PHILOSOPHY ARCHIVES



Overview of Greek Philosophy 1

Pre-Socratic Philosophy

(From Thales of Miletus to Socrates, seventh to fifth century B.C.)

Maurice de Wulf

he earliest Grecian philosophers confined themselves to the study of the external world, the *non-ego*, not yet reaching the psychological aspect of the problems raised. *Peri phuseôs* is the title of a large number of their works: thence comes the name, *Nature-Philosophers*, sometimes given to them. Their whole concern is to explain by a few simple principles the inner nature and manifest changes of the Universe.

Before the period of Socrates, Grecian Philosophy had no one common centre. According to the places where it flourished, historians usually distinguish four schools, which differ, moreover, in their teachings: (1) The Ionic School, the first representatives of which were natives of Miletus, and which contained both a dynamist and an atomist section; (2) The Italian or Pythagorean School; (3) The Eleatic School; (4.) The School of Abdera or the Atomist School.

By getting at the inner *kernel* of the various systems we may be able to establish a more logical division. Two great questions face a philosophy which fixes its attention on external nature: the study of the change or succession of things and the determination of what exactly remains *stable* throughout this change. Of those two problems it was the second that excited the curiosity of the originators of Grecian Philosophy (seventh and sixth centuries). We find all of them absorbed in a search for the stable, intrinsic principle of things, studying their changes only to arrive at the fixed element which these changes presuppose. Later on, this twofold study recurred in the inverse order: attention was then mainly concentrated upon the manifest succession of things. Heraclitus it was who thus altered the viewpoint of cosmological studies (fifth century).

Taking into consideration this twofold tendency, the schools mentioned above may be redivided into two groups without interfering with their chronological order. The first group will comprise the earlier Ionians down to Heraclitus, the Pythagorean School and the Eleatic School; the second group will include the mechanicist section of the Ionic School and the Atomist School (Arist. *Metaphysics*. i.3-5)

§ 2. FIRST GROUP OF PRE-SOCRATIC SCHOOLS.

The Ancient Ionians.

The philosophers of the earliest schools set out to discover in nature a primordial element to which the manifold and changeable may be traced. As they pursue their investigation they are

led to seek the foundation of things first in a principle of the concrete order, then in a mixed element partaking at once of the concrete and of the abstract, and finally in a purely abstract element. These three viewpoints characterize respectively the three schools comprising the first group of Pre-Socratic philosophers: (1) the Ancient Ionian School; (2) the Pythagorean School; (3) the Eleatic School.

Water for THALES OF MILETUS (about 624-548 B.C.), infinite matter (apeiron) for ANAXIMANDER OF MILETUS (about 611-547 B.C.), air for ANAXIMENES OF MILETUS (588-524), air endowed with intelligence for DIOGENES OF APOLLONIA, were the respective cosmic elements whose fluidity and mobility seemed likely to explain the incessant flux or change of all things.

Pythagoras.

Legend is practically our sole informant on the life of PYTHAGORAS OF SAMOS. Neither the date of his birth (c. 580-570 B.C.) nor of his death (end of sixth century) can be exactly fixed, nor that of his emigration into Italy. His numerous voyages, and notably his sojourn in Egypt, are not proven.

The Pythagorean doctrine holds a middle course between the teaching of the Ionians and that of the Eleatics. It is at once an explanation of the *unity* and of the *order* of the universe. Everything may be reduced to numbers. The regularity manifested in the harmonious movements of the spheres is also found in the phenomena of the terrestrial world and in those of the moral life, so that the manifold *relations* which exist between beings and their activities may be expressed numerically. But, furthermore, number is not only the principle of *order* but also the principle of *reality*. Number is the very *substance* of things: whether number is to be here understood in a strict, abstract sense, or to be identified with the sense-intuition of the material figure geometrically numbered or measured.

Number is the origin of things. But how? Since the combination of units which constitute a whole number can form odd or even series, Pythagoras held that all number is a mixture of odd and even, or of indeterminate and determinate. The conflict of odd and even explains the presence of opposing properties in one and the same subject (e.g., repose and movement, right and left, good and bad, etc.). If these conflicts do not break up the unity of being and the harmony of the universe, it is because the odd and the even are united by a third principle of number. *viz.*, *harmony*. Every being is a determinate harmony, that is to say, a fixed and definite compound of odd and even. From the combinations of numbers the various elements of the world arise, — by an arbitrary plan of determination.

As for the psychological and moral theories of Pythagoras on the soul, the future state, the union of the soul with the body, etc., they belong rather to the mysteries and religious dogmas of Pythagorism. Aristotle has clearly shown that Pythagorism as a scientific system is confined to Cosmology.

Pythagoras founded a School. And his disciples were not merely philosophers and men of science, but moralists and mystics, initiated into secret rites and ceremonies. Identified with an aristocratic doctrine, the Pythagoreans were, after the death of their master, subjected to violent persecutions. In Italy their schools were broken up; but their doctrines survived in other places, notably in Thebes and Tarentum where PHILOLAUS and KLEINIAS collected together all the old Pythagorean traditions. In the fourth century Pythagorism disappeared as a School.

Pythagorism, moreover, coloured the views of several other philosophical speculators who opened their systems to heterogeneous elements. Finally, isolated Pythagorean theories, like that of number, have found their way through the centuries, passing from school to school even down to modern times.

The Eleatic School.

Conceive being in the abstract and universal, endowed with the logical attributes of unity, eternity and immobility; then transfer the object of your concept from the logical to the ontological order; and you have the cosmological system of the School of Elea. But, if everything is reduced to one, immovable, eternal being, how explain the multiple, changeable, ephemeral phenomena of nature? These phenomena, say the Eleatics, do not exist: they are illusions of our senses; and we must take heed only of the findings of reason.

This very decisive conception of things appears only with PARMENIDES (born about 544 or 540). His predecessor, XENOPHANES (576-480), had confined himself to establishing the *unity* of being, which he identified with God, without, however, denying the coexistence of one unique, substantial substratum for reality, and of a multitude of ephemeral things. In formulating this latter denial, Parmenides gave the Eleatic theory a characteristic attitude and tendency. Everything *is*: nothing *becomes*: nothing ceases. Being has neither past nor future; for past and future are not-being, and not-being is irreconcilable with being. All is *full*: there is no void or emptiness; a vacuum does not exist, for it would introduce a division into being. But being is indivisible, for a thing cannot be separated from itself: it is unchangeable, for it is always equal to itself, one with itself. ZENO OF ELEA, the favourite disciple of Parmenides, was the apologist of the School. He defended the Eleatic theory by showing the contradictions into which those are led who follow the evidence of common sense. His arguments against plurality, and especially against the possibility of movement or motion, are famous for all time.

After MELISSUS, the Eleatic School declined, but the influence of its thought is traceable in Empedocles the Atomist, in the Sophists, and even in Plato and Aristotle.

§ 3. SECOND GROUP OF PRE-SOCRATIC SCHOOLS.

Dynamism and Mechanicism or Atomism, in General.

Of the two problems raised by the study of Nature, that of the change of things occupies the attention of the representatives of this second group. Here we meet: (1) *Ionic Dynamism*, or the theories propounded by the new Ionic School after Heraclitus; and (2) the *Mechanicist* or *Atomist* theories of (a) Empedocles, (b) of the Atomist School, (c) of Anaxagoras.

Dynamism is opposed to Mechanicism or Atomism. Both systems were, no doubt, contemporaneous with the earliest speculations of Grecian philosophy, but as they regard the *processus* of things the exposition of their principles belongs rather to this second phase of Pre-Socratic Cosmology.

In its widest sense, *physical dynamism* embraces these two propositions: (1) the things of nature develop under the influence of one or more internal principles of activity; (2) where these principles are manifold they differ among themselves *qualitatively* in the various beings and their phenomena.

The fundamental ideas of atomism can be also reduced to two principles: (1) In the various things of nature there is *material mass*, and there is *motion*. The parts of the material mass are *qualitatively homogeneous*, and their differentiation *in size and shape* explains the diversity of the various beings and phenomena in the world. This differentiation of parts results from *mechanical motion*. (2) The motion that animates the various parts of the whole mass of matter is *communicated*, that is to say, it is not the product of any energy proper to the mass, this latter being inert.

The Dynamism of Heraclitus.

HERACLITUS (535-475 B.C.), sprung from a noble family of Ephesus, marks an epoch in the history of Pre-Socratic Philosophy. His system is an original blend of *Phenomenism*, *Dynamism* and *Pantheism*. A contemporary of the Eleatics, he opposed their speculations or rather counteracted them by his own: instead of placing the fundamental essence or being of things in some immutable reality, he identifies it with the mutable as such. According to Parmenides, *nothing* changes. For Heraclitus *everything* changes. The whole world is like a river which is never exactly identical with itself because new particles of water ever replace those that have passed by. This phenomenism has a cosmological, and not a psychological signification: the phenomenon has an extra-mental reality. This perpetual flow of things is symbolized in the mutable element *par excellence*,—fire. Not that fire is a substance; it is simply an ever-changing something, for it is nothing apart from its perpetual change, *panta hrein einai*. Every natural phenomenon is fire at some stage or other of development, and what we believe to be the stable element in things is merely "a point of intersection where various currents meet and divide".

To explain this incessant "fire evolution" Heraclitus adopts the two fundamental axioms of dynamism and accommodates them to his phenomenism. An internal principle of activity accounts for the perpetual flow of the "fire" phenomena; whatever. "becomes" or appears is itself the *principle* of its appearance and development. Since all change is transition from some definite state to an opposite one, the phenomenon modifies itself at every instant under the influence of the opposing positions of which it is the resultant.

Finally, the dynamism of Heraclitus is a plain assertion of pantheism: the fire-principle is unique, it is God; it is endowed with intelligence and regulates the process of its own evolution.

The Atomism of Empedocles.

EMPEDOCLES OF AGRIGENTUM (about 495-435) embodies in his physics the two leading ideas of atomism: (1) The elements of material nature exist eternally, exempt from all change. Differing from earlier philosophers, he regarded as the original material not any one of the four elements but all four together. Mutually irreducible, they decompose each into homogeneous parts which mingle together to form the various beings of the visible universe. What we call the production or formation of a substance is simply a new arrangement of the particles of the four elements (*mixis*); what we term the disappearance or dissolution of a substance is the separation of those same particles to form new alliances (*diallaxis*). (2) Where does the motion of the mass of matter come from? The answer given by Empedocles is an enigmatic one: love and hatred attract and repel the particles of matter.

The Atomism of the School of Abdera, Democritus,

LEUCIPPUS is the founder, but DEMOCRITUS (about 460-370) is the accredited representative of the atomist school. He himself tells us that in his early youth he knew Anaxagoras as an old man. Democritus was a man of science as well as a philosopher; he travelled in search of knowledge through Egypt and possibly as far as Babylonia. At Abdera, his birthplace, he knew Leucippus and followed his lectures.

Here are the fundamental principles of the teaching of Democritus: (1) Matter is composed of an unlimited multitude of tiny corpuscles qualitatively *homogeneous* but differing in shape and size: these are the atoms (*atoma*). The atom is of itself inert, eternal, indivisible, solid, continuous; it encloses no vacant space within it, for vacuum is the principle of divisibility (Parmenides). Not merely are the formation and dissolution of bodies explained by the accumulation and separation of atoms, but all phenomena are reduced to more or less transitory atomic structures.

(2) Democritus does not accept the fiction of love and hatred as an explanation of motion; he attributes this phenomenon to the action of weight and the existence of vacuum or empty space. This latter is essential for motion: if all space were full of matter, as Parmenides had taught, the atoms would be all packed together and no change would be possible. On the other hand, admit an interatomic vacant space and the atoms are free to move if there be any agency to move them. Weight draws the atoms downwards and thus sets them in motion; and since they are of unequal sizes, the larger, which are also the heavier, strike the smaller ones and impress on them a non-vertical motion: the shocks due to those impulses provoke a constant eddying movement and give rise to the formation of atomic combinations or worlds. Motion being eternal, space being without limits, and the multitude of the atoms being infinite, there are in existence innumerable worlds.

Democritus applies those general principles to the world we live in, and especially to man himself. His psychology is without any special psychological method; it is a mere chapter of his physical atomism. Man's soul, like his body, is an assemblage of atoms of a lighter and subtler order. Sensation and thought are only vibrations of atoms; they are stirred up in us by material emanations from outer objects, emanations which pass through the intervening space and enter our organs: this is the famous theory of the atomic images or *species* (*eidola*). These same images are fertile seeds of scepticism, for the medium modifies the material emanations, which are accordingly incapable of giving us a knowledge of things as they are. The philosophy of Democritus is a clear and emphatic assertion of materialistic atomism.

The Atomism of Anaxagoras.

Born 500 B.C. at Clazomenae, a contemporary of Leucippus and Empedocles, ANAXAGORAS spent most of his life at Athens, where his great learning secured for him the friendship of many illustrious men. Towards the end of his career, however, owing to political revolutions, he was forced to leave Athens, and settling down at Lampsacus he died there in 428.

The atomism of Democritus, more scientific in its tendencies than that of Empedocles, had neglected the question of the efficient cause of movement. To Anaxagoras belongs the notable merit of having sought the source of material movement in an immaterial, intelligent being. The moving and guiding agency is intelligence, — mind, endowed with simplicity and the power of knowledge. This is the agency which unites and separates the material particles with set purpose and design. Anaxagoras did not pass beyond the cosmic point of view in studying this intelligence; nor is it likely that he endowed it with the attributes of personality.

Not less remarkable is the difference between his notion of the original matter and the view of his predecessors. He regards it as composed of parts constitutive of all possible substances. But the portions in this primitive mixture are so exceedingly small that none of them can reveal any of its specific properties. Aristotle called them *homoiomerê* Their various motions give rise to the different material beings of the universe. The specific properties of a body appear when that body is composed principally of particles corresponding to those properties, but it never possesses such particles to the exclusion of the other sorts. "There are parts of all in all things," and hence the possibility of the mutual transformation of bodies generally.

The significance of Anaxagoras in philosophy does not lie so much in his having felt and proclaimed the necessity of an intellectual being in the universe — Anaximenes had already done this — but in having so clearly asserted the irreducibility of the material and the immaterial. His philosophy marks the final stage in the evolution of cosmological speculations in Greece anterior to Socrates. It is wholly physical; yet, the study of a directive intelligence suggests considerations of a psychological nature. Anaxagoras may be accordingly regarded as closing the period of formation and leading up to the Sophists and Socrates.

§ 4. THE SOPHISTS.

Protagoras and Gorgias.

The nature-philosophers had fixed their attention on the external world exclusively, paying no heed to the knowing subject, — to the nature and working of his cognoscitive faculties. A group of controversially minded thinkers seized on this popular physical philosophy for the purpose of proving that it really led to the destruction of all knowledge: they got the name of *Sophists*. Their scepticism has in it no independent or absolute value, for it is inspired by the philosophies of Heraclitus and Parmenides. Rather it prepares the way for a fuller and richer dogmatism by convincing Socrates of the need to compare and complete cosmological researches by psychology.

The leading sophists are PROTAGORAS (born at Abdera, about 480) and GORGIAS (about 480-375). Heraclitus had declared that all is change. Protagoras now added: this change itself depends on our subjective state. The external world is a creation of the mind: and since two men may construct their world in contradictory ways, it follows that truth is relative and science impossible.

Gorgias, a contemporary of Protagoras, followed the latter to Athens, where his oratorical gifts won him much celebrity. Starting from the Eleatic doctrines, he ended by asserting the utter bankruptcy of science. The negation of absolute truth as a fixed standard for all should naturally lead to the denial of a uniform moral code. And Protagoras and Gorgias were only logical when they taught that right and wrong depend on each man's own sweet will.

The sophists exposed the weaknesses of the philosophy of their day, but they made no attempt to remedy them. It remained for Socrates to rebuild the tottering fabric of science on safer foundations; his teaching both completes the work of the nature-philosophers and refutes the theories of the sophists.

Maurice de Wulf. History of Medieval Philosophy. New York: Longmans, Green, and Co, 1909.

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