

Aristotle's Theory of Relatives

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1) *A class of opposites*

Aristotle classifies opposition (ἀντικειῖσθαι) into four groups: relatives (τὰ πρὸς τι), contraries (τὰ ἐναντία), privation and possession (στρέσις καὶ ἔξις) and affirmation and negation (κατάφασις καὶ ἀπόφασις). (Cat.¹, 10, 11b15-23) His example of relatives are the double and the half. Aristotle's description of relatives as a kind of opposition is as such:

‘Things opposed as relatives are called just what they are, of their opposites (αὐτὰ ἅπερ ἐστὶ τῶν ἀντικειμένων λέγεται) or in some other way in relation to them. For example, the double is called just what it is double of the other (οἷον τὸ διπλάσιον, αὐτὸ ὅπερ ἐστίν, ἑτέρου διπλάσιον λέγεται). Again, knowledge and the knowable are opposed as relatives, and knowledge is called just what it is, of the knowable, and the knowable too is called just what it is, in relation to its opposite, knowledge; for the knowable is called knowable by something-by knowledge.’ (Cat., 10, 11b24-30)

2) *Senses of relatives*

In Met., Δ, 1020b26-32 Aristotle distinguishes three senses of relatives:

¹ Abbreviations used in this paper:

Cat.	<i>Categories</i>
Met.	<i>Metaphysics</i>
Phy.	<i>Physics</i>
To.	<i>Topics</i>

- i) That which contains something else many times to that which is contained many times in something else, and that which exceeds to that which is exceeded. E.g. double to half
- ii) The active to the passive; e.g. that which can heat to that which can be heated
- iii) The measurable to the measure, e.g. the knowable to knowledge and the perceptible to perception.

3) *Relatives and contraries*

Aristotle's discussion of relatives is unbelievably ambiguous. While he enumerates relatives besides contraries, privation-possession and affirmation-negation as four types of opposition (Cat., 10, 11b15-23), not only does not he restrict relatives to oppositions but he also does not totally differentiate it from contraries. Aristotle distinguishes between two senses of relatives one of which is contraries: 'We have distinguished elsewhere the two senses in which relatives are so called-some as contraries (ὡς ἐναντία), others as knowledge to things known, a term being called relative because what is said one to the other is said by the other to itself (τῷ λέγεσθαι τι ἄλλο πρὸς αὐτό). (Met., I, 1056b34-1057a1) It seems that this differentiation is the same as, and maybe the one he himself refers to, the differentiation between the second and the third senses of relatives in Met., Δ, 1021a27-32:

'Relative terms which imply number or capacity, therefore, are all relative because their very essence includes in its nature a reference to something else, not because something else is related to it (πρὸς τι πάντα ἐστὶ πρὸς τι τῷ ὅπερ ἐστὶν ἄλλου λέγεσθαι αὐτὸ ὃ ἐστίν, ἀλλὰ μὴ τῷ ἄλλο πρὸς ἐκεينو); but that which is measurable or knowable or thinkable is called relative because something else is related to it. For the thinkable implies that there is thought of it, but the thought is not relative to that of which it is the thought; for we should then have said the same thing twice.'

Although Aristotle confirms contrariety in relatives (e.g. virtue to vice and knowledge to ignorance), he denies that there is a contrary 'to every relative' as there can be no contrary to what is double or treble. (Cat., 7, 6b15-19)

The fact that Aristotle dedicates one sense of relatives to contraries means that the fourfold division of oppositions is not such a strict division without any kind of community between them. In his example of the first sense, however, Aristotle says: 'One and number are in a sense opposed, not as contrary, but as we have said some relative terms are opposed; for inasmuch as one is measure and the other measurable, they are opposed.' (Met., I, 1057a4-6) Now, the question is: Is Aristotle's first sense of relative a contrary or not? Aristotle tells us that the opposition in this sense of relatives is the opposition of measure and measurable. The second sense has two differences with the first one: i) it is not a contrary and ii) what is said by one of the relatives to the other is also said by the latter to the former. To differentiate it from the first sense, when the one is the measure of the other, the latter will be the measure of the former as well: 'But though knowledge is similarly spoken of as related to the knowable, the relation does not work out similarly for while knowledge might be thought to be the measure, and the knowable the thing measured, the fact is that all knowledge is knowable, but not all that is knowable is knowledge, because in a sense knowledge is measured by the knowable.' (Met., I, 1057a7-12) Aristotle's assertion at Met., I, 1057a36-37 that 'of relative terms, those which are not contrary have no intermediate' ensures us that we must take the first sense as contraries. Here he mentions a criterion of differentiation between two senses: while the first sense accepts intermediates (as, for example, great and small do), the second one does not. (Met., I, 1057a37-b1)

It seems, however, that it is only the second sense that is the essential sense of relatives because the first sense, Aristotle says, is an accidental sense: 'The one is opposed then to the many in numbers as measure to things measurable; and these are opposed as relatives which are not from their very nature relatives.' (Met., I, 1056b32-34)

4) *Definition of relative*

Aristotle's first definition of the category of relative (πρός τι) is as such: 'We call relative all such things as are said to be just what they are, of or than other things, or in some other way in relation to something else (Πρός τι δὲ τὰ τοιαῦτα λέγεται, ὅσα αὐτὰ ἄπερ ἐστὶν ἕτερον εἶναι λέγεται, ἢ ὁπωσοῦν ἄλλως πρὸς ἕτερον). (Cat., 7, 6a36-37; repeated almost without any change in: Cat., 7, 6b6-8) Aristotle's examples are larger (because it is what it is than something else (τοῦθ' ὅπερ ἐστὶν ἐτέρου λέγεται) that means it is called larger than something) and double. (Cat., 7, 6a37-b1)

Aristotle's aporia regarding relative is about their relation with substances: whether no substance is spoken of as a relative, or whether this is possible with regard to some secondary substances. (Cat., 7, 8a13-15) In the case of primary substances, it seems that he is confident, at least at first, that neither themselves nor their parts are spoken of in relation to anything: neither an individual man is called someone's individual man nor an individual hand is called someone's individual hand (but someone's hand). (Cat., 7, 8a15-21) Although it is obvious that most of secondary substances are not spoken of as relatives (a man is not called someone's man) (Cat., 7, 8a21-25), there are some with them there is room for dispute: a head is someone's head and a hand is called someone's hand, which seem to be relatives. (Cat., 7, 8a25-28) Aristotle thinks this must be due to the previous definition's being problematic: with that definition 'it is either exceedingly difficult or impossible to reach the solution that no substance is spoken of as a relative.' (Cat., 7, 8a28-32) Thus, Aristotle changes his previous definition to a new one: 'Those things are relatives for which being is the same as being somehow related to something' (ἔστι τὰ πρὸς τι οἷς τὸ εἶναι ταυτόν ἐστι τῷ πρὸς τί). (Cat., 7, 8a32-34)

Although the first definition does indeed apply to all relations, its problem is that it does not take 'their own being relative' (τῷ πρὸς τι αὐτοῖς εἶναι) the same as 'their being what they are of other things' (ἄπερ ἐστὶν ἐτέρων λέγεσθαι). (Cat., 7, 8a34-37) Although this change of definition is to exclude all substances from being relative, what Aristotle says in

Topics (To., Z, 8, 146a39-), seems to ignore this: ‘For of everything relative the substance is relative to something else, seeing that the being of every relative term is identical with being in a certain relation to something.’

5) *Necessary knowledge of the related*

Knowledge of that in relation to which a relative is spoken of is necessary when one knows the relative: it is impossible to know a relative and at the same time not to know that in relation to which it is spoken of. (Cat., 7, 8a37-b3) To prove this, Aristotle adheres to the definition of relatives: ‘If someone knows of a certain ‘this’ that it is a relative, and being for relatives is the same as being somehow related to something, he knows that also to which this is somehow related.’ (Cat., 7, 8a37-b3; cf. 7, 8b3-15 for Aristotle’s examples) This necessary knowledge of the related, if we call it so, dedicates Aristotle an epistemological reason, besides the ontological one mentioned in his definition, for the exclusion of substances. As we noted in our discussion of Aristotle’s definition of relatives, he changed his first definition to exclude all substances from being relatives. Therefore, it is evident that for him relatives must not include substances, either primary or secondary. Aristotle does have no problem with primary substances simply because it is evident for him that they cannot be relatives. The same can be said about most of the secondary substances as well. The problem for which he changed the definition of substances was about some secondary substances like ‘head’ or ‘hand’: the fact that it is possible to know a hand or head without necessarily knowing definitely that in relation to which it is spoken of proves that they are not relatives. (Cat., 7, 8b15-21)

6) *Reciprocation*

Aristotle regards reciprocation (ἀντιστρέφειν) necessary in all relations: ‘All relatives are spoken of in relation to correlatives that reciprocate.’ (Cat., 7, 6b28-29; cf. Cat., 10, 12b21-24) The sense of reciprocation is clear by his own examples: ‘The slave is called slave of

a master and the master is called master of a slave; the double double of a half, and the half half of a double.’ (Cat., 7, 6b29-31) Reciprocation of relatives is so necessary that if there seems that we do not have reciprocation, it must necessarily be due to a mistake and that in relation to which something is spoken of must have not been given properly. (Cat., 7, 6b36-7a1) Aristotle’s example is this: If a wing is given as of a bird, ‘bird of a wing’ does not reciprocate because it has not been given properly: a wing is of a winged and not of a bird; a wing is wing of a winged and a winged is winged with a wing. (Cat., 7, 7a1-5) Even if we do not have a proper name to have a proper reciprocation, Aristotle points, we must invent names. (Cat., 7, 7a5-15 and 7b10-14) Thus, having proper names is the condition of necessary reciprocation: ‘All relatives are spoken of in relation to correlatives that reciprocate, provided they are properly given.’ (Cat., 7, 7a22-23) This condition is also said in another way: there is no reciprocation if a relation is given as related to some chance thing or to something that is accidentally the related thing like when, for example, a slave is given as of a man or a biped instead of being given as of a master. (Cat., 7, 7a25-31)

7) *Simultaneity of relatives*

Aristotle believes that in most cases relatives are simultaneous: double and half or master and slave must exist at the same time: when there is a half, there is a double and when there is a slave, there is a master. (Cat., 7, 7b10-14) However, this receives some exceptions like knowable, which is prior and can, thus, exist before and without knowledge. (Cat., 7, 7b22-27) What approves this non-simultaneousness for Aristotle is that the destruction of knowledge does not carry the knowable to destruction. (Cat., 7, 7b27-31) The same is said about perception and perceptible. (Cat., 7, 7b35-8a9) Aristotle attaches simultaneity to reciprocation. This reciprocation, however, is not a simple reciprocation but ‘reciprocation as to implication of existence’ (ἀντιστρέφει μὲν κατὰ τὴν τοῦ εἶναι) with the condition that neither be in any way the cause of the other’s existence. (Cat., 13, 14b27-29; the same is said also at: Cat., 13, 15a4-11) Aristotle’s examples are the double and the half because when there is a double there is a half and when there is a half there is a double but neither

is the cause of the other's existence. (Cat., 13, 14b29-32) (We have 'reciprocation as to implication of existence' also in relation between genus and species but it seems that this has a totally different sense there.

8) *Having no independent reality*

That a relative cannot be a substance, either a primary or a secondary substance, is discussed in our review of both the definition of relatives and their reciprocation. The differentiation of relatives and substances are so deep for Aristotle that after questioning the possibility of any common element or principle for substances and relatives (Met., Λ, 1070a33-36), he asserts that no substance, on the one hand, is the element of relatives and none of the relatives, on the other hand, is the element of substances. (Met., Λ, 1070b3-4) Aristotle does not, however, suffice to this. For him, relatives have the least substantiality, which is, for him, almost the same as reality: 'The relative is least of all categories a real thing (φύσις τις) or substance, and less than quality and quantity; and the relative is an affection of quantity.' (Met., M, 1088a22-25) Aristotle believes that an evidence of this least reality (ὄν) and substantiality is that relatives have no proper generation, destruction or movement while each of substance, quality and quantity have them. (Met., M, 1088a29-35) Moreover, neither motion (Phy., E, 1) nor any kind of change is applicable to relatives so that relatives are neither themselves alterations nor the subject of alterations (Phy., Z, 3) and the process of losing and acquiring states cannot be considered as alterations because these are the result of the alterations of non-relative things of which they are states. (Phy., Z, 3)

Relative is not even matter but is something different. (Met., M, 1088a24-25) The reason is that the matter is potentially of a nature but relative is neither potentially nor actually of a nature. (Met., M, 1088b1-2)

To understand the status of relatives in Aristotle's world, we have to make a tripartite classification; a classification that though Aristotle himself did not make, his assertions approve it. Based on this division, there are three kinds of being in the world:

- i) Independent beings: This class includes only substances.
- ii) Dependent beings: This class includes qualities and quantities. Although they are real, they are 'in' substances and cannot exist without them.²
- iii) Super dependent beings: This class includes at least³ relatives. The fact that relatives must be considered in a third class different from substances, on the one hand, and qualities and quantities, on the other hand, is obvious not only from the previously mentioned texts (Met., M, 1088a22-25, 29-35 and b1-2) in which relatives' reality is considered less than all substances, qualities and quantities and different from matters but from this text: 'For there is nothing either great or small, many or few, or, in general, relative which is not something (τι ὄν) different (ἕτερον) [that is also] many or few or great or small'. (Met, N, 1088a27-30) Therefore, super dependent beings are those beings that must necessarily be also something else, i.e. an independent or dependent being.

Ackrill (1963, 99)⁴ points that some of the words used by Aristotle to exemplify relational entities, e.g. slave, are endowed with a complete sense and do not need to be supplemented by a correlate. (Thus, the linguist criterion of incompleteness would be deficient. Some other instances of relative entities like 'state,' 'knowledge' and perception are not necessarily followed by the genitive case.

² Although I do not believe Aristotle to include other accidents in this class, to consider all the others (even those that are relatives), except relatives, in this class does not make any change in our discussion here. But the problem is that we are not sure if Aristotle regards the other accidents as relative or not.

³ That whether other accidents, except qualities and quantities, must be regarded in this class or not does not make any change in our consequent about relatives.

⁴ Quoted from: Morales, Fabio, Relational Attributes in Aristotle, *Phronesis*, Vol. 39, No. 3, 1994, pp. 258-259

9) *Extent of relatives*

What is the extent of relatives? What are or are not included in relatives either among categories or among other concepts? Which concepts or things Aristotle regard as relative?

- i) Aristotle includes state ($\epsilon\acute{\xi}\tau\iota\varsigma$) and position ($\theta\acute{\epsilon}\sigma\iota\varsigma$) among relatives. (Cat., 7, 6b2-6; Cat., 7, 6b11-14; Cat., 8, 11a20-24)
- ii) Although relative is not matter but is something different (Met., M, 1088a24-25), matter is 'non-being' only in virtue of an attribute (Phy., A, 9) and is, thus, a relative term. (Phy., B, 2, 194b9)

10) *Property and relativity*

Aristotle draws a contrast between two types of giving a property, absolute and relative: 'A property is given either in its own right and for always or relative to something else and for a time.' (To., E, 1, [^]128b15-18) Being a civilized man, for example, is an absolute property for man while to command is a relative property for the soul. The absolute property, however, is considered not only potential to be discussed or observed in relation to many things or periods of time, it in fact 'belongs to its subject relatively to every single thing that there is, so that if the subject is not distinguished relatively to everything else, the property will not have been given correctly.' (To., E, 1, 129a18-20) Therefore, an absolute property is a property that 'is ascribed to a thing in comparison with everything else and distinguishes it from everything else.' (To., E, 1, 128b33-) An absolute property is, then, absolutely relative and not conditionally relative, i.e. relative to a specific thing. This is what differentiates it from a relative property, which is relative to a certain thing: 'A property relative to something else is one which separates its subject off not from everything else but from a particular definite thing.' (To., E, 1, 128b33-)

One important difference between absolute and relative properties is that while an accident can be a relative property, it can never be an absolute property. (To., I, 5, [^]102b20-36) For

example, sitting, which is an accident, is also a property relatively to those who are not sitting. (To., I, 5, ^102b20-36)

11) Platonic theories as relatives

At least three of Platonic theories Aristotle attaches to relatives:

i) Forms

‘It seems that a Form is always spoken of in relation to a Form-this desire itself is for the pleasure itself, and wishing itself is for the good itself.’ (To., Z, 8, 147a^10) Moreover, the theory of Forms takes the relative prior to the absolute as, for example, it takes not the dyad but the number as first. (Met., A, 990b15-17) Aristotle believes that this is against not only the necessities of the case but only the Platonists’ opinion because Forms must be substances only, if they can be shared. (Met., A, 990b27-29) There are, however, things like ‘equal’ which are only relative: they are only in relation to something else. Now the theory that ideas are supposed to be substances only should entail the substantiality of merely relatives.⁵ The reason being that Forms are not shared incidentally but each thing shares in that which is not predicated of a subject. (Met., A, 990b29-31)

ii) Unequal

The Platonic theory of great and small or unequal, which we know more from Aristotle and has, in Platonic philosophy, a role like that of matter in Aristotelian philosophy, is also called relative by Aristotle. (Met., M, 1089b4-15)

iii) Potentiality

Aristotle says that Platonists take what potentially is a ‘this’ and a substance but not actually so a relative because it is ‘neither potentially the one or being, nor

⁵ This is in fact a problem of the first of the ‘more accurate’ arguments in *Peri Ideon* based on Mischael J. Loux., Aristotle on Universals, in: Georgias Anagnosto Pocilos (ed.), *A Companion to Aristotle*, Blackwell, 2009, pp. 187-8

the contradictory of the one nor of being, but one among beings.’ (Met., N, 1089b15-20)

12) All things as relative

Aristotle attaches the theory that ‘everything is true’ to relativity and thinks the consequence of believing in this theory is that everything is true: ‘He who says all things that appear are true, makes all things relative.’ (Met., Γ, 1011a17-20)

13) Genera and species of relatives

There are some genera, Aristotle hints, that are relative but their species are not relative. In such cases, the genera are spoken of in relation to something, but none of the particular cases are so spoken. (Cat., 8, 11a20-36)⁶ Aristotle’s examples are knowledge and grammar of which the former is a relative but the latter is a quality. The consequence of this is that there is nothing absurd for a thing to be in both genera of relative and quality.⁷ (Cat., 8, 11a37-) However, when the species is a relative, the genera will be a relative too. (To., Δ, 4, 124b15-) Moreover, Aristotle asserts that ‘the differentiae of relative terms are themselves relative.’ (To., Z, 6, 145a14-16) Things that are called relative are called so, Aristotle says, ‘because the classes that include them are of this sort, e.g. medicine is thought to be relative bcs its genus, knowledge, is thought to be relative,’ (Met., Δ, 1021b4-6)

⁶ Also check topics 124b17-22

⁷ Ackrill (1963, 108) (Quoted from: Morales, Fabio, Relational Attributes in Aristotle, Phronesis, Vol. 39, No. 3, 1994, p. 256) finds this perplexing. We know, however, that for Aristotle every relative is also something else. (Met., N, 1088a27-30) This must imply that every relative is also under another category.

14) Relatives as indefinite?

Fabio Morales⁸ takes 1088a29-b1 as a textual evidence supporting the assumption that Aristotle regarded relational terms as indefinite.

⁸ Morales, Fabio, Relational Attributes in Aristotle, *Phronesis*, Vol. 39, No. 3, 1994, pp. 262-263