LEŚNIEWSKI'S ONTOLOGY AND SOME MEDIEVAL LOGICIANS

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In a recent issue of this journal (Oct., 1964) Professor Desmond Paul Henry has shown that, although it may be the case that Ockham's *descensus* in his supposition theory cannot be adequately rendered in the lower functional calculus (Cf. [7]), it can be adequately rendered in the Ontology of S. Leśniewski. Professor Henry, furthermore, suggests that Ontology would be an appropriate tool for analyzing other medieval logical theories, claiming, "It is not difficult to multiply examples of the facility and directness with which Ontology can furnish formal analyses of medieval logical theories, including those cases which are despaired of in the histories." (P. 292)

In this note I wish to suggest an important limitation upon this claim. For a very fundamental reason Ontology is not an appropriate tool for analyzing a certain class of fourteenth-century logical theories. One can best make this point, however, by emphasizing its usefulness for explicating Ockham's doctrines. Not only will it allow one to express the *descensus*; it also provides a very close and illuminating explication of Ockham's doctrine of predication, and this is the matter that most concerns me in this note.

As Henry points out, the primitive term of the original axiom of Ontology is "ε", which is a proposition forming functor having as arguments two names. A proposition of the form "$a\varepsilon b$" is true iff either "a" and "b" each name the same individual object and no other, or "a" names only one individual object while "b" names many such individuals, of which the individual named by "a" is one. "ε" may be expressed in English as "is" or "is a"; it corresponds to "est" in Latin used as the copula. Henry also emphasizes that the arguments taken by "ε" are of the same semantic category.

Ockham's doctrine of predication can easily be clearly expressed in terms of the basic concepts of Ontology. Ockham regards the copula as "the verb joining the predicate with the subject." (*Copula autem vocatur verbum copulans praedicatum cum subiecto*. [8] I, c. 33) He regards the predicate and subject as being alike names of the same semantic category, and in a well-formed proposition he thinks the copula joins a subject with a

predicate to form a proposition in which the two names (if the proposition is true) each name the same individual. (See his discussion in [8] II, c. 2, which states this position explicitly.) Therefore, Ockham's example *Sortes est homo* can be expressed in perfect harmony with his views about predication in the notation of Ontology as "s ε h".

This two-name doctrine of predication was held by many fourteenth-century logicians (Cf., e.g., [1] c. II, concl. 10 and [3], p. 199.) Ontology would of course, at least so far as this point is concerned, be an appropriate tool for explicating these logical theories as well. It was denied by some fourteenth-century logicians, however. Two who denied it were Walter Burleigh (c. 1275- c. 1345) and St Vincent Ferrer (c. 1350-1419). Ferrer's position on the matter is perhaps more explicit than Burleigh's, but I think both would agree in rejecting the two-name theory and substituting for it what might be called a "Thomist" doctrine of predication. Whether Aquinas can properly be thought to have held this view may be a moot question (but see P. T. Geach's arguments in [5] and [6] to the effect that he did). At any rate, Ferrer thought he did and takes as the basis of his own doctrine of predication Aquinas' comment that subjects are taken materially and predicates formally. Ferrer states the dictum in the form, "the predicate is the formal part of the same matter." (*Predicatum autem est pars formalis ejusdem materie.* [4] p. 82.) What this dictum means so far as the doctrines of predication of these fourteenth-century logicians are concerned is that subjects and predicates do not belong to the same semantic category. Therefore, Ferrer will not allow that predicates can have the property of *suppositio.* They do not refer to individuals in the way that subjects do, and, hence, predication cannot be accomplished by the use of functors like "ε" or Ockham's copula that form propositions from two names. According to the holders of the Thomist doctrine, subjects and predicates perform quite distinct roles in forming a proposition. The subject refers to some individual or individuals; the predicate is enunciated of them (Burleigh, [2] I, I, c. iii) or applies to them (Ferrer, [4] p. 21). Whereas the subject term makes up a kind of complete semantic unit in that it can stand alone as the name of something, Ferrer, at least, thought the predicate term cannot so stand alone. It is incomplete in the way in which the form of a thing is not independent of the matter of which it is the form and is therefore incomplete without it.

An adequate explication in modern logic of this kind of predication doctrine would demand something like Frege's functional analysis of predication. In his system a form like "$\phi(A)$" shows this disparity of semantic category that Ferrer and Burleigh believed obtains between the subject and the predicate. The subject is represented by "A", which is a symbol representing a complete semantic unit that can stand alone as a name referring to some individual. The context "$\phi(\ )$", representing the predicate, cannot stand alone in the same way, however; its argument place must be filled in by some appropriate subject term before it can function as a complete language unit.

What is at issue here? Certainly the dispute between Thomist and

Ockhamist logicians on predication does not have to do with what is in the strict sense a logical issue. That is, there is no question here of the formal relations between a system like Ontology and the lower functional calculus based upon Frege's analysis of predication. Nor is it simply a matter of translation, a matter of finding a notation by means of which one can write up certain forms of sentences in a spoken or written language. A logic differs from an uninterpreted calculus in that, at least according to many logical theorists (including the medieval logicians under discussion), a logic is always developed with a view to an interpretation. It must be developed with a view to expressing what can be truly said about the world, and these fourteenth-century logicians thought this means that some basic features of the structure of the world must be reflected in the syntax of a logical system. This is why differences in logical theory in the fourteenth-century so often reflected differences in metaphysics or philosophy of nature and why Ferrer, for example, begins his logical treatise on supposition theory with a review of opinions about universals. (For a more complete account of Ferrer's understanding of the nature of logic, see [9].) Logicians like Burleigh and Ferrer rejected Ockham's doctrine of predication and would doubtless reject its twentieth-century expression in the system of Leśniewski's Ontology, preferring a system like Frege's Begriffsschrift, on the grounds that the representation of predication in a Thomist or Fregean system properly reflects the relation of inherence of a form in the matter of which it is the form in that about which the proposition speaks in a way in which its representation in Ockham's or Leśniewski's system would not. The dispute has to do, then, not with logic itself, but with the form of the world as it is reflected in the interpretation of a logical system.

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