



Introduction to Presocractic Philosophy

W.T. Stace

CHAPTER II THE IONICS.

The earliest Greek philosophers belong to what in after times came to be called the Ionic school. The name was derived from the fact that the three chief representatives of this school, Thales, Anaximander, and Anaximenes, were all men of Ionia, that is to say, the coast of Asia Minor.

Thales

As the founder of the earliest school in history, Thales of Miletus is generally accounted the founder and father of all philosophy. He was born about 624 B.C. and died about 550 B.C. These dates are approximate, and it should be understood that the same thing is true of nearly all the dates of the early philosophers. Different scholars vary, sometimes as much as ten years, in the dates they give. We shall not enter into these questions at all, because they are of no importance. And throughout these lectures it should be understood that the dates given are approximate.

Thales, at any rate, was a contemporary of Solon and Croesus. He was famous in antiquity for his mathematical and astronomical learning, and also for his practical sagacity and wisdom. He is included in all the accounts of the Seven Sages. The story of the Seven Sages is unhistorical, but the fact that the lists of their names differ considerably as given by different writers, whereas the name of Thales appears in all, shows with what veneration he was anciently regarded. An eclipse of the sun occurred in 585 B.C., and Thales is alleged to have predicted it, which was a feat for the astronomy of those times. And he must have been a great engineer, for he caused a diversion of the river Halys, when Croesus and his army were unable to cross it. Nothing else is known of his life, though there were many apocryphal stories.

No writings by Thales were extant even in the time of Aristotle, and it is believed that he wrote nothing. His philosophy, if we can call it by that name, consisted, so far as we know, of two propositions. Firstly, that the principle of all things is water, that all comes from water, and to water all returns. And secondly, that the earth is a flat disc which floats upon water. The first, which is the chief proposition, means that water is the one primal kind of existence and that everything else in the universe is merely a modification of water. Two questions will naturally occur to us. Why did Thales choose water as the first principle? And by what process does water, in his opinion, come to be changed into other things; how was the universe formed out of water? We cannot answer either of these questions with

certainty. Aristotle says that Thales “probably derived his opinion from observing that the nutriment of all things is moist, and that even actual heat is generated therefrom, and that animal life is sustained by water, ... and from the fact that the seeds of all things possess {22} a moist nature, and that water is a first principle of all things that are humid.” This is very likely the true explanation. But it will be noted that even Aristotle uses the word “probably,” and so gives his statement merely as a conjecture. How, in the opinion of Thales, the universe arose out of water, is even more uncertain. Most likely he never asked himself the question, and gave no explanation. At any rate nothing is known on the point.

This being the sum and substance of the teaching of Thales, we may naturally ask why, on account of such a crude and undeveloped idea, he should be given the title of the father of philosophy. Why should philosophy be said to begin here in particular? Now, the significance of Thales is not that his water-philosophy has any value in itself, but that this was the first recorded attempt to explain the universe on naturalistic and scientific principles, without the aid of myths and anthropomorphic gods. Moreover, Thales propounded the problem, and determined the direction and character, of all pre-Socratic philosophy. The fundamental thought of that period was, that under the multiplicity of the world there must be a single ultimate principle. The problem of all philosophers from Thales to Anaxagoras was, what is the nature of that first principle from which all things have issued? Their systems are all attempts to answer this question, and may be classified according to their different replies. Thus Thales asserted that the ultimate reality is water, Anaximander indefinite matter, Anaximenes air, the Pythagoreans number, the Eleatics Being, Heracleitus fire, Empedocles the four elements, Democritus atoms, and so on. The first period is thus essentially cosmological in character, and it was Thales who determined the character. His importance is that he was the first to propound the question, not that he gave any rational reply to it.

We saw in the first chapter, that man is naturally a materialist, and that philosophy is the movement from sensuous to non-sensuous thought. As we should expect, then, philosophy begins in materialism. The first answer to the question, what the ultimate reality is, places the nature of that reality in a sensuous object, water. The other members of the Ionic school, Anaximander, and Anaximenes, are also materialists. And from their time onwards we can trace the gradual rise of thought, with occasional breaks and relapses, from this sensualism of the Ionics, through the semi-sensuous idealism of the Eleatics, to the highest point of pure non-sensuous thought, the idealism of Plato and Aristotle. It is important to keep in mind, then, that the history of philosophy is not a mere chaotic hotch-potch of opinions and theories, succeeding each other without connection or order. It is a logical and historical evolution, each step in which is determined by the last, and advances beyond the last towards a definite goal. The goal, of course, is visible to us, but was not visible to the early thinkers themselves.

Since man begins by looking outwards upon the external world and not inwards upon his own self, this fact too determines the character of the first period of Greek philosophy. It concerns itself solely with nature, with the external world, and only with man as a part of nature. It demands an explanation of nature. And this is the same as saying that it is cosmological. The problems of man, of life, of human destiny, of ethics, are treated by it scantily, or not at all. It is not till the time of the Sophists that the Greek spirit turns inwards upon itself and begins to consider these problems, and with the emergence of that point of view we have passed from the first to the second period of Greek philosophy.

Because the Ionic philosophers were all materialists they are also sometimes called Hylicists, from the Greek *hulé* which means matter.

Anaximander

The next philosopher of the Ionic school is Anaximander. He was an exceedingly original and audacious thinker. He was probably born about 611 B.C. and died about 547. He was an inhabitant of Miletus, and is said to have been a disciple of Thales. It will be seen, thus, that he was a younger contemporary of Thales. He was born at the time that Thales was flourishing, and was about a generation younger. He was the first Greek to write a philosophic treatise, which however has been unfortunately lost. He was eminent for his astronomical and geographical knowledge, and in this connection was the first to construct a map. Details of his life are not known.

Now Thales had made the ultimate principle of the universe, water. Anaximander agrees with Thales that the ultimate principle of things is material, but he does not name it water, does not in fact believe that it is any particular kind of matter. It is rather a formless, indefinite, and absolutely featureless matter in general. Matter, as we know it, is always some particular kind of matter. It must be iron, brass, water, air, or other such. The difference between the different kinds of matter is qualitative, that is to say, we know that air is air because it has the qualities of air and differs from iron because iron has the qualities of iron, and so on. The primeval matter of Anaximander is just matter not yet sundered into the different kinds of matter. It is therefore formless and characterless. And as it is thus indeterminate in quality, so it is illimitable in quantity. Anaximander believed that this matter stretches out to infinity through space. The reason he gave for this opinion was, that if there were a limited amount of matter it would long ago have been used up in the creation and destruction of the “innumerable worlds.” Hence he called it “the boundless.” In regard to these “innumerable worlds,” the traditional opinion about Anaximander was that he believed these worlds to succeed each other in time, and that first a world was created, developed, and was destroyed, then another world arose, was developed and destroyed, and that this periodic revolution of worlds went on for ever. Professor Burnet, however, is of opinion that the “innumerable worlds” of Anaximander were not necessarily successive but rather simultaneously existing worlds. According to this view there may be any number of worlds existing at the same time. But, even so, it is still true that these worlds were not everlasting, but began, developed and decayed, giving place in due time to other worlds.

How, now, have these various worlds been formed out of the formless, indefinite, indeterminate matter of Anaximander? On this question Anaximander is vague and has nothing very definite to put forward. Indeterminate matter by a vaguely conceived process separates itself into “the hot” and “the cold.” The cold is moist or damp. This cold and moist matter becomes the earth, in the centre of the universe. The hot matter collects into a sphere of fire surrounding the earth. The earth in the centre was originally fluid. The heat of the surrounding sphere caused the waters of the earth progressively to evaporate giving rise to the envelope of air which surrounds the earth. For the early Greeks regarded the air and vapour as the same thing. As this air or vapour expanded under the action of heat it burst the outside hot sphere of fire into a series of enormous “wheel-shaped husks,” resembling cart wheels, which encircle the earth. You may naturally ask how it is that if these are composed of fire we do not see them continually glowing. Anaximander’s answer was that

these wheel-shaped husks are encrusted with thick, opaque vapour, which conceals the inner fire from our view. But there are apertures, or pipe-like holes in the vapour-crust, and through these the fire gleams, causing the appearance of the sun, stars, and moon. You will note that the moon was, on this theory, considered to be fiery, and not, as we now know it to be, a cold surface reflecting the sun's light. There were three of these "cart wheels"; the first was that of the sun, furthest away from the earth, nearer to us was that of the moon, and closest of all was that of the fixed stars. The "wheel-shaped husks" containing the heavenly bodies are revolved round the earth by means of currents of air. The earth in the centre was believed by {27} Anaximander to be not spherical but cylindrical. Men live on the top end of this pillar or cylinder.

Anaximander also developed a striking theory about the origin and evolution of living beings. In the beginning the earth was fluid and in the gradual drying up by evaporation of this fluid, living beings were produced from the heat and moisture. In the first instance these beings were of a low order. They gradually evolved into successively higher and higher organisms by means of adaptation to their environment. Man was in the first instance a fish living in the water. The gradual drying up left parts of the earth high and dry, and marine animals migrated to the land, and their fins by adaptation became members fitted for movement on land. The resemblance of this primitive theory to modern theories of evolution is remarkable. It is easy to exaggerate its importance, but it is at any rate clear that Anaximander had, by a happy guess, hit upon the central idea of adaptation of species to their environment.

The teaching of Anaximander exhibits a marked advance beyond the position of Thales. Thales had taught that the first principle of things is water. The formless matter of Anaximander is, philosophically, an advance on this, showing the operation of thought and abstraction. Secondly, Anaximander had definitely attempted to apply this idea, and to derive from it the existent world. Thales had left the question how the primal water developed into a world, entirely unanswered.

Anaximenes

Like the two previous thinkers Anaximenes was an inhabitant of Miletus. He was born about 588 B.C. and died about 524. He wrote a treatise of which a small fragment still remains. He agreed with Thales and Anaximander that the first principle of the universe is material. With Thales too, he looked upon it as a particular kind of matter, not indeterminate matter as taught by Anaximander. Thales had declared it to be water. Anaximenes named air as first principle. This air, like the matter of Anaximander, stretches illimitably through space. Air is constantly in motion and has the power of motion inherent in it and this motion brought about the development of the universe from air. As operating process of this development Anaximenes named the two opposite processes of (1) Rarefaction, (2) Condensation. Rarefaction is the same thing as heat or growing hot, and condensation is identified with growing cold. The air by rarefaction becomes fire, and fire borne aloft upon the air becomes the stars. By the opposite process of condensation, air first becomes clouds and, by further degrees of condensation, becomes successively water, earth, and rocks. The world resolves again in the course of time into the primal air. Anaximenes, like Anaximander, held the theory of "innumerable worlds," and these worlds are, according to the traditional view, successive. But here again Professor Burnet considers that the innumerable worlds may

have been co-existent as well as successive. Anaximenes considered the earth to be a flat disc floating upon air.

The origin of the air theory of Anaximenes seems to have been suggested to him by the fact that air in the form of breath is the principle of life.

The teaching of Anaximenes seems at first sight to be a falling off from the position of Anaximander, because he goes back to the position of Thales in favour of a determinate matter as first principle. But in one respect at least there is here an advance upon Anaximander. The latter had been vague as to how formless matter differentiates itself into the world of objects. Anaximenes names the definite processes of rarefaction and condensation. If you believe, as these early physicists did, that every different kind of matter is ultimately one kind of matter, the problem of the differentiation of the qualities of the existent elements arises. For example, if this paper is really composed of air, how do we account for its colour, its hardness, texture, etc. Either these qualities must be originally in the primal air, or not. If the qualities existed in it then it was not really one homogeneous matter like air, but must have been simply a mixture of different kinds of matter. If not, how do these properties arise? How can this air which has not in it the qualities of things we see, develop them? The simplest way of getting out of the difficulty is to found quality upon quantity, and to explain the former by the amount or quantity, more or less, of matter existent in the same volume. This is precisely what is meant by rarefaction and condensation. Condensation would result in compressing more matter into the same volume. Rarefaction would give rise to the opposite process. Great compression of air, a great amount of it in a small space, might account for the qualities, say, of earth and stones, for example, their heaviness, hardness, colour, etc.

Hence Anaximenes was to some extent a more logical and definite thinker than Anaximander, but cannot compare with him in audacity and originality of thought.

Other Ionic Thinkers

We have now considered the three chief thinkers of the Ionic School. Others there were, but they added nothing new to the teaching of these three. They followed either Thales or Anaximenes in stating the first principle of the world either as water or as air. Hippo, for example, followed Thales, and for him the world is composed of water, Idaeus agreed with Anaximenes that it is derived from air. Diogenes of Apollonia is chiefly remarkable for the fact that he lived at a very much later date. He was a contemporary of Anaxagoras, and opposed to the more developed teachings of that philosopher the crude materialism of the Ionic School. Air was by him considered to be the ground of all things.

CHAPTER III THE PYTHAGOREANS

Not much is known of the life of Pythagoras. Three so-called biographies have come down to us from antiquity, but they were written hundreds of years after the event, and are filled with a tissue of extravagant fancies, and with stories of miracles and wonders worked by Pythagoras. All sorts of fantastic legends seem to have gathered very early around his life, obscuring from us the actual historical details. A few definite facts, however, are known.

He was born somewhere between 580 and 570 B.C. at Samos, and about middle age he migrated to Crotona in South Italy. According to legend, before he arrived in South Italy he had travelled extensively in Egypt and other countries of the East. There is, however, no historical evidence of this. There is nothing in itself improbable in the belief that Pythagoras made these travels, but it cannot be accepted as proved for lack of evidence. The legend is really founded simply upon the oriental flavour of his doctrines. In middle age he arrived in South Italy and settled at Crotona. There he founded the Pythagorean Society and lived for many years at the head of it. His later life, the date and manner of his death, are not certainly known.

Now it is important to note that the Pythagorean Society was not primarily a school of philosophy at all. It was really a religious and moral Order, a Society of religious reformers. The Pythagoreans were closely associated with the Orphic Sect, and took from it the belief in the transmigration of souls, including transmigration of human souls into animals. They also taught the doctrine of the "wheel of things," and the necessity of obtaining "release" from it, by which one could escape from the weary round of incarnate lives. Thus they shared with the Orphic religious Sect the principle of reincarnation. The Orphic Sect believed that "release" from the wheel of life was to be obtained by religious ceremonial and ritual. The Pythagoreans had a similar ritual, but they added to this the belief that intellectual pursuits, the cultivation of science and philosophy, and, in general, the intellectual contemplation of the ultimate things of the universe would be of great help towards the "release" of the soul. From this arose the tendency to develop science and philosophy. Gradually their philosophy attained a semi-independence from their religious rites which justifies us in regarding it definitely as philosophy.

The Pythagorean ethical views were rigorous and ascetic in character. They insisted upon the utmost purity of life in the members of the Order. Abstinence from flesh was insisted upon, although this was apparently a late development. We know that Pythagoras himself was not a total abstainer from flesh. They forbade the eating of beans. They wore a garb peculiar to themselves. The body, they taught, is the prison or tomb of the soul. They thought that one must not attempt to obtain "release" by suicide, because "man is the property of God," the chattel of God. They were not politicians in the modern sense, but their procedure in practice amounted to the greatest possible interference in politics. It appears that the Pythagoreans attempted to impose their ordinances upon the ordinary citizens of Crotona. They aimed at the supersession of the State by their own Order and they did actually capture the government of Crotona for a short period. This led to attacks on the Order, and the persecution of its members. When the plain citizen of Crotona was told not to eat beans, and that under no circumstances could he eat his own dog, this was too much. A general persecution occurred. The meeting place of the Pythagoreans was burnt to the ground, the Society was scattered, and its members killed or driven away. This occurred between the years 440 and 430 B.C. Some years later the Society revived and continued its activities, but we do not hear much of it after the fourth century B.C.

It was largely a mystical society. The Pythagoreans developed their own ritual, ceremonial and mysteries. This love of mystery, and their general character as miracle-mongers, largely account for the legends which grew up around the life of Pythagoras himself. Their scientific activities were also considerable. They enforced moral self-control. They cultivated the arts and crafts, gymnastics, music, medicine, and mathematics. The development of mathematics in early Greece was largely the work of the Pythagoreans.

Pythagoras is said to have discovered the 47th Proposition of Euclid, and to have sacrificed an ox in honour thereof. And there is good reason to believe that practically the whole of the substance of the First Book of Euclid is the work of Pythagoras.

Turning now to their philosophical teaching, the first thing that we have to understand is that we cannot speak of the philosophy of Pythagoras, but only of the philosophy of the Pythagoreans. For it is not known what share Pythagoras had in this philosophy or what share was contributed by his successors. Now we recognize objects in the universe by means of their qualities. But the majority of these qualities are not universal in their scope; some things possess some qualities; others possess others. A leaf, for example, is green, but not all things are green. Some things have no colour at all. The same is true of tastes and smells. Some things are sweet; some bitter. But there is one quality in things which is absolutely universal in its scope, which applies to everything in the universe—corporeal or incorporeal. All things are *numerable*, and can be counted. Moreover, it is impossible to conceive a universe in which number is not to be found. You could easily imagine a universe in which there is no colour, or no sweet taste, or a universe in which nothing possesses weight. But you cannot imagine a universe in which there is no number. This is an inconceivable thought. Upon these grounds we should be justified in concluding that number is an extremely important aspect of things, and forms a fundamental pad of the framework of the world. And it is upon this aspect of things that the Pythagoreans laid emphasis.

They drew attention to proportion, order, and harmony as the dominant notes of the universe. Now when we examine the ideas of proportion, order, and harmony, we shall see that they are closely connected with number. Proportion, for example, must necessarily be expressible by the relation of one number to another. Similarly order is measurable by numbers. When we say that the ranks of a regiment exhibit order, we mean that they are arranged in such a way that the soldiers stand at certain regular distances from each other, and these distances are measurable by numbers of feet or inches. Lastly, consider the idea of harmony. If, in modern times, we were to say that the universe is a harmonious whole, we should understand that we are merely using a metaphor from music. But the Pythagoreans lived in an age when men were not practised in thought, and they confused cosmical harmony with musical harmony. They thought that the two things were the same. Now musical harmony is founded upon numbers, and the Pythagoreans were the first to discover this. The difference of notes is due to the different numbers of vibrations of the sounding instrument. The musical intervals are likewise based upon numerical proportions. So that since, for the Pythagoreans, the universe is a musical harmony, it follows that the essential character of the universe is number. The study of mathematics confirmed the Pythagoreans in this idea. Arithmetic is the science of numbers, and all other mathematical sciences are ultimately reducible to numbers. For instance, in geometry, angles are measured by the number of degrees.

Now, as already pointed out, considering all these facts, we might well be justified in concluding that number is a very important aspect of the universe, and is fundamental in it. But the Pythagoreans went much further than this. They drew what seems to us the extraordinary conclusion that the world is *made of* numbers. At this point, then, we reach the heart of the Pythagorean philosophy. Just as Thales had said that the ultimate reality, the first principle of which things are composed, is water, so now the Pythagoreans teach that the first principle of things is number. Number is the world-ground, the stuff out of which

the universe is made.

In the detailed application of this principle to the world of things we have a conglomeration of extraordinary fancies and extravagances. In the first place, all numbers arise out of the unit. This is the prime number, every other number being simply so many units. The unit then is the first in the order of things in the universe. Again, numbers are divided into odd and even. The universe, said the Pythagoreans, is composed of pairs of opposites and contradictories, and the fundamental character of these opposites is that they are composed of the odd and even. The odd and even, moreover, they identified with the limited and the unlimited respectively. How this identification was made seems somewhat doubtful. But it is clearly connected with the theory of bipartition. An even number can be divided by two and therefore it does not set a limit to bipartition. Hence it is unlimited. An odd number cannot be divided by two, and therefore it sets a limit to bipartition. The limited and the unlimited become therefore the ultimate principles of the universe. The Limit is identified with the unit, and this again with the central fire of the universe. The Limit is first formed and proceeds to draw more and more of the unlimited towards itself, and to limit it. Becoming limited, it becomes a definite "something," a thing. So the formation of the world of things proceeds. The Pythagoreans drew up a list of ten opposites of which the universe is composed. They are (1) Limited and unlimited, (2) odd and even, (3) one and many, (4) right and left, (5) masculine and feminine, (6) rest and motion, (7) straight and crooked, (8) light and darkness, (9) good and evil, (10) square and oblong.

With the further development of the number-theory Pythagoreanism becomes entirely arbitrary and without principle. We hear, for example, that 1 is the point, 2 is the line, 3 is the plane, 4 is the solid, 5 physical qualities, 6 animation, 7 intelligence, health, love, wisdom. There is no principle in all this. Identification of the different numbers with different things can only be left to the whim and fancy of the individual. The Pythagoreans disagreed among themselves as to what number is to be assigned to what thing. For example, justice, they said, is that which returns equal for equal. If I do a man an injury, justice ordains that injury should be done to me, thus giving equal for equal. Justice must, therefore, be a number which returns equal for equal. Now the only numbers which do this are square numbers. Four equals two into two, and so returns equal for equal. Four, then, must be justice. But nine is equally the square of three. Hence other Pythagoreans identified justice with nine.

According to Philolaus, one of the most prominent Pythagoreans, the quality of matter depends upon the number of sides of its smallest particles. Of the five regular solids, three were known to the Pythagoreans. That matter whose smallest particles are regular tetrahedra, said Philolaus, is fire. Similarly earth is composed {38} of cubes, and the universe is identified with the dodecahedron. This idea was developed further by Plato in the "Timaeus," where we find all the five regular solids brought into the theory.

The central fire, already mentioned as identified with the unit, is a characteristic doctrine of the Pythagoreans. Up to this time it had been believed that the earth is the centre of the universe, and that everything revolves round it. But with the Pythagoreans the earth revolves round the central fire. One feels inclined at once to identify this with the sun. But this is not correct. The sun, like the earth, revolves round the central fire. We do not see the central fire because that side of the earth on which we live is perpetually turned away from it. This involves the theory that the earth revolves round the central fire in the same period that it takes to rotate upon its axis. The Pythagoreans were the first to see that the earth

is itself one of the planets, and to shake themselves free from the geocentric hypothesis. Round the central fire, sometimes mystically called “the Hearth of the Universe,” revolve ten bodies. First is the “counter-earth,” a non-existent body invented by the Pythagoreans, next comes the earth, then the sun, the moon, the five planets, and lastly the heaven of the fixed stars. This curious system might have borne fruit in astronomy. That it did not do so was largely due to the influence of Aristotle, who discountenanced the theory, and insisted that the earth is the centre of the universe. But in the end the Pythagorean view won the day. We know that Copernicus derived the suggestion of his heliocentric hypothesis from the Pythagoreans.

The Pythagoreans also taught “The Great Year,” probably a period of 10,000 years, in which the world comes into being and passes away, going in each such period through the same evolution down to the smallest details.

There is little to be said by way of criticism of the Pythagorean system. It is entirely crude philosophy. The application of the number theory issues in a barren and futile arithmetical mysticism. Hegel’s words in this connection are instructive:

“We may certainly,” he says, “feel ourselves prompted to associate the most general characteristics of thought with the first numbers: saying one is the simple and immediate, two is difference and mediation, and three the unity of both these. Such associations however are purely external; there is nothing in the mere numbers to make them express these definite thoughts. With every step in this method, the more arbitrary grows the association of definite numbers with definite thoughts ... To attach, as do some secret societies of modern times, importance to all sorts of numbers and figures is, to some extent an innocent amusement, but it is also a sign of deficiency of intellectual resource. These numbers, it is said, conceal a profound meaning, and suggest a deal to think about. But the point in philosophy is not what you may think but what you do think; and the genuine air of thought is to be sought in thought itself and not in arbitrarily selected symbols.”

CHAPTER IV THE ELEATICS

The Eleatics are so called because the seat of their school was at Elea, a town in South Italy, and Parmenides and Zeno, the two chief representatives of the school, were both citizens of Elea. So far we have been dealing with crude systems of thought in which only the germs of philosophic thinking can be dimly discerned. Now, however, with the Eleatics we step out definitely for the first time upon the platform of philosophy. Eleaticism is the first true philosophy. In it there emerges the first factor of the truth, however poor, meagre, and inadequate. For philosophy is not, as many persons suppose, simply a collection of freak speculations, which we may study in historical order, but at the end of which, God alone knows which we ought to believe. On the contrary, the history of philosophy presents a definite line of evolution. The truth unfolds itself gradually in time.

Xenophanes

The reputed founder of the Eleatic School was Xenophanes. It is, however, doubtful whether Xenophanes ever went to Elea. Moreover, he belongs more properly to the history

of religion than to the history of philosophy. The real creator of the Eleatic School was Parmenides. But Parmenides seized upon certain germs of thought latent in Xenophanes and transmuted them into philosophic principles. We have, therefore, in the first instance, to say something of Xenophanes. He was born about the year 576 B.C., at Colophon in Ionia. His long life was spent in wandering up and down the cities of Hellas, as a poet and minstrel, singing songs at banquets and festivals. Whether, as sometimes stated; he finally settled at Elea is a matter of doubt, but we know definitely that at the advanced age of ninety-two he was still wandering about Greece. His philosophy, such as it is, is expressed in poems. He did not, however, write philosophical poems, but rather elegies and satires upon various subjects, only incidentally expressing his religious views therein. Fragments of these poems have come down to us.

Xenophanes is the originator of the quarrel between philosophy and religion. He attacked the popular religious notions of the Greeks with a view to founding a purer and nobler conception of Deity. Popular Greek religion consisted of a belief in a number of gods who were conceived very much as in the form of human beings. Xenophanes attacks this conception of God as possessing human form. It is absurd, he says, to suppose that the gods wander about from place to place, as represented in the Greek legends. It is absurd to suppose that the gods had a beginning. It is disgraceful to impute to them stories of fraud, adultery, theft and deceit. And Xenophanes inveighs against Homer and Hesiod for disseminating these degrading conceptions of the Deity. He argues, too, against the polytheistic notion of a plurality of gods. That which is divine can only be one. There can only be one best. Therefore, God is to be conceived as one. And this God is comparable to mortals neither in bodily form nor understanding. He is "all eye, all ear, all thought." It is he "who, without trouble, by his thought governs all things." But it would be a mistake to suppose that Xenophanes thought of this God as a being external to the world, governing it from the outside, as a general governs his soldiers. On the contrary, Xenophanes identified God with the world. The world is God, a sentient being, though without organs of sense. Looking out into the wide heavens, he said, "The One is God." The thought of Xenophanes is therefore more properly described as pantheism than as monotheism. God is unchangeable, immutable, undivided, unmoved, passionless, undisturbed. Xenophanes appears, thus, rather as a religious reformer than as a philosopher. Nevertheless, inasmuch as he was the first to enunciate the proposition "All is one," he takes his place in philosophy. It was upon this thought that Parmenides built the foundations of the Eleatic philosophy.

Certain other opinions of Xenophanes have been preserved. He observed fossils, and found shells inland, and the forms of fish and sea-weed embedded in the rocks in the quarries of Syracuse and elsewhere. From these he concluded that the earth had risen out of the sea and would again partially sink into it. Then the human race would be destroyed. But the earth would again rise from the sea and the human race would again be renewed. He believed that the sun and stars were burning masses of vapour. The sun, he thought, does not revolve round the earth. It goes on in a straight line, and disappears in the remote distance in the evening. It is not the same sun which rises the next morning. Every day a new sun is formed out of the vapours of the sea. This idea is connected with his general attitude towards the popular religion. His motive was to show that the sun and stars are not divine beings, but like other beings, ephemeral. Xenophanes also ridiculed the Pythagoreans, especially their doctrine of re-incarnation.

Parmenides

Parmenides was born about 514 B.C. at Elea. Not much is known of his life. He was in his early youth a Pythagorean, but recanted that philosophy and formulated a philosophy of his own. He was greatly revered in antiquity both for the depth of his intellect, and the sublimity and nobility of his character. Plato refers to him always with reverence. His philosophy is comprised in a philosophic didactic poem which is divided into two parts. The first part expounds his own philosophy and is called "the way of truth." The second part describes the false opinions current in his day and is called "the way of opinion."

The reflection of Parmenides takes its rise from observation of the transitoriness and changeableness of things. The world, as we know it, is a world of change and mutation. All things arise and pass away. Nothing is permanent, nothing stands. One moment it is, another moment it is not. It is as true to say of {44} anything, that it is not, as that it is. The truth of things cannot lie here, for no knowledge of that which is constantly changing is possible. Hence the thought of Parmenides becomes the effort to find the eternal amid the shifting, the abiding and everlasting amid the change and mutation of things. And there arises in this way the antithesis between Being and not-being. The absolutely real is Being. Not-being is the unreal. Not-being is not at all. And this not-being he identifies with becoming, with the world of shifting and changing things, the world which is known to us by the senses. The world of sense is unreal, illusory, a mere appearance. It is not-being. Only Being truly is. As Thales designated water the one reality, as the Pythagoreans named number, so now for Parmenides the sole reality, the first principle of things, is Being, wholly unmixed with not-being, wholly excludent of all becoming. The character of Being he describes, for the most part, in a series of negatives. There is in it no change, it is absolutely unbecome and imperishable. It has neither beginning nor end, neither arising nor passing away. If Being began, it must have arisen either from Being or from not-being. But for Being to arise out of Being, that is not a beginning, and for Being to arise out of not-being is impossible, since there is then no reason why it should arise later rather than sooner. Being cannot come out of not-being, nor something out of nothing. *Ex nihilo nihil fit*. This is the fundamental thought of Parmenides. Moreover, we cannot say of Being that it was, that it is, that it will be. There is for it no past, no present, and no future. It is rather eternally and timelessly present. It is undivided and indivisible. For anything to be divided {45} it must be divided by something other than itself. But there is nothing other than Being; there is no not-being. Therefore there is nothing by which Being can be divided. Hence it is indivisible. It is unmoved and undisturbed, for motion and disturbance are forms of becoming, and all becoming is excluded from Being. It is absolutely self-identical. It does not arise from anything other than itself. It does not pass into anything other than itself. It has its whole being in itself. It does not depend upon anything else for its being and reality. It does not pass over into otherness; it remains, steadfast, and abiding in itself. Of positive character Being has nothing. Its sole character is simply its being. It cannot be said that it is this or that; it cannot be said that it has this or that quality, that it is here or there, then or now. It simply *is*. Its only quality is, so to speak, "isness."

But in Parmenides there emerges for the first time a distinction of fundamental importance in philosophy, the distinction between Sense and Reason. The world of falsity and appearance, of becoming, of not-being, this is, says Parmenides, the world which is presented to us by the senses. True and veritable Being is known to us only by reason, by

thought. The senses therefore, are, for Parmenides, the sources of all illusion and error. Truth lies only in reason. This is exceedingly important, because this, *that truth lies in reason and not in the world of sense*, is the fundamental position of idealism.

The doctrine of Being, just described, occupies the first part of the poem of Parmenides. The second part is the way of false opinion. But whether Parmenides is here simply giving an account of the false philosophies of his day, (and in doing this there does not seem much point,) or whether he was, with total inconsistency, attempting, in a cosmological theory of his own, to explain the origin of that world of appearance and illusion, whose very being he has, in the first part of the poem, denied--this does not seem to be clear. The theory here propounded, at any rate, is that the sense-world is composed of the two opposites, the hot and the cold, or light and darkness. The more hot there is, the more life, the more reality; the more cold, the more unreality and death.

What position, now, are we to assign to Parmenides in philosophy? How are we to characterize his system? Such writers as Hegel, Erdmann, and Schwegler, have always interpreted his philosophy in an idealistic sense. Professor Burnet, however, takes the opposite view. To quote his own words: "Parmenides is not, as some have said, the father of idealism. On the contrary, all materialism depends upon his view." Now if we cannot say whether Parmenides was a materialist or an idealist, we cannot be said to understand much about his philosophy. The question is therefore of cardinal importance. Let us see, in the first place, upon what grounds the materialistic interpretation of Parmenides is based. It is based upon a fact which I have so far not mentioned, leaving it for explanation at this moment. Parmenides said that Being, which is for him the ultimate reality, occupies space, is finite, and is spherical or globe-shaped. Now that which occupies space, and has shape, is matter. The ultimate reality of things, therefore, is conceived by Parmenides as material, and this, of course, is the cardinal thesis of materialism. This interpretation of Parmenides is further emphasized in the disagreement between himself and Melissus, as to whether Being is finite or infinite. Melissus was a younger adherent of the Eleatic School, whose chief interest lies in his views on this question. His philosophical position in general is the same as that of Parmenides. But on this point they differed. Parmenides asserted that Being is globe-shaped, and therefore finite. Now it was an essential part of the doctrine of Parmenides that empty space is non-existent. Empty space is an existent non-existence. This is self-contradictory, and for Parmenides, therefore, empty space is simply not-being. There are, for example, no interstices, or empty spaces between the particles of matter. Being is "the full," that is, full space with no mixture of empty space in it. Now Melissus agreed with Parmenides that there is no such thing as empty space; and he pointed out, that if Being is globe-shaped, it must be bounded on the outside by empty space. And as this is impossible, it cannot be true that Being is globe-shaped, or finite, but must, on the contrary, extend illimitably through space. This makes it quite clear that Parmenides, Melissus, and the Eleatics generally, did regard Being as, in some sense, material.

Now, however, let us turn to the other side of the picture. What ground is there for regarding Parmenides as an idealist? In the first place, we may say that his ultimate principle, Being, whatever he may have thought of it, is not in fact material, but is essentially an abstract thought, a concept. Being is not here, it is not there. It is not in any place or time. It is not to be found by the senses. It is to be found only in reason. We form the idea of Being by the process of abstraction. For example, we see this desk. Our entire knowledge of the desk consists in our knowledge of its qualities. It is square, brown, hard, odourless,

etc. Now suppose we successively strip off these qualities in thought--its colour, its size, its shape. We shall ultimately be left with nothing at all except its mere being. We can no longer say of it that it is hard, square, etc. We can only say "it is." As Parmenides said, Being is not divisible, movable; it is not here nor there, then nor now. It simply "is." This is the Eleatic notion of Being, and it is a pure concept. It may be compared to such an idea as "whiteness." We cannot see "whiteness." We see white things, but not "whiteness" itself. What, then, is "whiteness"? It is a concept, that is to say, not a particular thing, but a general idea, which we form by abstraction, by considering the quality which all white things have in common, and neglecting the qualities in which they differ. Just so, if we consider the common character of all objects in the universe, and neglect their differences, we shall find that what they all have in common is simply "being." Being then is a general idea, or concept. It is a thought, and not a thing. Parmenides, therefore, actually placed the absolute reality of things in an idea, in a thought, though he may have conceived it in a material and sensuous way. Now the cardinal thesis of idealism is precisely this, that the absolute reality, of which the world is a manifestation, consists in thought, in concepts. Parmenides, on this view, was an idealist.

Moreover, Parmenides has clearly made the distinction between sense and reason. True Being is not known to the senses, but only to reason, and this distinction is an essential feature of all idealism. Materialism is precisely the view that reality is to be found in the world of sense. But the proposition of Parmenides is the exact opposite of this, namely, that reality is to be found only in reason. Again, there begins to appear for the first time in Parmenides the distinction between reality and appearance. Parmenides, of course, would not have used these terms, which have been adopted in modern times. But the thought which they express is unmistakably there. This outward world, the world of sense, he proclaims to be illusion and appearance. Reality is something which lies behind, and is invisible to the senses. Now the very essence of materialism is that this material world, this world of sense, is the real world. Idealism is the doctrine that the sense-world is an appearance. How then can Parmenides be called a materialist?

How are we to reconcile these two conflicting views of Parmenides? I think the truth is that these two contradictories lie side by side in Parmenides unreconciled, and still mutually contradicting each other. Parmenides himself did not see the contradiction. If we emphasize the one side, then Parmenides was a materialist. If we emphasize the other side, then he is to be interpreted as an idealist. In point of fact, in the history of Greek philosophy, both these sides of Parmenides were successively emphasized. He became the father both of materialism and of idealism. His immediate successors, Empedocles and Democritus, seized upon the materialistic aspect of his thought, and developed it. The essential thought of Parmenides was that Being cannot arise from not-being, and that Being neither arises nor passes away. If we apply this idea to matter we get what in modern times is called the doctrine of the "indestructibility of matter." Matter has no beginning and no end. The apparent arising and passing away of things is simply the aggregation and separation of particles of matter which, in themselves, are indestructible. This is precisely the position of Democritus. And his doctrine, therefore, is a materialistic rendering of the main thought of Parmenides that Being cannot arise from not-being or pass into not-being.

It was not till the time of Plato that the idealistic aspect of the Parmenidean doctrine was developed. It was the genius of Plato which seized upon the germs of idealism in Parmenides and developed them. Plato was deeply influenced by Parmenides. His main

doctrine was that the reality of the world is to be found in thought, in concepts, in what is called "the Idea." And he identified the Idea with the Being of Parmenides.

But still, it may be asked, which is the true view of Parmenides? Which is the historical Parmenides? Was not Plato in interpreting him idealistically reading his own thought into Parmenides? Are not we, if we interpret him as an idealist, reading into him later ideas? In one sense this is perfectly true. It is clear from what Parmenides himself said that he regarded the ultimate reality of things as material. It would be a complete mistake to attribute to him a fully developed and consistent system of idealism. If you had told Parmenides that he was an idealist, he would not have understood you. The distinction between materialism and idealism was not then developed. If you had told him, moreover, that Being is a concept, he would not have understood you, because the theory of concepts was not developed until the time of Socrates and Plato. Now it is the function of historical criticism to insist upon this, to see that later thought is not attributed to Parmenides. But if this is the function of historical scholarship, it is equally the function of philosophic insight to seize upon the germs of a higher thought amid the confused thinking of Parmenides, to see what he was groping for, to see clearly what he saw only vaguely and dimly, to make explicit what in him was merely implicit, to exhibit the true inwardness of his teaching, to separate what is valuable and essential in it from what is worthless and accidental. And I say that in this sense the true and essential meaning of Parmenides is his idealism. I said in the first chapter that philosophy is the movement from sensuous to non-sensuous thought. I said that it is only with the utmost difficulty that this movement occurs. And I said that even the greatest philosophers have sometimes failed herein. In Parmenides we have the first example of this. He began by propounding the truth that Being is the essential reality, and Being, as we saw, is a concept. But Parmenides was a pioneer. He trod upon unbroken ground. He had not behind him, as we have, a long line of idealistic thinkers to guide him. So he could not maintain this first non-sensuous thought. He could not resist the temptation to frame for himself a mental image, a picture, of Being. Now all mental images and pictures are framed out of materials supplied to us by the senses. Hence it comes about that Parmenides pictured Being as a globe-shaped something occupying space. But this is not the truth of Parmenides. This is simply his failure to realise and understand his own principle, and to think his own thought. It is true that his immediate successors, Empedocles and Democritus, seized upon this, and built their philosophies upon it. But in doing so they were building upon the darkness of Parmenides, upon his dimness of vision, upon his inability to grapple with his own idea. It was Plato who built upon the light of Parmenides.

Zeno

The third and last important thinker of the Eleatic School is Zeno who, like Parmenides, was a man of Elea. His birth is placed about 489 B.C. He composed a prose treatise in which he developed his philosophy. Zeno's contribution to Eleaticism is, in a sense, entirely negative. He did not add anything positive to the teachings of Parmenides. He supports Parmenides in the doctrine of Being. But it is not the conclusions of Zeno that are novel, it is rather the reasons which he gave for them. In attempting to support the Parmenidean doctrine from a new point of view he developed certain ideas about the ultimate character of space and time which have since been of the utmost importance in philosophy. Parmenides had taught that

the world of sense is illusory and false. The essentials of that world are two-- multiplicity and change. True Being is absolutely one; there is in it no plurality or multiplicity. Being, moreover, is absolutely static and unchangeable. There is in it no motion. Multiplicity and motion are the two characteristics of the false world of sense. Against multiplicity and motion, therefore, Zeno directed his arguments, and attempted indirectly to support the conclusions of Parmenides by showing that multiplicity and motion are impossible. He attempted to force multiplicity and motion to refute themselves by showing that, if we assume them as real, contradictory propositions follow from that assumption. Two propositions which contradict each other cannot both be true. Therefore the assumptions from which both follow, namely, multiplicity and motion, cannot be real things.

Zeno's arguments against multiplicity.

(1) If the many is, it must be both infinitely small and infinitely large. The many must be infinitely small. For it is composed of units. This is what we mean by saying that it is many. It is many parts or units. These units must be indivisible. For if they are further divisible, then they are not units. Since they are indivisible they can have no magnitude, for that which has magnitude is divisible. The many, therefore, is composed of units which have no magnitude. But if none of the parts of the many have magnitude, the many as a whole has none. Therefore, the many is infinitely small. But the many must also be infinitely large. For the many has magnitude, and as such, is divisible into parts. These parts still have magnitude, and are therefore further divisible. However far we proceed with the division the parts still have magnitude and are still divisible. Hence the many is divisible *ad infinitum*. It must therefore be composed of an infinite number of parts, each having magnitude. But the smallest magnitude, multiplied by infinity, becomes an infinite magnitude. Therefore the many is infinitely large. (2) The {54} many must be, in number, both limited and unlimited. It must be limited because it is just as many as it is, no more, no less. It is, therefore, a definite number. But a definite number is a finite or limited number. But the many must be also unlimited in number. For it is infinitely divisible, or composed of an infinite number of parts.

Zeno's arguments against motion.

(1) In order to travel a distance, a body must first travel half the distance. There remains half left for it still to travel. It must then travel half the remaining distance. There is still a remainder. This progress proceeds infinitely, but there is always a remainder untravelled. Therefore, it is impossible for a body to travel from one point to another. It can never arrive. (2) Achilles and the tortoise run a race. If the tortoise is given a start, Achilles can never catch it up. For, in the first place, he must run to the point from which the tortoise started. When he gets there, the tortoise will have gone to a point further on. Achilles must then run to that point, and finds then that the tortoise has reached a third point. This will go on for ever, the distance between them continually diminishing, but never being wholly wiped out. Achilles will never catch up the tortoise. (3) This is the story of the flying arrow. An object cannot be in two places at the same time. Therefore, at any particular moment in its flight the arrow is in one place and not in two. But to be in one place is to be at rest. Therefore in each and every moment of its flight it is at rest. It is thus at rest throughout.

Motion is impossible.

This type of argument is, in modern times, called “antinomy.” An antinomy is a proof that, since two contradictory propositions equally follow from a given assumption, that assumption must be false. Zeno is also called by Aristotle the inventor of dialectic. Dialectic originally meant simply discussion, but it has come to be a technical term in philosophy, and is used for that type of reasoning which seeks to develop the truth by making the false refute and contradict itself. The conception of dialectic is especially important in Zeno, Plato, Kant, and Hegel.

All the arguments which Zeno uses against multiplicity and motion are in reality merely variations of one argument. That argument is as follows. It applies equally to space, to time, or to anything which can be quantitatively measured. For simplicity we will consider it only in its spatial significance. Any quantity of space, say the space enclosed within a circle, must either be composed of ultimate indivisible units, or it must be divisible *ad infinitum*. If it is composed of indivisible units, these must have magnitude, and we are faced with the contradiction of a magnitude which cannot be divided. If it is divisible *ad infinitum*, we are faced with the contradiction of supposing that an infinite number of parts can be added up and make a finite sum-total. It is thus a great mistake to suppose that Zeno’s stories of Achilles and the tortoise, and of the flying arrow, are merely childish puzzles. On the contrary, Zeno was the first, by means of these stories, to bring to light the essential contradictions which lie in our ideas of space and time, and thus to set an important problem for all subsequent philosophy.

All Zeno’s arguments are based upon the one argument described above, which may be called the antinomy of infinite divisibility. For example, the story of the flying arrow. At any moment of its flight, says Zeno, it must be in one place, because it cannot be in two places at the same moment. This depends upon the view of time as being infinitely divisible. It is only in an infinitesimal moment, an absolute moment having no duration, that the arrow is at rest. This, however, is not the only antinomy which we find in our conceptions of space and time. Every mathematician is acquainted with the contradictions immanent in our ideas of infinity. For example, the familiar proposition that parallel straight lines meet at infinity, is a contradiction. Again, a decreasing geometrical progression can be added up to infinity, the infinite number of its terms adding up in the sum-total to a finite number. The idea of infinite space itself is a contradiction. You can say of it exactly what Zeno said of the many. There must be in existence as much space as there is, no more. But this means that there must be a definite and limited amount of space. Therefore space is finite. On the other hand, it is impossible to conceive a limit to space. Beyond the limit there must be more space. Therefore space is infinite. Zeno himself gave expression to this antinomy in the form of an argument which I have not so far mentioned. He said that everything which exists is in space. Space itself exists, therefore space must be in space. That space must be in another space and so *ad infinitum*. This of course is merely a quaint way of saying that to conceive a limit to space is impossible.

But to return to the antinomy of infinite divisibility, on which most of Zeno’s arguments rest, you will perhaps expect me to say something of the different solutions which have been offered. In the first place, we must not forget Zeno’s own solution. He did not propound this contradiction for its own sake, but to support the thesis of Parmenides. His solution is that as multiplicity and motion contain these contradictions, therefore multiplicity and motion cannot be real. Therefore, there is, as Parmenides said, only one Being, with no

multiplicity in it, and excludent of all motion and becoming. The solution given by Kant in modern times is essentially similar. According to Kant, these contradictions are immanent in our conceptions of space and time, and since time and space involve these contradictions it follows that they are not real beings, but appearances, mere phenomena. Space and time do not belong to things as they are in themselves, but rather to our way of looking at things. They are forms of our perception. It is our minds which impose space and time upon objects, and not objects which impose space and time upon our minds. Further, Kant drew from these contradictions the conclusion that to comprehend the infinite is beyond the capacity of human reason. He attempted to show that, wherever we try to think the infinite, whether the infinitely large or the infinitely small, we fall into irreconcilable contradictions. Therefore, he concluded that human faculties are incapable of apprehending infinity. As might be expected, many thinkers have attempted to solve the problem by denying one or other side of the contradiction, by saying that one or other side does not follow from the premises, that one is true and the other false. David Hume, for example, {58} denied the infinite divisibility of space and time, and declared that they are composed of indivisible units having magnitude. But the difficulty that it is impossible to conceive of units having magnitude which are yet indivisible is not satisfactorily explained by Hume. And in general, it seems that any solution which is to be satisfactory must somehow make room for both sides of the contradiction. It will not do to deny one side or the other, to say that one is false and the other true. A true solution is only possible by rising above the level of the two antagonistic principles and taking them both up to the level of a higher conception, in which both opposites are reconciled.

This was the procedure followed by Hegel in his solution of the problem. Unfortunately his solution cannot be fully understood without some knowledge of his general philosophical principles, on which it wholly depends. I will, however, try to make it as plain as possible. In the first place, Hegel did not go out of his way to solve these antinomies. They appear as mere incidents in the development of his thought. He did not regard them as isolated cases of contradiction which occur in thought, as exceptions to a general rule, which therefore need special explanation. On the contrary, he regarded them, not as exceptions to, but as examples of, the essential character of reason. All thought, all reason, for Hegel, contains immanent contradictions which it first posits and then reconciles in a higher unity, and this particular contradiction of infinite divisibility is reconciled in the higher notion of quantity. The notion of quantity contains two factors, namely the one and the many. Quantity means precisely a many in {59} one, or a one in many. If, for example, we consider a quantity of anything, say a heap of wheat, this is, in the first place, one; it is one whole. Secondly, it is many; for it is composed of many parts. As one it is continuous; as many it is discrete. Now the true notion of quantity is not one, apart from many, nor many apart from one. It is the synthesis of both. It is a many *in* one. The antinomy we are considering arises from considering one side of the truth in a false abstraction from the other. To conceive unity as not being in itself multiplicity, or multiplicity as not being unity, is a false abstraction. The thought of the one involves the thought of the many, and the thought of the many involves the thought of the one. You cannot have a many without a one, any more than you can have one end of a stick without the other. Now, if we consider anything which is quantitatively measured, such as a straight line, we may consider it, in the first place, as one. In that case it is a continuous indivisible unit. Next we may regard it as many, in which case it falls into parts. Now each of these parts may again be regarded as one, and as such is an indivisible

unit; and again each part may be regarded as many, in which case it falls into further parts; and this alternating process may go on for ever. This is the view of the matter which gives rise to the contradictions we have been considering. But it is a false view. It involves the false abstraction of first regarding the many as something that has reality apart from the one, and then regarding the one as something that has reality apart from the many. If you persist in saying that the line is simply one and not many, then there arises the theory of indivisible units. If you persist in saying it is simply many and not one, then it is divisible *ad infinitum*. But the truth is that it is neither simply many nor simply one; it is a many in one, that is, it is a *quantity*. Both sides of the contradiction are, therefore, in one sense true, for each is a factor of the truth. But both sides are also false, if and in so far as, each sets itself up as the whole truth.

Critical Remarks on Eleaticism.

The consideration of the meaning of Zeno's doctrine will give us an insight into the essentials of the position of the Eleatics. Zeno said that motion and multiplicity are not real. Now what does this mean? Did Zeno mean to say that when he walked about the streets of Elea, it was not true that he walked about? Did he mean that it was not a fact that he moved from place to place? When I move my arms, did he mean that I am not moving my arms, but that they really remain at rest all the time? If so, we might justly conclude that this philosophy is a mere craze of speculation run mad, or else a joke. But this is not what is meant. The Eleatic position is that though the world of sense, of which multiplicity and motion are essential features, may exist, yet that outward world is not the true Being. They do not deny that the world exists. They do not deny that motion exists or that multiplicity exists. These things no sane man can deny. The existence of motion and multiplicity is, as Hegel says, as sensuously certain as the existence of elephants. Zeno, then, does not deny the existence of the world. What he denies is the truth of existence. What he means is: certainly there is motion and multiplicity; certainly the world is here, is present to our senses, but it is not the true world. It is not reality. It is mere appearance, illusion, an outward show and sham, a hollow mask which hides the real being of things. You may ask what is meant by this distinction between appearance and reality. Is not even an appearance real? It appears. It exists. Even a delusion exists, and is therefore a real thing. So is not the distinction between appearance and reality itself meaningless? Now all this is perfectly true, but it does not comprehend quite what is meant by the distinction. What is meant is that the objects around us have existence, but not self-existence, not self-substantiality. That is to say, their being is not in themselves, their existence is not grounded in themselves but is grounded in another, and flows from that other. They exist, but they are not independent existences. They are rather beings whose being flows into them from another, which itself is self-existent and self-substantial. They are, therefore, mere appearances of that other, which is the reality. Of course the Eleatics did not speak of appearance and reality in these terms. But this is what they were groping for, and dimly saw.

If we now look back upon the road on which we have travelled from the beginning of Greek philosophy, we shall be able to characterize the direction in which we have been moving. The earliest Greek philosophers, the Ionics, propounded the question, "what is the ultimate principle of things?" and answered it by declaring that the first principle of things is matter. The second Greek School, the Pythagoreans, answered the same question

by declaring numbers to be the first principle. The third school, the Eleatics, answered the question by asserting that the first principle of things is Being. {62} Now the universe, as we know it, is both quantitative and qualitative. Quantity and quality are characteristics of every sense-object. These are not, indeed, the only characteristics of the world, but they are the only characteristics which have so far come to light. Now the position of the Ionics was that the ultimate reality is both quantitative and qualitative, that is to say, it is matter, for matter is just what has both quantity and quality. The Pythagoreans abstracted from the quality of things. They stripped off the qualitative aspect from things, and were accordingly left with only quantity as ultimate reality. Quantity is the same as number. Hence the Pythagorean position that the world is made of numbers. The Eleatic philosophy, proceeding one step further in the same direction, abstracted from quantity as well as quality. Whereas the Pythagoreans had denied the qualitative aspect of things, leaving themselves only with the quantitative, the Eleatics denied both quantity and quality, for in denying multiplicity they denied quantity. Therefore they are left with the total abstraction of mere Being which has in it neither dividedness (quantity), nor positive character (quality). The rise from the Ionic to the Eleatic philosophy is therefore essentially a rise from sensuous to pure thinking. The Eleatic Being is a pure abstract thought. The position of the Pythagoreans on the other hand is that of semi-sensuous thought. They form the stepping-stone from the Ionics to the Eleatics.

Now let us consider what of worth there is in this Eleatic principle, and what its defects are. In the first place, it is necessary for us to understand that the Eleatic philosophy is the first monism. A monistic philosophy is a philosophy which attempts to explain the entire universe from one single principle. The opposite of monism is therefore pluralism, which is that kind of philosophy which seeks to explain the universe from many ultimate and equally underived principles. But more particularly and more frequently we speak of the opposite of monism as being dualism, that is to say, the position that there are two ultimate principles of explanation. If, for example, we say that all the good in the universe arises from one source which is good, and that all the evil arises from another source which is evil, and that these sources of good and evil cannot be subordinated one to the other, and that one does not arise out of the other, but both are co-ordinate and equally primeval and independent, that position would be a dualism. All philosophy, which is worthy of the name, seeks, in some sense, a monistic explanation of the universe, and when we find that a system of philosophy breaks down and fails, then we may nearly always be sure its defect will reveal itself as an unreconciled dualism. Such a philosophy will begin with a monistic principle, and will attempt to derive or deduce the entire universe from it, but somewhere or other it comes across something in the world which it cannot bring under that principle. Then it is left with two equally ultimate existences, neither of which can be derived from the other. Thus it breaks out into dualism.

Now the search for a monistic explanation of things is a universal tendency of human thought. Wherever we look in the world of thought, we find that this monistic tendency appears. I have already said that it appears throughout the history of philosophy. It reveals itself, too, very clearly in the history of religion. Religion begins in polytheism, the belief in many gods. From that it passes on to monotheism, the belief in one God, who is the sole author and creator of the universe. In Hindu thought we find the same thing. Hindu thought is based upon the principle that "All is one." Everything in the world is derived from one ultimate being, Brahman. But not only is this monistic tendency traceable in religion

and philosophy; it is also traceable in science. The progress of scientific explanation is essentially a progress towards monism. In the first place, the explanation of isolated facts consists always in assigning causes for them. Suppose there is a strange noise in your room at night. You say it is explained when you find that it is due to the falling of a book or the scuttling of a rat across the floor. The noise is thus explained by assigning a cause for it. But this simply means that you have robbed it of its isolated and exceptional position, and reduced it to the position of an example of a general law. When the water freezes in your jug, you say that the cause of this is the cold. It is an example of the law that whenever the cold reaches a certain degree, then, other things being equal, water solidifies. But to assign causes in this way is not really to explain anything. It does not give any reason for an event happening. You cannot see any reason why water should solidify in the cold. It merely tells us that the event is not exceptional, but is an example of what always happens. It reduces the isolated event to a case of a general law, which “explains,” not merely this one event, but possibly millions of events. It is not merely that cold solidifies the water in your jug. It equally solidifies the water in everybody’s jug. The same law “explains” all these, and likewise “explains” icebergs and the polar caps on the earth and the planet Mars. In fact scientific explanation means the reduction of millions of facts to one principle. But science does not stop here. It seeks further to explain the laws themselves, and its method is to reduce the many laws to one higher and more general law. A familiar example of this is the explanation of Kepler’s laws of the planetary motions. Kepler laid down three such laws. The first was that planets move in elliptical orbits with the sun in one focus. The second was that planets describe equal areas in equal times. The third was a rather more complicated law. Kepler knew these laws from observation, but he could not explain them. They were explained by Newton’s discovery of the law of gravitation. Newton proved that Kepler’s three laws could be mathematically deduced from the law of gravitation. In that way Kepler’s laws were explained, and not only Kepler’s laws, but many other astronomical laws and facts. Thus the explanation of the many isolated facts consists in their reduction to the one law, and the explanation of the many laws consists in their reduction to the one more general law. As knowledge advances, the phenomena of the universe come to be explained by fewer and fewer, and wider and wider, general principles. Obviously the ultimate goal would be the explanation of all things by one principle. I do not mean to say that scientific men have this end consciously in view. But the point is that the monistic tendency is there. What is meant by the explanation is the reduction of all things to one principle.

In philosophy, in religion, and in science, then, we find this monistic tendency of thought. But it might be asked how we know that this universal tendency is right? How do we know that it is not merely a universal error? Is there no logical or philosophical basis for the belief that the ultimate explanation of things must be one? Now this is a subject which takes us far afield from Greek philosophy. The philosophical basis of monism was never thought out till the time of Spinoza. So we cannot go into it at length here. But, quite shortly, the question is—Is there any reason for believing that the ultimate explanation of things must be one? Now if we are to explain the universe, two conditions must be fulfilled. In the first place, the ultimate reality by which we attempt to explain everything must explain all the other things in the world. It must be possible to deduce the whole world from it. Secondly, the first principle must explain itself. It cannot be a principle which itself still requires explanation by something else. If it is itself not self-explanatory, but is an ultimate mystery,

then even if we succeed in deducing the universe from it, nothing is thereby explained. This, for example, is precisely the defect of materialism. Even if we suppose it proved that all things, including mind, arise from matter, yet the objection remains that this explains nothing at all, for matter is not a self-explanatory existence. It is an unintelligible mystery. And to reduce the universe to an ultimate mystery is not to explain it. Again; some people think that the world is to be explained by what they call a "first cause." But why should any cause be the first? Why should we stop anywhere in the chain of causes? Every cause is necessarily the effect of a prior cause. The child, who is told that God made the world, and who inquires who, in that case, made God, is asking a highly sensible question. Or suppose, in tracing back the chain of causes, we come upon one which we have reason to say is really the first, is anything explained thereby? Still we are left with an ultimate mystery. Whatever the principle of explanation is, it cannot be a principle of this kind. It must be a principle which explains itself, and does not lead to something further, such as another cause. In other words, it must be a principle which has its whole being in itself, which does not for its completeness refer us to anything beyond itself. It must be something fully comprehended in itself, without reference to anything outside it. That is to say, it must be what we call self-determined or absolute. Now any absolute principle must necessarily be one. Suppose that it were two. Suppose you attempt to explain the world by two principles, X and Y, each of which is ultimate, neither being derived from the other. Then what relation does X bear to Y? We cannot fully comprehend X without knowing its relation to Y. Part of the character and being of X is constituted by its relation to Y. Part of X's character has to be explained by Y. But that is not to be self-explained. It is to be explained by something not itself. Therefore, the ultimate explanation of things must be one.

The Eleatics, then, were perfectly correct in saying that all is one, and that the ultimate principle of the universe, Being, is one. But if we examine the way in which they carried out their monism, we shall see that it broke down in a hopeless dualism. How did they explain the existence of the world? They propounded the principle of Being, as the ultimate reality. How then did they derive the actual world from that principle? The answer is that they neither derived it nor made any attempt to derive it. Instead of deducing the world from their first principle, they simply denied the reality of the world altogether. They attempted to solve the problem by denying the existence of the problem. The world, they said, is simply not-being. It is an illusion. Now certainly it is a great thing to know which is the true world, and which the false, but after all this is not an explanation. To call the world an illusion is not to explain it. If the world is reality, then the problem of philosophy is, how does that reality arise? If the world is illusion, then the problem is, how does that illusion arise? Call it illusion, if you like. But this is not explaining it. It is simply calling it names. This is the defect, too, of Indian philosophy in which the world is said to be Maya--delusion. Hence in the Eleatic philosophy there are two worlds brought face to face, lying side by side of each other, unreconciled--the world of Being, which is the true world, and the world of facts, which is illusion. Although the Eleatics deny the sense-world, and call it illusion, yet of this illusion they cannot rid themselves. In some sense or other, this world is here, is present. It comes back upon our senses, and demands explanation. Call it illusion, but it still stands beside the true world, and demands that it be deduced from that. So that the Eleatics have two principles, the false world and the true world, simply lying side by side, without any connecting link between them, without anything to {69} show how the one arises from the other. It is an utterly irreconcilable dualism.

It is easy to see why the Eleatic philosophy broke down in this dualism. It is due to the barrenness of their first principle itself. Being, they say, has in it no becoming. All principle of motion is expressly excluded from it. Likewise they deny to it any multiplicity. It is simply one, without any many in it. If you expressly exclude multiplicity and becoming from your first principle, then you can never get multiplicity and becoming out of it. You cannot get out of it anything that is not in it. If you say absolutely there is no multiplicity in the Absolute, then it is impossible to explain how multiplicity comes into this world. It is exactly the same in regard to the question of quality. Pure Being is without quality. It is mere "isness." It is an utterly featureless, characterless Being, perfectly empty and abstract. How then can the quality of things issue from it? How can all the riches and variety of the world come out of this emptiness? The Eleatics are like jugglers who try to make you believe that they get rabbits, guinea-pigs, pieces of string, paper, and ribbon, out of an entirely empty top-hat. One can see how utterly barren and empty this principle is, if one translates it into figurative language, that is to say, into the language of religion. The Eleatic principle would correspond to a religion in which we said that "God is," but beyond the fact that He "is," He has absolutely no character. But surely this is a wholly barren and meagre conception of the Deity. In the Christian religion we are accustomed to hear such expressions as, not only that "God is," but that "God is Love," "God is Power," "God is Goodness," "God is Wisdom." Now objection may certainly be taken to these predicates and epithets on the ground that they are merely figurative and anthropomorphic. In fact, they exhibit the tendency to think non-sensuous objects sensuously. These predicates are merely picked up from the finite world and applied haphazard to God, for whom they are entirely inadequate. But at least these expressions teach us, that out of mere emptiness nothing can come; that the world cannot arise out of something which is lower and poorer than itself. Here in the world we find in a certain measure, love, wisdom, excellence, power. These things cannot spring from a source which is so poor that it contains nothing but "isness." The less can arise out of the greater, but not the greater out of the less. We may contrast Eleaticism not only with Christianity, but even with popular modern agnosticism. According to this, the Absolute is unknowable. But what the agnostic means is that human reason is inadequate to grasp the greatness of the ultimate being. But the Eleatic principle is, not that in saying "God is Love, Power, Wisdom," we are saying too little about God, and that our ideas are inadequate to express the fullness of His being, but on the contrary, that they express too high an idea for God, of whom nothing can be said except "He is," because there is absolutely nothing more to say. This conception of God is the conception of an absolutely empty being.

Monism, I said, is a necessary idea in philosophy. The Absolute must be one. But an utterly abstract monism is impossible. If the Absolute is simply one, wholly excludent of all process and multiplicity, out of such an abstraction the process and multiplicity of the world cannot issue. The Absolute is not simply one, or simply many. It must be a many in one, as correctly set forth in the Christian doctrine of the Trinity. Religion moves from an abstract polytheism (God is many) to an abstract monotheism (God is one; Judaism, Hinduism and Islam). But it does not stop there. It rightly passes on to a concrete monotheism (God is many in one; Christianity). There are two popular misconceptions regarding the doctrine of the Trinity. The first mistake is that of popular rationalism, the second is that of popular theology. Popular rationalism asserts that the doctrine of the Trinity is contrary to reason. Popular theology asserts that it is a mystery which transcends reason. But the truth is that it neither contradicts nor transcends reason. On the contrary, it is in itself the highest

manifestation of reason. What is really a mystery, what really contradicts reason, is to suppose that God, the Absolute, is simply one without any multiplicity. This contradiction results in the fatal dualism which broke out in Eleaticism, and has broken out in every other system of thought, such as that of the Hindus or that of Spinoza, which begins with the conception of the Absolute as a pure one, totally exclusive of the many.

CHAPTER V HERACLEITUS

Heracleitus was born about 535 B.C., and is believed to have lived to the age of sixty. This places his death at 475 B.C. He was thus subsequent to Xenophanes, contemporary with Parmenides, and older than Zeno. In historical order of time, therefore, he runs parallel to the Eleatics. Heracleitus was a man of Ephesus in Asia Minor. He was an aristocrat, descendant of a noble Ephesian family, and occupied in Ephesus the nominal position of basileus, or King. This, however, merely meant that he was the Chief Priest of the local branch of the Eleusinian mysteries, and this position he resigned in favour of his brother. He appears to have been a man of a somewhat aloof, solitary, and scornful nature. He looked down, not only upon the common herd, but even upon the great men of his own race. He mentions Xenophanes and Pythagoras in terms of obloquy. Homer, he thinks, should be taken out and whipped. Hesiod he considers to be the teacher of the common herd, one with them, "a man," he says, "who does not even know day and night." Upon the common herd of mortals he looks down with infinite scorn. Some of his sayings remind us not a little of Schopenhauer in their pungency and sharpness. "Asses prefer straw to gold." "Dogs bark at everyone they do not know." Many of his sayings, however, are memorable and trenchant epitomes of practical wisdom. "Man's character is his fate." "Physicians who cut, burn, stab and rack the sick, demand a fee for doing it, which they do not deserve to get." From his aloof and aristocratic standpoint he launched forth denunciations against the democracy of Ephesus.

Heracleitus embodied his philosophical thoughts in a prose treatise, which was well-known at the time of Socrates, but of which only fragments have come down to us. His style soon became proverbial for its difficulty and obscurity, and he gained the nickname of Heracleitus the "Dark," or the "Obscure." Socrates said of his work that what he understood of it was excellent, what not, he believed was equally so, but that the book required a tough swimmer. He has even been accused of intentional obscurity. But there does not seem to be any foundation for this charge. The fact is that if he takes no great trouble to explain his thoughts, neither does he take any trouble to conceal them. He does not write for fools. His attitude appears to be that if his readers understand him, well; if not, so much the worse for his readers. He wastes no time in elaborating and explaining his thought, but embodies it in short, terse, pithy, and pregnant sayings.

His philosophical principle is the direct antithesis of Eleaticism. The Eleatics had taught that only Being is, and Becoming is not at all. All change, all Becoming is mere illusion. For Heracleitus, on the contrary, only Becoming is, and Being, permanence, identity, these are nothing but illusion. All things sublunary are perpetually changing, passing over into new forms and new shapes. Nothing stands, nothing holds fast, nothing remains what it is. "Into the same river," he says, "we go down, and we do not go down; for into the same

river no man can enter twice; ever it flows in and flows out.” Not only does he deny all absolute permanence, but even a relative permanence of things is declared to be illusory. We all know that everything has its term, that all things arise and pass away, from the insects who live an hour to the “eternal” hills. Yet we commonly attribute to these things at least a relative permanence, a shorter or longer continuance in the same state. But even this Heraclitus will not allow. Nothing is ever the same, nothing remains identical from one consecutive moment to another. The appearance of relative permanence is an illusion, like that which makes us think that a wave passing over the surface of the water remains all the time the same identical wave. Here, as we know, the water of which the wave is composed changes from moment to moment, only the form remaining the same. Precisely so, for Heraclitus, the permanent appearance of things results from the inflow and outflow in them of equivalent quantities of substance. “All is flux.” It is not, for example, the same sun which sets to-day and rises to-morrow. It is a new sun. For the fire of the sun burns itself out and is replenished from the vapours of the sea.

Not only do things change from moment to moment. Even in one and the same moment they are and are not the same. It is not merely that a thing first is, and then a moment afterwards, is not. It both is and is not at the same time. The at-onceness of “is” and “is not” is the meaning of Becoming. We shall understand this better if we contrast it with the Eleatic principle. The Eleatics described all things under two concepts, Being and not-being. Being has, for them, all truth, all reality. Not-being is wholly false and illusory. For Heraclitus both Being and not-being are equally real. The one is as true as the other. Both are true, for both are identical. Becoming is the identity of Being and not-being. For Becoming has only two forms, namely, the arising of things and their passing away, their beginning and their end, their origination and their decease. Perhaps you may think that this is not correct, that there are other forms of change besides origination and decease. A man is born. That is his origination. He dies. That is his decease. Between his birth and his death there are intermediate changes. He grows larger, grows older, grows wiser or more foolish, his hair turns grey. So also the leaf of a tree does not merely come into being and pass out of being. It changes in shape, form, colour. From light green it becomes dark green, and from dark green, yellow. But there is after all nothing in all this except origination and decease, not of the thing itself, but of its qualities. The change from green to yellow is the decease of green colour, the origination of yellow colour. Origination is the passage of not-being into Being. Decease is the passage of Being into not-being. Becoming, then, has in it only the two factors of Being and not-being, and it means the passing of one into the other. But this passage does not mean, for Heraclitus, that at one moment there is Being, and at the next moment not-being. It means that Being and not-being are in everything at one and the same time. Being is {76} not-being. Being has not-being in it. Take as an example the problem of life and death. Ordinarily we think that death is due to external causes, such as accident or disease. We consider that while life lasts, it is what it is, and remains what it is, namely life, unmixed with death, and that it goes on being life until something comes from outside, as it were, in the shape of external causes, and puts an end to it. You may have read Metchnikoff’s book “The Nature of Man.” In the course of that book he develops this idea. Death, he says, is always due to external causes. Therefore, if we could remove the causes, we could conquer death. The causes of death are mostly disease and accident, for even old age is disease. There is no reason why science should not advance so far as to eliminate disease and accident from life. In that case life might be made immortal, or at

any rate, indefinitely prolonged. Now this is founded upon a confusion of ideas. No doubt death is always due to external causes. Every event in the world is determined, and wholly determined, by causes. The law of causation admits of no exception whatever. Therefore it is perfectly true that in every case of death causes precede it. But, as I explained in the last chapter, [Footnote 6] to give the cause is not to give any reason for an event. Causation is never a principle of explanation of anything. It tells us that the phenomenon A is invariably and unconditionally followed by the phenomenon B, and we call A the cause of B. But this only means that whenever B happens, it happens in a certain regular order and succession of events. But it does not tell us why B happens at all. The reason of a thing is to be distinguished from its cause. The reason why a man dies is not to be found in the causes which bring about his death. The reason rather is that life has the germ of death already in it, that life is already death potentially, that Being has not-being in it. The causation of death is merely the mechanism, by the instrumentality of which, through one set of causes or another, the inevitable end is brought about.

Not only is Being, for Heraclitus, identical with not-being, but everything in the universe has in it its own opposite. Every existent thing is a "harmony of opposite tensions." A harmony contains necessarily two opposite principles which, in spite of their opposition, reveal an underlying unity. That it is by virtue of this principle that everything in the universe exists, is the teaching of Heraclitus. All things contain their own opposites within them. In the struggle and antagonism between hostile principles consists their life, their being, their very existence. At the heart of things is conflict. If there were no conflict in a thing, it would cease to exist. This idea is expressed by Heraclitus in a variety of ways. "Strife," he says, "is the father of all things." "The one, sundering from itself, coalesces with itself, like the harmony of the bow and the lyre." "God is day and night, summer and winter, war and peace, satiety and hunger." "Join together whole and unwhole, congruous and incongruous, accordant and discordant, then comes from one all and from all one." In this sense, too, he censures Homer for having prayed that strife might cease from among gods and men. If such a prayer were granted, the universe itself would pass away.

Side by side with this metaphysic, Heraclitus lays down a theory of physics. All things are composed of fire. "This world," he says, "neither one of the gods nor of the human race has made; but it is, it was, and ever shall be, an eternally living fire." All comes from fire, and to fire all returns. "All things are exchanged for fire and fire for all, as wares for gold and gold for wares." Thus there is only one ultimate kind of matter, fire, and all other forms of matter are merely modifications and variations of fire. It is clear for what reason Heraclitus enunciated this principle. It is an exact physical parallel to the metaphysical principle of Becoming. Fire is the most mutable of the elements. It does not remain the same from one moment to another. It is continually taking up matter in the form of fuel, and giving off equivalent matter in the form of smoke and vapour. The primal fire, according to Heraclitus, transmutes itself into air, air into water, and water into earth. This he calls "the downward path." To it corresponds "the upward path," the transmutation of earth into water, water to air, and air to fire. All transformation takes place in this regular order, and therefore, says Heraclitus, "the upward and the downward path are one."

Fire is further specially identified with life and reason. It is the rational element in things. The more fire there is, the more life, the more movement. The more dark and heavy materials there are, the more death, cold, and not-being. The soul, accordingly, is fire, and like all other fires it continually burns itself out and needs replenishment. This it obtains,

through the senses and the breath, from the common life and reason of the world, that is, from the surrounding and all-pervading fire. In this we live and move and have our being. No man has a separate soul of his own. It is merely part of the one universal soul-fire. Hence if communication with this is cut off, man becomes irrational and finally dies. Sleep is the half-way house to death. In sleep the passages of the senses are stopped up, and the outer fire reaches us only through breath. Hence in sleep we become irrational and senseless, turning aside from the common life of the world, each to a private world of his own. Heraclitus taught also the doctrine of periodic world-cycles. The world forms itself out of fire, and by conflagration passes back to the primitive fire.

In his religious opinions Heraclitus was sceptical. But he does not, like Xenophanes, direct his attacks against the central ideas of religion, and the doctrine of the gods. He attacks mostly the outward observances and forms in which the religious spirit manifests itself. He inveighs against the worship of images, and urges the uselessness of blood sacrifice.

With the Eleatics he distinguishes between sense and reason, and places truth in rational cognition. The illusion of permanence he ascribes to the senses. It is by reason that we rise to the knowledge of the law of Becoming. In the comprehension of this law lies the duty of man, and the only road to happiness. Understanding this, man becomes resigned and contented. He sees that evil is the necessary counterpart of good, and pain the necessary counterpart of pleasure, and that both together are necessary to form the harmony of the world. Good and evil are principles on the struggle between which the very existence of things depends. Evil, too, is necessary, has its place in the world. To see this is to put oneself above pitiful and futile struggles against the supreme law of the universe.

CHAPTER VI EMPEDOCLES

Empedocles was a man of Agrigentum in Sicily. The dates of his birth and death are placed about 495 and 435 B.C. respectively. Like Pythagoras, he possessed a powerful and magnetic personality. Hence all kinds of legends quickly grew up and wove themselves round his life and death. He was credited with the performance of miracles, and romantic stories were circulated about his death. A man of much persuasive eloquence he raised himself to the leadership of the Agrigentine democracy, until he was driven out into exile.

The philosophy of Empedocles is eclectic in character. Greek philosophy had now developed a variety of conflicting principles, and the task of Empedocles is to reconcile these, and to weld them together in a new system, containing however no new thought of its own. In speaking of Parmenides, I pointed out that his teaching may be interpreted either in an idealistic or a materialistic sense, and that these two aspects of thought lie side by side in Parmenides, and that it is possible to emphasize either the one or the other. Empedocles seizes upon the materialistic side. The essential thought of Parmenides was that Being cannot pass into not-being, nor not-being into Being. Whatever is, remains for ever what it is. } If we take that in a purely material context, what it means is that matter has neither beginning nor end, is uncreated and indestructible. And this is the first basic principle of Empedocles. On the other hand, Heraclitus had shown that becoming and change cannot be denied. This is the second basic principle of Empedocles. That there is

no absolute becoming, no creation, and utter destruction of things, and yet that things do somehow arise and pass away, this must be explained, these contradictory ideas must be reconciled. Now if we assert that matter is uncreated and indestructible, and yet that things arise and pass away, there is only one way of explaining this. We must suppose that objects, as wholes begin and cease to be, but that the material particles of which they are composed are uncreated and indestructible. This thought now forms the first principle of Empedocles, and of his successors, Anaxagoras, and the Atomists.

Now the Ionic philosophers had taught that all things are composed of some one ultimate matter. Thales believed it to be water, Anaximenes air. This necessarily involved that the ultimate kind of matter must be capable of transformation into other kinds of matter. If it is water, then water must be capable of turning into brass, wood, iron, air, or whatever other kind of matter exists. And the same thing applies to the air of Anaximenes. Parmenides, however, had taught that whatever is, remains always the same, no change or transformation being possible. Empedocles here too follows Parmenides, and interprets his doctrine in his own way. One kind of matter, he thinks, can never change into another kind of matter; fire never becomes water, nor does earth ever become air. This leads Empedocles at once to a doctrine of elements. The word "elements," indeed, is of later invention, and Empedocles speaks of the elements as "the roots of all." There are four elements, earth, air, fire, and water. Empedocles was therefore the originator of the familiar classification of the four elements. All other kinds of matter are to be explained as mixtures, in various proportions, of these four. Thus all origination and decease, as well as the differential qualities of certain kinds of matter, are now explained by the mixing and unmixing of the four elements. All becoming is simply composition and decomposition.

But the coming together and separation of the elements involves the movement of particles, and to explain this there must exist some moving force. The Ionic philosophers had assumed that matter has the power or force required for movement immanent in itself. The air of Anaximenes, of its own inherent power, transforms itself into other kinds of matter. This doctrine Empedocles rejects. Matter is for him absolutely dead and lifeless, without any principle of motion in itself. There is, therefore, only one remaining possibility. Forces acting upon matter from the outside must be assumed. And as the two essential processes of the world, mixing and unmixing, are opposite in character, so there must be two opposite forces. These he calls by the names Love and Hate, or Harmony and Discord. Though these terms may have an idealistic sound, Empedocles conceives them as entirely physical and material forces. But he identifies the attractions and repulsions of human beings, which we call love and hate, with the universally operating forces of the material world. Human love and hate are but the manifestations in us of the mechanical forces of attraction and repulsion at work in the world at large.

Empedocles taught the doctrine of periodic world-cycles. The world-process is, therefore, properly speaking, circular, and has neither beginning nor end. But in describing this process one must begin somewhere. We will begin, then, with the sphairos (sphere). In the primeval sphere the four elements are completely mixed, and interpenetrate each other completely. Water is not separated off from air, nor air from earth. All are chaotically mixed together. In any portion of the sphere there must be an equal quantity of earth, air, fire and water. The elements are thus in union, and the sole force operative within the sphere is Love or Harmony. Hence the sphere is called a "blessed god." Hate, however, exists all round the outside of the sphere. Hate gradually penetrates from the circumference

towards the centre and introduces the process of separation and disunion of the elements. This process continues till, like coming together with like, the elements are wholly separated. All the water is together; all the fire is together, and so on. When this process of disintegration is complete, Hate is supreme and Love is entirely driven out. But Love again begins to penetrate matter, to cause union and mixture of the elements, and finally brings the world back to the state of the original sphere. Then the same process begins again. At what position in this circular movement is our present world to be placed? The answer is that it is neither in the complete union of the sphere, nor is it completely disintegrated. It is half-way between the sphere and the stage of total disintegration. It is proceeding from the former towards the later, and Hate is gradually gaining the upper hand. In the formation of the present world from the sphere the first element to be separated off was air, next fire, then the earth. Water is squeezed out of the earth by the rapidity of its rotation. The sky is composed of two halves. One is of fire, and this is the day. The other is dark matter with masses of fire scattered about in it, and this is the night.

Empedocles believed in the transmigration of souls. He also put forward a theory of sense-perception, the essential of which is that like perceives like. The fire in us perceives external fire, and so with the other elements. Sight is caused by effluences of the fire and water of the eyes meeting similar effluences from external objects.

CHAPTER VII THE ATOMISTS

The founder of the Atomist philosophy was Leucippus. Practically nothing is known of his life. The date of his birth, the date of his death, and his place of residence, are alike unknown, but it is believed that he was a contemporary of Empedocles and Anaxagoras. Democritus was a citizen of Abdera in Thrace. He was a man of the widest learning, as learning was understood in his day. A passion for knowledge and the possession of adequate means for the purpose, determined him to undertake extensive travels in order to acquire the wisdom and knowledge of other nations. He travelled largely in Egypt, also probably in Babylonia. The date of his death is unknown, but he certainly lived to a great age, estimated at from ninety to one hundred years. Exactly what were the respective contributions of Leucippus and Democritus to the Atomist philosophy, is also a matter of doubt. But it is believed that all the essentials of this philosophy were the work of Leucippus, and that Democritus applied and extended them, worked out details, and made the theory famous.

Now we saw that the philosophy of Empedocles was based upon an attempt to reconcile the doctrine of Parmenides with the doctrine of Heraclitus. The fundamental thought of Empedocles was that there is no absolute becoming in the strict sense, no passage of Being into not-being or not-being into Being. Yet the objects of the senses do, in some way, arise and pass away, and the only method by which this is capable of explanation is to suppose that objects, as whole objects, come to be and cease to be, but that the material particles of which they are composed are eternally existent. But the detailed development which Empedocles gave to this principle was by no means satisfactory. In the first place, if we hold that all objects are composed of parts, and that all becoming is due to the mixing and unmixing of pre-existent matter, we must have a theory of particles. And we do hear vaguely of physical particles in the doctrine of Empedocles, but no definition is given of their

nature, and no clear conception is formed of their character. Secondly, the moving forces of Empedocles, Love and Hate, are fanciful and mythological. Lastly, though there are in Empedocles traces of the doctrine that the qualities of things depend on the position and arrangement of their particles, this idea is not consistently developed. For Empedocles there are only four ultimate kinds of matter, qualitatively distinguished. The differential qualities of all other kinds of matter must, therefore, be due to the mixing of these four elements. Thus the qualities of the four elements are ultimate and underived, but all other qualities must be founded upon the position and arrangement of particles of the four elements. This is the beginning of the mechanical explanation of quality. But to develop this theory fully and consistently, it should be shown, not merely that some qualities are ultimate and some derived from position and arrangement of particles, but that all quality whatever is founded upon position and arrangement. All becoming is explained by Empedocles as the result of motion of material particles. To bring this mechanical philosophy to its logical conclusion, all qualitiveness of things must be explained in the same way. Hence it was impossible that the philosophy of mechanism and materialism should stand still in the position in which Empedocles left it. It had to advance to the position of Atomism. The Atomists, therefore, maintain the essential position of Empedocles, after eliminating the inconsistencies which we have just noted. The philosophy of Empedocles is therefore to be considered as merely transitional in character.

First, the Atomists developed the theory of particles. According to Leucippus and Democritus, if matter were divided far enough, we should ultimately come to indivisible units. These indivisible units are called atoms, and atoms are therefore the ultimate constituents of matter. They are infinite in number, and are too small to be perceptible to the senses. Empedocles had assumed four different kinds of matter. But, for the Atomists, there is only one kind. All the atoms are composed of exactly the same kind of matter. With certain exceptions, which I will mention in a moment, they possess no quality. They are entirely non-qualitative, the only differences between them being differences of quantity. They differ in size, some being larger, some smaller. And they likewise differ in shape. Since the ultimate particles of things thus possess no quality, all the actual qualities of objects must be due to the arrangement and position of the atoms. This is the logical development of the tentative mechanism of Empedocles.

I said that the atoms possess no qualities. They must, however, be admitted to possess the quality of solidity, or impenetrability, since they are defined as being indivisible. Moreover it is a question whether the atoms of Democritus and Leucippus were thought to possess weight, or whether the weight of objects is to be explained, like other qualities, by the position and movement of the atoms. There is no doubt that the Epicureans of a later date considered the atoms to have weight. The Epicureans took over the atomism of Democritus and Leucippus, with few modifications, and made it the basis of their own teaching. They ascribed weight to the atoms, and the only question is whether this was a modification introduced by them, or whether it was part of the original doctrine of Democritus and Leucippus.

The atoms are bounded, and separated off from each other. Therefore, they must be separated by something, and this something can only be empty space. Moreover, since all becoming and all qualitiveness of things are to be explained by the mixing and unmixing of atoms, and since this involves movement of the atoms, for this reason also empty space must be assumed to exist, for nothing can move unless it has empty space to move in. Hence

there are two ultimate realities, atoms and empty space. These correspond respectively to the Being and not-being of the Eleatics. But whereas the latter denied any reality to not-being, the Atomists affirm that not-being, that is, empty space, is just as real as being. Not-being also exists. "Being," said Democritus, "is by nothing more real than nothing." The atoms being non-qualitative, they differ in no respect from empty space, except that they are "full." Hence atoms and the void are also called the *plenum* and the *vacuum*.

How, now, is the movement of the atoms brought about? Since all becoming is due to the separation and aggregation of atoms, a moving force is required. What is this moving force? This depends upon the question whether atoms have weight. If we assume that they have weight, then the origin of the world, and the motion of atoms, becomes clear. In the system of the Epicureans the original movement of the atoms is due to their weight, which causes them to fall perpetually downwards through infinite space. Of course the Atomists had no true ideas of gravitation, nor did they understand that there is no absolute up and down. The large atoms are heavier than the smaller. The matter of which they are composed is always the same. Therefore, volume for volume, they weigh the same. Their weight is thus proportional to their size, and if one atom is twice as large as another, it will also be twice as heavy. Here the Atomists made another mistake, in supposing that heavier things fall in a vacuum more quickly than light things. They fall, as a matter of fact, with the same speed. But according to the Atomists, the heavier atoms, falling faster, strike against the lighter, and push them to one side and upwards. Through this general concussion of atoms a vortex is formed, in which like atoms come together with like. From the aggregation of atoms worlds are created. As space is infinite and the atoms go on falling eternally, there must have been innumerable worlds of which our world is only one. When the aggregated atoms fall apart again, this particular world will cease to exist. But all this depends upon the theory that the atoms have weight. According to Professor Burnet, however, the weight of atoms is a later addition of the Epicureans. If that is so, it is very difficult to say how the early Atomists, Leucippus and Democritus, explained the original motion. What was their moving force, if it was not weight? If the atoms have no weight, their original movement cannot have been a fall. "It is safest to say," says Professor Burnet, "that it is simply a confused motion this way and that." Probably this is a very *safe* thing to say, because it means nothing in particular. Motion itself cannot be confused. It is only our ideas of motion which can be confused. If this theory is correct, then, we can only say that the Atomists had no definite solution of the problem of the origin of motion and the character of the moving force. They apparently saw no necessity for explanation, which seems unlikely in view of the fact that Empedocles had already seen the necessity of solving the problem, and given a definite, if unsatisfactory, solution, in his theory of Love and Hate. This remark would apply to Democritus, if not to Leucippus.

The Atomists also spoke of all movement being under the force of "necessity." Anaxagoras was at this time teaching that all motion of things is produced by a world-intelligence, or reason. Democritus expressly opposes to this the doctrine of necessity. There is no reason or intelligence in the world. On the contrary, all phenomena and all becoming are completely determined by blind mechanical causes. In this connection there arises among the Atomists a polemic against the popular gods and the popular religion. Belief in gods Democritus explains as being due to fear of great terrestrial and astronomical phenomena, such as volcanoes, earthquakes, comets, and meteors. But somewhat inconsistently with this, Democritus believed that the air is inhabited by beings resembling men, but larger

and of longer life, and explained belief in the gods as being due to projection from these of images of themselves composed of atoms which impinge upon human senses, and produce the ideas of gods.

Different kinds of matter must be explained, in any atomic theory, by the shape, size, and position of the atoms of which they are composed. Thus the Atomists taught that fire is composed of smooth round atoms. The soul is also composed of smooth round atoms, and is an exceptionally pure and refined fire. At death the soul atoms are scattered, and hence there is, of course, no question of a future life. Democritus also put forward a theory of perception, according to which objects project into space images of themselves composed of atoms. These images strike against the senses. Like atoms are perceived by like. Thought is true when the soul is equable in temperature. The sensible qualities of things, such as smell, taste, colour, do not exist in the things themselves, but merely express the manner in which they affect our senses, and are therefore relative to us. A number of the ethical maxims of Democritus have come down to us. But they are not based in any way upon the Atomic theory, and cannot be deduced from it. Hence they have no scientific foundation but are merely detached sayings, epitomizing the experience and worldly wisdom of Democritus. That one should enjoy oneself as much and vex oneself as little as possible seems to have been his principal idea. This, however, is not to be interpreted in any low, degraded, or sensual way. On the contrary, Democritus says that the happiness of man does not depend on material possessions, but upon the state of the soul. He praises equanimity and cheerfulness, and these are best attained, he thinks, by moderation and simplicity.

CHAPTER VIII ANAXAGORAS

Anaxagoras was born at Clazomenae in Asia Minor about 500 B.C. He was a man of noble family, and possessed considerable property. He neglected his property in the search for knowledge and in the pursuit of science and philosophy. Leaving his home at Clazomenae, he settled down in Athens. We have not heard so far anything of Athens in the history of Greek Philosophy. It was Anaxagoras who transplanted philosophy to Athens, which from his time forward became the chief centre of Greek thought. At Athens, Anaxagoras came into contact with all the famous men of the time. He was an intimate friend of Pericles, the statesman, and of Euripides, the poet. But his friendship with Pericles cost him dear. There was a strong political faction opposed to Pericles. So far as we know Anaxagoras never meddled in politics, but he was a friend of the statesman Pericles, and that was quite enough. The enemies of Pericles determined to teach Anaxagoras a lesson, and a charge of atheism and blasphemy was accordingly brought against him. The particulars of the charge were that Anaxagoras said that the sun was a red-hot stone, and that the moon was made of earth. This was quite true, as that is exactly what Anaxagoras did say of the sun and the moon. But the Greeks regarded the heavenly bodies as gods; even Plato and Aristotle thought that the stars were divine beings. To call the sun a red-hot stone, and to say that the moon was made of earth, was therefore blasphemy according to Greek ideas. Anaxagoras was charged, tried, and condemned. The details of the trial, and of what followed, are not known with accuracy. But it appears that Anaxagoras escaped, probably with the help of Pericles, and from Athens went back to his native country in Asia Minor. He settled at

Lampsacus, and died there at the age of 72. He was the author of a treatise in which he wrote down his philosophical ideas. This treatise was well-known at the time of Socrates, but only fragments now remain.

The foundation of the philosophy of Anaxagoras is the same as that of Empedocles and the Atomists. He denied any absolute becoming in the strict sense of the passing of being into not-being and not-being into being. Matter is uncreated and indestructible, and all becoming must be accounted for by the mixing and unmixing of its component parts. This principle Anaxagoras himself expressed with great clearness, in a fragment of his treatise which has come down to us. "The Greeks," he says, "erroneously assume origination and destruction, for nothing originates and nothing is destroyed. All is only mixed and unmixed out of pre-existent things, and it were more correct to call the one process composition and the other process decomposition."

The Atomists had assumed the ultimate constituents of things to be atoms composed of the same kind of matter. Empedocles had believed in four ultimate and underived kinds of matter. With neither of these does Anaxagoras agree. For him, all the different kinds of matter are equally ultimate and underived, that is to say, such things as gold, bone, hair, earth, water, wood, etc., are ultimate kinds of matter, which do not arise from anything else, and do not pass over into one another. He also disagrees with the conception of the Atomists that if matter is divided far enough, ultimate and indivisible particles will be reached. According to Anaxagoras matter is infinitely divisible. In the beginning all these kinds of matter were mixed together in a chaotic mass. The mass stretches infinitely throughout space. The different kinds of matter wholly intermingle and interpenetrate each other. The process of world-formation is brought about by the unmixing of the conglomeration of all kinds of matter, and the bringing together of like matter with like. Thus the gold particles separating out of the mass come together, and form gold; the wood particles come together and form wood, and so on. But as matter is infinitely divisible and the original mixing of the elements was complete, they were, so to speak, mixed to an infinite extent. Therefore the process of unmixing would take infinite time, is now going on, and will always go on. Even in the purest element there is still a certain admixture of particles of other kinds of matter. There is no such thing as pure gold. Gold is merely matter in which the gold particles predominate.

As with Empedocles and the Atomists, a moving force is required to explain the world-process of unmixing. What, in the philosophy of Anaxagoras, is this force? Now up to the present point the philosophy of Anaxagoras does not rise above the previous philosophies of Empedocles and the Atomists. On the contrary, in clearness and logical consistency, it falls considerably below the teaching of the latter. But it is just here, on the question of the moving force, that Anaxagoras becomes for the first time wholly original, and introduces a principle peculiar to himself, a principle, moreover, which is entirely new in philosophy. Empedocles had taken as his moving forces, Love and Hate, mythical and fanciful on the one hand, and yet purely physical on the other. The forces of the Atomists were also completely material. But Anaxagoras conceives the moving force as wholly non-physical and incorporeal. It is called *Nous*, that is, mind or intelligence. It is intelligence which produces the movement in things which brings about the formation of the world. What was it, now, which led Anaxagoras to the doctrine of a world-governing intelligence? It seems that he was struck with the apparent design, order, beauty and harmony of the universe. These things, he thought, could not be accounted for by blind forces. The world is apparently

a rationally governed world. It moves towards definite ends. Nature shows plentiful examples of the adaptation of means to ends. There appears to be plan and purpose in the world. The Atomists had assumed nothing but matter and physical force. How can design, order, harmony and beauty be brought about by blind forces acting upon chaotic matter? Blind forces acting upon a chaos would produce motion and change. But the change would be meaningless and purposeless. They could not produce a rationally ordered cosmos. One chaos would succeed another chaos ad infinitum. That alone which can produce law and order is intelligence. There must therefore be a world-controlling Nous.

What is the character of the Nous, according to Anaxagoras? Is it, in the first place, really conceived as purely non-material and incorporeal? Aristotle, who was in a position to know more of the matter than any modern scholar, clearly implies in his criticism that the Nous of Anaxagoras is an incorporeal principle, and he has been followed in this by the majority of the best modern writers, such as Zeller and Erdmann. But the opposite view has been maintained, by Grote, for example, and more recently by Professor Burnet, who thinks that Anaxagoras conceived the Nous as a material and physical force. As the matter is of fundamental importance, I will mention the chief arguments upon which Professor Burnet rests his case. In the first place Anaxagoras described the Nous as the “thinnest and purest of all things.” He also said that it was “unmixed,” that it had in it no mixture of anything besides itself. Professor Burnet argues that such words as “thin” and “unmixed” would be meaningless in connection with an incorporeal principle. Only material things can properly be described as thin, pure, and unmixed. Secondly, Professor Burnet thinks that it is quite certain that the Nous occupies space, for Anaxagoras speaks of greater and smaller portions of it. Greater and smaller are spatial relations. Hence the Nous occupies space, and that which occupies space is material. But surely these are very inconclusive arguments. In the first place as regards the use of the words “thin” and “unmixed.” It is true that these terms express primarily physical qualities. But, as I pointed out in the first chapter, almost all words by which we seek to express incorporeal ideas have originally a physical signification. And if Anaxagoras is to be called a materialist because he described the Nous as thin, then we must also plead guilty to materialism if we say that the thought of Plato is “luminous,” or that the mind of Aristotle is “clear.” The fact is that all philosophy labours under the difficulty of having to express non-sensuous thought in language which has been evolved for the purpose of expressing sensuous ideas. There is no philosophy in the world, even up to the present day, in which expressions could not be found in plenty which are based upon the use of physical analogies to express entirely non-physical ideas. Then as regards the Nous occupying space, it is not true that greater and smaller are necessarily spatial relations. They are also qualitative relations of degree. I say that the mind of Plato is greater than the mind of Callias. Am I to be called a materialist? Am I to be supposed to mean that Plato’s mind occupies more space than that of Callias? And it is certainly in this way that Anaxagoras uses the terms. “All Nous,” he says, “is alike, both the greater and the smaller.” He means thereby that the world-forming mind (the greater) is identical in character with the mind of man (the smaller). For Anaxagoras it is the one Nous which animates all living beings, men, animals, and even plants. These different orders of beings are animated by the same Nous but in different degrees, that of man being the greatest. But this does not mean that the Nous in man occupies more space than the Nous in a plant. But even if Anaxagoras did conceive the Nous as spatial, it does not follow that he {100} regarded it as material. The doctrine of the non-spatiality of mind is a modern doctrine,

never fully developed till the time of Descartes. And to say that Anaxagoras did not realize that mind is non-spatial is merely to say that he lived before the time of Descartes. No doubt it would follow from this that the incorporeality of mind is vaguely and indistinctly conceived by Anaxagoras, that the antithesis between matter and mind is not so sharply drawn by him as it is by us. But still the antithesis is conceived, and therefore it is correct to say that the Nous of Anaxagoras is an incorporeal principle. The whole point of this introduction of the Nous into the philosophy of Anaxagoras is because he could not explain the design and order of the universe on a purely physical basis.

The next characteristic of Nous is that it is to be thought of as essentially the ground of motion. It is because he cannot in any other way explain purposive motion that Anaxagoras introduces mind into his otherwise materialistic system. Mind plays the part of the moving force which explains the world-process of unmixing. As the ground of motion, the Nous is itself unmoved; for if there were any motion in it we should have to seek for the ground of this motion in something else outside it. That which is the cause of all motion, cannot itself be moved. Next, the Nous is absolutely pure and unmixed with anything else. It exists apart, by itself, wholly in itself, and for itself. In contrast to matter, it is uncompounded and simple. It is this which gives it omnipotence, complete power over everything, because there is no mixture of matter in it to limit it, to clog and hinder its activities. We moderns are inclined to ask the question whether the Nous is personal. Is it, for example, a personal being like the God of the Christians? This is a question which it is almost impossible to answer. Anaxagoras certainly never considered it. According to Zeller, the Greeks had an imperfect and undeveloped conception of personality. Even in Plato we find the same difficulty. The antithesis between God as a personal and as an impersonal being, is a wholly modern idea. No Greek ever discussed it.

To come now to the question of the activity of the Nous and its function in the philosophy of Anaxagoras, we must note that it is essentially a world-forming, and not a world-creating, intelligence. The Nous and matter exist side by side from eternity. It does not create matter, but only arranges it. "All things were together," says Anaxagoras, "infinitely numerous, infinitely little; then came the Nous and set them in order." In this Anaxagoras showed a sound logical sense. He based his idea of the existence of Nous upon the design which exhibits itself in the world. In modern times the existence of design in the world has been made the foundation of an argument for the existence of God, which is known as the teleological argument. The word teleology means the view of things as adapting means towards purposive ends. To see intelligent design in the universe is to view the universe teleologically. And the teleological argument for the existence of God asserts that, as there is evidence of purpose in nature, this must be due to an intelligent cause. But, as a matter of fact, taken by itself, teleology cannot possibly be made the basis of an argument for the existence of a world-creating intelligence, but only for the existence of a world-designing intelligence. If you find in the desert the ruins of ancient cities and temples, you are entitled to conclude therefrom, that there existed a mind which designed these cities and buildings, and which arranged matter in that purposive way, but you are not entitled to conclude that the mind which designed the cities also created the matter out of which they were made. Anaxagoras was, therefore, in that sense quite right. Teleology is not evidence of a world-creating mind, and if we are to prove that, we must have recourse to other lines of reasoning.

In the beginning, then, there was a chaotic mixture of different kinds of matter. The

Nous produced a vortex at one point in the middle of this mass. This vortex spread itself outwards in the mass of matter, like rings caused by the fall of a stone in water. It goes on for ever and continually draws more and more matter out of the infinite mass into itself. The movement, therefore, is never-ending. It causes like kinds of matter to come together with like, gold to gold, wood to wood, water to water, and so on. It is to be noted, therefore, that the action of the Nous is apparently confined to the first movement. It acts only at the one central point, and every subsequent movement is caused by the vortex itself, which draws in more and more of the surrounding matter into itself. First are separated out the warm, dry, and light particles, and these form the aether or upper air. Next come the cold, moist, dark, and dense particles which form the lower air. Rotation takes the latter towards the centre, and out of this the earth is formed. The earth, as with Anaximenes, is a flat disc, borne upon the air. The heavenly bodies consist of masses of stone which have been torn from the earth by the force of its rotation, and being projected outwards become incandescent through the rapidity of their movement. The moon is made of earth and reflects the light of the sun. Anaxagoras was thus the first to give the true cause of the moon's light. He was also the first to discover the true theory of eclipses, since he taught that the solar eclipse is due to the intervention of the moon between the sun and the earth, and that lunar eclipses arise from the shadow of the earth falling upon the moon. He believed that there are other worlds besides our own with their own suns and moons. These worlds are inhabited. The sun, according to Anaxagoras, is many times as large as the Peloponnese. The origin of life upon the earth is accounted for by germs which existed in the atmosphere, and which were brought down into the terrestrial slime by rain water, and there fructified. Anaxagoras's theory of perception is the opposite of the theories of Empedocles and the Atomists. Perception takes place by unlike matter meeting unlike.

Anaxagoras owes his importance in the history of philosophy to the theory of the Nous. This was the first time that a definite distinction had been made between the corporeal and incorporeal. Anaxagoras is the last philosopher of the first period of Greek philosophy. In the second chapter, [Footnote 9] I observed that this first period is characterized by the fact that in it the Greek mind looks only outward upon the external world. It attempts to explain the operations of nature. It had not yet learned to look inward upon itself. But the transition to the introspective study of mind is found in the Nous of {104} Anaxagoras. Mind is now brought to the fore as a problem for philosophy. To find reason, intelligence, mind, in all things, in the State, in the individual, in external nature, this is the characteristic of the second period of Greek philosophy. To have formulated the antithesis between mind and matter is the most important work of Anaxagoras.

Secondly, it is to the credit of Anaxagoras that he was the first to introduce the idea of teleology into philosophy. The system of the Atomists formed the logical completion of the mechanical theory of the world. The theory of mechanism seeks to explain all things by causes. But, as we saw, causation can explain nothing. The mechanism of the world shows us by what means events are brought about, but it does not explain why they are brought about at all. That can only be explained by showing the reason for things, by exhibiting all process as a means towards rational ends. To look to the beginning (cause) of things for their explanation is the theory of mechanism. To look to their ends for explanation of them is teleology. Anaxagoras was the first to have dimly seen this. And for this reason Aristotle praises him, and, contrasting him with the mechanists, Leucippus and Democritus, says that he appears like "a sober man among vain babblers." The new principle which he

thus introduced into philosophy was developed, and formed the central idea of Plato and Aristotle. To have realized the twin antitheses of matter and mind, of mechanism and teleology, is the glory of Anaxagoras.

But it is just here, in the development of these two ideas, that the defects of his system make their appearance. Firstly, he so separated matter and mind that his philosophy ends in sheer dualism. He assumes the *Nous* and matter as existing from the beginning, side by side, as equally ultimate and underived principles. A monistic materialism would have derived the *Nous* from matter, and a monistic idealism would have derived matter from the *Nous*. But Anaxagoras does neither. Each is left, in his theory, an inexplicable ultimate mystery. His philosophy is, therefore, an irreconcilable dualism.

Secondly, his teleology turns out in the end to be only a new theory of mechanism. The only reason which induces him to introduce the *Nous* into the world, is because he cannot otherwise explain the origin of movement. It is only the first movement of things, the formation of the vortex, which he explains by mind. All subsequent process is explained by the action of the vortex itself, which draws the surrounding matter into itself. The *Nous* is thus nothing but another piece of mechanism to account for the first impulse to motion. He regards the *Nous* simply as a first cause, and thus the characteristic of all mechanism, to look back to first causes, to the beginning, rather than to the end of things for their explanation, appears here. Aristotle, as usual, puts the matter in a nutshell. "Anaxagoras," he says, "uses mind as a *deus ex machina* to account for the formation of the world, and whenever he is at a loss to explain why anything necessarily is, he drags it in by force. But in other cases he assigns as a cause for things anything else in preference to mind."

CHAPTER IX THE SOPHISTS

The first period of Greek philosophy closes with Anaxagoras. His doctrine of the world-forming intelligence introduced a new principle into philosophy, the principle of the antithesis between corporeal matter and incorporeal mind, and therefore, by implication, the antithesis between nature and man. And if the first period of philosophy has for its problem the origin of the world, and the explanation of the being and becoming of nature, the second period of philosophy opens, in the Sophists, with the problem of the position of man in the universe. The teaching of the earlier philosophers was exclusively cosmological, that of the Sophists exclusively humanistic. Later in this second period, these two modes of thought come together and fructify one another. The problem of the mind and the problem of nature are subordinated as factors of the great, universal, all-embracing, world-systems of Plato and Aristotle.

It is not possible to understand the activities and teaching of the Sophists without some knowledge of the religious, political, and social conditions of the time. After long struggles between the people and the nobles, democracy had almost everywhere triumphed. But in Greece democracy did not mean what we now mean by that word. It did not mean representative institutions, government by the people through their elected deputies. Ancient Greece was never a single nation under a single government. Every city, almost every hamlet, was an independent State, governed only by its own laws. Some of these States were so small that they comprised merely a handful of citizens. All were so small

that all the citizens could meet together in one place, and themselves in person enact the laws and transact public business. There was no necessity for representation. Consequently in Greece every citizen was himself a politician and a legislator. In these circumstances, partisan feeling ran to extravagant lengths. Men forgot the interests of the State in the interests of party, and this ended in men forgetting the interests of their party in their own interests. Greed, ambition, grabbing, selfishness, unrestricted egotism, unbridled avarice, became the dominant notes of the political life of the time.

Hand in hand with the rise of democracy went the decay of religion. Belief in the gods was almost everywhere discredited. This was partly due to the moral worthlessness of the Greek religion itself. Any action, however scandalous or disgraceful, could be justified by the examples of the gods themselves as related by the poets and mythologers of Greece. But, in greater measure, the collapse of religion was due to that advance of science and philosophy which we have been considering in these lectures. The universal tendency of that philosophy was to find natural causes for what had hitherto been ascribed to the action of the divine powers, and this could not but have an undermining effect upon popular belief. Nearly all the philosophers had been secretly, and many of them openly, antagonistic to the people's religion. The attack was begun by Xenophanes; Heracleitus carried it on; and lastly Democritus had attempted to explain belief in the gods as being caused by fear of gigantic terrestrial and astronomical phenomena. No educated man any longer believed in divination, auguries, and miracles. A wave of rationalism and scepticism passed over the Greek people. The age became one of negative, critical, and destructive thought. Democracy had undermined the old aristocratic institutions of the State, and science had undermined religious orthodoxy. With the downfall of these two pillars of things established, all else went too. All morality, all custom, all authority, all tradition, were criticised and rejected. What was regarded with awe and pious veneration by their fore-fathers the modern Greeks now looked upon as fit subjects for jest and mockery. Every restraint of custom, law, or morality, was resented as an unwarrantable restriction upon the natural impulses of man. What alone remained when these were thrust aside were the lust, avarice, and self-will of the individual.

The teaching of the Sophists was merely a translation into theoretical propositions of these practical tendencies of the period. The Sophists were the children of their time, and the interpreters of their age. Their philosophical teachings were simply the crystallization of the impulses which governed the life of the people into abstract principles and maxims.

Who and what were the Sophists? In the first place, they were not a school of philosophers. They are not to be compared, for example, with the Pythagoreans or Eleatics. They had not, as a school has, any system of philosophy held in common by them all. None of them constructed systems of thought. They had in common only certain loose tendencies of thought. Nor were they, as we understand the members of a school to be, in any close personal association with one another. They were a professional class rather than a school, and as such they were scattered over Greece, and nourished among themselves the usual professional rivalries. They were professional teachers and educators. The rise of the Sophists was due to the growing demand for popular education, which was partly a genuine demand for light and knowledge, but was mostly a desire for such spurious learning as would lead to worldly, and especially political, success. The triumph of democracy had brought it about that political careers were now open to the masses who had hitherto been wholly shut out from them. Any man could rise to the highest positions in the State, if he

were endowed with cleverness, ready speech, whereby to sway the passions of the mob, and a sufficient equipment in the way of education. Hence the demand arose for such an education as would enable the ordinary man to carve out a political career for himself. It was this demand which the Sophists undertook to satisfy. They wandered about Greece from place to place, they gave lectures, they took pupils, they entered into disputations. For these services they exacted large fees. They were the first in Greece to take fees for the teaching of wisdom. There was nothing disgraceful in this in itself, but it had never been customary. The wise men of Greece had never accepted any payment for their wisdom. Socrates, who never accepted any payment, but gave his wisdom freely to all who sought it, somewhat proudly contrasted himself with the Sophists in this respect.

The Sophists were not, technically speaking, philosophers. They did not specialise in the problems of philosophy. Their tendencies were purely practical. They taught any subject whatever for the teaching of which there was a popular demand. For example, Protagoras undertook to impart to his pupils the principles of success as a politician or as a private citizen. Gorgias taught rhetoric and politics, Prodicus grammar and etymology, Hippias history, mathematics and physics. In consequence of this practical tendency of the Sophists we hear of no attempts among them to solve the problem of the origin of nature, or the character of the ultimate reality. The Sophists have been described as teachers of virtue, and the description is correct, provided that the word virtue is understood in its Greek sense, which did not restrict it to morality alone. For the Greeks, it meant the capacity of a person successfully to perform his functions in the State. Thus the virtue of a mechanic is to understand machinery, the virtue of a physician to cure the sick, the virtue of a horse trainer the ability to train horses. The Sophists undertook to train men to virtue in this sense, to make them successful citizens and members of the State.

But the most popular career for a Greek of ability at the time was the political, which offered the attraction of high positions in the State. And for this career what was above all necessary was eloquence, or if that were unattainable, at least ready speech, the ability to argue, to meet every point as it arose, if not with sound reasoning, then with quick repartee. Hence the Sophists very largely concentrated their energies upon the teaching of rhetoric. In itself this was good. They were the first to direct attention to the science of rhetoric, of which they may be considered the founders. But their rhetoric also had its bad side, which indeed, soon became its only side. The aims of the young politicians whom they trained were, not to seek out the truth for its own sake, but merely to persuade the multitude of whatever they wished them to believe. Consequently the Sophists, like lawyers, not caring for the truth of the matter, undertook to provide a stock of arguments on any subject, or to prove any proposition. They boasted of their ability to make the worse appear the better reason, to prove that black is white. Some of them, like Gorgias, asserted that it was not necessary to have any knowledge of a subject to give satisfactory replies as regards it. And Gorgias ostentatiously undertook to answer any question on any subject instantly and without consideration. To attain these ends mere quibbling, and the scoring of verbal points, were employed. Hence our word "sophistry." The Sophists, in this way, endeavoured to entangle, entrap, and confuse their opponents, and even, if this were not possible, to beat them down by mere violence and noise. They sought also to dazzle by means of strange or flowery metaphors, by unusual figures of speech, by epigrams and paradoxes, and in general by being clever and smart, rather than earnest and truthful. When a man is young he is often dazzled by brilliance and cleverness, by paradox and epigram,

but as he grows older he learns to discount these things and to care chiefly for the substance and truth of what is said. And the Greeks were a young people. They loved clever sayings. And this it is which accounts for the toleration which they extended even to the most patent absurdities of the Sophists. The modern question whether a man has ceased beating his wife is not more childish than many of the rhetorical devices of the Sophists, and is indeed characteristic of the methods of the more extravagant among them.

The earliest known Sophist is Protagoras. He was born at Abdera, about 480 B.C. He wandered up and down Greece, and settled for some time at Athens. At Athens, however, he was charged with impiety and atheism. This was on account of a book written by him on the subject of the gods, which began with the words, "As for the gods, I am unable to say whether they exist or whether they do not exist." The book was publicly burnt, and Protagoras had to fly from Athens. He fled to Sicily, but was drowned on the way about the year 410 B.C.

Protagoras was the author of the famous saying, "Man is the measure of all things; of what is, that it is; of what is not, that it is not." Now this saying puts in a nutshell, so to speak, the whole teaching of Protagoras. And, indeed, it contains in germ the entire thought of the Sophists. It is well, therefore, that we should fully understand exactly what it means. The earlier Greek philosophers had made a clear distinction between sense and thought, between perception and reason, and had believed that the truth is to be found, not by the senses, but by reason. The Eleatics had been the first to emphasize this distinction. The ultimate reality of things, they said, is pure Being, which is known only through reason; it is the senses which delude us with a show of becoming. Heracleitus had likewise affirmed that the truth, which was, for him, the law of becoming, is known by thought, and that it is the senses which delude us with a show of permanence. Even Democritus believed that true being, that is, material atoms, are so small that the senses cannot perceive them, and only reason is aware of their existence. Now the teaching of Protagoras really rests fundamentally upon the denying and confusing of this distinction. If we are to see this, we must first of all understand that reason is the universal, sensation the particular, element in man. In the first place, reason is communicable, sensation incommunicable. My sensations and feelings are personal to myself, and cannot be imparted to other people. For example, no one can communicate the sensation of redness to a colour-blind man, who has not already experienced it. But a thought, or rational idea, can be communicated to any rational being. Now suppose the question is whether the angles at the base of an isosceles triangle are equal. We may approach the problem in two ways. We may appeal either to the senses or to reason. If we appeal to the senses, one man will come forward and say that to him the angles look equal. Another man will say that one angle looks bigger than the other, and so on. But if, like Euclid, we appeal to reason, then it can be proved that the two angles are equal, and there is no room left for mere personal impressions, because reason is a law universally valid and binding upon all men. My sensations are private and peculiar to myself. They bind no one but myself. My impressions about the triangle are not a law to anyone except myself. But my reason I share with all other rational beings. It is not a law for me merely, but for all. It is one and the same reason in me and in other men. Reason, therefore, is the universal, sensation the particular, element in man. Now it is practically this distinction that Protagoras denied. Man, he said, is the measure of all things. By man he did not mean mankind at large. He meant the individual man. And by measure of all things he meant the standard of the truth of all things. Each individual man is the standard

of what is true to himself. There is no truth except the sensations and impressions of each man. What seems true to me is true for me. What seems true to you is true for you.

We commonly distinguish between subjective impressions and objective truth. The words subjective and objective are constantly recurring throughout the history of philosophy, and as this is the first time I use them, I will explain them here. In every act of thought there must necessarily be two terms. I am now looking at this desk and thinking of this desk. There is the "I" which thinks, and there is the desk which is thought. "I" am the subject of the thought, the desk is the object of the thought. In general, the subject is that which thinks, and the object is that which is thought. Subjective is that which appertains to the subject, and objective is that which appertains to the object. So the meaning of the distinction between subjective impressions and the objective truth is clear. My personal impression may be that the earth is flat, but the objective truth is that the earth is round. Travelling through a desert, I may be subject to a mirage, and think that there is water in front of me. That is my subjective impression. The objective truth is that there is nothing but sand. The objective truth is something which has an existence of its own, independent of me. It does not matter what I think, or what you think, what I want, or what you want; the truth is what it is. We must conform ourselves to the truth. Truth will not conform itself to our personal inclinations, wishes, or impressions. The teaching of Protagoras practically amounted to a denial of this. What it meant was that there is no objective truth, no truth independent of the individual subject. Whatever seems to the individual true is true for that individual. Thus truth is identified with subjective sensations and impressions.

To deny the distinction between objective truth and subjective impression is the same as to deny the distinction between reason and sense. To my senses the earth seems flat. It looks flat to the eye. It is only through reason that I know the objective truth that the world is round. Reason, therefore, is the only possible standard of objective truth. If you deny the rational element its proper part, it follows that you will be left a helpless prey to diverse personal impressions. The impressions yielded by the senses differ in different people. One man sees a thing in one way, another sees it in another. If, therefore, what seems to me true is true for me, and what seems to you true is true for you, and if our impressions differ, it will follow that two contradictory propositions must both be true. Protagoras clearly understood this, and did not flinch from the conclusion. He taught that all opinions are true, that error is impossible, and that, whatever proposition is put forward, it is always possible to oppose to it a contradictory proposition with equally good arguments and with equal truth. In reality, the result of this procedure is to rob the distinction between truth and falsehood of all meaning. It makes no difference whether we say that all opinions are true, or whether we say that all are false. The words truth and falsehood, in such context, have no meaning. To say that whatever I feel is the truth for me means only that what I feel I feel. To call this "truth for me," adds nothing to the meaning.

Protagoras seems to have been led to these doctrines partly by observing the different accounts of the same object which the sense-organs yield to different people, and even to the same person at different times. If knowledge depends upon these impressions, the truth about the object cannot be ascertained. He was also influenced by the teaching of Heraclitus. Heraclitus had taught that all permanence is illusion. Everything is a perpetual becoming; all things flow. What is at this moment, at the next moment is not. Even at one and the same moment, Heraclitus believed, a thing is and is not. If it is true to say that it is, it is equally true that it is not. And this is, in effect, the teaching of Protagoras.

The Protagorean philosophy thus amounts to a declaration that knowledge is impossible. If there is no objective truth, there cannot be any knowledge of it. The impossibility of knowledge is also the standpoint of Gorgias. The title of his book is characteristic of the Sophistical love of paradox. It was called "On Nature, or the non-existent." In this book he attempted to prove three propositions, (1) that nothing exists: (2) that if anything exists, it cannot be known: (3) that if it can be known, the knowledge of it cannot be communicated.

For proof of the first proposition, "nothing exists," Gorgias attached himself to the school of the Eleatics, especially to Zeno. Zeno had taught that in all multiplicity and motion, that is to say, in all existence, there are irreconcilable contradictions. Zeno was in no sense a sceptic. He did not seek for contradictions in things for the sake of the contradictions, but in order to support the positive thesis of Parmenides, that only being is, and that becoming is not at all. Zeno, therefore, is to be regarded as a constructive, and not merely as a destructive, thinker. But it is obvious that by emphasizing only the negative element in his philosophy, it is possible to use his antinomies as powerful weapons in the cause of scepticism and nihilism. And it was in this way that Gorgias made use of the dialectic of Zeno. Since all existence is self-contradictory, it follows that nothing exists. He also made use of the famous argument of Parmenides regarding the origin of being. If anything is, said Gorgias, it must have had a beginning. Its being must have arisen either from being, or from not-being. If it arose from being, there is no beginning. If it arose from not-being, this is impossible, since something cannot arise out of nothing. Therefore nothing exists.

The second proposition of Gorgias, that if anything exists it cannot be known, is part and parcel of the whole Sophistic tendency of thought, which identifies knowledge with sense-perception, and ignores the rational element. Since sense-impressions differ in different people, and even in the same person, the object as it is in itself cannot be known. The third proposition follows from the same identification of knowledge with sensation, since sensation is what cannot be communicated.

The later Sophists went much further than Protagoras and Gorgias. It was their work to apply the teaching of Protagoras to the spheres of politics and morals. If there is no objective truth, and if what seems true to each individual is for him the truth, so also, there can be no objective moral code, and what seems right to each man is right for him. If we are to have anything worth calling morality, it is clear that it must be a law for all, and not merely a law for some. It must be valid for, and binding upon, all men. It must, therefore, be founded upon that which is universal in man, that is to say, his reason. To found it upon sense-impressions and feelings is to found it upon shifting quicksands. My feelings and sensations are binding upon no man but myself, and therefore a universally valid law cannot be founded upon them. Yet the Sophists identified morality with the feelings of the individual. Whatever I think right is right for me. Whatever you think right is right for you. Whatever each man, in his irrational self-will, chooses to do, that is, for him, legitimate. These conclusions were drawn by Polus, Thrasymachus, and Critias.

Now if there is, in this way, no such thing as objective right, it follows that the laws of the State can be founded upon nothing except force, custom, and convention. We often speak of just laws, and good laws. But to speak in that way involves the existence of an objective standard of goodness and justice, with which we can compare the law, and see whether it agrees with that standard or not. To the Sophists, who denied any such standard, it was mere nonsense to speak of just and good laws. No law is in itself good or just, because there is no such thing as goodness or justice. Or if they used such a word

as justice, they defined it as meaning the right of the stronger; or the right of the majority. Polus and Thrasymachus, consequently, drew the conclusion that the laws of the State were inventions of the weak, who were cunning enough, by means of this stratagem, to control the strong, and rob them of the natural fruits of their strength. The law of force is the only law which nature recognizes. If a man, therefore, is powerful enough to defy the law with impunity, he has a perfect right to do so. The Sophists were thus the first, but not the last, to preach the doctrine that might is right. And, in similar vein, Critias explained popular belief in the gods as the invention of some crafty statesman for controlling the mob through fear.

Now it is obvious that the whole tendency of this sophistical teaching is destructive and anti-social. It is destructive of religion, of morality, of the foundations of the State, and of all established institutions. And we can now see that the doctrines of the Sophists were, in fact, simply the crystallization into abstract thought of the practical tendencies of the age. The people in practice, the Sophists in theory, decried and trod under foot the restrictions of law, authority, and custom, leaving nothing but the deification of the individual in his crude self-will and egotism. It was in fact an age of "aufklärung," which means enlightenment or illumination. Such periods of illumination, it seems, recur periodically in the history of thought, and in the history of civilization. This is the first, but not the last, such period with which the history of philosophy deals. This is the Greek illumination. Such periods present certain characteristic features. They follow, as a rule, upon an era of constructive thought. In the present instance the Greek illumination followed closely upon the heels of the great development of science and philosophy from Thales to Anaxagoras. In such a constructive period the great thinkers bring to birth new principles, which, in the course of time, filter down to the masses of the people and cause popular, if shallow, science, and a wide-spread culture. Popular education becomes a feature of the time. The new ideas, fermenting among the people, break up old prejudices and established ideas, and thus thought, at first constructive, becomes, among the masses, destructive in character. Hence the popular thought, in a period of enlightenment, issues in denial, scepticism, and disbelief. It is merely negative in its activities and results. Authority, tradition, and custom are wholly or partially destroyed. And since authority, tradition, and custom are the cement of the social structure, there results a general dissolution of that structure into its component individuals. All emphasis is now laid on the individual. Thought becomes egocentric. Individualism is the dominant note. Extreme subjectivity is the principle of the age. All these features make their appearance in the Greek aufklärung. The Sophistical doctrine that the truth is what I think, the good what I choose to do, is the extreme application of the subjective and egocentric principles.

The early eighteenth century in England and France was likewise a period of enlightenment, and the era from which we are now, perhaps, just emerging, bears many of the characteristics of aufklärung. It is sceptical and destructive. All established institutions, marriage, the family, the state, the law, come in for much destructive criticism. It followed immediately upon the close of a great period of constructive thought, the scientific development of the nineteenth century. And lastly, the age has produced its own Protagorean philosophy, which it calls pragmatism. If pragmatism is not egocentric, it is at least anthropocentric. Truth is no longer thought of as an objective reality, to which mankind must conform. On the contrary, the truth must conform itself to mankind. Whatever it is useful to believe, whatever belief "works" in practice, is declared to be true. But since what "works" in one age and country does not "work" in another, since what it is

useful to believe to-day will be useless to-morrow, it follows that there is no objective truth independent of mankind at all. Truth is not now defined as dependent on the sensations of man, as it was with Protagoras, but as dependent on the volition of man. In either case it is not the universal in man, his reason, which is made the basis of truth and morals, but the subjective, individual, particular element in him.

We must not forget the many merits of the Sophists. Individually, they were often estimable men. Nothing is known against the character of Protagoras, and Prodicus was proverbial for his wisdom and the genuine probity and uprightness of his principles. Moreover the Sophists contributed much to the advance of learning. They were the first to direct attention to the study of words, sentences, style, prosody, and rhythm. They were the founders of the science of rhetoric. They spread education and culture far and wide in Greece, they gave a great impulse to the study of ethical ideas, which made possible the teaching of Socrates, and they stirred up a ferment of ideas without which the great period of Plato and Aristotle could never have seen the light. But, from the philosophical point of view, their merit is for the first time to have brought into general recognition *the right of the subject*. For there is, after all, much reason in these attacks made by the Sophists upon authority, upon established things, upon tradition, custom and dogma. Man, as a rational being, ought not to be tyrannized over by authority, dogma, and tradition. He cannot be subjected, thus violently, to the imposition of beliefs from an external source. No man has the right to say to me, “you *shall* think this,” or “you *shall* think that.” I, as a rational being, have the right to use my reason, and judge for myself. If a man would convince me, he must not appeal to force, but to reason. In doing so, he is not imposing his opinions externally upon me; he is educing his opinions from the internal sources of my own thought; he is showing me that his opinions are in reality my own opinions, if I only knew it. But the mistake of the Sophists was that, in thus recognizing the right of the subject, they wholly ignored and forgot *the right of the object*. For the truth has objective existence, and is what it is, whether I think it or not. Their mistake was that though they rightly saw that for truth and morality to be valid for me, they must be assented to by, and developed out of, {123} me myself, not imposed from the outside, yet they laid the emphasis on my merely accidental and particular characteristics, my impulses, feelings, and sensations, and made these the source of truth and morality, instead of emphasizing as the source of truth and right the universal part of me, my reason. “Man is the measure of all things”; certainly, but man as a rational being, not man as a bundle of particular sensations, subjective impressions, impulses, irrational prejudices, self-will, mere eccentricities, oddities, foibles, and fancies.

Good examples of the right and wrong principles of the Sophists are to be found in modern Protestantism and modern democracy. Protestantism, it is often said, is founded upon the right of private judgment, and this is simply the right of the subject, the right of the individual to exercise his own reason. But if this is interpreted to mean that each individual is entitled to set up his mere whims and fancies as the law in religious matters, then we have the bad sort of Protestantism. Again, democracy is simply political protestantism, and democratic ideas are the direct offspring of the protestant Reformation. The democratic principle is that no rational being can be asked to obey a law to which his own reason has not assented. But the law must be founded upon reason, upon the universal in man. I, as an individual, as a mere ego, have no rights whatever. It is only as a rational being, as a potentially universal being, as a member of the commonwealth of reason, that I have any rights, that I can claim to legislate for myself and others. But if each individual’s capricious

self-will, his mere whims and fancies, are erected into a law, then democracy turns into anarchism and bolshevism.

It is a great mistake to suppose that the doctrines of the Sophists are merely antiquated ideas, dead and fossilized thoughts, of interest only to historians, but of no importance to us. On the contrary, modern popular thought positively reeks with the ideas and tendencies of the Sophists. It is often said that a man ought to have strong convictions, and some people even go so far as to say that it does not much matter what a man believes, so long as what he believes he believes strongly and firmly. Now certainly it is quite true that a man with strong convictions is more interesting than a man without any opinions. The former is at least a force in the world, while the latter is colourless and ineffectual. But to put exclusive emphasis on the mere fact of having convictions is wrong. After all, the final test of worth must be whether the man's convictions are true or false. There must be an objective standard of truth, and to forget this, to talk of the mere fact of having strong opinions as in itself a merit, is to fall into the error of the Sophists.

Another common saying is that everyone has a right to his own opinions. This is quite true, and it merely expresses the right of the subject to use his own reason. But it is sometimes interpreted in a different way. If a man holds a totally irrational opinion, and if every weapon is beaten out of his hands, if he is driven from every position he takes up--so that there is nothing left for him to do, except to admit that he is wrong, such a man will sometimes take refuge in the saying, that, after all, argue as you may, he has a right to his own opinion. But we cannot allow the claim. No man has a right to wrong opinions. There cannot be any right in wrong opinions. You have no right to an opinion unless it is founded upon that which is universal in man, his reason. You cannot claim this right on behalf of your subjective impressions, and irrational whims. To do so is to make the mistake of the Sophists.

The tendencies of the more shallow type of modern rationalism exhibit a similar Sophistical thought. It is pointed out that moral ideas vary very much in different countries and ages, that in Japan, for example, prostitution is condoned, and that in ancient Egypt incest was not condemned. Now it is important to know these facts. They should serve as a warning to us against dogmatic narrow-mindedness in moral matters. But some people draw from these facts the conclusion that there is no universally valid and objectively real moral law. The conclusion does not follow from the premises, and the conclusion is false. People's opinions differ, not only on moral questions, but upon every subject under the sun. Because men, a few hundred years ago, believed that the earth was flat, whereas now we believe it is round, it does not follow that it has in reality no shape at all, that there is no objective truth in the matter. And because men's opinions differ, in different ages and countries, as to what the true moral law is, it does not follow that there is no objective moral law.

We will take as our last example the current talk about the importance of developing one's personality. A man, it is said, should "be himself," and the expression of his own individuality must be his leading idea. Now certainly it is good to be oneself in the sense that it is hypocritical to pretend to be what one is not. Moreover, it is no doubt true that each man has certain special gifts, which he ought to develop, so that all, in their diverse ways, may contribute as much as possible to the spiritual and material wealth of the world. But this ideal of individuality often leads to false developments, as we see in the spheres of art and of education. Such a man as Oscar Wilde, whose personality is essentially evil,

defends his artistic principles on the ground that he must needs express his personality, that art is nothing but such personal expression, and that it is subject to no standard save the individuality of the artist. Some writers on education, among them Mr. Bernard Shaw, who has many points in common with the Sophists, tell us that to attempt to mould the character of a child by discipline, is to sin against its personality, and that the child should be allowed to develop its individuality unchecked in its own way. But against this we have to protest that to make the cultivation of individuality an end in itself, and to put exclusive emphasis on this, is wrong. The cultivation of an individuality is not in itself a good thing; it is not a good thing if the individuality be a worthless one. If a child exhibits savage or selfish tendencies, it must be subjected to discipline, and it is ridiculous to make a fetish of its personality to such an extent as to allow it to develop as it likes. In a similar way, the ideal of individuality is often interpreted to mean that the cultivation of the mere eccentricities and oddities of the individual is something good. But the personal peculiarities of a man are just what is worthless about him. That alone which entitles him to the sacred rights of a "person" is his rational and universal nature.

W.T. Stace. *A Critical History of Greek Philosophy*. Chapters 2-9. London: Macmillan and Co., 1920.

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