

## The Marxists Interpret The Pre-Socratics

by Herman Reith, C. S. C.

MARXISM TODAY presents itself as a thoroughly complete philosophical system. a) It claims a theoretical and scientifically tenable justification for its practical approach to the world of nature, society, and history.<sup>1</sup> b) It challenges other philosophical systems on the plane of theory. c) It claims a continuity with philosophies of the past, particularly with pre-Socratic Greek philosophy. It is the relationship of this third point with the first two that I wish to study in this paper.

In the *Anti-Duehring*, a source-book for the theoretical principles of Dialectical Materialism, Frederick Engels wrote:

This primitive, naive, yet intrinsically correct conception of the world was that of ancient Greek philosophy, and was first clearly formulated by Heraclitus: Everything is and also is not, for everything is in flux, is constantly changing, constantly coming into being and passing away. But this conception, correctly as it covers the general character of the picture of phenomena as a whole, is yet inadequate to explain the details of which this total picture is composed: and so long as we do not understand these, we also have no clear idea of the picture as a whole. In order to understand these, *we must detach them from their natural or historical connections and examine each one separately, as to its nature, its special causes and effects. . . .*<sup>2</sup>

And in the *Dialectics of Nature*, an equally valuable source-book, he wrote:

Thus we have once again returned to the point of view of the great founders of Greek philosophy, to the view that the whole of nature, from the smallest element to the greatest, from the grains of sand to

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<sup>1</sup> J. Stalin, *Dialectical and Historical Materialism* (New York, 1940), p. 21.

<sup>2</sup> F. Engels, *Anti-Duehring* (Full title: *Herr Eugen Duehring's Revolution in Science*) (New York, 1935), pp. 26, 27, Italics mine.

sons, from protista to man, has its existence in eternal coming into being and passing away, in ceaseless flux, in unresting motion and change, only with the essential difference that what for the Greeks was a brilliant intuition, is in our case the result of strictly scientific research. . . .<sup>3</sup>

Karl Marx' own philosophical view was not always so objective. In a series of theses which he had jotted down during his study of Feuerbach, he said that "The philosophers have only interpreted the world differently; the point is to change it."<sup>4</sup> Marx felt that the interpretation of the world could be no more than "instrumental" to a practical social philosophy. The very notion of purpose of theory was devoid of meaning outside the realm of man. At the time he wrote the theses against Feuerbach (1845), it seemed to him that the only vantage point from which philosophy could be viewed was that of human progress. For it was at that time that he wrote:

The chief defect of all hitherto existing materialism, that of Feuerbach included, is that the object, reality, sensuousness, is conceived only in the form of the object of contemplation, but not as sensuous activity, practice, non subjectivity. Thus it happened that the active side, in opposition to materialism, was developed by idealism, but only abstractly, since, of course, idealism does not know real sensuous activity as such. Feuerbach wants sensuous objects really differentiated from thought-objects, but he does not conceive human activity through objects. . . . Hence he does not grasp the significance of 'revolutionary,' of practical-critical activity.<sup>5</sup>

From this conception of philosophy it follows that no purely objective judgment could be made either of things or of thoughts. Things cannot be confronted absolutely, but only through practice and through practical thought essentially conditioned by matter. Theory could not bear upon nature ab-

<sup>3</sup> F. Engels, *Dialectic of Nature* (New York, 1940), p. 13.

<sup>4</sup> Marx' Theses on Feuerbach, in F. Engels' *Ludwig Feuerbach* (New York, 1934), p. 75.

<sup>5</sup> Thesis I on Feuerbach, *Ibid.*, p. 73.

solutely, but only upon what nature happens to be for man in the present material conditions of human life. Thus Dialectical Materialism could not be a general theory of which Historical Materialism is but the application to society. Rather the contrary is true: Dialectical Materialism is Historical Materialism. Present day Dialectical Materialism could not, then, be looked upon as the natural outgrowth of principles of Being or of Nature affirmed long ago in pre-Socratic philosophy.

Was Marx unaware of the strong emphasis that would later be put upon theory? Did he see that his own philosophy could not resist the temptation to become more objective, more able to justify itself before Reason? Unquestionably, at that time Marxist philosophy did not have the physical power behind it to impose itself upon the world. It is possible that if it could have convinced men by a critique of arms, the insistence on theoretical principles rooted in traditional philosophy would never have taken place.

In a footnote to his *Ludwig Feuerbach* Engels said of Marx' contribution to the theoretical principles of Dialectical Materialism:

Here I may be permitted to make a personal explanation. Lately repeated reference has been made to my share in this theory (Dialectical Materialism), and so I can hardly avoid saying a few words here to settle this particular point. I cannot deny that both before and during my forty years' collaboration with Marx, I had a certain independent share in laying the formulations, and more particularly in elaborating the theory. But the greater part of its leading basic principles, particularly in the realm of economics and history, and above all, its final, clear formulation belong to Marx.<sup>6</sup>

And in the *Anti-Duehring*:

I may note in passing that inasmuch as the genesis and development of the mode of outlook expounded in this book were due in far greater measure to Marx, and only in a very small degree to myself, it was

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<sup>6</sup> F. Engels, *Ibid.*, footnote on p. 52.

of course self-understood between us that this exposition of mine should not be issued without his knowledge. I read the whole manuscript to him before it was printed, and the tenth chapter of the section on economics was written by Marx, and my part was only to shorten it slightly, to my regret, for purely external reasons. As a matter of fact, we had always been accustomed to help each other out in special subjects.<sup>7</sup>

Marxism today presents itself as a philosophy which may be compared with any other philosophy; and it dares confront any other philosophical system strictly on the theoretical plane. And today the Marxist approach to the history of philosophy is no longer by way of the criterion of practice. Whether in practice the Soviet Union hues more to the original Marxist view of the critique of "practice," or whether it actually prefaces its actions with a study of theoretical principles as developed by the "Engels shift," is not point at issue in this paper. Our concern is rather with what contemporary Marxists say.

Because they now invoke the pre-Socratics as forerunners of their own Dialectical Materialism, we may demand proof that they have understood them. They may no longer confine themselves to purely dogmatic statements about Heraclitus or any other of the early Greeks. Any statement they now make about the origins of their own philosophy being in the soil of ancient Greek "materialism" must be submitted to the ordinary methods of historical criticism.

A valid critique of any philosophy demands that it be applied to the proper historical cadre. And, therefore, we would agree with Marx that Dialectical Materialism must be understood in its historical context. But the pre-Socratics, too, can be appreciated if we restore for our analysis the philosophical environment in which their teaching grew — not as isolated from the problems which they faced, but in their dialectical approach

<sup>7</sup> F. Engels, *Anti-Duehring*, p. 13.

to the solutions of those problems. With the Marxists we feel that static thought and methods are incapable of rendering a fair picture of these early Greek philosophers. Rather we should see them in the positive and negative elements of their philosophies, in the opposition and the agreement which so often characterize men of genius belonging to the same era. Wherever it is possible, therefore, we shall employ the method of limits in analyzing the doctrines of the pre-Socratics since this method lends itself uniquely to the dynamic and fluid conceptions of these early philosophers.

#### THE PRE-SOCRATICS: HERACLITUS (FLORUIT 500 B. C.)

If there is a point of rapprochement between early Greek philosophy and Dialectical Materialism, it would seem to be on the doctrine of contraries in nature. Heraclitus was, perhaps, the foremost exponent of this view. The physical universe appeared to him to be constituted of such conflicting elements as gave rise to the phenomenon of motion. In the selected fragments which follow we have the closest approximation in early Greek sources to the Hegelian laws of Dialectics which Marx and Engels had incorporated in their own thought. The translation is that which Kathleen Freeman made of Diels' *Fragmente der Vorsokratiker*.<sup>8</sup>

8. That which is in opposition is in concert, and from things that differ comes the most beautiful harmony.
51. They do not understand how that which differs with itself is in agreement: harmony consists of opposing tension, like that of the bow and the lyre.
53. War is both king of all and father of all, and it has revealed some as gods, others as men; some it has made slaves, others free.
62. Immortals are mortal, mortals are immortal; each lives the death of the other, and dies their life.

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<sup>8</sup> K. Freeman, *Ancilla to the Pre-Socratic Philosophers* (Oxford, 1948), pp. 24 ff.

67. God is day-night, winter-summer, war-peace, satiety-famine. But he changes like fire which when it mingles with the smoke of incense, is named according to each man's pleasure.
80. One should know that war is universal and jurisdiction is strife, and everything comes about by way of strife and necessity.
88. And what is in us is the same thing: living and dead, awake and sleeping, as well as young and old; for the latter having changed becomes the former, and this again having changed becomes the latter.
91. It is not possible to step into the same river twice. (It is impossible to touch the same mortal substance twice, but through the rapidity of change) they scatter and again combine (or rather, are simultaneous) and approach and separate.

If we are to see the *whole* doctrine, which is more literally the *true* doctrine of any philosopher, we may not isolate such passages. For in its totality the teaching of Heraclitus was primarily a reaction to the teaching of Xenophanes and Pythagoras, who had separated God from the universe of men, plants, animals and inanimate things. Against the separation Heraclitus reaffirmed the identity of God with all that is. Against Xenophanes he argued that God is not an isolated cause. And against the Pythagoreans he argued that God, as divine Fire, was not merely present in some way in all things, but that he was the changing opposites themselves.

The universe, according to Heraclitus, was begotten from Fire and returns to Fire in the cyclical movement that goes through all eternity, in accordance with the laws of Destiny. With all its change, the all-consuming Fire reasserts itself and recaptures its Unity. The cyclical intervals were estimated at 10,800 years, to our notions, a figure arrived at arbitrarily by multiplying the number of days in a solar year (three hundred and sixty, as he tabulated) by thirty, which was considered one generation. There is not much point in quarreling over this arbitrary calculation. Heraclitus wanted to affirm the perfection of the Divinity by showing that the apparent deviations were not

permanent, and that what appeared to be a plurality of natures and permanent opposition was essentially an illusion. Through the cyclic annihilation of otherness God preserved his supremacy over the world that issued from him.

There is a passage in the *Dialectics of Nature* very like Heraclitus' cycle of the Great Year.

It is an eternal cycle in which matter moves, a cycle that certainly only completes its orbit in periods of time for which our terrestrial year is no adequate measure, a cycle in which the time of highest development, the time of organic life and still more that of life of beings conscious of nature and of themselves, is just as narrowly restricted as the space in which life and self-consciousness come into operation; a cycle in which every fine mode of existence of matter, whether it be sun or nebular vapour, single animal or genus of animals, chemical combination or dissociation, is equally transient, and wherein nothing is eternal but eternally changing, eternally moving matter and the laws according to which it moves and changes. But however often, and however relentlessly, this cycle is completed in time and space, however many millions of suns and earths may arise and pass away, however long it may last before the conditions for organic life develop, however innumerable the organic beings that have to arise and to pass away before animals with a brain capable of thought are developed from their midst, and for a short span of time find conditions suitable for life, only to be exterminated later without mercy, we have the certainty that matter remains eternally the same in all its transformations, that none of its attributes can ever be lost, and therefore, also, that with the same iron necessity that it will exterminate on the earth its highest creation, the thinking mind, it must somewhere else and at another time again produce it.<sup>9</sup>

At this point there appears a radical cleavage between the two philosophies. In the doctrine of Heraclitus, Mind is prior to the downward movement of the Fire, for it is through the direction of Reason (*Logos*) that all things come to be. But in the Marxist doctrine Mind is the result of the blind and necessary movement of matter. What is important in the doctrine

<sup>9</sup> F. Engels, *Dialectics of Nature*, p. 24.

of Heraclitus is not that Fire is something material and tangible, but rather that it is the Reason (the *Logos*) present in all things. Fire is the intelligence that directs all. But Reason, in the philosophy of Marx, is the highest state that matter has reached up to now.

Heraclitus has been called the father of pluralistic philosophy only because all the emphasis has been put on one aspect of his doctrine, and that the least important. The most important doctrine is that all Being is one, in spite of the downward movement of the Fire in the combinations that would diversify it. For the doctrine of the One is wisdom, while the knowledge of the many is full of deceit, for the former is intellectual knowledge and the latter is sensory cognition.

The following fragments<sup>10</sup> emphasize the unity of all things in the supreme God and the wisdom that men should strive for.

41. That which is wise is one: to understand the purpose which steers all things through all things.
50. When you have listened, not to me but to the Law (*Logos*), it is wise to agree that all things are one.
79. Man is called childish compared with divinity, just as a boy compared with a man.
83. The wisest man will appear an ape in relation to God, both in wisdom and beauty and everything else.
86. Most of what is divine escapes recognition through unbelief.
102. To God, all things are beautiful, good and just; but men have assumed some things to be unjust, others just.
114. If we speak with intelligence, we must base our strength on that which is common to all, as the city on the Law (*Nomos*), and even more strongly. For all human laws are nourished by one, which is divine. For it governs as far as it will, and is sufficient for all, and more than enough.

Heraclitus criticized those who thought that the knowledge of the many gave wisdom. "The learning of many things teaches not Wisdom." But the knowledge of the One is wisdom,

<sup>10</sup> K. Freeman, *op. cit.*, p. 24 ff.



because wisdom is the vision of the many in their original source. We should not be tempted, as have many historians of philosophy, to take the doctrine of conflict and change (*πάντα ῥεῖ*) as the principle of Heraclitus' philosophy. This doctrine is simply a means of emphasizing the transcendence of the Divinity. Hence the paradox in a philosophy of change which is essentially a monism.

And yet it has been the fate of Heraclitus, who invented this almost magical artifice for the abolition of real time and real change, to be abused and admired as the philosopher of the "flux." Heraclitus invented the doctrine of the flux, that *πάντα ῥεῖ*, for a different but wholly consistent purpose, as we have already seen; it was intended to reunite the supreme god with the changing world, from which Xenophanes had separated his One God.<sup>11</sup>

We cannot agree with the Marxists that the eternal Fire in the doctrine of Heraclitus is comparable to Matter in their own philosophy. The Fire is prior to the material universe; it is Reason that directs all things; matter is the antithesis of Fire, because matter is heavy, dark and inert, while the Fire is light, pure and active. Already this conception of the Perfect Being approaches the Nous of Anaxagoras. If God were present in the physical universe, it would be a kind of degradation having to be corrected periodically. Since the Greeks had no conception of creation out of nothing (*ex nihilo sui et subjecti*), the pantheistic emanation became involved in the obvious and serious difficulty of keeping the impurity of creation from tainting the divinity. This Heraclitus did as best he could by saying that in the sight of God, in the vision of eternity, all things were pure, because the temporary imperfections would periodically be absorbed by the Fire. Heraclitus is not a positive materialist as the Marxists are, because he does not deny the existence of spiritual things apart from matter. He had not yet come to the place where he could speak freely of

<sup>11</sup> K. Hack, *God in Greek Philosophy* (Princeton, 1931), p. 78.

a separated spiritual substance like the "agent intellect" of Aristotle's psychology. An authority on Greek philosophy wrote of this paradox in Heraclitus' philosophy:

The philosophy of Xenophanes had induced Heraclitus to go far on the road that ultimately led to the complete distinction between the Aristotelian God (immaterial Reality) and matter ("material" unreality). The supreme god of Heraclitus was still spoken of as changing, but Fire had assumed the dignity of the cause and the agent of change, and its activity was necessarily contrasted with the passivity of that which it caused. But that which is caused by Fire is the lower forms of Fire; and these lower forms take on a degree of relative passivity and unreality which corresponds to their lowly stations in the temporal universe. They become mere intervals in the one active divine reality of Fire. God is the eternal cause, and all change is temporal. The cosmogenetic gods of earlier Greek tradition were as a rule sluggish beings, whose power was eclipsed by that of their transcendent gods; but the non-anthropomorphic Fire of Heraclitus is no longer merely at the beginning of the series of changes that constitute the cosmos, but is itself the end of the series. Like Kronos, Fire devours its offspring; but none of the offspring escapes Fire, not even the cosmos.<sup>12</sup>

This fundamental monism of Heraclitus' philosophy, it seems to me, points definitely to a parallelism rather than to a contrast with the doctrine of Parmenides.

#### PARMENIDES (FLORUIT 475 B. C.)

Though he holds an exceptional position in the history of Greek philosophy, Parmenides is not among those who are mentioned by the Marxists as having directly and positively influenced Dialectical Materialism. But it is possible that just as Hegel conceived the history of philosophy as a dialectical movement, so do the Marxists; hence, they may attribute to Parmenides the role of opposition to the dynamic conception of Heraclitus. The absence of change and opposition in the eternal

<sup>12</sup> K. Hack, *ibid.*, p. 79-89.

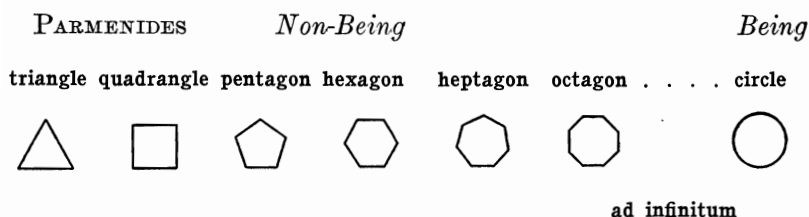
Being of Parmenides' philosophy could well be the foil that would bring out the best in the writings of Heraclitus.

But the deeper meaning of the doctrine of Heraclitus should make us aware that the *πάντα ῥέει* is not in direct opposition with the whole of Parmenides' philosophy. The Perfect Being (the "sphere, equally balanced from its center in every direction") is not opposed to the Fire in its eternal attributes; and the world of appearance is not opposed to Heraclitus' world of *doxa*. In describing the phenomenal world, Parmenides used figurative language almost identical with that of Heraclitus. He called the fire of heaven gentle and light, like unto itself in every direction. But when the pure Fire became mixed with darkness, it, too, tended to become impure. Though the phenomenal world which resulted could not be called Being, it was real. It was not to be named because of its impurity and instability. When it entered the inferior world, the One lost its attributes of pure Being and became devoid of understanding. Hence, the combinations could not be called Being, but only *φαινόμενα*, the appearances of Being.

When we consider the philosophies of Heraclitus and Parmenides dialectically, in the flow of development, rather than statically, where they appear as islands of opposition, we get a more objective view of both of them. And if Parmenides, by no stretch of the imagination, may be called a forerunner of Dialectical Materialism, a most serious doubt also holds for Heraclitus.

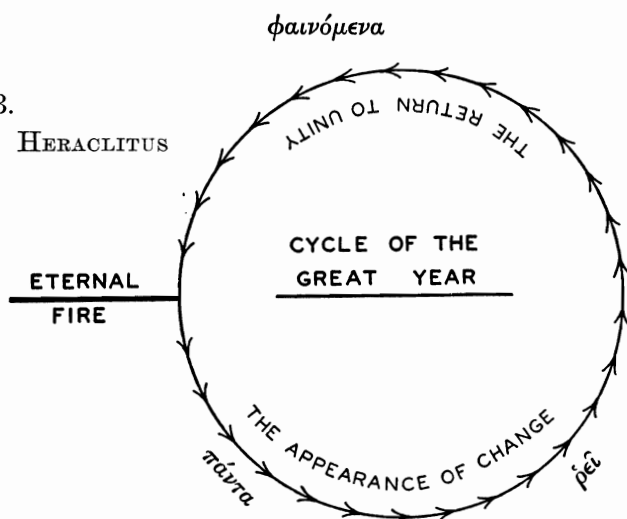
The two ancient philosophies may be compared in the following graph, in which the Perfect Being is the dialectical limit of the phenomenal world, and the Perfect Fire is the dialectical limit of the *πάντα ῥέει*.

A.



B.

HERACLITUS



ZENO OF ELEA (FLOURED 450 B. C., DISCIPLE OF PARMENIDES)

Motion, according to the Marxists, can be accurately represented only as a contradiction. It is only in abstract thought that a body is *either* in the state of rest *or* of motion. In reality motion and rest are the same thing, because a body cannot be taken simply as an isolated unit except as a mode of abstraction, whereas in nature one and the same body has contradictory relationships to its surroundings. There is no difficulty in representing motion in terms of equilibrium, just as it is evident that bodies at rest are in a condition of agitation.

To be sure, it is a hard nut and bitter pill for our metaphysician that motion should find its measure in its opposite, in rest. That is indeed

a crying contradiction, and every contradiction, according to Herr Duehring, is nonsensical. . . . From the dialectical standpoint, the possibility of expressing motion in its opposite, in rest, presents absolutely no difficulty. To dialectical philosophy the whole contradiction, as we have seen, is only relative; there is no such thing as absolute rest, unconditional equilibrium. Each separate movement strives toward equilibrium, and the motion as whole puts an end to the equilibrium. When, therefore rest and equilibrium occur they are the result of arrested motion, and it is self-evident that this motion is measureable in its one form or another.<sup>13</sup>

Not so much because of his purpose, but rather because of the genius of his method and his examples, Zeno has influenced Marx and his followers. Aristotle said that Zeno was the inventor of the dialectical method.<sup>14</sup> And Plato said the Sophists were influenced by him.<sup>15</sup> In form, the dialectic of the Sophists parallels the arguments of Zeno. Gorgias and his followers tried to show that out of every proposition a contradictory conclusion could be drawn. It was, perhaps, to Zeno that the fifth and fourth century sophistry owed its spirit and its method, insofar as the eristic arguments have their foundations in the antinomies of Zeno. The argument of Gorgias are strongly reminiscent of the disciple of Parmenides.

When Aristotle credited Zeno with the invention for the dialectical method, he defined in that context what he meant by *Dialectics*. "Dialectical arguments," he said, "are those that reason from premisses generally accepted to the contradictory of a given thesis."<sup>16</sup> The initial meaning of dialectics is a *debate*, through which a conclusion is reached after contradictory viewpoints are presented by both sides. Zeno used the dialectical argument as an *argumentum ad hominem*, so that he could show the untenable position of his adversaries. If the theses of the adversaries were accepted and then followed

<sup>13</sup> F. Engels, *Anti-Duehring*, p. 70-71.

<sup>14</sup> H. Diels, *Fragmente der Vorsokratiker*, 19a 2 (ap. Diog. Laert. IX, 25).

<sup>15</sup> Plato, *Sophist* 216 a 3.

<sup>16</sup> Aristotle, *Topics* I, 100 a 30.

out to their logical conclusions, the result would be a contradiction that the mind could not accept. For that reason there is an essential deviation in the Sophists from the arguments of Zeno.

The most important influence that Zeno has had upon the Marxists is due not to the dialectical method which he introduced but to the problems which he raised. Is motion really contradictory? There is no doubt about Zeno's own viewpoint. Motion is not contradictory because it simply does not exist. At least, not in the realm of perfect Being, which is the only province of knowledge that he, as a philosopher, thought worthwhile. In the very prosecution of his argument, in which he tried to prove the impossibility of change in perfect Being, Zeno submitted an analysis of motion which has thrilled the minds of subsequent philosophers, mathematicians and scientists. He thought of analyzing motion into static points of space, in the same way as the *continuum* of bodily extension and the *continuum* of time might be analyzed into points and moments. Though Zeno reasoned that the supposition of division, change, or motion in the supreme Being would logically lead to a contradiction, his *argumentum ad hominem* was not as impressive as the problems he stirred up.

In answering the problems raised by Zeno Aristotle shows that division and motion are possible in bodies and that these do not imply a contradiction. Through his doctrine of potency Aristotle shows that a body may be in a condition which is neither wholly one or the other of two contraries. Just as there is an intermediary between Being and Non-being taken absolutely, so there is an intermediary between the condition of a body that is wholly without a particular form and the state of the same body when the form is had completely.<sup>17</sup> In this context Aristotle is talking about that world which Parmenides and Zeno call the world of appearance. They did not deny

<sup>17</sup> H. D. Lee, *Zeno of Elea* (Cambridge, Eng., 1936), pp. 13-14.

motion under all conditions, but did not admit that the changes or motion can be predicated of the perfect Sphere. On that point Aristotle seems to be in agreement, for he immediately says that "That which is without parts cannot be in motion except accidentally."<sup>18</sup>

Zeno's first argument against the division of the *continuum* into points was directed against the Pythagoreans who supposed that the point is the element out of which all Being is constructed. If by definition a *continuum* is divisible into divisible parts so that at the infinite limit there remain only points; and if at the same time the point is defined as that which is indivisible and without magnitude, the conclusion would be that that which has magnitude is composed of that which has no magnitude. If a given *continuum* may be said to be divisible *ad infinitum* this means only that a simple division will not change the nature of the *continuum*; and if the *continuum* is said to be infinite through addition, it means only that it can always be added to, without changing the nature of the *continuum*. But this process of division or addition *ad infinitum*, cannot actually be carried out, no more than a finite number can be divided into an infinitely small fraction or a series of finite numbers can actually be developed into an actual infinite number.

The progression either in the series towards the infinitely great does not involve real motion but only the movement of reason in its attempt to construct dialectically one contrary from another. If motion is conceived as a synthesis of contradictions — as a dynamism and as a state, as finite and as infinite — this can be only because the mind has transcended the limits of the variable and imagines that the one form has actually given birth to its contradictory. But this can be true only in the realm of logic. But when Engels and the other Marxists said that motion is contradictory, they meant that the movement of bodies in nature actually involves a contradiction.

<sup>18</sup> Aristotle, *Physics* VI, c. 9, 239 b 10 through 240 a 4.

Aristotle as well as Zeno admits the reality of change and motion, but only in imperfect things. Perfect Being is not subject to motion because it has no parts. Even the heavenly bodies, in the philosophy of Aristotle, though incorruptible in their nature, are imperfect from the point of view of local motion. But in Dialectical Materialism motion is assigned the role of perfection, because it is through the instability of a universe in movement that the eternally increasing perfection of matter comes.

Marxists are logically consistent in saying that there is no Perfect Being, either as the Source of creation or as the Reason which eternally guides the physical universe: If all things are in motion then there cannot be an absolutely perfect Being, since movement is possible only where there is imperfection.

Far from having an essential continuity with either Aristotle or Zeno, the Marxist philosophy of dialectics, particularly where it analyzes the nature of motion, offers unique discrepancies. If this philosophy strikes any harmonious chord with the past, it is with the dialectics of the Sophists; but no claim to such a connection appears in Marxian writings.

#### MELISSUS OF SAMOS (FLORUIT 44 B. C.)

He wrote a treatise *On Being* in defense of Parmenides' theory. The only departure from orthodoxy was in extending Being to infinity, in order to get rid of the notion of the Void. Unfortunately Aristotle misunderstood what Melissus was trying to do, and came out with a mildly derogatory remark about his being "a little too countrified."<sup>19</sup> Melissus had nothing to do with the background of Marxist theory.

#### EMPEDOCLES (FLORUIT 450 B. C.)

Because of both the content and purpose of his philosophy Empedocles enjoys a continuity with Heraclitus. Like Heracli-

<sup>19</sup> K. Hack, *op. cit.*, p. 92.



tus, he posited a world of change made up of contraries, which he called Love and Strife, and he also used the figure of recurring Fire to overcome the contrariety of the imperfect world. The *Sphairos* came back to identity with itself under the power of divine Love, at intervals when Strife seemed to have conquered Love. And his purpose was to put the Divinity into the world of change, because it had seemed that Parmenides' doctrine of Unity kept Love out of the world in which men lived.

Marxists do not explicitly claim a continuity with the philosophy of Empedocles, but there is the same superficial likeness mentioned in the philosophy of Heraclitus. Perhaps the Dialectics is simply the doctrine of Love and Strife "in a much more definite and clear form" and achieved by "strictly scientific research."

Such a conclusion is quite unfounded. The diversity and mobility of this world, the effects of combining Love and Strife, are not absolutes. The unifying force of Love overcomes all differences. The principle of fecundity is not Strife but Love, which gives harmony to the whole. This is evident from the following passages:

Fragment 17: I shall tell of a double (process): at one time it increased so as to be a single One out of Many; at another time again it grew apart so as to be Many out of One. There is a double creation of mortals and a double decline: the union of all things causes the birth and destruction of the one (race of mortals), the other is reared as the elements grow apart, and then flies asunder. And these (elements) never cease their continuous exchange, sometimes uniting under the influence of Love, so that all become One, at other times again each moving apart through the hostile force of Hate. Thus in so far as they have the power to grow into One out of Many and again, when the One grows apart and Many are formed, in this sense they come into being and have no stable life; but in so far as they never cease their continuous exchange, in this sense they remain always unmoved as they follow the cyclic process.<sup>20</sup>

<sup>20</sup> K. Freeman, *op. cit.*, p. 53.

But most important of all, the concept of a Divinity, an intelligence superior to that of man, a Mind which gives direction to the whole universe, is unthinkable in the philosophy of Marxism. It is foremost in the philosophy of Empedocles. Here we have an approach to the *Nous* of Anaxagoras and to the Divinity of Aristotle.

Fragment 133: It is not possible to bring God near within reach of our eyes, nor to grasp him with our hands, by which route the broadest road of Persuasion runs into the human mind.

Fragment 134: For he is not equipped with a human head on his body, nor from his back do two branches start; (he has) no feet, no swift knees, no hairy genital organs; but he is Mind, holy and ineffable, and only Mind, which darts through the whole universe with its swift thoughts.<sup>21</sup>

#### ANAXAGORAS OF CLAZOMENAE (FLOUITS 460 B. C.)

Two principles govern the philosophy of Anaxagoras, the Infinitely Small and the *Nous*. It is the similarity on the point of the Infinitely Small that Marxists may think they have in Anaxagoras a kindred spirit, for they also speak of the infinitely small when they give examples of dialectics in the field of mathematics, especially in its higher forms. "The mathematics of variable magnitudes," said Engels,<sup>22</sup> "whose most important part is the infinitesimal calculus, is in essence nothing more than the application of dialectics to mathematical relations."

The dialectical character of calculus is not simply limited to the area of abstractions. The same thing is found in nature, which is really the prototype of mathematics.

The mystery which even today surrounds the magnitudes employed in the infinitesimal calculus, the differentials and infinites of various degree, is the best proof that it is still imagined that what are dealt with here are pure "free creations and imaginings" of the human mind, to which there is nothing corresponding in the objective world. Yet

<sup>21</sup> *Ibid.*, p. 67.

<sup>22</sup> F. Engels, *Anti-Duehring*, p. 148.

the contrary is the case. Nature offers prototypes for all these imaginary magnitudes.<sup>23</sup>

By use of the *Infinitely Small*, things that once were thought to belong to the "eternal metaphysical truths" are now seen to be dialectical in charter. One such example is the identification of the curved and the straight line. The following argument is given by Engels, but the editor and translator of the English edition says, "This was, of course, written before 'rigorous' proofs based on the theory of limits were introduced into most books on the calculus. Engels is quite correct concerning the calculus taught in his day."<sup>24</sup>

Straight and curved in the differential calculus are in the last resort put as equal: in the differential triangle, the hypotenuse of which forms the differential of the arc, this hypotenuse can be regarded "*comme une petite ligne tout droite qui est tout à la fois L'élément de l'arc et celui de la tangente*"—if now the curve is regarded as composed of an infinite number of straight lines . . . "*puisque le détour a chaque point M étant infiniment petit, la raison dernière de L'élément de la courbe à celui de la tangente est évidemment une raison d'égalité.*" Here therefore, although the ratio continually approaches equality, but asymptotically in accordance with the nature of the curve, yet, since the contact is limited to a single point which has no length, it is finally assumed that equality of straight and curved has been reached.<sup>25</sup>

But nature herself is composed of the infinitely small. As soon as we deal with nature, not according to the vulgar non-scientific viewpoint, but according to the discoveries of the most modern science:

. . . not merely the earth but the whole solar system and the distances occurring in the latter in their turn appear infinitely small as soon as we have to deal with the distances reckoned in light years in the stellar system visible to us through the telescope. . . .

In so far as mathematics calculates with real magnitudes, it also

<sup>23</sup> F. Engels, *Dialectics of Nature*, p. 314.

<sup>24</sup> *Ibid.*, p. 200 (footnote).

<sup>25</sup> *Ibid.*, p. 200.

employs this mode of outlook without hesitation. For terrestrial mechanics the mass of the earth is regarded as infinitely large, just as for astronomy terrestrial masses and the corresponding masses of meteors are regarded as infinitely small, and just as the distances and masses of the planets of the solar system are reduced to nothing as soon as astronomy investigates the constitution of our system of stars extending beyond the nearest fixed stars.<sup>26</sup>

In the philosophy of Anaxagoras, coming into being was explained by the fact that contraries proceed from each other, and since it is impossible that anything come from non-being, the conclusion is that everything is in everything else. However small any portion is, it will always contain portions of everything else. Thus the Infinitely Small means that none of the elements that enter into composition in the material world can ever be exhausted. Because it contains all the elements out of which everything is made, the Infinitely Small is the matrix of the nature we know.

The following fragments from the writings of Anaxagoras contain the essence of his philosophy of nature:

1. All things were together, infinite in number and in smallness. For the Small also was infinite. And since all were together, nothing was distinguishable because of its smallness.

3. For in Small there is no Least, but only a Lesser: for it is impossible that Being should Not-be; and in Great there is always a greater. And it is equal in number to the small, but each thing is to itself both great and small.

6. And since there are equal parts of Great and Small, so too similarly in everything there must be everything. It is not possible (for them) to exist apart, but all things contain a portion of everything. Since it is not possible for the Least to exist, it cannot be isolated, nor come into being by itself; but as it was in the beginning, so now, all things are together. In all things there are many things, and of the things separated off, there are equal numbers in Great and Small.

9. Thus these things circulate and are separated off by force and speed. The speed makes the force. Their speed is not like the speed

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<sup>26</sup> *Ibid.*, p. 315 and 318.

of any of the Things now existing among mankind, but altogether many times as fast.<sup>27</sup>

The principles out of which nature is constructed, Anaxagoras held, are divisible *ad infinitum*. No given element can have existence wholly separated from other elements. There can be so such thing as pure water, for example. At the extreme limit there can be the approximation to the state of separation, when the Infinitely Small is reached; but that would be the annihilation of the reality of nature. The elements are the variables in the dialectical process by which we might tend to isolate an element, and the Infinitely Small is the limit. But the limit will not be actually reached however often a division is made of anything in nature, because there is a portion of everything in everything else. Hence there can never be any isolated units, because the movement is infinite.

Though there is always something of everything else in the tiniest particle, there can be a greater or lesser amount of an element in a combination. Since the elements can have no separate being, and since there is no special reason in the elements themselves why there should be a predominance of any one or several of them in a combination, this effect is produced by something outside the elements. The cause of the combinations is the *Nous* which has separate existence; it is the one exception to the law that everything is in everything else.

11. In everything there is a portion of everything except Mind; and some things contain Mind also.

12. Other things all contain a part of everything, but Mind is infinite and self-ruling, and is mixed with no Thing, but is alone by itself. If it were not by itself, but were mixed with anything else, it would have had a share of all Things, if it were mixed with anything; for in everything there is a portion of everything, as I have said before. And the Things mixed (with Mind) would have prevented it, so that it could not rule over any Thing in the same way as it can being alone by

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<sup>27</sup> K. Freeman, *op. cit.*, p. 83-84.

itself. For it is the finest of all Things, and the purest, and has complete understanding for everything, and has the greatest power. All things which have life, both the greater and the less, are ruled by Mind. Mind took command of the universal revolution, so as to make (things) revolve at the outset. And at first things began to revolve from some small point, but now the revolution extends over a greater area, and will spread even further. And the things which were mixed together, and separated off, and divided, were all understood by Mind. And whatever they were going to be, and whatever things were then in existence that are not now, and all things that now exist and whatever shall exist—all were arranged by Mind, as also the revolution now followed by the stars, the sun and moon, and the Air and Aether which were separated off. It was this revolution which caused the separation off.<sup>28</sup>

Thus, the phenomenal world, which consists of the various combinations that the infinite variety of elements can assume under the direction of the *Nous*, is dialectical in nature. It can never be homogeneous; it can never have isolated, so-called "metaphysical" units, for everything contains its contraries in combination. The world is composed of infinitely small portions, because all the elements are divisible into portions that are infinitely small. The world has no stability, because that could be reached only when any one element could be absolutely separated from the others. Since the attempt cannot be realized, this world and its matter, which is constituted by the elements, can never be an absolute. If, *per impossible*, one element could be entirely separated from the others, it would necessarily be identified with the *Nous*. But that is a contradiction—and Anaxagoras recognized the validity of the principle of contradiction.

The *Nous* of Anaxagoras' philosophy is incompatible with Marxist philosophy because of its transcendence. When compared with the Platonic and Aristotelian notion of divinity, however, it is still inchoate and imperfect. Aristotle criticized

<sup>28</sup> *Ibid.*, p. 84-85.

it for using the *Nous* as a *deus ex machina* to explain "the process of" *Becoming*, which should have been explained according to natural principles.

#### LEUCIPPUS (FLORUIT 430 B. C.)

The teacher of Democritus, in whose collected writings we can discover what the founder of atomism taught.

#### DEMOCRITUS (FLORUIT 420 B. C.)

The title of Karl Marx' doctoral dissertation was *Differenz der demokritischen und epikureischen Naturphilosophie*. Though he preferred the Epicurean form of materialism to Greek Atomism, it seems likely that Marx's study of the philosophy of Democritus influenced his own writing, particularly on the question of chance in nature. Whether he interpreted the Greek Atomists correctly is another question.

The Atomists judged that Parmenides' doctrine of the One had created an irreducible antinomy between the phenomenal world and the world of Being. Hence, to rationalize the process of Becoming, they came up with several concepts that were not found in the philosophy of Parmenides. They first of all substituted the *atomoi*, an infinite number of invisible Forms, for the Continuum of the older philosopher. These forms, however, were thought to have the same characteristics as the One: they were eternal, indivisible, invariable, continuous throughout. But they were distinct from each other and most important of all, they had an extrinsic mobility.

In order to make this mobility possible, the Atomists postulated the Void, which was just as real as the Forms. Incapable of intrinsic movement because of their absolute continuity, they could acquire new combinations and positions in the Void. There had to be some space to travel in, if there was to be local motion. Because he had denied non-Being, Parmenides also had to deny the reality of even extrinsic change in Being;

the mobile had only the appearance of Being. Though it could not destroy the eternal and necessary continuity of the Forms, the Void was the contrary of the absolute *Plenum*; hence there was a kind of eternal conflict between Being and non-Being.

When the Form moved about in the Void the propulsion was given by the Vortex. This principle of motion demanded an explanation, but the Atomists simply said that it was eternal. On this point the Marxists would disagree with Leucippus and Democritus, for this was the difficulty intrinsic to classical materialism; it could not reasonably explain motion without bringing in a Prime Mover. In the Marxist dialectics of nature matter is said to have an intrinsic principle of motion.

If we were to follow the interpretation of Aristotle, we would understand the Forms in a materialistic sense, as being bodies and having magnitude. But this interpretation seems unwarranted both because of historical context and because there is no evidence for it in the writings of Democritus. Theophrastus stated distinctly that Leucippus had been a member of the school of Parmenides and Zeno. The innovation in his doctrine was the substitution of the many Forms for the One and the conceding that the Void was real. Everything else in Parmenides' teaching seemed acceptable. All Forms have the attributes of the Divinity, though some have them more perfectly than others. Spherical Forms, for example, are the most truly divine, since it is of these that Life and Mind are composed.

#### CHANCE IN THE ATOMISTIC WORLD

More than anything else, I think, the doctrine of Chance in the philosophy of Democritus must have impressed Karl Marx. The origin of different natures through the undirected powers of nature and the identification, in several passages, of Chance and Necessity — these seem to a student of Dialectical Materialism to be very Marxian. For Marxists hold that from the union of Chance and Necessity arises a fundamental contradiction



in nature, which is most fecund for the progress of mankind. At the same time Chance and Necessity are integral to nature and one with it, since it is of these two principles that nature has come to be. In this third law of Hegalian Dialectics the emergence of qualitatively different and higher forms is due to the combined contingency and necessity of matter. In this manner came Intelligence, which emerged during the revolutionary cycles of matter as the highest form yet achieved in the universe. The Marxist view is opposed to any theological view which postulates the priority of Mind.

In a rather definite expression of an anti-theological viewpoint as well as in opposition to the deterministic teaching of certain men of science who permitted no possibility of chance in the physical universe, Engels outlined these several positions and then gave his own view on chance and necessity:

Chance and Necessity—Another contradiction in which metaphysics is entangled is that of chance and necessity. What can be more sharply contradictory than these two thought determinations? How is it possible that both are identical, that the accidental is necessary, and the necessary is also accidental? Common sense, and with it the great majority of natural scientists, treats necessity and chance as determinations that exclude one another once for all. A thing, a circumstance, a process is either accidental or necessary, but not both . . .

In opposition to this view there is determinism which has passed from French materialism into natural science, and which tries to dispose of chance by denying it altogether . . .

In contrast to both conception, Hegel came forward with the hitherto quite unheard-of propositions that the accidental has a cause because it is accidental, and just as much also has no cause because it is accidental; that the accidental is necessary, that necessity determines itself as chance, and, on the other hand, this chance is rather absolute necessity.<sup>29</sup>

In a passage which refers to the early cosmic transformations in nature Engels wrote:

<sup>29</sup> F. Engels, *Dialectics of Nature*, p. 230-233, *passim*.

Here either we must have recourse to a creator, or we are forced to the conclusion that the incandescent raw material for the solar system of our universe was produced in a natural way by transformations of motion which are *by nature inherent* in moving matter, and the condition of which therefore also must be reproduced by matter, even if only after millions and millions of years and more or less by chance but with the necessity that is also inherent in chance.<sup>30</sup>

Natural forms are subservient to matter. The present state of our universe is due to blind chance, which is the same as saying it is due to the necessity of matter. Marxists will not even admit the use of the term "evolution," because this is opposed to the third law of dialectics (qualitative changes are violent revolutions and not evolutions), and also because "evolution" already implies a certain direction in nature.

Shifting the same contradiction to the higher plane of human life, they again identify contingency and necessity. Human freedom is necessity. The reason is quite simple: the thinking mind is a form of matter.

The old teleology has gone to the devil, but the certainty now stands firm that matter in its eternal cycle moves according to laws which at a definite stage—now here, now there—necessarily gives rise to the thinking mind in organic beings.<sup>31</sup>

Hegel had defined freedom as "the appreciation of necessity." It is only necessary to shed its idealistic garb to accept this definition whole-heartedly, according to Engels.

Hegel was the first to state correctly the relation between freedom and necessity: to him, freedom is the appreciation of necessity. "Necessity is blind *only in so far as it is not understood*." Freedom does not consist in the dream of independence of natural laws, but in the knowledge of these laws and in the possibility this gives of systematically making them work towards definite ends. This holds good in relation both to the laws of external nature and to those which govern the bodily and mental existence of men themselves—two classes of chances of laws which we can separate from each other at most only in thought

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<sup>30</sup> *Ibid.*, p. 22.

<sup>31</sup> *Ibid.*, p. 187.

but not in reality. Freedom of will therefore means nothing but the capacity to make decisions with real knowledge of the subject. Therefore the freer a man's judgment is in relation to a definite question, with so much the greater *necessity* is the content of this judgment determined.<sup>32</sup>

What has come down to us as typical of Democritus are the passages wherein the combinations in nature are called the products of chance. But it is seriously questionable that his is a complete view, or even that it is the most important aspect of this view. Unreason does account for a certain type of heterogeneity. And the Atomists did say that the human mind was formed when a certain number of spherical atoms fell together. But as to the all important question of the priority of matter over form — which is the question whether chance of order rules the universe — the Atomists defend the Primacy of Form.

If we again use the method of limits we find that in the atomistic world there is a Variable and an Invariable Limit. The Variable is the plurality of combinations (*forms* without the capital) effected by the motions of Forms in the Void. The variety here is *quasi* infinite, but it will never transgress upon the Invariable Limit where the eternal *Atomoi* are different in their eternal differences. All combinations are extrinsic to the *Atomoi* — they are accidental. Despite appearances, the truth is that changes do not really take place in the Things that matter. No really new Forms emerge. To say that human reason emerges means that the eternal Forms of the Psyche have gathered together in sufficient quantity to produce the combination we call *man*. To prove that this is not a new kind of Form, and that the Psyche always was and will continue to be, death intervenes to separate the Forms of the Psyche from the less perfect Forms. These separated Forms will be used elsewhere without loss of perfection.

<sup>32</sup> F. Engels, *Anti-Duehring*, p. 125.

Because of the Primacy that the eternal Forms enjoy over all combinations of Forms, it is evident that chance can play only a secondary and unimportant role in the philosophy of Leucippus and Democritus. Chance cannot invade the higher realm striking words of Leucippus: "Nothing happens at random; everything happens out of reason and by necessity." (Fragment 2). And: "Men have fashioned an image of Chance as an excuse for their own stupidity. For Chance rarely conflicts with Intelligence, and most things in life can be set in order by an intelligence sharp-sightedness." (Frag. 119).

### CONCLUSION

I think it beyond doubt that among the pre-Socratics philosophy presents a continuity of doctrine. A certain progression in the clarification of doctrine and manner of expression accompanies the chronological continuity, so that by the time of Plato and Aristotle a long tradition on a Supreme Being as distinct from the world of change, and a reverence for the Wisdom which governs the apparent contradictions of Nature, had already been well established. This antinomy of doctrine, so often emphasized by historians of philosophy, is the reflection of dialectical development of doctrine rather than a basic difference of view.

When we compare pre-Socratic philosophy with theoretical Marxist teaching, the similarity is extremely superficial. I do not see how Marxists can claim philosophical origin from any of the Greeks that we have mentioned in this study. In a comparative study of philosophical systems, if the philosophies differ radically in fundamental principles, there can be no question of continuity or descendance. That there is a Supreme reality apart from the world of matter; that change and conflict are subordinated to the Unity of the First Principle; that a prior wisdom directs the universe — these are principles upheld by the pre-Socratics but denied by Marxists.

<sup>22</sup> K. Freeman, *op. cit.*, pp. 90-108, *passim*.

The early Greek philosophers are often called *materialists*; but only an analogical sameness of meaning can be verified in this term when applied to them and to Marxists. Perhaps the Greeks never clearly expressed the notion of spiritual substance; but they did set the attributes of the First Principle over against those of the material universe. The idea of God grew. It was analogous to the forming of a vase through the hands of many potters. Marxism, on the other hand, has consciously and freely rejected the notion of God as a Supreme Being apart from the material universe. Like the shattered part of a vase to the original work of art, Marxism bears a resemblance to pre-Socratic philosophy. But the pieces are not the vase: the fragments do not add up to the Grecian urn.

*University of Notre Dame,  
Notre Dame, Indiana.*

## Notes on the Authors

DR. HERBERT THOMAS SCHWARTZ, *professor of philosophy at Xavier University, has also taught at the University of Chicago, St. John's College, Laval University, and Georgetown University. He holds his doctorate from Columbia University.*

REV. DR. HERMAN REITH, C. S. C., *administrative head of the Notre Dame philosophy department, holds his doctorate from Laval University. He has also studied at the Gregorian University and at Notre Dame.*

DR. A. N. PRIOR, *graduate of the University of Otago in New Zealand, is the author of a book Logic and the Basis of Ethics (Oxford, 1946) and has contributed to learned periodicals.*