

Predication and Ontology: *The Categories*

A theory of ontology attempts to answer, in the most general possible terms, the question what is there? A theory of predication attempts to answer the question what is it to say something about something? This is a book about ontology and predication.

Ontology: The Ten Categories

In the *Categories*, we get this list (1b25):

1. Substance
2. Quality
3. Quantity
4. Relation
5. Where
6. When
7. Position
8. Having
9. Action
10. Passion

This is presumably a list of the ten fundamentally different kinds of things that there are. The first category—substance—is the most important in Aristotle’s ontology. Substances are, for Aristotle, the fundamental entities. To see why this is so, we will have to understand what Aristotle says about predication.

Is this linguistics or ontology? What are the categories categories **of**?

- a. **Things** in the world?
- b. Linguistic **expressions**?
- c. **Concepts**?

A likely account: Aristotle is classifying things in the world on the basis of linguistic considerations. (The idea seems to be that the structure of language mirrors the structure of reality.)

Subjects and predicates

These are non-linguistic entities: not the subjects and predicates of sentences, but the entities referred to by linguistic subjects and predicates.

- A **subject** (*hupokeimenon*) is what a statement is about.
- A **predicate** (*katêgoroumenon*) is what a statement says about its subject.

Examples:

- This (particular animal) is a man.
- Man is an animal.
- This (particular color) is white.
- White is a color.

Subjects	Predicates
This (particular animal)	Man
Man	Animal
This (particular color)	White
White	Color

The same thing may be both a subject and a predicate, e.g., *man* and *white* above. Some things are subjects but are never predicates, e.g., this (particular) animal, or this (particular) color.

Two kinds of predication

Consider the following pair of simple (atomic) sentences:

- “Socrates is a human being”
- “Socrates is wise”

Do both of these atomic sentences have the same kind of **ontological underpinning**? I.e., is the structure of the fact that Socrates is a man the same as the structure of the fact that Socrates is wise? Plato’s account suggests that it is. For Plato

“*x* is *F*” means that *x* partakes of the Form, *F*-ness.

For Plato, predication, in general, is explicated in terms of the notion of **participating in a Form**. In response, Aristotle thinks this oversimplifies.

The superficial similarity between these two sentences disguises an important ontological difference in the facts they express. (In Greek, the sentences look even more similar than in English, since Greek lacks the indefinite pronoun: “Socrates man (is)” vs. “Socrates wise (is)”.) On Aristotle’s account:

- “Socrates is a human being” tells us something fundamental about what kind of a thing Socrates is: it is an **essential** predication.
- “Socrates is wise” tells us something less fundamental, something that merely happens to be the case: it is an **accidental** predication.

For Aristotle, *man* is what Socrates IS; *wise*, on the other hand, is **not** what he IS (even though we **say** he is wise). Rather, it is something he HAS. (Cf. Code and Grice on IZZing and HAZZing—handout on web site.)

This idea emerges in the *Categories* distinction between what is **said of** a subject and what is **in** a subject, introduced as part of the four-fold distinction drawn at 1a20. Since Aristotle is using the terms ‘said of’ and ‘in’ in a somewhat technical way, we will write them, from now on, in SMALL CAPS in order to indicate this technical use.

Two fundamental relations

Aristotle’s relations **SAID OF a subject** and **IN a subject** correspond, respectively, to the notions (that Aristotle later develops) of **essential** predication (“IZZing”) and **accidental** predication (“HAZZing”), and they cut across all ten categories.

Aristotle	Grice-Code	Standard Interpretation
<i>x is SAID of y</i>	<i>y IZZes x</i>	<i>y is essentially x</i>
<i>x is IN y</i>	<i>y HAZZes x</i>	<i>y is accidentally x</i>

SAID OF a subject

- This is a relation of fundamental ontological **classification**. It is the relation between a **kind** and a thing that falls under it.
- It is a **transitive** relation (i.e., if *x* is SAID OF *y* and *y* is SAID OF *z*, it follows that *x* is SAID OF *z*).
- Its relata belong to the **same category**. A universal in a given category is SAID OF the lower-level universals and individuals that fall under it.
- What is SAID OF a subject is **essential** to that subject.

Examples

Man is SAID OF Socrates.

Animal is SAID OF man.

(Hence) animal is SAID OF Socrates.

White is SAID OF an individual <instance of> color.

Color is SAID OF white.

IN a subject

- This is a relation of fundamental **ontological dependence**. What is IN a subject, Aristotle says, belongs to it “not as a part, and cannot exist separately from what it is in” (1a24).

- This is a **cross-categorical** relation; things IN a subject are non-substances; the things they are IN are substances: **non-substances are IN substances**.
- What is IN a subject is **accidental** (non-essential) to that subject.

Examples

An individual <instance of> grammatical knowledge (*hê tis grammatikê*) is IN a soul.

An individual <instance of> white is IN a body.

Color is IN body.

Universals and Particulars

Although Aristotle does not use these **terms** in the *Categories*, it is clear that he intends to capture the notions of universal and particular with his SAID OF locution. Cf. these passages:

De Int. 17^a38: “Some things are universals, others are particulars. By ‘universal’ I mean what is naturally predicated of more than one thing; by ‘particular’, what is not. For example, man is a universal, and Callias is a particular.”

Met. B, 1000^a1: “For this is just what we mean by the individual—the numerically one, and by universal we mean that which is predicable of the individuals.”

An. Pr. A27, 43a26ff: “Of all the things which exist some are such that they cannot be predicated of anything else ..., e.g. Cleon and Callias, i.e. the individual and sensible, but other things may be predicated of them (for each of these is both man and animal); and some things are themselves predicated of others, but nothing prior is predicated of them; and some are predicated of others, and yet others of them, e.g. man of Callias and animal of man. It is clear then that some things are naturally not said of anything; for as a rule each sensible thing is such that it cannot be predicated of anything”

So a **universal** is what is SAID OF some subject, and a **particular** is what is not SAID OF any subject. Note that there are universals and particulars in all the categories:

- Man and animal are universal substances (Aristotle calls them **secondary substances**.)
- Callias and “an individual horse” (*ho tis hippos*, lit. “the some horse”) are particular substances. (Aristotle calls them **primary substances**.)
- White and color are universal qualities.

- An individual <instance of> white (*to ti leukon*, lit. “the some white”) is a particular quality.

The fourfold division (*Categories*, Ch. 2)

The SAID OF relation divides entities into universals and particulars; the IN relation divides them into substances and non-substances. Hence, the fourfold division at 1^a20ff produces (in Aristotle’s order of presentation):

- Universal substances (“secondary substances”)
- Particular non-substances
- Universal non-substances
- Particular substances (“primary substances”)

<p>(a) SAID OF a subject not IN a subject</p> <p>man, horse, animal (the species)</p> <p><i>Universal Substances</i></p>	<p>(c) SAID OF a subject IN a subject</p> <p>knowledge, white</p> <p><i>Universal non-Substances</i></p>
<p>(d) not SAID OF a subject not IN a subject</p> <p>an individual man, an individual horse</p> <p><i>Individual Substances</i></p>	<p>(b) IN a subject not SAID OF a subject</p> <p>a bit of grammatical knowledge an individual <instance of> white</p> <p><i>Individual non-Substances</i></p>

Notice the following facts about these relations:

1. x is SAID OF something $\rightarrow x$ is a universal.
2. x is not SAID OF anything $\rightarrow x$ is a particular.
3. x is IN $y \rightarrow x$ is a non-substance and y is a substance.
4. x is not IN anything $\rightarrow x$ is a substance.
5. x is neither IN anything nor SAID OF anything $\rightarrow x$ is a particular substance (primary substance).

6. x is IN y and x is SAID OF $z \rightarrow y \neq z$.

(6) may require amplification. The reason is that if x is IN y , then y is a substance and x is a non-substance (e.g., a quality). But if x is a quality and is SAID OF z , then z is a (more specific) quality. So y is a substance and z is a quality. But no quality is a substance. For example, *knowledge* is IN the soul (a substance), and SAID OF grammar (a kind of knowledge). But knowledge is not SAID OF the soul (for the soul is not a kind of knowledge), and knowledge is not IN grammar (for grammar is not a substance).

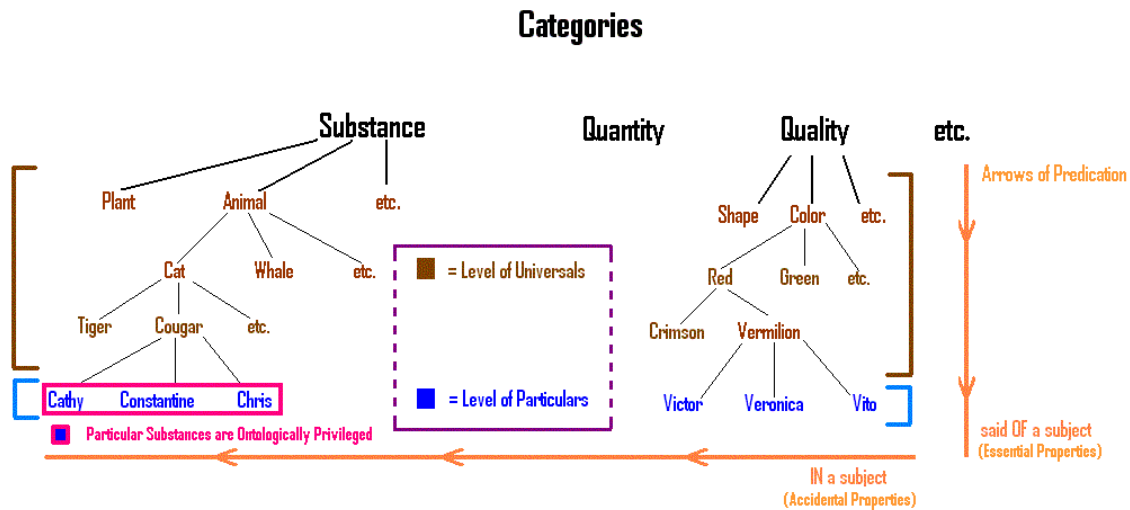
Cross-categorial predication

- Predication within a category (“Socrates is a human,” “a tiger is an animal,” “red is a color”) involves **classifying** something (whether a particular or a universal) under some **higher** universal within the same category tree. Predication is a matter of classification.
- Cross-categorial predication (“Socrates is wise,” “This horse is white”) is more complicated. Here we are predicating an **accident** (something IN a subject) of a **substance** in which it inheres.
- Are such (accidental) predications still a matter of classification? Yes. But we are classifying something IN a substance, rather than the substance itself.
- Example: “This horse is white” classifies a particular bit of color, inhering in this horse, under the color-universal *white*.
- That is: *White* is SAID OF an individual bit of color that is IN this horse.

Category Trees

- Each category can be thought of as having a **tree structure**. The category itself can be divided into its fundamental kinds (e.g., *substance* can be divided into plants and animals). Each of these kinds can in turn be divided (e.g., *animal* can be divided into the various broad genera of animals). Each of these can in turn be divided into the fundamental species of the category in questions (e.g., into such basic kinds as *tiger*, and *horse*, and *human being*). (All of these kinds—animal, tiger, horse—are what Aristotle calls “secondary substances”.) Finally, we can divide these lowest-level kinds into the basic individuals in the category (e.g., *human being* can be divided into Socrates, Callias, Coriscus, etc.).

- Similarly, the category of *quality* can be divided into subcategories such as *color*, which can in turn be divided into *red*, *green*, etc. Aristotle thinks that these specific qualities can be further divided into individuals (analogous to individual substances) such as *this individual instance of white*.
- Thus, each category is ultimately divisible into the **individual members** of that category.
- Here's a useful chart that illustrates the tree structure of the categories.



Primary Substances: the basic individuals

Things neither SAID OF nor IN any subject Aristotle calls “primary substances” (*protai ousiai*). They are fundamental in that “if they did not exist it would be impossible for any of the other things to exist” (2^b5). That is, on Aristotle’s account, primary substances have **ontological priority**. Here is his argument (2^a34-2^b7):

1. Every secondary (universal) substance is predicated of (i.e., SAID OF) some primary substance or other.
2. Every non-substance (whether universal or particular) is IN some primary substance or other.
3. That is, everything other than primary substance is either SAID OF or IN primary substances.
4. Therefore, if primary substances did not exist, neither would anything else.

Amplifications on Aristotle's argument:

It is clear that a *non-substance* cannot exist unless it is IN a substance. For the only subject a non-substance can be IN is a substance, and things IN a subject (i.e., non-substances) cannot exist if they are not IN subjects.

What about *universals*? Aristotle's premises seem to leave open the possibility that they might exist even though they are not SAID OF anything. But he clearly seems to be assuming an ontological dependence condition for universals analogous to the one he assumes for non-substances:

- The existence of a universal depends upon there being individuals falling under it.
- So universal substances cannot exist unless there are primary substances for them to be SAID OF.
- And universal non-substances cannot exist unless there are individual non-substances for them to be SAID OF.
- And individual non-substances cannot exist unless there are substances for them to be IN.
- Therefore, if there were no primary substances, there would not be anything else.

Some important features of substances

See esp. *Categories* chapter 5.

- Substances are not IN subjects (they are not dependent entities).
- Differentiae are not IN subjects either. Why does Aristotle say this? After all, differentiae are (typically) qualities, and qualities can exist only by being IN substances. So it would seem to follow that differentiae **are** IN subjects.

The precise status of differentiae in Aristotle's system is hard to pin down. But there are some good reasons for him to say that differentiae are not IN subjects:

- a. It seems to be a corollary of his claim that substances are not IN subjects. For Aristotle thinks that a **definition** consists of genus + differentia (cf. *Topics* A.8, 103^b15). So a differentia of a substance is part of what the substance **IZZES**, and not something it **HAZZES**.

- b. When Aristotle talks about “parts of substances” in the *Categories*, he is probably thinking of “conceptual” parts, and differentiae would be such parts (cf. Frede, “Individuals in Aristotle”). But Aristotle says that the things IN a subject are **not** parts of the subject, i.e., not differentiae.

Perhaps Aristotle can say about differentiae (of substances) what he says about secondary substances (3^b14-22): a secondary substance signifies a *poion*—lit. quality, but here it pretty clearly means **sort**. He certainly does not think that horse (the species) is a quality—he thinks it is a **type** or **sort** of substance. (That’s why he says that a species such as horse is not simply a *poion*, but a *poion* with respect to substance—3^b21).

Similarly, a differentia is not simply a *poion*, but a *poion* with respect to substance. That means that it is not a quality (in the way that white is a quality); and hence it does not count as being IN a subject.

- Substances have no contraries (opposites).
- Substances do not admit of **degree**. (If *F* is a substance term, nothing can be **more or less** *F*.)
- “Most distinctive” Aristotle says (4a10) is that “substances remain one and the same while admitting contraries.”

By this Aristotle means that a distinctive feature of substances is that they undergo **change**. That is, they **persist** through changes. They can be **subjects** of change. We will examine this.

Substances and Change

Presumably, in the *Categories* Aristotle thinks that **only** substances can undergo change. Since he holds that change requires that one property of a subject be replaced by another, opposed, property, what he has to prove is this:

if *x* goes from being *F* at one time to being not-*F* at a later time,
then *x* is a substance.

[One might think that Aristotle can obtain this conclusion easily, since it might appear that only substances can be **subjects**. But although he is tempted by this equation of substancehood with subjecthood, he realizes that it will not work. Cf. *Topics* A9: the “what is it?” question can be raised about qualities, quantities, etc. So any item from any category can be a subject.]

The argument he gives in the *Categories* consists in choosing some **non-substances** as values of x , and then showing that for a choice of values of F (with respect to which we would expect there to be change) x does not go from being F at one time to being not- F at another time.

These are his examples:

- | | | | |
|----|-----------------|-------------|------------------|
| a. | $x =$ a color | $F =$ white | not- $F =$ black |
| b. | $x =$ an action | $F =$ good | not- $F =$ bad |

But these examples beg the question. For the choices of values for x and F are **from the same category**. [This is certainly clear in the case of example (a).]

Yet when Aristotle gives an example of change, x and F are from different categories, with x a substance and F a non-substance.

- a. If x and F are both from the category of substance, there will not be change either.

E.g., an animal (x) does not go from being a horse (F) to a tiger (not- F).

- b. If x and F are from different categories, change **appears** to be possible even if x is a non-substance.

E.g., a color (x) can go from being in Boston (F) to being in Seattle (not- F), or from being popular (F) to being unpopular (not- F).

The principle on which Aristotle's point seems to depend is this:

A thing never changes with respect to what it IZZes, but only with respect to what it HAZZes.

And this seems to guarantee that substances can change (since every substance HAZZes some accidental properties); but it doesn't show that **only** substances can change. For it hasn't been proved that non-substances can't also HAZZ accidental properties.

A Defense of Aristotle

What can be said in behalf of Aristotle's argument? There is still an intuition that substances play a special role as subjects. One might defend that intuition in the following way:

In those cases in which a non-substance (e.g. a quality) seems to change (i.e. goes from being F to being not- F), the change doesn't really seem to be in the non-substance that is the apparent subject, but in some (unspecified)

substance. E.g., cf. “Purple has become unpopular.” Here, it seems that purple **itself** hasn’t changed. Rather, people (substances) have changed their attitudes about colors.

So we can analyze “Purple has become unpopular” as “Most people no longer like purple.” In this case, a more defensible thesis for Aristotle might be:

Every (apparent) change which a non-substance undergoes can be analyzed as a (real) change that a substance undergoes.

But even this thesis (as we shall see) will not stand up. The criterion of “ultimate subject of change” for substancehood will have to be given up.

Aristotle’s Ontology after the *Categories*.

- In the *Categories*, individual substances are left unanalyzed, structureless. They are (in Furth’s phrase) “methodologically opaque”.
- The further analysis of individual substances is motivated by concerns about change, in the *Physics* and *Metaphysics*.
- This analysis will complicate Aristotle’s ontology and threaten the primacy of the individual (concrete) substances of the *Categories*.
- So we will move on to examine the introduction of **matter** in the *Physics* and the problems that it raises in the *Metaphysics*.