

Origin of Philosophy: The Milesians

Most textbooks on “pre-Socratic” philosophy begin with a comment similar to the one quoted below: Greek philosophy was born out of the struggle to understand nature, for understanding nature proved to be less simple and straightforward than the earliest Greek scientists had confidently assumed. Scientific inquiry became philosophical when men discovered that it was necessary to ask questions about this inquiry itself and about its method. The first scientists had taken for granted that underlying the visible changes in nature there is a material stuff in the process. The problem, they conceived, was simply to ascertain the nature of this material and the changes it undergoes. It gradually became clear, however, that the assumptions on which this procedure rested were ambiguous. Since the various answers suggested by the earliest philosophers contradicted one another, there came to be a widespread scepticism about the power of reason as an instrument for obtaining knowledge. All these philosophers also sought to find a more rational basis for conduct than the religious myths that had once, but now no longer, provided a sanction for socially oriented behavior. (W.T. Jones. *The Classical Mind*. Second Edition. p. xvii - xviii.) Others focus on the economic-historical social developments in the Ancient Near East, and out of this “stew” developed philosophical inquiry. Jonathan Barnes, in *Early Greek Philosophy*, and Edward Hussey, in *The Presocratics*, endorse such a view. Still others focus on the differences between writings of a more religious nature and those testimonia attributed to the earliest philosophers to note a sharp discontinuity between the type of speculation that religion was undergoing and that type of speculation that can be identified as philosophical, at least in the broadest meaning of the term.

Each of these interpretive strategies has some merit. They, also, obscure or limit our understanding of the changes taking place in the Ancient Near East and in Greece. I, also, think we must take into consideration all of these elements in order to understand the precursors of philosophical inquiry in order to understand how it is that philosophy emerges with the Greeks, and how philosophy is a distinct development.

It is clear, if you compare writings of the 8th century BCE, that there is a movement towards speculative thought within the Ancient Near East religions. The *Enuma Elishu*, or Babylonian Creation story, parts of the Book of Genesis, and other such Egyptian stories illustrate early religious accounts offered to explain the order of things, or to explain why things are the way that they are. One element common to these is that there is some divine agent or agents responsible for the ordering of things, and it is in virtue of this divine agency that the visible world is in the way that it is. There are examples of stirrings of speculative thought in the Book of Ecclesiastes that the Ancient Hebrews were dissatisfied with the fruits of human endeavors. This selection from the Book of Ecclesiastes vividly illustrates this.

The words of the Preacher, the son of David, king in Jerusalem. Vanity of vanities, says the Preacher, vanity of vanities! All is vanity. What does man gain by all the toil at which he toils under the sun? A generation goes, and a generation comes, but the earth remains for ever. The sun rises and the sun goes down, and hastens to the place where it rises. The wind blows to the south, and goes round to the north; round and round goes the wind, and on its circuits the wind

returns. All streams run to the sea, but the sea is not full; to the place where the streams flow, there they flow again. All things are full of weariness; a man cannot utter it; the eye is not satisfied with seeing, nor the ear filled with hearing. What has been is what will be, and what has been done is what will be done; and there is nothing new under the sun. Is there a thing of which it is said, "See, this is new"? It has been already, in the ages before us. There is no remembrance of former things, nor will there be any remembrance of later things yet to happen among those who come after. I the Preacher have been king over Israel in Jerusalem. And I applied my mind to seek and to search out by wisdom all that is done under heaven; it is an unhappy business that God has given to the sons of men to be busy with. I have seen everything that is done under the sun; and behold, all is vanity and a striving after wind. What is crooked cannot be made straight, and what is lacking cannot be numbered. I said to myself, "I have acquired great wisdom, surpassing all who were over Jerusalem before me; and my mind has had great experience of wisdom and knowledge." And I applied my mind to know wisdom and to know madness and folly. I perceived that this also is but a striving after wind. For in much wisdom is much vexation, and he who increases knowledge increases sorrow. I said to myself, "Come now, I will make a test of pleasure; enjoy yourself." But behold, this also was vanity. I said of laughter, "It is mad," and of pleasure, "What use is it?" I searched with my mind how to cheer my body with wine -- my mind still guiding me with wisdom -- and how to lay hold on folly, till I might see what was good for the sons of men to do under heaven during the few days of their life. I made great works; I built houses and planted vineyards for myself; I made myself gardens and parks, and planted in them all kinds of fruit trees. I made myself pools from which to water the forest of growing trees. I bought male and female slaves, and had slaves who were born in my house; I had also great possessions of herds and flocks, more than any who had been before me in Jerusalem. I also gathered for myself silver and gold and the treasure of kings and provinces; I got singers, both men and women, and many concubines, man's delight. So I became great and surpassed all who were before me in Jerusalem; also my wisdom remained with me. And whatever my eyes desired I did not keep from them; I kept my heart from no pleasure, for my heart found pleasure in all my toil, and this was my reward for all my toil. Then I considered all that my hands had done and the toil I had spent in doing it, and behold, all was vanity and a striving after wind, and there was nothing to be gained under the sun. So I turned to consider wisdom and madness and folly; for what can the man do who comes after the king? Only what he has already done. Then I saw that wisdom excels folly as light excels darkness. The wise man has his eyes in his head, but the fool walks in darkness; and yet I perceived that one fate comes to all of them. Then I said to myself, "What befalls the fool will befall me also; why then have I been so very wise?" And I said to myself that this also is vanity. For of the wise man as of the fool there is no enduring remembrance, seeing that in the days to come all will have been long forgotten. How the wise man dies just like the fool! So I hated life, because what is done under the sun was grievous to me; for all is vanity and a striving after wind. I hated all my toil in which I had toiled under the sun, seeing that I must leave it to the man who will come after me; and who knows whether he will be a wise man or a fool? Yet he will be master of all for which I toiled and used my wisdom under the sun. This also is vanity. So I turned about and gave my heart up to despair over all the toil of my labors under the sun, because sometimes a man who has toiled with wisdom and knowledge and skill must leave all to be enjoyed by a man who did not toil for it. This also is vanity and a great evil. What has a man from all the toil and strain with which he toils beneath the sun? For all his days are full of pain, and his work is a vexation;

even in the night his mind does not rest. This also is vanity. There is nothing better for a man than that he should eat and drink, and find enjoyment in his toil. This also, I saw, is from the hand of God; for apart from him who can eat or who can have enjoyment? For to the man who pleases him God gives wisdom and knowledge and joy; but to the sinner he gives the work of gathering and heaping, only to give to one who pleases God. This also is vanity and a striving after wind.

There is an evil which I have seen under the sun, and it lies heavy upon men: a man to whom God gives wealth, possessions, and honor, so that he lacks nothing of all that he desires, yet God does not give him power to enjoy them, but a stranger enjoys them; this is vanity; it is a sore affliction. If a man begets a hundred children, and lives many years, so that the days of his years are many, but he does not enjoy life's good things, and also has no burial, I say that an untimely birth is better off than he. For it comes into vanity and goes into darkness, and in darkness its name is covered; moreover it has not seen the sun or known anything; yet it finds rest rather than he. Even though he should live a thousand years twice told, yet enjoy no good -- do not all go to the one place? All the toil of man is for his mouth, yet his appetite is not satisfied. For what advantage has the wise man over the fool? And what does the poor man have who knows how to conduct himself before the living? Better is the sight of the eyes than the wandering of desire; this also is vanity and a striving after wind. Whatever has come to be has already been named, and it is known what man is, and that he is not able to dispute with one stronger than he. The more words, the more vanity, and what is man the better? For who knows what is good for man while he lives the few days of his vain life, which he passes like a shadow? For who can tell man what will be after him under the sun?

Remember also your Creator in the days of your youth, before the evil days come, and the years draw nigh, when you will say, "I have no pleasure in them"; before the sun and the light and the moon and the stars are darkened and the clouds return after the rain; in the day when the keepers of the house tremble, and the strong men are bent, and the grinders cease because they are few, and those that look through the windows are dimmed, and the doors on the street are shut; when the sound of the grinding is low, and one rises up at the voice of a bird, and all the daughters of song are brought low; they are afraid also of what is high, and terrors are in the way; the almond tree blossoms, the grasshopper drags itself along and desire fails; because man goes to his eternal home, and the mourners go about the streets; before the silver cord is snapped, or the golden bowl is broken, or the pitcher is broken at the fountain, or the wheel broken at the cistern, and the dust returns to the earth as it was, and the spirit returns to God who gave it. Vanity of vanities, says the Preacher; all is vanity. Besides being wise, the Preacher also taught the people knowledge, weighing and studying and arranging proverbs with great care. The Preacher sought to find pleasing words, and uprightly he wrote words of truth. The sayings of the wise are like goads, and like nails firmly fixed are the collected sayings which are given by one Shepherd. My son, beware of anything beyond these. Of making many books there is no end, and much study is a weariness of the flesh. The end of the matter; all has been heard. Fear God, and keep his commandments; for this is the whole duty of man. For God will bring every deed into judgment, with every secret thing, whether good or evil. (Ecclesiastes. Ch 1-2, 6 and 12 RSV.) Notice in this extended passage, the fruits of human labor and human thought are considered vanity. The only thing that matters, whether we poor mortals can understand it, is to follow the covenant.

Greece is no exception to this turmoil in thought. One place this can be found is in passage from Homer's *Iliad*. This turmoil is echoed in Achilles' speech to Odysseus where Odysseus attempts to lure Achilles back into the war.

Son of Laertes in the line of Zeus, Odysseus the strategist - I can see that I have no choice but to speak my mind and tell you exactly how things are going to be. Either that or sit through endless sessions of people whining at me. I hate like hell the man who says one thing and thinks another. So this is how I see it. I cannot imagine Agamemnon, or any other Greek, persuading me, not after the thanks I got for fighting this war, going up against the enemy day after day. It doesn't matter if you stay in camp or fight - in the end, everybody comes out the same. Coward and hero get the same reward: you die whether you slack off or work. And what do I have for all my suffering, constantly putting my life on the line? Like a bird who feeds her chicks whatever she finds, and goes without herself, that's what I've been like, lying awake through sleepless nights, in battle for days soaked in blood, fighting men for their wives. I've raided twelve cities with our ships and eleven on foot in the fertile Troad, looted them all, brought back heirlooms by the ton, and handed it all over to Atreus' son, who hung back in camp raking it in and distributing damn little. What the others did get they at least got to keep. They all have their prizes, everyone but me - I'm the only Greek from whom he took something back. He should be happy with the woman he has. Why do the Greeks have to fight the Trojans? Why did Agamemnon lead the army to Troy if not for the sake of fair-haired Helen? Do you have to be descended from Atreus to love your mate? Every decent, sane man loves his woman and cares for her, as I did, loved her from my heart. It doesn't matter that I won her with my spear. He took her right out of my hands, cheated me, and now he thinks he's going to win me back? He can forget it. I know how things stand. It's up to you, Odysseus and the other kings to find a way to keep the fire from the ships. He's been pretty busy without me, hasn't he, building a wall, digging a moat around it, pounding in stakes for a palisade. None of that stuff will hold Hector back. When I used to fight for the Greeks, Hector wouldn't come out farther from his wall than the oak tree by the Western Gate. He waited for me there once, and barely escaped. Now that I don't want to fight him anymore, I will sacrifice to Zeus and all gods tomorrow, load my ships, and launch them on the sea. Take a look if you want, if you give a damn, and you'll see my fleet on the Hellespont in the early light, my men rowing hard. With good weather from the sea god, I'll reach Phthia after a three-day sail. I left a lot behind when I hauled myself here, and I'll bring back more, gold and bronze, silken-waisted women, grey iron - everything except the prize of honor the warlord Agamemnon gave me and in his insulting arrogance took back. So report it publicly - get the Greeks angry, in case the shameless bastard still thinks he can steal us blind. He doesn't dare show his dogface here. Fine. I don't want to have anything to do with him either. He cheated me, wronged me. Never again. He's had it. He can go to hell in peace, the half-wit that Zeus had made him. His gifts? His gifts mean nothing to me. Not even if he offered me ten or twenty times his present gross worth and added to it all the trade Orchomenus does in a year, all the wealth laid up in Egyptian Thebes, the wealthiest city in all the world, where they drive two hundred teams of horses out through each of its hundred gates. Not even if Agamemnon gave me gifts as numberless as grains of sand or dust, would he persuade me or touch my heart - not until he's paid in full for all my grief. His daughter? I would not marry the daughter of Agamemnon son of Atreus if she were as lovely as golden Aphrodite or could weave like owl-eyes Athena. Let him choose some other Achaean more to his lordly taste. If the gods preserve me and I get

home safe Peleus will find me a wife himself. There are many Greek girls in Hellas and Phthia, daughters of chieftains who rule the cities. I can have my pick of any of them. I've always wanted to take a wife there, a woman to have and to hold, someone with whom I can enjoy all the goods old Peleus has won. Nothing is worth my life, not all the riches they say Troy held before the Greeks came, not all the wealth in Phoebus Apollo's marble shrine up in craggy Pytho. Cattle and flocks are there for the taking; you can always get tripods and chestnut horses. But a man's life cannot be won back once his breath has passed beyond his clenched teeth. My mother Thetis, a moving silver grace, tells me two fates sweep me on to my death. If I stay here and fight, I'll never return home, but my glory will be undying forever. If I return home to my dear fatherland my glory is lost but my life will be long, and death that ends all will not catch me soon. As for the rest of you, I would advise you too to sail back home, since there's no chance now of storming Ilion's height. Zeus has stretched his hand above her, making her people bold. What's left for you now is to go back to the council and announce my message. It's up to them to come up with another plan to save the ships and the army with them, since this one, based on appeasing my anger, won't work. Phoenix can spend the night there. Tomorrow he sails with me on our voyage home, if he wants to, that is. I won't force him to come. (Homer: *Iliad* 9.312 - 442. Trans. Stanley Lombardo.) What neither the Homeric account does nor what the Ancient Hebrew speculation does is try to reasonably tie together these threads into an overall account.

The best example we have comes from Hesiod, primarily in the work *Theogony*. Richard McKirahan in *Philosophy Before Socrates*, devotes an entire chapter on Hesiod. There he draws out some important continuities and discontinuities between the speculative religious thought and that of early philosophical speculation. I would like to focus on a few of his suggestions as a point of departure for examining the Milesians.

The *Theogony* of Hesiod is very likely one of the earliest works of Greek literature that we possess. Its author lived in Boeotia, on the Greek mainland, and can be plausibly dated to near the beginning of the seventh century. The *Theogony* is an attempt to construct a unified genealogy of the gods. It is far from being merely a reworking of traditional Greek stories. The chief deities of the Greeks have a prominent place; but the story which looms largest, the succession myth, in which Uranus is deposed by his son Cronus who is in turn succeeded by Zeus, is of near eastern origin. What is more, the well-known gods are surrounded by a host of others not often, or not at all, worshiped by Greeks, and in many cases 'invented' by Hesiod himself. These others correspond to features of the universe which Hesiod thought important: we find such diverse divinities as Earth, Night, Rivers, Sleep, Strife, Victory, and so on. Hesiod is not personifying or allegorizing; he believes in the existence of all his gods alike. What is important is that he is led to assert their existence, and to assign them a particular place in his genealogy, only partly on the strength of mere tradition. Notice one important aspect of Hesiod's work. It is not sufficient that the identification of a particular deity stems from the authority of tradition, but the existence of a particular deity is asserted because of considerations of what is reasonable. This is part of what I meant by religious speculation earlier on. Usually, the deficiencies of tradition are supplied or corrected by Hesiod from considerations of what is reasonable. Sleep, for example, is clearly an important god; it is reasonable that he should appear in the genealogy, and clearly reasonable that he should figure as the son of Night.

What Hesiod does in the *Theogony* is like pre-Socratic thought in many ways. He attempts to create a complex, unified and reasonable picture of the working and history of the universe. He employs a single basic mechanism (the beginning of the gods by gods) to achieve

this picture. He is by no means constrained by tradition, and he is open to non-Greek ideas. Yet between Hesiod and even the earliest philosophers there is a great gap created by a revolution in thought.

What I find the earliest philosophers taking from early religious speculation is the idea that there is a common unifying account to explain the order of things, and that there is a single mechanism accountable for the changes we visibly perceive. Dissatisfied with traditional explanations, and influenced by the principles of law found in other Ancient Near Eastern societies, these thinkers developed physical accounts to explain the order of things. Why was the notion of law important here? It is true that there was a form of law in archaic Greek society. There were rites and rituals and expectations placed on individuals because of their status in society. But the concept of impartial law is one that emerges or finds its genesis in Ancient Persia. The Persians were the first of these Ancient Near Eastern societies that tried reasonably to handle variations in culture of the subjected people along with the need for a centralized government. Written laws and law codes are not something new. These codes can be found in societies as ancient as the Babylonian and Ancient Hebrew. The real innovation that the Ancient Persians introduce is the idea of a determinate, impartial, and unchanging code of law overarching all of the peoples within the empire. None of the subordinate cultures could appeal to, as a part of the law, the customs and traditions that came into conflict with the imperial code. This had an immediate effect that the courts of law, conducted by appeals to general, impartial principles of law or reason, came into being. The idea of an abstract law, that a particular situation could be understood in terms of the application of this abstract law, and that it was in some way superior to other forms of arbitration, gave rise to the notion of a reasoned argument. That is the final link in the chain, so to speak, for the creation of philosophical speculation.

In what follows, I will attempt to reconstruct some of the thought of Milesian speculative thought. One element that is common to each of these three thinkers, Thales, Anaximander, and Anaximenes, is to try to take account of the evidence by appeals to a single, unified principle to account for the nature of things and the nature of apparent, visible change.

Something must be said of the theological views of these thinkers. The only reliable direct evidence is a passage of Aristotle's *Physics* (203b3-15). This suggests that the early natural philosophers, and Anaximander in particular, held that there was a single boundless, all-powerful and immortal divinity which encompassed and controlled the universe. It is clear that this kind of theology will have far reaching consequences for cosmology. The method of Hesiod's *Theogony*, in particular, will no longer be an accepted way of producing a coherent account of the structure and working of the universe. Since these are now dependent on the power of the unique supreme god, it is necessary to discover, if possible, the ways in which that power is exercised; to discover, therefore, the plan upon which god controls the universe. There is a parallel between this sort of speculative thinking and that found in ancient Hebrew thought. The *Book of Job*, the author thought that this sort of enterprise was hopeless. The mind of God was inscrutable and of infinite complexity, so that the order of the universe was inexplicable by man. The Milesians were of another mind. They supposed, equally with some support from observed facts, that the universe, being controlled by a supreme deity, must necessarily be a universe of order, of lawlike regularity, and of intellectually satisfying construction. The problem that most concerned the Milesians can be reduced to the question: what are the relations between the supreme power in the universe and the observable world order? The Milesians aimed to find an answer which would square both with the observed facts and with what they

held to be necessarily true about the supreme power. Let us now turn to each of these thinkers in order to observe similarities and differences between them.

Thales of Miletia, *fl.* 6th cent. BCE, is said to have been the first to introduce the study of nature to the Greeks. Thales is a shadowy figure, almost reaching legendary status. He wrote nothing, although some ancient sources attribute one text to his name. If he did write anything, this was long lost before the time of the great Classical thinkers. What we are left with are ancient stories about the practical wisdom of Thales. Most of what we know of Thales comes from the reports of Aristotle and Theophrastus. Aristotle, in *Metaphysics* 983b20-27, reports that Thales was the 'pioneer' of natural philosophy, that he was said to have held that water was the origin of all things, and that the earth was supported by water. The emergence of the whole universe from an original mass of water, and a cosmic scheme in which there are waters both below and above the earth are ideas which appear throughout the Ancient Near East. No doubt that Thales drew from these sources. But it is still necessary to explain why he took up these particular Near Eastern ideas, and what he used them for. Aristotle suggests that water is necessary for life, and the dependence of life upon water is starkly obvious to every inhabitant of the Mediterranean region. This would indicate that Thales was primarily concerned to account for the life of the universe, and in particular the motive power that created the *kosmos* and kept it going. Another suggestion is that water is the only element that can visibly be either a liquid, a solid, or a gas, which accounts for three of the four classical Greek elements. That even hot and dry things might be 'nourished' by water was suggested by the idea that the sun draws up water from the sea to 'feed itself'. This idea was certainly current in the fifth century. Moisture could create even dry and solid things was suggested not only by the facts of animal reproduction, but by the apparent turning of the sea to dry land at Miletus itself - a phenomenon due to the deposition of silt by the river Maeander. As to Thales particular theological views, we have one report that he thought 'all things are full of gods' and that he used a lodestone as proof of the divine power emanating from it to attract other pieces of iron. Although there are a number of other stories about Thales, none of them provide us with any further indication as to the content of his philosophical insight. The remainder mention his use of wisdom for economic and political purposes, and provide us with little indication of what that wisdom consisted in.

Anaximander of Miletia was the first philosopher who wrote down his system. Very little of this important book remains. In fact, there is only one single sentence of the original text that has survived. Nevertheless, it also should be noted that Charles Kahn, in *Anaximander and the Origin of Greek Cosmology*, wrote an entire book on the remaining evidence we possess. Any contemporary study of Anaximander must start with the fragment and address Kahn's commentary.

The foundation of Anaximander's system was the contract between the Unbounded and the world-system. The observed world-order is a bounded system of earth, sea, murky lower atmosphere, translucent sky, and the heavenly bodies together, probably with a hard outer shell to which the fixed stars may have been thought to be attached. This system behaves, in broad outline, with regularity, the principal changes repeating themselves in daily and yearly cycles. These observable cycles must have been the initial proof that there was a controlling law in the universe regulating these cycles. Beyond this world-order, and unlike it not bounded in space or time is the 'unbounded' or *apeiron* which is the supreme, regulating principle that controls the entire universe.

This concept of the 'unbounded' is so important that something more must be said of it.

The word *apeiron* is a negative adjective in the neuter formed from the noun *peiran* or *peras*. This noun has various applications in early Greek, most of which can be summed up by saying that the *peras* of 'x' is that which completes 'x' in some respect or marks the completion of 'x'. So, the *apeiron* is that which cannot be completed, without any necessary specialization to a spatial or a temporal sense.

The most obvious role of the unbounded in the world order is that it remains outside and keeps the world order in its place. Now for Anaximander the most important forces at work in the *kosmos* were what were later called opposites. Pairs of opposite entities of which the most frequently involved were the 'hot' and the 'cold', the 'wet' and the 'dry'. These were conceived of neither precisely as substances nor precisely as qualities, these distinctions being post-Socratic. What can be said is that the opposites were all forces, that is, agents of physical change, each present in varying degrees at different places. The relationship between the opposites and the unbounded can be best illustrated by Anaximander's own words.

Of those who declared that the first principle is one, moving and indefinite, Anaximander ... said that the indefinite (unbounded) was the first principle and element of things that are, and he was the first to introduce this name for the first principle. He says that the first principle is neither water, nor any other of the things called elements, but some other nature which is indefinite, out of which come to be all the heavens and the worlds in them. The things that are perish into the things out of which they come to be, according to the necessity, for they pay penalty and retribution to each other for their injustice in accordance with the ordering of time, as he says in rather poetical language. (Simplicius. *Commentary on Aristotle's Physics* 24.13-21)

This passage, although important in its own right, brings us back to the problem of how the indefinite or unbounded controls the events in each of the *kosmoi*, and thus the idea of the *kosmos* governed by law. It is clear that 'injustice' consists in the encroachment by one opposite on the other, and that the 'penalty' or 'requital' is the restitution of the unjust gains and a corresponding loss as well. There is an overall regulation of the fight; however it may go in small areas of space and time. The law is not guaranteed by some inherent equipollence of forces, but imposed externally, by the intervention of the unbounded.

What is interesting about this figure is some of the other testimonia we have concerning other elements of his thought. Anaximander is said to have argued that the earth's shape is curved, round, like a stone column. We walk on one of the surfaces and the other is set opposite. That the earth is at the center of the knowable universe, and that the sun and other stars circulate around it. What I find most interesting is the evolutionary account of the origin of living species reported in the testimonia.

Anaximander says that the first animals were produced in moisture enclosed in thorny barks. When their age increased they came out onto the dryer part, their bark broke off, and they lived a different mode of life for a short time. (Aetius 5.19.4 = 12A30)

He also declares that in the beginning humans were born from other kinds of animals, since other animals quickly manage on their own, and humans alone require lengthy nursing. For this reason, in the beginning they would not have been preserved if they had been like this. (pseudo-Plutarch, *Miscellanies*. 179.2 = 12A10)

Anaximander ... believed that there arose from heated water and earth either fish or

animals very like fish. In these humans grew and were kept inside as embryos up to puberty. Then finally they burst and men and women came forth already able to nourish themselves. (Censorinus. *On the Day of Birth*. 4.7 = 12A30)

These testimonia reflect a radical revision of the traditional explanation we find in either Ancient Near Eastern thought or even in Hesiod. Life is not the product of the divine agent. Life emerges from the elements, and this evolutionary notion, that one form of life comes from previous life, is novel. One problem with what we know of Anaximander's system is that he did not provide an account of the conditions of change.

The main innovation of the third Milesian, Anaximenes, was to declare that the contents of the world-systems that emerge from the unbounded deity are produced from it and are interconvertible with it and each other, by processes of condensation and rarefaction. In other words, some notion approximating to that of Aristotle's material cause is invoked or constructed.

This point deserves further explanation. If we are to be able to say that 'y' is the 'same thing' as 'x', what seems to be required is not merely that 'x' should change into 'y' in a fairly continuous fashion, but also that this change should be intelligible and lawlike, in other words that it should appear explicable in familiar terms, and should proceed according to definite laws which place restrictions on the ways in which 'x' may change and what it may change into. Further, the change should ideally be reversible, so that 'x' can be recreated from 'y'; and at any rate we must be able to reidentify in 'y' those properties of 'x' which we take to be the most essential characteristic of 'x'. All these features can be found in Anaximenes' theory. I am not suggested that he identified all of these features precisely, but the whole nexus of conditions will have emerged as natural in the circumstances in which he is writing. Anaximenes appeals to certain facts of experience, being guided by observation that the more closely anything is compressed, the harder and more solid it becomes. This suggests that we may be able to explain solid, liquid, and gaseous things by the varying degrees of compression of one basic material. The reverse, expansion or rarefaction, is used to explain the transformation of one element into one more expansive (i.e., gas from liquids). Heat is used to explain rarefaction, and cold, compression.

Anaximenes identifies the unbounded with the element of air, on the basis that all living things need air in order to live. This fact has an ancient connection with the idea that the living principles, the *psyche*, is the breath of life which leaves the body upon death. The identification of the living principle with the unbounded marks off suggestions of Anaximenes theological considerations. Unfortunately, none of those have been preserved.

Let us sum up this section of materials with the following observations. The earliest thinkers, from Ionia, posit one element: tangible or intangible, as the principle of explanation to account for the order of things and modifications of it to account for apparent, visible changes in things. By positing or arguing for a single principle, later philosophers identify them as Monists: that there is one (mono) thing that accounts for all. That this principle operates on lawlike regulative, cyclical patterns observable and understandable by human reason separates this form of speculation, and shares some of its concerns. What marks it off from the religious is the appeal to human, not divine, reason, and that human beings are able to understand the workings of the world. It is this radical break from traditional explanations that marks Greek philosophy off from all previous forms of speculation.

What we shall turn to, next, is the second origin of philosophy, the so-called Italian schools.