

Remote Learning Module for 8 April 2020

Lecture Notes for Fernando Espinoza's *The Nature of Science*, Chapter 3

— Plato —

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Last time we met the figure of Socrates who, although he left us no writings of his own, so inspired the pen of Plato that it is no hyperbole to say that Socrates shaped the course of Western philosophy from his own day right down to our own.

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(1) Plato & Socrates.

Plato's given name wasn't actually "Plato." Born in 429 BCE, his parents, Ariston and Perictione, named him "Aristocles." The word, "*platon*," in Greek means, simply, "broad." The ancient writers about Plato tell differing stories about how Aristocles came to be known by the nickname, "Plato." Among these stories, we find one by Diogenes Laërtius, who tells us that in his youth, Plato's wrestling coach, Ariston of Argos, gave him the name "broad" as meaning, "of broad chest and shoulders". He was indeed an avid wrestler. Along with an early education in grammar and music, he practiced his wrestling in the gymnasium ("*gymnos*" in Greek means "naked" and the gymnasium was the place where men pit their skills against one another without the benefit of any more than their own bodily prowess, exemplified in running and wrestling).

Besides Plato, Ariston and Perictione had three more children—sons, Adeimantus and Glaucon, and their sister, Potone. Plato's family was among the elite in Athenian society, and so, intimately involved in the ups and downs of Athenian politics during the Peloponnesian wars. Before falling under the spell of Socrates, Plato was undoubtedly well acquainted with the *physikoi* Heraclitus and Parmenides, as well as their disciples, Cratylus and Zeno. Much of his mature philosophy owes its character to Pythagoras and Parmenides. After meeting Socrates, Plato became fascinated by the endless questioning after definitions that so drove the conversations which Socrates was incessantly pursuing in the *agora* of Athens. A good deal of the writings Plato left us are basically representations of these conversations; but they are also exercises in Plato's own elegant and powerful literary imagination, so that it is often quite difficult to determine whether he is reporting in his dialogues the purport of actual conversations he remembers from his days with Socrates, or he is using the voice of Socrates to speak for his own (Plato's) thinking. In either case, what we find throughout nearly all of Plato's dialogues is a concerted effort to answer one of Socrates' puzzling questions.

Socrates met his demise when Plato was 25 years old. The early dialogues probably date from shortly thereafter. Perhaps he began by hoping to make some sense of the tragic loss of his beloved teacher. Perhaps, outraged at the injustice of the Athenian assembly, he fashioned the early dialogues as indictments of this fellow citizens for their tyrannical condemnation of

philosophical thinking, which Socrates certainly represented. In any event, Plato would go on to advance increasingly speculative extensions of Socratic thinking in the later dialogues, and, in 387 BCE, to found a school, the *Academy*, on the outskirts of the city. Passing the leadership of this school to his nephew (Plato's sister's boy, Speusippus), much to the chagrin of Plato's most able student, Aristotle, the Academy would persist as an institution of education until the place was destroyed by the Roman dictator, Sulla, in 86 BCE.

Around the same time as his founding of the Academy, Plato became involved with political affairs in Syracuse. We have it from Diogenes Laërtius, that on his first visit there, when the city was ruled by the tyrant, Dionysius, Plato took on the tyrant's brother-in-law, Dion, as a student. Perhaps fearing the influence of Plato's democratic sensibilities on Dion, Dionysius turned against Plato. How he escaped death is uncertain, but instead he was sold into slavery, though eventually, Anniceris bought Plato's freedom for twenty *minas* and sent him homeward to Athens. Plato returned to Syracuse again after the death of Dionysius, having been requested by Dion to tutor the young Dionysius II. The arrangement did not go well. Suspicious of his uncle, Dionysius II exiled Dion, and imprisoned Plato, who managed to escape, returning to his Athenian home and his teaching in the Academy. It is uncertain whether he composed his enormously influential dialogue on politics, the *Republic*, before or after this second trip to Syracuse. Seneca tells us that Plato died at the age of 81 on the same calendar day as his birth; beyond this there are conflicting stories: perhaps he died at a wedding feast, perhaps in his sleep, or perhaps, awake in his bed as young Thracian girl played music to him on the flute.

(2) Dialogues.

Nearly all of Plato's philosophical works were written in the form of dramatic dialogues, each complete with a setting, a cast of characters, and a particular *logos* or topic of argument, usually in pursuit of a definition. Scholars typically divide the dialogues into three categories: Early, Middle, and Late, with the *Republic* appearing at the apex. The early dialogues include Plato's account of Socrates' apology before the Athenian assembly; the *Crito* tells the story of Crito's efforts to persuade Socrates to escape execution, and the *Euthyphro* presents Socrates on the morning before his trial, discoursing about the relation between the gods and human goodness (clearly a reflection on the proper definitions of piety and impiety). We also find among these works, the *Protagoras* and the *Gorgias*, where we find Socrates doing intellectual battle with the likes of these two Sophists (whom we met last week). The middle dialogues include the *Timaeus* (which survived into the Christian West during the Middle Ages, and which presents a creation story), the *Phaedo* (which tells the story of the death of Socrates), and the *Republic*. The later dialogues include the *Theaetetus* (which questions the nature of knowledge, especially as regards the Pythagorean problem of incommensurable magnitudes), the *Sophist* and the *Parmenides* (largely concerned with questions of metaphysics, asking about how the world is structured), and the *Cratylus* (which is focused on the relation between names and things). The dialogues typically end unresolved, in an *aporia* (or apparent dead-end). Whether intentional or not, this sort of conclusion leaves readers to carry on the questioning, as perhaps, was always the fundamental teaching of Socrates.

(3) The Theory of Forms.

Probably the most influential of Plato's dialogues was the *Republic*, where we encounter Socrates in dialogue with several Sophists as well as the figures of Adeimantus and Glaucon (often presumed to be Plato's brothers, perhaps serving as stand-ins for the author, Plato, himself). The entire work is divided into ten chapters (called "books"; in reproduction, they were probably bound separately). Book I introduces the question, "What is Justice?" Various efforts at supplying a definition are provided, but they are all founding wanting. Instead of continuing until a satisfactory definition is achieved, the assembly shifts their questioning to asking for images: What would the Ideal State look like? In other words, they begin crafting imaginary examples of how justice might be practiced under one form of government vs. another. Notice that in doing so, they abandon the *ti estin* question ("What *is* justice?"), exchanging it for an image of what justice might *look like*. Books II through IX follow this exercise in imagination. In Book X, however, Socrates reminds them that they still have not discovered the proper definition of justice, and in an ironic gesture of despair, declares that he must retreat to becoming an *idiotes*—a *private* person. The irony, of course, lies with the implication that public matters (the concerns of politics), are, by definition, not *private*. This leaves us with an *aporia*.

In the course of the middle books, we encounter the Theory of Forms, which stamps a school of thought (Platonism) that survives to this day, especially in the foundations of mathematics. Plato presents his theory in two distinct ways: once through a story, an image, we've come to call "The Allegory of the Cave"; and a second time, abstractly, through an analysis we've come to call "The Divided Line."

[i] The Allegory of the Cave. Socrates asks his interlocutors to consider a myth about a group of people who've been enslaved by an upper-class of rulers, bound and seated before the back wall of a cave on which all manner of shadows are cast. The prisoners can see only these shadows, and so come to believe that these are the only real things. The shadows are produced by placing the light of a great fire behind a range of artifacts (human inventions). Eventually, one of the prisoners is able to loosen his bonds, and recognizes that the artifacts are three-dimensional objects (not two-dimensional shadows).

After escaping into the upper-world, this intrepid adventurer realizes that the artifacts back in the cave were fashioned by the rulers from natural resources (plants, trees, minerals, even animals). At first, he is blinded by the light of the sun, having lived his whole life in the darkness of the cave, hands bound, and believing the whole of reality is two-dimensional. Soon, though, he is able to contemplate the pure light of the sun. Thereupon, he determines to return to the cave in order to free his fellow slaves from the oppression of the rulers. Instead of receiving his news of the external world with joy, curiosity, and excitement, the prisoners complain that they much prefer their complacent lives, enjoying the play of shadows the rulers have provided them. They turn on the freeman, and bludgeon him to death. If you can see in this fate an image of the trial and death of Socrates, you will not be alone. Here is a nice cartoon image of the Allegory (were we in class, I'd have drawn, quite badly, no doubt, a facsimile such as this on the white board).



[ii] The Divided Line. The allegory illustrates Plato's theory of Forms. On this theory, the world, *and* our knowledge of it, can be divided into two realms (like the cave and the outer-world in the allegory): the Realm of the Senses, on the one hand, and the Realm of the Intellect, on the other hand. The two realms are sharply divided, and the line that divides them can be understood, Socrates tells his listeners, in the way a vertical line might be bisected by a horizontal line. The designation, "divided line," derives from this introduction to the theory; the vertical line represents the ascent of the mind as our thinking proceeds from an acquaintance with individual things to an understanding of general things (the forms, or *eide*, in Greek). Think (as Plato almost certainly had in mind that you should) of how you came to generalize your early experience with various geometrical shapes having but three sides into a definition of triangularity (plane figure formed by the intersection of three non-parallel straight lines). Triangularity, on Plato's view is a general *thing*; so is Humanity—something real, but not any of its instances, and more than a collection of its instances; something that can never be sensed (consider that every triangle you can sense must be either scalene, isosceles, or equilateral, so whichever token you sense or imagine sensing, will never be just plain triangularity); real triangularity can only be understood by the intellect.

The Divided Line, moreover, offers a kind of double proportional relationship, having four elements all together, each a reflection of one of the stages in the Allegory of the Cave. The realm of the senses is divided into two sections: (a) mere opinion (the shadows), and (b) conviction in belief (the artifacts). Think of opinions as shadows of beliefs. The realm of the intellect is also divided into two sections: (c) understanding (the outer-world), and (d) insight (the light of the sun). Think of understanding as the shadow of insight. So, the entire realm of the intellect has its shadow in the realm of the senses, so we have a double proportion.

As we grow in understanding, we pass from the realm of the senses—our acquaintance with individual things—to the realm of the intellect, where we become acquainted by insight and understanding with the forms, the general things of which each particular thing is an instance. In

other words, we pass from a knowledge of tokens to a knowledge of types. It is only in the realm of the intellect that we can assemble proper definitions of things like justice or triangularity, which is why it is, of course, that all the efforts of the Sophists in the *Republic* to offer pictures, or images, of what the ideal state would look like must fail: each of these is only an individual, a particular, political condition. More importantly, without a proper definition of justice, it's impossible to tell which condition is really and actually the best, or even better than another.

We can assemble all this into a graph as follows.

Epistemology (Account of how we know something)	Ontology (Account of what it is we know)	Items in the Allegory of the Cave	Another Example
Insight (<i>Noesis</i>)	Forms (<i>eide</i>)	The Sun	Beauty in itself, The Beautiful
Understanding (<i>Dianoia</i>)	Concepts (<i>idea</i>)	Natural Things	The concept of Beauty
Conviction (<i>Dogma</i>)	Particular Things (<i>ontos</i>)	Artifacts	Particular People
Mere belief (<i>Doxa</i>)	Images (<i>eikon</i>)	Shadows	Paintings

(4) Principal Doctrines.

Among the notions subsequent thinkers throughout the history of philosophy have taken for Plato's essential teachings, four are particularly noteworthy, in large part because they were each contested by Plato's own student, Aristotle. In brief, these doctrines were:

- (i) Moral evil is a form of ignorance of what is truly good.
- (ii) There are two kinds of judgement: from sensation (acquaintance with tokens), and from intellection (familiarity with types).
- (iii) The Forms (*eide*) are the *originals* of which individuals are *copies*. You might think here of the forms as like cookie-cutters, and particulars as cookies. Or you might think of the Human Genome as a form, and each of us as one of its instances. Another good example is a melody, which is independent of the both the key and the tempo in which it must be sung or played when experienced by the senses.

(iv) The human soul is like a pilot (*kibernetes*, in Greek); it is separable from the body because the individual soul is first and foremost a mind (*nous*), capable of intellectual knowledge, and therefore immortal.

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Next time, we'll turn our attention to Plato's illustrious student and fellow philosopher, Aristotle, whose highly systematic methods of both scientific investigation and philosophical speculation stand in sharp contrast with the dialogic methods of Plato. The ancient Greeks were not unfamiliar with plagues and pestilence, and while their understanding of the causes of diseases like Covid-19 was by no means as precise, accurate, consistent, or useful as our own, their courage, fortitude, resilience, and benevolence in the face of the many uncertainties such diseases bring to our social lives may be an inspiration to us even today, as I wish you and yours good health, safe-social-distancing, and bright hopes for a future when we can again meet in places like JUB 202.