History of Logic from Aristotle to Gödel (www.historyoflogic.com)

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Annotated Bibliography of Lambertus Marie de Rijk. First Part: from 1950 to 1975

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Introduction

L. M. de Rijk, (Hilversum, November, 6 1924 - Maastricht June, 30 2012) was Professor of Ancient and Medieval Philosophy at the University of Leiden, and Honorary Professor at the University of Maastricht.
A complete bibliography of his writings up to 1999 is available in: Maria Kardaun and Joke Spruyt (eds.) - *The winged chariot. Collected essays on Plato and Platonism in honour of L. M. de Rijk* - Leiden, Brill, 2000. pp. XV-XXVI. I made some corrections, updated the bibliography and omitted the publications in Dutch.

"The present volume is dedicated to De Rijk on the occasion of his 65th birthday and his retirement as a professor in Ancient and Medieval philosophy at the University of Leiden. It contains fourteen of De Rijk's philosophical studies (articles) on medieval logic and semantics. Research on manuscripts and editions of texts have not been included. As the table of contents shows, the studies cover the period from Boethius (6th century) to William of Ockham (ca. 1285 - 1347) and have been ordered according to centuries.

Now some remarks on the main lines of De Rijk's interpretations of mediaeval semantics and metaphysics, as found in the studies collected here. The title of the volume, first, indicates De Rijk's interest in Mediaeval thinkers' views on reality. These views were influenced by theology (see esp. study I). However, medieval semantic views (i.e. the philosophical theories on how terms signify) were basic as the starting point in ontological speculation. Man expresses his views on reality by way of language. De Rijk's aim is to understand how the Medieval philosophers and theologians interpreted reality according to their own semantic views.
De Rijk distinguishes between the use of a name in its name-giving function as opposed to statemental predication, where a term acts as the predicate term of a proposition. The contextual position of a name (in syntax) affects the semantic value. De Rijk gives as examples of these syntactical contexts: first of all, the proposition (in its general form: subject - predicate); further on, intensional contexts (where verbs like 'to know' influence what is said in the proposition) and modal contexts (with modal terms like 'possible' etcetera). De Rijk's analysis of an intensional contest can be seen most clearly in his studies on Peter Abailard (1079 - 1142) (studies II - VI). Universals or general names occur in contexts with verbs which denote an act of the mind, viz. abstraction. According to De Rijk, Abailard interprets universals as the intrinsic objects of the acts of understanding (see especially study III, p. 145). If someone conceives of the general name 'man', there is, in De Rijk's line of interpretation, an act of 'man-understanding'.
(...)
Word order is considered a 'rendez-vous' of logic and ontology (see especially study VIII). In asinus cuiuslibet hominis currit (which means, in an awkward litteral rendering: 'everybody's ass is running') the subject term 'ass' which (in the Latin text) precedes the distributive sign 'everybody's' is not affected by it and, accordingly, refers to one particular individual which is the common property of everybody. On the other hand, in cuiuslibet hominis asinus currit ('each man's ass is running'), in following the sign the term 'ass' is prevented from pursuing its primary inclination to refer to some individual and stands 'opaquely' for a multitude of individuals.
The verb esse ('to be') and its related forms - e.g. ens ('being'), as well as connected terms such as existentia ('existence') - are pivotal terms in medieval metaphysics, ontology and theology. The first formal object of metaphysics in the Middle Ages is either the highest spiritual substances - God and the angels (this interpretation is ascribed to the Arab Averroes) - or 'being in general' (in the interpretation given by the Arab Avicenna). In the Latin Middle Ages both views are advocated, as well as a combination. Whichever view is taken, the semantics of esse is crucially important (see especially studies I and V)."

From the *Preface* by Egbert P. Bos to: E. P. Bos (ed.), *Through Language to Reality. Studies in Medieval Semantics and Metaphysics*-, Northampton: Variorum Reprints 1989.

L. M. de Rijk was on of the founder of the review *VIVARIUM. An International Journal for the Philosophy and Intellectual Life of the Middle Ages and Renaissance.*

The Editorial of the first number of Vivarium (1963):

"Issuing a new journal needs some justification. The editors of VIVARIUM do not intend to found a journal for mediaeval philosophy tout court. The philosophical systems of the Middle Ages can be approached from more than one point of view. They can be - and frequently are - studied in their relation to mediaeval theology. The present journal, however, will be devoted in particular to mediaeval philosophy in its relations to the whole of profane thought and learning and the vast field of the Liberal Arts.
The editors of VIVARIUM are of opinion that this approach of mediaeval philosophy deserves some more attention than usually is paid to it. While fully aware of the merits of the existing journals concerned with mediaeval philosophy, they only wish to create a more appropriate forum for what might be called the profane side of the intellectual life. They hope to stimulate the achievements of an increasing number of scholars in their country and abroad, likely to have an active interest in this field of research.
Cassiodorus' monastery is more than a name. It embodies the scientific and didactic program of one of the important centres of culture 'in early Western Europe. Therefore the name VIVARIUM has been chosen for this journal.

C. J. de Vogel, L. M. de Rijk, J. Engels."

Bibliography

1. Rijk, Lambertus Marie de. 1950. "Some notes on Aristotle, *Metaphysics* A 4, 985b9." *Mnemosyne* no. 4:314-318.
"In *Metaph*. A 4, 985b4 ff. Aristotle speaks about the atomists Leucippus and Democritus. For they, he says, the void is by no means less than the full. (...) W, Jaeger (*Hermes*, 52, 1917 pp. 486 f.) is right in maintaining the reading of all the manuscripts." (p. 314)

2. ———. 1951. "The authenticity of Aristotle's *Categories*." *Mnemosyne* no. 4:129-159.
"Most scholars either deny Aristotle's authorship of the first treatise of the Organon, or else consider the problem of authorship to be insoluble. I maintain, however, that such judgements are wrong and that the treatise is of genuine Aristotelian authorship, and of considerable importance for our knowledge both of Aristotle's own development, and also that of later Platonism. I shall try to show the authenticity of the treatise in the following study, and shall divide my investigation into the following main divisions:
A. The view of the ancient commentators concerning the authenticity of *Categories* Chs. 1-9;
B. Modern criticism of the authenticity of *Categories* Chs. 1-9;
C. The authenticity of *Categories* Chs. 10-15." (p. 129)
[See also the following note to *Ancient and mediaeval semantics and metaphysics* (Second part), *Vivarium*, November, 1978, p. 85: "Unlike some 30 years ago (see my papers published in *Mnemosyne* 1951), the present author has his serious doubts, now, on the authenticity of the first treatise of the *Organon*"].

3. ———. 1952. *The Place of the Categories of Being in Aristotle's Philosophy*. Assen: Van Gorcum.
Ph.D. thesis, Utrecht University.
Contents: Bibliography I-III; Introduction 1-7; Chapter I. Aristotle's doctrine of truth 8-35; Chapter II. The distinction of essential and accidental being pp. 31-43; Chapter III. Logical and ontological accident 44-52; Chapter IV. The nature of the categories in the *Metaphysics* 53-66; Chapter V. The doctrine of the categories in the first treatise of the *Organon* 67-75; Chapter VI. The use of the categories in the work of Aristotle 76-88; Appendix. The names of the categories 89-92; Index locorum 93-96.
From the Introduction: "It seems to be the fatal mistake of philology that it always failed to get rid of Kantian influences as to the question of the relation of logic and ontology. Many modern mathematical logicians have shown that the logical and the ontological aspect not only are inseparable but also that in many cases it either lacks good sense or is even impossible to distinguish them. Accordingly, the distinction of logical and ontological truth (especially of propositional truth and term-truth), that of logical and ontological accident and that of logical and ontological categories, has not the same meaning for modem logic as it seems to have for 'traditional' logic (for instance the logic of most Schoolmen).
I hope to show in this study that the distinction of a logical and an ontological aspect (especially that of logical and ontological categories) can be applied to the Aristotelian doctrine only with the greatest reserve. A sharp distinction carried through rigorously turns out to be unsuitable when being applied to Aristotelian logic. For both aspects are, for Aristotle, not only mutually connected but even interwoven, and this in such a way that the ontological aspect seems to prevail, the logical being only an aspect emerging more or less in Aristotle's generally ontological way of thinking." (pp. 6-7)

4. Petrus, Abaelardus. 1956. *Dialectica*. Assen: Van Gorcum.
First complete edition by L. M. de Rijk of the Parisian manuscript with an introduction; second revised edition 1970.
From the Introduction: "§ 3. The task of logic according to Abailard.
Abailard understands 'logica' or 'dialectica' as the art which aims at distinguishing valid arguments from invalid ones. We find a clear exposition of his opinion on this matter in the prologue to the treatise Logica Nostrorum petitioni. Abailard here points to the fact that logic is not a theory of thought, which teaches us how we ought to think and dispute: its only function is to distinguish valid arguments from invalid ones and to state why (*quare*) they are valid or not:
est autem logica Tullii auctoritate diligens ratio disserendi, idest discretio argumentorum per quae disseritur, idest disputatur. non enim est logica scientia utendi argumentis sive componendi ea, sed discernendi et diiudicandi veraciter de eis, quare scilicet haec valeant, illa infirma lint. (*Log. Nostr. petit*., 506, 24-28).
This distinction is made, as a matter of course, on rational grounds. The 'quare haec valeant, illa infirma sint' finds its answer in the presence (c.q. absence) of conclusive force (vis inferentiae, vis argumenti, vis sermonis). It sometimes rests on the pure form of reasoning (ipsa complesso terminorum): in this case we speak of complexional arguments; the other case is, if the matter of the argument contributes to its conclusive force: we speak, then, of topical arguments:
argumentationes quaedam sunt locales, quaedam vero complexionales quidem sunt quae ex ipsa complexione, idest ex ipsorum terminorum dispositione, firmitudinem contrahunt; locales vero sunt quibus convenienter potest assignari locus, idest evidentia conferri ex aliquo eventu rerum vel proprietate sermonis. (*Log. Nostr. petit*., 508 9-15).
Since complexional and topical arguments borrow their conclusive force from respectively the arrangement of the terms (dispositio terminorum), and the state of affairs (eventus rerum) or the properties of speech (proprietas sermonis), their valuation requires some insight into the structure of proposition and into the properties of speech, the state of affairs being only secondarily the object of logic.

The author elsewhere (Dial. III, 286 31-34) states that the scope of logic is to inquire into the use of speech, in the full sense of the word; inquiring into the nature of things (res) belongs to the domain of physics:
in scribenda Logica hic ordo est necessarius: cum logica sit discretio argumentorum, argumentationes vero ex propositionibus coniungantur, propositiones ex dictionibus, cum qui perfecte Logicam scribit, primum naturas s i m p l i c i u m sermonum, deinde compositorum necesse est investigare et tandem in argumentationibus finem Logicae consummare. (*Log. Nostr. petit*., 508 4-9).
..... hoc autem logicae disciplinae proprium relinquitur, ut scilicet vocum impositiones pensando, quantum unaquaque proponatur oratione sive dictione, discutiat; physicae vero proprium est inquirere utrum rei natura consentiat enuntiationi (*Dial*. III, 286 31-34)
Aristotle deals with the use of speech, Abailard says (*Log. Nostr. petit.*, 508,32 -- 509,8), in his *Categories, De Interpretatione* and Topics, and with argumentations in his *Prior* and *Posterior Analytics*: Porphyry wrote an introduction to the first-mentioned treatise. Thus, the scheme of his own *Dialectica* is obvious: he first treats of the parts of speech (partes orationis) tractatus I; next the categorical propositions and syllogisms are dealt with: tractatus II; the treatment of the hypothetical propositions and syllogisms (tractatus IV) is preceded by that of the topics (tractatus IIII); the author ends his work with a treatise on division and definition: tractatus V." (pp. XXIII-XXV, notes omitted).

5. Rijk, Lambertus Marie de, ed. 1959. *Garlandus Compotista. Dialectica*. Assen: Van Gorcum.
First edition of the manuscripts with an introduction on the life and works of the author and on the contents of the work.
From the Introduction: " The author himself says in the preface to his work that the treatise has been meant as a first introduction to dilectics for tyroes:
Nec illos (sc. libros) scribere proposuimus introductis, sed rudibus desiderantibus pervenire ad precepta supradictorum, Boetii scilicet et Aristotilis.
It makes the impression of being a note-book, as appears from the words (III, 74, 26) *cras finiemus Periermeneias.* The preface shows that Garland himself subdivided the work into six Books. The first Book deals with the *praedicabilia* and *praedicamenta;* the second with *propositio;* the third with *nomen, verbum, oratio,* and the kinds of proposition; the fourth treats of the topical 'ingredients', such as *propositio, quaestio, conclusio, argumentum,* and *argumentatio* and of the *loci communes;* the fifth Book deals with categorical syllogism and the sixth with hypothetical syllogism. The expositions are illustrated by a great number of sophisms and their solutions.
Boethius' translations and commentaries of Aristotle's logical works and his logical monographies were without any doubt the direct source of the treatise. Garland explicitly says in his preface that he founds his expositions of logic on Aristotle and Boethius. (See Dial. Im 1, 2-9).
The work turns out to be an adaptation of the *logica vetus, i.e.* that part of Aristotelian logic the Latin translations of which were known before 1150 A. D.
The sources of the *logica vetus* were Boethius' translations, commentaries and his monographies on logic:
(1) *In Isag. Porhyrii Commenta* (two editions)
(2) *In Categ. Arist. Libri IV* (two editions)
(3) *In Librum Arist. De Interpr*.
(4) *Introductio ad categ. syll*.
(5) *De syllogisimis categoricis*
(6) *De syllogismis hypoteticis*
(7) *De differentiis topicis*
(8) *De divisionibus*
It is a striking fact that Garland neither uses nor mention the treatise *De Divisionibus*; neither division nor definition are dealt with explicitly by him. For the

rest Boethius is mentioned many times. Garland nowhere calls his own masters by their names, though he asserts, to have adopted several explanations from them." (pp. XLV - XLVI, notes omitted).

6. ———. 1962. *Logica Modernorum. A Contribution to the History of Early Terminist Logic. Vol. 1: On the Twelfth Century Theory of Fallacy*. Assen: Van Gorcum.
Contents: Preface 11; 1. The specific character of the *Logica Modernorum* 13; 2. The theory of fallacy in the framework of the *Logica Vetus* 24; 3. The theory of fallacy in the great logical works of Peter Abailard 49; 4. The theory of fallacy in the School of the *Parvipontani* 62; 5. The earliest mediaeval commentaries on the *Sophistici Elenchi* 82; 6. The theory of fallacy in the later glosses on the *Perihemeneias* 113; 7. Two treatises on fallacy from the latter part of the twelfth century 127; 8. On the use of the doctrine of fallacy in twelfth century theology 153; Books and articles referred to 179; List of manuscripts used 181; Appendices: A. *Glose in Arist. Sophisticos Elencos* 187; B. *Summa Sophistorum Elencorum* 257; C. *Tractatus de dissimilitudine argumentorum* 459; D. *Fallacie Vindobonenses* 459; E. *Fallacie Parvipontane* 491; F. [Frustula Logicalia] 611; Indices: A. Index locorum 629; B. Index nominum 642; C. Index sophismatum et exemplorum 646; D. Index verborum et rerum 659-674.
"In this work the author tries to show how the *Logica Modernorum,* - which, as is known, exerted, from the thirteenth century onwards, such a profound influence on the development of Mediaeval Philosophy -, had its origin in the twelfth century logical and grammatical theories which arose in the Western centers of studies, especially in Paris.
The first volume deals with one of the two roots of this development: the twelfth century doctrine of fallacy; the second volume will treat of the *Logica Modernorum* in the grammatical theories of the twelfth century.
The author thought it of great importance to edit in full the main treatises on which his studies are based; they are found in the *Appendices* A-E. *Appendix* F contains three passages from twelfth century *Perihermeneias*-commentaries; in order to avoid the false suggestion that one has to do here with fragmentary remnants which have come down to us, I chose, despite its somewhat culinary sound, the term *'Frustula'* instead of the more usual *'Fragmenta'.* Some information on the manuscripts concerned is given in the course of this study; for the places, consult the *List of manuscripts used*.
As to the *ratio edendi* I refer to the preface of my edition of the *Dialectica* of Garlandus Compotista, published as part III in the same series.
The *Index nominum,* the *Index locorum* and the *Index sophismatum* aim at completeness. The *Index verborum et rerum* is not exhaustive: it only tries to give a number of words and phrases considered as important for the understanding of the conceptual and doctrinal contents of the edited treatises and to facilitate the reader's orientation in this study." (From the Preface, p. 11)

7. ———. 1963. "On the curriculum of the Arts of the Trivium at St. Gall from ca. 850 - ca. 1000." *Vivarium* no. 1:35-86.
"From the hermitage founded about the year 613 by St. Gall, one of the companions of St. Columban, there arose at the beginning of the next century an abbey that has been one of the most famous centres of intellectual and spiritual life in Western Europe. (p. 35)
(...)
No doubt one of the most celebrated men of the School of St. Gall was Notched Label (c. 950-2022). Many works are attributed to this master or, at least, to the masters of St. Gall who lived about the year 1000. I confine myself to the works on the Trivium: grammar, dialectics, rhetoric." (p. 47)

8. ———. 1964. "On the chronology of Boethius' works on logic. Part I." *Vivarium* no. 2:1-49.

"The chronological order of Boethius' works appears to be a rather difficult problem. Hence, it is not surprising that the numerous attempts to establish it led the scholars to results which are neither all conclusive nor uniform. In this article I confine myself to Boethius' works on logic. Before giving my own contribution it would seem to be useful to summarize the results of preceding studies and to make some general remarks of a methodological nature. (p. 1)
(...)
My conclusion from this survey is that the best we can do in order to establish approximately the chronological order of Boethius' works on logic is to start a careful and detailed examination of all our data on this matter. In doing so an analysis of their contents seems to be quite indispensable, no less than a thorough examination of doctrinal and terminological differences." (p. 4)

9. ———. 1964. "On the chronology of Boethius' works on logic. Part II." *Vivarium* no. 2:125-162.
"We shall now sum up the results of our investigations. First some previous remarks. Our first table gives of nine of the works discussed the chronological interrelation, which can be established with a fair degree of certainty. The figures put after the works give the approximative date of their composition (the second one that of their edition); when printed in heavy types they are based on external data*;* the other ones are based on calculation.
Table 1
Boethius' birth about 480 A.D.
In Porphyrii Isagogen, editio prima about 504-505
In Syllogismis categoricis libri duo (= ? Institutio categorica) about 505-506
In Porphyrii Isagogen, editio secunda about 507-509
In Aristotelis Categorias (? editio prima) about 509-511
In Aristotelis Perhemeneias, editio prima not before 513
In Aristotelis Perhemeneias, editio secunda about 515-516
De syllogismis hypotheticis libri tres **between 516 and 522**
In Ciceronis Topica Commentaria before 522
De topicis differentiis libri quattuor before 523
Boethius' death 524
The rest of the works discussed cannot be inserted in this table without some qualification. (...)
We may establish the following table for the works not contained in out first table:
Table 2
Liber de divisione between 505 and 509
possible second edition of the *In Categorias* after 515-516
Translations of the *Topica (and Sophistici Elenchi*) and of the
Analytica Priora and *Analytica Posteriora* not after 520
Commentary on Aristotle's *Topica* before 523
the so-called *Introductio* (? = *In Priora Analytica Praedicanda*) certainly after 513; probably c. 523
Scholia on Aristotle's *Analytica Priora* first months of 523 at the latest"
(pp. 159-161, notes omitted).

10. ———. 1965. "'Εγκύκλιος παιδεία'. A Study of Its Original Meaning." *Vivarium* no. 3:24-93.
"No doubt, the term *Enkylios paideia* (of which the term *'Artes liberales' is* supposed to be the Latin equivalent) refers to one of the key-concepts in European culture and education. From as early as Late Antiquity the Liberal Arts were supposed to embrace the whole circuit of (human) knowledge and therefore to afford some kind of 'encyclopedical' wisdom. The sixteenth century *Grande Encyclopédie* was strongly aware of its origin: 'ce que les Anciens appelaient encyclopédie, c'était l'ensemble des connaissances générales que tout homme instruit devait posséder avant d'aborder la vie pratique ou de se consacrer à une étude spéciale' (quoted by H. Koller in his article *Enkylios paideia* in *Glossa*,

Zeitschrift für Griechische und Lateinische Sprache, 34, 1955, pp. 174-189)." (p. 24)

11. ———. 1966. "Some new evidence on twelfth century logic: Alberic and the School of Mont Ste Geneviève (Montani)." *Vivarium* no. 4:1-57.
"It is well known that the art of logic (*logica* or *diale(c)tica*) knew a remarkable flourishing period during the twelfth century. In the first half of the century its main centres in Paris were: the School of Notre Dame, of St. Victor, of the Petit Pont and of Mont Ste Geneviève. The present paper aims to offer some new evidence from the manuscripts on the teaching of logic as given in the School of Mont Ste Geneviève (*Montani*). Part of these sources will be published in full in the second volume of my *Logica Modernorum.* This book, to be issued probably about the middle of 1967 will discuss the doctrinal and conceptual content of the treatises mentioned here." (p. 1)

12. ———. 1966. "Some notes on the medieval Tract '*De insolubilibus*' with an edition of a Tract dating from the end of the Twelfth century." *Vivarium* no. 4:83-115.
"As is known, one of the important contributions made by the Megarian School (4th cent. B.C.) to the development of Western logic was the invention of a number of remarkable paradoxes. Among them there was the famous Liar: 'a man says that he is lying; is what he says true or false?'. Generally speaking, paradoxes of this type intend to show the oddity of making a statement say something about its own truth or falsity. So the Liar, being one of the many puzzles connected with the notions of truth and falsity, is one of the most important logical problems, since the fundamental notion of logic is validity, and this is definable in terms of truth and falsehood.
Mediaeval logicians, too, devoted their attention and ingenuity to the Liar paradox and its variants. The twelfth century revisor of the *Ars disserendi* written by Adam of the Petit Pont in 1132 mentions as a current complicated question (*illud interrogabile multiplex*) the puzzle of the man who says that he is (only) lying." (p. 83)
(...)
"To turn, now, to the Mediaeval variants of the Liar paradox, the *sophismata* dealing with them attracted special attention from about 1200, if not as early as from the middle of the twelfth century, as may appear from the revision of Adam's *Ars disserendi* mentioned above. From the thirteenth century onwards many tracts have been handed down to us in which these variants and the logical problems they involved were discussed. These tracts went under the title *De insolubilibus*.
As we are told by the authors themselves in their prologues, this title is somewhat misleading. In fact they do not deal with which cannot be solved but rather with what is difficult to solve because of certain circumstances lying in some human act or some property of the speech used. The tracts discuss certain propositions that are self-falsifying since they contain elements which reflect on the propositions themselves of which they are parts.
The Mediaeval variant of the Liar had this basic form : *'what I am saying is false'* (*'ego dico falsum'*), provided I do not utter any proposition other than *'what I am saying is false'*.
In the beginning of the fifteenth century no fewer than fifteen different (or, at least, various) attempts were known to solve the puzzle, as we are told by Paul of Venice, who in his *Logica Magna* listed them industriously. From as early as the thirteenth century we know four different solutions of this kind of *insolubile*.
The aim of this paper is to present what is probably the oldest tract *De insolubilibus* that has come down to us and to bring out some evidence for its date and its place in the development of the Mediaeval *insolubilia* - literature. For this purpose I start from an examination of two later tracts on the subject: the *De insolubilibus* of Walter Burley written about 1302, and two tracts dating from the first half of the thirteenth century, the one of which was ascribed to William of Shyreswood (d. after 1267) by Grabmann, without plausible grounds, it seems, but certainly belongs, just like the other tract, to the first half of the thirteenth century." (p. 86)

13. ———. 1967. "Some notes on the twelfth century topic of the three (four) human evils and of the science, virtue and techniques as their remedies." *Vivarium* no. 5:8-15.
"In the first of the appendices added by Hugh of St. Victor to the text of the *Didascalicon,* which was composed in Paris in the late 1120's (*), the author gives a division of the contents of Philosophy (printed by Buttimer (**) as chapters 14 and 15 of Book VI). It opens with the contradistinction of the three evils of human nature and the three corresponding remedies:
'There are three things to be considered now: wisdom, virtue, and need. Wisdom is the understanding of things as they are. Virtue is a habit of mind, a habit which is in harmony with reason in the way of a nature. A need is something without which we cannot live, but without which we would live more happily. These three things are as many remedies against the three evils to which human life is subject: wisdom against ignorance, virtue against vice, and need against life's weakness. In order to do away with these three evils, men have sought after those three remedies, and in order to find the three remedies, every art and every discipline was discovered.
For the sake of wisdom the theoretical arts were discovered; for the sake of virtue the practical arts were discovered; for the sake of our needs the mechanical arts were discovered. These three were first in practice, but afterwards, for the sake of eloquence, logic was discovered. Logic, though fast to be discovered, ought to be the first learned.
Four, then, are the principal sciences from which all the others descend; these are the theoretical, the practical, the mechanical, and the logical.' (ed. Buttimer pp. 130-131).
Thus Hugh starts from ignorance *(ignorantia),* vice *(vitium),* and weakness *(infirmitas)* as the three fundamental evils to which human nature is supposed to be subject, and he opposes to them wisdom *(sapientia),* virtue *(virtus),* and need *(necessitas)* as their three remedies. The latter are said to have caused the invention of theoretical science, practical science and mechanical science or techniques. Afterwards, for the sake of eloquence, logic was invented, but in Hugh's division of sciences it is apparently not opposed to some fourth evil of human nature.
As far as we know Hugh was the first to reduce the invention of arts and sciences to certain defects of human nature. We do not know whether this reduction is an invention of his own. This much is certain: his view is frequently found in twelfth century authors both in the Victorine School and in that of Chartres." (pp. 8-9)
(*) For this date, see Jerome Taylor, *The Didascalicon of Hugh of St. Victor. A* mediaeval Guide to the Arts, translated from the Latin with an introduction and notes, New York - London 1961 , p. 3.
(**) Hugonis de Sancto Victore *Didascalicon,* De studio legendi. A critical text by Brother Charles Henry Buttimer, Washington D.C. 1939.

14. ———. 1967. *Logica Modernorum. A Contribution to the History of Early Terminist Logic. Vol. 2, Part One: The Origin and Early Development of the Theory of Supposition*. Assen: Van Gorcum.
Contents: Preface 9; Part One: 1. Introduction, analysis of the manuscripts concerned 11; 2. On the development of mediaeval grammar 95; 3. The increasing use of special textbooks of logic in the first half of the twelfth century 126; 4. The theory of signification in twelfth century logic up to about 1140 177; 5. On the theory of signification in twelfth century grammar 221; 6. The tract on logic contained in MS. Oxford, *Digby* 174, analysis of its content, its origin and date 264; 7. *Ars Meliduna*. On the theory of terms 292; 8. *Ars Meliduna*. On the denotation of the terms 306; 9. *Ars Meliduna*. The theory of proposition 319; 10. *Ars Meliduna*. The theory of the *enuntiabile* 357; 11. Some treatises on logic dating from about 1200 391; 12. The *Dialectica Monacensis* preserved in Munich, *C.L.M. 14, 763* 408; 13. Some early Oxford tracts on logic 416; 14. The *Summe Metenses* found in Paris, *B. N. Lat. 11, 412* 449; 15. The doctrine of fallacy and the origin of the theories of supposition 491; 16. The grammatical origin and early development of the theory of Appellation (Supposition) 513; 17. The logical theory of the Properties

of terms up to about 1200 555; Books and articles referred to 599; List of the manuscripts used 606; List of incipits 608-614.
"In this work it will be attempted to show how the *Logica Modernorum* had its origin, long before the thirteenth century, in the logical and grammatical theories current in the Western centers of studies: Paris, Oxford and presumably a school in Northern Italy.
The first volume dealt with what was considered as one of the two roots of this development: the twelfth century theories of' fallacy. The present volume discusses the other source: the development of Mediaeval grammar from an elementary discussion of (Latin) grammar to a linguistic-semantic theory of' (Latin) language. It was the latter contribution that was of extreme importance for the origin of the theory of supposition, and generally speaking, of terminist logic.
The purpose of this volume is to trace the details of the origin of the. theory of' supposition, including appellation and copulation, and to discuss the theory of the properties of terms as found about 1200. Besides, some historical evidence will be given for the origins of' the tracts dealing with the properties of syncategorematic terms and those discussing the other specific elements of the *Logica Modernorum*.
The author has thought it of some importance for further investigation in this field to edit in full the main treatises on which the present study is based. They will be found in the second part of' this book. They have been arranged chronologically, except for the *Quaestiones Victorinae,* which are to be considered as an extra.
The *Index nominum,* the *Index locorum* and the *Index sophismatum* aim at completeness. The *Index verborum et rerum* is not exhaustive: it only tries to give a number of words and phrases considered as important for our understanding of the conceptual and doctrinal contents of the edited tracts, and to facilitate the reader's orientation in this study." (Preface, p. 9)

15. ———. 1967. *Logica Modernorum. A Contribution to the History of Early Terminist Logic. Vol. 2, Part Two: The Origin and Early Development of the Theory of Supposition. Text and Indices*. Assen: Van Gorcum.
Edition of a number of tracts dating from c. 1130 up to c. 1220.
Contents: I. *Introductiones Montane minores* 7; II. *Abbreviatio Montana* 73; III. *Excerpta Norimbergensia* 109; IV. *Ars Emmerana* 143; V. *Ars Burana* 175; VI. *Tractatus Anagnini* 215; VII. *Tractatus de univocatione Monacensis* 333; VIII. *Introductiones Parisienses* 353; IX. *Logica "Ut dicit"* 375; X. *Logica "Cum sit nostra"* 413; XI. *Dialectica Monacensis* 453; XII. *Fallacie Londinenses* 639; XIII. *Fallacie Magistri Willelmi* 679; XIV. *Tractatus de proprietatibus sermonum* 703; XV. *Quaestiones Victorinae* 731; Indices: a. Index locorum; B. Index nominum; C. Index verborum et rerum; D. Index sophismatum et exemplorum.

16. ———. 1968. "On the genuine text of Peter of Spain's' *Summule Logicales*'. Part I. General problems concerning possible interpolations in the manuscripts." *Vivarium* no. 6:1-34.
"As is known, Peter of Spain, who afterwards became Pope under the name of John XXI, wrote a textbook on logic, which was to enjoy a high renown from the end of the thirteenth up to the seventeenth century as *Summule logicales magistri Petri Hispani* (1).
Its fame appears from the noticeable number of manuscripts (more than 300) and of printed editions (about 160), the latter dating from 1474 up to 1639 (2). This number is tremendous indeed, especially for the future editor of the first critical edition of the Summule.
However, the printed editions are of no use for the critical reconstruction of our text. As a matter of fact they all contain quite a number of interpolations.(3) Therefore an examination of their readings can properly be dismissed. As is easily seen, the same holds good for the later manuscripts. They are most of them intended adaptations of the famous school-book by well-known masters of logic. Their very intention to emend the text *(tractatus duodecim iam emendati)* is bound to make the critical editor suspicious as to the reliability of their text as a source for the original version.

A first attempt to clear up the situation might be made in confining our attention to the earlier manuscripts, say those dating from Peter's lifetime up to about the first decades of the fourteenth century. However, the result appears to be rather disappointing indeed. Even the late thirteenth century manuscripts betray such divergencies as to confirm the supposition of rather early interpolations in a sufficient way." (p. 1)
(1) For Peter's authorship, see Joseph P. Mullally, The Summulae logicales of Peter of Spain, Notre Dame Indiana, 1945, pp. IX-XVIII.
(2) For a survey, see MuIlally, op. Cit., pp. 133-158: Bibliography of Editions of the Summulae logicales of Peter of Spain and the commentaries on the *Summulae logicales*.
(3) Cf. the introduction to Bochenski's edition (Petri Hispani Summulae logicales, quas e codice manuscripto Reg. Lat. 1205 edidit M. Bochenski O. P., Torino, Marietti, 1947) pp. XVI-XVIII.

17. ———. 1968. "On the genuine text of Peter of Spain's '*Summule Logicales*'. Part II. Simon Faversham (d. 1306) as a commentator of the Tract I-V of the *Summule*." *Vivarium* no. 6:69-101.
"Who was the author? Grabmann was of the opinion that the only logician bearing the name of *Simon* in the second part of the thirteenth century was Simon of Faversham, since master Simon of Dacia was a grammarian, known especially for his tract *Domus gramatice* (*). However, his being a grammarian does not at all exclude his possible authorship of logical works, as may appear from the case of the Modist Boetius of Dacia, who also wrote a commentary on Aristotle's Topics. However, our author's apparent preference for Albert the Great and Avicenna as his sources seems to point to Simon of Faversham as the author of our commentary. Unfortunately his other works on logic do not offer any additional evidence for his authorship of the Summule-commentary, since the works to be considered (especially on *Perihermenias*) all have the form of selected *Questiones.* In his *Questiones super Universalia* as found in the manuscript Kassel, Landesbibliothek, *2° Philos.* nr. 30-6 (ff. 1r-9r) a question is read *utrum locus sit principium generationis* (f. 3r). (I could not find it in the Milan manuscript C. 161 *Inf.* which also contains *questiones super universalia* and has the same *incipit*)." (p. 72)
(*) It has been edited (together with his Questiones super 2o minoris voluminis Prisciani) by Alfred Otto in the Corpus Philosophorum Danicorum Medii Acvi, III Copenhague 1963.

18. ———. 1969. "On the genuine text of Peter of Spain's '*Summule Logicales*'. Part III. Two redactions of a commentary upon the *Summule* by Robertus Anglicus." *Vivarium* no. 7:8-61.
"The question must be answered mow whether the *Robertus Anglicus*, who is the author of *Tractatus quadrantis* and the commentary on John de Sacrobosco's *De sphera* may be also the author of the two redactions of the commentary on Peter of Spain's *Summule logicales* which we found in the Vatican and Todi manuscripts. Three arguments can be adduced in favour of the identity of our author with the teacher of Montpellier.
First, the remarkable similarity of the colophon in both the Rome and Todi redaction of the *Summule* commentary with that of the *De sphera* commentary as found in Paris, *B. N. Lot.* 7392 and Oxford, Bodleian Library, *Digby* 481. This correspondence is the more noticeable since this kind of colophon which is well-known, indeed, from works discussing *quadrivium* subjects, is very unusual in tracts on grammar or dialectics. If our surmise about the identity of our author and the teacher of Montpellier is correct, both conjectural corrections of the Vatican colophon (discussed above, p. 32) may be right, as both 1270 and 1277 fit in pretty well with the dates mentioned in the colophons of Robert's commentary on *De sphera* (1271 and 1272). On palaeographical grounds the year 1270 *(septuagesimo* instead of *septimo)* seems to be the more preferable.
Secondly, the occurrence of several sets of medical, astronomical and meteorological notes added in the Todi manuscript by the same hand that wrote our

Summule commentary, is a reliable clue for the scientific interest of the school where that commentary was written and used in class. Well, the first school to be considered in this regard is that of Montpellier, where one Robertus Anglicus is reported to have been a teacher in the 1270's.
Thirdly, an important hint for the place of origin of a commentary on the Summule is often to be found in the example its author gives in his discussion of *Exemplum* in the tract *De locis*. (...)
In conclusion, it may be said that it seems to be highly probable, indeed, the the commentary on Peter of Spain's *Summule logicales* which is extant in two redactions, was written by the same Robertus Anglicus whose *Tractatus quadrantis* and commentary on John of Sacrobosco's *De sphera* have been preserved in some manuscripts." (pp. 39-40)

19. ———. 1969. "On the genuine text of Peter of Spain's '*Summule Logicales*'. Part IV. The *Lectura Tractatum* by Guillelmus Arnaldi, Master of Arts at Toulouse (1235-1244). With a note on the date of Lambert of Auxerre' *Summule*." *Vivarium* no. 7:120-162.
"No doubt, this *Lectura Tractatuum* was written by a *Guillelmus,* or *Guillermus, Arnaldi* who taught the liberal arts at Toulouse. As a matter of fact I found a teacher of that name in a number of documents concerning the county of Toulouse." (p. 125)
(...)
"A number of resemblances found between the usual text of Peter of Spain's Summule and that of Lambert of Auxerre's treatise of the same title had frequently raised the question of the interdependence of these texts. As is known, Konstant Michalski defended the thesis of the large dependence of Peter of Spain upon Lambert of Auxerre'. As a matter of fact Michalski had to work upon interpolated texts of both works and the textual resemblances alluded to by the Polish Mediaevalist disappear for the greater part when the authentic texts are considered. Grabmann held the inverse opinion and especially pointed to the opening words of Lambert's work: Ut novi artium auditores plenius intelligant *ea* que *in summulis edocentur . . .* etc. and saw an allusion to the title of Peter's *Summule logicales* in these words. (*) However, the original title of Peter's work was Tractatus, not Summule, as was frequently shown in our preceding articles. The question of whether or not Lambert was really influenced by Peter's work seems to be far more complicated. It will not be discussed here.
A different question is that of the chronologic order of Peter's and Lambert's works. Its solution is important for the problem of interdependence, even if it is not decisive, since priority of one work to the other does not imply the latter's dependence upon the former.
As to Peter's work, from the existence of a commentary on it which dates from as early as the 1240's (see our article on Guillelmus Arnaldi) the conclusion must be drawn that Peter of Spain cannot have written his Summule *logicales* (or better: *Tractatus*) after 1240.
(...)
So we have the following dates for Lambert's Summule. The work was written at Troyes (or Pamplona), not in Paris, between 1253 and 1257 when the king was anointed and is likely to have finished his studies. It was published afterwards in Paris, when Lambert was a member of the Dominican Convent there, before he became penitentiary of the Pope." (pp. 160-161)
(*) Martin Grabmann *Handschriftliche Forschungen und Funde zu den philosophischen Schriften des Petrus Hispanus, des späteren Papstes Johannes XXI (d.1277)* in: Sitzunsgberichte der Bayerischen Akademie der Wissenschaft Phil.-Hist. Abt. 1936, Heft 9, pp. 41-42.

20. ———. 1969. "Significatio y suppositio en Pedro Hispano." *Pensamiento* no. 25:225-234.
Translated in Spanish by Th. G. Sinnige.

"En este modesto articulo me propongo hablar de la teoria de la suposición de Pedro Hispano en la forma en que esta expuesta en el Tratado No. VI (*de suppositionibus).* A menudo encontramos la opinion de que la teoria terminística de la suposición en todos los casos haya tenido una base de Indole nominalista. Esta opinion está decididamente equivocada. Basta señalar a un autor como Gualterus Burlaeus para porter en claro que la teoría de la suposición podia muy bien ser interpretada en un sentido realista. Por otra parte se puede comprobar que la teoría de la suposición ya en sus orígenes iba vinculada estrechamente con la teoría de la significación. La evolución de la teoria de la suposición por consiguiente está mezclada Intimamente con las fluctuaciones que se producen en la teoría de la significacion.
En lo que signe me propongo analizar:
1) lo esencial de la teoría de la suposición, teoría que en su origen no era otra cosa sino una teoría sobre la interpretabilidad de un término dentro de la proposición;
2) el estrecho vfnculo que existe entre la teoria de la suposición y la teoria de la significación. Como consecuencia de esto, a principios del siglo XIII et concepto de suposición tiende a extenderse hasta incluir también términos usados fuera del contexto de la proposición (*)" (pp. 226-227)
(*) Para una más amplia información sobre las cosas que se tratan en estas páginas, véase el segundo volumen de mi obra *Logica Modernorum,* en especial las páginas 513-598.

21. ———. 1970. "On the genuine text of Peter of Spain's '*Summule Logicales*'. Part V. Some anonymous commentaries on the *Summule* dating from the Thirteenth century." *Vivarium* no. 8:10-55.
"Mgr. Grabmann found several commentaries on the *Summile logicales* dating from as early as the thirteenth century (*) Some of the are anonymous. This group will be discussed in this part of our study on the genuine text of Peter of Spain's famous text-book of logic." (p. 10)
(*) Martin Grabmann *Handschriftliche Forschungen und Funde zu den philosophischen Schriften des Petrus Hispanus, des späteren Papstes Johannes XXI (d.1277)* in: Sitzunsgberichte der Bayerischen Akademie der Wissenschaft Phil.-Hist. Abt. 1936, Heft 9, pp. 63-70

22. ———. 1970. "On the life of Peter of Spain, the author of the Tractatus, called afterwards *Summule logicales*." *Vivarium* no. 8:123-154.
"Before an attempt will be made to sketch the life of the author of the so-called *Summule*, a preliminary question of major importance should be answered: is the author identical with Peter of Spain (Peters Hispanics) who in 1276 became Pope under the name John XI?
An alternative question may be added whether, or not, the famous logician was a Black friar, as was sometimes maintained.
(...)
However, other strong evidence can be put forward in support of the traditional view that Peter Hispanus who afterwards bore the tiara was the author of the *Summule*. Since Pope John XXI certainly was a secular priest, the identification implies an absolute rejection of any member of a religious Order as the author of the work. (pp. 125-127, notes omitted).

23. ———. 1970. "Die Bedeutungslehre in der Logik des 13. Jahrunderts und ihr Gegenstück in der metaphysischen Spekulation." In *Methoden in Wissenschaft und Kunst des Mittelalters*, edited by Zimmermann, Albert, 1-22. Berlin: De Gruyter. Miscellanea Mediaevalia, vol. 7.
Reprinted as chapter VII in: *Through Language to Reality. Studies in Medieval Semantics and Metaphysics*.
I. Einleintung: Bedeutungslehre und Methode; II. Die Suppositionstheorie als Bedeutungslhre im 13. Jahrhundert; III: Die Bedeutungslehre in der metaphysischen Spekulation im 13. Jahrhundert.
"Ich möchte jetzt meine Ergebnisse noch einmal ganz kurz zusammenfassen. Es hat sich zuerst, wie ich hoffe, die äußerste Wichtigkeit einer Bedeutungslehre nicht nur

für die Logik, sondern auch im Interesse der metaphysischen Spekulation ergeben. Es hat sich herausgestellt, daß sich die immer mehr herausgearbeitete Bedeutungslehre der Suppositionslogik als Theorie der Interpretabilität des Terminus im Grunde genommen mit genau denselben Problemen befaßte, mit denen die Metaphysiker des 13. Jahrhunderts gekämpft haben. Hier wie dort galt es wesentlich, die fundamentalen Bedingungen des Seins („esse" oder „est") in der Reflexion über die menschliche Aussage ausfindig zu machen. Hier wie dort auch entsprachen sich die unterschiedlichen Betrachtungsweisen, je nachdem man entweder die „forma universalis" oder das konkrete Individuum zum Blickpunkt und somit zum Referenzpunkt seiner Spekulation zu machen versucht hat.
Man wird sich der Folgerung nicht entziehen können, daß namentlich dem 13. Jahrhundert eine folgerichtige Bedeutungslehre fehlte. Sie wurde geradezu nur gelegentlich und nebenbei angelegt. So findet man vielfach nebeneinander Elemente der Bedeutungslehren der Logiker, der Modisten und jene der metaphysischen Spekulation. Wirklich begründet wurde die Bedeutungslehre m. E. im Mittelalter nie.
Die jetzige Skizzierung aber könnte vielleicht immerhin als bescheidene Anregung dienen, die teils implizite Bedeutungslehre des 13. Jahrhunderts und besonders ihre Vorbedingungen gründlicher zu untersuchen. Das wäre eine Aufgabe, die bei weitem über das Interesse der Logikhistoriker und vielleicht sogar das historische Interesse überhaupt hinausgeht. Es war ja die philosophische Methode selbst im Spiel, und zwar in einem weitaus erheblicheren Maße, als es den meisten Denkern des Mittelalters zum Bewußtsein kommen konnte." (p. 22)

24. ———. 1971. "The development of *suppositio naturalis* in medieval logic. Part I. Natural supposition as non-contextual supposition." *Vivarium* no. 9:71-107. Reprinted as chapter IX in: Through Language to Reality. Studies in Medieval Semantics and Metaphysics.
"I had already discussed this matter [naural supposition] in the second volume of *Logica Modernorum* (Assen 1967; pp. 571-578) and in the paper *Significatio y suppositio en Pedro Hispano*.
The aim of this paper is to elaborate and, partly, correct the view of natural supposition given there by a discussion of the most representative thirteenth century authors and of some fourteenth century logicians with whom natural supposition still played a rôle, such as John Buridan and Vincent Ferrer.
The thirteenth century authors are Peter of Spain, William of Sherwood, the anonymous author of the *Tractatus de proprietatibus sermonum*, and Lambert of Auxerre. It should be remarked at the outset that there is no interdependence between these thirteenth century authors, apart from the rather vague relation effected by their standing in a common tradition of logic." (pp. 71-72)

25. Peter, of Spain. 1972. *Tractatus, called afterwards Summule logicales*. Assen: Van Gorcum.
First critical edition from the manuscripts with an introduction by L. M. de Rijk.
Contents: 1. Pope John XXI (Peter of Spain) as the author of the so-called *Summule logicales* IX; 2. Life and works of Peter of Spain XXIV; 3. The *Tractatus* called afterwards *Summule logicales*. Title, order and number of the tracts. Their date XLIII; 4. Sources. 'The Byzantine thesis'. Peter's possible masters of logic LXI; 5. Contents of the *Tractatus* LXXXVIII; 6. The early diffusion of the *Tractatus.* Commentaries and editions XCV; 7. The manuscripts used for this edition C; Books and articles referred to CXI; List of manuscripts used CXVI; Index of names CXXI.
"Contents of the *Tractatus*.
As to the doctrinal contents, the *Tractatus* may be divided in two main parts: one (A) discussing doctrines found in the so-called *logica antiquorum* (=*logica vetus* and *logica nova*), the other (B) those commonly dealt with in the *logica modernorum* (the tracts discussing the so-called *proprietates terminorum*):
A: *De introductionibus* (Tract I), *De predicabilibus* (Tract II), *De predicamentis* ((Tract III), *De sillogismis* (Tract IV), *De locis* (Tract V), *De fallaciis* (Tract VII)

B: *De suppositionibus* (tract VI), *De relativis* (Tract VIII), *De ampliationibus* (Tract IX), *De appellationibus* (Tract X), *De restrictionibus* (Tract XI), *De distributionibus* (Tract XII)." (pp. LXXXVIII-LXXXIX, notes omitted)

26. Rijk, Lambertus Marie de. 1973. "The Development of Suppositio Naturalis in Mediaeval Logic. II. Fourteenth-Century Natural Supposition as Atemporal (Omnitemporal) Supposition." *Vivarium* no. 11:43-79.
Reprinted as chapter X in: *Through Language to Reality. Studies in Medieval Semantics and Metaphysics*.
"I - Status quaestionis.
From the investigations in the first part of this article the conclusion was drawn that in the thirteenth century doctrine of supposition natural (or habitual, or absolute) supposition was considered the natural capacity of a term to stand for something partaking in the essence (or: universal nature) signified by that term; accidental supposition was the term's actual being taken for something in virtue of the term's combination with some other term in either a phrase or a proposition, or of its having a special meaning in a special social context. Briefly stated : natural supposition was decidedly non-contextual, whereas all kinds of accidental supposition were of the contextual type.
Two characteristics of the thirteenth century doctrine of supposition are to be noticed
(a) accidental supposition, being contextual, does not always imply a propositional context
(b) natural supposition, being something midway significatio and suppositio (as opposed to significatio), seems to enervate the clear-cut
distinction all thirteenth century logicians made between suppositio and significatio.
ad a Thirteenth century logicians turn out to consider the proposition as just one of the possible contexts of a term, not as the only one required for a term's having supposition.
ad b The introduction of natural supposition was due to the peculiar fact that those logicians apparently held it to be indispensable to distinguish between a word's having signification (viz. its representing some universal nature) and its capacity to stand for individuals partaking in this universal nature (c.q. the universal nature participated, taken as such), which capacity was the direct, or natural, counterpart of its having signification. This natural capacity must be seen as a reference to a *possible* context, which supplies an adjunct to limit, or restrict, the term's original capacity (c.q. which causes its having an unrestricted exercise of its natural capacity). (...)
As is well known, when studying the problems of signification fourteenth century logicians showed an increasing interest in the contextual approach to language. Their investigations were focussed on the *congruitas locutionis* and the *veritas propositionis* as the basic requirements *(exigentie)* for stating the actual meaning of terms. Their theories of supposition may be taken as an attempt to specify the truth conditions for (mostly affirmative) categorical propositions. Thus, the various kinds of supposition were characterized by fourteenth century logicians by means of implications *(consequentie)'.* Consequently, they were bound to lay the most explicit stress on the *proposition* as the only possible context in which a term could have supposition.
The most obvious conclusion from the theoretical point of view would be that natural supposition, being of the non-contextual type, had to disappear in fourteenth century logic. To my mind, it certainly had - as certainly as it never should have appeared. However, it *did* occur in those days, not only in the Realist tradition but with a logician as John Buridan as well.
It is the aim of this article to discuss the reinterpretation of natural supposition and the controversies it provoked, and is still provoking up to the present days." (pp. 43-44)

27. ———. 1973. "A note on Aganafat(?)'s '*Thesaurus Philosophorum'*." *Vivarium* no. 11:105-107.

"Some years ago I found in the Vatican Library (*Vat. Lat.* 4537, ff. 45ra-52ra, s. XIII) an incomplete copy of a tract on the *modus opponendi et respondendi*, the author of which calls himself *Aganafat* (or: Aganasat).
Further investigations have shown that this tract, called *Thesaurus philosophorum*, must have been the source of the well known *Tractatus de modo opponendi et respondendi* found in several manuscripts (Paris, *BN Lat.* 16.930, 16.617 and Montecassino 362 VV) and printed under Albert the Great's name. (See M. Grabmann, in Sitzungsberichte der bayer. Akad. d. Wiss., Phil-Hist. Abt. Jahrg. 1937, H. 10 (Munich 1937), 24 f.)
(...)
I hope to edit the *Thesaurus philosophorum* in full next year, together with the adaptations and a study on its place in the development of the *ars obligatoria et exercitativa.* At this moment I confine myself to edit the *argumentum* and the *prologus* in order to enable students of Arab (or Hebrew?) logic to get some impression of this work and its author. I should be very pleased if some information could be given on his identity." (p. 105)

28. ———. 1974. "Some Thirteenth century tracts on the Game of Obligation. Part I. Two separate tracts on '*falsi positio*' and '*impossibilis positio*'." *Vivarium* no. 12:94-123.
"In his thorough study on Sherwood's and Burley's tracts *De obligationibus*, Father Romuald Green (*) rightly describes the aim of these tracts as follows:
The purpose was to inculcate knowledge of logical rules by practice, to sharpen the pupil's mind to avoid contradiction -- the basis of any disputation ... it was a general introduction to a number of fundamental logical notions and their use in disputation'.
I give his succinct description of the general plan of the obligation:
'Briefly, the plan of an exercise de obligationibus is as follows. It is a disputation involving an opponens and a respondens. The opponens proposes a statement, which, for example, he wishes to be upheld. The respondens accepts the initial statement and binds himself (se obligat) to the wishes of the opponens, that is, in this case, to uphold it. This is the meaning of obligatio -- the opponens asks the respondens to take on the obligation, for example, of upholding a particular statement. Once the respondens has accepted the obligation, the opponens proposes a number of other statements which the respondens must concede or deny -- but always the respondens must maintain the initial statement according to the obligation accepted, and he must observe the logical rules of inference, if the various statements proposed are logically connected, at all times avoiding a contradiction. Precisely it is this last point -- contradiction -- which provides the key to the exercises in *De obligationibus*. The aim of the opponens is to involve the respondens in contradiction, and the respondens has to avoid it'. (*op. cit*. p. 18-19).
(...)
The aim of these articles will be to publish some tracts, found in Munich and in some other libraries, which seem to date from the first half of the thirteenth century, if not, in part, from the end of the twelfth." (pp. 94-96)
(*) Romuald Green O.F.M. *An Introduction to the Logical Treatise De obligationibus, with critical texts of William of Sherwood (?) and Walter Burley*. vol. I: *Introduction*; vol. II: *Critical Texts of William of Sherwood (?) and Walter Burley*. Unfortunately, this Louvain thesis written in 1963 has not been published yet. As to Sherwood's authorship, Green seems to be a bit over-anxious in doubting it.

29. ———. 1975. "Some Thirteenth century tracts on the Game of Obligation. Part II. The *Obligationes Parisienses* found in Oxford, Canon. misc. 281." *Vivarium* no. 13:22-54.
"In his description of the Oxford manuscript *Canon. misc.* 281 Coxe only mentions (*) anonymous glosses on Priscian's *De constructione* (Priscianus minor). However this manuscript contains also a tract of logic. " (p. 22)
(...)

The treatise as a whole has the following parts (the subdivisions printed in minuscules are mine)
Prologus
De obligatione einsque speciebus
I DE POSITIONE
De positione determinata
De quibusdam regulis circa ponibile positum
Sophisma
Consimile sophisma
Idem sophisma
Aliud sophisma
Aliud sophisma
Aliud sophisma
De positione indeterminata
De indeterminate positionis duplici modo
II DE DUBITATUR
Utrum 'dubitatur' sit obligatio annon
De quibusdam regulis
Sophisma
III DE DEPOSITIONE
De eius diffinitione et regulis
De speciali depositione
Utrum non debeat esse obligatio
Sophisma." (p. 25)
(*) H. O. Coxe, *Catalogi codicum manuscriptorum Bibliothecae Bodleiane* pars tertia codices graecos et latinos canonicos complectens, Oxford 1854, col. 646.

30. ———. 1975. "*Logica Cantabrigiensis*. A fifteenth century Cambridge manual of logic." *Revue Internationale de Philosophie* no. 29:297-315.
Special number in memory of Martin Grabmann.
"The manuscript 182/215 of the important manuscript collection of the Library of Gonville and Caius College at Cambridge contains a number of tracts on logic which were probably written at Cambridge as notes of lectures. Part of them are also found in other manuscripts all over Europe. It seems rather difficult to discern the exact extent of this work, since in nearly all manuscripts the number and arrangement of the tracts is different and other logical works are mixed up with those treatises which doubtless belong to the Cambridge Logic." (p. 297)

31. ———. 1975. "*Quaestio de Ideis.* Some notes on an important chapter of Platonism." In *Kephalaion. Studies in Greek philosophy and its continuation, offered to professor C. J. de Vogel*, edited by de Rijk, Lambertus Marie and Mansfeld, Jaap, 204-213. Assen: Van Gorcum.
"The opponents of Platonism as well as its adherents have to agree that there is a lot of truth in Whitehead's famous statement that the safest general characterization of the European philosophical tradition is that it consists of a series of footnotes to Plato (*).
I think one of the everlasting items of that tradition is what has been termed since St. Augustine the *quaestio de Ideis.* Indeed, the status (either ontic or merely mental) of the Ideas has fascinated many philosophers, especially the Christian, who could not dispense with a statement concerning the relationship of the eternal and immutable Ideas to God. In this short contribution to the dedicatory volume for our academic teacher C. J. de Vogel, I shall confine myself to roughly sketch the development of the problem of that relationship from Plato's days down to some fourteenth century Franciscan thinkers." (p. 204)
(*) Alfred Nort Whitehead - *Process and reality. An essay in cosmology* - Gifford lectures delivered in the University of Edinburgh during the session 1927-28. Camvrdige, 1929, p. 53.

32. ———. 1975. "The place of Billingham's *Speculum puerorum* in Fourteenth and Fifteenth century logical tradition, with the edition of some alternative Tracts." *Studia Mediewistyczne* no. 16:97-151.
"From the second half of the fourteenth century onwards the Speculum puerorum (or iuvenum) compiled by the English logician Richard Billingham was very popular, especially in Southern and Central Europe. However, this popularity does not extend to his other works. The Speculum, which together with works such as those of Thomas Manlevelt, William of Heytesbury and Marsilius of Inghen, was a formidable competitor of Peter of Spain's Tractatus, is an introduction to what from about the 1330's onwards has been one of the cardinal items, if not the most characteristic one, of fourteenth century logic, rather than a Summule of the type of Peter of Spain's Tractatus, which contains all the topics of the Logica antiqua and moderna favoured in Peter's days. Generally speaking, fourteenth century philosophy focussed its attention on the search for certainty (certitudo and evidentia). That fourteenth century logic paid special attention to the procedures of proving a sentence, is evidenced by the numerous tracts entitled De probationibus propositionum or De veritate ac falsitate propositionum which have been handed down to us in fourteenth and fifteenth century manuscripts.
Billingham's Speculum is one of them." (pp. 99-100, notes omitted).

33. ———. 1975. "La signification de la proposition (*dictum propositionis*) chez Abélard." In *Pierre Abélard - Pierre le Vénérable. Les courants philosophiques, littéraires et artistiques en Occident au milieu du XII siècle*, edited by Jolivet, Jean and Louis, René, 547-555. Paris: Éditions du Centre national de la recherche scientifique.
Published also in: *Studia Mediewistyczne* 16, 1975 pp. 155-161.
Reprinted as chapter IV in: *Through Language to Reality. Studies in Medieval Semantics and Metaphysics*.
"Cette communication se borne a un bref examen de la signification de la phrase complète (*propositio*) dans la logique de Pierre Abélard.
Il paraît utile de commencer par la définition du verbe signifier (*significare*) chez ce logicien.
'signifier' dit des mots (*dictiones*) c'est produire une intellection dans l'âme de l'auditeur (*Logica ingredientibus* 307, 30 ss.), tandis que le même verbe est également appliqué à la dénotàtion des choses extérieures (*ibid.*); dans ce dernier sens, le verbe est synonyme de *appellare, nominare, demonstrare, designare*.
'signifier' dit des phrases complètes (*propositiones*) c'est produire une intellection laquelle est formée par la liaison des intellections de ses parties (*dictiones*)." (p. 547)
"On peut conclure que selon Abélard le *dictum* n'est pas un objet qui serait indépendent de la pensée, mais plutôt le contenu de la pensée, c'est-à-dire une *intellection objectivée,* qui correspond soit à un état de choses réel, soit à un état de choses seulement possible *(Dial. II,* 205, 28-30: *id dicimus quod id quod dicit hec propositio 'Socrates est homo', est unum de his que natura patitur esse),* soit un état de choses tout à fait impossible *(Dial. II,* 158, 7 -9: la proposition '*Socrates est lapis'* ne reflète pas *une inherentia* de Socrate et de pierre, ni '*Socrates non est lapis'* leur rémotion).
(...)
Ainsi, l'existence qu'établit la proposition en parlant, n'est pas une existence réelle, mais, pourrait-on dire, une existence *parlée*, ou plutôt, une existence *pensée* ou *logique*.
Employant la distinction bien connue du XIV siècles (presentée notamment par Jacques d'Ascoli, Thomas d'York, Pierre Thomae):
res: 1) extra animam (chose extérieure); 2) in anima: a) subiective (= *acte* de l'intellection comme tel) b) obiective *(contenu* de l'intellection).
on peut dire qu'Abélard a essayé, à sa façon, de montrer que le *dictum, de* la proposition, loin d'être une chose extérieure (*res extra animam*) est une chose qui doit son existence à l'âme ou a l'intellection (*res in anima*), mais qu'il faut en même

temps bien le distinguer de l'acte de l'intellection pris comme tel (*res in anima subiective*), et reconnaître, sa propre identité dans le *contenu objectif* de l'intellection. Par là, le *dictum* du grand logicien du XII siècle semble être d'une nature logique par excellence." (pp. 554-555, notes omitted)

34. ———. 1975. "Review of: Thomas Erfurt. *Grammatica speculativa.* An edition with a translation and commentary by Geoffrey L. Bursill-Hall (London, 1972)." *Linguistics* no. 157:160-164.

35. ———. 1975. "Another *Speculum puerorum* attributed to Richard Billingham." *Medioevo* no. 1:203-235.
"Every student of Mediaeval logic knows the tract on the truth and falsity of the propositions by the hand of Richard Billingham.
It goes under the titles *Speculum puerorum, Speculum iuvenum,* and also *Terminus est in quern,* after the well known *incipit* borrowed from Aristotle's *Prior Analytics* (I I, 24b16-18) *Terminus est in quem resolvitur propositio ut predicatum et de quo predicator, apposito vel diviso esse vel non esse*. In 1970 Dr. Alfonso Maierù published a very useful school edition of the work, (*) to the effect that the scholary world has now that text at its disposition which exerted a tremendous influence in fourteenth and fifteenth century logic, especially in the universities of Eastern and Southern Europe.
The text has come down to us in two different redactions, an English and a Central European one.(**) Elsewhere (***) I tried to show that Billingham's work is the most famous specimen of quite a number of similar tracts *De veritate et falsitate propositiomun,* but certainly not the oldest of them. It is the aim of this article to introduce and edit another treatise of this type, which like the well known treatise edited by Maierù goes under the title *Speculum puerorum* and is likewise attributed to Billingham. It is found in a late fourteenth century manuscript of the Archivo General de la Corona de Aragon at Barcelona, Spain, viz. Ripoll 141." (p. 203)
(*). A. Maierù, *Lo "Speculum puerorum sive Terminus est is quem" di Riccardo Billingham.* «Stud. Med.», 3 (1969), 297-397.
(**) See Maierù, *Introd.* 318 sqq. Maierù seems to be wrong in distinguishing a third class of manuscripts; in fact at least two of this class contain quite a different tract which also goes under the name *Terminus est is quem.* See L. M. de Rijk, *The Place of Billingham's* Speculum puerorum in *14th and 15th Century Logical Tradition, with the edition of some alternative tracts,* (1975).
(***) Study quoted in the previous note.

36. Rijk, Lambertus Marie de, and Mansfeld, Jaap, eds. 1975. *Kephalaion: Studies in Greek Philosophy and Its Continuation, Offered to Professor C. J. de Vogel*. Assen: Van Gorcum.
"This volume is offered to Professor C. J. de Vogel, who for more than twenty-five years held the chair of Ancient and Medieval (since 1968 of Ancient and Patristic) Philosophy in the University of Utrecht."
Contents: W. J. Verdenius: Heraclitus' conception of fire 1; René Schaere: Héraclite jugé par Platon 9; Jaap Mansfeld: Alcmaeon: '*Physikos*' or Physician? With some remarks on Calcidius' 'On vision' compared to Galen, Plac. Hipp. Plat. VII 26; E. de Strycker S. J.: The oracle given to Chaerephon about Socrates 39; G. J. de Vries: A general theory of literary composition in the Phaedrus 50; Pierre-Maxim Schuhl: Platon et la pureté de l'altitude 53; Enrico Berti: Logical and ontological priority among the genera of substance in Aristotle 55; Suzanne Mansion: Une passage obscur du deuxième livre de la Physique 70; G. Verbeke: Moral behaviour and tiem in Aristotle's Nicomachean Ethics 78; Olof Gigon: Phronesis und Sophia in der Nicomach. Ethik des Aristotle; B. L. Hijmans: Athenodorus on the Categories an a pun on Athenodorus 105; Heinrich Dörrie: Logos-Religion? Oder Noûs-Theologie? Die Hauptsächlichen Aspekte des kaiserzeitlichen Platonismus 115; Walter Burkert: Plotin, Plutarch un die platonisierende Interpretation von Heraklit und Empedokles 137; Theo Gerard Sinnige: Metaphysical and personal religion in Plotinus 147; A. H. Armstrong: Beauty and the discovery of divinity in the thought of Plotinus 155;

Modestus van Straaten O. S. A.: On Plotinus IV, 7 [2], 8, 3 164; F. P. Hager: Proklos and Alexander von Aphrodisias über ein Problem der Lehre von der Vorsehung 171; Maria Timpanaro-Cardini: Two questions of Greek Geometrical terminology 183; Robert Joly: Remarques sur Dion Chrysostome et le Nouveau Testament 189; Cornelia W. Wolfskeel: Christliches und Neoplatonisches im denken Augustins 195; L. M. de Rijk: *Quaestio de Ideis*. Some notes on an important chapter of Platonism 204; Hans-Rudolf Schwyzer: The Intellect in Plotinus and the archetypes of C. G. Jung 214; Bibliography of C. J. de Vogel, compiled by J. van Heel 223; Tabula gratulatoria 231.