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Notre Dame Journal of Formal Logic
Volume XIX, Number 4, October 1978
NDJFAM

ARISTOTLE ON THE SUBJECT OF PREDICATION

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In "On a Fregean Dogma," F. Sommers[1] showed that it was an unwarranted dogma of contemporary logic that all predications must be to a singular subject. One consequence of this dogma is that concept or universal introducing terms cannot be the proper (logical) subjects of any subject-predicate sentences. Such terms are always logical predicates regardless of their grammatical role in any sentence.[2] Now K. Gyekye[3] has attempted to foist this dogma upon Aristotle himself.

Gyekye cites Aristotle's thesis that universals such as white, walking, etc. cannot exist *per se*, but must inhere in an individual primary substance such as this dog or Socrates. Thus, to use Gyekye's example, in the sentence 'Piety is a virtue' while 'piety' is the grammatical subject, it cannot be the logical subject. 'Piety' is a universal introducing term and, purportedly, can only be a logical predicate. The logical subject must be a primary substance introducing term, a term which refers to an individual or a name. So, while the grammatical form of 'Piety is a virtue' is 'VP', the logical form is '$(\exists x)(\mathrm{P}x \,.\, \mathrm{V}x)$'.

But how are we to read '$(\exists x)(\mathrm{P}x \,.\, \mathrm{V}x)$'? Something is both pious and a virtue? Something is both piety and a virtue? The difference here matters. We can read 'V' in both 'VP' and '$(\exists x)(\mathrm{P}x \,.\, \mathrm{V}x)$' as 'is a virtue'. But, how do we read 'P'? In 'VP' it clearly refers to the universal piety. It is like a name here. So in '$(\exists x)(\mathrm{P}x \,.\, \mathrm{V}x)$' we should be inclined to read 'P' uniformly as a universal term introducing piety rather than as the predicate term

1. In I. Lakatos, ed. *Problems in the Philosophy of Mathematics* (Amsterdam, 1967).

2. See *Translations from the Philosophical Writings of Gottlob Frege*, ed. P. Geach and M. Black (Oxford, 1960), pp. 48-50.

3. "Aristotle and a modern notion of predication," *Notre Dame Journal of Formal Logic*, vol. XV (1974), pp. 615-618.

Received December 3, 1974

'pious'. To equate 'piety' (a universal introducing term) with 'pious' (a predicate term) is to confuse a sentence's meaning with its truth-conditions. 'Piety is a virtue' means that the universal piety has the property of being a virtue (note: it does not mean that piety is virtuous—is a virtue $\neq$ is virtuous). This holds in spite of the fact that a condition for the truth of 'Piety is a virtue' is that some thing (substance) exist which has the property of being pious. If we say that any sentence implies its truth-conditions, then we might symbolize this as follows (letting 'π' be 'piety' and 'P' be 'is pious'): $\mathsf{V}\pi \supset (\exists x)\mathsf{P}x$

Gyekye says that Aristotle would translate 'VP' as '$(\exists x)(\mathsf{P}x \,.\, \mathsf{V}x)$' rather than as '$(x)(\mathsf{P}x \supset \mathsf{V}x)$' because he is "committed to the actual existence of the primary substance." But if Gyekye's overall thesis is correct, it would seem that Aristotle would more likely render 'VP' as '$(\exists x)\mathsf{P}x \,.\, (y)(\mathsf{P}y \supset \mathsf{V}y)$'. Yet this still will not work. The basic problem here is that in ordinary discourse we wish sometimes to talk about things, individuals in terms of their properties and other times we want to talk of those properties themselves. We want to say both that Jones is pious or all church-goers are pious and we want also to say that piety is a virtue and piety is rare in the modern world. And we want to say things about those properties independently of our saying anything about the individuals of which those properties are true. We want to say, for example, that being two hundred years old is a great feat for any man without having to say anything at all about any two hundred year old men. While we may be committed to whatever our sentences imply, we do not *mean* those implications by our sentences.

For Aristotle an affirmative subject-predicate sentence such as '*S* is *P*' can only be true if both *S* and *P* exist. If *P* or both *S* and *P* are universals then for them to exist some primary substance must satisfy them. 'American Indians are disappearing' implies, for Aristotle, that something is an American Indian and also that something (else) is disappearing. But it does not mean (contra Gyekye) that some American Indian is disappearing (i.e. 'DA' $\neq$ '$(\exists x)(\mathsf{A}x \,.\, \mathsf{D}x)$').

It is a gross misrepresentation of Aristotle to say that he would use, in any sense, the quantifiers of modern mathematical logic. In today's logic the logical subject of any sentence is either some or all *things*. 'All men are mortal' is read as 'Every *thing* is such that if it is a man it is mortal'. 'Some dogs bark' is read as 'Some *thing* is a dog and it barks'. Even, 'Plato is the teacher of Aristotle' is read as 'Some *thing* taught Aristotle and it is identical to Plato'. Yet 'thing' is only a pseudo-referring term. *Things* are not any sort of thing. For Aristotle, everything is a thing of some sort. Everything must satisfy some secondary substance term (cf. *Categories*, 1b13ff.). There is no such class as the class of just things (cf. *Posterior Analytics*, 92b14ff.). Every individual is some sort of thing. Every primary substance satisfies some secondary substance. Every individual satisfies some universal. Given this view, Aristotle could not possibly countenance the modern notion of a quantifier. '$(\exists x)(\mathsf{P}x \,.\, \mathsf{V}x)$' is a sentence about bare *things*, which for Aristotle is nonsense.

Gyekye uses Aristotle's thesis that every secondary substance satisfies some primary substance (every universal term is true of some individual) to support his claim that Aristotle would read all sentences as having individual logical subjects. But, as we have seen, Aristotle also held that every primary substance satisfies some secondary substance (every individual has some universal term true of it). A Gyekyean argument based on this second thesis would show that for Aristotle every sentence has a universal logical subject!

One final remark: if an unsorted individual is unformed, it is not just a primary substance. It is no substance at all. It is merely bare matter. In Aristotelian terms, modern logic takes all logical subjects not as primary substances but as bare matter. The gap between Aristotle and such logicians could not be wider.

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