

# Nature, The Soul, and God



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## Preface

*Man naturally desires to know.*

—Aristotle, *Metaphysics*—

We are distinct among living things in that we can apply our minds, not only to life's mundane problems but also to questions which have no immediate practical consequence. We ask not only *how* or *what* but *why*, and it is the last question Aristotle has foremost in mind when he says that we have a natural desire to know. This distinctive trait is evident even in the very young, as evidenced by the persistent questioning of a child wanting to know *why* things are as they are.

We accordingly divide human knowing into *practical* and *speculative*, or *theoretical*. Most people (by far) are more familiar with practical knowing than with speculative, if only because it is of great importance in day-to-day life. As engineers, architects, surveyors, or craftsmen find the need to compute the length of the diagonal of a rectangle, they solve the problem by taking the square root of the sum of the squares on two adjacent sides, or, more familiarly, by applying the formula  $a^2 + b^2 = c^2$  to the case at hand. Solving the problem in this way, even arriving at such a formula by trial-and-error, is a *practical* use of reason. But this is not what Aristotle intends when he says we naturally desire to know, since practical knowledge is itself directed to something else (to the building of a structure, or establishing property lines.) *Speculative* knowledge is not a *means*: here, one simply asks *why* it is that the sum of the squares on two adjacent sides of a rectangle is equal to the square on the diagonal. Asking *this* question assumes that one already knows the formula in question, (which is all that would be needed if one had solving some concrete problem in mind). What we desire here is to know, as such. Speculative inquiries are directed to the possession of knowledge itself, as to something desirable and good.

On the other hand, we know from history that even speculative uses of reason may have practical effects. The developments of our technological age, for example, are partially rooted in speculative

disputes about how human beings come to know things. The point here, however, is that speculative reasoning is *good to do*, whether one gains in a practical way or not. In answer to a question from a student of his, who asked what was to be gained in a study of geometry, Euclid is supposed to have responded 'Give the man a coin, seeing that he feels he must profit in some way from what he learns.' The profit was in the learning itself—we can only hope that the student got the point.

Mathematics, literature, the arts, human history, natural science, all these and more present themselves as possible areas of a properly *speculative* study. Moreover, within these several areas, one might go about such a study in different ways. For example, one might ask the mathematical question: 'why are the angles of a triangle equal to two right angles?', which is to say: 'upon what basis is this true?' The solution to such a question would be a *mathematical* one. One might also look at the same subject and ask 'are there such things as triangles in reality?' or even 'how do we know the truth of the very starting-points of mathematics?' These latter questions are more properly *philosophical* ones, and resolving *such* questions is the work of philosophy, as we know it today.

To say the same thing somewhat differently, philosophy considers the more basic questions which arise in all areas of study. As we said, the mathematician would not ask whether triangles exist or not—the question is really not a *mathematical* one at all. *That* question is more like asking 'is there such a thing as a science of mathematics?' Rather, the mathematician assumes certain things within the study, and proceeds. The philosopher, in turn, asks questions about what is assumed by the mathematician.

In this book, we are concerned with the natural world. As you might expect, there are many ways in which one might study nature. Physics, biology, and chemistry study nature in a manner we call 'scientific'. They look at nature from a certain perspective, and they make assumptions about studying the natural world in this way. With these starting-points in mind, they proceed to deal with more specific questions about nature. In contrast, a *philosophical* study of nature is pre-scientific. It is more concerned with the *starting-points* of these sciences than with the detailed conclusions scientists are interested in. While the chemist would assume a certain table of

elements, more or less well-established, and proceed to investigate the properties and various combinations of such elements, a philosopher would ask about the nature of elements and compounds themselves—what are they? is a compound merely a group of elements, or something different? While a classical physicist would assume that a body moving in a straight line would continue to do so unless impeded, a philosopher might ask: what is motion? does it really differ from rest, or is this only an apparent difference?

This book deals with philosophical questions about the natural world. Consequently, we have included readings from past philosophers to bring out these most basic questions, and most of the book is concerned directly with these. Further, in order to show what impact one's position on the natural world will have upon other things, we have included readings concerned with the immortality of the human soul and with the existence of God. As will become clear, there are definite and irreversible connections among our philosophical views—what we hold about some things has a real effect upon what we hold elsewhere. In particular, what we hold regarding the world of nature has a direct impact upon what we hold regarding human nature, as well as God. As one sees nature to be a certain way, so one sees human nature in a like vein. Insofar as one regards nature to be of this sort, so one defines what is beyond nature, or the 'supernatural'.



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## I. Nature

Unlike many of their modern counterparts, the earliest philosophers began their inquiries with questions about the natural world. While the principle of Descartes' philosophy (along with the dominant strains of all modern and contemporary philosophy) is the individual human person (the individual human *consciousness*, rather,) the first philosophers were philosophers of *nature*. Rather than attempting to discern what may be known outside of ourselves from what we know of ourselves, they began with a starting-point that was much more evident to them: that natural things change. It was the reality of change in the world about them that led the Pre-Socratic philosophers to speculate upon the origins of change, and even the origins of the natural world itself. There is much to be said in defense of the more ancient way of doing philosophy. After all, we are ourselves beings of nature, and are aware of things outside of ourselves long before we become self-aware. It is with basic philosophical accounts of nature itself, then, that we begin.



## The Pre-Socratic Philosophers

The philosophers whom we shall first look at are called the *Pre-Socratics*, not only because they lived before Socrates, but also because their philosophical interests differ sharply from his. Socrates eventually despaired of coming to know the natural world and turned his attention to human affairs instead. The original writings of the Pre-Socratics have been lost, and these passages ('fragments') are quotations and paraphrases taken from other authors.

We will take up the Pre-Socratics in three groups. The first group contains Parmenides, Melissus, and Zeno, who are alike in holding that there are no natural principles, that being is one and unchangeable, and that we are deceived in thinking that there even is a natural world to explain. The position they hold is called *Eleaticism*. In the second group are found Thales, Anaximander, and Anaximenes. They are called the *Milesians* (from their native city of Miletia) and are alike in holding that there is a single natural principle: that nature is primarily known by reference to a single basic thing. The final group includes Empedocles, Anaxagoras, and Democritus. Not forming a single school of thought, they are yet similar in holding that nature is explained only by reference to several basic factors. We shall refer to them as the *Pluralists*.



# The Eleatics

## Parmenides of Elea

### The Way of Truth

Come now, I will tell you—and do you hearken to my saying and carry it away—the only two ways of search that can be thought of. The first, namely, that *It is*, and that it is impossible for anything not to be, is the way of conviction, for truth is its companion. The other, namely, that *It is not*, and that something must not be—that, I tell you, is a wholly untrustworthy path. For you cannot know what is not—that is impossible—nor utter it; for it is the same thing that can be thought and that can be.

It must be that what can be thought and spoken of is; for it is possible for it to be, and it is not possible for what is nothing to be. This is what I bid you ponder. I hold you back from this first way of inquiry, and from this other also, upon which mortals knowing nothing wander in two minds; for hesitation guides the wandering thought in their breasts, so that they are borne along stupefied like men deaf and blind. Undiscerning crowds, in whose eyes the same thing and not the same is and is not, and all things travel in opposite directions!

For this shall never be proved, that the things that are not are; and do you restrain your thought from this way of inquiry.

One path only is left for us to speak of, namely, that *It is*. In it are very many tokens that what is, is uncreated and indestructible, alone, complete, immovable and without end. Nor was it ever, nor will it be; for now *it is*, all at once, a continuous one. For what kind of origin for it will you look for? In what way and from what source could it have drawn its increase? I shall not let you say nor think that it came from what is not; for it can neither be thought nor uttered that what is not is. And, if it came from nothing, what need could have made it arise later rather than sooner? Therefore must it either be altogether or be not at all. Nor will the force of truth suffer anything to arise besides itself from that which in any way is. Wherefore, Justice does not loose

her fetters and let anything come into being or pass away, but holds it fast.

35 “*Is it or is it not?*” Surely it is judged, as it must be, that we are to set aside the one way as unthinkable and nameless (for it is no true way), and that the other path is real and true. How, then, can what *is* be going to be in the future? Or how could it come into being? If it came into being, it is not; nor is it if it is going to be in the future. Thus is becoming extinguished and passing away not to be heard of.

40 Nor is it divisible, since it is all alike, and there is no more of it in one place than in another, to hinder it from holding together, nor less of it, but everything is full of what is. Wherefore all holds together; for what is, is in contact with what is.

Moreover, it is immovable in the bonds of mighty chains, without  
45 beginning and without end; since coming into being and passing away have been driven afar, and true belief has cast them away. It is the same, and it rests in the self-same place, abiding in itself. And thus it remains constant in its place; for hard necessity keeps it in the bonds of the limit that holds it fast on every side. Wherefore it is not  
50 permitted to what is to be infinite; for it is in need of nothing; while, if it were infinite, it would stand in need of everything.

Look steadfastly with your mind at things afar as though they were at hand. You cannot cut off what anywhere is from holding fast to what is anywhere; neither is it scattered abroad throughout the  
55 universe, nor does it come together.

It is the same thing that can be thought and for the sake of which the thought exists; for you cannot find thought without something that is, to which it is betrothed. And there is not, and never shall be, any time other than that which is present, since fate has chained it so  
60 as to be whole and immovable. Wherefore all these things are but the names which mortals have given, believing them to be true—coming into being and passing away, being and not being, change of place and alteration of bright color.

Where, then, it has a farthest boundary, it is complete on every  
65 side, equally poised from the center in every direction, like the mass of a rounded sphere; for it cannot be greater or smaller in one place than in another. For there is nothing which is not that could keep it from reaching out equally, nor is it possible that there should be more

of what is in this place and less in that, since it is all inviolable. For,  
70 since it is equal in all directions, it is equally confined within limits.

### The Way of Opinion

Here shall I close my trustworthy speech and thought about the truth. Henceforward learn the opinions of mortals, giving ear to the deceptive ordering of my words.

75 Mortals have settled in their minds to speak of two forms, one of which they should have left out, and that is where they go astray from the truth. They have assigned an opposite substance to each, and marks distinct from one another. To the one they allot the fire of heaven, light, thin, in every direction the same as itself, but not the  
80 same as the other. The other is opposite to it, dark night, a compact and heavy body. Of these I tell you the whole arrangement as it seems to men, in order that no mortal may surpass you in knowledge.

Thus, according to men's opinions, did things come into being, and thus they are now. In time (they think) they will grow up and  
85 pass away. To each of these things men have assigned a fixed name.

### Questions To Consider

- 1 What is Parmenides' overall conclusion? How does he support this conclusion?
- 2 Does Parmenides try to explain change and motion? Will he admit to any sort of change at all? If so, to what sort does he admit? If not, why not?
- 3 For Parmenides, what are the characteristics of what exists? What does our experience of the world tell us about reality?
- 4 Distinguish between Parmenides' two *ways of inquiry*. Which is the right way?
- 5 According to Parmenides, what "shall never be proved"? Does this make sense?
- 6 How does Parmenides describe being (or *that which is*)?
- 7 If being is unchangeable, then what do the names 'coming into being' and 'alteration' actually refer to?

## Melissus of Samos

If nothing is, what can be said of it as of something real?

What was, was ever, and ever will be. For, if it had come into being, it needs must have been nothing before it came into being. Now, if it were nothing, in no wise could anything have arisen out of  
5 nothing.

Since, then, it has not come into being, and since it is, was ever, and ever shall be, it has no beginning or end, but is without limit. For, if it had come into being, it would have had a beginning (for it would have begun to come into being at some time or other) and an  
10 end (for it would have ceased to come into being at some time or other); but, if it neither began nor ended, and ever was and ever will be, it has no beginning or end; for it is not possible for anything to be ever without all being.

Further, just as it ever is, so it must ever be infinite in  
15 magnitude.

But nothing which has a beginning or end is either eternal or infinite.

If it were not one, it would be bounded by something else.

For if it is infinite, it must be one; for if it were two, it could not  
20 be infinite; for then they would be bounded by one another.

And, since it is one, it is alike throughout; for if it were unlike, it would be many and not one.

So then it is eternal and infinite and one and all alike. And it cannot perish nor become greater, nor does it suffer pain or grief. For,  
25 if any of these things happened to it, it would no longer be one. For if it is altered, then the real must needs not be all alike, but what was before must pass away, and what was not must come into being. Now, if it changed by so much as a single hair in ten thousand years, it would all perish in the whole of time.

Further, it is not possible either that its order should be changed; for the order which it had before does not perish, nor does that which was not come into being. But, since nothing is either added to it or passes away or is altered, how can any real thing have had its order changed? For if anything became different, that would amount to a  
35 change in its order.

Nor does it suffer pain; for a thing in pain could not all be. For a thing in pain could not be ever, nor has it the same power as what is whole. Nor would it be alike, if it were in pain; for it is only from the addition or subtraction of something that it could feel pain, and then  
40 it would no longer be alike. Nor could what is whole feel pain; for then what was whole and what was real would pass away, and what was not would, come into being. And the same argument applies to grief as to pain.

Nor is anything empty. For what is empty is nothing. What is  
45 nothing cannot be.

Nor does it move; for it has nowhere to bring itself to, but is full. For if there were anything empty, it would bring itself to the empty. But, since there is nothing empty, it has nowhere to bring itself to.

And it cannot be dense and rare; for it is not possible for what is  
50 rare to be as full as what is dense, but what is rare is at once emptier than what is dense.

This is the way in which we must distinguish between what is full and what is not full. If a thing has room for anything else, and takes it in, it is not full; but if it has no room for anything and does not take  
55 it in, it is full.

Now, it must needs be full if there is nothing empty, and if it is full, it does not move.

This argument, then, is the greatest proof that it is one alone; but the following are proofs of it also. If there were a many, these would  
60 have to be of the same kind as I say that the one is. For if there is earth and water, and air and iron, and gold and fire, and if one thing is living and another dead, and if things are black and white and all that people say they really are, if that is so, and if we see and hear aright, each one of these must be such as we first decided, and they  
65 cannot be changed or altered, but each must be just as it is. But, as it is, we say that we see and hear and understand aright, and yet we believe that what is warm becomes cold, and what is cold warm; that what is hard turns soft, and what is soft hard; that what is living dies, and that things are born from what lives not; and that all those  
70 things are changed, and that what they were and what they are now are in no way alike. We think that iron, which is hard, is rubbed away by contact with the finger; and so with gold and stone and everything which we fancy to be strong, and that earth and stone are made out of

water; so that it turns out that we neither see nor know realities.

75 Now these things do not agree with one another. We said that there were many things that were eternal and had forms and strength of their own, and yet we fancy that they all suffer alteration, and that they change from what we see each time. It is clear, then, that we did not see aright after all, nor are we right in believing that all these  
80 things are many. They would not change if they were real, but each thing would be just what we believed it to be; for nothing is stronger than true reality. But if it has changed, what was has passed away, and what was not is come into being. So then, if there were many things, they would have to be just of the same nature as the one.

85 Now, if it were to exist, it must needs be one; but if it is one, it cannot have body; for, if it had body it would have parts, and would no longer be one.

If what is real is divided, it moves; but if it moves, it cannot be.

### Questions To Consider

- 1 For Melissus, what are the characteristics of what exists? Compare his position with that of Parmenides. To what extent are the positions similar? To what extent are they dissimilar?
- 2 According to Melissus, is any sort of change possible? If so, what sort is possible? If not, why not?
- 3 Analyze Melissus' argument that being is ungenerated and cannot be corrupted. What is his conclusion, and what reasons does he give in support of this conclusion? In your judgment, is this a good argument?

Zeno of Elea

You cannot traverse an infinite number of points in a finite time. You must traverse the half of any given distance before you traverse the whole, and the half of that again before you can traverse it. This goes on *ad infinitum*, so that there are an infinite number in any  
5 given space, and it cannot be traversed in a finite time.

---

A            C    D   E   B

Achilles must first reach the place from which the tortoise started. By that time the tortoise will have got on a little way. Achilles must then traverse that, and still the tortoise will be ahead.  
10 He is always coming nearer, but he never makes up to it.

A Question To Consider

What is a *paradox*? Why would each of these three arguments be called *paradoxes*?



# The Milesians

## Thales

All things come from water.

The earth rests on water.

A magnet has a soul, since it moves iron.

All things are full of gods.

- 5 The wet nature, easily reformed into each thing, is shaped in various ways: for [the part] of it which turns into vapor becomes like air, and what is thinned out of the air becomes ether, and, as water settles and changes into mud, it becomes earth. Therefore Thales claimed that, among the four elements, water was *the* element, as  
10 being more of a cause [than the others].

—*Taken from Heraclitus Homericus*

## Questions To Consider

- 1 For Thales, is being one, or many? What, for him, is the principle of all things? In your judgment, is this claim plausible in any way?
- 2 Does Thales admit any sort of change? If so, what kind does he admit? If not, why not?
- 3 What kind of a principle is water, for Thales? That is, does it bring about change in some way, or is it merely required in order for change to occur?
- 4 In your judgment, is the difference between water and other things which exist (such as air, and earth) real, or merely apparent for Thales?
- 5 What makes the difference, say, between air and earth for Thales? Would it be fair to Thales to assert that air and earth are different kinds of thing?

## Anaximander

Anaximander of Miletus, son of Praxiades, a fellow-citizen and associate of Thales, said that the material cause and first element of things was the Infinite, he being the first to introduce this name of the material cause. He says that it is neither water nor any other of  
 5 what are now called the elements, but a substance different from them which is infinite, from which arise all the heavens and the worlds within them.

He says that this is eternal and ageless, and that it encompasses all the worlds.

10 And into that from which things take their rise they pass away once more, “as is ordained; for they make reparation and satisfaction to one another for their injustice according to the appointed,” as he says in these somewhat poetical terms.

And besides this, there was an eternal motion, in which was  
 15 brought about the origin of the worlds.

He did not ascribe the origin of things to any alteration in matter, but said that the oppositions in the substratum, which was a boundless body, were separated out.

[He holds] that this (i.e., a body over and above the elements) is  
 20 what is infinite, and not air or water, in order that the other things may not be destroyed by their infinity. They are in opposition to one another—air is cold, water moist, and fire hot.—and therefore if any one of them were infinite, the rest would have ceased to be by this time. Accordingly [he says] that what is infinite is something other  
 25 than the elements, and that from it the elements arise.

### Questions To Consider

- 1 For Anaximander, is being one or many? What is his first principle? Is this claim at all probable?
- 2 How does Anaximander's principle differ from those of Thales and Anaximenes? How would you describe his principle?
- 3 Why, claims Anaximander, can the principle of all things **not** be earth, or air, or fire, or water?

## Anaximenes

Anaximenes of Miletus, son of Eurystratos, who had been an associate of Anaximander, said, like him, that the underlying substance was one and infinite. He did not, however, say it was indeterminate, like Anaximander, but determinate; for he said it was  
5 Air.

From it, he said, the things that are, and have been, and shall be, the gods and things divine, took their rise, while other things come from its offspring.

“Just as,” he said, “our soul, being air, holds us together, so do  
10 breath and air encompass the whole world.”

And the form of the air is as follows. Where it is most even, it is invisible to our sight; but cold and heat, moisture and motion, make it visible. It is always in motion; for, if it were not, it would not change so much as it does.

15 It differs in different substances in virtue of its rarefaction and condensation.

When it is dilated so as to be rarer, it becomes fire; while winds, on the other hand, are condensed Air. Cloud is formed from air by compression; and this, still further condensed, becomes water. Water,  
20 condensed still more, turns to earth; and when condensed as much as it can be, to stones.

## Questions To Consider

- 1 For Anaximenes, is being one or many? What is his first principle? Is this claim at all probable?
- 2 Does Anaximenes admit change of any sort?
- 3 Is "infinite air" the same sort of principle as Thales' "water"?
- 4 How do things other than air (such as fire, water, and earth) differ from one another, for Anaximander?
- 5 In your judgment, is the difference between infinite air and the other things which exist (such as fire, water, and earth) real, or merely apparent, for Anaximenes?
- 6 Taking the Milesians as a group, is there a difficulty in saying that all things come to be out of a single sort of thing, whatever that might be? What about the *differences* among things?

