

Greek and Latin Medieval Logic.

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In spite of their common late-ancient ancestry Greek and Latin works on logic from the medieval period are so difficult to compare that it becomes imperative to ask whether Greeks and Latins were actually pursuing quite different goals with means that only superficially resembled each other.¹ This article will present some of the facts to be taken into consideration and some sub-questions that must be answered before the principal question. In part 1 I shall give a survey of converging and diverging tendencies in the two cultures from the beginning till the end of the Middle Ages. Part 2 is a typological comparison of Greek and Latin companion books to the *Organon*.

1. Convergence and Divergence.

1.1 The Shared Heritage.

About 1240 somebody compiled a compendium for the use of candidates for the degree of Licentiate in Arts at a university, most probably that of Paris.² The compendium, according to its preface, contains the questions most often asked at the examinations, and, of course solutions. By far the largest part of the compendium is concerned with Aristotle's *Organon*, and one of the questions relating to the *Posterior Analytics* is why Aristotle said that a definition is a demonstrative proof, only "differing by position".

The answer consists in a classification of definitions into formal, material and combined definitions. A formal definition of anger might be

Anger is a desire to reciprocate vexation

The material definition might, for instance, run

Anger is a boiling of the blood around the heart

1. Cf. Ebbesen 1992,1.

2. Ms Barcelona, Ripoll 109. Edition by Lafleur forthcoming at Brepols publishers. See further the papers in Lafleur (forthcoming).

The two combine in the combi-definition

Anger is a boiling of the blood around the heart because of a desire to reciprocate vexation

Now, with a little rearrangement of the elements the combi-definition comes out as a syllogism, viz.

Every desire to reciprocate vexation is a boiling of the blood around the heart; anger is a desire to reciprocate vexation; therefore anger is a boiling of the blood around the heart.

So, some definitions, namely combi-definitions, may be considered demonstrations whose parts have been shuffled.

The author of the compendium got some of this wrong, but I shall not dwell on that. For our present purposes two things are interesting about this explanation of Aristotle's text. One is that it is a standard item in Latin commentaries on the *Posterior Analytics* from around the time the compendium was written. The second interesting fact about the explanation is that it can be traced back to the Alexandrian John Philoponus († ca. 575), the man who personally bridged the gap between pagan and Christian scholasticism. In the perhaps most famous of all Latin *Posteriora*-commentaries, that by Robert Grosseteste († 1253), a whole page of Philoponus is reproduced *verbatim* to comment on Aristotle's remark about demonstrations and definitions.¹

Philoponus lived seven hundred years before Grosseteste. We do not know a terrible lot about the study of the *Posterior Analytics* in the Greek lands in the thirteenth century; but though the extant manuscripts of Philoponus' commentary tend to belong to a later age, there can be little doubt that he was the preferred commentator. Important thirteenth-century manuscripts of the *Organon* have extracts from his work in the margins of their *Posterior Analytics*.²

Apparently, then, we are witnessing a shared philosophical culture common to Greeks and Latins, both using Aristotle as the basic authority on logic and both relying on Philoponus for understanding the *Organon*. But one should not trust appearances.

1. For more details about the fate of the Philoponean scholium about definitions of anger, see Ebbesen (forthcoming, 1).

2. Ms Basel F.II.21: 121v has one sch. = Philoponus, *APo.*, CAG 13.3.7.2-5, another = 13.3.4.30-5.6; Vat. Barb. 164: 131r has a scholium inspired by CAG 13.3: 156; Paris 1843: 135r contains a longish scholium = CAG 13.3: 323.10ff.

1.2 The Early Medieval Collapse.

Let us go back and look at the situation about 500. There is no flourishing logic anywhere. But there is a well-entrenched tradition for teaching logic in Greek. The Hellenistic philosophical sects, Academics, Peripatetics, Stoics, Epicureans have ceased to exist. In metaphysics everybody is a Platonist of sorts. As for logic, Aristotle has prevailed in the sense that for some centuries he has provided the basic texts on which higher studies of logic are based, but this does not mean that the many centuries between Aristotle and our times, i.e. ca. AD 500, have left no traces on modern logic. Let us first look at the situation with Greek eyes:

"We, the modern Greeks around 500, may often feel inferior to Aristotle; but we also have some conceptual tools at our disposal that he had not heard of. This is true not least in the field of semantics, including the psychological aspect of signification. We have continued and developed some of Plato's suggestions that Aristotle failed to develop. We thus distinguish between interior and exterior speech (λόγος προφορικός - λόγος ἐνδιάθετος); that is, we can distinguish between the material words and sentences, which have phonetic properties, and the psychological entities which they signify. We can distinguish between abstract concepts produced by the mind and the real concepts which the abstract ones only mimic; we can thus see what Aristotle had got right and what he had got wrong. He was right in positing the abstract concepts but wrong in rejecting the real ones, the Platonic ideas. The two are not mutually exclusive. We have picked up some of the important innovations of Theophrastus's concerning hypothetical syllogisms, a subject Aristotle never quite got a good grasp of. We do not, it is true, keep much of the highly technical logic of the Stoics, but then they were generally wrong and overly technical with little sense for what really matters in philosophy. We have some trouble with keeping the philosophical tradition alive because Christians generally do not like philosophical schools, and access to older literature is a great problem, but all considered the situation is not too bad. There are reputable schools in several cities, Athens and Alexandria prominent among them."

Then, let us look at the situation with Latin eyes:

"We, the modern people around 500, regret to say that logic never got firmly rooted in Latin culture. Of course, we have the *Topics* by the great Marcus Tullius, so useful for an orator, but very little else com-

posed in Latin; as for the father of logic, Aristotle, we have a few translations or adaptations, but basically we have to admit that we do not even possess an elementary Latin logical library. We need someone to continue the work begun by Cicero but never completed, someone who may transfer Greek thoughts into Latin language."

Well, someone tried to do just that, and his name was Boethius. Like Marcus Tullius he was a statesman, consul at one time, and holder of important governmental posts. A man for whom philosophy could only be a hobby to be cultivated in his few leisurely hours. He was not a professional philosopher.

Boethius has been unfairly treated in the 20th century. People with a knowledge of the Latin tradition only have tended to deify him and to explain away all his shortcomings as a logician and more broadly as a philosopher. People acquainted with late ancient scholastic literature have tended to see him as a bad ape of Greek authors. I do not wish to deify Boethius; it is perfectly easy to find examples of confusion and lack of understanding in his oeuvre. But neither should one see him as a bad ape. If he aped, so did his Greek contemporaries. Compared to Ammonius or Philoponus he was a very decent logician, and he was to have a greater impact on posterity than either of them. His work as translator of Aristotle's logic and as adaptator of Greek commentaries and introductions to logic was to be the basis on which Western scholasticism was built.¹

In the short run, it did not look like there was much future for Boethius' work. About 550 I would have bet almost anything that in a few decades his logical works would be forgotten altogether, and I would have had strong doubts whether there would ever be such a thing as an important tradition for logical studies in Latin. For about 550 emperor Justinian's attempt to restore imperial authority in the Western part of the Empire dealt a devastating blow to the economy and social fabric of Italy, and thus indirectly to philosophical studies.

Looking at things from a vantage point in the Eastern Empire and keeping my eyes on things Greek I might have worried a bit about the future, but I would not have feared too much for logic; some pagan philosophy might have to be sacrificed because it was not easily reconcil-

1. For recent literature on Boethius, see Ebbesen 1987, Astszalos 1993

able with the revealed truth, but why shouldn't people go on learning a bit of Aristotelian logic? Have not people issued from the school of Ammonius come over to the true faith? Isn't logic taught in Constantinople?

What a Greek observer about 550 could not foresee was the collapse of the Empire in the Middle East about a century later with a subsequent drastic reduction of the number of people for whom Greek was the language of higher culture. Logic survived in the Middle East but its language became Syriac, and later Arabic. It also survived in the reduced Empire, we must presume, but after 650 Constantinople is the only city that really matters, and for some two centuries there is virtually no evidence of activity in the field. The situation seems to have been almost as bad as in the West, where we similarly lack evidence of logical studies between ca. 550 and 800.

The ninth century witnessed a revival of studies, in the Greek as in the Latin lands, and indeed in the Muslim empire too, but there was little direct contact between logicians in the Greek, the Muslim and the Carolingian empires.

1.3 Convergence. Ninth - Twelfth Centuries.

A shared characteristic of Greek and Latin philosophy in the period 800-1000 is that 'philosophia' in practice may mean logic. In the West that is known to have been the only philosophical discipline regularly taught, and the situation seems to have been the same in Constantinople.

Greeks and Latins alike were heirs to a tradition in which Porphyry's *Isagoge*, Aristotle's *Categories*, *Peri hermeneias*, and *Prior Analytics* I.1-7 were the central texts on logic, and in which Porphyry's interpretation of *Categories* and *Peri hermeneias* exerted a strong influence. Porphyry had solved the apparent contradictions between Aristotelianism and Platonism by viewing the *Categories* not as a treatise on what there is, but about the way we talk and think about the sensible world. A category is not an elementary constituent of reality or a class of such constituents, but a word or class of words qua signifying things in the external world, and signification takes place via mental entities, concepts.

In a well-known passage in his *Isagoge* Porphyry formulates the question about the ontological status of universals but declines to answer it. After 800 there are Greeks as well as Latins who think the answer is

implicit in the definition of the subject-matter of the *Categories*. Just as the ten categories are ten classes of words, so the term 'universal' designates a class of words, i.e. such as may be predicated of several individuals. The technical terms 'universal', 'genus', 'species' are members of a peculiar class of words, those called 'of the second imposition', which can never be used to characterize an extralinguistic entity, they are 'names of names'. Thus the truth of 'man is a species' does not oblige anybody to believe in a universal man, for the sentence just means 'the word "man" is a species' which is a short way of saying that the word 'man' may be predicated of several individuals. Answering "Words" when asked "What sort of things are universal" is genuine nominalism. An incipient nominalism is detectable in works by Photius from the ninth century and in various Latin ones from the ninth and tenth, culminating in a veritable nominalist school in twelfth-century France.¹

Common heritage had similar effects among Greeks and Latins in this case. There was also a common method of working. While originality was not altogether absent (thus Photius seems to have been no mere compiler), there are both Greek and Latin examples of logic books produced by the scissors- and paste-method. The influential Greek survey of logic and the quadrivium produced by Anonymus Heiberg in 1007 was thus made,² and so were some early Western commentaries on Porphyry and Aristotle.

It could also look as if the reception of logic by the broader class of men of letters was following similar patterns. In the late 11th century we have in Constantinople a reaction against John Italos († ca. 1085), who was accused of misapplying logic to theological questions. A little later, in the first half of the twelfth century, we have similar reactions from pious obscurantists against Peter Abelard († 1142) and Gilbert of Poitiers († 1154) in the West. In the East as in the West, the climate was still rather mild for such logical theologians; neither John Italos nor Peter Abelard lost every position in society and all support from important

1. For the early parallel development, cf. Ebbesen 1990,1. For twelfth-century nominalism in the West, see Courtenay 1992.

2. Edition in Heiberg 1929. For the date of Anonymus Heiberg see Taisbak 1981. For his dependence on earlier works, see Praechter 1931 and Ebbesen 1981: 1.262-5 (notice that Praechter mistakenly thought that Anonymus Heiberg borrowed from Michael of Ephesus and not vice versa).

persons just because they were condemned for trading logically contaminated theology.

In some respects, Abelard might seem to have his Greek counterpart in Nicephoros Blemmydes († ca. 1272). Both wrote not only handbooks of logic, but also autobiographies, which, at least in the West, was most unusual, though it may have been more common in the Byzantine lands. We also have an autobiography by George of Cyprus, a learned man from the generation following Blemmydes.¹ Anyhow, Abelard wrote the famous *Historia Calamitatum* and Blemmydes his *Περὶ τῶν κατ' αὐτὸν διήγησις*.² Both try to convince the audience that their life has been a continuous fight against envious detractors and malignant men in general. Both boast of having succeeded as a youth in humbling an older teacher in a disputation.³

As late as the 1120s and 30s it could seem as if Greeks and Latin were pursuing not only parallel but converging lines of development. There are almost simultaneous activities aimed at enlarging the horizon of logicians by introducing the study of neglected parts of the *Organon*, such as *Prior Analytics* II, *Posterior Analytics*, and the *Elenchi* as well as of non-logical parts of the Aristotelian oeuvre. Moreover there is a direct linking of activities in Constantinople and in the West. In Constantinople the central person is Michael of Ephesus, court philosopher to Anna Komnena after she had been relegated from the official court to the nunnery of The Blessed Virgin in the year 1118. In the West the central person is James of Venice, who styled himself "Iacobus Veneticus Grecus". James not only translated texts by Aristotle but also commentaries, two of which are of particular interest here.⁴ One was Philoponus on *Posterior Analytics* I, supplemented with some unknown material on Book II. Another was Michael of Ephesus on the *Sophistici Elenchi*. Robert Browning (1962), who was the first to realise the real date of Michael, whom earlier scholarship had placed in the tenth or eleventh century instead of the twelfth, was also the first to suggest a direct con-

1. Edition in PG 142: 19-29

2. Editions by A. Heisenberg 1896, J.A. Munitiz 1984. I refer to Heisenberg's chapters and pages. They are marked in the margins of Munitiz's edition.

3. Abelard crows over his victory over William of Champeaux. For Blemmydes, see *Διήγησις* 2.4-8 (1896: 55-59).

4. For James' translations see Ebbesen 1981 and 1990,2.

tact between Michael and James of Venice. My own research has confirmed the likelihood of such a contact. Indeed, it looks as if James has had access to rare texts that we know Michael also knew, but which he did not include in his own work.¹ It is extremely tempting to think that James, who is known to have been in Constantinople, had become friendly with Michael and had been allowed to use his manuscripts. Since we can see that Michael was familiar with Philoponus on the *Posterior Analytics*, the copy that James used for his translation may well have been one in Michael's possession.

And now we are back where I started. At a point when Greek and Latin logicians seem safely linked to each other and to the same traditions. But never trust the surface of things.

1.4 Divergence. Philosophers versus Philologists.

The men who were to receive James' translations were members of a fast growing class of professional philosophers who gradually got organized into guilds and thus created that peculiar institution, the university. In the early twelfth century philosophers still traded in such unphilosophical goods as Ciceronian rhetoric and perhaps even Horatian ethics. But by and by such items were discarded in favour of more philosophy of nature, philosophical ethics and other strictly philosophical disciplines. General humanistic education was one thing, philosophy another.

The men who were to receive James' translations were members of a competitive community of professional philosophers — a community which had already got far beyond the stage at which an exposition of Aristotle's text was the one and only way to do serious logic. It was a scholarly community in which the command of a highly developed logic was seen as a necessary prerequisite for doing any other sort of philosophy, and in which specific doctrines and practices had developed that the world had not seen the like of before.

Starting from material in Boethius' *De differentiis topicis* a theoretically refined and practically applicable theory of topical proof had developed.² Also with a background in Boethius, the theory of hypothetical

1. Admittedly, the evidence for this is not very strong. See § 4.6.2 of the introduction to 'Anonymi Parisiensis ...' in this issue of CIMAGL.

2. See Green-Pedersen 1984 & 1987, Ebbesen 1993,1

reasoning had made great advances.¹ Last, but not least, semantics and the art of analysis of sentences to bring out their truth-conditions had been developed to a point that only the ancient Stoics may have been able to match.

The philosophy cultivated by the twelfth-century Latin masters was analytical philosophy if ever there was such a thing. That is what I have christened "The native tradition" in medieval Latin philosophy.² It was only remotely related to Aristotelian studies of the sort we find in Philoponus or in Michael of Ephesus. Among the new texts that became available in the early twelfth century, the *Sophistici Elenchi*, Aristotle's work about fallacious reasoning, was closest to the interests that Westerners already had, and ideas extracted from that book were soon integrated into the native tradition. The *Posterior Analytics*, by contrast, while arousing considerable curiosity and much study, especially in the thirteenth century, never was quite integrated. After 1150 there were two strands, as it were, in Latin logic: the native tradition and a sort of Aristotle-bound studies much closer to what is known from the Eastern Empire. The two traditions were not enemies, the same people would pursue both sorts of study, and the two types of logical studies would fertilize each other. But they did not quite merge.

The philosophical community which received James' translations was so big and so well developed that it could afford to have several schools each with its own philosophical profile, announced in a number of — often paradoxical — theses (*positiones*). The Nominalists, the Porretans, the Meludinenses, and the Albricani each had their own list of school tenets, most of them in the field of logic — though of course logic in the old broad sense, so that e.g. one's tenets about the status of universals would be counted as logical. And the schools would fight each other in public disputations conducted with considerable sophistication.³

What happened in the Byzantine world at the same time? Very little, it would seem. No class of professional philosophers emerged. Michael

1. Cf. Martin 1987

2. The term was introduced in Ebbesen 1985.

3. On the schools and their theses, see Ebbesen 1992, 2. When that article was written, lists of theses were known for *Nominales*, *Porretani*, and *Meludinenses*. Since then, Yukio Iwakuma (Fukui Prefectural University) has found a list of theses of *Albricani* (still unpublished).

of Ephesus' work certainly met with some success, but he had few successors of any stature. Generally speaking, Greek students of philosophy stayed within the conceptual horizon of Philoponus.

The thirteenth century saw in Byzantium the development of a new sort of commentary, one in which a main ingredient of each constituent scholium was explicative phrases introduced by *ἡγουν*, *ἦτοι* or *εἵτουν*.¹ This sort of commentary is somewhat reminiscent of some Latin products from about 1100.² What is noticeable is that the Eastern and the Western commentators are out of phase. The thirteenth-century Greek products resemble Latin products of the previous century. The biographies of Blemmydes and Abelard are also separated by more than a century. For all I know, Abelard was both the first and the last Western schoolman to write a work of that type. And the rather primitive syllogistic game in which Blemmydes got the better of his teacher³ would not have impressed anyone in the West after about 1100.

Again, if we look at the standard curricula in the early thirteenth century we find the West and the East out of phase. In his biography Nicephoros Blemmydes tells us how, at the age of 16, after having been taught grammar, Homer and other poets, and rhetoric, he was introduced to logic, i.e. Porphyrian predicables, the Aristotelian categories, and the matter of the *Peri hermeneias*,⁴ or as he phrases it in one place "the parts of logic that precede the *Analytics*".⁵ But as he could find no teacher in Nicaea to take him further in logic, he turned to medicine instead. Only seven years later did he find a person capable of teaching him syllogistic and other advanced philosophy. To get to his new teacher, Prodromus, he had to move to the town of Scamandros.⁶ The little logic Blemmydes could get in Nicaea corresponds to the core curriculum in France about 1100. By 1213 Blemmydes' French counterpart would frequent a master who could teach him much more, or at least also the *Sophistici Elenchi* and something about the syllogistics of the

1. One author in this genre was Leo Magentinus. See Ebbesen 1981: 1.305-11.

2. Similar strings of explicative phrases ('sc. ...', 'i.e. ...' and '.... supple') also occur in the *expositio* sections of thirteenth-c. Latin literal commentaries ("concatenated gloss" type), but then as just one element of the work. Cf. § 2.3.1 below.

3. Blemmydes, *Διήγησις* 2.4-8 (1896: 55-59).

4. *Διήγησις* 1.2 (Blemmydes 1896: 2).

5. "τὰ πρὸ τῶν ἀναλυτικῶν", *Διήγησις* 2.3 (Blemmydes 1896: 55).

6. *Διήγησις* 1.4 & 2.4 (Blemmydes 1896: 4, 55).

Prior Analytics, probably also *Topics* and possibly the elements of Aristotelian theory of science from the *Posterior Analytics*.

In the Latin world philosophy — of which logic was a major part — became a craft with craftsmen of its own. In the Greek world it remained an optional appendix to other branches of study and the approach to philosophical texts tended to be that of a philologist.

It might look as if the two cultures were coming into phase again in the early fourteenth century when in both places the matter of the *Posterior Analytics* was finally introduced into an elementary handbook of logic in the 1320s. The men to share the honour for this were Ioseph Rhacendytes († ca. 1330) and William of Ockham († 1347). In the West, John Buridan († ca. 1360) soon followed Ockham's example.¹

Once again, appearance should not be trusted. While Ockham and Buridan created a new theory of science and had freed themselves from the tyranny of the scholium, Rhacendytes' (very short) section on demonstration is based on a few scholia on *Analytica Posteriora* and aims at nothing more than introducing some key notions from the Aristotelian work in a reasonably short space, as will appear from the following analysis of his text:

I have used mss Firenze, B.Med.-Laur. 58-20, and V = Venezia, B.Marc. gr. IV.24. The chapter numbers are identical in the two mss. in Venice as in Florence, and I have noticed no significant variant readings. In what follows I transcribe from V, in which the section on demonstration occupies ff. 63v-67r.

The *APo.* section starts with two introductory chapters (μα' - μβ') about *sylogismus simpliciter* and induction:

μα' (V 63v) Περί τοῦ ἀπλῶς συλλογισμοῦ. Inc. Ἐπειδὴ ὄργανον τῆς φιλοσοφίας ἐστὶν ὁ ἀποδεικτικὸς συλλογισμὸς, δεῖ πρῶτον ἡμᾶς εἰδέναι περὶ τοῦ ἀπλῶς συλλογισμοῦ καὶ χρῆ τὰ ἐμπόδια πάντα περιελόντες οὕτω προσβαλεῖν τῇ ἀποδεικτικῇ ἐπιστήμῃ. ἔστι γοῦν πρῶτον ἐμπόδιον τὸ πεφυκέναι καὶ ἀπὸ ψευδῶν προτάσεων ἀληθινὸν συνάγεσθαι συμπεράσμα

μβ' (V 64r) Περί ἐπαγωγῆς. Inc. Ἡ δὲ ἐπαγωγή ὅτι ὄργανόν ἐστι καὶ αὕτη φιλοσοφίας εἴρηται

Then finally we get to the *APo.*-section proper, divided into four chapters (α' - δ' = μγ' - μς' in the consecutive numbering of chapters):

μγ' = α' (V 64v) Περί ἀποδεικτικῆς. Inc. Τὸ οὐ ἔνεκα τοῦ ἔνεκά του κρεῖττόν ἐστι· διὰ γὰρ τὴν θύραν ἢ πρίων καὶ διὰ τὴν ἄμαξαν ἢ περίγρρα, καὶ διὰ τὸν ἀποδεικτικὸν

1. In Ockham's *Summa Logicae* chapters 3.2.17-41 constitute a treatise *De demonstratione*. Treatise 8 of Buridan's *Summulae* deals with division, definition, and demonstration; cf. Ebbesen 1984.

συλλογισμὸν πάντα ὅσα ἐλέγομεν. οὗτος δὲ ἐστὶ τὸ τῆς φιλοσοφίας ὄργανον, κατασκευαστικὸν μὲν τὸ ἐπὶ τοῦ πρώτου σχήματος ἐκ τοῦ πᾶς-πᾶς συνιστάμενον, ἀνασκευαστικὸν δὲ τὸ ἐπὶ τοῦ δευτέρου σχήματος ἐκ τοῦ οὐδεὶς-πᾶς ἢ πᾶς-οὐδεὶς συνιστάμενον. ΠΑΣΑ ΓΑΡ ΔΙΔΑΣΚΑΛΙΑ ΚΑΙ ΠΑΣΑ ΜΑΘΗΣΙΣ ΕΚ ΠΡΟΤΙΠΑΡΧΟΤΗΣ ΓΙΝΕΤΑΙ ΓΝΩΣΕΩΣ (= Incipit of *APo.*). This chapter corresponds to *APo.* I.1-2 and deals with acquisition of knowledge, division of *sylogismus simpliciter* into dialectical, sophistical and demonstrative, the definition of the demonstrative syllogism, & al. A scholium on *APo.* 2.19 seems to be among the sources. Cf. Themistius, *APo.* CAG 5.1: 63; Philoponus, *APo.* CAG 13.3: 434-6.

μδ' = β' (V 65v). Inc. Εἵπομεν ὅτι τοῦ διότι ἐστὶν ἡ ἀποδείξις καὶ ἐκ τῶν καθόλου προτάσεων. καθόλου δὲ ἐστὶ τὸ ἐκ τοῦ κατὰ παντὸς καὶ ἐκ τοῦ καθ' αὐτὸ συγκείμενον. Cf. Arist. *APo.* 4-13. Rhacendytes introduces the four *modi dicendi per se*, knowing that and knowing because of what.

με' = γ' (V 66v). Inc. Τριῶν δὲ τῶν σχημάτων ὄντων τὸ πρῶτον ἐπιστημονικώτατον. Cf. *APo.* I.14-26.

μς' = δ' (V 66v). Inc. Εἵπομεν ὅτι ὁ ὁρισμὸς ἀρχὴ ἐστὶν ἀποδείξεως καὶ ἄμεσος πρότασις. The section deals with the three sorts of definition: formal, material and mixed. It depends on some scholium on *APo.* 2.8 similar to that of Ps.-Philoponus in CAG 13.3: 364-5.

1.5 Convergence: Byzantine attempts to catch up with the West.

Some blame the bad fate of Greek philosophy in the thirteenth century on the infamous fourth crusade.¹ I am not convinced. As a matter of fact, the manuscripts do not indicate a drop in activity, though perhaps in quality, when it comes to Aristotelian scholarship. And in the middle of that century we have the remarkable encyclopedia by Blemmydes, including what is easily the most advanced handbook of logic composed in Greek in the Middle Ages. I have found no certain traces of Western influence in Blemmydes,² yet one starts to wonder whether the political developments that had brought men like the Flemish Dominican William of Moerbeke († 1286) to Nicaea³ and had led to the installation of a Latin school in Cyprus, with elementary logic on the curriculum⁴ ... whether these developments did not in some way influence the way Greeks saw logic and worked on it. If nothing else, the presence of

1. Thus De Libera 1993: 15.

2. For a possible exception, see § 4.2 of my 'Georgios Pachymeres and the Topics' elsewhere in this issue of CIMAGL.

3. For Moerbeke's life and production, see Brams & Vanhamel 1989.

4. See Γρηγορίου τοῦ Κυπρίου Διηγήσεως μερικῆς λόγος τὰ καθ' ἑαυτὸν περιέχων, PG 142: 21B-C.

Franks with a thorough training in logic might inspire a wish to compete with them.

In the West logic had a very conspicuous place both in Academia and outside. It was conceived of as a tool for use in other sciences, physics, metaphysics, theology etc., and it was actually used there. Take almost any commentary on Aristotele's *Physics* from the late 13th century, or one of those thoroughly erudite theological works called *Sentences-commentaries*, — they fairly bristle with logic. The discipline also had practical applications. When the Danish chancery in 1226 wrote to the Pope to have an oath annulled on the ground that it has been sworn under duress, the Danish case was presented in a series of impeccable syllogisms.¹

The Byzantine reaction to Western logic may have been determined to a considerable degree by its close ties to theology. It is a moot point whether logic had become acceptable in theology because it was highly developed or whether it was developed to meet the demands of theology. To me the main trend seems to have been a development of logic as a secular discipline followed by its entry into the halls of theology, which in turn helped its further development. There was always a market for good logic among the theologians. Anyhow, in the West it was fairly easy to say what logic was good for. It was good for a number of things whose utility people would rarely doubt, and one of them was theology.

It is much less obvious what Greek students of Aristotle thought they studied his logic for, and what they actually used their training for. It is generally — and, I believe, correctly — held that logic never got a role in orthodox theology similar to that it obtained in catholic theology. Yet Blemmydes stresses the relevance of logic to an understanding of Holy Scripture². I doubt that this has much to do with actual practice. But perhaps his words reflect a wakening awareness that logic was needed if orthodox theologians were to be a match for their catholic opponents in disputations about the *Filioque*, such as the one in which Blemmydes himself participated in Nicaea in 1234.³

1. See N. Skyum-Nielsen (ed.), *Diplomatarium Danicum* 1.6, Det danske Sprog- og Litteraturselskab/C.A. Reitzel: København 1979, N° 59, at pp. 78-79.

2. PG 142: 688.

3. *Διήγησις* 2.13-17 (Blemmydes 1896: 63-70).

We know for certain that some Greeks started to read and translate Latin philosophy and theology, including some logic. About 1260 Holobolos translated Boethius' *De hypotheticis syllogismis* and *De topicis differentiis*, and the latter was re-translated by Prochoros Kydones a century later.¹ The existence of such translations show that some Greeks thought it was time to catch up with the Latins. Aristotle and Porphyry were, of course, already available in Greek; the addition of the two Boethian works would make all the core *auctores* used in Western faculties of arts available. However, the Greek Boethius seems to have had a very modest circulation, and the translators did not go beyond completing the Greek library of ancient *auctores*. They did no translations of contemporary Western logic.²

Apparently, the first attempt to teach a Western-style course of logic in Greek came as late as the 1430s when George Scholarios tried to introduce a program based on the traditions of Italian Thomistic schools.³ At the same time Italians were starting to take an interest in Greek culture, an interest that by the end of the century had grown so intense that they would translate even Anonymus Heiberg⁴ and Leo Magentinus into Latin. For good measure, Scholarios' translation of a commentary on *Ars Vetus* was retranslated into Latin in the belief that it was a genuinely Greek product.⁵

I think it is arguable that in the early 15th century the two cultures were beginning to move towards being once more in phase, with Greeks adopting some of the achievements of Western scholasticism and Latins adopting some of the attitudes of Eastern humanism. Political developments retarded the cultural reunification of the Greek and the Latin parts of the Roman Empire by some centuries.

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1. Editions in Nikitas 1982 (Holobolos *Hyp. syll.*), Nikitas 1990 (Holobolos & Kydones *Top. diff.*).
 2. For a possible exception, see my 'George Pachymeres and the Topics' elsewhere in this issue of CIMAGL.
 3. See Ebbesen & Pinborg 1982.
 4. A translation by Giorgio Valla was printed in Venice 1498.
 5. Scholarios' translation of the *Ars Vetus* commentary, Bonifacio Bembo's translation (ca. 1490) back into Latin, and an anonymous translation of Magentinus, are all discussed in Ebbesen & Pinborg 1982.

2 Greek and Latin Logical Works. A Typological Comparison.

2.1 Incomparable genres.

It is difficult to make comparisons. Such a characteristic Latin genre as the sophisma has absolutely no Greek brother or cousin. Nor can I find anything in the West that really resembles Theodoros Prodromos' *Ξενέδημος*¹, a dialogue about Porphyry's predicables, at least nothing from the same time (12th century). The Latins knew the dialogue form, of course, and Abelard used it for one of his works on moral philosophy (*Dialogus inter Philosophum, Iudaum et Christianum*), but none of the great scholastics that followed him did so. Ramon Llull tried to resurrect the philosophical dialogue in a series of works from about 1300 in which he intended to show the superiority of Raymundism over standard university theory ("Averroism"). He, however, met with little success and the philosophical dialogue only got a real come-back in the fifteenth century.

I do not know a single example of a Latin dialogue about matters of logic from the period 1100-1400, and Prodromus' *Xenedemus* does not only differ from Latin works on logic by being a dialogue. It is a typically Byzantine product in that it closely imitates an ancient author — Plato — and tries to create an antique atmosphere. Constantinople is called *Βυζάντιον*, the characters of the dialogue are Musaeus and Xenedemus, and the former addresses the latter with the words ὦ παῖ Ἀριστάνδρου. Plato himself is referred to as "Ariston' son".

In contemporary Latin prose Paris would be Paris, Plato would be Plato and Aristotle Aristotle, not Lutetia, Ariston's or Sophroniscus' son. If a 12th-century Latin scholar wished to imitate ancient high literary style he would rather turn to the prosimeter, as did Bernardus Silvestris with his *Cosmographia*, or to pure verse. But again, logic was excepted from being presented in fancy literary clothes. The only case I know of is a hexameter poem by one Radulphus Niger (ca. 1170) of which only two verses survive. It seems to have been a sort of summary or paraphrase of Aristotle's *Topics* and *Sophistici Elenchi*.²

Also, it is hard to find a Latin parallel to the way in which Prodromus ridicules some famous contemporary, called Theocles in the dialogue.

1. Edition in Cramer 1836: 204-215.

2. See Ebbesen 1993,2: 141, 152.

There are not-so-subtle allusions to Theocles' being a provincial from Italy rather than a genuine Constantinopolitan and to his being a stammerer. — If the chronology allowed it, it would be tempting to see "Theocles" as a composite of (Ἰωάννης ὁ) Ἰταλός and (Μιχαήλ) Ψελλός. Anyhow, Theodore Prodromos is positively nasty. Having mentioned his victim's tendency to repeat syllables or whole words he suggests that the man might not be to blame because the cause is a physiological defect — but then he goes on to half-way reject the excuse and insinuate that the man repeats words because he thinks his phrases are so well-turned and well-pronounced that people ought to hear them twice!

The Latins knew how to polemicize, no doubt, but polemics took other forms. You could say that "some people" or even "some people with but slight understanding of the subject at hand" have been of opinion A, and then refute opinion A, but generally without any more derogatory adjectives about the opponent. Only Roger Bacon († ca. 1292) can compete with Prodromos in rudeness.¹ Jibes at the national origin of an author are virtually unheard of before the humanist crusades against English logic. I cannot recall a single case of allusion to some bodily feature of an opponent like Theodore's allusion to his victim's stammering. The relatively polite manners of Western logicians may perhaps be due to their corporate organization. Schoolmen men had a vested interest in avoiding public humiliation of schoolmen.

2.2 Handbooks of Logic.

After these examples of works that have no cousins on the other side of the Greek/Latin divide, let me mention something where a comparison makes sense. On either side of the divide, the *Organon* was the foundation of logic. A philosophical culture in which logic is conceived of as based on the *Organon*, is faced by two important pedagogical challenges. One is how to teach the *Organon*. Another is how to communicate the contents of the *Organon* to people who cannot or will not read

1. See Bacon's attacks on Albert the Great in *Opus tertium* (ed. Brewer, *Rerum Britannicarum Medii Ævi Scriptores* 15, London 1859, at pp. 30-31), and on Richardus Rufus in *Compendium Studii Theologiae* (ed. Th. S. Maloney, *Studien u. Texte zur Geistesgeschichte des Mittelalters* 20, Brill: Leiden 1988; § 86, p. 86 [= ed. Rashdall 1911, pp. 52-53])

the source text, or who need a summary to help them grasp what they are about to read or retain what they have just read in the *Organon* itself. For the latter task the Greeks and Latins shared a genre that we may call "Handbooks of Logic", in medieval times known by such names as Ἐπιτομαί¹ or *Summulae*.²

Greek and Latin handbooks share the unsurprising feature of being structured roughly in accordance with the order of the books of the *Organon*. There are some irregularities in the Greek tradition, where the status of the *Isagoge* as an introduction to the *Categories* is remembered, and so categories are briefly introduced before we start with the *Isagoge*. There is also some intrusive matter like hypothetical syllogisms. They had received no proper treatment by Aristotle but already in ancient

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1. I only know of three complete handbooks of logic in Greek: Anonymus Heiberg (ed. Heiberg 1929), Nicephoros Blemmydes (PG 142), and Ioseph Rhacendytes (unedited). All three are parts of larger works which deal with more subjects than logic.

The structure of Anonymus Heiberg is this: Ch. 1 Prolegomena, 2 *Isagoge/Categories*, 3-5 *Isagoge*, 6-20 *Categories*, 21-24 *De interpretatione*, 25-48 *Prior Analytics I*, 49-63 *Sophistici Elenchi*, 64-67 on types of syllogism.

Blemmydes (I indicate the subjects of the chapters in Latin, probable ultimate sources in parentheses): Ch. 0 Prolegomena, 1 Definitio. 2 Divisio. 3 Experimentum, experientia, ars, scientia; potentiae animæ. 4 Definitiones philosophiae (Commentary on *Isagoge*). 5 Conceptus (ἐπίνοια). 6-8 Sectae, divisio philosophiae, antepredicamenta (Com. on *Categories*). 9-13 Quinque voces (Comm. on *Isagoge*). 14-25 Prædicamenta & postprædicamenta (Comm. on *Categories*). 26-30 Enuntiatio etc. (Comm. on *Peri hermeneias*). 31-36 Syllogismi (Comm. on *Prior Analytics*). 37-39 Fallaciae (Comm. on *Sophistici Elenchi*, but cf. Ebbesen 1981: 1.330-332). 40 De propositionibus et syllogismis.

Rhacendytes: Ch. 1-37 = Blemmydes 1-36 with minor changes. 38 Περὶ μίξεων. 39 Περὶ εὐπορίας προτάσεων. 40 Περὶ ἀναλύσεως συλλογισμοῦ. 41 Περὶ τοῦ ἀπλῶς συλλογισμοῦ. 42 Περὶ ἐπαγωγῆς. 43-46 Περὶ ἀποδεικτικῆς (cf. the end of § 1.4, above). 47-53 Περὶ τέχνης διαλεκτικῆς. 44-46 = Blemmydes 37-40.

2. There are numerous *Summulae Logicales* in Latin. The most famous one is Peter of Spain's from the thirteenth century (ed. De Rijk 1972), whose structure is this (in parentheses I indicate the corresponding part of the *Organon*): 1. De introductionibus (*Peri hermeneias*), 2. De prædicabilibus (*Isagoge*), 3. De prædicamentis (*Categories*), 4. De syllogismis (*Prior Analytics I*), 5. De locis (*Topics*), 6. De suppositionibus (None), 7. De fallaciis (*Sophistici Elenchi*), 8. De relativis (None), 9. De ampliacionibus (None), 10. De appellacionibus (None), 11. De restrictionibus (None), 12. De distributionibus (None).

times they found their way into the Aristotelian curriculum¹. Similar minor irregularities occur in the Latin tradition. Thus propositions, the subject of *Peri hermeneias*, are often dealt with before the categories. As already mentioned, Greek and Latin handbooks agree on neglecting the *Posterior Analytics* until ca. 1320.

One not-shared feature jumps to the eye. Latin *summulae*, at least since the late twelfth c., include independent treatises on subjects not derived from the *Organon* or from any ancient tradition, such as supposition or restriction. A Latin *Sum of Logic* immediately reveals what I call the two strands in the Western tradition: the native tradition and the tradition of originally Greek Aristotelian scholasticism. Greek handbooks contain no treatises about parts of logic unknown to the ancients, for there were no such new parts of logic in Byzantium.

2.3 Elucidating the *Organon*.

Teaching the *Organon* involves at least three tasks. Presenting the main course of argumentation; providing solutions to questions of detail so as to ensure that the pupil really understands everything; discussing broader philosophical issues relevant to the text. My question is: which strategies were used by Greek and Latin teachers to complete those tasks.

2.3.1 Lection-commentaries.

The "classical" Latin scholastic literal commentary, or *expositio* or *lectura*, as the terminology was at the time, was developed in the 13th century and was used, with considerable margins for variation, for a couple of centuries.²

The commentary is divided into chapters called 'lessons' (*lectiones*), actually or just wishfully corresponding to one session in class apiece. The division into lessons is a conspicuous feature of such works, and I shall call them lection-commentaries.

1. Anonymus Heiberg and Nicephoros Blemmydes both introduce the hypothetical syllogisms after the three figures, just as does John Philoponus, and like him they introduce the 5 Stoic indemonstrables, but unlike him they add an *a primo ad ultimum*. Cf. Katerina Ierodiakonou's paper in this issue of CIMAGL.

2. For the format of Latin commentaries, cf. Ebbesen 1993,2.

The first lesson is an introductory lecture, which points out the blessings of studying logic, provides some general information about the book under consideration, and discusses some fundamental questions relating to the discipline it covers.

Each of the following lessons starts with a lemma, then there is a division (*divisio*) of the text to be dealt with, a survey of its contents (*sententia*), a detailed commentary (*expositio*, often of the 'concatenated gloss' type), a discussion of whether/why the present chapter deserves its location at exactly this point in the text (*ordinatio*)¹ and finally comes a series of questions (*quaestiones*) or doubts (*dubia*, *dubitationes*) in which a question is raised with a few reasons *pro* & *con* (though usually in the reverse order), after which a solution is provided followed by refutation of the reasons that contradicted the solution.

This type of commentary satisfies all the basic needs of a pupil. Admittedly, they are not exactly exciting, but their utility as guides to the *Organon* can hardly be denied. The absolutely stereotype structure of the lessons makes it easy to find the sort of information one would like to have. The basic needs of general survey, detailed understanding, and broader view are all covered.

The lection-commentary is a uniquely Latin phenomenon. The one Greek example I know, viz. George Scholarios' commentary on the *Ars Vetus*, is a translation from the Latin.²

2.3.2 The praxis-commentary.

There is, however, one kind of Greek commentary which tries to do all or most of the same jobs as the lection-commentary in a similarly systematic way. That is the *praxis*-commentary, which seems to have come into use not much earlier than Ammonius. The genre has no Latin representatives in the sphere of philosophy (nor elsewhere, as far as I know). In the Eastern Empire the *praxis*-commentary seems to cease to be used about 700, perhaps, as Westerink (1967) proposed, because it was intimately linked to the teaching practice of one school (probably the *οἰκουμενικὸν διδασκαλεῖον*, which was closed by the emperor in 726). It remains to be seen whether this is correct. Among *Organon* com-

1. Many commentators omit the *ordinatio*.

2. See Ebbesen & Pinborg 1982.

mentaries we may mention those by Olympiodorus, David, Elias, Stephanus, Ps.-Elias, Anonymus Trium Figurarum, and Ps.-Alexander on *Prior Analytics II*.¹ The dates of the last three authors are unknown. The sixth century seems excluded in all three cases, so if Westerink's theory is correct, they belong in the seventh or very early eighth century.

The *praxis*-commentary employs much the same strategies as its Latin counterpart. Once again the text to be taught is divided into chunks meant to be read in one session. Once again each lesson is divided into parts with different functions. But here there are only two parts. First a general survey of the contents of the text of the day, possibly with some discussion of important problems. This part is called the *θεωρία*. Next comes a series of notes, scholia, on details. It is a little unclear what the technical name of this second part is. Maybe *λέξεις* or *ρήτόν* ("text"), but I suspect that some, at least, called it *πρᾶξις*, a word generally thought to mean "lesson" and cover both parts.² The second part of the lesson can be omitted if the teacher thinks there are no details that need elucidation or if he thinks he has already covered them in the *θεωρία*. In some cases this is explicitly given as excuse for omitting the notes on textual details. Thus Olympiodorus *Cat.*, CAG 12.1:96 οὐκ ἐπεξήλθαμεν δὲ τῷ ῥητῷ, ἐπειδὴ πάντα καλῶς διήλθαμεν ἐν τῇ διεξόδῳ τῆς θεωρίας. Some of the texts have been edited in a way that misrepresents the system. Thus Olympiodorus on the *Categories* in CAG 12.1, where *theoria* and *lexis*-part of one lesson are mistakenly separated as two *theoriai*; thus *θεωρία κγ'* and *θεωρία κδ'* are in fact *theoria* and *lexis* of one lesson. A simple way of finding where the *lexis* begins is to notice that the lemma of the *theoria* turns up once again.

1. Editions and mss: Olympiodorus *Cat.*, CAG 12.1; David *Isagoge*, CAG 18.2; Elias *Isagoge & Cat.*, CAG 18.1; Stephanus *Peri hermeneias.*, CAG 18.3; Ps.-Elias *Isagoge*, Westerink 1967; Anonymus Trium Figurarum, ms Paris BN gr. 2061; Ps.-Alexander *APr. II*, ms Vat. Gr. 231: 417r-486v (and other mss).
2. In Anonymus Trium Figurarum each *theoria* ends with the words ἐν οἷς σὺν θεῷ ἡ θεωρία, while end of the *lexis* is marked with the formula ἐν οἷς σὺν θεῷ ἡ πρᾶξις. In Ps.-Alexander, *APo. II* (ms Vat. gr. 231), there is a caption in the margin at the start of each "lesson" giving its number by saying θεωρία ια' (etc.); sometimes, but not always, there is an ἐν οἷς ἡ θεωρία after the *theoria*; the lesson ends with ἐν οἷς (σὺν θεῷ) ἡ πρᾶξις.

I said that we have no examples of the *praxis* commentary in Latin. We do, however, find something very similar in the twelfth-century predecessors of the classical lection-commentaries. Thus Anonymus Aurelianensis I, a commentator on the *Elenchi* from the late twelfth century, introduces one section as follows:

Quae autem sunt secundum figuram. Sexto loco de sexta agit fallacia, scilicet dictionis figura [...]. De hac igitur diligentius et attentius dicamus, et quid sit figura dictionis, et quid fallacia secundum figuram dictionis, et quot modis fiat, et quot modi paralogismorum, et quis modus agendi.¹

Notice the rigid structure announced and actually observed in the following explanations which together fulfil much the same function as a *θεωρία*, which in turn is followed by the equivalent of a *lexis*-part, introduced "Litterae amodo insistendum."

The historical connections between the Greek *praxis*-commentary and the Latin products of the twelfth and thirteenth centuries are tenuous, if at all existent. It seems that basically we are dealing with parallel developments: similar problem produces similar solutions.

2.3.3 Substitutes for the Praxis-commentary.

But what did the Greek teacher of Aristotle do after the disappearance of the *praxis*-commentary? Well, if I ask myself what a Greek manuscript with a lot of logic texts looks like, the answer that suggests itself to my mind is "Like Vat. Barb. 164, Vat. gr. 244, Vat. Reg. 107 or Paris 1843 or 1917."² These are big manuscripts, up to more than 500 king-size paper pages. They all date from the thirteenth or fourteenth c., and they are all of them basically *Organon* manuscripts. But besides the text of the *Organon* they contain a wealth of exegetical material, principally organized as scholia written in the margins around the text of the *Organon*, but including introductions and various minor pieces of text. They certainly bear witness to a considerable interest in the *Organon*. They are treasure-houses of information much like dictionaries are, but it is unclear who was to use them, how, and for which purpose.

One thing looks certain. People laid store on accumulating as much information relating to the texts of Porphyry and Aristotle as possible.

1. CIMAGL 34:124

2. For these mss, cf. Ebbesen 1981.

Vat. gr. 244 was born with an abundance of scholia; but it seems to have been the intention from the beginning that what did happen should happen, viz. that the scholia were augmented with excerpts from other collections of scholia, so as to produce, e.g., a chain of scholia on the *Elenchi* combining the virtues of Leo Magentinos and of Michael of Ephesus.¹ Something similar is true of Paris 1917 in which the different texts relating to one Aristotelian text are not fused, but scholia have been gathered from as many sources as possible.

The answer, then, to the question about what the Greek teacher of logic did after the disappearance of the *praxis*-commentary, seems to be that basically he returned to the less structured type of commentary also known from antiquity, which is fundamentally just a string of scholia, some short, some long, of unpredictable contents, and rarely shouldering all parts of the triple task of teaching the general sense, elucidating details and opening a window to wider views. The typical Byzantine string of scholia even hardly shoulders the two first tasks, that is presenting a survey of the argumentation and elucidating details. Everything tends to be dissolved into details. Was that really all the Byzantine teacher could offer his pupil?

Perhaps not always. We have a number of Byzantine paraphrases of Aristotelian works² (and in the case of the *Posterior Analytics* of course the ancient one by Themistius). In the West, Albert the Great's paraphrases became famous, but on the whole, paraphrases seem to have played a minor role. This may have been different in the Greek lands.

Imagine one took all the *θεωρίαι* of a *praxis*-commentary and concatenated them. The result would resemble a Byzantine paraphrase.

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1. In Ebbesen 1981 I studied only the *Elenchi* commentary of Vat. gr. 244 and the line of manuscripts of which it is the archetype. But it may be taken for granted that the Vatican ms is also the archetype of mss of other *Organon* commentaries produced in the same way as the *Elenchi* commentary. Thus the fragment on *Prior Analytics I* printed in CAG 21.1: vii-xviii from ms Escorial Φ-I-14 is surely derived from Vat. gr. 244: 301r-305r.
 2. Thus Michael Psellos († 1078 or later) on *Peri hermeneias* and *APr.* I.1-7 (No modern editions, research on contents and authenticity needed). George Pachymeres († ca. 1310) on the whole of Aristotle (no modern edition), Sophonias (ca. 1300), on *Categories* and *Sophistici Elenchi* (authorship not established with certainty; editions in CAG 23), and John Chortasmenos († ca. 1436, for his unedited paraphrase of the *Elenchi* see Ebbesen 1981: 1.344-350).

Imagine one read a paraphrase plus a commentary composed of scholia. The result would be having both parts of the *praxis*-commentary.

Now, imagine one cut up the paraphrase into chunks and inserted them in an annotated copy of Aristotle's text in a way so as to invite the user of the book to read first a piece of paraphrase to get a general idea of what goes on in a couple of chapters of the work; then read Aristotle's text with the marginal and interlinear scholia. In that way one would have a book that served the reader in much the same way as a *praxis*-commentary.

The type of book I asked you to imagine actually exists, though I do not know in how many copies. One certain example is ms Vat. Barb. Gr. 164, copied in the year 1294, in which chunks of paraphrase of *Peri hermeneias* and of the *Prior Analytics* alternate with chunks of Aristotilecum-scholia. The close link between the paraphrase and the scholia is underscored by the heading on the first page with scholia, namely *Σύνοψις καὶ μετάφρασις σαφεστάτη τοῦ ὑπερτάτου Ψελλοῦ τῆς διδασκαλίας τῶν περὶ ἑρμηνείας*, which strictly speaking is no description of the scholia but of the paraphrase, which had begun several pages earlier (and with a proper heading at the beginning).

Analysis of ms Vaticano, Biblioteca Apostolica Vaticana, Barb. Gr. 164, copied in 1294:

1-16 Psellus, *Paraphrasis Arist. Int.*, incisiones (= *τμήματα*) 1-3, i.e. ch. 1-11 (end at 21a33). NB: partly in scholium form. Aristotle referred to by name or by means of *φησί*.

16v Various secondarily added material.

17-28v Arist. *Int.* incisiones 1-4 (= ch. 1-13), with scholia. Title: *Σύνοψις καὶ μετάφρασις σαφεστάτη τοῦ ὑπερτάτου Ψελλοῦ τῆς διδασκαλίας τῶν περὶ ἑρμηνείας*.

Notice the use here and elsewhere of drawings in the scholia (triangles etc. to illustrate syllogistic figures, forked lines to show divisions. Such devices are rare in Latin scholia. Syllogistic drawings are virtually unknown. This is strange, considering how useful they can be to the reader.

Layout: margin for one series of scholia, which were entered when the book was produced. Another set of scholia nearer the edges of the page seem to be secondary. Wide spacing between lines to allow glosses (which are actually there — some maybe entered immediately when the book was produced).

29-34 (Psellus), *Paraphrasis Arist. Int.* incisio 4 (= ch. 12-13). On modal propositions.

34-35v Arist. *Int.* incisio 5 (= ch. 14)

36r-38v A short note about syllogisms, then:

<Psellus>, *Paraphrasis Arist. Int.* incisio 5

39r-42v Arist. *APr.* I.1-4 with scholia.

43r-50r <Psellus>, *Paraphrasis APr.* I.1-4

50v Notes

60r-52v Arist. *APr.* I.5 with scholia.

52v-55r <Psellus>, *Paraphrasis APr.* I.5

55r-57r Arist. *APr.* I.6-7 with scholia.

57r-61r <Psellus>, *Paraphrasis APr.* I.6-7

61r-v Arist. *APr.* I.8-9, 30a39 with scholia. Breaks off in the middle of a sentence. Continued 62v.

62r-v Scholia (no text, so it looks like the paraphrase, but is not)

62v-122r Arist. *APr.* I.9, 30a39 - II.fin., with scholia.

122r-164r Arist. *APo.* with scholia, sparse until 2.12.96a8, but from there to the end the margins are filled. Comparison of the first scholia with the two commentaries on *APo. II* in *CAG* 13.3 shows identity with neither.

164v-235r Arist. *Top.* Dense marginal annotation in beginning of Book I. Sparse later on, with occasional peaks as in the middle of Book V on fols. 207r ff. Notice that Book VIII does not have dense annotation.

235v-254v Arist. *SE* with scholia (*Commentarium II*¹)

254v-255 Ps.-Porphyrius, *X Categoriae*.

So, I suggest that some, and perhaps many, Byzantine teachers used the combination of paraphrase and scholia to do the job of the old *praxis*-commentary.

A somewhat similar combination of exegetic material was used by John Chortasmenos in the early fifteenth century to elucidate the *Sophistici Elenchi*. He started with a survey of the Aristotelian fallacies and proceeded to a paraphrase of the *Elenchi*, adding some marginal scholia to the paraphrase.² In this case, the survey of the fallacies shoulders a part of the burden of a *theoria*. Indeed, its role as a complement to the paraphrase is indicated by the latter's heading: ἀρχὴ τῆς κατὰ μέρος (above the line: λέξιν) μεταφράσεως τῶν αὐτῶν σοφιστικῶν ἐλέγχων.

So, the Byzantines had the tools for two of the teacher's tasks I mentioned above, viz. providing a survey of the Aristotelian text and an

1. Edition in Ebbesen 1981, vol. 2.

2. See Ebbesen 1981: 1.344-350.

understanding of the detail. That still left the third task uncompleted, that is the task of opening a window to wider philosophical issues. But perhaps this was not so much missed, after all there was no class of professional philosophers to feel that this must be an element of the teaching.

2.3.4 Quaestiones.

If I ask myself what a Latin manuscript with a lot of logic texts looks like, the answer that immediately suggests itself to my mind is not "Like some ms of the *Organon*." In fact, manuscripts of the *Organon* usually contain little besides the *Organon* itself. Some scholia, sometimes many, but hardly ever a whole commentary entered in the margins; a few extra texts added by owners on blank leaves — that is all one should expect.¹

No, the answer that suggests itself when I ask what a Latin manuscript with a lot of logic texts looks like is rather "Like Firenze, B. Med.-Laur. St. Croce 12 sin, 3." This ms from the very early fourteenth c. contains an enormous lot of questions — *quaestiones* — and a smaller number of sophismata from the Parisian faculty of arts, all datable to ca. 1270-1300. In contrast to the Greek mss it is not made of paper but of parchment, and it contains many more words a page because it uses the parchment-saving device of heavy abbreviations. Its 78 folia would come out as more than 1,000 pages in print. Like the Greek mss I mentioned, this Latin one represents the work of a compiler. When he found that a collection of questions on some book of the *Organon* was incomplete in the sense that it did not cover the whole of the Aristotelian text, he tried to supplement it with questions from another collection.²

The fully-fledged questions were Latin scholasticism's ultimate answer to the challenge to open a window to wider issues. Structurally identical to the short ones included in lection-commentaries, but often much longer, they open many windows, and in many cases they represent philosophical investigation on a high level. A *quaestio* generally takes some remark in the *Organon* text as its point of departure, perhaps some detail that only a very close reading could reveal as problematic, and then reveals that underneath the innocent remark lies an abyss of problems.

1. For examples, see Ebbesen 1988.

2. For the collection in ms Laur. St. Croce. 12 sin, 3, see Ebbesen (forthcoming, 2).

But if the question is the best window-opener, the genre that offers the freest discussion is that of *sophismata*,¹ which does not originate from exegesis of the *Organon*. The minimal sophisma consists of a proposition (the *sophisma* proper), a proof (*probatio*) that it is true, a disproof (*improbatio*), and a solution (*solutio*) neutralizing the threat to bivalence posed by the conjunction of proof and disproof. The problem is often traced back to the occurrence of a syncategorematic word in the sophismatic proposition.² In the maximal variant of the sophisma, the minimal sophisma is just the prelude to a long discussion of problems somehow suggested by the sophismatic proposition and/or the initial proof and disproof. This is what happens in Bartholomew of Bruges' *Maxime universalia a sensu sunt remotissima* from the early 14th century, which runs to 76 pages in the printed edition³. When the reader reaches the end he has been through a very thorough debate of the question "What is logic really about?".

In the Florence manuscript mentioned above, the *sophismata* occur separately from the *quaestiones*. But the ultimate of the ultimate in window-opening in Aristotelian scholasticism is the question with a sophisma sandwiched in it. This became a common genre in the late fourteenth century.

3. Conclusions.

Generally, comparisons between Byzantine products and those of Western universities and their 12th-century predecessors prove unfruitful. They obviously were not meant to serve the same needs. The exception seems to be works relating to elementary exegesis of Aristotle. Here we can see how similar and different strategies were employed to obtain the same goals. But this also suggests that perhaps it is fundamentally wrong to compare the Byzantine works to Latin university products. It might be more rewarding to compare them with books used in Latin cathedral schools. The aims of the cathedral school were both broader and more elementary than those of the university. In disciplines that it shared with the faculties of arts, a good cathedral school might reach the

1. For *sophismata*, see Ebbesen 1995 and Read 1993.

2. For examples of such *sophismata*, see Ebbesen 1994.

3. This journal, 39 (1981).

level of elementary university teaching, but only rarely would it try to compete with advanced university instruction.

The study of translations from Greek into Latin and vice versa has proved fruitful. The Greek-into-Latin translations of the twelfth and thirteenth centuries decisively modified the development of Western logic, but by now the matter has been so well studied that I doubt that further research will introduce major changes in our view of history. Translations from Latin into Greek have been less intensely studied, but these last years interest in the subject seems to be on the increase. Research into Greek scholars' reception of Latin texts is likely to add important nuances to our picture of the intellectual history of late Byzantium.

For the West, research on the history of institutions has greatly advanced our understanding of the writings emanating from those institutions. In the case of Byzantium, we should rather study circles of learned men than institutions. It would be very illuminating to know by and for whom the Greek mammoth editions of the commented *Organon* were produced, where they were kept and copied by others, and how so many of the manuscripts survived.

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