recognize the possibility - at the present state of knowledge it is no more than

that – that deep down on the sub-atomic level, there may be random events which are not uniquely determined by prior causes. Both the example of causality and the more general example of the Principle of Sufficient Reason show how metaphysics, in arguing for what must necessarily be the case, is not infallible. Sometimes it takes a factual discovery to make us realize that a particular example of a metaphysical argument is, or may be invalid. In the case of Anaximander, of course, we don't have any relevant 'facts' to guide us. The whole theory is false. The Earth is not, according to the best theory currently available, located at the centre of the universe. So we have to look at the matter logically. If the Earth had been located at the centre, as Anaximander believed, would his argument have provided a satisfactory explanation of why it hangs suspended and does not require any support? With the qualifications already mentioned, we have argued that it would have done.

35. We shall not now venture into the details of Anaximander's ingenious cosmology, postponing that discussion until we come to consider, next time, the rival theories of his close successor Anaximenes. Instead, we shall concentrate on Anaximander's improvement on Thales' two theories of an ultimate stuff from of which all things are made, and of the 'souls' or 'spirits' which pervade all things, the universal force providing the motive power for all change and movement. The ultimate source of all the material qualities we perceive in the world around us, Anaximander held, is not itself a specific material found in the world but rather something indefinite, both in extent and quality: the 'Apeiron', or that which is without 'peiras', without boundary or limit. The Apeiron, as the embodiment of a law of change which 'steers all things', gave rise to our differentiated world by separating out into the familiar opposites of hot and cold, wet and dry. Permanently surrounding our universe, the Apeiron continues to ensure that the overall balance of things is maintained. As Anaximander expresses it in the only fragment of his own words that has been preserved, the balancing between opposites happens

...according to necessity; for they pay penalty and retribution to each other for their injustice according to the assessment of Time.

KRS §110, p.118. Cf. MK §5.19, p.43, JB §13, p.29.

36. In these words, we see the very first expression of the idea that the universe is governed by *laws* of physical change. This was another philosophical breakthrough. To say, as Thales had said, that there are universal forces which move all animate and inanimate things, still leaves open the possibility that changes might take place in an arbitrary and unpredictable way, threatening total chaos. Although there is no record of the argument which Anaximander used to reach his embryo conception of physical law, we may speculate that he argued from the very same basis from which he sought to explain why the Earth does not move. The general principle is that nothing moves or changes in any way, unless there is a reason for it to move or change in that way. If we turn the principle around, we get the proposition that if something does move or change, then there is a reason why it does so, a reason which explains just that movement or change and no other. Now, what happens on a *global* scale, the rectification of 'injustices' incurred as opposites such as summer and winter, night and day encroach on one another, might also be taken to apply to *local* movements and changes. No event can occur without creating an injustice which calls for retribution; while each retribution creates a new injustice. (Compare Newton's Law, 'To every action there is an equal and opposite reaction.') In other words, whatever happens is governed by laws of physical 'justice'. As we remarked above, Anaximander's explanation for the stability of the Earth led to the idea that everything that happens has a specific cause. But it would be anachronistic to say that he had formed any clear notion of a 'cause' as such. What he did was take the decisive first step which made our conception of causal law possible.

37. But let us focus on the notion of the Apeiron. How is this infinite substance supposed to operate? One might think that the only advantage that an indefinite, indescribable material principle has over something familiar like water is merely to hide the problem of accounting for change in a fog of mystification. The Apeiron, being nothing in particular, is not limited to acting in any particular, rule-governed way. It may be the source of laws, but in itself its behaviour appears simply magical. (By contrast, Thales' water flows, a property which explains how it is able to pervade all things. It is

transparent, implying the transparency of spirit or consciousness.) It is true that Anaximander's optimistic rationalism seems curtailed at this point, leaving us at the doors of a mystery that, ultimately, remains beyond our powers of comprehension. But that is not to accuse Anaximander of resorting to mystification. His theory might more charitably be viewed as merely expressing a healthy modesty concerning the limits of human reason.

38. There are, indeed, positive philosophical arguments for introducing the Apeiron. According to an argument that Aristotle cites and later sources attribute to Anaximander,

...there are some people who make what is beside the elements the infinite, and not air or water, so that the rest be not destroyed by their infinite substance; for the elements are opposed to each other (for example, air is cold, water moist, and fire hot), and if one of those were infinite the rest would already have been destroyed. But as it is, they say that the infinite is different from these, and that they come into being from it.

KRS §105, p.113. Cf. MK §5.4, p.35, JB §15, p.30.

In other words, there are sound, unmysterious reasons that might lead one to prefer an indefinite principle like the Apeiron over Thales' apparently more comprehensible watery principle.

39. We can agree with Anaximander that there does indeed appear to be a worrying asymmetry involved in allowing just one of the 'opposites' precedence, in the account of the ultimate nature of things, over all the others. Leaving aside the question how one can conceive of fire, or earth actually being a form of water, what reason could there be for water to assume such contrary properties? Worse, and as the quoted argument implies, given that water quenches fire, for example, and that water is infinite and fire finite, why haven't all the fires been quenched already? Yet, on second thoughts, if one is prepared to make the leap with Thales of hypothesising a power embodied in water that enables it to appear as earth, or fire, the worry about all fires being quenched seems rather silly. Producing fire is just one of the

things that water, by some unknown process, must do, irrespective of the observed and more obvious fact that water is also able to quench fire.

40. A better argument for Anaximander to have used would be this. Making the material principle the Apeiron quite simply *coheres* better with the centrepiece of Anaximander's theory, his account of change in terms of time-governed processes of physical justice and retribution. The emphasis on justice implies that whatever oversees the processes and changes which occur in the world must itself be completely impartial, and so cannot be identified as one of the kinds of thing between which changes occur. If everything were ultimately made of water, there does not appear to be an equal reason for water giving way to fire, as there is for fire giving way to water. Alternatively, and in line with Anaximander's philosophical explanation for the stability of the Earth, one might simply argue that if one is prepared to discount the apparent evidence of sense perception and assert that air, fire, earth, water are in reality one substance, or formed from one substance, what reason could there be for that one substance to be water, rather than air, or fire, or earth? True enough, Thales seemed to have an argument in favour of water, just as Anaximenes favoured air, and Heraclitus fire. Yet it is a huge step from claiming that one of these forms that we perceive is a more perspicuous representation of the nature of the ultimate substance than any of the other forms, to claiming that it is that very substance itself, to the exclusion of the others, which are relegated to the status of disguised appearances of the one substance (cf. 1/15).

41. From the vantage point of today's scientific knowledge, these may appear rather empty speculations. What we have been doing, however, is trying to get inside the minds, the world view, of the first philosophers, to reason about the world in the way that they did, in order to uncover and abstract principles of reasoning that have universal application. However, there is also a more specific moral to be drawn from our inquiry so far. We take it for granted today that things change, sometimes in impressive and spectacular ways, and yet at the same time we accept that physics has a sober and relatively uniform story to tell. At its simplest and crudest, our picture of the achievements of modern physics is of a *reduction* of a world clothed in all the qualities of our sensible experience – all that we see, hear, touch and taste –

into a grey, geometrical world of hypothesised entities such as atoms, neutrons and electrons. The movement of hypothesised objects, sub-atomic pushes and pulls, are somehow held to be more comprehensible forms of alteration or change than the processes we witness with our senses. (This is, as we shall see, a route that was indeed taken by the pre-socratic philosopher Democritus and his followers.) Yet if one thinks about the matter from a logical point of view, then, for all the undoubted empirical power of today's scientific theories, the philosophical problem of change, dramatised in the interchange between opposites that so impressed the first philosophers, has simply not been addressed. The simple movement of an object from one place to another ultimately presents the very problem concerning the logical possibility of change as the spectacular demonstrations in the Chemistry lecture theatre. It is a problem that we shall face head-on when we come to consider the radical theories of Parmenides and Zeno.