

AN ANSELMIAN REGRESS

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§1 Exemplifications of the central thesis of St. Anselm's *De grammatico* can be expressed in two ways, either as assertions *de re* or assertions *de voce* (Ch. XVIII). In terms of the specimen paronym¹ (i.e. derivative shared name) from which the dialogue takes its title, the *de re* expression of exemplifications of the thesis can have the following alternative formulations:

- (1) *grammaticus est habens grammaticam* (Ch. XIV, XVI)
- (2) *grammaticus est grammatica* (Ch. XII, XVI)

Corresponding *de voce* formulations are

- (3) *grammaticus significat habentem [or scientem] grammaticam*
(Ch. XIV, XIX)
- (4) *grammaticus significat grammaticam* (Ch. XII, XIV, XVI)

All these formulations are upheld by the Tutor of the dialogue, in opposition to the Student's exemplary antithesis (here formulated *de re*), namely:

- (5) *grammaticus est homo habens [or sciens] grammaticam*
(Ch. XIII)

The discourse of the dialogue alternates indiscriminately between *de voce* and *de re* assertions. In what follows, in order to avoid unnecessary multiplication of semantical categories, only the *de re* versions of the sentences under consideration, and the consequences of those versions (as opposed to the *de voce* versions and their corresponding consequences) will be considered. A general statement of the *de re* formulation of the central thesis would run as follows:

In all those cases where 'a' is a paronym and 'α' its corresponding abstract noun, the following are true:

- (6) *a est habens α* (cf. (1))
- (7) *a est α* (cf. (2))

A *de re* formulation of the antithesis would run:

In all those cases where 'a' is a paronym, 'α' its corresponding abstract noun, and 'b' some non-paronymous² shared name, the following is true:

(8) *a est b habens* (cf. (5))

In the absence of variables, the thesis and antithesis are not thus presented in the original, but merely given various exemplifications such as (1) - (5).

§2 I want to suggest that the point of the presentation of exemplifications of the central thesis as in (2) may be expressed as follows: it is to bring out the fact that parts of speech (semantical categories) not ordinarily recognised or discriminated by ordinary speech (*usus loquendi*) (Ch. XI, XII, XVI, XVIII) are required in the *de re* versions of *de voce* assertions on meaning. Were exemplifications of the central thesis presented as in (1), it might appear that the concern was with a functor ("*est*") having names or name-like expressions (simple or compound) as arguments; that is to say, the "*est*" of (1) might appear to be of the same semantical category as that of (5), the latter being taken (on account of the presence of '*homo*') to have nominal arguments. Hence, in order to bring to the fore the fact that the arguments of (1) are not the nominal ones which they may *prima facie* appear to be, the grammatically scandalous (2) is used as an alternative expression of (1) (Ch. XII, XVI). The issue can hence be contextualised and stated thus: it is well-known that decisions on the appropriateness of definitions framed according to the canons of Aristotle and Boethius can involve recourse to statements such as '*grammaticus est species*' (Ch. XIII), '*grammaticus est qualitas*' (Ch. XVIII), '*homo est genus*' (Ch. XIII), '*homo est substantia*' (Ch. XII), in which the "*est*" is plainly peculiar and problematical. Now Anselm, here dealing with the question of the definition of things named paronymously, through the mouth of the Tutor of the dialogue holds that (1) and (2) are assertions which, like the ones just-mentioned, are required in a definitional context, but are unfamiliar with respect to *usus loquendi*. The Student, on the other hand, insists on interpreting statements such as (1), notwithstanding their occurrence in the context of definitional discussion, as being of a familiar sort, i.e. as involving an "*est*" having two nominal arguments.³ The contrast comes out well when the statement

(9) *Albus est habens albedinem*

is discussed (Ch. XX, XXI). This is, for the Tutor, in this context, of the same type as (1), in that it resembles the latter throughout except that the paronym *albus* (with its corresponding abstract noun *albedo*) has replaced *grammaticus*; as an alternative exemplification of his thesis he accepts it. However, the Student insists on interpreting (9) as involving a main functor whose two arguments are nominal, and the Tutor shows that this supposition leads to an infinite regress (Ch. XXI). The purpose of the present paper is to elucidate some elements of this situation, analyse the regress mentioned, and to confirm in detail Anselm's intuition that (9), interpreted as having non-nominal arguments to the main functor, need not give rise to a regress.

§3 The contrasting sets of functors presuppose by the Tutor and the Student may be elucidated in terms of the Ontology of S. Leśniewski⁴ as follows. As primitive term one has the functor '*ε*' (read '*is*' or '*is a*', and in Latin '*est*') which is a proposition-forming functor each of the two arguments

of which is a name or name-like expression: a proposition of the form ' $A \in b$ ' is true if and only if either ' A ' and ' b ' name the same individual object and no others, or ' A ' names an individual object and no others and ' b ' names several such objects, one of which is A . An axiom and definitions now follow:

- (10) $[Aa] :: A \in a . \equiv . \cdot [\exists B] . B \in A . \cdot [B] : B \in A . \supset . B \in a . \cdot [BC]$
 $: B \in A . C \in A . \supset . B \in C$
 (11) $[ab] . \cdot a \circ b . \equiv : [A] : A \in a . \equiv . A \in b$
 (12) $[A\phi] : A \in trm \langle \phi \rangle . \equiv . A \in A . \phi (A)$
 (13) $[Aa] : \epsilon \leftarrow a \rightarrow (A) . \equiv . A \in a$
 (14) $[ab] : Cl \leftarrow a \rightarrow (b) . \equiv . b \circ a$
 (15) $[\phi\psi] :: \phi \in \psi . \equiv . \cdot [\exists a] . \cdot \psi (a) . \cdot [b] : \phi (b) . \equiv . a \circ b$
 (16) $[\phi\psi] . \cdot \phi \circ \psi . \equiv : [X] : X \in \phi . \equiv . X \in \psi$

(10) is the axiom on which Leśniewski's system of Ontology was based in 1920. Weak identity is defined by (11). The expression ' $trm \langle \phi \rangle$ ' of (12) may be read in English as 'term satisfying ϕ ', where ' ϕ ' is a variable for predicates (including abstract names⁵): in short, by means of (12), non-abstract nominal expressions can be formed from predicates. Conversely, by (13) a predicate is formed from a name. Thus, given the abstract noun *albedo*, hereunder abbreviated as ' ω ', a corresponding nominal expression, i.e. *habens albedinem* (understood nominally) or *aliquid habens albedinem* can be introduced by means of (12), thus:

- (17) $[A] : A \in trm \langle \omega \rangle . \equiv . A \in A . \omega (A)$

Next *albus* (or *album*), hereunder abbreviated as ' w ', could be in turn introduced thus:

- (18) $[A] : A \in w . \equiv . A \in trm \langle \omega \rangle$

(13), along with (12), may be used to give the sense of *aliquid album*, i.e. 'something that is-white'; for the predicate 'is-white' may be formed from the name ' w ', thus:

- (19) $[A] : \epsilon \leftarrow w \rightarrow (A) . \equiv . A \in w$

and this predicate in turn used to form the nominal expression 'term satisfying is-white', i.e. *aliquid album*, thus:

- (20) $[A] . \cdot A \in trm \langle \epsilon \leftarrow w \rightarrow \rangle . \equiv . A \in A . \epsilon \leftarrow w \rightarrow (A)$

(14) resembles (13) in that it too can be referred to for the formation of predicates from names; in this case an English form corresponding to $Cl \leftarrow a \rightarrow$ would be 'being a ', or, in Anselm's Latin, '*esse*' followed by the genitive of a non-abstract noun. However, this functor can also be used to account for those cases where such nouns occur in the natural language, but have to be logically analysed as being predicative in character; thus the *homo* of *homo est species* could in fact be rendered (using ' b ' for *homo*) as ' $Cl \leftarrow b \rightarrow$ ' in order to fit it to become an argument of the higher-order '*est*' here involved, and which can be analysed as the higher-order ' ϵ ' (taking predicates, not names, as arguments) defined at (15) above.⁶ (16) defines a weak identity analogous to that of (11) but of the same semantical category as

the 'ε' of (15). (It is here assumed that the diversity of semantical category holding between the primitive 'ε' and the 'ε' of (15), and between the 'o' of (11) and that of (16), is sufficiently evident from the differing types of argument-signs; strictly, the diversity should be indicated by diversity of parentheses). The following thesis, provable from (10) and the definitions given, will also be assumed:

$$(21) [ab] : Cl \leftarrow a \rightarrow \epsilon Cl \leftarrow b \rightarrow . \equiv . Cl \leftarrow o \rightarrow o Cl \leftarrow b \rightarrow$$

§4 We are now in a position to analyse more precisely, in *de re* terms, the diversity of semantical category at issue in §2. On the Tutor's interpretation, both (1) and (2) may be analysed as followed (using 'g' for *grammaticus* and 'γ' for *grammatica*):

$$(22) Cl \leftarrow g \rightarrow \epsilon Cl \leftarrow trm < \gamma \rightarrow$$

The Student's interpretation of the same sentences, however, would in this definitional context require for its analysis an identity having nominal arguments, thus:

$$(23) g o trm < \gamma \rightarrow$$

(That *some* form of identity is presupposed in the discussion is also evident from the use therein of '*est idem quod*' as a variant for '*est*' (Ch. XX). As, by (21), (22) is inferentially equivalent to a higher-order identity, the '*est*' of the Tutor's interpretation may be seen as such an identity without the additional evidence of this variant). Correspondingly contrasted analyses are also clearly possible for (9). The oppositional outlined is brought to a head when the question is raised as to how

$$(24) Albus est (idem quod) habens albedinem$$

(which both Student and Tutor are prepared to assert) is to be interpreted (Ch. XXI). The Student opts for an interpretation of (24) such that the arguments of its '*est (idem quod)*' are supposed to be unavoidably nominal; forthwith the Tutor rejoins that such an interpretation, though not giving rise to falsehood, is nevertheless irrelevant to the present context, and shows that it leads to an infinite regress which his own (non-nominal) interpretation avoids; this he construes as evidence for the rejection of the Student's interpretation (Ch. XXI). Details of this regress and its avoidance now follow. The literary variants of '*est (idem quod)*' which occur in the text (i.e. '*non est aliud quam*', '*recte semper accipitur pro*' etc.) and their *de voce* alternatives (e.g. '*significat*') are hereunder replaced by 'o' (cf. (11) and (16) above).

§5 The Student gives to (24) the following interpretation:

$$(25) albu \quad aliquid habens albedinem$$

which is intended to bring out the nominal nature of the arguments of 'o', i.e. is of the form

$$(26) w o trm < \omega \rightarrow \quad (\text{cf. (11), (12)})$$

He then accepts

(27) *aliquid habens albedinem o aliquid album*

i.e.

(28) $trm \langle \omega \rangle \circ trm \langle \epsilon \leftarrow w \rightarrow \rangle$ (cf. (11), (12), (13), (22))

Then from identities (25) and (27) he finds himself committed to the following further identity:

(29) *albus o aliquid album*

i.e.

(30) $w \circ trm \langle \epsilon \leftarrow w \rightarrow \rangle$

Given the fact that throughout the discussion it has been made plain that the gender of 'albus' is here immaterial, the identity given in (29) can plainly be used to effect substitutions of 'aliquid album' wherever 'albus' (or 'album') appear, so that from (29) itself one can infer:

(31) *aliquid album o aliquid aliquid album*

In other terms, one has, from (30):

(32) $trm \langle \epsilon \leftarrow w \rightarrow \rangle \circ trm \langle \epsilon \leftarrow trm \langle \epsilon \leftarrow w \rightarrow \rangle \rightarrow \rangle$

And the regresses initiated in (31) and (32) can plainly, by (29) and (30) respectively, be continued to infinity. Thus, it is concluded, (25) must be rejected as an interpretation of the agreed definition of *albus*. Anselm's intuition that the definition must remain at the level of functors having verbs, not names, as arguments, if regress is to be avoided, is now interpreted and confirmed. It may be further strengthened by the consideration that even the Student's regress-generating assertions ((25), (27), (29)), if interpreted as having verbs, as opposed to names, as arguments of their 'o', no longer give rise to regress. This change of level could be effected in the Latin by a device used elsewhere in the dialogue by Anselm, i.e. by placing "esse" before each of the names or nominal forms which occur as arguments in (25), (27), (29), and changing the case of each such name or nominal form into the genitive; e.g. "esse albi" would then be the first argument of (30). In the language of Ontology the corresponding sentences, i.e. (26), (28), and (30), would accordingly become:

(33) $Cl \leftarrow w \rightarrow \circ Cl \leftarrow trm \langle \omega \rangle \rightarrow$

(34) $Cl \leftarrow trm \langle \omega \rangle \rightarrow \circ Cl \leftarrow trm \langle \epsilon \leftarrow w \rightarrow \rangle \rightarrow$

(35) $Cl \leftarrow w \rightarrow \circ \overline{Cl} \leftarrow trm \langle \epsilon \leftarrow w \rightarrow \rangle \rightarrow$

Here, while the counterpart of (30), i.e. (35), is still derivable from (33) and (34), nevertheless a regress cannot be generated by substitution of the first argument of the 'o' of (35) for any part of the second argument which is equiform with that first argument, since there is now no such equiformity; a substitution of this sort was, however, made possible by (30). The proposed new Latin sentences would likewise be such as to avoid the regress, as may easily be verified. The possibility of a regress does therefore certainly reflect the use of a functor which in this definitional context is of an inappropriate semantical category, given Anselm's presuppositions on definition. Relatively to the resources of Ontology, however, the possibility of regress

is of no logical significance, since (26), (28), and (30) are inferentially equivalent to (33), (34), and (35) respectively; given (35), therefore, inference of the regress from (30) is still possible.

NOTES

1. See D. P. Henry, *Why 'Grammaticus'?* ARCHIVUM LATINITATIS MEDII AEVI, Tom. XXVIII, Fasc. 2-3, 1958, on the history of the notion of paronymy.
2. On the relativity of the notion of paronymy to the development of natural language, see the work mentioned in note 1.
3. For a general informal statement of this discussion see *St. Anselm's Nonsense* (D. P. Henry), forthcoming in MIND. On its relation to the problem of Universals, see *Was St. Anselm really a Realist?* (D. P. Henry, forthcoming). See also notes 4 and 5 below for some sources of the means of analysis used in these papers.
4. See *On Leśniewski's Ontology* (RATIO, Vol. I, No. 2) by C. Lejewski, to whom I am indebted for guidance in the remarks here made.
5. In this I follow the suggestion of C. Lejewski in his *Proper Names*, Aristotelian Society Supplementary Volume XXXI, p. 236-7. Definitions (11) - (16) were established by Leśniewski, but in (12) and (14) different symbols are here used for the constants defined.
6. See the paper mentioned in note 5, p. 249.

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