


12-1988

Ontological Structures in Aristotle

Donald Morrison

Rice University, donaldrm@rice.edu

Follow this and additional works at: <https://orb.binghamton.edu/sagp>

 Part of the [Ancient History, Greek and Roman through Late Antiquity Commons](#), [Ancient Philosophy Commons](#), and the [History of Philosophy Commons](#)

Recommended Citation

Morrison, Donald, "Ontological Structures in Aristotle" (1988). *The Society for Ancient Greek Philosophy Newsletter*. 373.
<https://orb.binghamton.edu/sagp/373>

This Article is brought to you for free and open access by The Open Repository @ Binghamton (The ORB). It has been accepted for inclusion in The Society for Ancient Greek Philosophy Newsletter by an authorized administrator of The Open Repository @ Binghamton (The ORB). For more information, please contact ORB@binghamton.edu.

Ontological Structures in Aristotle

Donald Morrison
Rice University
Houston, TX

According to the traditional view of the *Categories*, the ten "categories" are the highest genera of beings. Each of them stands at the head of a tree-like division of the items falling under it; this division is also sometimes called a "category". The metaphysical structure made up of these ten divisions is the "system of the categories". According to the traditional view, the system of the categories is very rigidly laid out. Not only is every being included in the structure, but every being has exactly one location. Each being is predicated essentially of those below it along the lines of division. Each being is related to those above it, if any, as a determination of them, and to those below it, if any, as a determinable. Because of these facts, the full analysis of the essence of any being can be gotten by stringing together the names of all the beings superior to it in the division, along with a final differentia.

But this traditional view is very widely off the mark. In the first place, it is important to realize what a remarkable achievement the system of the categories as traditionally conceived would have been, if Aristotle had in fact achieved it. Plato in the late dialogues raises the specter that division leads to chaos: dismayingly many Forms are closely interwoven with dismayingly many others; some Forms are interwoven with all others. The number of different divisions which lead to any given Form is dismayingly large. Clearly, one of the tasks the early Academy faced was to make order of this mess. The distinction in the *Sophist* between essential and non-essential predication was one tool invented for this purpose; the Academic distinction between the categories *ti* and *pros ti* was another. For Aristotle to have developed criteria powerful enough to uniquely determine a single structure of divisions of everything there is--to have solved this problem completely--would have been extraordinary.

Moreover, on the traditional view Aristotle's achievement is even more extraordinary than this. Since the work of Ernst Kapp in the first half of this century it has been recognized that a major source of Aristotle's theory of categories is his research into "topics"--into classes of terms--or things-- such that the members of each class share certain logical properties which are useful in constructing arguments. Armed with a theory of topics, one need only determine into which class a thing belongs in order to know what its most important properties are. *Topics* I, 9 introduces a theory of categories as part of the theory of topics. As Michael Frede has shown, the categories in the *Topics* are kinds of predicates or predications, whereas in the *Categories* we have to do with kinds of thing. But in the *Categories* Aristotle is careful to discuss the logical properties of each "category": whether it admits of contraries or not, whether it varies in degree, and so on. Somehow, the theory of kinds of thing in the *Categories* seems to be a development of the theory of kinds of predicate or predication in the *Topics*. If this is accepted, then, when it is combined with the traditional interpretation, we get the following thesis: the project of organizing beings in terms of genus and species into their ultimate divisions, and the project of groupings things according to their basic logical properties, coincide in their results. The same ultimate classes are arrived at by these two very different inquiries. If Aristotle did claim this for his theory of categories, then he claimed a very strong and remarkable result.

Of course, Aristotle was an extraordinary man. But one important sign that he did not take himself to have accomplished all that the traditional interpretation ascribed to him is his famous uncertainty over the number of categories. Sometimes Aristotle gives the number of categories as ten, sometimes as eight, and sometimes as six. It is unlikely that a person who was in a position to be certain that all being can be fitted into one unique division could be so unsure of how many basic divisions there are.

Apart from this general misgiving, the traditional interpretation of the *Categories* faces obstacles in the text itself. The first of these is the well-known problem of the status of the differentia. At *Categories* 3a21-28 and a33-b9, we are told that not only substances but also differentia are said of, but not in their subjects. From this it follows, we are told, that the definitions, not only of substances, but also of their differentia, are predicated of their subjects. Despite their similarity to substance, however, differentia are not substances; the text is clear on this. What are the implications of these remarks? First, they prove that the said of/present in distinction was not intended by Aristotle as by itself sufficient for the construction of the system of categories. Being said of a subject, being present in a subject, and their negations give one sufficient criterion to distinguish primary substance from secondary substance, and provide a help toward distinguishing substance from non-substance. But that is all. Differentia are not substances, so they are not in the category of substance. But differentia are beings, and many if not all of them are uncompounded, so they must be in some category or other. So many, if not all, differentia will be in non-substance categories: perhaps chiefly quality, but others as well. Presumably items in other categories are defined in a manner similar to substance, through genus and differentia. Pale=penetrative color is a favorite Aristotelian example. But if the definitions of differentia are predicable of whatever they are said of, and they are said of substances, then the definitions of substances are expandable in two ways: by further definitional analysis of the genus, and by further definitional analysis of the differentia. The differentia mentioned in the definitions of the differentia must themselves have a place in the structure of the categories, presumably a rather different place from that of what they help to define, and they must themselves be definable. So a complete analysis of the definition of any item, substantial or not, while

finite, is going to be very long indeed. Moreover, "said of" relations will necessarily cross categorial boundaries, not only between substance and nonsubstance categories, but probably also between various nonsubstance categories. If for example "penetrating" is the differentia of "pale", and "penetrating" is an activity while "pale" is a quality, we will have an item in the category of activity said of an item in the category of quality. I assume that the "said of" relation in the Categories is one of the kinds of predication which Aristotle will later call "per se". Hence we can say that Categories 3a21-28, a33-39 implies that, so far as the basic structure of the categories is concerned, nothing prevents there being essential predications across categories. The text of the Categories does not even exclude the possibility of substances being "said of" (and hence essentially predicated of) nonsubstances. For there might be good scientific reasons to conclude that certain substances function as the differentiae of certain nonsubstances; for example, that "snub" is differentiated from other kinds of concavity by the substance it is characteristically in, the nose.

A second obstacle to the traditional interpretation is this: not only are there essential predications across categories; there are also accidental predications within categories. After discussing a list of quantities, for example, Aristotle says "Only these are called quantities strictly (kurios); all the others are called quantities accidentally. For it is to these that we look when we call the others quantities." (5a39-b1) The white [thing] is large because the surface which is white is large; and the action is long because it takes a long time. The white is large and the action is long; however not essentially (5b4), but accidentally.

Accidental predications can occur in other categories as well. At 6b8 Aristotle remarks that a mountain is said to be large relative to something. There are two possibilities here: either mountains are large essentially or accidentally. If essentially, then since mountains are coherent bodies and coherent bodies are essentially substances (cf. Metaphysics Delta 6 and 7), some things, for example mountains, belong essentially to two categories, for example substance and relative. This outcome Aristotle would find, though not impossible, unwelcome, for reasons to be discussed later. The alternative is that a mountain is another example of something that is in a category accidentally, this time in the category of relative. As for quality, Aristotle's text gives no explicit accidental predications in that category. But his discussion at 10b1-3 does suggest that "a man is a boxer" would be a case where a man is accidentally qualified (poios) in a way that parallels "a mountain is large".¹

The Categories as we have it includes items accidentally in a category as in that category. This is even clear from the initial mention of the categories at 1b25. Here Aristotle writes that each uncompounded thing "signifies either substance or quantity or . . ." If he had wanted, he could have written "signifies essentially . . ." This would have made a much stronger claim. But as it stands, Categories 1b25 allows both accidentally and essentially predicated substances, quantities, etc. to count as in the respective category.

This makes the categories in the work Categories different from the corresponding "ways being is said" in Met. Delta 7. Perhaps the Delta story is an evolution of the earlier doctrine--but I wouldn't want to commit myself on this.

Although the Categories does include items accidentally in a category as in that category, it expresses doubts. Aristotle closes the discussion of accidental quantities thus: "So that only the items mentioned are quantities strictly and essentially; of the others none is essentially [a quantity], but if at all, accidentally." (5b8-10) "If at all" (ei ara) expresses doubt; a slight doubt², but a doubt. It would be wishful thinking to interpret this doubt as a denial, for example because we might think that Aristotle did have sufficient philosophical reasons to motivate a denial. At 5b8-10 Aristotle doubts the doctrine, but retains it.

A possible clue to his doubt appears at 8a13-34. Here Aristotle confronts the problem that some substances seem also to be relatives. Head and hand are substances. But a head is called someone's head and a hand someone's hand, which seems to make them relatives as well. This may be so, Aristotle says; but it may also be avoidable if we change the definition of relative so as to count as a relative only what has relativity in its very being. Aristotle then argues that being relative to something is not part of what a head is, because we can know definitely what a head is without happening to know whose it is. Now, a thing has relativity in its very being (to autoi einai, 8a32), that is, in its essence, just in case it is

¹ Cats. 10a27-10b11 create a serious problem for the interpretation of the structure of categories, since they make clear that qualities (e.g. lightness) are not qualified [things] (e.g. light). Since the category in question consists of qualified things (poia, 10b9), this implies that the qualities themselves are not in the category we call, perhaps carelessly, "the category of quality". As the examples at 1b29 make clear, the category poion does not contain qualities, but only their paronymous offshoots, the "qualifieds". Since qualities are uncompounded, they must be in a category. But which one?

² Discuss ei ara.

essentially (*kath' hautō*) a relative.³ So Aristotle tries to solve his problem about heads being both substances and relatives by restricting the class of relatives to what is essentially relative. But he is not certain about this solution, for he concludes on a note of doubt (8b21-24).

This discussion is revealing in several respects. First, it makes clear that according to Aristotle his first definition of relatives did include accidental relatives. It included accidental relatives simply because it did not explicitly exclude them, by the inclusion of a clause restricting the scope to essential relatives. By parity of reasoning, the accounts of any other categories which do not include an explicit restriction will therefore extend to both essential and accidentally predicated items. But this includes all of the other accounts of categories in the *Categories*. Second, Aristotle's discussion ends in perplexity, not in outright rejection, of bi-categorical heads and accidental relatives. This shows that his primary motive is neither to eliminate accidental categoricals nor to prevent items showing up in more than one category. Rather, it seems as if the inclusion of accidental categoricals is a positive value for him, that including them was part of the goal he had originally set himself when embarking on the project of constructing a theory of categories; but that, rather than admit that some substances are relatives, he is tempted, reluctantly, to abandon that part of his original goal--though perhaps only for one category of relation.

The text gives us no reason to suppose that Aristotle's motive for revising the definition of relative is a general discomfort with items appearing in more than one category. His willingness to allow accidentally predicated items in categories implies a general willingness to allow them to appear in many places; and there is more textual evidence that he had this attitude.⁴

In the discussion of quantity Aristotle first argues that many and few and large and small are not quantities, but relatives (5b11-29). Then he backs off: "whether one counts them as quantities or not" (5b30), they have no contrary, because relatives have no contrary. The reasoning here must be: even if many and few and large and small are quantities, they clearly are *also* relatives (as has just been shown), so since relatives cannot have contraries⁵, these quantities do not have contraries, despite appearances. This inference from many and few and large and small having a property *qua* relatives to their having the same property *qua* quantities is only valid on the assumption that they are both quantities and relatives essentially. Aristotle's argument from 5b30 to 6a1 shows that he is willing to allow items like many and few and large and small to be, not just accidentally, but essentially, in two categories at once.

State and condition (*hexis* and *diathesis*) are listed as relatives at 6b2 and as qualities at 8b27. This seems to indicate that states and conditions are in both categories. But later Aristotle presents a way out:

We should not be disturbed lest someone may say that though we proposed to discuss quality we are counting in many relatives (since states and conditions are relatives). For in pretty well all such cases the genera are spoken of in relation to something but none of the particular cases is." (11a20-24)

From the traditional perspective on the categories, this cure is worse than the disease. Although no one state or condition will be in two categories at once, there will be *infimae species*⁶ in one category whose genera will be in another. If the doctrine of 11a20-36 is accepted, lines of genus-species filiation will cross categories, and essential predication across categories will include, not only the *differentiae* argued for earlier, but also genera.

This section of text concludes with an explicit endorsement of the thesis about the structure of the categories which I am currently arguing for: "Moreover, if the same thing really is a qualification and a relative, there is nothing absurd in its being counted in both genera." (11a37-8)

What better evidence for an interpretation than an explicit endorsement in the text? However, there is some doubt

³There are senses of *kath' hautō* for which this is not true, but the sense of *kath' hautō* relevant to the *Categories* is only the first sense distinguished in *Metaphysics* Delta 7, at 1022a24-26. (Cf. *Pos. An.* I 4 73b5-10.)

⁴Query: what was, then, the source of his discomfort in this passage? Perhaps a wish to keep the substance/nonsubstance distinction pure. Relativity threatens substantiality in a way that the other categories do not, because relatives are not grasped "per se" but "per aliud". Later Aristotle will claim that all nonsubstances are relatives in the *Categories* sense. The later "unity of definition" criterion of substance makes a tacit appearance here. Note that Aristotle's solution does not work, for "head" is like "wing" earlier: it is relative to "the headed", not to a determinate person. In the *Metaphysics* Aristotle will deny that parts are substances, fundamentally, because they are relatives.

⁵However, in his discussion of relatives at 6b15, Aristotle argues that relatives can have contraries.

⁶The "particulars" at 11a20j-24 are "individual species" such as grammar.

that 11a37-38, or even 11a20-38, belong in the text at all. The famous gap in the text of the Categories between the so-called Predicamenta and Postpredicamenta comes only a few lines lower down, at 11b10. The lines from 11b10 to 11b16 are clearly spurious, being a later addition to try to cover over the gap. The difficulties which 11a20-38 pose for the traditional interpretation could be removed if it is supposed that the interpolation begins somewhat earlier, at 11a20 rather than 11b10.

There are even linguistic grounds, though minor, for rejecting 11a20 ff. as inauthentic.⁷

11a20-38 should be treated with caution.. It is unwise to rely very heavily either on the authenticity or the inauthenticity of this text. However, as we have seen, the thesis that the Categories permits things to be essentially in more than one category does not rest on 11a37-38. Moreover, if 11a37-38 is an interpolation, that interpolation will have arisen because the genuine Categories did treat states and conditions as both qualities and relatives, and somebody later was disturbed by that fact. With this apologia removed, the thesis that Aristotle himself was not disturbed by this is even stronger.⁸

A fourth obstacle to the traditional interpretation of the Categories is its evident lack of concern with genus-species relations within each category. For example, the category of quantity is subdivided twice, first into discrete quantities vs. continuous quantities, and then into quantities which have position in relation to each other vs. those which do not. No attempt is made to subordinate one of these two divisions to the other; instead they are presented as if each was a direct division of quantity.⁹ If Aristotle's aim in the Categories had been to provide the outlines of a "taxonomy of essences" he would not have presented the category of quantity in this way.

Another example of Aristotle's unconcern with taxonomy in the Categories appears near the beginning of his discussion of relatives, where he says that "such things as these are relatives: state, condition, perception, knowledge, position." (6b2-3) If Aristotle were concerned in the Categories with giving a universal taxonomy, he should here be listing the highest coordinate subgenera of relatives. What we have instead is a disorganized list of subordinate kinds: perception is (in a way) a kind of knowledge; knowledge is a kind of state, and state a kind of condition (8b26ff); moreover condition, according to Metaphysics Delta 19, is a kind of position.

Similarly in the category of quality, the first kind of quality is given as "States and conditions." The second kind, "natural capacity or incapacity", seems to be a kind of state. The third kind of quality, "affective qualities and affections", includes both states and (mere) conditions (9a29, 9b32). Indeed the same thing, e.g. red, is sometimes a state (e.g. as in a robin's breast) and sometimes a mere condition (as in a blushing face). What Aristotle would say about the fourth kind of quality, shape and condition, is perhaps less clear, yet it does seem that the shape of a lump of modeling clay is a mere condition, while that of a cactus or an hourglass is a state. At 10a19 Aristotle refers in passing to the "division concerned with quality". From the complex way his four kinds interpenetrate each other, it is clear that Aristotle is using "division" here in a loose and nontechnical sense.

A final sign of Aristotle's unconcern with taxonomy in the Categories is that the only subdivision of substance that he gives is between primary and secondary substance; that is, between particular and universal. About the major kinds of substance and their relations to each other, he says nothing at all.¹⁰

A fifth obstacle to the traditional interpretation concerns the ontological status of the "categories" themselves: substance, quality, quantity, and so on. Are these "beings" or aren't they? On the traditional view, these are beings, since they are the highest genera and genera are beings. By contrast, on the traditional view, transcendentals like "being" and "opposition" and "nature" are not beings, because they are not genera; or at least, not real genera. This traditional view faces at least three difficulties. First, the text of the categories gives one no reason to suppose that the categories themselves are "genera" in Aristotle's technical sense, namely the "generic element" in a definition. Substance, quality, quantity, etc. are

⁷ See M. Frede, "The Title, Unity, and Authenticity of the Aristotelian *Categories*", in his *Essays on Ancient Philosophy*, p. 13.

⁸ Note that Topics 120b36-a9 explicitly denies that genus-species lines can cross categorial boundaries.

⁹ Moreover, it is not possible to satisfactorily subordinate one to the other. All discrete quantities turn out to have parts with position; some continuous quantities do have parts with position and some do not. If divisions are required to be wholly within a genus, neither way of subordinating one division to the other will work.

¹⁰ One problem is less certain, because more obscure. In Chapter 15, 15b17ff., the categories of quantity and quality and substance, along with subdivisions of the last two, appear to be serving as differentiae of "having". The divisions given are mutually exclusive, but not done in a way that the traditional interpretation can accept.

certainly genera in the loose sense of "kinds of thing". (11a38, 11b15)¹¹ But there the categories contain no sign that the true definitions of things are 'substance'-plus-a-string-of-differentiae", "quality'-plus-a-string-of-differentiae", and so on. In the *Categories* the "genus" of something is always subcategorical, for example "color" for "white", and "knowledge" for "grammar" (1b18, 2b10, 2b34, 4a21,23). So the traditional view cannot rely on their being "genera" to give the categories a higher ontological status than transcendentals. The argument that "substance" and "quality" are "real universals" in a sense that "being", "nature", and "opposition" are not, must be made on other grounds.

The second difficulty partly follows on the first. The "unreality" of the transcendentals is often thought to follow from their polysemy. In *Metaphysics* Delta Aristotle often introduces his discussion of a transcendental by saying that it is "said in many ways", then what it is to be that thing, or to have that character, is different in each case, so there is no single universal "present in" each.

The trouble with this argument against the reality of transcendentals is that the categories fall victim to it too. We find the fatal formula at 8b25: "Quality is said in many ways." The same formula could easily have been used for relative and quantity, since they are divided immediately into kinds in the same way as quality.¹² That feature of the text of the *Categories* which appeared in the discussion of the last objection as lack of concern with taxonomy now shows up as the absence of any positive evidence that the categories themselves are predicated non-equivocally of what fall under them. Aristotle's own definition of synonymous predication gives no help. For if substance, quality, etc. are themselves undefinable, that definition cannot apply to them.

The source of the third difficulty is the categories' lack of definitions. One might think that for Aristotle "to be is to be something", and this in the strong sense that not only must each being be nameable, but it must have some sort of definition. If something *is*, the reasoning goes, there must be something which it is to be that thing; and this is what is expressed in its definition. In the *Metaphysics* Aristotle distinguishes various grades of definition, but there even accidental beings are said to have definitions of a sort. This is to be expected, if having a definition of some sort is necessary for them to be beings.

But if having a definition of some sort is Aristotle's criterion for being, and the categories have no definitions at all, then they are not beings! Using this criterion, some of the transcendentals are just as badly off as the categories, but some have definitions of a sort and so are better off. "Being" itself has no definition, but "unity" does (*Met.* I 1052b15-18), as does "element" (*Met.* Delta 3 1014a27). In the loose sense of "definition" in which some transcendentals have definitions, perhaps some categories have definitions also: "relative" is loosely defined at 6a36, and quantity, though not defined in the *Categories*, is defined in *Metaphysics* Delta (13, 1020a8). So perhaps the fairest thing to say is that, if this criterion of being is accepted, the categories and the transcendentals will be roughly on a par.

Conclusion

So far I have said a great deal about what I think categories in Aristotle's *Categories* are not, but I have said almost nothing positive about what I think categories *are*. In conclusion, I owe you at least a few words on the positive side of the ledger. My view is that the project whose tentative results we find reported in Aristotle's categories has essentially nothing to do with the construction of genus-species trees (though its results may place some constraints on the construction of such trees). When you take the first part of the *Categories* together with the second part, the Post-predicamenta, the impression you are left with is that they are parts of a treatise whose object was to give us a philosophical instrumentarium, an organon, somewhat similar to the dictionary in *Met.* Delta, except more concerned with the laying out of central logical features than with listing the meanings of terms. It is what *Met.* Delta would turn into if it were given the more substantive task of summarizing the results of the *Topics* and the *Sophistici Elenchi*. The "predicamenta" portion of this work presents the following result. It seemed to Aristotle that he had found this much order in the universe: there are ten (or maybe fewer!) classes, the members of each class having certain similar logical features, into which all beings fall. Now it may be that some beings fall into more than one of these classes, but anyway every being belongs in at least one of them.

Thus, my positive view of the categories is what I suppose to be a rather radical position in the line begun by Kapp. The categories in the *Categories* are a residue of the line of research reported in the *Topics*, and nothing more.

¹¹These are the only two places in the *Categories* where the categories are called genera. Of these, 11b15 is spurious and 11a38 is doubtful. This loose sense should surely be allowed, partly on the basis of other works. But it may be to avoid misunderstanding that Aristotle avoids the loose sense in this text.

¹²Since substance is not divided into kinds in this text, it is unsafe to say how it would have been divided. Given the changes which Aristotle's view of substance underwent in the meantime, *Metaphysics* Delta 8 is not a safe guide. In Chapter 15 "having" does seem to be divided into kinds by means of differentiae. But as these differentiae include substance, defenders of the traditional interpretation will not want to count it as a discussion of the category "having".