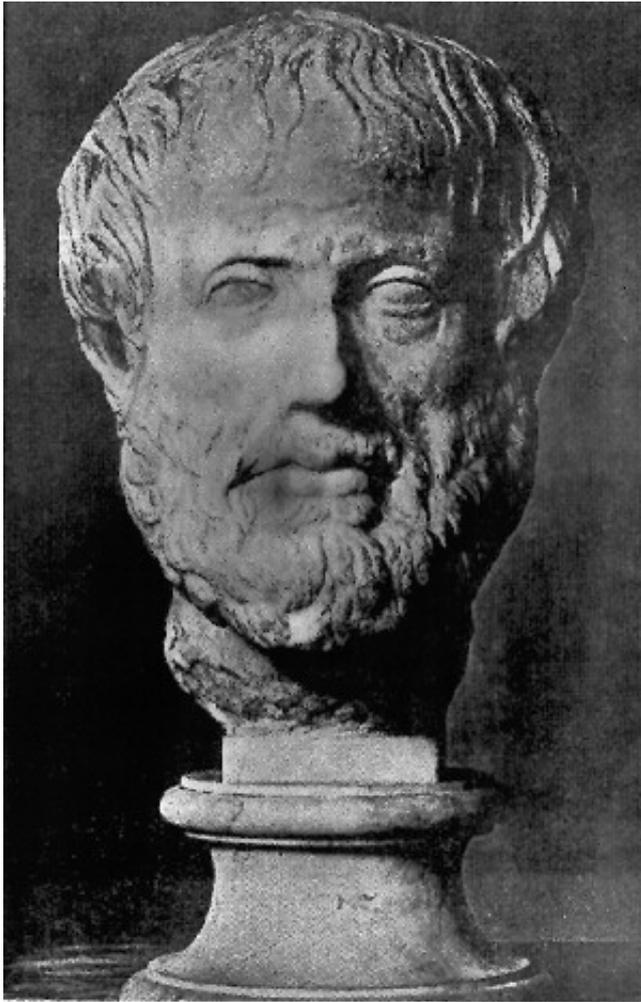


# *Categories and On Interpretation*

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# Aristotle



- Born 384 BC
- From Stagira, ancient Macedonia
- Student and lecturer in Plato's Academy
- Teacher of Alexander the Great
- Founder of the Lyceum
- Died 322 BC

# The Corpus

- Aristotle wrote a number of philosophical works in many areas
- Some of his books are lost
- His works broadly in the area of logic are called the *Organon* (including *Categories*)
- Later works deal with metaphysics, ethics, politics, poetics, physics, astronomy, biology, psychology, and other fields

# Aristotle and Plato

- Aristotle agreed with Plato that forms are the essence of things
- But Aristotle held that the forms are to be found in perceptible objects and not in a separate realm of reality
- So his investigations were confined to the perceptible universe, except regarding what is divine

# Classification

- The *Categories* is primarily concerned with the way we classify things
- We classify things as being of a kind by virtue of what they have in common
- If only the name is in common, two things are *homonymous* (“animal”: man, painting of animal)
- If in addition to the name the account of the essence of two things is common, they are *synonymous* (“animal”: man, ox)
- If their names differ only in inflection, they are *paronymous* (grammar, grammarian)

# Things Said

- Some things are said with combination (man runs, man wins)
- Some things are said without combination (man, ox, runs, wins)
- Classification always involves combination

# Said Of

- What is said of a subject is more general than that of which it is said.
  - Socrates is an animal
  - Socrates is pale
  - Man is an animal
  - White is a color
- In general, what is said of one subject can be said of other subjects

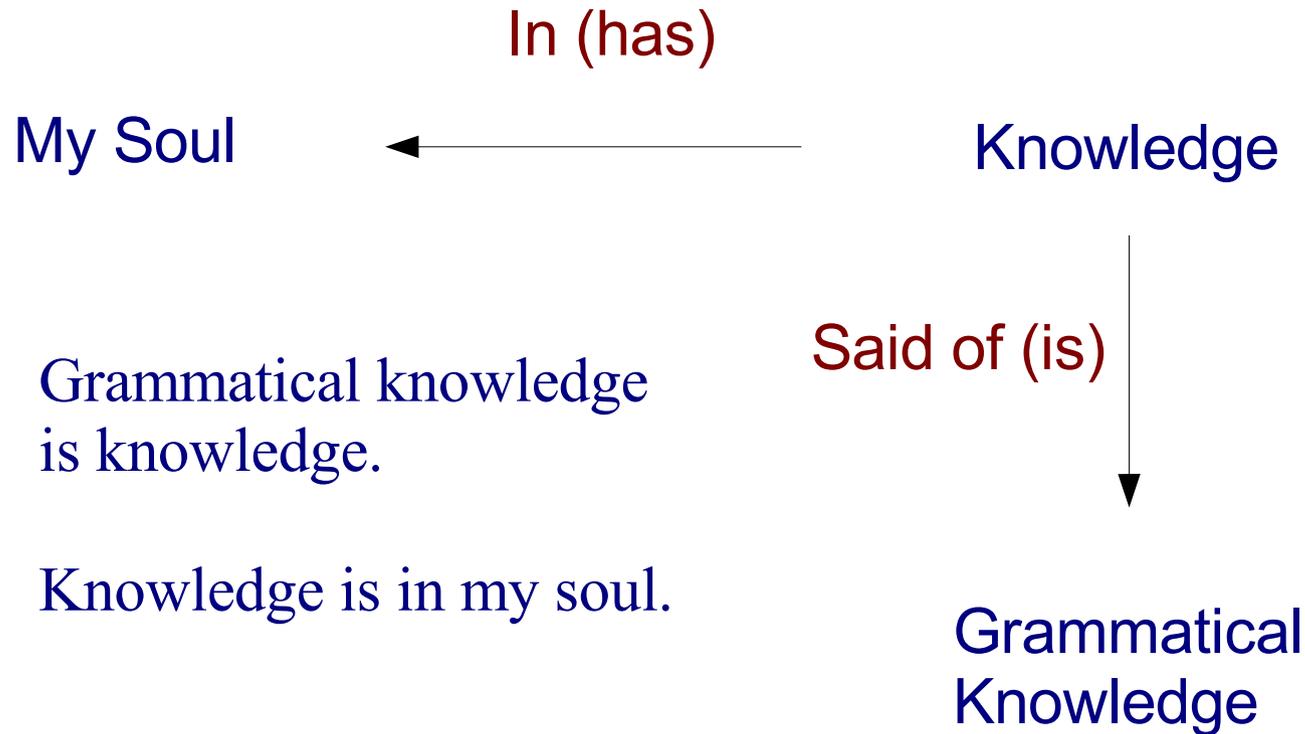
# In a Subject

- What is in a subject
  - Belongs in it
  - Is not a part of the subject
  - Cannot exist separately from what it is in
- Examples
  - My knowledge of grammar is in my soul
  - Knowledge is in my soul
  - My white color is in my body
  - Color is in my body

# Permutations

- Some things said of a subject are not in a subject (man is said of me but not in me)
- Some things in a subject are not said of a subject (my white color is in me but not said of me)
- Some things are both in a subject and said of a subject (knowledge is said of grammatical knowledge and in my soul)

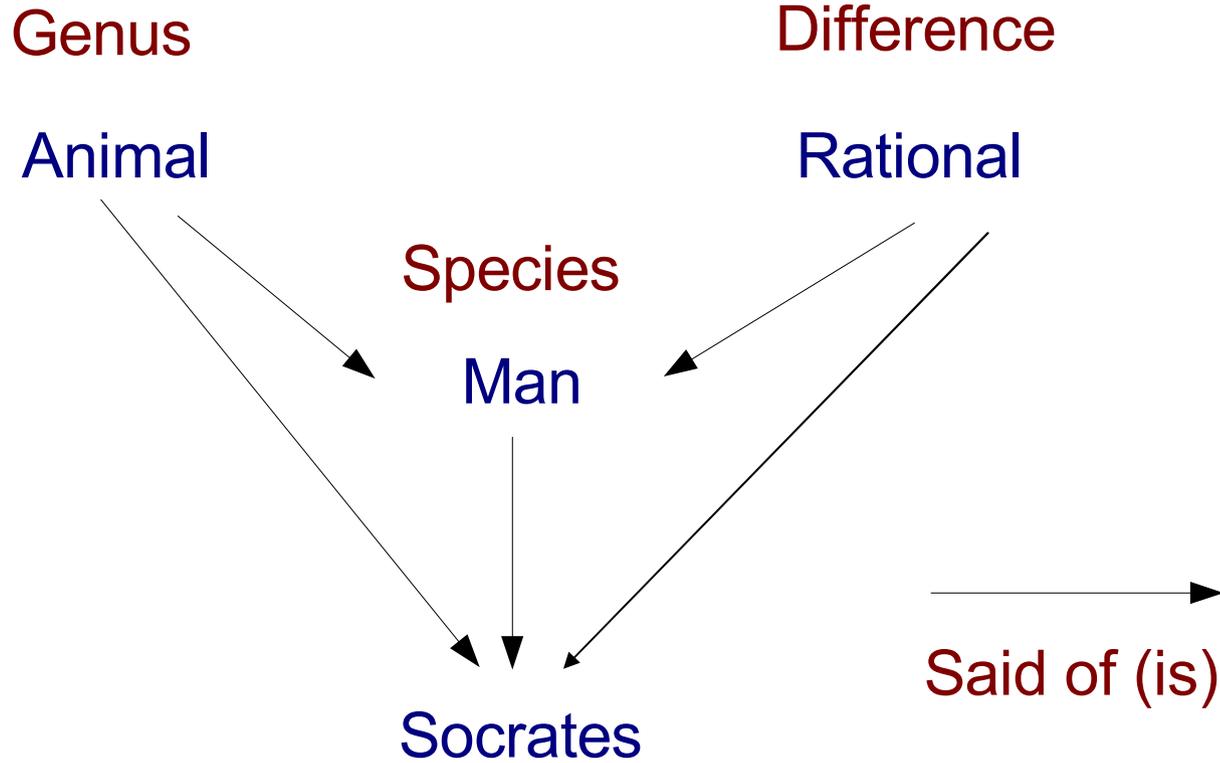
# Knowledge is Said of a Subject and In a Subject



# Species, Genus, Difference

- Individual things belong to species, which are said of them but not in them (Socrates is man)
- Species belong to genera, which are said of them but not in them (man is animal)
- An individual belonging to a species is also said to belong to the genus of the species (Socrates is animal)
- Species in a single genus are distinguished by differentiae (man is rational animal, bird is winged animal)

# What is Said of Socrates



# Kinds of Beings

- Things said without combination signify a kind of being
- There are ten kinds
- Substance (man)
- Quantity (two feet long), quality (white), relative (larger), where (in the Lyceum), when (yesterday), position (sitting), having (has shoes on), acting on (burning), being affected (being burnt)

# Categories Applied to Socrates

Substance

Quantity

Quality

Animal

Length

Color

(said of)

Man

5'9"

White

(said of)

Socrates

(in)

Socrates's height (in)

Socrates's color

# Substance

- Some things are neither said of nor in a subject
- These are called primary substances
- Examples: Socrates, Sea Biscuit
- All things are either said of or in primary substance, so they depend on its existence
- The species and genera of substances are called secondary substances
- Examples: man is the species of Socrates, animal is the genus of man

# Features of Substance

- Secondary substances are not “thises,” since they are said of many things
- Substances have no contraries, though neither do some other kinds (quantity)
- Substance does not admit of degrees (man is never more or less man)
- Only particular substances can receive contraries (a single color, being one and the same, is not pale and dark, but a man is a different times)

# *On Interpretation*

- The *Categories* was concerned with the general way in which things should be classified
  - Socrates is a primary substance, and one of the contraries sickness or health is in him
- *On Interpretation* is about the way in which we make affirmations or denials about things
  - I may affirm or deny that Socrates is healthy

# Semantics

- Affirmations or denials (“negations”) are made using sentences
  - I affirm that Socrates is an animal by uttering the sentence ‘Socrates is an animal’
- A sentence is a significant spoken sound
- Sentences are significant because they contain parts which signify something
  - ‘Socrates’ and ‘animal’ signify something

# Signification

- Only names have signification (verbs do not)
- The signification of a name is established by convention: nothing is a name by nature
- A name may signify anything found in the list of categories
- Names are neither true nor false
  - ‘Socrates’ has no truth-value
  - ‘Socrates is not’ has a truth-value

# Verbs

- Sentences are the result of combining names with verbs
- A verb is a sign that something is said of something else
  - In ‘Socrates recovers,’ recovery is said of Socrates
  - In ‘Socrates is,’ being is said of Socrates

# Tense

- Verbs are tensed: they indicate past, present, or future
- The basic form of a verb is the present tense
- Past and future tenses are inflections of present-tensed verbs
  - ‘Socrates recovered,’ ‘Socrates will recover’
- The truth-value of sentences with inflected verbs depends on the situation in the past or in the future

# Negation

- The particle 'not' may be attached to both nouns and verbs
  - 'Socrates is not-horse'
  - 'Socrates does not ail'
- 'not-*noun*' does not signify and is called an indefinite name
- 'not-*verb*' can hold of what exists and what does not exist and is called an indefinite verb

# Affirmation and Negation

- To affirm is to say that something holds of something else
  - ‘Socrates is a human being’
- To negate is to say that something does not hold of something else
  - ‘Socrates is not a warrior’
- Two statements are contradictory when one affirms what the other denies
  - ‘Socrates is a warrior,’ ‘Socrates is not a warrior’

# Truth and Falsehood

- Sentences that make statements are the bearers of truth and falsehood (or “truth-values”)
- A sentence is true when what is said of what the noun signifies holds of that thing
  - ‘Socrates is human’ says of Socrates that he is human, and being human holds of Socrates, so the sentence is true
- A sentence is false otherwise

# Universal and Particular

- Nouns may be either universal or particular
  - A universal noun signifies a class of things
  - A particular noun signifies a single thing
- Sentences whose subject is signified by a universal noun are universal sentences
  - Man is animal
- Sentences whose subject is signified by a particular noun are particular sentences
  - Socrates is an animal

# Excluded Middle

- In general, for each pair of contradictory statements, one is true and the other false
  - The affirmation is true and the negation is false
  - The negation is true and the affirmation is false
- One exception to this rule occurs when an indefinite universal noun is used
  - ‘A man is pale,’ ‘A man is not pale’
- Both these sentences can be true

# Future Particulars

- A future particular sentence has a particular subject with an inflected verb in future tense
  - ‘The two navies will fight a battle tomorrow’
- Is a future particular sentence that makes a statement either true or false, like all other particular sentences that make statements?
- If it must have a truth-value, then an argument can be made that every event occurs of necessity

# Defending the Excluded Middle

- Consider the future particular sentence:
  - ‘The two navies will fight a battle tomorrow’
- The sentence is true if the battle takes place tomorrow
- The sentence is false if the battle does not take place tomorrow
- The battle does or does not take place tomorrow, so the sentence is true or false

# Inevitability

- We do not wish to say that everything that will occur in the future is inevitable
- One reason is that “deliberation and action originate things that will be”
- We think that the actions resulting from deliberation can be different
  - It is possible for this cloak to be cut up, even if I decide not to cut it up and wears out

# Inevitability and Truth

- Suppose that a future particular sentence is either true or false
  - If it is true (now) that the navies will battle tomorrow, then the navies will battle tomorrow
  - If it is false (now) that the navies will battle tomorrow, then the navies will not battle tomorrow
- Thus the present truth-value of the sentence appears to require the future to be one way

# Fatalism

- The present truth-value of a future particular seems to make a future outcome inevitable
- Yet we regard future events to be a matter of choice, say as whether to fight the battle
- One solution is to say that our choice is inevitable as well
- This solution is fatalistic, in that the event will occur come what may

# Aristotle's Solution?

- What is real at present (or in the past) is actually real
- What is real in the future is only potentially real
  - Its becoming actually real depends on some action
- Sentences about what is only potentially real (but actually real later) have no truth-value, so some particular sentences lack truth-value