

PHIL 31: Ancient Philosophy
Fall 2005; David O. Brink
Handout #1: Presocratic Philosophy

PRESOCRATIC PHILOSOPHY

This label is a little misleading inasmuch as some of the so-called Presocratics (e.g. Democritus) were actually contemporaries of Socrates (470-399 BCE). However, the tradition includes a number of comparatively minor philosophical figures in ancient Greece who lived no later than Socrates and who were not significantly influenced by him. For the most part, Presocratic philosophy is concerned with **natural philosophy** – a mix of abstract speculative science with metaphysical and epistemological reflections on the nature of substance, change, identity through time, explanation, and knowledge. Though the Presocratics were interested in politics, they generally did not develop elaborate moral or political theories.

Our evidence about the writings and teachings of the Presocratics is fragmentary. Though they were a prolific group, not one of their works survives intact. Our evidence about their views comes from later commentators – philosophers and intellectual historians – such as Plato (427-347), Aristotle (384-322), Theophrastus (370-288), Plutarch (@50-120 CE), Clement (@150-? CE), and Simplicius (6th century CE). These includes both **doxographical reports** or **testimonia** – a commentator’s ascription of beliefs and arguments to various Presocratics – and **fragments** – passages that a commentator represents as a verbatim transcription of a Presocratic’s words (oral or written).

The Presocratic tradition is generally divided into three main groups.

- The **Ionians** (Ionia is an area that is now in Turkey): including Thales, Anaximander, Pythagoras, Xenophanes, and Heraclitus
- The **Eleatics** (Elea is an area that is now in Western Italy): including Parmenides, Melissus, and Zeno
- The **post-Eleatics** (a geographically scattered group): including Empedocles, Anaxagoras, Leucippus, and Democritus

HOMERIC BACKGROUND

Aristotle tells us that the natural philosophers sought to understand the world by observation and argument about first principles, rather than by telling stories about the gods (Metaphysics 1000a9-20). This makes it natural to contrast the natural philosophers with the cosmological and moral conceptions contained in Greek mythology, such as Homer’s Iliad. Here are some main themes in the Homeric tradition.

- The good person (agathos) is the Homeric hero -- a successful (male) warrior of aristocratic birth and upbringing who displays courage and power and is successful in battle.
- A Homeric hero depends upon external goods. (a) Though virtues of character are admirable, they are not necessary to be good (agathos). (b) externals (e.g. strength, social status, success, and social recognition) appear to be both necessary and sufficient to lead a valuable life.
- The Homeric hero is agent-centered. Though the agathos should protect dependents and supplicants, this is because it demonstrates his power, not because they have a legitimate claim on him.

- The Homeric conception is unstable: (a) being agathos depends upon vulnerable externals; (b) it is socially unstable, because it pits heroes against each other in divisive struggles over scarce externals.
- The Homeric world-view reflects an anthropomorphic polytheism. Natural events and human affairs are to be explained as the operation and interaction of various gods, who are themselves large-scale versions of the Homeric heroes.

By contrast, the natural philosophers argue for a more impersonal conception of cosmic order and a conception of moral order directed at a common good.

ARISTOTLE'S FOUR CAUSES (AITIA) (Physics ii 3, 8)

Aristotle thinks the naturalists agreed that matter is the basic principle (arche) of things and disagreed over what this basic matter is (Meta i 3-5).

1. Material Cause: the material of change
2. Efficient Cause: the force or agent of change
3. Formal Cause: the ordered state that the change produces
4. Final Cause: the goal or end towards which the change is directed

Consider the aitia of a house. The material cause would be the bricks, boards, glass, tiles, etc; the efficient cause would be the architect and construction crew; the formal cause would be the finished house, perhaps as described in a blueprint; the final cause would be that for the sake of which the house came to be, shelter, perhaps.

MILESANS

- **Thales** (@625-545) says water is the first principle (arche) of all things. He believes that the Earth is at rest, because it floats on water, and he believes that all things come from water. He ascribes souls to anything with an internal source of motion (including magnets).
- **Anaximander** (@610-540) recognizes the four basic elements -- earth, air, fire, and water -- but says that the arche is the unbounded (apeiron). He says that the Earth is at rest, because it is equidistant from everything else and so has no more reason to move one way than another. It may be an application of the Principle of Sufficient Reason that leads him to postulate the unbounded, because, otherwise, we may seem to face an infinite regress of causes.
- **Anaximenes** (younger contemporary of Anaximander) believed that air is the arche.

The Milesans are united by common themes. natural philosophy seeks to explain changing appearances.

1. **Change**: Change is real, and it should be the goal of natural philosophy to explain changing appearances.
2. **Underlying Order**: Change in how things appear to us always reflects some underlying order and regularity.
3. **Knowledge**: In explaining change, we must identify the underlying order, and this will give us knowledge.
4. **Justice**: Order in the universe is a kind of cosmic justice, and order in human affairs is a kind of social justice.

5. **Adequacy of the Senses:** Reason and inference are needed to supplement, rather than correct, the testimony of the senses.

HERACLITUS AND FLUX

Heraclitus (@500 BCE) accepts Milesian principles (1)-(4), but rejects (5). His revisionary natural philosophy appeals to the idea that the world is in a state of **flux**. The world is in continual flux (F 10, 30), and this undermines common beliefs about the world. Here are some claims about flux that are attributed to him.

1. The path up and down is one and the same [F60; cf. F60, F103].
2. The sea is the most pure and most polluted: for fish, drinkable and life-preserving; for men, undrinkable and death-dealing [F61; cf. F83/Plato, Hippias Major 289ab].
3. The River Passages.
 - a. On those who enter the same rivers, ever different waters flow ... [F12].
 - b. We step and do not step into the same rivers, we are and we are not [F49a].
 - c. For it is not possible to step twice into the same river, according to Heraclitus, nor to touch mortal substance twice in any condition: by the swiftness and speed of its change, it scatters and collects itself again ... [F91; cf. Plato, Cratylus 402a and Aristotle, Meta 1010a10-15].

It's not entirely clear how to understand the flux that interests Heraclitus. Is he concerned with change or opposition? Does flux involve

- (i) the **succession** of opposites, or
- (ii) the **compresence** of opposites?

The succession of opposites occurs when something changes from being F to being \neg F. The compresence of opposites occurs when something is both F and \neg F at the same time. Initially, succession-flux may seem much less puzzling than compresence-flux (but see below). Both kinds of flux admit of more and less radical interpretations.

- a) Something is always changing/opposed in some way.
- b) Everything is always changing/opposed in some way.
- c) Everything is always changing/opposed in all ways.

Let's start with the succession of opposites. This seems to be what's at stake in the River Passages (3a)-(3c). But (3c) seems to be a radical thesis that flux threatens the continued existence of ordinary objects, such as rivers. It will help to distinguish among different claims about identity/diversity.

- **Numeric** identity/diversity: Two things are numerically identical iff they are one and the same individual. For instance, the Morning Star and the Evening Star are numerically identical, but the two pennies in my pocket are numerically diverse.
- **Qualitative** identity/diversity: Two things are qualitatively identical iff they share all and only the same qualities. For instance, the two pennies in my pocket are qualitatively identical, but Socrates as a young man and Socrates as an old man are qualitatively diverse.
- **Compositional** identity/diversity. Two things are compositionally identical iff they are made up of the (numerically) same stuff. For instance, the river at any two points in time is compositionally diverse.

Heraclitus seems to infer numerical diversity over time from compositional diversity over time. This seems to be how he gets from (3a) to (3c). His reasoning might go like this.

1. The river at t1 = water-1.
2. The river at t2 = water-2.
3. Water-1 ...water-2.
4. Hence, river at t1 ...river at t2.

Is this argument sound? If "the river at ..." refers to a temporally extended object, then (1) and (2) are problematic. Here, we might have the Oh Yeah? reaction. If it refers to a temporal part of the river, (1) and (2) are plausible. But then (4) just asserts the non-identity of the temporal parts; it does not show that there are not persistent objects. Here, we might have the So What? Reaction.

Now consider the compresence of opposites. It seems to be compresence that is involved in Passages (1) and (2) (above). How is the compresence of opposites possible? Doesn't it violate the principle that x cannot be both F and \bar{F} at the same time and in the same respect? Compresence won't offend this principle if it involves relational properties (e.g. Helen is beautiful in comparison to mortals, but ugly in comparison with the gods). The cases Heraclitus cites seem to involve just such compresence of relational opposites.

1. The stretch of the Mississippi from Itasca to New Orleans is the path up if you're in New Orleans and is the path down if you're in Itasca.
2. Water is life-giving for fish and death-dealing for people.

These conclusions imply that, contrary to first impressions, it is Heraclitean claims about succession, rather than compresence, of opposites that are radical. How can there be unity amid constant flux? The process of flux itself is what is constant and explains why Heraclitus treats fire as basic.

PARMENIDES

Parmenides (born @540-515 BCE) shares Heraclitus's skepticism about the senses, but rejects Ionian assumptions about change and defends a mystical view that all is one and unchanging.

1. Cosmology and commonsense recognize and rely on change.
2. As Heraclitus notes, change requires us to speak of what is and what is not.
3. We cannot speak of what is not.
4. Hence, change is unreal.
5. Hence, cosmology and commonsense are misguided.

(3) is obviously crucial. Parmenides defends it in the Way of Truth.

What is there to be spoken of and thought must be; for it is there to be, while nothing is not there [F6].

Parmenides seems to reason as follows.

1. What can be spoken or thought of is not nothing.
2. What is not is nothing.
3. Hence, what is not cannot be spoken or thought of.

Touching nothing is not touching, remembering nothing is not remembering; so speaking or thinking of nothing is not speaking or thinking.

If natural philosophy rests on mistaken assumptions about the reality of change, why does Parmenides develop his own cosmological views in the Way of Opinion, where he recognizes two

basic forces, lightness and darkness? Perhaps he wants to show the smallest number of postulates needed to do natural philosophy (dualism is only one step beyond monism). Or, perhaps he thinks that natural philosophy is unavoidable illusion and that some illusions are better than others.

MELISSUS

Melissus (born in the early 5th century) is a disciple of Parmenides, who is clearer about the structure of arguments for monism. Aristotle summarizes one of these arguments in the Physics (191a24-33). Its structure is something like this.

1. All change consists in something coming-into-being.
2. For any time t at which Z exists, at $t-1$ Z either exists or does not exist.
3. If Z did exist at that prior time, then Z did not come-into-being at t .
4. If Z did not exist at that prior time, then Z must have come-to-be from nothing.
5. But nothing can come-to-be from nothing.
6. Hence, there is no change.

The argument assumes that we need to choose between coming-to-be out of nothing and already existing. But that assumption is questionable, Aristotle argues.

ZENO

Zeno was a contemporary and ally of Parmenides (we have no reliable dates for him), whose paradoxes were intended to defend Eleatic monism (cf. Plato, Parmenides 128b-c). Commonsense conceptions of change, motion, extension, and plurality lead to contradiction or some other kind of absurdity.

Dichotomy. Commonsense assumes that I can move a finite distance -- say, from point A to point B -- and that distance is divisible. But line AB can be bisected into AC and CB, and both of these lines can be bisected: for instance, AC can be bisected into AD and DC. And this process of division can be carried on forever. But this means that the finite distance contains an infinite number of distances, and an infinite number of distances must create an infinite distance. But then the original distance must be both finite and infinite, and this impossible. Therefore, extension is really impossible. Motion is also impossible, because it is not possible to cover an infinite distance in a finite period of time.

Achilles. The paradox of Achilles and the tortoise is supposed to show that it is really impossible for the fastest thing to catch the slowest thing in a race, which would undermine common beliefs about extension and/or motion. Give the tortoise a head start. To catch the tortoise, Achilles must first reach the point from which the tortoise set out. But if each is in constant motion, then the tortoise must always be one "step" ahead of Achilles. So, Achilles cannot catch the tortoise even if they both run forever.

DEMOCRITUS AND ATOMISM

According to atomism, all regularity and change are to be explained as the result of the interaction of a finite number of indivisible particles (atoms) in space (the void). Zeno's paradoxes may have convinced Democritus that finite bodies cannot be infinitely divisible. We can divide bodies into smaller components, but eventually we reach indivisible bodies -- atoms. Atoms vary only in shape and relative position. Democritus disagrees with Parmenides by recognizing a plurality of substances (atoms), nothingness (the void), and change. Change occurs because forces

of attraction and repulsion operate on the atoms. As they move about in the void, their shape determines how they interact with other atoms, for instance, whether they combine to form more or less stable compounds.

Democritus thinks atomism justifies skepticism about ordinary perceptual beliefs, for instance, about secondary qualities (e.g. color, taste, warmth).

By convention [nomos] sweet and by convention bitter, by convention hot and by convention cold, by convention color; in reality, atoms and the void [F125].

This skeptical claim rests on an argument from perceptual variation (Aristotle, Meta 1009b7-15).

1. The water appears hot to X and cold to Y.
2. Either the water is both hot and cold or it is neither.
3. The water cannot be both hot and cold; this would be contradictory.
4. Hence, the water is neither hot nor cold.

Is Democritus denying that the water has a temperature or that temperature is an intrinsic property of the water? Does the argument from perceptual variation threaten to undermine Democritus's own atomic theory? Are primary qualities subject to perceptual variation? Moreover, the atomic theory seems to rely on ordinary perception in its explanations of how atoms produce their effects (e.g. bitter tastes are caused by barbed atoms pricking our tongues).

Democritus is one of the few Presocratics to pay attention to ethical theory. He thinks that atomism supports hedonism -- the view that pleasure or contentment is the good. But he thinks the enlightened hedonist should pursue moderation and cooperative virtues

It is best for man to live his life with as much contentment and as little grief as possible; this will come about if he does not take his pleasures in mortal things [F189].

Democritus provides an atomistic explanation of this later.

For men gain contentment from moderation in joy and a measured life: deficiencies and excesses tend to change and to produce large movements in the soul, and souls which move across large intervals are neither stable nor content. Thus you must set your judgment on the possible and be satisfied with what you have, giving little thought to things that are envied and admired, and not dwelling on them in your mind ... [F191].

His defense of intellectual and spiritual pleasures seems to appeal to their comparative security and invulnerability. Unlike voluptuary pleasures, these pleasures do not depend upon vulnerable external goods. Virtues of character are more important to our happiness, because, unlike external goods, they are more stable and within our control. So hedonism, Democritus concludes, supports moderation.

If you are to be content you must not undertake many activities, whether as an individual or in concert with others, nor choose activities beyond your own power and nature; but you must be on your guard so that even when fortune strikes you and leads you to excess by your beliefs, you put it aside and do not attempt more than you can. For a modest cargo is safer than a great [F3].

Democritus seems to think that prominent among such virtues will be conventional virtues of non-maleficence and law-abidingness, both because the vices of harm to others and disobedience result from an excessive concern with externals (F191, 245), and because one's own contentment is most secure in an environment of mutual cooperation and restraint (F252).