

Introduction to Aristotle:

There are three giants of ancient philosophy: Socrates, Plato's Socrates—surely one of the most captivating (and annoying) figures in all of literature; his admirer and student, Plato, converted to philosophy by his mentor—and the third giant, Aristotle—384-322 BC—the son of a physician, a student in Plato's Academy for 20 years, and the founder of a second great philosophical school, the Lyceum. Three close philosophical generations: three radically diverse approaches. Socrates, the conversationalist—wrote nothing, depicted by his student as specializing in encountering his fellow-citizens in the streets and embarrassing them by pointed questions. Plato, a dramatist-turned-chronicler used the paradoxical figure of his mentor to spin mysteries with metaphors, gradually, through the course of his writing, turning from dialectic to metaphysics and even more abstract puzzles.

In Aristotle we encounter yet a different kind of mind. This man, the son of a physician, is more of a scientist than a poet. He was an inexhaustible natural scientist; legend has it that he ordered his most famous pupil, Alexander, to send him specimens of the flora and fauna he passed in his conquest of the ancient world. I'm not sure how fair it is to deny poetry to him; I say that, based only on the evidence that we have: Both men are supposed to have written dialogues AND doctrines; but in one of the paradoxes of history, the treatises of the one and the dialogues of the other have been lost. Because of what Aristotle reports of the doctrines of his teacher, we assume that in the Academy Plato lectured on some of the issues that he raised in his dialogues, so there might well have been lecture-notes, the equivalent of the books of the physics, or metaphysics, or categories, of his pupil Aristotle. And there is evidence that Aristotle wrote dialogues. But even without that accident of transmission, you will find it hard to avoid the thought that these two great figures had a very different approach to questions of what the world is like, and how we know it.

We won't have time to appreciate the incredible range of things to which Aristotle turned his meticulous demanding attention, although a glance at the index of the recently-published two volumes of the complete works will give you a good idea¹. We know that his interests extended above this world to meteorology and astronomy. My own first interest is to get you used to reading Aristotle—to overcome some of the obstacles created by his technical vocabulary, and get you as hooked as possible on the way that amazing mind works. The reading assignments are typically short. But they are very slow going. And: the effect is cumulative. As we work through the texts, you will find him easier to read; but you will also be in a better position to understand him because of the hard work at the beginning of the section.

¹ Categories; de interpretatione; prior analytics; posterior analytics; topics; sophistical refutations; physics (10 books); on the heavens; on generation and decay; meteorology; on the soul; on the senses; on memory; on sleep; on dreams; on divination in sleep; history of animals; parts of animals; movement of animals; progression of animals; on colors; on things heard; on plants; mechanics; metaphysics (12 books); Nichomachean ethics (and two other books on ethics); politics, rhetoric; poetics—2000 pages in the two volumes of the Barnes collection.

I've been doing a pedagogical trick in the last few lectures. I've been inserting into my lectures on Plato what is in effect Aristotelian language. I've done that for several reasons.

- (1) Looking ahead, and knowing what a culture shock it was going to be, I wanted to prepare you for thinking in Aristotle's terms.
- (2) But also: looking at Plato, I wanted to try to persuade you that he was not just a crazy world-hating fantast—hypostatizing form like some anthropomorphiser with perverse tastes—but was a serious guy, and a pretty smart one, who was not only wrestling with world-class problems, but was, bless his heart, inventing them as he went along. If we have to talk about them in Aristotelian terms, that's not Plato's vice—that's Aristotle's virtue.
- (3) That will be a bit of a pedagogical problem to see the ways in which they are similar, until you've read enough Aristotle to get into HIS head, his language. I have been known to say that Plato and Aristotle were doing about the same thing, with about the same degree of sophistication, and many of the same interests. But in different language.

But that, to some extent, doesn't do Aristotle justice. So it may be my task for a few minutes to (as Anaximander recommends) “pay reparations, according to the justice of time...” –to give Aristotle his independent due.

We live in an Aristotelian world. If we had never got to this point in the course—if like the Pied Piper of Hamlyn I had tossed over all sense of responsibility and piped you in a merry dance through all the other dialogues that I love—you would still—not only in your philosophy classes, but in your other academic courses; in your everyday understanding of the world we live in—in your ‘natural’ way of dividing things up—you would still live in an Aristotelian world, and talk Aristotle's language. It has become our common sense understanding of the world.

Now that doesn't mean that he will be easy to read, as I'm sure you've already found. He's a technician; he invents terms of art, and figuring out what some of them are, what they mean, will occupy the greater part of this week. But let me assure you that if you can get past the terminology, you *will* understand what he means. You know it already.

Aristotle lives in our world. It is the most real, it is worthy of study, it is the source of possible knowledge. Language is about it, and adequate to it. This world divides pretty much at its joints (although when you were schlogging through the Categories you may not have thought so).

He not only had different priorities than Plato, he had a different kind of mind. Isaiah Berlin wrote a very famous essay based on a greek aphorism:

The title of Isaiah Berlin's essay, *The Fox and the Hedgehog*, is a reference to a fragment attributed to the ancient Greek poet Archilochus: πὸλλὰ οἶδ' ἀλώπηξ, ἄλλ' ἐχῖνος ἓν μέγα ("The fox knows many things, but the hedgehog knows one big thing."

Berlin expands upon this idea to divide writers and thinkers into two categories: *hedgehogs*, who view the world through the lens of a single defining idea (examples given include

Dante, **Plato**, Lucretius, Pascal, Hegel, Dostoevsky, Nietzsche, Ibsen, and Proust) and *foxes* who draw on a wide variety of experiences and for whom the world cannot be boiled down to a single idea (examples given include Shakespeare, Herodotus, **Aristotle**, Montaigne, Erasmus, Molière, Goethe, Pushkin, Balzac, and Joyce).

One way of understanding the distinction: “There are two different ways of approaching or knowing reality—put quite simplistically, the way of the far-ranging generalist and the way of the concentrated specialist.” I think of them as the analyst vs. the synthesist, myself.

Plato and Aristotle have the same goal—universal knowledge, understanding everything. Plato wants to do it by getting one explanation for the variety of phenomena. Aristotle wants to do it by putting the pieces together—starting with the basics, with the phenomena and the experiential—and finding in them the explanatory elements that would explain the whole. Both can and do suffer from the need to understand, explain, everything—but one builds it down from the vision, the other, up from the pieces, one piece at a time.

Aristotle’s metaphysics

I hope by the end of the next few weeks to have provided you with some understanding of Aristotle’s basic tools of analysis. We will talk about substance (ousia, Being and ways of being) in the *Categories* and *Metaphysics Zeta*. We will talk about how substances are put together, what they consist in, in terms of his vocabulary of form and matter—and notice the difference between artifacts and ‘natural’ things—substances both, but subject to rather different analyses.

Aristotle took very seriously a question that has occupied us since the Pre-Socratics: how do you account for change? As you will see from the *Categories*, A has a rich and complex notion of change: substantial change, and change in the categories as well. In accounting for change, we need to add to the analytic tools potentiality and actuality, as well as his “4 causes.” An important question for understanding Aristotle is an appreciation of his appreciation of human agency. We talked about the soul as a subject for questions of pre-existence or immortality for Plato; but whatever the soul is, in Aristotle it is as agent in the world that we focus on it.

We’ll talk about the *Categories* and *Metaphysics Zeta*, in that order.

Vocabulary:

Substance:

- (1) In the primary sense—neither predicated of nor present in anything else
- (2) Subject of predication
- (3) Subject with properties (in all other categories)
- (4) Composite of form and matter
- (5) In the secondary sense—universals, the description of the essence of (1)

Matter:

- (1) That out of which anything that comes-to-be comes to be
- (2) The capacity of anything which has come-to-be to cease to be (1032a21)
- (3) The source of existence and individuation

Form:

- (1) That by which anything that comes-to-be comes to be
- (2) What it IS that it has come to be (its kind, genus/species, definable nature)
- (3) The essence of each thing and its primary substance (1032b1)
 “I call the essence ‘substance without matter.’” (1032b14)

Change:

- (1) Actualization of a potential
- (2) Alteration with respect to state of being (=generation & destruction)
- (3) Substantial change: some artifacts change the kind of thing they are
- (4) Change of property: changes in quality, quantity, attributes
- (5) Motion: change of location, change of position/organization/relation

In our introduction to Aristotle’s metaphysics, the *Categories*, Aristotle is interested in two things: What there is in the world, and how we can get knowledge about it, best understand it—in short, TALK about it. This is a good place to start, because here the distinction between subjects and predicates, on the one hand, and substances and properties, on the other, can (with great difficulty) be seen..

He talks about different ways we can predicate: (1) we can *classify* things, define them; and we can also (2) *describe* things, pick out their characteristics, their properties.

Diagram: Professor Hood of SF state who has written a book on A’s category of relation, defends the following useful diagram of the distinctions in Chapter 2 of the *Categories*. She points out that Aristotle is here talking about predicates as well as things, and suggests the following relation of the 4 items discussed in Chapter 2:

A: (said of but not in) Universals, subject-terms	C: (both in a subject and can be said of subjects—but ‘subject’ is heteronymous)
D: (neither said of nor in subjects) Individuals—man, horse	B: (in subjects but not said of them) properties of individual substances

I am not sure I can explicate every sentence in that chapter to support this claim about it, but it does seem to me to get at something very fundamental about Aristotle’s metaphysics: that he wants to attribute ontological primacy to things below the line that I have drawn, that it is those most-real things which he wishes to explain, in as many ways as he can (and he has very ambitious notions of what counts as explanation, too).

This book seems initially to be very much about words, an epistemological or logical exploration. But the subjects of our section D, which have a kind of independence, of autonomy, of privacy, of irreducibility—those things are not only logical subjects of predication, an airy, ontologically neutral grammatical category—no, they are **substances**, substantial—the kind of thing that you can stub your toe on, the kind of thing that can fall on you or punch you out. They are

not just grammatical categories—they are things in the world, fiercely independent, that without which we would never have occasion to utter predicates. That without which any classification scheme would be empty, inapplicable, purely notional.

When you call something a substance in Aristotle's world, you are giving it an honorific label, the equivalent of the use of 'real' we fell into when we were reading Plato. Substance = ousia = Being—that which is in the highest or best or realest sense.

Now this puts Aristotle in a bit of a bind. He values **this world**—it is the things in this world, in all their rich variety, that he wants to know everything about, understand, comprehend, figure out how they work and how they work together. But let's face it: you don't do that by stubbing your toe on them, or letting them punch you out. You do that by all that stuff up above my line's division: words, concepts, classifications, sentences which predicate; true sentences, which express the ways in which things are; ways of dividing things up and putting them back together again, not with knives, but with thought.

So he reaches a compromise, in this book: between primary and secondary substance. The things are most real; but the classifications, like genus and species, (remember—he's a biologist) that reveal to us what **kinds** of things all these things are—those are substances in a secondary, or derivative sense. We'll see what role things in that category play in our understanding of things in *Metaphysics Zeta*. And the famous 'categories,' after which the book is named, are different ways of talking about the primary substances, the various ways in which they are individuated, and ways in which they are active in the world.

II: Reading the *Categories*: see the website for my reading notes on the text.

III: *Metaphysics Zeta* : see the website for my reading notes on the text.

When we move to the *Metaphysics*, we can't kid ourselves any longer that it is only grammar that interests Aristotle. He makes a start here in trying to figure out what these best-subjects, these most-interesting subjects, the substances, are all about. And in a typically annoying first paragraph of this reading, *nature* is everywhere: heteronymously, synonymously, paronymously, ambiguously, universally and specifically, as a description and as an ingredient. We want to figure out the 'nature' of the substances, the primary substances. And they aren't just sitting there and being predicated about, either. The subjects of this reading are producers. They are thinkers, actors, doers. They heal. They draft blueprints. They work metal. They are agents in the world.

The primary division in this book is not between words and things: it is between two kinds of things: 'natural' things—living things, things that have their source of motion/action/production within themselves—and artifacts: things that are made by, done by, come to be through, an agency outside of themselves. (If I wanted to confuse you, I would call the first substances in the primary sense and the second substances only in a secondary sense, but that seems both cruel and unnecessary.)

The tools here, the analytic scalpels with which he is going to approach these subjects of both kinds—are *form* and *matter*. It is true of both kinds of things—the artifacts and the organisms—that they come, as he puts it, ‘by the agency of something, out of something, and come to BE something.’”

[By the way: I have already ignored a third category, those things, as he says in the first sentence, which ‘come to be spontaneously.’ That is not an oversight—it is a recommendation. *Do not think about things that arise spontaneously!* You have enough to worry about with things that arise by nature or through the intervention of something else.]

I will invert Aristotle’s own priorities, and talk first about artifacts. I think what he is going on about is initially clearest in that kind of thing, although it gets more complicated later.

(1) What is the MATTER of an artifact?

Well, let’s do the easy first. The matter of an artifact—that OUT of which it anything which comes-to-be becomes—is whatever it’s made of. Pick a thing in the world—ANY thing in the world which is not born, which is not alive, but is made: a car. A scarf. A vase. A ship. The NUMI factory over in Oakland takes steel and rubber and heaven knows what else and makes it into—forms it into—a Toyota. Auntie Leslie takes yarn and needles and sits in boring philosophy lectures and knits a scarf.

(2) What’s the FORM of an artifact?

The form of it, for a first iteration, is the shape the steel is formed into, the pattern according to which the yarn is woven, the glass adopts the shape of the mold it’s poured into: everyone knows what the form of things made is: after all, we make them to have a certain form, so they DO. If you are looking at a thing in the world, that thing has, is, of a certain form, organization, structure. (Think of ‘form’ as the closest Aristotle comes to one of his teacher’s great metaphors: he exploits the visuality of the term. Everybody knows what the form/shape of a triangle is!)

The form, for a second iteration, is what the artificer, the producer, the agent, imposes upon some particular piece, unit, of material. There’s a sense in which this second iteration is truer to the situation, since the vase is a product of a process. So in the process of production which results in an artifact, there is a transfer of—something—from an agent to a patient/recipient. That form – call it the artists’ intention--can be perfectly realized in the product, or imperfectly. (Could we say that if we weren’t in some sense comparing it to something else? But what? Will the real form please stand up?) This may be what A has in mind when he speaks of ‘the type according to which things are produced’ (1032a22).

The form, for a third iteration, is what the object IS. Well made or badly, it IS a vase. That’s a car. That’s how we name it, how we think of it, how we intended it. And when I call it a car, or a vase, I’m not just talking about a part of it, or just its shape. It is what it is, and not another thing—and its form is its essence.

What about natural things?

The paradigmatic natural thing for Aristotle is an organism (and probably, the best organism most of all—a living, moving, creating human being). By organism he intends something that is alive—for instance, he says at 1032a4, a plant or an animal.

The **matter** of an animal is its stuff, its body—the flesh out of which it is made. It is conceived in the body of its mother, and is nourished from her body; once born it nourishes itself by what it eats (and it is interesting to note, if you think about animals for a second, that whatever lives stays alive by eating something else that is alive).

That it exists at all as this horse, this man—is due to its particular matter, its particular embodiment or instantiation in matter. Its matter is its capacity for being or not-being (1032a20): it is by virtue of my matter that I exist. It is this individual particular, this identifiable horse or man, because of the body it has, which is one thing Aristotle means by its matter. Matter both explains the existence of, and individuates.

The **form** of an animal is the pattern, organization, structure of that body. Horses are put together differently than men (although because they are both animals, there are similarities as well). Its form in the second iteration is the determination of what kind of thing it will be, horse or man—and that comes from its male progenitor, just as its matter comes from its female progenitor. The male progenitor is as much the external agent as the artisan of the brazen sphere; but because the kind of thing we are talking about is a living, self-moving thing, the progenitor can create (with a lot of help from his *hyle*, the woman) a thing that is itself an organism, a living thing. In the third iteration, the form of the begotten creature, is the kind of thing it is. A horse begets a horse. A man begets a man. Human being is what it is—a specific combination of form and matter. It is form in this sense that connects, I think, with what we talk about in the upper left hand corner of Professor Hood's 'ontological square:' the genus of an organism, its species, its differentia. Its form, its essence –its substance without matter—is the basis for science about it.

I'm not even going to start on form and matter in respect to the doctor making the man healthy. We have quite enough to worry about without that—and it will become clearer, I hope, when we move to the readings in the *de Anima*.

Things to keep in mind: 'form' and 'matter' are analytic tools—not substantial things in their own right. Primary substances are substantial. They can be understood by reference to the 'form-of-the-thing' and 'the-matter-of-the-thing,' but the form and the matter aren't 'parts' of the thing. [This is important for folks who finally understood what Plato meant by 'soul;' when Aristotle says 'the soul is the form of the body,' he does not mean what Plato meant by soul! It is not a separable, semi-substantial, pre-existing and immortal thing in its own right!]