BEING, ESSENCE, AND EXISTENCE

DESMOND PAUL HENRY

By the use of many-link functors much of medieval philosophy and logic can be made intelligible in terms of modern logic. Since, following a suggestion of C. Lejewski (*LAS*248-250), the use of such functors as they occur in the Ontology of S. Lešniewski has already facilitated the interpretation of statements involving such terms as *«esse»* , *«species»*, and so on, in St. Anselm's writings (*HAN*, *HDG*, *HAR*), a tentative set of conjectures as to the sense of St. Thomas Aquinas's discourse concerning essence (*essentia*) and existence (*esse*) is now presented. Thanks to the flexibility and richness of Lesniewski's Ontology these conjectures are susceptible of further qualifications in order to bring them into line with the finer points of Aquinas's theory; in other words, there is nothing final about their every detail. Further, no attempt is made hereunder to reproduce features of Aquinas's thought apart from the topics in question; e.g. the distinction of substance from accident, and its accompanying notion that an accident is *magis entis quam ens* have not been accounted for hereunder. Sigla (as listed at the close of the paper) are immediately followed by appropriate numerical references.

Lešniewski's Ontology is a theory of *ens in quantum ens*, and so carries into effect, using the resources of modern logic, the project originally conceived in Aristotle's *Metaphysica* (*LR*150). It presupposes Protothetic (propositional calculus with functorial variables) and is also used as a basis for further theories such as Mereology (theory of part and whole), Chronology (theory of time), and so forth. A general survey of Lešniewski's systems which underlines their interpreted, anti-formalist, and paradox-free nature, is to be found in *LLL*. In the account which follows the signs for proposition-forming functors which have propositions as arguments will be those of the Peano-Russell sort. Quantification is unrestricted, thereby allowing the dissociation of some-hood and existence, so that the latter can be accounted for in notation distinct from quantifier-notation : «∃ . . .» is hence read as: «For some.....», and *not* as: «There exists an..... such that.....» (Cf. *LLE* and .2 below). This makes Ontology particularly suitable for dealing with questions concerning *esse*. The primitive functor used in Lešniewski's 1920 axiom for Ontology is «ε», which is a proposition-forming functor for two arguments, the

latter being names or name-like expressions (shared, unshared, or fictitious). A proposition of the form «$a \varepsilon b$» is true if and only if *either* «a» and «b» each name only one and the same individual *or* «a» names only one individual which is one of several individuals named by «b»; e.g. «Cicero is Tully», «Elizabeth is queen», «The son of Sophroniscus is a philosopher». The informal extra-systematic characterisation of the primitive term can, of course, be carried out in any manner which is judged effective (*LR*154-6). The 1920 axiom for Ontology is:

.1 $[ab]: : a \varepsilon b. \equiv : . [\exists c]. c \varepsilon a : . [c]: c \varepsilon a. \supset . c \varepsilon b : . [cd]: c \varepsilon a . d \varepsilon a . \supset . c \varepsilon d$.

Rules for definition are briefly outlined in *LR*172-174, and will not be given here. First one of several possible functors of existence may be defined:

.2 $[a]: \mathrm{ob}(a) . \equiv . [\exists b] . a \varepsilon b$.

(The *definiendum* «ob( )» may be read as: «There exists exactly one.....»). Singular and weak identities may be defined thus:

.3 $[ab]: a = b . \equiv . a \varepsilon b . b \varepsilon a$,

.4 $[ab]: a \circ b . \equiv . [c]: c \varepsilon a . \equiv . c \varepsilon b$.

One can guarantee a name-like expression as the correlate of any verb by means of:

.5 $[a]: a \varepsilon \mathrm{trm}\langle\varphi\rangle . \equiv . a \varepsilon a . \varphi(a)$,

(where «φ» is, of course, a predicate (i.e. verb, functor) variable). In English «term satisfying.....» can be used to read off «trm< >», which is the first of several many-link functors now to be defined. A definition of a many-link functor which, in contrast with .5, yields a verb corresponding to any name, is:

.6 $[ab]: \mathrm{Cl}\{b\}(a) . \equiv . a \circ b$.

The natural-language correlates of «Cl{ }» are quite numerous: «Form the class of.....» is one which is sometimes appropriate. Next, a form of «ε» which, unlike the primitive «ε» (.1), takes verbs as its arguments, may be defined:

.7 $[\varphi\psi]: : \varphi\varepsilon\psi \;.\equiv:.\; [\exists a]:.\; \varphi(a)\;.\;\psi(a):.\; [b]:\varphi(b)\;.\equiv.\; a \circ b$.

(Strictly speaking, the difference between the semantical category of this «ε» and that of the primitive «ε» should be marked by the adoption of some new form of parenthesis for the argument-places, but it is assumed that the diversity of argument-shapes in the expressions in which it occurs is sufficient to show forth the categorial diversity). The «is» defined in .7 is like that which is encountered in expressions such as «To run is to move», «Running is moving», «*Vivere est esse viventibus*», and so on. It will hereinafter be called the «high-order ε» (or «is») in order to distinguish it from the «lower-order» (primitive) «ε». Once .7 is available, higher-order functors analogous to those definable in terms of the lower-order «ε» may be defined or characterised. As an example of this possibility, consider the following definition of a lower-order «and» («.....⌢.....») whose arguments are names:

.8 $[abc]: a\;\varepsilon\; b{\frown}c\;.\equiv.\; a\;\varepsilon\; b\;.\;a\;\varepsilon\; c$.

An analogous higher-order characterisation of an «and» whose arguments are verb-like in nature is:

.9 $[\varphi\psi\chi]: \varphi\;\varepsilon\;\psi{\frown}\chi.\equiv.\varphi\;\varepsilon\;\psi\;.\;\varphi\;\varepsilon\;\chi$.

The higher-order «ε» also figures in the *definiens* of the following:

.10 $[a\varphi]: a\;\varepsilon\;\mathrm{el}(\varphi)\;.\equiv.\;[\exists b]\;.\;\varphi\;\varepsilon\;\mathrm{Cl}\{b\}\;.\;a\;\varepsilon\;b$.

The *definiendum* «el( )» could here be read off as «element of the class determined by.....», but can equally well be used (as it is to be used below) in order to interpret the «having» of some essence or nature by *a*. It will also be useful to have at our disposal:

.11 $[a\varphi]: \mathrm{Cl}(\varphi)(a)\;.\equiv.\;\mathrm{Cl}\{\mathrm{trm}{<}\varphi{>}\}(a)$.

wherein «Cl( )» is the many-link functor defined. Finally, it is clear that the «V» defined by the following will serve for the translation of the Latin «*ens*» («being»), understood nominally, into the language of Ontology:

.12 $[a]: a \varepsilon V . \equiv . a \varepsilon a$.

Indefinitely many more analogous senses of «*ens*» (as a participle) can be defined in terms of successively higher and higher orders of «ε».

The elucidation of Aquinas's uses of «*essentia*» and «*esse*» may be undertaken by considering the fact that he would accept the following three sentences as truths:

(1) *albedo est quo album est album* ,
(2) *humanitas est quo homo est homo* ,
(3) *esse est quo substantia est ens* .

(See, for instance, *ACG* II 54, *ATS* I q.3 a.3). The important point to note here is the parallelism which shows itselfs between the essential cases (1) and (2), and the *esse* case (3). In view of this parallelism it is clear that if cases like (1) and (2) can be understood, then the key to the understanding of (3) will be available. Now in (1) and (2) *albedo* and *humanitas* are the essences which, as the two following Aquinate commonplaces demonstrate, are possessed by whites and men respectively:

(4) *album est habens albedinem* ,
(5) *homo est habens humanitatem* .

And now, by generalising from (4) and (5), one can regard the following as an Aquinate thesis:

(6) *omne ens est essentiam habens* ,

(provided, of course, that its application is restricted to *entia per participationem* other than pure forms). (6) in its turn reminds one of the following well-known adage of St. Thomas:

(7) *omne ens est esse habens* .

If, therefore, an elucidation of (6) is possible, then a key to the interpretation of (7), and hence to Aquinas's discourse concerning *esse* will be within our reach, given also the parallelism already evidenced in (1), (2) and (3) above.

The project outlined in the last paragraph imposes various tasks. First, we must attempt to situate abstract nouns (e.g. *albedo, humanitas)* within the terms made available by the language of Ontology. Given definitions .7 and .10 it is possible to relate such nouns to their more unproblematic corresponding non-abstract nouns (e.g. *albus, homo)* by means of the following frame:

(8) $[\varphi] : : \varphi \varepsilon \Psi . \equiv : . \varphi \varepsilon \varphi : . [a] : a \varepsilon \mathrm{el}(\varphi) . \equiv . a \varepsilon \mathrm{X} .$

Hereby, given, for instance, «*albus*» in the place of «X», one can assign a sense to «*albedo*», which would then stand correspondingly in the place of «Ψ». This treatment of abstract nouns presupposes that they are in fact more akin to verbs (i.e. values of «φ», «ψ», etc.) than nouns, and is due to C. Lejewski (cf. *LAS*). At the same time it is in entire accord with Aquinas's doctrine in his *In Boetii de Hebdomadibus* lec.2, n.21, wherein «*currere*» (a possible argument, verb-like in nature, of the higher-order «ε» which figures in (8)) is said to signify abstractly, as «*albedo*» does, and both are contrasted with «*currens*» and «*album*» respectively (i.e. possible arguments, nominal in nature, of the lower-order, primitive «ε» of Ontology). In view of these facts it is apparent that «el(Ψ)» (cf. .10), wherein the sense of «Ψ» has been related to that of «X» as shown in (8), suffices to represent Aquinas's sense of «*habens* X-*eitas*» (where «X-*eitas*» is the abstract noun corresponding to «X»). Now such abstract nouns in some way signify essences; in fact «*essentia*» is a quasi-common-name, which «refers» to *albedo, humanitas,* and the like; in relation to functors already defined (.6, .7) «*essentia*» may be understood as «Cl» as it occurs in the following:

(9) $[\varphi] : \varphi \varepsilon \mathrm{Cl} . \equiv . [\exists a] . \varphi \varepsilon \mathrm{Cl}\{a\} .$

Thus, given that one of the various ways in which «*ens*» (as a name) may be rendered is by means of «V» (defined .12), the thesis «*omne ens est essentiam habens*» ((6) above), along with the obviously true converse, amounts to:

(10) $[a] : . [\exists \varphi] . a \varepsilon \mathrm{el}(\varphi) . \varphi \varepsilon \mathrm{Cl} : \equiv . a \varepsilon \mathrm{V} .$

On the assumption that the «φ» of «el(φ)» has been built up on the lines indicated in (8), and recollecting that «el( )» thus represents «*habens.....eitas*», we see that (10) not only ensures that the values

of «φ» are *essentia,* but also shows forth the correlation between *having an essence* and *being a being,* i.a. a totally unproblematic elucidation of the Aquinate position as regards the essential aspect of *entia per participationem* other than pure forms is now available. True, in the absence of further restrictions on the nature of the non-abstract nouns which can stand in the place of «X» in (8), the expression (10) has a wider sense than Aquinas would wish it to have; thus, were proper nouns (e.g. «Socrates», «this») eligible to take the place of the «X» mentioned, then Scotist individuating essences («*Socrateitas*», «*haecceitas*») would be comprised in the generalisation which (10) represents. An appropriate restriction in respect of (8) must therefore be imposed if (10) is to be understood in a strictly Aquinate sense.

The sense of (6) having thus been resolved, it now remains to discover a verb which will serve as a value of «φ» in (10), but which will convey the fact that it is *esse,* rather than an *essentia,* which is had by *a.* In this fashion the case parallel to (6), i.e. (7), will have been elucidated. One of Aquinas's own remarks gives an exact indication as to the verb needed: *esse cuiuslibet rei consistit in indivisione .....unumquodque sicut custodit suum esse, ita custodit suam unitatem* (*AST* I q. 11 a.1 c.). (The first part of this statement sounds like a deliberately amended version of Anselm of Canterbury's «*esse uniuscuiusque rei in definitione consistat*» (*ADG*152) which itself is a derivation from similarly worded statements in Boethius (*BDT*1196 C)). Clearly, at this point Aquinas has in mind a truth such as that conveyed by the following thesis of Ontology:

$$(11) \qquad [ab] : . \, \mathrm{ob}(a) \, . \supset : [cd] \, . \, c \, \varepsilon \, a \, . \, d \, \varepsilon \, a \, . \supset . \, c = d \quad .$$

This thesis follows from the axiom .1 and definitions .2 and .3, and indicates the connection between exactly-one-hood and «indivision» which is in question here; it suggests also that «ob ( )» («There exists exactly one.....») is the verb required for our purpose. In order, however, to fit it as an argument of «el( )» as defined at .10, we need first of all to compound from «ob( )» a nominal form which can stand as a value of «*b*» in .10. This is quite easily done by the use of «trm< >» (defined .5) so that as the appropriate instance of .10 we have:

$$(12) \qquad [a] : a \, \varepsilon \, \mathrm{el}(\mathrm{Cl}\{\mathrm{trm}\langle \mathrm{ob} \rangle\}) \, . \equiv . \, \mathrm{Cl}\{\mathrm{trm}\langle \mathrm{ob} \rangle\} \, \varepsilon \, \mathrm{Cl}\{\mathrm{trm}\langle \mathrm{ob} \rangle\} \, . \, a \, \varepsilon \, \mathrm{trm}\langle \mathrm{ob} \rangle \quad .$$

Further, in view of definition .11, «Cl{trm<ob>}» may be contracted to «Cl(ob)», so that the left-hand side of (12), which is going to figure in the «*esse*» parallel of (10), will read «$a \varepsilon$ el(Cl(ob))». Hence, using «Cl(ob)» as a value of «φ» in (10), we have the analogous thesis:

(13) $\quad [a]: a \varepsilon \text{el}(\text{Cl}(\text{ob})) \,.\, \text{Cl}(\text{ob}) \varepsilon \text{Cl} \,.\, \equiv \,.\, a \varepsilon \text{V} \,.$

The second conjunct of this expression, in view of its thetic nature (cf. (9)) is clearly superfluous, so that as the required expression of *omne ens est esse habens* (along with its obviously true converse) one now has:

(14) $\quad [a]: a \varepsilon \text{el}(\text{Cl}(\text{ob})) \,.\, \equiv \,.\, a \varepsilon \text{V} \,.$

Once again, this result accords exactly with Aquinas's remarks in *In Boetii de Hebdomadibus,* wherein «*esse*», «*currere*», and «*albedo*» (all verb-like) are contrasted with «*ens*», «*currens*», and «*album*» respectively (all nominal); in (14) «Cl(ob)» is the verb which corresponds with «*esse*» and «V» is the noun corresponding to «*ens*».

I would like to thank Dr. C. Lejewski for his advice in connection with the preparation of this paper.

Desmond Paul Henry
Department of Philosophy, *University of Manchester.*

SIGLA

ACG	Aquinas,	*Summa Contra Gentiles*
ADG	Anselm,	*De grammatico* (Ed. Schmitt)
AST	Aquinas,	*Summa Theologica*
BDT	Boethius,	*De Differentiis Topicis* (*Patr. Lat.* 64)
HAN	Henry, D. P.,	St. Anselm's Nonsense (*Mind*, Vol. LXXI N.S., No. 285)
HAR	Henry, D. P.,	An Anselmian Regress (*Notre Dame Journal of Formal Logic*, Vol. III, No. 3)
HDG	Henry, D. P.,	*The* De grammatico *of St. Anselm*, Notre Dame University Press, 1964.
LAS	Lejewski, C.,	Proper Names (*Aristotelian Society Supplementary Volume* No. XXXI, 1957)
LLE	Lejewski, C.,	Logic and Existence (*British Journal for the Philosophy of Science*, Vol. 5, No. 18)
LLL	Luschei, E. C.,	*The Logical Systems of Lesniewski* (Studies in Logic and the Foundations of Mathematics, Amsterdam, 1962)
LR	Lejewski, C.,	On Lešniewski's Ontology (*Ratio*, Vol. I, No. 2)