

## DUMMETT ON ARISTOTLE'S 'IN' AND FREGE'S 'OF'

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In *Frege: Philosophy of Language* (Harper & Row, 1973), Michael Dummett analyzes Aristotle's distinction between items belonging to, and those outside of, the category of substance by means of Frege's dichotomisation of objects into concrete and abstract. I will argue that the connection is spurious.

For Aristotle, non-substances (e.g. qualities such as colour) are 'in' substances; substances, by contrast, are not 'in' anything else: they exist in their own right or are self-sufficient. This one-way dependence, according to Dummett, «is meant in the sense in which a direction is 'of' a line. (...) We cannot understand what a direction is unless we understand it as the value of the function for which 'the direction of *x*' stands, for some line as argument» (pp. 257-258).

On Frege's view, objects are abstract if, in order to grasp their names, they must be recognised as lying within the range of functional expressions of the kind presented, i.e. if they must be grasped as being 'of' appropriate arguments. Dummett thus holds that this Fregean *semantic* dependence duplicates the dependence of non-substances on substances which Aristotle expresses by means of the proposition 'in'.

Several immediate demurs come to mind. If an object *a* is both red and blue, then, for Aristotle, both colours are 'in' it. But in this case the function 'the colour of *x*' lacks a value for *a* as argument. The way that 'in' and 'of' diverge here suggests that Aristotle is not concerned with the semantics of abstract names. For he does not argue that in such cases the colours 'in' *a* would have to be identified independently, by reference to monochrome objects, but this is clearly implied by Dummett's Fregean account.

Such a possibility can be exploited further to argue that Frege's distinction between abstract and concrete is not wholly semantic. If our grasp of a colour's name requires that its *nominatum* be recognised as a value for a suitable argument, and if — as seems *prima facie* possible — we could learn colour words in a world of multi-coloured objects, then the indefinite 'a colour of x', which has a value even for the latter, would not capture all that is essential to grasping names of colours. The question 'Which colour of a?' would always arise, and whatever is used to pin a specific colour down would be part of the criterion for differentiating concrete from abstract objects. To block the problem, it may be insisted that it is a necessary condition for a name's being introduced into a speaker's repertoire that arguments exist which give a unique value to 'a colour of x', hence that in a world of multi-coloured objects colour words could not be introduced systematically at all. But plainly, even in a world of multi-coloured objects, *parts* of these objects are monochrome. So suitable arguments do exist. Hence, the problem concerns the manner in which the latter are specified. Consider a case in which the question 'Which colour of a?' is answered by 'The one on its right side'. It is reasonable to see the success of the specification in this case as requiring abilities of *selective attention to aspects of objects*. But to introduce an epistemological notion like selective attention is to augment the purely semantic character of the abstract/concrete distinction.

Moreover, though colours are non-substances for Aristotle, and hence are 'in' substances, 'red', as a proper name, can be introduced by ostension, without reliance on phrases like 'the colour of the table'. So 'in' and 'of' diverge again. True, Dummett's remark that in this respect «Colours are... on the borderline between concrete and abstract objects» (p. 486) might be used to justify a moderately reconstructive rather than slavishly exegetical linkage of the prepositions: Aristotle's specific categorisations will thus be treated as provisional, due to a primitive semantics which Frege makes good two millenia after. Note, however, that such a recategorisation of colour as a substance throws the Aristotelian system askew.

Colours would have to be definable *Per genus et differentiam* rather than as determinates of a determinable range.

Leaving these marginal objections, I will now argue that Aristotle's 'in' has no straightforward connection with semantic issues, but embodies a specifically ontological thesis about existential self-sufficiency.

The central clash between Aristotle and Frege becomes clear once the point is made that Frege's semantic views fail to duplicate the anti-Platonic point — to which, after all, Aristotle's doctrine of categories gives expression — that *universals lack instances*.

Frege factors the sentence 'The table is red' semantically into a functional component — which we may represent as '( ) is red' — and a complementing object. The same functional component reappears when we decompose different sentences involving the same grammatical predicate, e.g. 'The flag is red'. This analysis is thus congenial to the Platonist. While the semantic *analysans* does not automatically elect his position, it makes it virtually irresistible by inclining us to state the truth-conditions of sentences like these so that truth in both cases depends on the identical condition's being met. Given certain ontological assumptions concerning which Plato and his disciple are not in dispute, the decision is clinched against Aristotle by the following two claims: (1) Frege's semantic *analysans* identifies the basic integral non-logical components of sense (in standard subject/predicate sentences); (2) the senses of a sentence's components determine the character of its truth-conditions.

On this evidence, the spirit of Aristotle's doctrine rather than merely its details is contravened by Frege. Note how Aristotle might accept (1) and yet hold, against (2), that what makes 'The flag is red' true differs from what makes 'The table is red' true. What makes the former true is specified by the phrase 'the redness of the flag'; the latter is accordingly verified by the redness of the table.

These remarks pinpoint an ambiguity which Dummett misses in the phrase 'the colour of the table'. The ambiguity is resolved by the pair

the redness of the table  
and  
the colour of the table, viz. red.

Common usage, as we see, sanctions the preposition 'of' in both cases, and this feature of English may be responsible for Dummett's oversight. Only the first phrase, *taken as a whole*, is true to Aristotle's 'in'; it specifies something which is proprietary to the table: a colour instance. The second phrase accurately duplicates Frege's 'of'; it specifies something which may be had by innumerable objects, and hence which, save by cosmic accident, is proprietary to none.

Formally, Aristotle's 'the redness of the table' stands to 'the colour of the table' not as *value to complemented function*, as Dummett's interpretation requires, but as *more precise to less precise specification*. The pair 'boy' and 'youngster' are related in the latter fashion. Plainly, there is no argument for the function 'the youngster of x' such that 'boy' specifies the value.

This ambiguity reemerges systematically. If the flanking phrases in the equation

the colour of the table = the colour of the flag

identify items which are 'in' substances, it could not be true: the non-substance 'in' the table is numerically distinct from the one 'in' the flag, even if phenomenologically they are indistinguishable. So the sentence is necessarily false for Aristotle. In Frege's sense of 'of', however, the sentence has a contingent truth-value. A genuine Aristotelian identity may be expressed by

the colour of the table = the redness of the table.

But in Frege's sense of 'of', the sentence is ill-formed. What may be true for Frege is

the colour of the table = red.

Dummett's alignment of the prepositions is thus unacceptable. If we reformulate Aristotle's position in a semantic idiom, the dependence he expresses by 'in' would emerge in his denial that certain grammatical names specify elements of truth-conditions, e.g. 'red' as used in recognitional responses to

ostensively presented samples. It would be a matter of indifference to Aristotle that such names could be introduced directly into language; for he rejects (2); i.e. he holds that although a linguistic element may be an integral, basic, component of sense, it may still fail to isolate or identify an integral element of the truth-conditions of a sentence to which it contributes. By polar contrast, Frege's classification of an object as abstract turns precisely on denying that its (proper) name is an unstructured component of sense. A name is abstract, again, if a grasp of its sense is mediated by a grasp of the senses of the components of a structured functional expression, the referent of the name being 'of' the function's argument.

How could Aristotle agree to (1) and yet dispute (2)? Again: By claiming that the primary elements of sense do not provide a sufficient basis for specifying basic elements of the truth-conditions of sentences to which they contribute. This is not to claim that sense and truth-conditions are *entirely* divorced from one another. The claim, rather, is that senses do not *directly* or *isomorphically* reflect the character of truth-conditions. And this is fully compatible with the existence of quite systematic connections between the structure of senses and the ontological structure of what sentences represent. I think that such a view may well be correct, for the following reasons.

Given that the truth-conditions of the sentences of a language must be systematically specifiable, e.g. recursively *à la* Tarski, it is hard to see how (1), or something very like it, could be denied. But if we were indiscriminately to read Aristotle's account of the primary elements of truth-conditions as a semantic account of the primary components of sense, this would commit us to saying that 'the redness of the table', which would thus be a primary component of sense, lacks structure. If so, no single explanation could be supplied of how we understand 'the redness of the table' and 'the redness of the flag', and this, aside from falsifying the facts, would, *per impossible*, complicate the semantic specifications beyond toleration.

It is essential to recognise therefore that Aristotle's account

focusses primarily on truth-conditions and only derivatively on sense. It would be dogmatic to insist that such a view is simply unintelligible. Why may one key factor determining the structure of sense in a language — viz. the mentioned requirement of system — be unsynchronised with the ontological character of the world represented by language? Obviously, a position would be rejectable if it sanctioned, let alone required, total divergence between the two. But nothing commits Aristotle, or any theorist who voices a similar objection to (2), to concede total divergence. Nor is there anything magical about the lack of total divergence. For obviously, the nature of the world, with which we are extra-linguistically in contact, also plays a role in determining the structure of senses.

In view of the outlined Aristotelian assessment of (1) and (2), it is not surprising that Dummett, who accepts both, should misinterpret the phrase 'the colour of the table' as used to formulate Aristotle's 'in'. On Aristotle's view, such a phrase is not a natural mode of expression; it is contrived for specifying an integral element of truth-conditions of a sentence like 'The table is red'. The divergence between (1) and (2) fully explains why, as ontologists, we are thus obliged to contort ourselves linguistically and make do with a *pis aller*.

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