

Early Greek The Thought : A Positive Role of Philosophy

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It has been widely held that any philosophical enquiry should be confined to analysis and all the philosophical activities are negative, it is true that nothing can be properly intelligible unless it passes through a detailed analysis. Analysis makes the thing more clear and accurate. But analysis is not an end in itself and the function of philosophy should not be described as negative. We are convinced that Philosophy as a significant branch of knowledge has a deeper and important role to perform. In other words, the activities of philosophy should not be negative but rather it should be positive. Its goal, like other significant branches/of knowledge is to strive for a systematic and reasoned body of thought that brings out the underlying secret cause of the visibles, or that discovers the underlying structure and relation of the subtle entities that constitutes the visible. Thus, philosophy has got to undertake a task of theory construction. Here the role of analysis is not ruled out completely. Rather, in the task of theory construction the need of analysis is presupposed and thus in philosophy, analysis can rightly be said as a means to an end but not an end in itself. This approach towards philosophy had been exhibited even in the very ancient time. The ancient Greek philosophers provided an alternative model to define philosophy which remaining true to its analytical character gives a broader perspective of philosophy. The present paper is largely devoted to characterize the positive and scientific role of philosophy in the light of the thought of the ancient Greek philosophy.

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It is true that the philosophical enterprise of the ancient Greeks was being nourished by the richness of the Egyptian and Babylonian conception of knowledge of world.¹ but the Greek philosophers claim a very special place in the western philosophical tradition for their search of an underlying principle to explain the diverse things of the world and the practical knowledge achieved by the Egyptians and the Babylonians. The theoretical inquiry in the hands of the ancient Greek philosophers began to achieve a greater degree of independence from practical concerns and its autonomy got more legitimacy.

Thales, perhaps was the first man in the history of ancient Greek philosophy who felt the need of explaining all the empirical phenomena by something non-empirical without relying on God. He believed that the individual solution to an individual problem is not enough and set out to get hold of a general principle which would not only explain the problem in question but capable enough to provide a frame work for the solution of many other related problems. This is quite evident when he provide the principles for the measurement of the height of a pyramid², the distance of a ship from the shore and weather prognostications. Besides, the discovery of some geometric principles which are attributed to him indicate that he must have looked for theoretical explanation³.

Thales also tried to explain that the world itself not like his predecessors who had done it by means of myths, but in concrete empirical terms. In his attempt to replace the doctrine of hidden hand by a rational mode of explanation for the description of the universe he came to a conclusion that there is one element or underlying principle working behind the sensible world and that is water. It is the question (of what stuff this universe is made?) not the answer that attract our admiration. It was a move of great significance in the Greek thought. The momentous fact was that it occurred to someone to look behind the infinite diversities of nature for some single principle to which all can be reduced and that too in empirical terms. It shows that

there emerged a desire to know the world rationally. He tried to emancipate the mind of people from superstitions and the dogmatic assertions regarding the nature of the world. He held that the discovery of secret causes would extend our knowledge of nature and the world with accuracy and certainty.

Anaximander, another stalwart of early Greece is also known for his theoretical bent of mind. He conceived the world as a system in rotation where the heaviest objects like water would remain a little higher, firms and vapours still higher. The circular motion is eternal and is the source of universal power. He felt clearly that although opposing elements on this world encroached upon each other, the cosmic force maintained a balance. The primary substance *apeiron* is undetermined because it is potentially everything.⁴ Thus it seems that Anaximander had given a model of the infinite or boundless to define matter. His efforts to study and inquire into the regularities of nature gave him a methodology to study nature. He seems to have said that one must delineate all the regular features of nature and then proceed to find out the principles which make this regularity possible. This led him to introduce some models to explain the regular features of the nature.

The most conspicuous contribution of Anaximander to the Greeks was the introduction of a map of the earth and the hemishare of the sky.⁵ With the help of information gathered from different travellers of different voyages, he reproduced the same operation or relation in a different form and on a small scale. It helped a man to know the where-about of the places of his need without undertaking a voyage for months. This map model was later successfully applied to navigation, exploration and geology. Again, he introduced an instrument called 'gnomon' which enabled the astronomers to determine the length of the year and the day, the cardinal points, the meridian, the real noon, the solstices, the equinoxes, and the length of the seasons.⁶ Anaximander also built another model to determine the motion of stars and planets with circling wheels moving at different

speeds. Like our modern planetarium projection, this made it possible to speed up the observed patterns of planetarium notions and find in them a regularity and definite ratio of speeds. All these things undoubtedly speak of his greatness in realizing the importance of a model or form by which he could explain and grasp everything belonging to the same domain at a single glance.

Though the introduction of models was a crucial step in the development of knowledge, Anaximander had not explained systematically the exact nature of the principles which he had been trying to get hold of. Again it seems that the view of Anaximander was very narrow as the irregularity of nature which helped understand and explain nature could also have been inquired about. Despite all these deficiencies, Anaximander, however, made some advancement in 'Thales' conception of theoretical inquiry by giving certain concrete hints as to how one should start his search for the underlying principles that constitutes the visibles.

Again Anaximenes, a disciple of Anaximander postulated air as the primary substance. This prime element may take all kinds of appearances by condensation and rarefaction. He held that when air is dilated so as to be rarer, it becomes water, when still further condensed turns in to earth and when condensed as much as it could be, it becomes stone.⁹ He established that the lighter bodies like fire etc. and the lighter, elements on the top of the atmosphere were formed from the air by further rarefaction while moist, clouds, water and the solid earth resulted from successive step of condensation and from them everything else.

This addition of the mechanism of rarefaction and condensation made the Milesian cosmology certainly more logical. The greatness of Anaximenes lies in his attempt to make all his thought consistent by introducing a form as principles to explain the changing pressure and temperature of the elements in the world. This model gives a system of nature that is complete and self-explanatory which needs no help of God. In other words,

he proclaimed that the underlying principles which constitute the visible things must be self-explanatory and be explained mechanically. The merits of Anaximenes over his predecessors that he left the tendency of explaining those principles by associating and identifying them with concrete feature in imagination like the water of Thales and so on. On the other hand, he asserted, these principles must be purely intellectual and could be arrived at by an act of generalization which gives no room for arbitrary imagination. They are abstract ideas and they cannot be pictured. Though he had not explicitly spoken of indirect verification it seems to be presupposed in his assertions.

Unlike the Milesians, Heraclitus apparently appears to be poetical for all his views expressed in an oracular epigrams. I would like to include Heraclitus in this discussion because he had given some seminal thoughts of course not in clear concepts – which gave a new direction to the inquiry in philosophy and science. Heraclitus ‘recommendation that to know these many things one must be a lover of knowledge indicates that to know these many things some techniques are to be adopted.’¹⁰ Again the conception of ‘Logos’ in Heraclitus indicates the need of explanation for everythings.

Heraclitus had discovered the most conspicuous truth which was not recognized hitherto, although it manifests itself to everyone at everyturn. Heraclitus proclaimed that everything is one and many, one thing now and many things before or hereafter. Here Heraclitus seems to have followed the Anaximenes’ discovery that all diverse entities in the world would be reduced by varying degrees of a single process and worked to its logical conclusion. The truth Heraclitus proclaimed was that the world is at once one and many and that it is just the opposite tension of the opposites that constitutes the unity of one”.¹¹ Keeping this thing in mind, Heraclitus gave his view of constant flux which, in fact, constitutes the gist of his philosophy. Here what Heraclitus meant was that all things are in a state of flux. He hold that into the same river we do as well as we do not step in, we are, as we

are not¹². Despite the various interpretations, this principles elicit a paradox which play an important role in the field of human knowledge. The half truth of Heraclitus' analogy was interwoven with correct observations and far-reaching inferences. Through this paradox Heraclitus proclaimed, perhaps for the first time in the ancient Greek thought, the principle of relativity of qualities, which he pushed forward to an extreme consequence in the words e.g. good and bad are the same. His principle of relativity contained like a folded flower the correct doctrine of sense-perception with its recognition of subjective factor. Heraclitus here quite aptly pointed out that there is profound harmony behind all seeming disharmony.

This profound harmony, as he felt it, is a hidden harmony regulating the phenomenal world which it manifests and signifies. In other words, every change occurs in accordance with a universal law. Moreover, the concept of change and the unity of opposites as Parker¹³ remarked, from the basis of dialectic movement which Socrates and Plato elevated and placed by Marx and Hegel at the heart of their philosophy and which modern scientist find indispensable as an instrument in explaining the world and nature.

The above exposition of the Heraclitean philosophy indicates that he believed that true knowledge consisted in grasping the underlying harmony of things and thus directed all his efforts in search of this underlying harmony by the help of some methods. He perhaps wanted this method to be a combination of inductive reasoning and speculative thought. Besides, he introduced the concept of 'logos' to identify the knowledge resulted from the application of this method.

The Pythagoreans in their attempts to give a proper characterization of the underlying principle of the visible world identified it with the numerical ratio. The Pythagoreans were trying to establish that there was an underlying universal uniformity ruling the nature and was dependent on numbers,

which was nothing but a primary principle. This abstraction of the underlying principle was accorded by the Pythagoreans not only as reality but it was also elevated to a valuable, refined and higher reality than the concert objects from which they are derived. The Pythagoreans after examining the role of numbers in cosmology, arithmetic, geometry, music and medicine came to a conclusion that the principle of numbers is the principle of everything.

Number was the focal point of all Pythagorean doctrines. By understanding its deeper meaning the secretes can be disclosed conceding the fact that they failed to give a satisfactory understanding of the nature of the number itself. Thus it deems that they had mathematized and geometrized the concept of knowledge. All their efforts were directed to give certainty and guarantee to their assertions. As Cleve¹⁴ points out “without the mathematical side the things will be blurry and will miss the causal relation.” The exact, precise, true, clear and systematic knowledge of the thing and occurances can be comprehended not from the surface of the sensible or physical world but by comprehending the secret, the underlying structure of things i.e. numbers. By their emphasis on certainty and accuracy, it seems they were striving for a deductive method although they have not explained it systematically.

But in Paramenides, the picture of deductive method was become more clear. Permanides rejected outright the reality of perceptual experience as it involves contradiction. He held that only human reason has the power to understand reality. He believed that the principle by which we can explain the world should be an indubitable one which could be had exclusively by our thought. Again he held that such principles could be demonstrated. The technique of demonstration considered to be one of his important contributions to the Western thought.

The atomists led by Democritus held that all creation, growth, decay, organization and destruction are nothing but forms

of atomic combinations and dissociations. Besides, they seem to have postulated that everything happens according to necessity. In expounding the theory of atomism, Democritus had opined very clearly "A man must learn on, this principle that he is far removed from truth"¹⁵. This assertion shows that in truth we know nothing about many things but everybody shares the general prevailing opinions.

The atomist tried to explain the world not by its appearances but by going beneath the appearances. They held that the underlying principle that constitutes all these visibles were based on the principle of causal necessity. The atomist, by making the use of their notion of causal necessity on the one hand and the idea of necessity of reason and the technique of demonstration given by Parmenides on the other, gave a very cogent, and systematic explanation of the world.

Further, the use of this atomic theory for the explanation of medicine has, of course, got remarkable success for the doctors and surgeons of these days bound the atomists' idea of treating the body as a complex machine fitted in their own practical knowledge and they established that the working of muscular and skeletal systems can be mechanically explained.¹⁶

Again the medical schools of ancient Greece which had grown up in the course of fifth century B.C. headed by Hippocrates were known not merely for their discoveries in different fields of medicine but also for certain principles which they laid down as fundamental to their practice. Like most of their predecessors they did away conjectures and dogmatic beliefs and tried to inquire independently into the underlying principles of health.

In treating diseases, the exponents of Hippocratic School thought that the human body is warmed with natural and internal heat and the loss of heat causes death. This heat they thought was most prevalent in the body and throughout life slowly diminished until at death it vanished altogether. This notion of

heat is nothing but a surprising guess on the part of one who had dissected no human body and who knew nothing of the circulation of blood.¹⁷ In one of the works entitled “*Nature of Man*” the exponents of Hippocratic School discussed seriously the theory of humours and argued against those who held that the universe was made of a single substance and extended this theory to medicine. They argued further that if everything had come from a single principle then there would have been one disease and one remedy. They held that different humours predominate in each season, although health implies the equilibrium of all the four humours. On the basis of these assumptions of health the advocates of Hippocratic School derived some therapeutic rules which constitute an important part of their system. In the work entitled “*Regiment in Health*,” some rules for diet, exercise, according to seasons, complexion, and age have been given.¹⁸ In another work entitled “*On Airs, Waters Places*” they held that each medical case must be considered on its own geographic and anthropologic background.¹⁹

After giving so many suppositions of health the exponents of Hippocratic School realized that any art of medicine would be incomplete if its assumptions or theories are not backed by empirical evidences. Thus they made tremendous effort to provide a new method where empirical evidence was provided in support of all their hypotheses by resorting to accuracy, measurement and exact reasoning. They have exhibited this new method in their work entitled ‘*On Ancient Medicine*’. Thus the truth claim of an assertion offered as an explanation depends on empirical verification and justification by observation was certainly a noteworthy step forward.

Socrates,²⁰ one of the heroes of humanity, raised a structure of knowledge which was nothing but a reaction to all his predecessors. All his predecessors we have discussed earlier were concerned with giving an answer to the question i.e. what the universe is. But Socrates weighed violently against the idea of keeping the nature or world at the centre and leaving man to

the periphery. On the contrary, he constructed his own philosophy where he kept man in the centre and left nature to the periphery. He virtually tried to build the entire edifice of his philosophy on the foundation of the question – *what am I?* “Before trying to account for the cosmos would it not be better to put our own house in order? In stead of trying to understand the inaccessible objects, should we not make clear the things that we can control? We are men should we not try to know ourselves and other man before everything else.”²¹ Despite his priority on the question of man, he directed his inquiry in search of a principle and to this Aristotle had ascribed the term definition. Scocretes believed that a definition must be free from contradiction. It must be as true as the proposition of mathematics. It must be necessary and sufficient to explain things which it was supposed to explain. He realized that it was very difficult to get hold of such a definition but it was not impossible. For this he suggests that we must start with the sound judgement as the possible definition and whatever agrees with it can be defined by it and whatever does not cannot be defined by it. If the assumption proved insufficient or did not lead to an adequate criterion then the assumption would be replaced by another assumption, more general than the earlier one. The process of replacement would continue till one reached a definition which was necessary and sufficient for defining things which it strives to define.

All these trends of thought have been rigorously systematized in Plato and blown as a full-fledged notion of scientific knowledge. Plato directed all his efforts to find out a principle or definition which makes a thing as that thing. Following some of his predecessors, he held that knowledge should be real, true, fixed and self-abiding. Though all the ancient Greek philosophers before Plato strove for explaining world in the light of an underlying principle and gave sufficient indication about the need of some methods for this, they had not worked out anything concertely as to how we can arrive at these principles or definitions as Plato would like to call it. Plato held that only by

the help of some methods we can arrive at these principles or definitions. The methods, according to him, are the devices which we make but not discover for knowing the underlying mechanism of the things of world. Again he seems to hold that method constitutes a specific way which includes certain steps in a specific order. This is quite evident in the method of Hypothesis, Method of Collection and Division and dialectic Method, exhibited in his different dialogues. This contribution of Plato places him in an esteemed position, in the theoretical tradition of the west.

A study of all these ancient Greek Philosophers made us convinced that they were not contented with the practical knowledge given to them by the Egyptian and Babylonian civilizations. Rather they honestly strove to find out the underlying principles that made all these knowledge possible. They were trying to give an explanation of the world and in the process they reached at various hypothesis like 'the world has come from water' of Thales, 'the world is an *apeiron*' of Anaximander, 'things are like numbers' of Pythagoras, 'the world consists of atoms' of Democritus and the being is real and one of Parmenides. These hypothesis may be true or false but certainly it is very modern as a method of approach to any scientific knowledge. Besides, false hypothesis directs our attention to one problem or a certain kind of data for which better answers are required than the answers hitherto available, Moreover a hypothesis serves its purpose best when it initiates further inquiry. Thus, as the assertions of the ancient Greek Philosophers may seem false now but they are certainly responsible to make the modern science what it is today.

In ancient Greek thought, it seems, there are different stages of development in its theoretical enterprises. The Milesians for the first time initiated kind of theoretical trend by going beyond the empirical things of the world. But the Pythagoreans gave an explicit shape to the theoretical inquiry of the ancient Greece. The Eleatics and the Atomist made it more systematic by introducing the notion of causation, necessity, proof, consistency

and etc. The Theoretical or the scientific enterprise of Greece became more matured by the Hippocratic notion of empirical justification or verification by observation of a theory. With the Pythagoreans, the Eleatics and the Atomist, the theoretical or scientific enterprise of Greece reaches at a high level of systematization, yet, they failed to formulate any method by which we can get hold of the underlying principle of things of the world. It is true that they felt the need of the methods but they had not formulated any method as such. Plato filled this discrepancy and culminated the Greek theoretical inquiry by introducing three methods i.e. method of hypothesis, method of collection and division and dialectic method.

The concept of method and the sporadic scientific concepts like rationality, causation, proof, necessity, consistency, hypothesis, classification, generalization etc., used by different ancient Greek philosophers, have made us convinced that they had a well formulated explanatory method. It can be said without comiting a great blunder that the theoretical inquiry or the notion of science of the ancient Greek philosophers is very close to the modern scientific inquiry or science if not identical to it. Here the uses of the word science does not mean to convey the same sense as we understand it today. But we have persisted with the world to delincate precisely some of the important and essential characteristics of modern science in the thought of the ancient Greek Philosophers. Besides, the ancient Greek philosophers had not kept science and philosophy apart from each other. The reservation of some scholars in ascribing the notion of science to them might have resulted from their failure to distinguish between explanation and description. Thus all these endeavours drive one to believe that the philosophical enterprise of the ancient Greeks were not negative but far more positive in character. They firmly believed that philosophy as a significant branch of knowledge must play a positive role by underlying the task of theory construction.

References

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