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## PROF. CRESSWELL'S VIEWS ON ARISTOTLE'S THEORY OF PREDICATION

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Of the several papers Prof. Cresswell has published over the years on ancient philosophy two have especially influenced my own thinking about Aristotle's ontology. These are "What is Aristotle's Theory of Universals" and "Aristotle's Phaedo" (henceforth referred to as WATU and AP, respectively), both published in the *Australasian Journal of Philosophy*, the former in 1975, the latter in 1987.<sup>1</sup> My remarks here will concern just these two articles and how my own views arise from them while differing in crucial ways. Both articles exemplify the way in which Prof. Cresswell has gone about interpreting Plato and Aristotle with the help of modern logical and semantic notions but without leaving us with interpretations that are hopelessly anachronistic. Prof. Cresswell has been an exemplary practitioner of this method, and I have learned much from his efforts, as I am sure others have as well.

In those papers Prof. Cresswell's main concern was to explain a theory of predication which he thought explicated the one Aristotle worked with, at least in most of his writings. The theory in question can, perhaps, best be summarized by starting, fittingly enough, with the first chapter of the *Categories*, where Aristotle distinguishes three ways in which different things can be referred to by a common noun or adjective<sup>2</sup>: (1) *homonymously*, when although the same term gets predicated of<sup>3</sup> a number of subjects there is no single definition associated with the term in those various predications (in this way the term 'bank' is predicated of both a financial institution and a slope, and in this case both these things can be thought of as referred to by that term); (2) *synonymously*, when there is such a single definition (as when 'animal' is predicated both of an ox and a human being, and thus both

<sup>1</sup>The former is found on pp. 238–247 of vol. 53, no. 3, and the latter on pp. 131–155 of vol. 65, no. 2.

<sup>2</sup>The Greek word here 'ὄνομα' covers both nouns and adjectives.

<sup>3</sup>To be "predicated of" a subject requires that the predicate be true of that subject.

are referred to by 'animal'), and (3) *paronymously*, when the term predicated of different things is derived from another term in the way 'brave' is derived from 'bravery'. In this last case, it is generally accepted that the derived term has no definition of its own but the one from which it is derived does.<sup>4</sup> Thus the three cases cover situations in which the term being predicated of several things has a single definition (*synonymy*), more than one definition (*homonymy*), and no definition of its own (*paronymy*). Synonymy and paronymy can be nicely integrated with the four-fold division of *Cat. 2* based in the two relations of *existing in a subject* and *being said of a subject*. Something that is said of a subject is defined as a term that is predicated of the subject and whose definition is also predicated of the subject.<sup>5</sup> Something is in a subject just where it is an entity that exists only in logical dependence on some substance. The examples Aristotle gives of the latter, white, grammatical knowledge and knowledge in general, are all from the category of quality, where Aristotle talks frequently of paronymy. It is natural, then, to see the entities that exist in substances as grounding paronymous predications;<sup>6</sup> the derived term, like 'white', that is predicated of the substance is derived from a term that names the whiteness that exists in the substance in question.

It is clear in the *Categories* that Aristotle thought there were items that exist in substances that qualify as individuals or particulars rather than universals. In AP Prof. Cresswell thought that Aristotle had probably gotten

<sup>4</sup>The evidence in brief is this: The indubitable examples of terms that refer paronymously come from the category of quality (see *Cat. 8*, 10a28–33), and in *Cat. 5* (2a29–34) we find that the term 'λευκόν' (white), a clear example of a term applied paronymously to bodies, does not have a definition also predicable of the body, but it does have a definition when it just means the color. If we apply this approach to all the paronymous terms we get a coherent notion of paronymy and one that explains why it is included in the tripartite division of ch. 1.

<sup>5</sup>See *Cat. 5*, 2a19–27. In the articles under consideration Prof. Cresswell did not recognize any distinction between being said of a subject and being predicated of a subject. The way Aristotle defines 'being said of' allows for some predicate to be said of a number of things either synonymously or homonymously, depending on whether the same definition applies in each case or not. Strictly speaking, then, we should speak of synonymous predication only where we are talking of several subjects. But Aristotle usage is loose here, and sometimes predicating something synonymously just means that it is said of the subject in question.

<sup>6</sup>"I have said, in effect, that *a* is paronymously F iff there is in *a* something which is synonymously F" (AP, p. 141). This is a little misleading since in nearly all cases the term that is predicated paronymously is not also predicated synonymously, i.e. it is not also *said of* anything. 'White' is a bit of an exception.

this idea of non-substantial particulars<sup>7</sup> that exist in substances from Plato's *Phaedo* where there is talk of Simmias's tallness and shortness and Socrates' shortness.<sup>8</sup> This is part of a section in which Plato introduces the idea that particulars are named eponymously, i.e. derivative on the name given to a Form. All this is certainly suggestive of the way Aristotle treats paronymy and its connection with items that exist in substantial particulars. Prof. Cresswell hypothesized that Aristotle had extended this sort of analysis to cover all cases in which a predicate is predicated of a subject but not said of it (i.e., all cases of non-synonymous predication). So far as I can see, this class of cases would on his view cover all predications save those of species, genera and differentiae.<sup>9</sup> In other words only species terms, genus terms, and differentiae terms are said of any subject. Since in the *Categories* all species and genera are in the same category as are the individuals they are said of, we can conclude that terms outside the category of substance could only be said of substances if they were differentiae of them and thus not accidental to them.<sup>10</sup> Those that are accidental to their substantial subjects are all predicated of them paronymously.

The above theory leads to a fairly clear and satisfying ontology for Aristotle. His real things (*ὄντα*) are just particulars that are either substantial ones or ones that *exist in* substantial particulars. Then we have predicates. These, Prof. Cresswell suggested, Aristotle treated as words, and words are items identified by their meanings.<sup>11</sup> Universals are then the sub-class of predicates that are *said of* anything they are predicated of, and, consequently, universals are words.<sup>12</sup> It follows from what was said above that all universals will be species, genera or differentiae. There will be no accidental

<sup>7</sup> Prof. Cresswell and I both favor the view that these particulars are non-recurrent. For a discussion of the issue see Michael V. Wedin, "Nonsubstantial Individuals" in *Phronesis*, vol. 38/2, 1993; pp. 137–165.

<sup>8</sup> *Phaedo*, 102b–c.

<sup>9</sup> Prof. Cresswell often mentions species and genera as "predicated synonymously", but almost as an afterthought he includes differentiae (AP, p. 145). Aristotle himself definitely treats differentiae as said of their subjects. See *Cat.* 5, 3a21–28.

<sup>10</sup> Differentiae are part of the definitions of species, and in Aristotle no particular member of a species is of that species accidentally, i.e. it could not possibly exist while not being of that species.

<sup>11</sup> See AP, pp. 136–7.

<sup>12</sup> I attacked this nominalist reading of Aristotle in "Aristotle's Universals", *Australasian Journal of Philosophy*, vol. 65/4, 1987, pp. 412–426.

universals.<sup>13</sup> Universals, on the view Prof. Cresswell ascribed to Aristotle, simply name things, i.e. they name either the substantial particulars (then they are species, genera and differentiae of substances) or they name non-substantial particulars. The non-substantial particulars will, of course, fall into the non-substantial categories, and thus we will get species, genera and differentiae of these non-substantial things. (That there are genuine universals which name both substantial and non-substantial particulars seems to be ruled out on this interpretation, and indeed there is good reason to think Aristotle would have nothing to do with them. Terms, like 'being' and 'good' that get applied in this way turn out to be predicated homonymously across all those usages.<sup>14</sup>) All other predicates are predicated paronymously of substances, i.e. they are derived from some term that genuinely names some non-substantial particulars which exist in the substances that get paronymously named.

We get terms which synonymously name a number of distinct particulars when those particulars exhibit either specific or generic identity with each other. In WATU Prof. Cresswell proposed that we take as primitive the relation of specific identity as well as relations of various levels of generic identity to account for the hierarchy of species and genera in Aristotle's ontology. Each of these relations is an equivalence relation and thus divides the domain from which it draws its relata into mutually exclusive classes. The relation of specific identity will divide particulars up into classes corresponding to species; the relation of first-level generic identity will divide them into classes corresponding to first-level genera, and so on. Both the substantial and non-substantial particulars will be divided up in this way. Then there will be common names each of which names each of the particulars in one of these classes. These will be the names that are *said of* those particulars and thus are universals. The paronymous terms are predicated of substantial particulars but they each derive from a name that synonymously names each of the members of some one of the aforementioned classes of non-substantial particulars. The paronymous term is predicated of just those substances which the members of that species or genus are found to *exist in*.

For example, 'human being' will name the members of a certain class of substantial particulars each of which is specifically identical to each and every other member of that class and to nothing else. That class is the extension

<sup>13</sup> This contradicts the centuries-long tradition of thinking that Aristotle's universals fall into five classes, where in addition to the three Prof. Cresswell allows there are *propria* and accidents in a strict sense. I think the tradition is closer to the truth. But in favor of Prof. Cresswell's view is *Post. Anal.* I 4, 73b26.

<sup>14</sup> 'Being' ('*ov*') is said of things in all categories, but not synonymously, as is evident from *Metaphysics* IV 2. 'Good' is treated similarly in *Nic. Ethics* I 6.

of the species *human being*, so to speak. Another term, 'literacy'<sup>15</sup>, similarly names every member of a class of non-substantial particulars which are specifically identical to each other. That class is the extension of the species *literacy*. Now the term 'literate' is paronymously predicated of all those substantial particulars in the extension of the species *human being* in which we find existing one of the non-substantial particulars in the extension of the species *literacy*.

As a proposal about how Aristotle thought about these matters Prof. Cresswell's view is beset with a number of difficulties, especially when we take in evidence from works other than the *Categories*. The first I will mention is perhaps the easiest for Prof. Cresswell to dismiss and amounts to noting that accidental predicates in some of the categories seem to defy the proposal that they only apply when some non-substantial particular is present in the substance they are predicated of. For example, two predicates in the category of place are 'in the Lyceum' and 'in the market place'. Two predicates in the category of time are 'yesterday' and 'last year'. In the category of state we find 'shod' and 'armed'. Since these are clearly accidental predicates, what non-substantial particulars existing in substances might ground their application to substances? I find the question unanswerable. But the objection rests only on a widely held utter puzzlement about what non-substantial particulars we could be talking about, and Prof. Cresswell could, I suppose, just say this results from the novelty of the view, not from any inherent implausibility. But still it is odd that the only category where Aristotle makes use of paronymy is quality. If he thought it was present elsewhere, why doesn't he mention it? On Prof. Cresswell's view, which says that Aristotle was inspired to the whole theory by Plato's views on relative terms like 'tall' in the *Phaedo*, it is particularly odd that Aristotle never mentions it as regards the category of relation.

But the more difficult objections center on the notion of a difference. As noted earlier, *differentiae* are clearly said of what they are predicated of. But it is also clear (although often ignored by interpreters) that *differentiae* of substantial species are not themselves in the category of substance. At *Cat.* 5, 3a20–29, Aristotle notes that, while not existing in a subject is common to all substances, it is not peculiar to substances because it also belongs to *differentiae*. If *differentiae* were substances, this point could not be made. In addition we find Aristotle in *Metaphysics* VIII 2 explicitly endorsing the thesis that *differentiae* of substances come from all sorts of categories. Thus it must be that at least some of the predicates in the non-substantial categories

<sup>15</sup> A not unreasonable translation of 'γραμματικός'. The term means 'knowledgeable in grammar'. For the knowledge of grammar itself we have the term 'γραμματική'. The former is the term predicated paronymously, and the latter is the term that genuinely names various particular "knowledges" found in individual humans.

are said of their subjects and not just predicated of them paronymously. A problem arises here because the differentiae mentioned in the above cited passage<sup>16</sup> seem often to be ones which could be applied as accidents to many things other than those that fall into the species they help to define. For example, Aristotle treats 'bound together' as a possible differentia (of 'bundle', 'glued together' (of 'book'), and 'nailed together' (of 'casket'). Also the differentiae of 'lintel' and 'threshold' are said to be positions, presumably over the door and under the door. Hardness and softness, density and rarity, are also mentioned as possible differentiae.

If he is to take seriously the idea that what is a difference definitive of a species might also be an accident of other things, a defender of Prof. Cresswell's view faces the following options: (1) he can say of the predicates that sometimes serve as differentiae that when they are differentiae they are said of their subjects and when they are accidents they are predicated paronymously of their subjects; (2) he can say that no matter whether they serve as differentiae or as accidents they are said of their subjects; (3) he can say that no matter whether they serve as differentiae or as accidents they are predicated paronymously of their subjects. (1) is unattractive because it would mean that the term in question would not be predicated synonymously of all its different subjects despite the fact that it does seem to have exactly the same meaning and definition in all those cases of predication. (3) is ruled out by Aristotle's claim, already noted, that differentiae do not *exist in* their subjects. We are left then with (2), but this opens the door to accidental predicates which are said of their subjects rather than predicated paronymously of them.

In another article<sup>17</sup> I have suggested that this second option is exactly the view we should claim Aristotle took in his later work for *all* accidental predications, i.e. all accidents are *said of* their subjects. In the *Categories* I think he recognized paronymous predication only of qualities, not in any other category, but even this seems forgotten in the later works, as is any sharp distinction between *existing in* and *said of* a subject.<sup>18</sup> Doing away with paronymous predication might well seem to do away with any need for non-substantial particulars which *exist in* substantial particulars, and on Prof. Cresswell's view that would mean that the categories other than substance would contain nothing but universals, i.e., words. But Aristotle's talk of such

<sup>16</sup> 1042b15–36.

<sup>17</sup> Pp. 515–6 of "Aristotle's Realism" in the *Canadian Journal of Philosophy*, vol. 18/3, Sept. 1988, pp. 501–526.

<sup>18</sup> A.C. Lloyd in his *Form and Universal in Aristotle* (Liverpool: Francis Cairns, 1981) p. 43, noted this.

particulars is too widespread<sup>19</sup> to be totally disregarded. In that other article I adopted the view that Aristotle does have a doctrine of what we might call "predicative particulars". Wherever we find a term predicated accidentally of a particular subject another particular arises, which is numerically the same as the subject but different from it "in being". Thus when *educated* is predicated of Coriscus we get another particular, the "educated", which is numerically the same as Coriscus but not the same as him in being.<sup>20</sup> The difference in being means that if we were to say what the "educated" is we would say something different from what we would say if we were asked what Coriscus is. In many cases this difference means that the subject, e.g., Coriscus, could go on existing even when the "educated" has ceased to exist. I also adapted into this approach Prof. Cresswell's way of getting species and genera. The predicative particulars would fall under species and genera in the same way Prof. Cresswell's non-substantial particulars did, i.e. by application of the relations of identity in species and identity in genus.

If Aristotle treated all predications of terms in the categories as cases where the term is *said of* its subject, how could he make clear the distinction between essential and accidental predication? Here I am of the view that Aristotle had in mind something like the distinction P.F. Strawson made long ago between sortal and characterizing universals.<sup>21</sup> The sortal universals group things according to something like overall resemblance<sup>22</sup> without depending on some definite characteristic; the characterizing ones do depend on some definite characteristic to do the grouping. The scholastics were very aware of this sort of distinction and thought it was implicit in Aristotle. Boethius noted this in the following passage from his *First Dialogue on Porphyry's Isogoge* (Migne, PL: 64, 34A):

If someone were to ask what is a man, we should say: an animal.  
But if someone were to say: How is a man characterized?, we would

<sup>19</sup> See G. Matthews, "Accidental Unities", in M. Schofield & M.C. Nussbaum, eds., *Language and Logos* (Cambridge: Cambridge University Press 1982) 223–40; and M. Matthen, "Greek Ontology and the 'Is' of Truth", *Phronesis* 28/2 (1983) 113–35. For a related discussion see E. Hartman, *Substance, Body and Soul: Aristotelian Investigations* (Princeton, NJ: Princeton University Press 1977) pp. 73–75.

<sup>20</sup> The notion of numerical sameness is explicated in *Topics* I 7, 103a9–11, 26–39. See also the discussion at *Soph. El.* 24, 179a25–b6.

<sup>21</sup> In *Individuals: An Essay in Descriptive Metaphysics*, Garden City, N.Y., Doubleday, 1963; p. 169.

<sup>22</sup> Aristotle himself says that specific and generic sameness rely on the similarity between the items being classified. See *Topics* I 7, 103a11–23.

answer: rational. Always we say that the differentia is not *in eo quod quid*<sup>23</sup> but is *in eo quod quale*.

In other words, some terms are particularly designed to answer the 'What is it?' question, whereas others characterize something without telling us explicitly what the thing is. Species and genus terms are of the former sort, whereas differences (and *a fortiori* accidents) are of the latter. Whether a term is predicated essentially or accidentally, however, is a question of how it relates to the definition of the subject; if it is included in that definition it is essential; if not, it is accidental in a broad sense.<sup>24</sup> This allows for differences to be essentially predicated even though they are predicated "*in eo quod quale*" as Boethius says, i.e., even though they are "characterizing universals".

In Aristotle the characterizing universals are distinguished from the sortals mainly by the fact that they *presuppose* that sortals in the category of substance have already done their work of dividing up substances into species and genera, at least to some extent.<sup>25</sup> The characterizing terms in the non-substantial categories then group items of these various sorts, but it seems that Aristotle thought that any such grouping would have to be contained within some genus of substances; application of the characterizing term across genera of too high an order would result in homonymy. In the case of

<sup>23</sup>This seems to be the Latin translation for Aristotle's phrase 'ἐν τῷ τί ἐστί'.

<sup>24</sup>This is a little quick. Basing themselves on *Post. Anal.* I 4 the scholastics used to distinguish two ways in which something could be essentially said of something else. The first way was what I mentioned above. The second way is exemplified by 'A line is straight' or 'A number is even'. Here in the account of what it is to be straight we will find line, and in the account of what it is to be even we will find number. The point is that it is lines and nothing else that are straight and numbers and only numbers that are even.

<sup>25</sup>This, I think, is what explains the somewhat puzzling distinction that Aristotle makes at *Post. Anal.* I 22, 83a2–18, between unqualified (*ἀπλῶς*) and incidental (*κατὰ συμβεβηκός*) predication. An example of the latter is 'The white is wood' whereas its reversal 'The wood is white' is an example of the former. The problem with the former sentence is that the white is not the subject for wood but only something that belongs to what is the subject of wood, whereas in the latter sentence the wood is the genuine subject for the white. My gloss on this is that unqualified predications of accidents require subjects that are already identified by species and genera terms for substances. It is these that classify the subjects without which accidents cannot get off the ground. Aristotle puts it succinctly at 83a30–33: "Items which do not mean substance must be predicated of some subject, and they cannot be something white unless they are white by being something else."

Also the second way in which something can be said essentially of something else, which was mentioned in fn. 24 shows how accidents like 'straight', 'curved', 'even' and 'odd' all suppose the demarcation of a class of things which are the only possible subjects for them, viz. lines and numbers.



differences he seems to have thought that the limiting genus in question was just the immediate genus of the species being differentiated.<sup>26</sup>

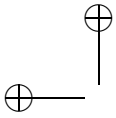
Once a characterizing universal has been predicated of each of a group of substances, it is my view that Aristotle thought that for each individual substance a predicative particular of the characterizing universal arises, so that we get an "educated" for Socrates and another one for Plato, and so on. This then allows for sortal universals whose individuals are these predicative particulars, and in that way we get species and genera for entities outside the category of substance. The predicative particulars do not so much *exist in* their substances as they are numerically the same as them, as I mentioned earlier.

Aristotle, I believe, thought of all predication as grouping things and universals as something like groups. But he did not think of predication as something done by us with our language; the grouping exists independently of our doing anything. Prof. Cresswell agrees that the grouping is independent of us (it is just a matter of particulars falling into relations of specific and generic identity), but he treats what is said of those particulars, i.e., universals as the common nouns themselves. I have criticized that position elsewhere,<sup>27</sup> but if we put this disagreement aside, it might well seem that my proposal is only verbally different from Prof. Cresswell's. It is true that I am happy with the contention that Aristotle thought predicated words were common names and that predication assertions were true when the predicate name named what the subject name names, in accord with Prof. Cresswell's interpretation. It is also true that we both propose two different sorts of common names, roughly corresponding to essential vs. accidental predications. Furthermore, where Prof. Cresswell thinks Aristotle relies on the "exists in" relation between non-substantial particulars and substantial ones, I talk of the numerical identity of predicative particulars with the substantial particulars. Where is there any substantive difference?

The difference can be expressed as follows: Prof. Cresswell reads Aristotle as having at the base of his ontology the division between substantial and non-substantial particulars, and indeed this is, I think, the way to read *Categories* 2. Operating on each of these two kinds of particulars, respectively, are the relations of specific and generic identity; and relating the members of the two kinds is the relation of *existing in*. Common names are then applied in two ways: either directly to the members of some equivalence class formed by a relation of specific or generic identity ("synonymous predication" or being *said of*), or indirectly by paronymy (accidental predication).

<sup>26</sup> See the discussion of differentiae in *Metaphysics* VII 12, 1037b29–1038a24.

<sup>27</sup> In "Aristotle's Universals", *Australasian Journal of Philosophy*, vol. 65/4, 1987, pp. 412–426.



In contrast, on my view of what Aristotle held in his later work the only fundamental particulars are substantial ones, but there are two sorts of universals that group these: the sortal ones (species and genera) and the characterizing ones (differences and accidents). Only the sortal ones are based in the relations of specific and generic identity that Prof. Cresswell mentions; the characterizing ones assume that at least some sortals have done their work, but they are not analyzable in terms of the sortals. The predicative particulars arise only because the characterizing universals have imposed another classification on top of the species and genera; *they do not ontologically ground that new classification*. Rather they are derivative on that classification. Both the sortal and characterizing universals get expressed by common names that are said of their subjects, i.e., are synonymously predicated of them, but the ones corresponding to the characterizing universals reflect the dependence of these universals on the work of the sortals. This seems to me to be a fundamentally different approach from Prof. Cresswell’s, and I hope I have given some indication of why it seems to me more likely as an interpretation of Aristotle’s intentions, although I would admit it has its own set of difficulties and what I have said here is far from a totally compelling argument for it.

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