Categories and On Interpretation

Philosophy 21
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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

In (has)

My Soul

Said of (is)

Knowledge

Grammatical knowledge is knowledge.

Knowledge is in my soul.

Grammatical Knowledge
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

Genus
Animal

Species
Man
Socrates

Difference
Rational
Said of (is)
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

<table>
<thead>
<tr>
<th>Substance</th>
<th>Quantity</th>
<th>Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animal (said of)</td>
<td>Length</td>
<td>Color</td>
</tr>
<tr>
<td>Man (said of)</td>
<td>5’9”</td>
<td>White</td>
</tr>
<tr>
<td>Socrates (in)</td>
<td>Socrates’s height (in)</td>
<td>Socrates’s color</td>
</tr>
</tbody>
</table>
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