

Welcome!

Thank you very much for your presence!

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Features of Ontology in Aristotle

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I thank you very much for the invitation!

I thank you very much for giving me the chance to expose my contribution.

Lowe's Four-Category Ontology



Categories 2

Of entities there are some are said of a subject, but are not in a subject (T $\tilde{\omega}v \, \check{\sigma}v\tau\omega v \, \tau \grave{\alpha} \, \mu \grave{c}v \, \kappa \alpha \theta'$ ὑποκειμένου τινὸς λέγεται, ἐν ὑποκειμένῷ δὲ οὐδενί ἐστιν). For example, man is said of a subject, the individual man, but is not in any subject. Some are in a subject but are not said of any subject (τὰ δὲ ἐν ὑποκειμένῷ μέν ἐστι, καθ' ὑποκειμένου δὲ οὐδενὸς λέγεται) (by 'in a subject' I mean what is in something, not as a part, and cannot exist separately from what it is in $(\dot{\epsilon}v)$ ύποκειμένω δε λέγω δ έν τινι μή ώς μέρος ύπάρχον άδύνατον χωρίς είναι τοῦ έν ῷ ἐστίν)). For example, the individual knowledge of grammar is in a subject, the soul, but is not said of any subject; and the individual white is in a subject, the body (for all colour is in a body), but is not said of any subject.

Categories 2

Some are both said of a subject and in a subject ($\tau \dot{\alpha} \delta \dot{\epsilon} \kappa \alpha \theta' \dot{\upsilon} \pi \delta \kappa \epsilon_1 \mu \dot{\epsilon} \nu \delta_0 \upsilon$ ὑποκειμένῷ ἐστίν). For example, knowledge is in a subject, the soul, and is also said of a subject, knowledge-of-grammar. Some are neither in a subject nor said of a subject ($\tau \dot{\alpha} \delta \dot{\epsilon} \circ \ddot{0} \tau \epsilon \dot{\epsilon} v$ ὑποκειμένῷ ἐστὶν οὔτε καθ' ὑποκειμένου λέγεται), for example, the individual man or individual horse (οξον δ τις ἄνθρωπος ή δ τις (ππος) – for nothing of this sort is either in a subject or said of a subject. Things that are individual and numerically one ($\dot{\alpha}\pi\lambda\tilde{\omega}$ ς δε τὰ ἀτομα καὶ εν ἀριθμῷ) are not said of any subject (κατ' οὐδενὸς ὑποκειμένου λέγεται), but there is nothing to prevent some of them from being in a subject (έν ὑποκειμένῷ δὲ ἔνια οὐδὲν κωλύει εἶναι) – the individual knowledge of grammar is one of the things in a subject.

The four-category-ontology

The structure of reality is organised in four different subdivisions corresponding to the different positions of the elements of a proposition:

i. entities being said of a subject but not being in a subject;

ii. entities being in a subject but not being said of a subject;

iii. entities being said of a subject and being in a subject;

iv. entities not being in a subject and not being said of a subject.

The entity being said of a subject appears to constitute an essential property of the subject to which it is referred, whereas the entity being in a subject does not constitute an essential property of the subject. The assignation of the feature "being numerically one" is proper both to what is neither in a subject nor said of a subject and to what is in a subject but not said of a subject. In fact, it seems that these ways of being of entities exhaust the field of what is instantiated, both in the category of substance, on the one hand, and in the categories of quality and of quantity, on the other hand. Instantiated entities, be they substances or not, are always numerically one.

A comparison between Lowe's four-category-ontology and Aristotle

The adaptation of Aristotle's ontological construction which Lowe proposes is in my opinion very interesting; Lowe's ontological scheme is the following one :

- Lowe's individual substances (objects) = Aristotle's entities not being in a subject and not being said of a subject.
- Lowe's property/relation-instances (tropes) = Aristotle's entities being in a subject but not being said of a subject.
- Lowe's substantial universals (kinds) = Aristotle's entities being said of a subject but not being in a subject.
- Lowe's non-substantial universals (property/relations) = Aristotle's entities being said of a subject and being in a subject.

I think that Lowe's interpretation of reality as consisting in substantial and non-substantial universals, on the one hand, and in individual substances and property/relation-instances, on the other hand, represent a highly valuable instrument in order to understand the relationships between individual entities and universal entities in Aristotle. Likewise, Lowe's interpretation of substantial and non-substantial universals as dispositions, on the one hand, and of individual substances and of property/relation-instances as occurrences , on the other hand, correspond, in my opinion, to Aristotle's aims when Aristotle speaks of individual entities like the individual man and of properties like being man.

Editions

The editions of Aristotle's works that I have used for this analysis are:

- Aristotelis Analytica Priora et Posteriora. Recensuit Brevique Adnotatione Critica Instruxit W. D. Ross. Praefatione et Appendice Auxit L. Minio-Paluello, Oxford 1964.

Aristotelis Categoriae et Liber De Interpretatione. Recognovit Brevique Adnotatione Critica Instruxit L. Minio-Paluello, Oxford 1949.

Aristotelis De Anima. Recognovit Brevique Adnotatione Critica Instruxit W. D. Ross, Oxford 1956.

Aristotelis Fragmenta Selecta. Recognovit Brevique Adnotatione Critica Instruxit W. D. Ross, Oxford 1955.

Aristotelis Metaphysica. Recognovit Brevique Adnotatione Critica Instruxit W. Jaeger, Oxford 1957.

Aristotelis Metaphysica, ed. H. Bonitz, 2 Bde, Bonn 1848-1849.

Aristotelis Opera, ex recensione Immanuelis Bekkeri; ed. Academia Regia Borussica; accedunt fragmenta, scholia, index aristotelicus/

addendis instruxit fragmentorum collectionem retractavit Olof Gigon, 5 Bde, Berlin-West 1960-1987.

Aristotle De Anima. With Translation, Introduction and Notes by R. D. Hicks, Cambridge 1907.

Translations of Aristotle's works

For the translations of Aristotle's works I recurred to the following edition:

• J. Barnes (ed.) The Complete Works of Aristotle. The Revised Oxford Translation, 2 vols.

Presentation

In my exposition, I shall analyse aspects of those ontological dispositions which I define as the bearing structures of Aristotle's ontology. Examples of bearing structures of Aristotle's ontology are, in my opinion, the categories and their own features, the relations holding between the different categories, the realm of particulars/individuals and the realm of universals, the principle of contradiction, the notions of essence, form, matter, potentiality, actuality, completion, the status represented by "being this something" or by "being this such", the status represented by "quality/such", the connections, the implications, the compatibilities and the incompatibilities holding between the bearing structures of the ontology, and so on.

The complex of the bearing structures of ontology corresponds to the whole feature system of Aristotle's ontology, since it constitutes foundations, rules, and prohibitions governing Aristotle's ontology; it is the very framework of Aristotle's ontology. The framework of ontology precedes the actual appearance of the concrete entities of the average reality like men, colours, lengths and so forth. At the level of the framework, it does not matter which (kinds of) entities concretely exist; it does matter, though, which structures exist before the actual appearance of these entities, since these structures constitute the whole texture pre-existing to the appearance of the concrete entities find their own place. The concrete entities follow the rules determining this framework space.

Presentation

The correct determination of the framework and of the features belonging to the elements of the framework is vital for the ontology. Any transgression whatsoever perpetrated against the rules of the framework ontology immediately has irremediable consequences for the ontology itself: for example, an interpretation of the entities which belong universally as though they were substances, and of the entities which are predicated in common as though they had the status of this something $(\tau \acute{0}\delta \epsilon \tau \iota)$, directly leads to the Third Man regress and, therewith, to the collapse of the whole ontology. Hence, ontological prudence, circumspection, and caution are indispensable attitudes in the determination of the features of the bearing structures of ontology. Aristotle's very watchful way of investigation witnesses his own being completely aware that one false step within this kind of analysis is, always – unfortunately – a false step too much.

Presentation

In the present work, I shall concentrate my attention on features which, in my opinion, Aristotle is pointing out as constitutive for the status of particulars/individuals, of substances, and of universals. The cardinal feature of this section of Aristotle's ontology consists, in my opinion, in the fact that Aristotle considers every concretised entity as an instance of a property or, put differently, as an instantiated property: universal properties are individualised in their instances. No individual entity has only the status of being individual; it is always an individual "such", an individual "something". Through this interpretation of the individual entities, Aristotle finds, in my opinion, the way of relation, that is, he finds a kind of mediation between particular/individual and universal in the reality. I shall then illustrate Aristotle's process of differentiation between the realms of reality consisting, respectively, of entities having the status of this something ($\tau \delta \delta \epsilon \tau \iota$, i.e. numerically one entities), and entities having the status of quality ($\pi o i \dot{o} v$, i.e. not numerically one entities). The next subject of analysis will be the incompatibility holding between entities that belong universally and entities that are predicated in common, on the one hand, and entities having the status of substance and of $\tau \delta \delta \epsilon \tau i$, on the other hand: this incompatibility will bring about, as immediate consequence for all the positions which do not respect this incompatibility, the Third Man regress. Besides, I shall expose aspects of the ontological rules and ontological prohibitions originating from the distinctions between realms of reality.

Definitions: rule

- With "rule" or "ontological rule" I mean the regulations governing, in Aristotle, the bearing structures of ontology, their features, their connexions, compatibilities and incompatibilities. Examples of rules are "the substance of each entity is the substance peculiar to each entity, which does not belong to any other entity" (Metaphysics Zeta 13, 1038b10), or "none of the entities that belong universally is substance" (Metaphysics Zeta 13, 1038b35), or "no substance is compounded of substances" (Metaphysics Zeta 16, 1041a4–5).

Definitions: law

- With "law" I mean a regulation governing concrete entities. Examples of laws are "every triangle has its angles equal to two right angles" (Metaphysics Mu 10, 1086b35–36), or "every man is animal" (Metaphysics Mu 10, 1086b36–37).

Two-district ontology

In my opinion, Aristotle contends that the field of biological instances always consists of individuals; the whole field of existence consists, however, in Aristotle's view, of both individuals and universal biological properties, even though the universal properties' way of existence is different from the way of existence possessed by the instances of properties. Individuals and universal properties exist on different levels, they correspond to different ontological types. We have a two-district ontology:

The realm of instances is constituted by individual entities (by numerically one entities). Any numerically one entity whatsoever is the instance of a property: for a numerically one entity, to be is to be the instance of a property. The whole realm of existence, the realm of all the existing entities, contains both individuals (individual entities) and universal properties (universal entities).

Realms of reality

The expression "realms of reality" means a general division of the dimensions of entities. The realm of reality of the individual is the realm of reality composed by instances of properties and by applications of laws.

The realm of reality of the universal is the realm or reality composed by universal properties and by the laws existing as a result of the connections, compatibilities, and incompatibilities holding between universal properties.

The two realms of reality should not be confused with each other. Otherwise, the damages for the ontology resulting from this confusion cannot be repaired because in case of confusion, the ontology, as such, would completely collapse.

Where everything begins: The Third Man Regress

"The third man is also proved in this way: if what is predicated truly of some plurality of things is also some other thing besides the things of which it is predicated (εί τὸ κατηγορούμενόν τινων πλειόνων ἀληθῶς καὶ ἔστιν ἄλλο παρὰ τὰ ὧν κατηγορεῖται), being separated from them ($\kappa \epsilon \chi \omega \rho \iota \sigma \mu \epsilon' v o v \alpha \dot{\upsilon} \tau \widetilde{\omega} v$) (for this is what those who posit the ideas think they prove; for this is why, according to them, there is such a thing as man-itself, because the man is predicated truly of the particular men, these being a plurality, and it is other than the particular men (ὅτι ὁ ἄνθρωπος κατὰ τῶν καθ' ἕκαστα ἀνθρώπων πλειόνων ὄντων ἀληθῶς κατηγορείται και άλλος τῶν καθ' ἕκαστα ἀνθρώπων ἐστίν)) – but if this is so, there will be a third man (ἔσται τις τρίτος $\ddot{\alpha}$ νθρωπος). For if the man being predicated is other than the things of which it is predicated ((εί γαρ $\ddot{\alpha}$ λλος δ κατηγορούμενος $\ddot{\omega}$ ν κατηγορεῖται)) and subsists on its own (κατ' ἰδίαν ὑφεστώς), and if the man is predicated both of the particulars and of the idea (κατηγορεῖται δὲ κατά τε τῶν καθ' ἕκαστα καὶ κατὰ τῆς ἰδέας ὁ ἄνθρωπος), then there will be a third man besides the particular and the idea (ἔσται τρίτος τις ἄνθρωπος παρά τε τοὺς καθ' ἕκαστα καὶ τὴν ἰδέαν). In the same way, there will also be a fourth man predicated of this, of the idea, and of the particulars, and similarly also a fifth, and so on to infinity."

The problem

• A false interpretation of predication and of entities connected to predication causes an infinite multiplication of entities.

• The ontological duty consists in interpreting the structure of ontology so that whatsoever multiplication does not happen.

Realms of reality: Aristotle's aim

• Individual, instance, concretized property, this something, this such.

• Universal, universal property, such.

Explanation

- Individual entities are instances of properties (or: instantiated properties).
- Universal properties are programmes/dispositions instantiated by individual entities.
- The particular field of the instances is always constituted by individuals (by individual entities), while the whole field of existence is constituted both by individuals (by individual entities) and by universal properties (universals are deputies for properties).

Aristotle's ontological project

- To save universals by liberating universal from false features like being-separated, being numerically one and so on.
- To avoid regresses such as the Third Man Regress.
- To open up the ontological space so that there are, as level of existence, a level for instantiated properties and a level for properties as dispositions.
- To avoid the multiplication of individual, numerically ones entities.
- To analyse the structure of reality and of its elements like substance, universals, essence, matter and so on.
- To find the right and the false features of the elements of the reality.

The specificity of Aristotle's position

- A nominalist interpretation would say that only individual, particular entities exist.
- I think that for Aristotle there are different levels of existence: not only individual entities exist. Universal properties exist as programmes for instantiations. The problem of the ontology is to not confound entities belonging to the level of the instantiations with entities belonging to the level of the universal properties.
- To express in a formula: I do not think that Aristotle aims to avoid the multiplication of the plurality of entities, thereby abolishing universals as real entities; he aims to avoid the multiplication of the plurality of individual entities, thereby opening up different levels of reality – i.e. level of individuals and level of universals.

It is not (in my view) a problem of universals

- In my opinion, as regards Aristotle's positions, the problem does not consist in the existence or not-existence of universals.
- The problem is, rather: does a property such as, for example, being-man universally exist, in the sense that this property, constituting a kind of structure rooted in the biological reality, exists as a disposition for all the future human being, or being-man is a property that is only similar, not identical in all the members of the species?
- Universals exist if the universal property exist (the universal "man" exists, if the universal property "being-man" exists).
- The first question to answer is, therefore, which existence the properties have.

My position on Aristotle's universals (1)

One of the problems we must cope with when we discuss propositions containing universals is the question regarding the existence of universals. Usually, the question from which the analysis regarding the existence of universals in Aristotle begins is whether universals exist or do not exist. I think that the question should rather be whether universally holding properties exist or do not exist, that is, whether a property such as "being man", which is identical for every man, exists. If a property that is identical for a given plurality exists (for instance, if an identical property "being man" exists), then, as a consequence of the existence of this property, the universal that corresponds to the property exist (in this case, if an identical property "being man" exists, then the universal "man" exists).

My position on Aristotle's universals (2)

In other words, any question regarding the existence of universals should be methodically preceded, in my opinion, by the question whether universal properties (at least universal properties belonging to the biological field) exist, so that individuals instantiating the same universal property (to say, individuals instantiating the property "being man") are connected with each other by a sameness-relationship, or whether no universal property exist, so that individuals are endowed with instances of properties being only similar (that is, not identical) to each other: in this case individuals are not connected with each other by any sameness-relationship. The question regarding the existence or not-existence of universal properties is decisive for the destiny of universals: The existence of universals proves to be, in my opinion, a consequence of the existence of universal properties; vice versa the not-existence of universals would turn out to be a consequence of the not-existence of universal properties. Aristotle, in my opinion, pleads for the existence of universal properties: in his interpretation of entities universals are deputies for universal properties. Universal properties do exist in Aristotle's ontological proposal.

My position on Aristotle's universals (3)

I believe, therefore, that the central question should not regard the existence or notexistence of universals: the primary question ought to determine the way properties are interpreted by Aristotle. Universals, in my opinion, perform the function of deputies for the corresponding properties: the universal "man" is, for instance, a deputy for the property "being man"; universals exist, in my opinion, as expressions of natures or of properties which are instantiated in the individual. I think that a typological ontology is present in Aristotle: Individual entities are always instances of properties (the individual man is an instance of the property "being man").

My position on Aristotle's universals (4)

Properties, at least biological properties, constitute the natural word: they are rooted into the natural world; every instance of a biological property is the same (specifically or generically) as every other instance of the same biological property; every instance of the biological property "being man" is specifically the same as every other instance of the property "being man" – it is the same in the sense that under normal conditions it possesses the same functions determining the species "man" as every other instance of the property "being man". Every instance of the biological property "being animal" is generically the same as every other instance of the property "being animal" – it is the same in the sense that, under normal conditions, it possesses the same functions determining the genus "animal" as every other instance of the property "being animal".

About the existence of universal properties in Aristotle (1)

I think that the existence of universal properties in Aristotle could find a support in Aristotle's texts such as De Generatione et Corruptione II 6, where Aristotle pleads for the existence of a nature which dictates an identical development for the elements of a biological class. Throughout Aristotle's analyses of the concept of nature it appears that all the elements of a biological class – under normal conditions – have and will have the same development because of their instantiating the same biological property (all men instantiate the biological property "being man"). Every biological property is a potential programme which is concretized, realized and actualized by its instances. The uniformity of development of the elements belonging to a natural class attests the existence of a universal nature that is the same for all the elements of the natural class.

About the existence of universal properties in Aristotle (2)

I do not think that Aristotle denies the existence of universals: he explains the ontological features that a universal cannot have, such as being numerically one, being substance, being separated (see, for instance, Metaphysics Zeta 13 and Metaphysics Zeta 16). It does not seem to me, on the other hand, that Aristotle explicitly pleads for the non-existence of universals: to say what the universal is not, is not the same as to say that the universal does not exist. I think that Aristotle's strategy consists in eliminating, from the features belonging to universals qua universals, all the features which wrong ontological positions have attributed to the universals themselves; Aristotle's aim consists (at least in my opinion) in denying the existence of the wrong features of universals qua universals, not in denying the existence of universals as such.

A presentation of substance: Categories 5, 2a11-14

"A substance - that which is called a substance most strictly, primarily and most of all - is that which is neither said of a subject nor in a subject, e.g. the individual man or the individual horse."

My definitions: substance(s)

Substance $(o\dot{\upsilon}\sigma\dot{\iota}\alpha)$, in the main, signifies:

- entity belonging to the biological field and being able to independently exist, like a man, a horse, or a tree. In this case, substance corresponds to the entities of the biological species. Substance is the complex organism. The whole entity Socrates is an example of this sense of substance. This meaning of substance is simple substance.

- form, essence, nature, soul of an entity belonging to the biological field, that is, the factor that makes of an entity what the entity itself is as such, the factor that actualizes the organism (the soul of man leads all the manifestations and development of man: in this sense the soul makes of the man what the man is as such). In this case, substance is the factor that makes of a substance in sense of a biological entity that which the substance in sense of biological entity is. The soul of Socrates corresponds to this meaning of substance (it is the developing factor of Socrates). Substance is substance of..., that is, it is not simple substance, but always substance of...

On my position regarding substance

• My general position regarding substance is that substance as concept is in Aristotle a fundamentally plural concept having a multiplicity of ontological references (organisms, forms, natures, essences, actualities and so on).

My definitions: properties (1)

Property is, in this analysis, universal property; instance of properties are particular properties; when I speak of property without further specification I mean universal property, that is, a programme for realization in the instances, which is not an instance itself.

My definitions: properties (2)

In my analysis I prevalently refer, while using the concept "property", to properties belonging to the biological field, such as "being man", "being horse" (for properties corresponding to species – in these cases, to the species "man" and to the species "horse" –), on the one hand, and such as "being animal" (for properties corresponding to genera), on the other hand. Aristotle considers, in my opinion, all the biological properties as properties belonging to reality (that is, they do not correspond to mere instruments of classifications invented by the speaking subjects): the property "being man" exists, even though it does not exist at the same ontological level as the ontological level at which the instances of this property (that is, individual men) exist.
My definitions: properties (3)

Using the concept "property" in my analysis I do not refer to fictitious properties: The properties that I take into consideration are properties belonging to the objective reality. These properties independently exist of their being acknowledged, or of their being thought of, or of their being known by a (thinking, speaking, knowing) subject; properties exist independently of whichever subject.

My definitions: this something, such, quality

Through his drawing a distinction between entities that have the ontological structure of "this something $(\tau \delta \delta \epsilon \tau \iota)''$, on the one hand, and entities that have the ontological position of "such (τοιόνδε)" or, alternatively, of "quality (ποιόν)", on the other hand, Aristotle is, in my opinion, aiming at drawing a distinction between different fields of existence; likewise he is aiming at assigning the entities to their own realm of reality; he is not aiming at an exclusion either of universal properties or of universals from the field of existence. Biological properties are not and should not be deemed as classifications invented by speaking subjects: properties corresponding to natural kinds and natural kinds as the natural kind "horse" or the natural kind "man" exist in a mindindependent way.

My definitions: Instances and existence

The field of instances is always represented by individuals, while the field of existence is constituted by both individuals and universal properties (universals), even though the universals' way of existence is different from the way of existence possessed by instances of properties. As a consequence of this difference, individuals and universal properties exists on different levels, they build different ontological types; we have a two-district ontology.

The realm of instances is constituted by individual entities (by numerically one entities), in the sense that we do not meet a universal instance (an instance of a man is always a concrete man, an instance of a colour is always a concrete colour, an instance of a letter is always a concrete letter).

The realm of existence contains both individuals (individual entities) and universal properties (universal entities).

Categories 2: the ontological square

"All the other things are either said of the prime substances as subjects or in them as subjects. This is clear from an examination of cases. For example, animal is predicated of man and therefore also of the individual man; for were it not predicated of none of the individual men it would not be predicated of man at all. Again, colour is in body and therefore also in individual body; for were it not in some individual body it would not be in body at all. Thus all the other things are either said of the prime substances as subjects or in them as subjects. So if the prime substances did not exist it would be impossible for any of the other things to exist."

Categories 5, 3b10-23

"Every substance seems to signify a this something ($\Pi \tilde{\alpha} \sigma \alpha \delta \tilde{\epsilon} \circ \dot{\sigma} \sigma \delta \tilde{\epsilon} \tau \delta \delta \epsilon \tau \sigma \eta \mu \alpha i \nu \epsilon \nu$). As regards the primary substances, it is indisputably true that each of them signifies a this something; for the thing revealed is individual ($\dot{\alpha}_{\tau 0 \mu 0 \nu}$) and numerically one ($\dot{\epsilon}_{\nu} \dot{\alpha}_{\rho 1} \theta_{\mu} \widetilde{\omega}$). But as regards the second substances it appears from the form of the name, whenever one speaks of man or of animal, that a second substance likewise signifies a this something (ἐπὶ δὲ τῶν δευτέρων οὐσιῶν φαίνεται μὲν ὁμοίως τῷ σχήματι τῆς προσηγορίας τόδε τι σημαίνειν); this is however not really true; rather, it signifies a quality (ποιόν τι), for the subject is not, as the primary substance is, one (où γὰρ ἕν ἐστι τὸ ὑποκείμενον), but man and animal are said of many things (κατὰ πολλῶν ὁ ἄνθρωπος λέγεται καὶ τὸ ζῷον). However, it does not signify simply a quality, as white does. White signifies nothing but a quality, but the species and the genus determine the quality of substance (τὸ δὲ εἶδος καὶ τὸ γένος περὶ οὐσίαν τὸ ποιὸν ἀφορίζει) – they signify substance of a certain quality (ποιὰν γάρ τινα οὐσίαν σημαίνει)."

On Categories 5, 3b10-23: first substance

We can observe following contrapositions holding between first substance and second substance:

- first substance, this something, numerically one, $\tau \delta \epsilon \tau \iota$, individual;
- second substance, not this something, predicated of a plurality, not numerically one, $\pi o i \dot{o} v$.

This text conveys different contents which are of great importance. That on what Aristotle is focussing on is the feature of a substance qua a substance in general, and not qua a particular substance; the following correlation between first substance and the features belonging to first substances qua first substances holds:

- ✓ (x)(first substance (x) → individual and numerically one (x) → τόδε τι (x)).
- This implication holds good for every substance qua substance, no matter which particular substance is taken into consideration.
 The following correspondence holds:

instance \leftrightarrow numerically one.

• This correspondence holds good not only for substances; it holds good for every individual entity, that is, it is not limited to the category of substance.

On Categories 5, 3b10-23: second substance

- As regards second substances qua second substances the following correlation between features holds:
- ✓ (x)(second substance(x) → not numerically one (x) → not τόδε τι (x) → ποιόν (x)).

Results of Categories 5, 3b10-23

We reach the following results:

- What is said of many is not numerically one, what is not said of many is individual and numerically one.
- Since entities being said of many are not numerically one, they cannot be counted together with the entities that are numerically one.
- Second substances are not individual entities besides the entities of which they are predicated: they presuppose the entities of which they are predicated; their existence presuppose the existence of the first substances.
- Second substances constitute the way of existence, of being, of the entities of which they are predicated.
- The quality which is signified by the second substance is not simply a quality: it expresses a substance of a certain quality; Aristotle does not want second substances to be reduced to qualities; the position of the second substances in the field of reality is different from the position of the mere qualities.

Entity and essence

The proposition:

- Socrates is man,

assigns to Socrates the essential property "being man": Socrates instantiates the property of being man. The essential property "being man" attributed to Socrates in not a numerically one entity existing besides Socrates. What is attributed to Socrates is not another thing, another man, existing independently of Socrates. Generally speaking, every individual entity is an instance of a property: there is no void entity; there is no entity that can be neutral to all its properties: for an entity to exist means to instantiate a property that is the essence of the entity itself. Without essence there is no entity. Instances are never void entities, in the sense that instances constitute, as such, the realization of a determinate range of properties: they are not void, they cannot assume and loose every property; they cannot lose their essential properties, otherwise they would disappear from the realms of existence.

Metaphysics Mu 10

"But if, as in the case of the phonetic elements, there is no reason why there should not be many alphas and betas, and no "alpha itself" or "beta itself" apart from these many, then on this basis there may be any number of similar syllables. The statement that all knowledge is universal, so that the principles of things must also be universal and not separate substances, presents indeed, of all the points we have mentioned, the greatest difficulty, but yet the statement is in a sense true, although in a sense it is not. For knowledge, like knowing, is spoken of in two ways – as potential and as actual. The potentiality, being, as matter, universal and indefinite, deals with the universal and indefinite (ἡ μὲν οὖν δύναμς ὡς ὕλη [τοῦ] καθόλου οὖσα καὶ ἀόριστος τοῦ καθόλου καὶ ἀορίστου ἐστίν); but the actuality, being definite, deals with a definite entity, – being a this something, it deals with a this something (ἡ δ' ἐνέργεια ὡρισμένη καὶ ὡρισμένου, τόδε τι οὖσα τοῦδέ τινος). It is only accidentally that sight sees universal colour, because this colour which it sees is colour ($\dot{\alpha}\lambda\lambda\dot{\alpha}$ κατὰ συμβεβηκὸς ἡ ὄψις τὸ καθόλου χρῶμα ὁρῷ ὅτι τόδε τὸ χρῶμα ὃ ὁρῷ χρῶμά ἐστιν), and this alpha which the grammarian studies is an alpha (καὶ ὃ θεωρεῖ ὁ γραμματικός, τόδε τὸ ἄλφα ἄλφα)."

On Metaphysics Mu 10

- In this passage the structure of the entities as instances of universals is proposed as the solution to the problem of the relationship between individuals and universals; this furnishes, in my opinion, a solution to the question concerning the levels of existence and their mutual connection, inasmuch as the individual entity is treated as an instance of a universal: every individual entity is a τόδε τι, a this something, in the sense that it is an instance of a property. Aristotle's example of the individual colour and of the individual "a" can be extended, in my opinion, to every instance which belongs to reality; every individual entity constitutes a realization, a concretization of a property: the individual "alpha" is an "alpha", the individual colour is a colour, and, as an extension, the individual man is a man, that is, he is the instance of the universal "man" and of the property "being man"; we have, therefore, the following components for reality:
- properties such as "being an alpha" or "being a colour"; I think that the examples proposed by Aristotle can be extended to every individual entity, so that the individual entity "man" is to be considered as the instance of the property "being man".
- instance of properties such as "the individual alpha" or "the individual colour".
- universals as predicates that represent properties (the universal "man" represents the property "being man", it is a deputy for the property "being man");
- predication of the universals as acknowledgment of the instantiation of a property in an individual entity.

On Metaphysics Mu 10

- The field of instances is represented by individual entities; however, the field of existence of substantial and non-substantial universals too possess a right of citizenship: substantial and not-substantial universals exist (they are not constructions of the mind; the mind finds them, does not invent them). The field of instances is certainly always represented by individuals; notwithstanding, the whole field of existence is constituted by both individuals and universals, even though the universals' way of existence is different from that of the instances; individuals and universals exists on different levels, they represent different ontological realms. We thus have the following realms of reality:
- Instances, concretizations, individuals, numerically one entities.
- Essences, universal properties (which depend for their existence on the existence of the instances).

In the quoted passage, Aristotle's strategy is first of all directed to showing that a plurality of similar syllables exists and to refusing the hypothesis that an alpha itself and a beta itself exist apart from a plurality of many alphas and of many betas. The ontological rules that Aristotle is giving in order to avoid the difficulties presented in the chapter are the following ones:

a) There is no separate entity apart from the entities which have the same form: there is no need of further entities which are the principles of the entities and are separated from the particular entities.

b) There are many alphas and many betas; there is a plurality of elements.

c) There is no alpha itself and there is no beta itself: there is no isolated element which should have a privileged ontological position.

Aristotle is trying to explain the very possibility of the existence of the plurality. In order to reach this result, he refuses the hypothesis that principles and elements exist apart from the entities of which they are the principles and the elements. As regards the individual entities, the individual entity is treated as an instance of a universal: every entity is a $\tau \acute{\delta} \delta \epsilon \tau \iota$, a this something, in the sense that it is an instantiation ($\tau \acute{\delta} \delta \epsilon$) of a property ($\tau \iota$). The decisive, fundamental sentences for the mediation between particulars and universals are the following ones:

"... sight, accidentally, sees universal colour, though, because this colour which it sees is colour (άλλὰ κατὰ συμβεβηκὸς ἡ ὄψις τὸ καθόλου χρῶμα ὁρῷ ὅτι τόδε τὸ χρῶμα ὃ ὁρῷ χρῶμά ἐστιν), and this alpha which the grammarian studies is an alpha (καὶ ὃ θεωρεῖ ὁ γραμματικός, τόδε τὸ ἄλφα ἄλφα)."

Every individual entity is a concretised, individualised, particularised universal. The example of the individual colour and of the individual alpha can be extended, in my opinion, to every instance which belongs to reality; every instance constitutes a realisation, a concretisation of a property. The particular alpha is an alpha, the particular colour is a colour. Hence, within this ontological scheme, the particular man is man, that is, the particular man is an instance of the universal man. The universal is singularised in and through the instance. The formulas " $\tau \dot{\delta} \delta \tau \dot{\delta} \chi \rho \tilde{\omega} \mu \alpha$ " and " $\tau \dot{\delta} \delta \epsilon \tau \dot{\delta} \ \alpha \lambda \phi \alpha$ " are formulas showing that the individual is an instance of a universal. The individual colour is colour; the individual alpha is alpha; individuals are not only individuals. Every instance has the structure of a $\tau \dot{\delta} \delta \epsilon \tau \dot{\delta} \ \alpha \lambda \phi \alpha$: it is a particular instance of a common property.

Generally speaking, the dimension of universals is a dimension of indefiniteness, since universals are not temporally and spatially delimited. The dimension of material particulars is a dimension of definiteness, since material particulars are temporally and spatially delimited. Both dimensions exist, in my opinion, for Aristotle, in spite of the fact that their own ways of existence are different from each other.

In the case of the particular entities, the object of knowledge is always an individual entity instantiating a universal (a universal) property): the grammarian knows an alpha, that is, an instance of a property which is common to all the particular alphas. Sight is able to see, and, consequently, to reach the universal content, since the individual colour, the instance of colour, the instantiated colour is, anyway, nevertheless, colour, that is, is the instance of a universal. In case of alpha and of colour, the universal is individualised in the particular. Universal and particular do not constitute two kinds of entities which are completely heterogeneous to each other. They do belong, as such, to different realms of reality: they should not be confused with each other; particulars are to be treated as particulars, and universals are to be treated as universals. Notwithstanding, there is a mediation between them: particulars are particularised universals. The entity that is perceived, or that is analysed, is, constitutively, an instance of something, an instantiated something. Moreover, particular entities like a particular colour and a particular alpha prove to be particular somethings: they are not bare entities. Their ontological constitution consists in being an instance of something. The knowledge of universals will, therefore, entail the potentiality for the knowledge of particulars, since particulars, being instances of universals, bring, thereby, universals in themselves.

The relationship between the knowledge of universal and the knowledge of particular is already expressed in the following passage *Metaphysics Mu* 10, 1086b34–37:

"... for the conclusion (σ υλλογισμός) that this triangle is equal to two right angles does not come into being, if not every triangle has two right angles, nor the conclusion that this man is animal comes into being, if not every man is animal ..."

Knowledge of particulars can be reached only through the knowledge of universals. This becomes clear if we consider that universals, as they are defined in *Posterior Analytics* I 4, necessarily belong to the entities to which they belong, since they are connected to properties which belong to the entities as regards what these entities, in themselves, are. For example, the property "having the sum of the angles equal to two right angles" belongs to every triangle as a triangle: therefore, the universal corresponding to this property belongs to the triangles necessarily. It cannot be the case that a triangle does not have this property, and, consequently, it cannot be the case that the universal corresponding to the triangle.

Universal expresses a complex relation: universal is not only an entity predicated of a plurality or of a totality of entities; it has a property connection to the entity to which is referred: this property regards the entity as such. The properties corresponding to universals express either the essence of the entities of which they are referred to through the predication of the universals, or they are properties derivable from the essence of the entities they are referred to through the universals. If determined essences of determined entities have determined contents, all the instances of these essences will have these property contents. In the same way, if the properties derived from these determined essences have determined contents, all the instances of these properties will have these property contents.

A triangle has in virtue of its essence determined properties. Since the essence of a triangle has determined contents, every triangle has and will have these contents, i.e. any triangle whatsoever we can find, see, or analyse, will have, then, determined properties. Universals corresponding to these properties will, therefore, of necessity belong to every triangle as triangle. Further properties, which correspond to the properties which are "accidents in themselves", are derivable from the essential properties of the triangle as such.

All these properties are connected to the triangle in itself and belong, therefore, of necessity to the triangle; hence, they are not properties which can belong, and not belong to the triangle. The fact that these universals belong to the triangle is a consequence of the triangle's having determined contents in itself. Universals are consequences of the properties that the triangle as such has. In other words, any triangle as a triangle possesses determined properties; therefore, every time there is a triangle, there will be these properties, too (otherwise, there would not be a triangle). Aristotle, in my opinion, sees fixed contents making up properties. Therefore, every time we have an instance of a property, we shall have all the contents connected to this property. Universals are the (language) ascertainment of the presence of these properties; they are consequences of properties and of state of affairs.

If we know the properties which the triangle in itself possesses, we shall know the reasons why every particular triangle of necessity has determined properties and does not have – at least does not have of necessity – other properties. Exclusively the knowledge of the essence and of the properties deriving from the essence can give us the knowledge of the grounds because of which a triangle is the way it is and cannot be any different. Universals correspond to essences and properties derivable from essences . They are the consequence of the contents of the essences and of the properties derivable from the essences.

The knowledge that triangles have their angles equal to two right angles does not simply depend on the demonstration of different cases which all regard the same (kind of) entity and which all deal with a determined property. For example, an enumeration of different cases of triangles having a determined property would not be sufficient for us to say that the triangle as such possesses that determined property, no matter how great the number is of the triangles taken into consideration. Knowledge is not a question of a number of triangles. The knowledge which is to be arrived at is the knowledge of the triangle as such and of the properties deriving from the triangle as such. The knowledge that must be reached is the knowledge that the triangle as a triangle has this property . In order to reach this knowledge, we must know the essence and the properties derivable from the essence of the entities. In this way, we can know that these properties necessarily belong to the entities. If there is knowledge of essence and of the properties derivable from the essence, we shall be able to know why a particular case is one way and not a different way.

The particular triangle, being an instance of the essence of triangle, is, as such, all the properties of the essence of triangle: the particular triangle follows all the laws governing the essence of triangle. These laws originate in the essential properties of the triangle as such: their basis is the essence of every triangle. These laws also originate in the properties derivable from the essential properties of the triangle. The example of the triangle illustrates what Aristotle aims at: there are laws and there are individual cases. The laws govern the ways the individuals actually are. Universal laws are not apart from the individuals. They are the directives which are followed by the instances. Laws belong to another realm of reality than that to which the instances belong. Individual entities are applications, realisations, concretisations of universal laws. They follow the contents of universal laws. It is, for example, a kind of universal law that men have this and that development in their own lives. This law does not exist at the level of individual men, as though it were a further instance to be counted with individual men. It exists in the sense that it is the content, rooted in the reality, of the development of individuals. It is therefore realised and repeated in every instance of man.

As regards the features of the universals present in the chapter Metaphysics Mu 10, I believe that the universal which we have at the end of the chapter is not the universal which we have at the beginning of the chapter. The universal is, in the first part of the chapter, either a separated entity, so that it is prior to the substance, or is a sort of ingredient, a sort of component of the individual entities. The conception of universals is modified in the chapter in correspondence with the modification of the particulars. As the particular is interpreted as an instance of the universal, so the universal is no longer interpreted as an entity existing apart from the individual or as an entity which functions as a sort of component, of an ingredient of the individual entity. Through the specification of the features of universals, it cannot be maintained any longer that entities are compounded of universals or that universals can be prior to substance. Certain features of universals are eliminated so that the universal present at the end of the chapter is different from the universal present at the beginning of the chapter. The universal is emendated from wrong features, so that, at the end of the chapter, it is very different from the universal of the beginning of the chapter. In spite of the fact that the determination of the features of the universal is not the primary question of Metaphysics Mu 10, it becomes notwithstanding clear, in my opinion, throughout the chapter, that the universal cannot be prior to the substance, and that the universal cannot be a component of the individual entity: universals are something else.

De Caelo I 9

"Let's say not only that the heaven is one, but also that it is impossible that a plurality of heavens exists, and, furthermore, that, since it is uncorruptible and unborn, it is eternal, by going, first of all, through the questions concerning it. To all those who investigate in this way, it would seem impossible that it should be one and unique: for, in all the entities compounded and generated both of nature and of art, the shape (μορφή) in itself ($\alpha \dot{\upsilon} \tau \dot{\eta} \kappa \alpha \theta' \alpha \dot{\upsilon} \tau \dot{\eta} \nu$) and the shape mixed with matter (μεμιγμένη μετά τῆς ὕλης) are different from each other; for example, the form ($\epsilon i \delta \delta c \beta$) of the sphere, and the gold and the bronze sphere, are different from each other, and, again, the shape ($\mu o \rho \phi \dot{\eta}$) of the circle, and the bronze and wooden circle are different from each other; for, when we state the essence ($\tau i \eta v \epsilon i v \alpha i$) of the sphere or circle, we shall not mention in the definition ($\dot{\epsilon}v \tau \tilde{\omega} \lambda \dot{\delta} \gamma \omega$) gold or bronze, because they do not belong to its substance ($\tau \eta \zeta \sigma \dot{\delta} \sigma (\alpha \zeta)$; but if we are speaking of the copper or gold sphere, we shall mention them, even though we cannot conceive or apprehend anything else beside the particular entity (ἄλλο τι παρὰ τὸ καθ' ἕκαστον). For sometimes nothing prevents that this happens, as though, for example, only one circle were apprehended; for being circle (τὸ κύκλω εἶναι) and being this circle (τῷδε τῷ κύκλω) will nonetheless be different from each other, since the one is form (εἶδος), the other is form in matter (εἶδος έν τῆ ὕλη) and belongs to the particular entities (τῶν καθ' ἕκαστον).

De Caelo I 9

Now, since the heaven is perceptible, it would belong to the particulars: for every perceptible entity subsisted in matter ($\dot{\epsilon}v$ τῆ ὕλῃ ὑπῆρχεν). But if it is a particular (τῶν καθ' ἕκαστον), there will be a distinction between being this heaven (τῶδε τῶ οὐρανῷ εἶναι) and being a heaven without qualification (οὐρανῷ ἁπλῶς). Therefore, being this heaven (ὅδε ὁ ούρανὸς) and heaven without gualification (ούρανὸς ἁπλῶς) are different from each other, and the one is form and shape (εἶδος καὶ μορφή), the other form and shape mixed with matter (τῆ ὕλῃ μεμιγμένον). Of all the entities of which there are a shape and a form, either there is a plurality of particulars, or it is possible that there is a plurality of particulars. For it is necessary that this results both if forms (ϵ ⁱ $\delta\eta$) exist, exactly as some assert, and equally if none of such separately existing entities (χωριστόν) exists: for in all such cases in which the substance is in matter ($\dot{\eta}$ οὐσία ἐν ὕλη), we observe that the entities of like form ($\tau \dot{\alpha} \dot{\delta} \mu 0.0 \epsilon_1 \delta \tilde{\eta}$) are several or infinite in number. Hence, either there is a plurality of heavens, or it is possible that there is a plurality of heavens."

The following differences are in text:

- Shape / Shape in matter.
- Being circle / Being this particular circle.
- Form / Form in matter (particular entity).
- Being heaven without qualification / Being this heaven.
- Form and shape / Form mixed with matter.

In this text, Aristotle considers, as particulars entities, only the entities concretised in matter: to be form or shape mixed with matter is equivalent to being an instance. Aristotle differentiates between being circle and being this circle, that is, between essence and instantiation of the essence. The same kind of difference holds between being this heaven and being heaven without qualification, since the first one is form mixed with matter, whereas the second is form and shape. Aristotle is introducing a difference between the individual being heaven, and the essence which, as such, does not represent an instance. The property "being heaven" is differentiated from the instantiation of being heaven. Interesting is the use of the formulas:

τὸ κύκλῷ εἶναι, οὐρανῷ ἁπλῶς, οὐρανὸς ἁπλῶς

on the one hand, and

- τῷδε τῷ κύκλῳ, τῷδε τῷ οὐρανῷ εἶναι, ὅδε ὁ οὐρανὸς
- on the other hand. The formulas "τῷδε τῷ κύκλφ" and "τῷδε τῷ οὐρανῷ εἶναι" appear to correspond to individual entities, to particularised essences. The essence is particularised through the realisation in matter: everything existing as particular appears to be a particularised essence in matter. The difference holding between the essence as such and the individual entity appears to lie in the use of the demonstrative. The individual entity is expressed with the formula of a particularised essence.

Metaphysics Beta 4

"For there is no difference of meaning between numerically one and individual: for this is what we mean by the individual, the numerically one, but by universal we mean that which is predicable of individuals (τὸ γὰρ ἀριθμῷ ἕν ἢ τὸ καθ' ἕκαστον λέγειν διαφέρει οὐθέν· οὕτω γὰρ λέγομεν τὸ καθ' ἕκαστον, τὸ ἀριθμῷ ἕν, καθόλου δὲ τὸ ἐπὶ τούτων)."

Metaphysics Zeta 13

"For, first, the substance of a thing is peculiar to it, in that it does not belong to anything else; but a universal is common to many things, for it is precisely what is of a nature to belong to many things that is called universal."

Metaphysics Zeta 13

"From these considerations it is clear that none of the things that belong universally is a substance, and also because none of the things predicated in common signifies a this something, but rather such a kind of thing. If this is denied, the difficulty of the third man will arise, and many others." Metaphysics Zeta 16, 1040b26-27

"No universal exists separately from the particulars."

Metaphysics Zeta 16, 1041a3-5

"It is now clear that nothing at all that is predicated universally is a substance, and that no substance whatever is composed of substances."

Examples of ontological rules

- Nothing common and nothing predicated in common signify a this something; they signify a such (cf. *Metaphysics Beta* 6, 1003a8–10). The transgression of this rule has as a consequence that any substance is many "these somethings" (that is, it has many substances in itself) (cf. *Metaphysics Beta* 6, 1003a9–12).
- That which is said universally is not substance (cf. *Metaphysics Zeta* 13, 1038b8–9). The transgression of this rule leads to the Third Man regress (cf. *Metaphysics Zeta* 13, 1038b35–1039a3).
- The universal is not the substance of any entity (cf. *Metaphysics Zeta* 13, 1038b9–11). The transgression of this rule, and the consequent consideration of the universals as the substance of an entity lead to the disappearance of the plurality of all entities of which the universal taken into consideration is the substance (all the entities of which the universal is the substance would coincide with the universal itself and, consequently, would be numerically identical to each other) (cf. *Metaphysics Zeta* 13, 1038b12–15).
- The substance of each entity is peculiar to this entity and it does not belong to any other entity. The universal is common (cf. *Metaphysics Zeta* 13, 1038b9–12).
- The universal is, by virtue of its own definition, that which belongs to a plurality of entities (cf. *Metaphysics Zeta* 13, 1038b11–12).

Examples of ontological rules

- Entities whose substance and essence are one, are themselves one (cf. *Metaphysics Zeta* 13, 1038b14–15).
- The substance is not said of a subject, the universal is always said of a subject (cf. *Metaphysics Zeta* 13, 1038b15–16).
- The universal is not present in the essence (cf. *Metaphysics Zeta* 13, 1038b16–23).
- The substance is not compounded of qualities (cf. *Metaphysics Zeta* 13, 1038b24–25).
- Nothing which belongs universally is substance (cf. *Metaphysics Zeta* 13, 1038b35). The transgression of this rule leads to the Third Man regress (cf. *Metaphysics Zeta* 13, 1038b35–1039a3).
- Nothing which is predicated in common signifies a this something; it signifies a such (cf. *Metaphysics Zeta* 13, 1038b35).
 The transgression of this rule leads to the Third Man regress (cf. *Metaphysics Zeta* 13, 1038a35–1039a3).
- The substance does not consist of substances which are present, in the substance itself, in the form of completion (cf. *Metaphysics Zeta* 13, 1039a3–8, 1039a16–17).

Examples of ontological rules

- No substance consists of universals, since the universal signifies a such and does not signify a this something (cf. *Metaphysics Zeta* 13, 1039a14–16).
- Entities of which the substance is one, are one (cf. *Metaphysics Zeta* 16, 1040b17).
- Unity and being are not the substance of the entities (cf. *Metaphysics Zeta* 16, 1040b21–22).
- Nothing which is common to many entities is substance (cf. *Metaphysics Zeta* 16, 1040b23).
- Substance belongs to itself; substance belongs to that which has it, of which it is substance (cf. *Metaphysics Zeta* 16, 1040b23–24).
- No universal exits separately from particulars (cf. *Metaphysics Zeta* 16, 1040b26–27).
- Nothing which is said universally is substance (cf. *Metaphysics Zeta* 16, 1041a3–4).
- No substance is compounded of substances (cf. *Metaphysics Zeta* 16, 1041a4–5).
- The universal is only a predicate. The universal is not a substance (cf. *Metaphysics lota* 2, 1053b16–24).

Metaphysics Zeta 6

"We must consider whether a thing is the same as, or different from, what being is for it. This is relevant to our investigation of substance, for a thing is thought to be no different from its own substance, and what being is for a thing is said to be the substance of the thing."
Again: The Third Man Regress

"The third man is also proved in this way: if what is predicated truly of some plurality of things is also some other thing besides the things of which it is predicated (εί τὸ κατηγορούμενόν τινων πλειόνων ἀληθῶς καὶ ἔστιν ἄλλο παρὰ τὰ ὧν κατηγορεῖται), being separated from them ($\kappa \epsilon \chi \omega \rho \iota \sigma \mu \epsilon' v o v \alpha \dot{\upsilon} \tau \widetilde{\omega} v$) (for this is what those who posit the ideas think they prove; for this is why, according to them, there is such a thing as man-itself, because the man is predicated truly of the particular men, these being a plurality, and it is other than the particular men (ὅτι ὁ ἄνθρωπος κατὰ τῶν καθ' ἕκαστα ἀνθρώπων πλειόνων ὄντων ἀληθῶς κατηγορείται και άλλος τῶν καθ' ἕκαστα ἀνθρώπων ἐστίν)) – but if this is so, there will be a third man (ἔσται τις τρίτος $\ddot{\alpha}$ νθρωπος). For if the man being predicated is other than the things of which it is predicated ((εί γαρ $\ddot{\alpha}$ λλος δ κατηγορούμενος $\ddot{\delta}$ ν κατηγορεῖται)) and subsists on its own (κατ' ἰδίαν ὑφεστώς), and if the man is predicated both of the particulars and of the idea (κατηγορεῖται δὲ κατά τε τῶν καθ' ἕκαστα καὶ κατὰ τῆς ἰδέας ὁ ἄνθρωπος), then there will be a third man besides the particular and the idea (ἔσται τρίτος τις ἄνθρωπος παρά τε τοὺς καθ' ἕκαστα καὶ τὴν ἰδέαν). In the same way, there will also be a fourth man predicated of this, of the idea, and of the particulars, and similarly also a fifth, and so on to infinity."

On the reconstruction of the Third Man Regress (1)

Here are the main assumptions of the argument:

- a) what is predicated is something different from the plurality of which it is predicated ("if what is predicated truly of some plurality of things is also some other thing besides the things of which it is predicated");
- b) what is predicated is separated from the plurality of which it is predicated ("being separated from them");
- c) what is predicated has an independent existence ("it subsists on its own");
- d) the idea is subject of predication ("if the man is predicated both of the particulars and of the idea").
- The property of separation for the entity which is predicated is mentioned in the argument: this is an important point, as Aristotle never ceases to insist that only prime substances are separated, whereas universals never have this property. In this argument a thing which is predicated in common is separated, while in Aristotle a thing which is predicated in common is never separated.

On the reconstruction of the Third Man Regress (2)

Coming now to the general reconstruction of the third man argument, one can see that the premises which are necessary to produce the third man regress are:

- one over many: whenever a plurality of things are f, they are f in virtue of having some one thing, the f, predicated of them;
- non-identity: whatever is predicated of a plurality of things is something besides the things of which it is predicated (in other words, nothing which is f is f in virtue of itself);
- self-exemplification: what is predicated in common of entities being f is itself f.

On the reconstruction of the Third Man Regress (3)

Through the application of the premises represented by the non-identity and by the self-exemplification one can arrive at a regress to the infinite. The logic of the argument functions in the following way:

- there is a plurality with a property "f" ("man");
- in correspondence with this plurality having the property "f" (man) there is an entity, "f-itself" ("man-itself"), which is predicated of the plurality;
- the "f-itself" ("man-itself") that is predicated of the plurality is different from all the entities which it is predicated of;
- the f-itself ("man-itself") independently exists of that of which it is predicated;
- then there is an entity besides the plurality;
- this entity is itself "f" ("man");
- nothing is what it is in virtue of itself;
- therefore, there will then be another entity ("the third man") that is predicated of the first plurality and of the first predicated entity;
- thus, there will be another entity besides the first plurality and besides the entity that constitutes the first predicated entity; this new entity is itself f, so that there will be a fourth man.

On the reconstruction of the Third Man Regress (4)

In other words:

1. for the one over many, if there is a given plurality with a property f there is an entity, f itself, which is predicated of the plurality,

- 2. this entity is f too, for the self-exemplification, and
- 3. since nothing is f in virtue of itself, for the not-identity,

4. there is therefore another entity in virtue of which the first plurality taken into account and the f-itself are f.

5. Now the self-exemplification assumption is used another time for the new entity and the same happens,

therefore, for the non-identity assumption, and so on up to an infinite multiplication of entities.

On the reconstruction of the Third Man Regress (5)

It follows that, in order to explain a plurality's (or also a single thing's) having a property, one must introduce an infinite series of entities. This contrasts with Plato's reason for introducing ideas, which consisted in giving a unique factor explaining a plurality's having a property. Two kinds of critiques can be expressed:

- epistemologically, it can be said that in order to know a property, one must know an infinite series of entities;
- ontologically, one can say that, if there is a thing in virtue of which a plurality has a property, then there will be an infinite series of things in virtue of which a plurality has a property. The point is that ideas were introduced in order to find a unitary explanation of entities possessing a property. Therefore, if ideas cannot represent a unitary explanation, ideas are to be abandoned.
- Aristotle's not considering in Categories 5 as a valid feature of the predicate the self-exemplification of the predicate itself (that is, second substances are not individual entities themselves, that is, they are not instances of the properties that second substances express) clearly shows his intention to distance himself from the ontological incongruities which lead to the third man regress. Since the thing predicated is not a τόδε τι, but exclusively a ποιόν, it follows that the thing predicated cannot be the property it expresses.
- The difference between individual entities and entities predicated must correctly interpreted: the difference between individuals of the plurality and
 the entities predicated in the argument of the One over Many and in the argument of the Third Man is not the right kind of difference; the right
 difference between subjects of predication and predicated entities is only the difference between individuals and universals. Right ontology is not
 only a matter of difference, but also a matter of how the different is different.

The problem

• A false interpretation of predication and of entities connected to predication causes an infinite multiplication of individual entities.

• Ontology "explodes."

• Aristotle's aim consists in interpreting ontology so that whatsoever multiplication does not happen and cannot happen.

One over many argument

"If each of the many men is a man, and each of the many animals is an animal, and the same applies in the other cases; and if in the case of each of these it is not that something is predicated of itself but that there is something which is predicated of all of them and which is not the same as any of them, then this is some being besides the particular beings which is separated from them and everlasting. For it is in every case predicated in the same way of all the numerically successive particulars. And what is a one in addition to many, separated from them, and everlasting is an idea. Therefore there are ideas."

Metaphysics Zeta 8

"Is there, then, any sphere apart from these particulars, or any house apart from (παρὰ) the bricks? No, for nothing else could ever have come into being if it were in this way a this something (τόδε τι). Rather, it signifies such a kind of thing (τὸ τοιᡠνδε σημαίνει), and is not a determinate this (τόδε δὲ καὶ ὡρισμένον οὐκ ἔστιν); from a this one makes and creates such a kind of thing ((ἀλλὰ ποιεῖ καὶ γεννῷ ἐκ τοῦδε τοιόνδε), and when it is created it is a this of such a kind ((καὶ ὅταν γεννηθῆ, ἔστι τόδε τοιόνδε).

The complete this ((τὸ δὲ ἄπαν τόδε), e.g. Callias or Socrates, is like this bronzen sphere here (ἡ σφαῖρα ἡ χαλκῆ ἡδί, while man and animal are like bronzen sphere in general (σφαῖρα χαλκῆ ὅλως)."

Metaphysics Lambda 5

"Further, one must observe that some causes can be expressed in universal terms, and some cannot. The primary principles of all things are the actual primary this and another thing which exists potentially. The universal causes, then, of which we spoke do not exist. For the individual is the source of the individuals. For while man is the cause of man universally, there is no universal man.

Again, if the causes of substances are causes of everything, still different things have different causes and elements, as was said; the causes of things that are not in the same class, e.g. of colours, sounds, substances, and quantities, are different except in an analogical sense; and those of things in the same species are different, not in species, but in the sense that the causes of different individuals are different, your matter and form and moving cause being different from mine, while in their universal formula they are the same."

Prior Analytics I 27

"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, save incidentally – for we sometimes say that that white object is Socrates, or that that which approaches is Callias. We shall explain in another place that there is an upward limit also to the process of predicating; for the present we must assume this. Of these it is not possible to demonstrate another predicate, save as a matter of opinion, but these may be predicated of other things. Neither can individuals be predicated of other things, though other things can be predicated of them. Whatever lies between these limits can be spoken of in both ways: they may be said of others, and others said of them."

De Generatione et Corruptione II 6

A further objection to the theory of Empedocles is that it makes even growth impossible, unless it be increase by addition. For his Fire increases by Fire: "And Earth increases its own frame and Ether increases Ether." These, however, are cases of addition: but it is not by addition that growing things are believed to increase. And it is far more difficult for him to account for the coming-to-be which occurs in nature. For the things which come-to-be by natural process all exhibit, in their coming-to-be, a uniformity either absolute or highly regular: while any exceptions any results which are in accordance neither with the invariable nor with the general rule are products of chance and luck. Then what is the cause determining that man comes-to-be from man, that wheat (instead of an olive) comes-to-be from wheat, either invariably or generally? Are we to say 'Bone comes-to-be if the "elements" be put together in such-and such a manner'? For, according to his own statements, nothing comes-to-be from their 'fortuitous consilience', but only from their 'consilience' in a certain proportion. What, then, is the cause of this proportional consilience? Presumably not Fire or Earth. But neither is it Love and Strife: for the former is a cause of 'association' only, and the latter only of 'dissociation'. No: the cause in question is the substance of each thing-not merely to quote his words) 'a mingling and a divorce of what has been mingled'. And chance, not proportion, 'is the name given to these occurrences': for things can be 'mingled' fortuitously.

Categories 2

Of entities there are some are said of a subject, but are not in a subject (T $\tilde{\omega}v \, \check{\sigma}v\tau\omega v \, \tau \grave{\alpha} \, \mu \grave{c}v \, \kappa \alpha \theta'$ ὑποκειμένου τινὸς λέγεται, ἐν ὑποκειμένῷ δὲ οὐδενί ἐστιν). For example, man is said of a subject, the individual man, but is not in any subject. Some are in a subject but are not said of any subject (τὰ δὲ ἐν ὑποκειμένῷ μέν ἐστι, καθ' ὑποκειμένου δὲ οὐδενὸς λέγεται) (by 'in a subject' I mean what is in something, not as a part, and cannot exist separately from what it is in $(\dot{\epsilon}v)$ ύποκειμένω δε λέγω δ έν τινι μή ώς μέρος ύπάρχον άδύνατον χωρίς είναι τοῦ έν ῷ ἐστίν)). For example, the individual knowledge of grammar is in a subject, the soul, but is not said of any subject; and the individual white is in a subject, the body (for all colour is in a body), but is not said of any subject.

Categories 2

Some are both said of a subject and in a subject ($\tau \dot{\alpha} \delta \dot{\epsilon} \kappa \alpha \theta' \dot{\upsilon} \pi \delta \kappa \epsilon_1 \mu \dot{\epsilon} \nu \delta_0 \upsilon$ ὑποκειμένῷ ἐστίν). For example, knowledge is in a subject, the soul, and is also said of a subject, knowledge-of-grammar. Some are neither in a subject nor said of a subject ($\tau \dot{\alpha} \delta \dot{\epsilon} \circ \ddot{0} \tau \epsilon \dot{\epsilon} v$ ὑποκειμένῷ ἐστὶν οὔτε καθ' ὑποκειμένου λέγεται), for example, the individual man or individual horse (οξον δ τις ἄνθρωπος ή δ τις (ππος) – for nothing of this sort is either in a subject or said of a subject. Things that are individual and numerically one ($\dot{\alpha}\pi\lambda\tilde{\omega}$ ς δε τὰ ἀτομα καὶ εν ἀριθμῷ) are not said of any subject (κατ' οὐδενὸς ὑποκειμένου λέγεται), but there is nothing to prevent some of them from being in a subject (έν ὑποκειμένῷ δὲ ἔνια οὐδὲν κωλύει εἶναι) – the individual knowledge of grammar is one of the things in a subject.

The four-category-ontology

The structure of reality is organised in four different subdivisions corresponding to the different positions of the elements of a proposition:

i. entities being said of a subject but not being in a subject;

ii. entities being in a subject but not being said of a subject;

iii. entities being said of a subject and being in a subject;

iv. entities not being in a subject and not being said of a subject.

The entity being said of a subject appears to constitute an essential property of the subject to which it is referred, whereas the entity being in a subject does not constitute an essential property of the subject. The assignation of the feature "being numerically one" is proper both to what is neither in a subject nor said of a subject and to what is in a subject but not said of a subject. In fact, it seems that these ways of being of entities exhaust the field of what is instantiated, both in the category of substance, on the one hand, and in the categories of quality and of quantity, on the other hand. Instantiated entities, be they substances or not, are always numerically one.

A comparison between Lowe's four-category-ontology and Aristotle

The adaptation of Aristotle's ontological construction which Lowe proposes is in my opinion very interesting; Lowe's ontological scheme is the following one :

- Lowe's individual substances (objects) = Aristotle's entities not being in a subject and not being said of a subject.
- Lowe's property/relation-instances (tropes) = Aristotle's entities being in a subject but not being said of a subject.
- Lowe's substantial universals (kinds) = Aristotle's entities being said of a subject but not being in a subject.
- Lowe's non-substantial universals (property/relations) = Aristotle's entities being said of a subject and being in a subject.

I think that Lowe's interpretation of reality as consisting in substantial and non-substantial universals, on the one hand, and in individual substances and property/relation-instances, on the other hand, represent a highly valuable instrument in order to understand the relationships between individual entities and universal entities in Aristotle. Likewise, Lowe's interpretation of substantial and non-substantial universals as dispositions, on the one hand, and of individual substances and of property/relation-instances as occurrences , on the other hand, correspond, in my opinion, to Aristotle's aims when Aristotle speaks of individual entities like the individual man and of properties like being man.

On metaessentialism

It is furthermore the idea of a Four-Category-Ontology that can represent a model of metaessentialism applied to the structure of reality qua reality: I use the word "metaessentialism" in order to express that the deep structure of reality consists in the four dimensions of substantial instances, non-substantial instances, universal kinds and non-substantial universals: no matter which entities we can meet (men, dinosaurs, martians and so on), this deep structure of the four dimensions is always present; it precedes every particular nature; it precedes any manifestation, any appearance of entities. The ontological model in Aristotle is constituted not only by individual entities but also by programmes for instantiation in the instances; every individual entity is, as regards its ontological position, an instance of something (that is, it cannot be considered only as an individual entity: its position as instance is ontologically basic), while every universal property is a potentiality for realization in its instances (that is, it cannot be detached by its being a potentiality for instantiation: it does not exist without instances, it is immanent and not transcendent in relation to its instances).

Lowe's presentation of the four-category ontology

"By 'the four-category ontology' I mean a system of ontology which recognizes two fundamental categorial distinctions which cut across each other to generate four fundamental ontological categories, these distinctions being between the particular and the universal and between the substantial and the non-substantial. The four categories thus generated are substantial particulars, nonsubstantial particulars, substantial universals, and non-substantial universals. Non-substantial universals include properties and relations, conceived as universals. Non-substantial particulars include property- and relation. instances, otherwise known as nonrelational and relational 'tropes' or - as I prefer to call them - modes. Substantial particulars include propertied individuals, the paradigm examples of which are persisting, concrete objects. Substantial universals are otherwise known as substantial kinds and include as paradigm examples natural kinds of persisting objects. This ontology ha a lengthy pedigree, many commentators attributing it to Aristotle on the basis of certain passages in his apparently early work, the Categories." (Lowe, "The Four-Category Ontology, pag. v)

Lowe's on natural laws

"The four-category ontology – as I like to call it – provides, I believe, a uniquely satisfactory metaphysical foundation for natural science. It can, for instance, account for the ontological status of natural laws by regarding them as involving universals, but not simply property-universals. Rather, laws typically involve both kinds and either properties or relations. Take, for example, the law that I expressed earlier by means of the law-statement 'Planets' move in elliptical orbits'. According to the most popular current view of laws as involving universals – the view championed by David Armstrong – this law consists in the fact that a second-order relations of necessitation obtains between the first-order properties of being a planet and moving in an elliptical orbit. I say, rather, that the law consists in the fact that the property of moving in an elliptical orbit characterizes the kind planet. In this way, I both obviate the need to appeal to any second-order relation and provide an account of the ontological status of laws which more closely reflects the syntactical structure of law-statements. For, as I have pointed out elsewhere, the standard form of law-statements in natural language is that of dispositional predications with natural kind terms in subject-position, other examples being 'Gold is fusible', 'Electrons are negatively charged' and 'Mammals are warm-blooded'. Notice, in this connection, that the predicate in 'Planets move in elliptical orbits' is clearly dispositional in force: the lawstatement is an expression of how planets are disposed to move, under the gravitational influence of a star. And this, indeed, is why such a law-statement is not falsified by the fact that the actual movements of planets often deviate from the elliptical orbits in which they would move if they were not subject to interference by the gravitational forces exerted by other planets." (Lowe, "The Four-Category Ontology", pag. 16)

Lowe on occurrent and dispositional states of objects

"Next, the four-category ontology can account for the distinction between dispositional and occurrent (or 'categorical') states of objects – between, for instance, an object's being fusible and its actually melting, or between an object's being soluble and its actually dissolving. (...)

According to the four-category ontology, the distinction between dispositional and occurrent states of objects may be explained in the following way. An object possesses a disposition to F just in case it instantiates a kind which is characterized by the property of being F. Thus, for example, an object O has a disposition to be dissolved by water just in case O instantiates a kind, K, such that the law obtains that water dissolves K. Here, K might be, say, the kind sodium chloride and the law, correspondingly, the law that water dissolves sodium chloride. As we have already seen, by my account of laws, laws themselves are dispositional in force. And, indeed, this is borne out in the present case by the fact that the law just stated can be equally expressed by the sentence 'Sodium chloride is water-soluble'. On the other hand, an object is occurrently F just in case it possesses a mode which is an instance of the property of being F, that is a mode of the universal Fness. To apply this sort of analysis to the case of an object O's occurrently being dissolved by some water, we merely need to invoke relational modes, whereupon we can analyse this occurrent state as obtaining just in case O and some water are related by a mode which is an instance of the universal relation of dissolution. By the account of laws which I favour, it is, of course, the fact that this same universal relation holds between the kinds water and sodium chloride that constitutes the law that water dissolves sodium chloride. Thus it emerges that the distinction between the dispositional and the occurrent simply reflects, ultimately, the ontological distinction between the domain of universals and the domain of particulars." (Lowe, "The Four-Category Ontology, pag.)

Lowe on the existence of universals

"The argument that I have in mind is one which contends that the ontological status of natural laws can be properly understood only if one acknowledges the existence of universals. The gist of the argument is that an opponent of universals can at best represent natural laws as consisting merely in universal constant conjunctions amongst particulars, which reduces those laws to nothing more than cosmic coincidences or accidents." (Lowe, "The Four-Category Ontology", pag. 28)

Lowe on the structure of a natural law

"For, although I certainly agree that the key to understanding the ontological status of laws is to recognize them as involving universals rather than particulars, I consider that we can only understand laws properly if we recognize as ontologically fundamental the distinction between substantial and non-substantial universals. (...) A law simply consists – in the simplest sort of case – in some substantial universal or kind being characterized by some non-substantial universal or property, or in two or more kinds being characterized by a relational universal. Our very statement of law in everyday and scientific language tell us this, if only we are prepared to take them at their literal face value. We say, for example, 'Rubber stretches', 'Gold is ductile', 'Water dissolves common salt', 'Planets move in elliptical orbits', 'Electrons carry unit negative charge' and 'Protons and electrons attract each other'. These are all statements of natural law and each can be understood, in terms of the ontological system represented in our diagram, as saying that one or more substantial kinds is or are characterized by some property or relation." (Lowe, "The Four-Category Ontology", pag. 29)

Lowe on occurrence and on disposition

"In effect, to say that a substantial particular is disposed to be F (or is 'potentially' F) is to imply that it is a thing of a kind which has Fness as a general feature, whereas to say that it is occurrently F (or is 'actually' F) is to imply that an instance of Fness is one of its particular features. Clearly, something may be disposed to be F even though it is not occurrently or actually F: for example, a crystal may b disposed to dissolve in water even though it is not actually dissolving in water. By my account, it has this disposition in virtue of being an instance of some chemical kind – such as the kind sodium chloride crystal - of which the property of dissolving in water is a characteristic. That the kind sodium chloride crystal has this characteristic is, however, nothing less than a natural law, most naturally expressible in English by the sentence 'Sodium chloride crystals' dissolve in water', or, equivalently, 'Sodium chloride crystals are watersoluble'. So, in effect, my account of dispositionality may be summed by saying that, according to it, a substantial particular, a, has a disposition to be F just in case there is a law connecting Fness with the kind of thing that a is." (Lowe, The Four-Category Ontology, pag. 61)

Lowe on nomic necessity

"What, then, about 'nomic necessity'? If, by this, is meant 'lawlike connection', then my view is that the term is a misnomer. Laws of nature are not – or, at least, not always – necessary states of affairs, but contingent ones. It is true that what belongs to the essence of a kind, K, attaches of necessity to all individual objects of kind K. (For instance, it is part of the essence of any kind of material object that it is extended in space. But here we are talking of genuine, metaphysical necessity. So-called 'natural' or 'physical' necessity is at best a species of 'relative' necessity: a matter of what is necessarily the case given that some contingent truth obtains. Here I should emphasize that it is not my view that the natural laws concerning a kind K involve all and only those properties which belong to the essence of K, in the metaphysical sense of 'essence'. Thus, in my view, it is not part of the essence of water that it dissolves common salt. I believe that water – that very substance – could, very arguably, exist in a possible world in which there was not a natural law that water dissolves common salt. (Here I use the language of 'possible worlds' without any presumption of realism concerning possible worlds.) At most we can say that if there is a law, in a given possible world, that water dissolves common salt, then it follows of necessity in that world that any particular quantity of water has a tendency or disposition to dissolve any piece of common salt with which it may come into contact." (Lowe, The Four-Category Ontology, pag. 132)

Conclusions (1)

The concept of the typological ontology, which can be extended and specified into the four-dimensionontology, represents, in my opinion, the fundamental organization of Aristotle's ontology: the distinction between individual entities and universal properties pre-exists every particular state of affairs. The main components of Aristotle's new ontological proposal are the following ones:

Individual entities are instances of essences (of universal properties).

Individual entities that are specifically identical are instances of the same essence.

Essences, that is, universal properties constituting the programme or the way of existence of instances, exist (that is, Aristotle is neither a conceptualist nor a nominalist; the introduction of a typological ontology aims at the safeguarding of the existence of universal properties).

Conclusions (2)

The organization of reality follows the scheme of a typological ontology dividing the entities in individual entities as instances of essences and in properties constituting the essences of the individual entities. Universals are predicates representing names of properties (the universal 'man' represents the property – is the deputy for the property – 'being man').

Universals' being predicates do not exclude that universal properties exist.

Universals' being predicated of individuals is the consequence of individuals' instantiating the same universal property.

The predication of universals corresponds to the acknowledgment of the instantiation of a property in an individual entity.

Conclusions (3)

The fundamental differentiation of Aristotle's ontology regards, in my opinion, individuals as instances of properties, on the one side, and properties as programmes to be realized in their instances. Every individual (every individual entity) is the instance of a property that represents the essence (that is, the way of existence) of the instance itself: the individual entity "Socrates" is the instance of the property "being man" (that is, it is the result of the process of instantiation of this same property); the property "being man" represents the essence of Socrates, that is, it represents the way of existence of Socrates: the essence is the complex of all the faculties belonging to Socrates as man, that is, of all the faculties that indwell the soul of Socrates and that leads life and life's development of the entity "Socrates". Biological properties like "being man" are programmes for the life and for the life development of their instances: a property like "being man" contains all the dispositions and all the faculties that belong under normal circumstances to every man qua man and that emerge under normal circumstances during the life of every man qua man.

To be an instance of the property "being man" thus means to be the instance of all the properties that compose the property "being man"; in other words, to be an instance of the property "being man" means to be the instance of all the properties that are implied by the property "being man". Individual entities are, as regards their position in the realms of reality, instances of properties; properties are, as regards their position in the realms of reality, instances of properties; properties are, as regards their position in the realms of reality, instances of properties; properties are, as regards their position.

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I thank you very much for your attention!

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