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History of Philosophy in Reverse

Reading Aristotle through the Lenses of Scholars
from the Twelfth to the Sixteenth Centuries

By

*Sten Ebbesen, David Bloch, Jakob Leth Fink,
Heine Hansen and Ana María Mora-Márquez*

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Correspondence

Manuscripts are to be sent to

The Editor

Det Kongelige Danske Videnskabernes Selskab

H. C. Andersens Boulevard 35

DK-1553 Copenhagen V, Denmark.

Tel: +45 33 43 53 00

E-mail: kdvs@royalacademy.dk.

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Abstract

Contemporary Aristotelian scholars rarely take any notice of the contributions to the study of Aristotle made by their scholastic predecessors from the twelfth to the sixteenth century. This book argues that the scholastics have something to offer, both as regards the *way* one comments on Aristotle, and as regards the understanding of his texts. To show that this is so, the authors first describe and compare the main approaches and techniques employed by contemporary and scholastic exegetes, next they present plausible scholastic solutions to five particular problems of Aristotelian exegesis. An appendix presents some recent major philosophers who have, in one way or another, found inspiration in Aristotle or the Aristotelian tradition.

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Preface

This book is the result of work done in *Centre for the Aristotelian Tradition* in the Saxo Institute, University of Copenhagen. The centre was established in 2009 and made possible by a major three-year grant from the VELUX Foundation. The grant was given to a project called “History of Philosophy in Reverse – Reading Aristotle through the lenses of scholars from the Middle Ages and the 16th-17th centuries,” the idea being that instead of using our understanding of Aristotle to understand scholastic philosophers in the Aristotelian tradition, we might use the scholastics to understand Aristotle.

In our application to the foundation we wrote:

In view of the fact that Aristotle has never been so intensely studied as in the Late Middle Ages and Early Modern Times, it is astounding how rarely modern Aristotelian scholars take their old colleagues from those periods into consideration when interpreting and discussing Aristotle’s philosophy. They may make an occasional reference to Thomas Aquinas or, less often, to Pacius or Suárez, but never or hardly ever is a work from the period 1100-1650 treated as a piece of secondary literature to be discussed with the same thoroughness and seriousness as contributions to Aristotelian studies dating from the 20th century.

The Aristotelian scholars from the time between 1100 and 1650 are usually studied from one or both of the following two angles.

(a) The modern scholar starts with his own interpretation of some book or theory of Aristotle’s and looks at the *Wirkungsgeschichte*. How was the book or theory received? What did it mean for later scholars to have Aristotle’s philosophy as a part of their intellectual outfit? How did the interpretation change over time, and in what respects did the later interpretations differ from the true sense of the Aristotelian book or theory?

(b) The modern scholar investigates the medieval or early modern author in order to understand him as a philosopher in his own right, be it one that presents his philosophy as an interpretation of Aristotle. Among specialists, this approach predominates, though (a) – almost inevitably – plays a certain role with them too.

We want to do *Wirkungsgeschichte* in reverse, as it were, concentrating not on what light Aristotle sheds on later authors but on the light they shed on him. We want to do so by reading Aristotle through the lenses of scholars from the late medieval and early modern times, treating those old colleagues of ours exactly as colleagues, i.e. as students of Aristotle with an equally valid *prima facie* claim to being good guides to an understanding of his thought as that advanced by recent scholars.

The present book is an attempt to show that we were right in assuming that there is something for modern interpreters of Aristotle to be had from studying our scholastic predecessors. While we have included Suárez as an eminent representative of late scholasticism, we do not pretend to cover the whole of the scholastic period equally well. We concentrate on the late 12th to early 15th centuries, and therefore often speak simply of *medieval* practices or views rather than using the broader term *scholastic*.

The book is the result of a collaboration between the members of Centre for the Aristotelian Tradition, which from the beginning consisted of Sten Ebbesen (leader), David Bloch (vice-leader), Jakob Leth Fink and Heine Hansen, all of whose participation was made possible by the VELUX grant. In 2010 the group was joined by Ana María Mora-Márquez, who has been working on a different, but related, project sponsored by the CARLSBERG Foundation.

We wish to thank our two benefactor foundations, as well as the former head of the Saxo Institute, Prof. Ulf Hedetoft, whose support was essential in the planning phase and in securing us good working conditions in the Saxo Institute.

We also wish to thank the many foreign scholars who during the project period have taken part in workshops in Copenhagen and helped us get a clearer conception of what we wanted and what we could actually do.

We owe a special debt of gratitude to an anonymous reviewer, who obviously read the manuscript with great care, paying attention to both contents and style. He or she not only pointed out a number of weaknesses but even took the trouble to correct instances of bad or misunderstandable English.

Last, but not least, we would like to express our appreciation of the great help with practical matters given us by two able student secretaries, Fie Windfeld Bredahl Nielsen and her successor Michael Stenskjær Christensen. We also thank Michael for his work on the consolidated bibliography and the indices.

Introduction

This is a book about Aristotelianism. More precisely, it is a book about how to interpret Aristotle with the greatest possible rewards. Aristotelian studies are certainly alive and flourishing, but it might be argued that scholars are almost universally using methods that were developed in the 19th and 20th centuries. These methods have proven their value. They are strong tools, and results are still forthcoming, but if new ways of addressing Aristotle's texts are not explored, 21st-century scholars risk finding themselves repeating the results of others, working on the same fixed topics instead of breaking new ground and making substantial progress.

This book sketches a new approach to the interpretation of Aristotle. Paradoxically this approach involves going back several hundred years to look at the works and thoughts of men who were probably the most *Aristotelian* scholars ever. Not only did scholars between the late 12th century and the late 16th write some very substantial and deep analyses and interpretations of Aristotle, they also developed an elaborate system of literary genres and settings for scholarly debate that ensured, among other things, great thoroughness and precision in their interpretations.

The intensity with which Aristotelian studies were pursued in late medieval schools is clearly evidenced by the sheer number of preserved Aristotle-related works. Thus from the period 1150-1300 we still have about 75 commentaries on and companions to the *Sophistical Refutations* alone, i.e. one for every two years.¹ This is a high number compared to present-day scholarly output, and the preserved mass of literature is just the tip of the iceberg. Including the works that have not survived till today the total output from the period must have been several times as big.

The scholastic method employed by the medievals survived well into the early modern period, but has been broadly rejected and even ridiculed at least since the 17th century. In the 20th century stud-

1. For a list of such works, see Ebbesen 1993.

ies in medieval philosophy have experienced a renaissance, and analyses and critical editions have thrown much light on many features and provided us with a fairly broad picture of scholasticism. Until now, however, contemporary scholars have not taken full advantage of the interpretative strategies developed by the scholastics. We believe that the time is ripe for testing the applicability of medieval interpretations and strategies to modern Aristotelian studies, and this is what we attempt to do in the present book.

The book is divided into three parts. In the first (chapters 1-2) we describe modern Aristotelianism very broadly. In this part we include descriptions and analyses of scholarly work on Aristotle and the different scholarly traditions in which these have been developed, and we describe the literary forms that interpretations of Aristotle assume (editions, translations, commentaries and journal articles), their preconditions and their influence on modern scholarship. In the sections on the literary genres we also prepare the transition to the Middle Ages by generally comparing modern and medieval editions, translations and commentaries.

In the second part (chapters 3 and 4) we describe and analyze the scholastic approach to Aristotelian studies. First, we outline the medieval attitudes to Aristotle's philosophy, in order to stress one feature in particular, namely that the medievals, and scholastics in general, did not simply approach Aristotle with detached curiosity, as is often the case among modern interpreters. Their primary aim in analyzing Aristotle was not to contribute to the history of philosophy, but rather to find the truth about the subjects treated in his writings, and this, of course, justified a most meticulous examination of the texts as well as very thorough discussion of any proposed interpretation. Second, we examine the different, well-defined literary genres in which Aristotelian studies were conducted. The most striking and surprising feature of these is that in some ways they are more wide-ranging, sophisticated and flexible than anything in contemporary studies.

The third part consists of a number of case studies to illustrate the principles and procedures of interpretation that we advocate. We focus mainly on Aristotelian logic because this subject was particularly intensely investigated by medieval scholars, but similar

studies can be carried out in all branches of Aristotle's work, see e.g. case study no. 5.

The Appendix at the end of the book presents a sample of 20th-century philosophers who engaged with Aristotle as a philosopher in his own right in the fields of metaphysics, philosophy of mind, ethics and logic.

The many translations of Greek and Latin texts contained in the present work are our own unless otherwise indicated.

PART I

Aristotle and Modern Aristotelianism

Contemporary Aristotelian Studies

The spectre of scholasticism is often conjured up in 20th-century investigations of Aristotle as a bygone or a misconceived mode of going about Aristotle's philosophy. 'Scholastic' simply has a bad ring to it, calling to mind an image of students reading texts without exercising any independent thought and engaging in discussions about silly trifles; the word also immediately makes the reader think of the Middle Ages. However, it would be wrong to claim that 20th-century Aristotelian scholars or philosophers are united in an anti-scholastic front. Even if we disregard scholars who are *ex officio* sympathetic to scholasticism, that is, primarily scholars trained in some Catholic tradition, philosophers inclined toward analysis of arguments irrespective of historical context will occasionally credit someone from a select group of medieval philosophers (usually Thomas Aquinas, Duns Scotus or William Ockham) for a useful distinction, a good solution or some other specific item in the interpretation of Aristotle.

Nevertheless, it seems fair to say that, despite the occasional mention of one of the more famous medieval philosophers, 20th-century Aristotelian scholars quite generally lack familiarity with the basic features of the medieval scholastic interpretation of Aristotle. Before we proceed to the description of the medieval approaches to Aristotle's philosophy, which forms the core of this volume, it will be useful to draw up a rough picture of some of the basic elements in 20th-century approaches to Aristotle. By keeping some of the recent or contemporary assumptions about the ways to interpret Aristotle in mind, we may see the medieval perspective more clearly. We shall start out by considering some formal and institutional features in contemporary studies, and having done so, we shall briefly delineate some influential currents in 20th-century Aristotelian studies by analyzing the working methods and methodological assumptions of Jaeger, Ross and Le Blond.

Aristotle and Modern Academia

In modern universities, Aristotle has to some extent been relegated to classics or philosophy departments. Some works, like the *Nicomachean Ethics*, are often studied and discussed, whereas others, like the *Meteorologica*, are rarely read except by specialists. Students reading the history of philosophy or learning Greek cannot expect to be introduced to a heavy dose of Aristotelianism, whereas the medievals were subjected to Aristotelianism throughout their studies.

Nevertheless, Aristotelian studies seem to be flourishing these years. Aristotle has of course always been recognized as one of the most important philosophers historically, but there is now a widespread realization that he is more than that. First, Aristotelian methods and arguments are extremely impressive. He is simply a very interesting and subtle philosopher, from whom one can expect to learn something. Second, and even more importantly, he was the man who shaped much of our language, thought and concepts, and even though much of what he wrote has been proven false, we simply cannot escape our Aristotelian inheritance. This, we submit, is the deeper reason why Aristotelian studies are flourishing today.

Because it will be an important part of our argument that the medievals developed interesting forms of literature to deal with Aristotle, we must also look at the formats that 20th-century scholars have used to treat Aristotle.

Quite a few modern books have titles of the form “Aristotle on X” or “X in Aristotle”, X being truth, fallacies, time or whatever – though generally some topic that is still considered a philosophically interesting one; “Aristotle on Polypods” is not a typical title (although such titles are not completely absent). The same sort of title is not infrequent among journal articles either. This approach to Aristotelian studies we might describe as topical.

Another kind of approach in Aristotelian studies is to carefully analyze single works. A magnificent example of this kind of study is Martha C. Nussbaum’s Aristotle’s *De Motu Animalium* (1975), which includes not only interpretations in the form of several essays but also a critical edition, textual comments and a translation. One sees the influence of Sir David Ross.

A third kind of approach is the attempt to cover the entire *Corpus Aristotelicum* and establish a coherent understanding of Aristotle's views in general. This approach is now uncommon. It might of course be said to be what an author of an introduction to Aristotle does, but in fact this is rarely so. For most introductions either leave out substantial parts of Aristotle's work, or cover the individual parts in separate sections, at most with a few references to other sections. Great syntheses of Aristotle's entire *opus*, then, are increasingly rare today. Perhaps the specialization of research has made such syntheses unmanageable. At any rate, they seem to have gone out of academic trade for the time being.² It should be noted, perhaps, that even in the Middle Ages all-encompassing syntheses were rare. Albert the Great's many-volume encyclopedia of Aristotelian philosophy stands rather isolated, and anyway handbooks of Aristotelian lore were not primarily aimed at elucidating Aristotle but rather at presenting what at the time was considered scientific knowledge.

The book-length studies of the first two categories may be roughly divided into four different types, reflecting the organization of modern academic life.

1. Some are revised PhD theses. The delimitation of the subject reflects a combination of the student's and/or the supervisor's interests with the need to make the research and writing process manageable within the pertinent time limits at the university in question. Thomas K. Johansen's *Aristotle on the Sense-Organs* (1998) is a fine representative of this genre.
2. Others are the works of mature scholars who take up wide-ranging and complex topics, both out of interest and – sometimes, at least – to fulfil an expectation that they publish a monograph from time to time. A.C. Lloyd's *Form and Universal in Aristotle* from 1981 or Paolo Crivelli's *Aristotle on Truth* from 2004 may serve as examples of this genre for heavyweights.

2. Even De Rijk 2002, who comes close to a synthesis of large parts of the *Corpus Aristotelicum*, does not pretend to cover the entire *corpus*. The same holds true of Düring 1966.

3. A third group is constituted by collective volumes. (3.1) These are often, in fact, conference acts, and reflect the central place of symposia and the like in modern academic life. The single contributions often have little in common beyond a very general sort of theme. Still, they have an important role in summing up what is the current research situation in the chosen area and suggesting new avenues of research. *Honoris causa*, we may mention the important volume *Aristotle on Dialectic*, edited by G.E.L. Owen in 1968. (3.2) Another subtype is the “Companion to X” type, which has become very popular in recent years, and seems in particular to be directed towards university students and young researchers.³ (3.3) Finally, there is the *Articles on Aristotle* type, organized in volumes according to broad topics such as science or metaphysics. A German series of this type appeared between 1968 and 1975, soon to be followed by an English series in the late 1970s, and another English one appeared in the late 1990s.⁴ The main purpose of this type of publication is to sift the journal articles from a number of years and make sure that a younger generation becomes acquainted with the most important ones.
4. A fourth group, obviously, is the present day commentary on an Aristotelian text. We shall deal with a prime specimen of this genre below (see the section *Oxford Aristotelianism and Sir David Ross*) and offer some illustrative comparisons with medieval counterparts in a later chapter. National series in England (*Clarendon Aristotle Series*), France (*Budé*) and Germany (*Aristoteles, Werke*) aim to cover more or less the entire *Corpus Aristotelicum*, and an undergrowth of series independent commentaries thrives as well, Frede and Patzig’s on *Metaphysics* VII being a first class example.⁵

All these main types of books, except no 4, which will be treated substantially in the following, lack medieval counterparts because Academia was differently organized in the Middle Ages. The writ-

3. E.g. Barnes 1995; Anagnostopoulos 2009.

4. Moraux et al., eds., 1968-1975, six volumes; Barnes et al., eds., 1975-1979, four volumes; Gerson, ed., 1999, four volumes.

5. Frede & Patzig 1988.

ten, book-length doctoral thesis (1) only appeared in the 19th century. Conferences and conference acts (3.1) only became a regular feature of academic life in the 20th century, and type 3.3 obviously could not exist before the advent of the journal article. It just might have been possible for medieval academics to produce collective works of type 3.2, but the required collaboration between several authors is much more easily obtained in a period of great mobility and ease of at least written communication, and such a period did not really arrive till the 20th century. Collective works were rare in the Middle Ages, although the mendicant orders produced some, but as opposed to modern collective volumes they were not organized in a way such that the division of labour was visible to the reader, and we know of no such work with an Aristotelian subject-matter before the late 16th century, when the Coimbra jesuits (*Conimbricenses*) published their famous Aristotelian commentaries.

As regards type 2, the mature scholar's book about "Aristotle on X", it must be remembered that the medievals did not typically see Aristotle as an historical figure whose views were something one could write a book about. They much rather saw him as a source of truths and good ideas, so a medieval scholar would be much more inclined to write a book called "On X" than one called "Aristotle on X", even though his "On X" would, in fact, to a large extent contain what the author considered to be Aristotelian doctrine. A distanced, "historical" approach to Aristotle hardly ever surfaces except when an exegete feared his interpretation of Aristotle might get him into trouble with ecclesiastical authorities. In such a situation he might protest that he was simply spelling out what Aristotle meant without any intention to claim that the Philosopher was right. A good example of this procedure is found in Siger of Brabant's *De anima intellectiva* from the 1270s:⁶

6. Siger of Brabant, *De anima intellectiva* ch. VI, p. 99: "Quod si quis dicat hoc esse erroneum animas a corporibus totaliter non separari et eas poenas et praemia recipere secundum ea quae gesserunt in corpore, quod enim non ita fiat, hoc est praeter rationem iustitiae, dicendum, sicut et a principio dictum est, quod nostra intentio principalis non est inquirere qualiter se habeat veritas de anima, sed quae fuerit opinio Philosophi de ea."

If someone were to say that it is erroneous [*i.e. contrary to church doctrine*] to deny that souls are totally separated from their bodies and receive punishments and rewards according to what they have done while embodied (for that this should not be the case goes counter to justice), the reply is, as we have already said from the beginning, that our principal intention is not to inquire what is the truth about the soul, but what was the Philosopher's opinion about it.

In general, modern books are flexible in the sense that the author is free to treat the subject as he or she pleases. This also means that the types distinguished above are not all that different in *form* but rather in *original purpose* and as measured against the author's *stage of career*. Here too, the medievals differ by actually using genuinely different genres to deal with different aspects of Aristotelian texts, and by cultivating the commentary genre much more intensely than is the case nowadays. The place where a medieval scholar could really say what he believed Aristotle thought about a certain topic was in a commentary. There he would do his best to reconstruct a coherent Aristotle, and there he could also occasionally feel compelled to say "This, apparently, is Aristotle's view, but it may not hold water."

Modern Scholarship on Aristotle and the Jaegerian Revolution

The most obvious event to mark the beginning of modern scholarship on Aristotle is Immanuel Bekker's (1785-1871) critical edition of *Corpus Aristotelicum* in 1831. Editions had previously been much less reliable, even in cases where the editor was a superb scholar like Isaac Casaubon (1559-1614). For the first time ever scholars had a reliable tool to unravel the secrets of Aristotle. Bekker's work was followed by a number of momentous works, including Hermann Bonitz' (1814-1888) *Index Aristotelicus* (1870) and the *Commentaria in Aristotelem Graeca* (1882-1907) under the editorship of Hermann Diels (1848-1922), both of which are still excellent tools in Aristotelian scholarship.

Still, it is perhaps the work of Werner Jaeger (1888-1961) that most clearly marks the beginning of 20th-century Aristotelian scholarship, in the sense, at least, that the majority of scholars, irrespec-

tive of nationality and scholarly tradition, responded to his approach to Aristotle. In 1912 his *Studien zur Entstehungsgeschichte der Metaphysik des Aristoteles* appeared, followed in 1923 by the comprehensive *Aristoteles. Grundlegung einer Geschichte seiner Entwicklung* (English translation 1934 by R. Robinson, Oxford, second edition 1948).⁷ These volumes caused a revolution in the approach to Aristotle's philosophy and determined for approximately fifty years what sort of questions Aristotelian scholarship should address and strive to settle. What were these? Well, first of all, the question about Aristotle's philosophical development generally, and subsequently questions about the chronology and developmental position of individual Aristotelian writings. Jaeger's heritage is not so much the particular account of Aristotle's development that he proposed in 1923, but rather the idea that Aristotle's philosophy develops. Despite massive critique of Jaeger's proposed developmental scheme, few scholars today would reject the idea that Aristotle's thought must have developed.⁸

Jaeger drew attention to the fact that Aristotle's writings contain a large number of features that we would not expect from a polished and published work: apparent contradictions between different texts or even in the same text, doublets found in various texts (the common books of the *Nicomachean* and *Eudemian Ethics* etc.) and rival treatments of the same topic in the same text (the treatments of pleasure in *Nicomachean Ethics* VII and X) or rival versions of the same text (*De Anima* II). In Jaeger's view, the explanation for these extraordinary features is quite simply that Aristotle's thought developed and that at various points in time he held conflicting views on the same questions, wrote them down and stored them perhaps as collections of notes such as "On Nature", "On Ethics" and so forth. Jaeger further encouraged the reader of Aristotle to keep in mind that the texts re-

7. In 1910 the Oxford professor Thomas Case published a wonderfully concise account of Aristotle's development and the chronological order of his writings that in many respects anticipates Jaeger's work. An abbreviated version of Case's text is reprinted as Case 1996.

8. For the general development of developmental studies after Jaeger see Chroust 1996, covering the first thirty years, and Witt 1996 covering parts of the next twenty years, in particular the important interpretations of Owen and Irwin.

sulting from such an activity, i.e. a whole life of thinking about philosophical topics, are not static. Aristotle's texts are dynamic in the sense that they were probably subject to changes throughout his life and were in all probability never intended for publication. In short, Aristotle's texts are not "works" in any standard sense of the term, i.e., they are not complete wholes similar to living organisms, from which no part can be taken away without functional loss.⁹

This general description of Aristotle's writings may be adequate as an outline, but certainly needs modification. In fact, the texts are typologically very heterogeneous, and while some do look like lecture notes, others seem to have been carefully polished with a view to publication (e.g. *Topics* I, parts of *Metaphysics* XII).¹⁰ Furthermore, even if one accepts Jaeger's view of Aristotle's career as that of a fervent admirer of Plato who gradually became an independent thinker, any assignment of a particular text to a particular stage in the development is highly problematic. In fact, Jaeger's assumptions about the genesis of the texts put next to no restraints on how one may cut them up and rearrange the pieces in a supposedly chronological sequence.

It should perhaps be noted that Jaeger is avowedly anti-scholastic in his way of reading Aristotle. "The main reason", he says, "why no attempt has yet been made to describe Aristotle's development is, briefly, the scholastic notion of his philosophy as a static system of conceptions".¹¹ Scholars writing about developmental studies apparently accept Jaeger's conception of scholasticism in spite of the fact that it is anything but clear that Jaeger was well-versed in the scholastic literature on Aristotle.¹² Jaeger simply states it as an uncontroversial fact that scholastic philosophers thought about Aris-

9. Jaeger 1912: 131. For the ancient concept of a "work" see e.g. Plato, *Phdr.* 264c or Aristotle, *EN* II.6.1106b9-14.

10. Lengen 2002 points out that the heterogeneous Aristotelian texts exhibit a variety of strategies for communicating with the audience. Thus, some of the oddities in Aristotle's texts may derive from his different manners of communicating philosophy to his students.

11. Jaeger 1948: 4.

12. See e.g. Chroust 1996: 41 and Witt 1996: 67 "the static conceptual system of scholasticism".

totle's philosophy as a rigid conceptual structure or scheme, i.e. a complete, flawless philosophical system beyond doctrinal improvement, and this verdict is then accepted without anyone bothering to ask what actually characterized scholastic Aristotelianism. We shall try to rectify this misconception of scholastic attitudes to Aristotle in chapter 3, below.

Nevertheless, Jaeger certainly has a point in maintaining a difference between his and the medieval approaches to Aristotle. For whereas Jaeger is willing to accept that Aristotle is incoherent when viewed through his whole philosophical career, Aristotle's medieval interpreters, while not quite blind to the possibility of a development,¹³ generally approached the texts under the charitable assumption that Aristotle does not genuinely contradict himself. This assumption of coherency, and not any specific beliefs about Aristotle's philosophy as a sort of infallible calculator – fill in the numbers and the correct result invariably comes out – is what decisively distinguishes the scholastic from the Jaegerian approach to Aristotle's philosophy.

Oxford Aristotelianism and Sir William David Ross

Jaeger's approach was important, but 20th-century Aristotelian scholarship was not just Jaegerian. Oxford, in particular, had an immensely strong tradition of its own. The developmental approach was of course noticed and used, but Oxford scholars also held on to their own tradition. Oxonians like Ingram Bywater (1840-1914), John Cook Wilson (1849-1915) and Harold Joachim (1868-1938) had produced superb work on Aristotle, and perhaps the most important Aristotelian scholar of the 20th century was another Oxford man, Sir William David Ross (1877-1971).

Ross was an original moral philosopher, which, among other things, earned him a well deserved entry in the *Stanford Encyclopedia of Philosophy*.¹⁴ But his most important claim to fame was undoubtedly his achievements in Aristotelian scholarship. He published an ex-

13. See chapter 3, pp. 50-51, below.

14. Skelton 2010.

cellent introduction to Aristotle;¹⁵ he made acclaimed translations of major Aristotelian works (*Metaphysics* and *Nicomachean Ethics*); and he was himself the editor of *The Works of Aristotle Translated into English* published by Oxford University Press between 1910 and 1952. However, his most important works on Aristotle were certainly those editions for which he provided substantial introductions, paraphrases of the text, and commentaries.¹⁶ For ease of reference, in what follows we shall simply use the term “commentaries” for those works.

Although some come close,¹⁷ no modern commentary is quite like Ross’ in their philological accuracy, their substantial introductions that actually read more like monographs, pedagogical exposition, the scale and scope of the commentaries proper. The *Metaphysics* commentary ranks among the most impressive achievements of Aristotelian exegesis of the 20th century. Its structure is as follows:

1. An introduction covering the entire *Metaphysics* (166 pages).
2. An edition of the *Metaphysics* based on a thorough investigation of the manuscripts and the textual history.
3. A commentary on the entire *Metaphysics*, including (i) paraphrases of the Greek text, (ii) comments on textual problems, and (iii) comments on the philosophical contents of the work.

The most notable feature of this commentary is the structure and its purpose. It seems that Ross simply did not want to leave any real problem unsolved. First, the introduction covers the contents broadly. It singles out the major problems and interesting features, it describes the structure and background of the work, as well as the commentary tradition on it; it discusses Aristotle’s metaphysics in general and his theology, and it discusses the manuscripts to be used and the philology behind the edition. The claims set forth in this introduction are substantiated by the edition of the text and the comments on the individual passages. The edition enables the read-

15. Ross 1995⁶, originally published in 1923.

16. Ross 1923 = *Metaphysics*; Ross 1936 = *Physics*; Ross 1949 = *Prior and Posterior Analytics*; Ross 1955 = *Parva Naturalia*; Ross 1961 = *De Anima*.

17. See, in particular, Joachim 1922.

er to engage with Aristotle himself to test Ross' views, while the paraphrases that introduce each chapter in the commentary assist the reader by providing Ross' own reading and understanding of the passage. Then follows the commentary proper, which looks at the text of the *Metaphysics*, sometimes word by word, line by line, passage by passage, and comments on everything of interest and/or difficulty. This is basically a scholastic practice, and Ross even sometimes includes extended discussions of particular topics. However, the best example of such a discussion is perhaps found, not in the *Metaphysics* commentary, but in the one on the *Analytics*. The problems surrounding Aristotle's use of the term ἐπαγωγή/ἐπάγειν that is usually translated by "induction" are substantial, and in a long comment on *Prior Analytics* II.23 Ross examines the problem from many different angles.¹⁸ The distant ancestor is the *dubium* of scholastic literal commentaries.

Ross had a relaxed approach to Jaeger's developmentalism. It seems fair to say that major parts of his commentaries could easily have been written without any interest in the development of Aristotle's thought. On the other hand, Ross shows already in his introduction to Aristotle, published in the same year (1923) as Jaeger's *magnum opus*, that he is well aware that Aristotle's thought developed. Thus, about the *Topics* he writes that this represents an early stage of Aristotle's logic, and that it was rendered superfluous by the *Analytics*.¹⁹ Even more importantly, the commentary on the *Prior* and *Posterior Analytics* contains an extended discussion of Friedrich Solmsen's argument that the basic theory of the *Posterior Analytics* actually preceded the invention of the syllogism in the *Prior Analytics*. The discussion continued, and has even seen contributions by later generations of scholars.²⁰

On a casual reading, Ross is very far from the scholastics. But one should notice two things: one perhaps minor, the other one of

18. Ross 1949: 481-485.

19. Ross 1995⁶: 57. The view that the *Topics* is an early work goes back to Hambruch 1904.

20. Ross 1949: 6-23. For Solmsen's work, see Solmsen 1929. Barnes 1981 argued in favour of Solmsen's view.

some interest. First, Ross pays homage to few other commentators, but one whom he regularly used is Giacomo Zabarella (1533-1589).²¹ This Paduan scholar was probably the greatest Aristotelian of his times, but more importantly in the present context: he was a scholastic thinker at heart! It is remarkable that Ross singles out such a man as a favourite predecessor. And most importantly, the general ambition and purpose of Ross' commentary is the same as the scholastic goal: as comprehensive a knowledge and an understanding of the text as possible.

The French Connection. Jean-Marie Le Blond

According to Michel Narcy, the main French contribution to Aristotelian scholarship in the 20th century consists in the re-appraisal of Aristotelian dialectic.²² This claim seems reasonable if one wants to isolate a single feature that marks off French scholarship from Jaeger and Ross, i.e. from some very prominent German and Anglo-American contributions. The founding father of this branch of Aristotelian scholarship was Jean-Marie Le Blond (1899-1973) whose seminal work *Logique et méthode chez Aristote. Étude sur la recherche des principes dans la Physique aristotélicienne* (1939) has played a role for such different French-language scholars as Eric Weil, Paul Moraux, Pierre Aubenque and Jacques Brunschwig.²³ Le Blond's approach to Aristotle differs markedly from those of both Jaeger and Ross – with both of whom he engages vividly in his book. The Aristotle Le Blond presents us with is the dialectical and essentially aporematic philosopher. What Le Blond finds interesting in Aristotle is *how* he conducts philosophical investigations and not so much *what results* he arrives at. Le Blond's most important contribution to 20th-century Aristotelian scholarship has been to raise the question about Aristotle's philosophical methods.

This re-appraisal of dialectic should probably be seen against

21. On Zabarella, see Mikkeli 2005.

22. Narcy 2000: 82.

23. See Weil 1991; Aubenque 2002; Brunschwig 1967 & 2007. Le Blond probably also plays some role in Moraux 1968 even if Moraux does not engage him directly.

the background of Ross' position that Aristotle's *Topics* was made superfluous by his *Analytics*, i.e. by the theory of the syllogism and the theory of demonstration.²⁴ Now, Le Blond explicitly refers to Ross' rejection of the *Topics* and concedes that Aristotle's method for reaching real knowledge is distinct from his dialectical method, and superior to it. He does, however, immediately point out (1) that Aristotle's dialectical method is actually most revealing of his intellectual temper and his frame of mind and (2) that dialectical procedures are never abandoned completely but will be found in virtually all Aristotelian treatises.²⁵

For such a view to be tenable, a clear notion is needed of what Aristotelian dialectic is, and, indeed, the first chapter of *Logique et méthode chez Aristote* deals with this question. Le Blond knows, of course, that dialectic is an argumentative procedure progressing through questions and answers of a certain regulated form, but he is mainly interested in the four predicate types, definition, genus, proprium, accident, according to which the central books of the *Topics* are organized. The originality of Aristotle's dialectic lies here, he thinks, and not in the question-and-answer procedure, for what interests Le Blond is predication as an identity claim, and the different kinds of identity claims found in the four predicate types, i.e. in stating that *P* is a definition/genus/proprium/accident of *S*, may be seen as useful ways of explicating the many ways in which "being" is said.²⁶ In short, the predicate types give some firsthand information about how one might speak about what it is to be this or that and so they offer guidance with respect to the many senses of "being".

Le Blond finds his interpretation of dialectic supported by Aristotle's much debated brief remarks at the beginning of the *Topics* about the utility of dialectic for the philosophical sciences (*Top.* I, 2). Le Blond takes the line that working through puzzles (διαπορήσσει) and the capacity for critical questioning (ἐξεταστική) constitute Aristotle's favoured philosophical and in particular metaphysi-

24. Ross 1995: 57.

25. Le Blond: 1939: 21 with note 2.

26. Le Blond 1939: 25-27.

cal methods.²⁷ Roughly, the idea is that scientific demonstration requires true and explanatory premisses but does not provide such premisses, which will be the task of dialectical procedures like working through puzzles or critically examining candidates for true and explanatory statements (premisses, principles). According to Le Blond, we find Aristotle engaged in this dialectical hunt for principles in the *Physics*.

So far it may seem clear why Le Blond thinks that Aristotle is a dialectical philosopher, but less clear, perhaps, why he holds Aristotle to be an aporematic philosopher. The procedure of setting out, going through and eventually solving problems or puzzles (ἀπορίαι) belongs to Aristotle's dialectical method, but Le Blond sees it as a key characteristic of Aristotle's work quite generally. Now, all scholars acknowledge that there are problems and contradictions in Aristotle's texts. Jaeger's approach to the corpus makes inconsistencies innocent by taking them to be signs of development rather than of confusion. Le Blond, on the other hand, takes it that the contradictions result from Aristotle's way of doing philosophy: Aristotle is aporematic, critical, tentative, undogmatic. Le Blond agrees with Jaeger that Aristotle's philosophy was not formed at one stroke and remained forever unaltered, but he also points out that while Aristotle did leave some problems unresolved because he could not solve them, he was honest enough to clarify what those problems were and why he could not solve them.²⁸ In short: the inconsistencies are a result of his aporematic way of doing philosophy.

A major problem with Le Blond's position is his somewhat vague notion of Aristotelian dialectic. On one hand he downgraded the importance of its being a question-and-answer procedure, on the other hand it is hard to see what is dialectical about the *Physics*, e.g., if not the use of question-and-answer strategies. Le Blond's followers have sometimes used the term 'dialectic' so loosely that almost anything Aristotle does or says becomes "dialectic".²⁹

27. Le Blond 1939: 44-47.

28. Le Blond 1939: XIV-V. Nicolai Hartmann 1957 (originally 1936) anticipates the position.

29. Aubenque 2002 and Wieland 1992 seem liable to this charge to a certain extent.

21st-Century Aristotelian Scholars

At the beginning of the 21st century, developmental approaches seem to have lost their attraction. Most scholars will agree that Aristotle's philosophy must have developed, many will also find Jaeger's basic assumption about this development reasonable, but developmental explanations seem to have become the interpreters' last refuge in their attempts to clear Aristotle of the charge of inconsistency.³⁰ There are probably several reasons for this decline in developmental studies. First, one might claim that the method has by now achieved all the results that most scholars are ever likely to agree on. Just as in the case of Plato, a kind of relative chronology has been established. Most scholars will find it reasonable to refer to *De Anima* as a late work, and to large parts of the writings on animals as having been produced, or at least prepared, during Aristotle's years of travel. Second, developmental accounts rather quickly reached a high level of complexity, with ever more stages of development being postulated for Aristotle's thought.³¹ This not only blurred the picture of what Aristotle's development was like, but also made clear that developmentalism, in a sense, simply imposed its own rather rigid system on Aristotle's philosophy. It was not the liberation from rigidity that Jaeger had expected it to be.³² A third reason seems to be that developmental studies have provided conflicting results concerning specific groups of texts, in particular with respect to ethics.³³ Finally, taken to the extreme, the developmental approach led to the position that none of the texts in the *Corpus Aristotelicum* can be ascribed to Aristotle. Rather, these texts make up a body of school writings produced originally by Aristotle but continuously revised and extended by the members of his

Primavesi 1996 argues for a much more restricted meaning of dialectic confining this to the sort of training taking place in the regulated school debates between a questioner and an answerer.

30. As pointed out by Witt 1996: 78-79.

31. See e.g. Düring 1943 and Nuyens 1948 for biology and psychology.

32. This point is made by Wieland 1992: 26.

33. See Rowe 1971: 9-14 and Chroust 1996: 52-56.

school to the effect that what we have is a *Corpus Peripateticum*.³⁴ Thus, what started as an attempt to understand Aristotle, the man and his writings, ended up almost eliminating him.

Aristotle, luckily, remained alive and well, not least due to work influenced by the other main currents of the 20th century. Le Blond's method continues to influence French studies, and Ross' commentaries are still a point of reference in contemporary scholarship. One might say that a large part of recent scholarship is still occupied by the *traditional* questions and problems that Ross also treated. In this, recent scholars truly resemble the best of the medieval commentators. But if the work of Ross, one of the best and most influential commentators of the 20th century, exhibits noticeable scholastic features, is it not, then, conceivable, or even probable, that the "real" scholastic commentaries can make an important contribution to contemporary Aristotelian studies?

34. Grayeff 1956: 118.

Editions, Translations, Commentaries and Journal Articles

Editions

Since the very first complete edition of the whole *Corpus Aristotelicum*, the *Aldina* (1495-98), such editions of Aristotle's works in Greek have only appeared with considerable intervals, and there has been no complete and genuinely new edition of the whole *Corpus Aristotelicum* since Bekker's beautiful two-volume *Aristoteles graece* from 1831 which we have already mentioned above. Admittedly, we have not had access to the Didot edition (1854-1883), but apparently it was based on Bekker's text. Similarly, the virtually complete Aristotle in the Loeb Classical Library reuses Bekker and other earlier editions. Probably the most used editions in recent times have been those in the Oxford Classical Texts (OCT) series, most of which are 20th-century products by eminent scholars such as W.D. Ross, W. Jaeger, H.J. Drossaert Lulofs and L. Minio-Paluello. The OCT texts cover the most commonly read works, but not all of the zoological ones, to mention just one glaring omission. It is, furthermore, noticeable that even scholars who use OCT texts as their hand copies often turn to other editions in their writings, such as Brunschwig's of the *Topics*.

Modern editions of single works (when not just reprints of older ones) all try to live up to the ideal of being "critical": the editors attempt to reconstruct the filiation of the manuscripts in order to eliminate readings that have no claim to descent from the archetype of the tradition, they also establish rules for how to choose between variants when it is not possible to decide which one is closest to the archetype's; they consider previous attempts to emend corrupt passages and try to come up with new emendations. Increasingly, they also re-collate manuscripts already used by previous editors instead of relying on the – often incorrect – reports of their readings in earlier editions. Finally, many try to ameliorate the understanding of the tradition by collating manuscripts that have been neglected by

previous editors and by using late-ancient or medieval translations into Latin, Syriac, Armenian or Arabic as text witnesses alongside the Greek manuscripts.

So far, however, editions of Aristotle have been geared towards producing a text as close as possible to Aristotle's own, as far as the wording is concerned, while only scant attention has been paid to showing what the text has looked like at various historical stages – the sort of information that students of the Aristotelian tradition would dearly like to have. While lack of interest in the matter goes a long way to explain why editions are so uninformative about readings that do not play a role in establishing the stemma and/or the text, editors have also refrained from recording “insignificant” variants for fear of ending up with a bloated critical apparatus in which the important variants would drown in the sea of insignificant ones. This, however, is something for which there is now a cure: while it is still desirable that editors produce a traditional pared-down apparatus, it is now also possible for them to publish their complete collations on the internet at next to no additional cost in either money or work, as they nowadays usually do the collation in digital form.

Work done on the transmission of the Aristotelian texts from Bekker and onwards has substantially ameliorated the quality of editions. We can feel fairly safe that the modern editions are closer to Aristotle's wording than their predecessors, although occasionally there is some learned disagreement.³⁵

All this study of the history of the text is an entirely un-medieval enterprise. Indeed, modern textual criticism only made its appearance in the first half of the 19th century, and it was still in its infancy when Bekker and his team produced their *Aristoteles graece*. In medieval Western Europe very few read Greek, and the idea of textual criticism was as alien to them as it was to their colleagues in the Greek lands. They generally felt that it was no great problem that they read Aristotle only in the Latin translations. There was, of course, an awareness that translators may commit errors and that errors arise when a text is copied. A few, like Roger Bacon in the

35. An example would be J. Barnes' (2003) critique of Bodéüs' Budé edition of the *Categories* from 2002.

1260s, mistakenly believed that those two sources of error were a major reason why Aristotle's texts were so difficult to understand.³⁶ Most people rightly thought that Aristotle himself was the main source of their difficulties.

Medieval commentators often discussed textual variants, but more often than not they would be content to show the implications of accepting one or the other without deciding which was right. There were attempts to produce "good" texts, but no systematic approach to the problem of what a good text is and how to produce it. A typical way to ameliorate a text was to copy it from one manuscript and then compare the copy with another manuscript and choose readings from the second manuscript that seemed superior to the ones in the first. A variant of this method was used by the great translator William of Moerbeke in the 13th century. In several cases, he corrected one of his Latin translations of Greek works when he had got access to a new Greek manuscript.³⁷

When all is said and done, the fact remains that medieval Latin scholars were left with an Aristotelian text which, for all its being less dependable than what was available to their Greek counterparts, was still perfectly usable. To understand why, we must look at the way translations were made.

Translations

In the Middle Ages, Western scholars were totally dependent on Latin translations of Aristotle's works as a mastery of Greek was extremely rare. For most of the *Organon* men relied on the translations provided by Manlius Boethius in the early 6th century; for the rest of the corpus they relied on 12th- and 13th-century translations, most of them made directly from the Greek, but in rare cases there was an Arabic intermediary.³⁸ Even when the study of Greek became

36. Roger Bacon, *Opus Tertium* ch. 10, pp. 32-33, ed. Brewer.

37. For an example of this procedure, see Brams & Vuillemin-Diem 1989.

38. See table in Dod 1982, repeated with minor changes in Pasnau & van Dyke, eds., 2010: 793-797. Another table, also based on Dod's, but including Boethius' commentaries, is found in Bloch & Ebbesen 2010: 12-16.

a standard part of higher education in the 16th century, most Westerners continued to be far more familiar with Latin than with Greek, and Latin translations continued to be widely used, if for nothing else, then as a help to understanding the Greek. It is symptomatic that the Prussian Academy let the two volumes of Bekker's landmark 1831 edition of the Greek text be accompanied by a third volume containing reprints of older Latin translations of the Aristotelian corpus – quite a curious selection, by the way: several of them are very old. Among the reprinted translations we find Pacius' late-16th century *Organon*, as well as Bessarion's *Metaphysics*, Valla's *Magna Moralia*, and Argyropulus' *De anima*, all from the 15th century.

Nowadays, as knowledge of the classical languages is rapidly declining, few will feel that a Latin translation can help them understand the Greek, but translations into modern vernaculars have assumed a role comparable to that of the Latin ones in the Middle Ages and Early Modern Times.

Contemporary translators can benefit from the great effort that has been put into Greek lexicography since the Renaissance, and the great amount of work done to produce good critical editions. In those respects they have a definite advantage over both Boethius in the 6th century and the 12th-13th-century translators, who generally had to work without the help of a proper dictionary and on the basis of just one main manuscript, although they did sometimes compare its readings with those of an auxiliary codex.

Modern translators generally try to achieve three aims simultaneously:

1. Consistency in the rendering of Greek words, technical terms in particular.
2. Fidelity to the Greek sentence structure as far as the target language will allow.
3. A degree of “naturalness” so that the reader is not all the time reminded that this is a translation.

Aims (1) and (2) are rarely obtainable without sacrificing (3), and vice versa, as will be illustrated below.

Boethius did not care much about (3), the naturalness of the

Latin resulting from his work as a translator,³⁹ and some of his medieval successors cared even less. Their ideal was a Latin text in which every single word of the Greek was rendered as one Latin word, each Latin word standing in exactly the same position in the sentence as its Greek counterpart. Even the Greek particles were meticulously translated one by one. The result is some pretty strange Latin, but by adhering as mechanically as possible to this method the translators were able to minimize the influence that their own interpretation of an argument or a sentence had on how the translation turned out, whereas, by contrast, modern translations often tend to be paraphrasing, and to support one possible interpretation of a passage to the exclusion of others. Here is a sample of Boethius' style of translation and of the revised version of it produced by William of Moerbeke in the 13th century:⁴⁰

SE 19.177a16-18: Ὅσοις μὲν οὖν ἐν τῷ τέλει τὸ πολλαχῶς, ἄν μὴ προλάβῃ⁴¹ τὴν ἀντίφασιν οὐ γίνεται ἔλεγχος, οἷον ἐν τῷ τὸν τυφλὸν ὄραν· ἄνευ γὰρ ἀντιφάσεως οὐκ ἦν ἔλεγχος.

Boethius: Quibus ergo in fine est multipliciter, nisi prius sumpserint contradictionem, non fit elenchus, ut in eo quod est caecum videre; nam sine contradictione non erat elenchus.

William: Quibus quidem ergo est in fine multipliciter, nisi prius sumpserint contradictionem, non fit elenchus, ut in eo quod est caecum videre; nam sine contradictione non erat elenchus.

The most strikingly un-Latin feature of Boethius' translation is the rendition of τὸ πολλαχῶς by *multipliciter*. The Greek is hard enough, being shorthand for τὸ πολλαχῶς λέγεσθαι or λεγόμενον, but at least the definite article in front of the adverb πολλαχῶς makes it clear that τὸ πολλαχῶς represents the subject of the understood verb ἐστι. Boethi-

39. For Boethius' translation technique, see also Ebbesen 2011b.

40. The Latin translations by Boethius and William were edited by B.G. Dod in 1975. See the bibliography under *Editions and translations of Aristotle*.

41. Ross' OCT edition has προλάβῃ, as does one group of manuscripts, but Boethius obviously read προλάβῃ, which is attested in other Greek mss.

us makes the verb explicit (*est*), but the lack of a device to render the Greek article makes it very difficult to see that *multipliciter* must represent the subject of the phrase. He seems to have taken the correlate of ὄσοις – an unexpressed ταῦτα (neuter plural) – to be the subject of προλάβη, whence the plural in *sumpserint*. The preposition + nominalized accusative with infinitive ἐν τῷ τὸν τυφλὸν ὄραν is rendered in a reasonably natural Latin way as *in eo quod est caecum videre*.

William does nothing to make the passage easier; on the contrary, he inserts *quidem* before *ergo* in order to give a two-word rendition of μὲν οὖν, thus producing a sequence of particles that cannot possibly occur in normal Latin. His *sumpserit* for *sumpserint* is probably just due to an error in the manuscript of Boethius that he used as a basis for his revised version, though it could be a sign that, in contrast to Boethius, he construed προλάβη with a subject in the singular.

A transitional stage between medieval and modern translation technique is seen in Pacius' 1597 version of the passage:

Quibus ergo in fine *inest* multiplicitas, nisi *opponens* adsumpserit contradictionem, non fit elenchus: ut in captione illa, caecum videre: quia sine contradictione non erat elenchus.

Here (1) the elliptic τὸ πολλαχῶς is represented by a noun, *multiplicitas*, which had become a technical term in medieval treatises on fallacies. (2) The missing verb in the first clause is added (*inest*), but italicized to indicate that it corresponds to no word in the Greek text. (3) The verb προσλάβη is supplied with a subject, *opponens*, the non-existence of which in the Greek text is again indicated by means of italics (like all later editors and translators Pacius read προσλάβη instead of προλάβη). (4) To render τῷ (τὸν τυφλὸν ὄραν) he replaces Boethius' *eo quod est*, which carries no more information than the Greek original, with *captione illa*, which does carry extra information.

In W.A. Pickard-Cambridge's excellent English translation from 1928⁴² the same passage comes out as follows:

42. W.D. Ross, ed., *The Works of Aristotle translated into English*, vol. I, Oxford University Press.

Whenever, then, the many senses lie in the conclusion no refutation takes place unless the sophist secures as well the contradiction of the conclusion he means to prove; e.g. in the proof that 'seeing of the blind' is possible: for without the contradiction there was no refutation.

(1) As in Pacius, the elliptic τὸ πολλαχῶς is replaced with a non-elliptic noun-phrase, *the many senses*. (2) Again like Pacius, Pickard-Cambridge removes any uncertainty about what is the subject of the verb προσλάβη by simply adding the required information, though, where Pacius had settled for the opponent, Pickard-Cambridge writes *the sophist*. (3) Unlike Boethius and Pacius, he removes the vagueness of τῷ τέλει by using the technical term *conclusion*. (4) He makes clear which *contradiction* is meant by adding *of the conclusion he, i.e. the sophist, means to prove*. (5) He clarifies the example ἐν τῷ τὸν τυφλὸν ὄραν by informing the reader that it is about a *proof* (Pacius had said *captio*, i.e. fallacious argument) that seeing of the blind is *possible*. As opposed to Pacius, Pickard-Cambridge did not mark words of the translation that have no counterpart in the original, and most modern translators follow the same practice.

Pickard-Cambridge's translation reads as fairly natural English, and it probably catches what Aristotle intended to say, but at the price of leaving the reader unaware of the difficulties and ambiguities of the Greek text, and where its lack of explicit information makes room for more than one interpretation. Not all modern translators go as far as he in spelling out their preferred interpretation in the translation, but to some degree they all do so. E.S. Forster in the 1955 Loeb translation writes:

When the diversity of meaning occurs in the conclusion, no refutation takes place, unless the questioner secures a contradiction beforehand, as, for example, in the argument about the 'seeing of the blind'; for there never was refutation without contradiction.

Forster adds less expegetical material than Pickard-Cambridge, but follows him in making the subject of προσλάβη explicit, although he supplements *the questioner* in stead of *the sophist*.

Our last example is the French translation by L.-A. Dorion (1995):

Chaque fois que l'ambiguïté réside dans la conclusion, il ne se produit pas de réfutation si l'on n'ajoute pas la contradiction, comme dans l'argument «la vue de l'aveugle» ; car sans contradictoire, il n'y a pas, avons nous dit, de réfutation.

Not only does the rather cautious Dorion follow Pickard-Cambridge and Forster in using the technical term *conclusion*, he also introduces a non-Aristotelian technical term *ambiguïté* for τὸ πολλαχῶς, and he makes clear that Aristotle's use of the past tense in οὐκ ἦν ἔλεγχος is meant to indicate that he has already said as much on an earlier occasion. On the other hand, by saying *l'on* he refrains from giving the intended subject of προσλάβη a clear identity.

The closest thing to a medieval Aristotle translation that we have seen in recent times is Jonathan Barnes' rendition into English of the *Posterior Analytics* from 1975, in which his avowed "single goal" was "to present the English reader with all and only that information which a Greek reader finds presented in the Greek text."⁴³ He did, though, add some exegetic material, but like Pacius he marked it typographically, this time not by italicizing the extra words but by putting them in pointed brackets, <...>. Barnes' brave attempt to return to a by-gone practice was almost unanimously criticized, with the result that he issued a more normal version in 1993.

Barnes' 1975 *Posterior Analytics* apart, modern translations contain much exegetic material, and almost function as a combined text and commentary. Indeed, the paraphrasing character of most modern translations make them less similar to medieval translations than to another medieval genre, namely that of literal commentaries (on which, see pp. 59ff., below), which regularly included paraphrases of the Aristotelian text in which the clarifying material was provided that modern translators put in the text. As opposed to modern practice, the additional material was clearly marked as

43. Barnes, transl., 1975: xviii.

such; where Pickard-Cambridge wrote “unless the sophist secures ...”, they would say “unless he, i.e. the sophist, secures ...”.

A return to the medieval manner of translating is neither practicable nor desirable, but in an age where dependence on translations is returning because Greek is losing terrain in the schools, readers risk being worse off than their old colleagues who had both a word-by-word translation and a paraphrase containing the necessary exegetic additions.

Commentaries

A modern commentary will typically contain an introduction, surveys of major parts of the text, and detailed comments on particular points. Sometimes, as in the case of Ross’ justly famous commentaries on *Analytics*, *Physics*, *Metaphysics*, *De Anima* and *Parva Naturalia*, the commentary accompanies an edition of the text. Some of the editions in the Guillaume Budé series also contain an amount of notes on the text that makes it reasonable to consider them editions with commentaries.⁴⁴ In the Clarendon Aristotle Series, translations are accompanied by commentaries of varying extent and thoroughness,⁴⁵ and the same holds true of several translations into other languages than English.⁴⁶ The volumes of the German *Aristoteles, Werke* series have developed from relatively moderate proportions towards huge, all comprehensive introductions, translations and commentaries.⁴⁷

There are great differences in *how* the tasks of producing surveys and of providing detailed comments are performed, but it is characteristic of modern commentaries that the problems selected for discussion tend to be the same in all of them. One might say that there is a

44. E.g. Brunschwig’s 2007 edition of *Topics* V-VIII, in which pages 137-309 are supplementary notes.

45. Compare e.g. the relatively brief notes in Ackrill, transl., 1963 with the more extensive treatment in Barnes, transl., 1993².

46. Thus there is both a lengthy introduction and more than 200 pages of commentary in Dorion’s French translation of the *Sophistical Refutations* from 1995. Similarly, Fait’s Italian rendition of the same work from 2007 contains both a sizeable introduction and over a hundred pages of commentary.

47. Detel 1993 is an example of a truly comprehensive commentary.

tradition which, to some extent unconsciously, determines what passages and problems commentators will focus on. As we shall illustrate below,⁴⁸ this means that we have extensive and penetrating discussions of many important problems in Aristotle's works, while at the same time problems of equal import have been more or less ignored. On this point, the situation was similar in the Middle Ages, but for all that the medievals have something to offer, for they often focused on *different* problems than those that modern scholars have fastened on to.

Journal articles

Articles in learned journals, which play such an important role in modern scholarship and science, are a relatively new invention, dating back only to the 17th century, and more precisely to 1665 when *Journal des sçavans* and *Philosophical Transactions of the Royal Society* began to appear. They typically take up some narrowly defined topic – the interpretation of one or a few passages, Aristotle's views on some limited topic, some difficulty in the reconstruction of Aristotelian theory, Aristotle's relations to other philosophers or the genesis of his works. They are often driven by modern philosophical concerns and ask questions of the Aristotelian texts that would not have been asked were it not for those concerns.

The journal article is a great way to float new ideas – successful ones may eventually make their way into commentaries or, if they have broad consequences, even to surveys of Aristotelian philosophy.

Since there were no journals in the Middle Ages, the journal article has no exact counterpart, but some of the same functions were taken care of by means of small treatises on specific topics (see pp. 89ff., below). Just as some modern articles are attempts to rebutt or ameliorate suggestions put forward in other articles, so medieval treatises may be parts of a debate. A well-developed *quaestio* (on which see pp 64-67 and 79-86, below) could also provide many of the same services as a journal article, raising a question, showing what the problem is, reviewing previous scholarship on the issue, and finally presenting the author's own solution.

48. See, in particular, the case studies below.

PART 2

Aristotle in the Middle Ages

CHAPTER 3

Medieval Attitudes to Aristotle

To medieval scholars Aristotle was an *auctor*, and memorable statements of his were *auctoritates*. Being an *auctor* primarily meant being the author of a book that was studied in the schools, but there was also a connotation of authority in the modern sense, for the simple reason that it was assumed that the books that were used as the foundation of serious study were good books. *Auctores* were thus supposed to be right, for the most part, but only in the faculty of theology were some of the books studied supposed to be infallible. In the faculty of arts (and wherever else philosophy was studied), Aristotle was the predominant *auctor*, but there were others, notably Porphyry, whose *Isagoge* was an indispensable part of the study of logic; Boethius, a couple of whose logical opuscula were lectured on; and Priscian, the 6th-century grammarian, whose massive Latin grammar was the foundation on which new linguistic theories were erected.

Concerning the Aristotelian corpus, the standard assumption was that each of its constituent works covered a reasonably well-defined field of knowledge that merited the designation of *scientia* in the sense of the *Posterior Analytics*, and in practice the scholastics tended to carve up the totality of the sciences in a way that let each Aristotelian work match one science, with the result that locutions like “the science about the soul” (*scientia de anima*) could sometimes be equivalent to “the book about the soul” (*liber de anima*).

In Abelard’s youth round 1100, Aristotle already had acquired the status of an indispensable *auctor*, but since only *Categories* and *De interpretatione* were available he was not as predominant as he was to become in the 13th century. Boethius’ logical monographs carried much more weight in 1100 than they were to carry after the whole of the *Corpus Aristotelicum* had arrived. Large parts of what was missing became available in Latin translation between ca. 1130 and 1200, and the rest in the next century, but with the exception of the *Sophistical Refutations* it took several decades before the new texts were inte-

grated into the curriculum, primarily, it seems, because they were both unfamiliar and difficult.⁴⁹ When the masters were beginning to feel ready to teach them, difficulties of a different sort arose.

In the early 13th century some ecclesiastical worthies had well-publicized worries about the suitability of Aristotelian natural science and metaphysics for a Christian university and banned them from being taught in Paris (1210, 1215 and 1231). The university people may have obeyed those ecclesiastical decrees to the extent that they did not publicly teach the banned works, but they obviously studied them anyway, and in a 1255 statute from the faculty of arts at Paris all the prohibited books are listed as books to be read in class.⁵⁰ Theologians continued to worry, and new condemnations were issued by the bishop of Paris in 1270 and 1277, in which the targets were no longer particular Aristotelian books but particular Aristotelian doctrines such as the eternity of the world, or particular interpretations of Aristotelian doctrine, such as the Averroistic theory of one pan-human intellect.⁵¹

The prohibitions, which were directed to the masters of arts, had little effect, though. Academics have always felt disinclined to bow to censorship. The “artists” (*artistae*) were obliged to solve any disagreement between Aristotle and Faith in the latter’s favour, but that did not prevent them from presenting Aristotle’s opinion, as they understood it, as well as the arguments that supported it. All they had to do was to add a disclaimer: This is the Philosopher’s view, but according to catholic faith and truth the opposite is the case. Thus in the 14th century artists routinely told their pupils that there are two philosophically plausible views about the mortality or immortality of the soul, both of which could be argued to be Aristotelian. One was Alexander of Aphrodisias’, according to which the soul, being the form of the body, ceases to exist when it ceases to inform its body. Another was Averroes’, according to which the in-

49. For the translations, see the table in Pasnau & van Dyke, eds., 2010: 793-797; Ebbesen & Bloch 2010: 12-16.

50. The document has been published in Denifle & Chatelain 1889: 277-279.

51. There is a rich literature about the prohibitions. For a brief introduction to the topic, see Putallaz 2010.

tellecual soul is an entity with which individual humans may come into contact, but which is independent of them and unaffected by their deaths. Having presented the arguments for the two philosophical views, the artists would then present the catholic truth without arguing for it. John Buridan (who provided the pattern followed by many others in this matter), having presented a number of theses that would hold if natural reason alone were consulted, adds:⁵²

Nevertheless, we must firmly hold that not all of these theses are true, because they are against the catholic faith. But I believe that the opposite theses are not demonstrable without special and supernatural revelation. Now I shall present without proofs the theses or propositions that one must hold in this matter according to the catholic faith.

In other words, the artists saw it as their duty to bring out clearly what was probably Aristotle's view and not let their interpretation be biased by their faith.

Theological hostility mainly hit Aristotelian physics, cosmology and psychology. Theologians could find no fault with Aristotelian logic, though they might deny its unrestricted applicability to the Holy Trinity. Even his ethics was generally acceptable, provided his notion of a *telos* in this life was not taken to exclude a *telos* to be reached only in Heaven. In spite of some disagreements, all major medieval theologians had the greatest respect for Aristotle, but *ex officio* they had an even greater respect for Holy Scripture, which to them included both the Bible and the works of the church fathers, with Augustine being the leading authority among the fathers. This sometimes led to interesting confrontations between Aristotelian and Augustinian theory, as, e.g., may be seen in two treatises by Robert Kilwardby from the mid-13th century, *On time (De tempore)* and

52. Iohannes Buridanus, *Quaestiones super librum De anima secundum tertiam lecturam*, qu. 6, p. 51: "Sed tamen firmiter tenendum est quod non omnes conclusiones sunt verae, quia sunt contra fidem catholicam. Sed credo quod oppositae conclusiones non sunt demonstrabiles sine speciali et supernaturali revelatione. Nunc narrandae sunt sine probationibus conclusiones vel propositiones quae in hac materia secundum fidem catholicam sunt tenendae."

On imagination (De spiritu fantastico). In both Kilwardby contrasts the very active role that Augustine assigns to the soul in cognition with the more passive role assigned to it by Aristotle. In *On Time* the question is whether time has real extramental existence (Aristotle) or is mind-dependent (Augustine). In this case Kilwardby chooses to follow Aristotle. In *On imagination* Kilwardby pits two views about sense perception against each other: (1) the Aristotelian, according to which objects of sensation first effect a change in the medium, then in the sense organ and finally in the spirit or power of sensation (*potentia sensitiva*); (2) the Augustinian, which denies that the soul or spirit may be moved by a sense-organ or an object of sensation. On this occasion Kilwardby decides to side with Augustine, “because we know that Augustine had received much loftier illumination than Aristotle, in particular as regards spiritual matters.”⁵³ It was probably rather common for students of theology to write commentaries on Aristotle, and some even did so after becoming doctors of theology – Thomas Aquinas and Giles of Rome (Aegidius Romanus) are famous instances. Such men did not, of course, forget their theology when interpreting Aristotle, but their attitude to him was the same as that of the artists. They would work on the assumption that his writings made coherent sense, and they would not purposely let their theological beliefs skew their interpretation.

Most contemporary commentators are satisfied if they can show that on the whole what Aristotle says is, if not true, then at least intelligent and interesting, and that on the whole he is self-consistent. Medieval commentators set a harder task for themselves, for their fundamental assumption was that all of Aristotle’s statements are both mutually consistent and (barring conflict with faith) true, and they also believed that it was their job to show that this is actually

53. Robert Kilwardby, *De spiritu fantastico* § 98: “Quia tamen nouimus beatum Augustinum multo sublimius in spiritualibus precipue illuminatum quam Aristotelem, nec facile est satisfacere per dictam rationem rationibus que pro Augustino faciunt, adeo partem primam questionis que est sententia Augustini potius credimus habere ueritatem, et eidem proinde adheremus.” Trifogli (2012: 210, 215) points out that in *De tempore* Augustine’s view is not properly debated, and suggests that Kilwardby is rather fighting Averroes’ subjectivist theory of time than Augustine’s, even though he only mentions the latter.

the case. While accepting virtually all of his statements, they made a virtue of not doing so without testing them for both consistency and truth.

To test the truth of an Aristotelian piece of doctrine three main strategies were available.

1. One could ask whether, e.g., a division or a definition lives up to normal requirements. A division ought to be exhaustive and yield non-overlapping items. In a definition, *definiens* and *definiendum* ought to be interchangeable.
2. One could find a disagreeing statement by another philosophical authority, such as Boethius, and then try to assess the merits of his view relative to Aristotle's.
3. Or one could find an apparent objection to the Philosopher's doctrine, whether an exception to some general statement of his or an unwanted consequence.

In normal circumstances, a commentator would defend the doctrine under attack.

In the first case, he would try to provide a proof of exhaustivity etc. In fact, we find numerous attempts to prove that there are just two sorts of fallacies, in speech and outside speech, and that there are just six of the first and seven of the second type, as Aristotle claims in the *Sophistical Refutations*.⁵⁴ Similarly, many commentators on the *Categories* try to demonstrate that there must be exactly the ten categories that Aristotle lists, although some, at least from John Buridan onwards, give up. Buridan did not think a proof was possible, but simply thought that the traditional list should be accepted because nobody had come up with something better.⁵⁵

In case 2, one could simply let the challenger be defeated by Aristotle, or else one could try to show that the challenger and Aris-

54. For examples, see Aegidius Romanus, *Expositio supra libros Elenchorum* f. 9rB and 16vB. Similar justifications of the number of fallacies *in dictione* and *extra dictionem* in Ps.-Thomas Aquinas, *De fallaciis* ch. 4, p. 405, and ch. 10, p. 411.

55. Peter of Auvergne's derivation of the ten categories has been described in Ebbesen 2005a: 251-252. For Buridan's rejection of such derivations, see Ebbesen 2005a: 252 with source references in footnote 1.

tote did not really disagree. We shall not provide any example of case 2, as it is only of marginal interest to the purpose of this book.

In case 3, one could similarly either declare that the objection was based on a false claim, or show that for some reason it was not really to the point.

For an example of (3) we may look at Boethius of Dacia's question II.10 on the *Physics*, *Whether the description "Matter is that from which something comes into being" <Phys. II.3.194b23-24> is proper to matter*. Three arguments are given for rejecting the description, the two first of which try to show that "being from etc." is not proper to, i.e. exclusive of other things than, matter.⁵⁶

1. Privation is also "that from which etc."
2. What also pertains to form cannot be proper to matter, but it pertains to form to be that from which is generated whatever is generated.
3. (a) That from which is generated whatever is generated has in itself something of the thing generated, (b) for everything that is changed has something of that into which it is changed. (c) But matter does not fulfill this condition.

Boethius answers that in fact something comes to be both from matter, from privation and from form. In one sense of 'from' only matter is that from which etc., in another the description also applies to the other items. In thus distinguishing different senses of 'from' Boethius follows a widespread practice, as it was generally recognized that Aristotle's texts contain ambiguities which must be resolved by looking at what makes sense in the context of each occurrence.

To the arguments Boethius says:

- *Re 1.* Although something comes to be from privation, the privation is not in the thing that comes to be. – This is actually an appeal to a part of the Aristotelian text left out in the formula-

56. The following is a paraphrase of the text in Boethius Dacus, *Quaestiones super libros Physicorum*, pp. 218-220.

tion of the question. The full form of the description is “that from which something comes into being, and which is in it”.

- *Re 2*. The objection overlooks the equivocacy of ‘from’.
- *Re 3*. The major premiss (a) is false, and (b), which was supposed to prove (a), is only qualifiedly true: while the change is happening, (b) holds, but not before the beginning of the change.

How to reconcile Aristotle with himself?

Most of the main techniques used to defend Aristotle can be seen in the particularly interesting case in which he is pitted against himself.

One common technique for setting up a problem in a commentary on some Aristotelian work consisted in showing that both the No and the Yes answer could be supported with references to the Stagirite’s own writings. Typically, the Yes side could be defended with a statement in the particular part of a work commented on, while the No arguments would be derived from other works or other parts of the same work.

Some scholastics were quite fond of pitting Aristotle against Aristotle, while others seem to have had some aversion against the procedure, which is, e.g., remarkably rare in Boethius of Dacia’s questions on Aristotelian works.

When an apparent inconsistency has been pointed out, the rarest of all solutions is the one that consists in declaring one of the Philosopher’s statements to be simply wrong. An anonymous commentator on the *Sophistical Refutations* from the 1270s ascribes that solution to an unnamed predecessor who found Aristotle’s treatment of homonymy in *De interpretatione* 8 incompatible with that in *SE* 6 and decided in favour of the former, claiming that in the latter passage Aristotle follows a commonly held, but false, view in the manner of sophists:⁵⁷

57. Incerti Auctores, *Quaest. SE*, qu. 815, lines 61-64: “quia igitur famosum fuit tempore suo inter sophistas propositiones in quibus est terminus aequivocus posse accipi pro uno sensu vel pro alio, ideo Aristoteles in libro primo sic termino aequivoco utitur, non quod sit secundum veritatem.”

Because in his day it was a popular view among sophists that propositions containing an equivocal term can be taken in one sense or another, Aristotle in book I <of the *Sophistical Refutations*> uses the equivocal term in that way, not because this is in accordance with truth.

This somewhat shocking statement is followed by a supporting argument:⁵⁸

And that Aristotle sometimes said things just in accordance with popular views that do not agree with truth appears from Simplicius on the *Categories* and also from the Commentator [i.e. Averroes] on *Metaphysics* V. For while in the chapter on quantity in the *Categories* Aristotle says that time is a quantity in itself, listing it among the species of continuous quantity, in *Metaphysics* V Aristotle proceeds in accordance with truth. Similarly, Simplicius in his commentary on the *Categories* says that Aristotle was a young man when he composed that book, and followed his source Archytas of Tarentum, a pupil of Pythagoras, even verbatim, and therefore almost all the things he says there he says not in accordance with truth but rather in accordance with Archytas' opinion.

Neither Simplicius nor Averroes said quite what they are quoted for. Simplicius repeatedly⁵⁹ mentions Aristotle's dependence on Archytas, but does not say that he was very young when writing the *Categories*. Averroes says that in the *Categories* Aristotle just wished to

58. Incerti Auctores, *Quaest. SE*, qu. 815, lines 64-76: "Et quod Aristoteles aliquando aliqua dixerit secundum famositatem, quae tamen repugnant veritati, manifestum est per Simplicium super librum Praedicamentorum et etiam per Commentatorem super quintum Metaphysicae: cum enim libro Praedicamentorum capitulo de quantitate dicat Aristoteles quod tempus est quantitas per se enumerando ipsum inter species quantitatis continuae, quinto tamen Metaphysicae Aristoteles agit secundum veritatem; et similiter Simplicius super Praedicamenta dicit quod Aristoteles iuvenis fuit cum composuit librum istum <et> usque ad verba secutus est Archytam Tarentinum qui fuit discipulus Pythagorae, a quo etiam accepit librum illum, et ideo fere omnia quae ibi dicit non secundum veritatem dicit, sed magis secundum illius opinionem." Much the same in Simon of Faversham, *Quaestiones Veteres super Sophisticos Elenchos*, qu. 15, pp. 67-68.

59. Simplicius, *Cat.* 2, 51, 67.

list the commonly accepted types of quantity.⁶⁰ But this is immaterial. The important point is that – if correctly reported – the unnamed commentator had given up reconciling *De interpretatione* and *Sophistical Refutations*, and thought there was a similar problem with *Categories* and *Metaphysics*. In the latter case he offered a sort of Jaegerian explanation for the discrepancy: the *Categories* is an immature and derivative work. He did not say so explicitly about the *Sophistical Refutations*, but at least indicated that it was not of the same carat as *De interpretatione*.

This is, indeed, an unusual expedient for a medieval commentator, and the anonymous who reports it duly rejects it, claiming instead that the alleged inconsistency between *De interpretatione* and *Sophistical Refutations* is a phantasm conjured up by people who have misunderstood the nature of homonymy.

Many apparent contradictions are solved by pointing out that the “contradictory” statements are taken out of context and – when properly glossed – are, indeed, compatible. A simple case occurs in Peter of Auvergne’s questions on the *Metaphysics*. Qu. IV.16 asks whether a name signifies only one thing (*utrum nomen significet tantum unum*). The occasion for the question is *Metaph.* IV.4, where Aristotle claims that any name must signify one thing, “for not to signify one thing is to signify nothing” (1006b7). This is contrasted with *Sophistical Refutations* I.165a10-13: “For names are finite and so are complex utterances, whereas things are infinite in number. Necessarily, then, the same complex utterances and one and the same name signify several things.” Peter answers that the relation between a word and its significate, its signification, does indeed link it to exactly one significate, but nothing prevents a word from having several such relations of signification.⁶¹

60. Averroes, *Metaph.* V c.18, 125v I-K: “Et posuit hic motum de speciebus quantitatis, quod non fecit in libro Praedicamentorum, et illic locum, quod non fecit hic. Et forte dimisit hic locum quia apud ipsum est de passionibus quantitatis, et ideo non posuit ipsum in eis quae sunt quantum per suam substantiam. Motus autem non est consuetudo ut mensuretur per suam partem, sed per suum spatium, aut per tempus: et ideo non nominavit illum in praedicamento quantitatis in Praedicamentis, et illic solummodo intendit numerare species famosas quantitatis.”

61. Petrus de Alvernia, *Quaestiones super Metaphysicam* IV.16 in Ebbesen 2000: 81: “igitur

Therefore one name signifies one thing by one signification, and only one thing. And this was what the Philosopher had in mind when he said “What does not signify one thing signifies nothing”, i.e., what does not signify one thing by one signification, just as the person who does not understand one thing understands nothing.

The objection, Peter claims, rests on neglecting the understood qualification *by one signification*. The objector has taken what should be understood *in a certain respect (secundum quid)* as if it were meant *in an unqualified way (simpliciter)*, to use the terminology of the *Sophistical Refutations*.

In question 6 of his *Lectura Erfordiensis in I-VI Metaphysicam* John Buridan uses both this and other means to neutralize apparent contradictions. The question asks *whether metaphysics is the most certain of all sciences*.⁶² Several of the No arguments appeal to Aristotle, viz.

1. *De anima* I.1.402a1-4: Psychology stands out for nobility, <which implies that it stands out for certainty.>
2. *Metaphysics* I.2.982a24: Metaphysics is most difficult. But the more difficult, the less certain, *ergo etc.*
3. *Topics* I.6.102b35-38: If there were a common science of the four predicates that did not deal with each of them in particular, it would be uncertain.
4. *Nicomachean Ethics* II.7.1107a28-31: The same holds for the virtues. This implies that metaphysics, which deals with beings according to their common features (*rationes*) is less certain than the other sciences, which deal with beings according to their more special features.
5. *Metaphysics* I.2.982a26-27: A science that proceeds from fewer items is more certain. Hence, one that is about more items is

nomen unum una significatione significat unum, et tantum unum; et sic intellexit Philosophus cum dixit *Quod unum non significat nihil significat*, quod videlicet non significat unum significatione una, sicut et qui unum non intelligit nihil intelligit.”

62. *Utrum metaphysica sit omnium scientiarum certissima*, pp. 33-36 in De Rijk's edition. We paraphrase the text. Essentially the same question is found as qu. I.3 in the 1518 edition of Buridan's questions on the *Metaphysics*.

more uncertain, but metaphysics is about more items, since it is about all beings.

The sole counter-argument is that Aristotle says the opposite in *Metaphysics* I.2.982a13sqq.

In the determination of the question Buridan first distinguishes six ways in which ‘certain’ may be used about sciences, and argues that in four of these metaphysics is, indeed, most certain. He then answers the five arguments.

- *Re 1.* Aristotle meant that psychology stands out *among the natural sciences*, not in comparison to metaphysics.
- *Re 2.* In spite of being most difficult, metaphysics is most certain in the sense that it leaves fewer doubts than other sciences and in the sense that it has more certain principles.
- *Re 3-4.* Those arguments wrongly assume that metaphysics does not descend to the most special and quidditative features of beings.
- *Re 5.* The argument rests on a misunderstanding of the Aristotelian passage, the sense of which is: A science that proceeds from fewer items *presupposed because proved in another science* is more certain.

The answers to (1) and (5) rely on glossing Aristotle’s *dicta* in such a way as to restrict their applicability. The answer to (2) uses the distinction of senses introduced in the clarifying section, pointing out that in two of those senses the claim in *Metaphysics* I.2.982a13sqq. is justified. Though we are not told so in so many words, we are invited to think that those were the senses that Aristotle had in mind in the passage.

The answer to 3 and 4 accepts the objector’s interpretation of the passages from *Topics* and *Ethics*, but denies their relevance in the situation.

According to Aristotle’s own guidelines for scientific work the same subject ought not to be treated in two different sciences. Hence, when he actually treats of the same matters in two different works, this needed an explanation. The answer must point out some

important difference in the angle from which the subject is approached, as may be seen, for instance, in Robert Kilwardby's explanation of why Aristotle treats of categories both in the *Categories* and in the *Metaphysics*:⁶³

The first philosopher does not study the categories with a view to their relation to speech, but the logician does just that, for the first philosopher investigates them in their capacity of parts and species of being, the logician in their capacity of being predicates and subjects. Besides, the first philosopher only studies the parts of being with a view to their reduction to being, the logician only studies being in its parts.

A similar explanation in terms of different angles of approach was commonly given for why Aristotle's *Topics* and Boethius' *De topicis differentiis* (usually also called *Topica*) are both needed. Thus Radulphus Brito says:⁶⁴

Boethius' *Topics* is a supplement to Aristotle's *Topics*, for while Aristotle in his *Topics* has dealt with the *topos* in regard to its use and application, he has not dealt with its essence by defining or dividing the *topos*, and this is why Boethius in his *Topics* defined and divided it.

63. Robertus Kilwardby, *Notulae supralibrum Praedicamentorum* (ca. 1240), ms Cambridge, Peterhouse 206: 42rA-B: "Dubitatur hic primo an sit scientia de generibus primis [...] Cum hoc simul hic quaeratur qualiter intentio primi philosophi stat super haec, et qualiter intentio logici. [...] Et quod consequenter quaeritur solvitur per hoc quod intentio primi philosophi stat super haec praeter {p' cod.} relationem ad sermonem, intentio vero logici per relationem, quia primus philosophus considerat haec prout sunt partes et species entis, logicus vero prout in praedicatione et subiectione consistunt. Et praeter hoc intentio primi philosophi non stat super partes entis nisi in quantum reducuntur ad ens; intentio autem logici non stat super ens nisi in suis partibus."

64. Radulphus Brito, *Quaestiones super Analytica Posteriora*, proemium, ms Bruxelles, BR, 3540-47: 373vB: "Liber Topicorum Boethii est annexus libro Topicorum Aristotelis; quia Aristoteles in Topicis suis determinavit de loco secundum usum eius et applicationem, et non determinavit de ipso quantum ad eius substantiam definiendo vel dividendo locum, ideo Boethius in Topicis suis determinavit de loco definiendo et dividendo ipsum."

To a thirteenth-century scholar a case of apparent overlap between Aristotle's and Boethius' *Topics* was almost as serious as one between two of the Stagirite's own works, because the two *Topics* were both set texts in the curriculum of the arts faculty. As a consequence, manuscripts of the *Organon* regularly contain both.

Conclusion

Modern scholars will frown at many of the particular solutions medieval scholars offered to particular questions. They may also think some of the questions are frivolous. But this is no different from their attitude to their contemporaries (and medieval scholars might have similar complaints about many modern questions and solutions). Fundamentally, however, the medieval methodology is sound, and their repertoire of strategies in trying to make good sense of Aristotle is not all that different from the modern one. The differences are mainly two: (1) Where modern interpreters are often satisfied with making good sense of Aristotle, the medievals generally aim at something that is not only sensible but true. (2) Modern interpreters take up whatever problem they either inherit or stumble upon. Their medieval predecessors, while certainly not neglecting inherited problems, made a virtue of methodically scouring the texts for new ones.

CHAPTER 4

Medieval types of Aristotelian studies

Surveys of specific disciplines (*summae*, *summulae*)

One important genre in medieval education was that of *summae* or *summulae*, introductions to various disciplines, generally directed towards younger pupils who were not yet reading Aristotle and other authorities. Since elementary logic was a prerequisite for further studies, introductions to logic are particularly well represented in the *summulae* literature. Medieval logic consisted of two main ingredients: (1) the sub-disciplines represented by the single constituents of the *Organon* and (2) some specifically medieval disciplines, in particular the theory of the properties of terms.

The best-known *summulae* of logic is Peter of Spain's from about the second quarter of the 13th century. It is also known as *Tractatus* "Treatises <on Logic>", which refers to the fact that it consists of twelve individual parts or treatises, some of which could easily function on their own, the connection between the single treatises being rather weak, although together they cover most of what was considered logic at the time and do so with little overlap. The relative independence of the single treatises made it possible for late-medieval Thomist schools to replace one of them with a work by a different author. In Thomist circles Peter of Spain was used as a substitute for the *summulae* that Thomas Aquinas had not composed, but treatise VII *On Fallacies* was replaced by another *On Fallacies*, which was believed to be the work of Aquinas, and which had probably not originally been part of a *summulae*.⁶⁵

Successful *summulae* could become the subject of the same sort of literal commentary as an Aristotelian text, only the discussion was generally kept on a lower level.⁶⁶ "Generally", because there is one

65. See Ebbesen & Pinborg 1982.

66. For an example, see Rosier-Catach & Ebbesen 1997 (two closely related commentaries on Peter of Spain).

notable exception. When the master-logician of the 14th century, John Buridan, decided or was forced to do an introductory course, he took Peter of Spain's text, but demolished it along the way, either changing the wording or using his freedom as a commentator to tell all that was wrong about the old text and replace its muddled logic and semantics with his own sharp and unforgiving nominalism.

A conspicuous feature of these introductions to logic is that, on the whole, the parts of logic that derived from the *Organon* were kept apart from medieval novelties such as the theory of supposition, ampliation and restriction, which gave rules for which entities terms in a proposition range over according to which tense the verb has and which quantifiers and other function-words occur in the proposition. Peter of Spain's *summulae* has the following structure:

1. On sound, word, name and verb, phrase, proposition, types of proposition and rules of equipollence and conversion. Much of the material treated here ultimately derives from *De interpretatione*, but Boethius' *De syllogismo categorico* is a more direct ancestor.
2. On predicables. This section corresponds to Porphyry's *Isagoge*.
3. On categories. Corresponding to *Categories*.
4. On syllogisms. Corresponding to Aristotle's *Prior Analytics*. Boethius' *De syllogismo categorico* is a distant ancestor of this type of treatise.
5. On topics. Corresponding to Aristotle's *Topics*, but heavily influenced by Boethius' *De topicis differentiis*.
6. On supposition.
7. On fallacies. Based on Aristotle's *Sophistical Refutations*.
8. On relative pronouns (including anaphoric pronouns).
9. On ampliation.
10. On appellation.
11. On restriction
12. On distribution.

Thus six treatises match parts of the *Organon* (including Porphyry's *Isagoge*) and six are devoted to purely medieval subjects, but in fact, the *Organon* related treatises take up three quarters of the space. There is no treatise corresponding to the *Posterior Analytics*, and, in-

deed, until ca. 1250 no *summulae* includes such a chapter. It first makes its appearance in Roger Bacon's *Summulae Dialectices* from the 1250s, but that work never gained a wider audience. The break-through for demonstration in the context of *summulae* only came with William of Ockham's *Summa Logicae* around 1320. There is also a treatise on demonstration in John Buridan's slightly younger *Summulae*.

Ockham's introduction to logic was produced for courses in the internal schools of the Franciscan order. Works originating in religious orders tend to use theological examples, which hardly ever occur in secular works, but otherwise they do not differ very much from their secular counterparts.

Given their purpose as introductions to the subject, the logical *summulae* rarely offer any in-depth discussions of Aristotelian doctrine or stunningly new interpretations. The only noticeable exceptions are the already mentioned works by Ockham and Buridan, which demonstrate the possibility of a consistently nominalistic approach to the Stagirite's logic, while at the same time also demonstrating that such an approach requires some heavy-handed interpretation of many passages of the *Organon*. In Ockham's case we also have access to his detailed exposition of several works in the *Organon*, while in the case of Buridan we can supplement his *Summulae* with both literal and question commentaries.⁶⁷

Commentaries

No other activity took so much of a medieval arts master's time as commenting on Aristotle. His comments on the text would be delivered orally, but before the oral performance he would have spent a considerable number of hours on consulting existing written commentaries and other relevant literature, and it may safely be as-

67. Ockham's *Summa logicae* has been edited in vol. 1 of his *Opera Philosophica*, and the literal commentaries on the *Organon* in vols. 2-3. Buridan's literal commentaries all remain unedited, while there are modern editions of his questions on *De interpretatione*, *Topics* and *Sophistical Refutations*. For a full list of Buridan's Aristotelian commentaries and information about editions, see Weijers 2001: 127-165. The edition of his questions on the *Topics* only appeared after the publication of Weijers' work; for bibliographical information, see our bibliography, below.

sumed that most teachers brought at least copious notes with them to class, if not simply a finished text that they could dictate to the students. Extant written commentaries only rarely reveal whether they are student *reportationes* (i.e. based on notes taken in class) or the master's own edition of a course, and it is similarly rare that we can see whether a piece of text reflects something improvised in the teaching situation. What we can be reasonably sure of is that the majority of commentaries have actually been presented orally in a shape that was not all that different from the preserved written version. Medieval students *heard* almost everything they learned before poring over it in written form.

This background in orality is a major reason why medieval commentaries do not, in general, shy away from redundancy – in an oral situation it is a virtue if essential information is repeated, preferably in somewhat different dress on the various occasions. Seeing the same piece of information turn up in systematically different contexts is a great inducement to remembering it. It also opens one's eyes to the fact that the same piece of information may often be relevant in several situations. This was exactly what the scholastic commentary genres were designed to achieve. In our modern academic culture, in which orality plays second fiddle to easily accessible and relatively stable written products, redundancy of information is not all that appreciated, but we still need that border-line case between redundancy and increase of information that consists in seeing one piece of information being put to work in different contexts.

Medieval commentaries come in two main variants, the *literal* commentary and the *question* commentary. A literal commentary is one which follows the Aristotelian text (the *littera* in medieval terminology) step by step and explains what it means. The earliest literal commentaries preserved date back to the late 11th or early 12th century. The question commentary, which is a creation of the second half of the 13th century, consists of a series of debates (*quaestiones*) of issues of some relevance to the text, without any pretension to illuminate all parts of the text.

Literal commentaries come in several variants. Some pay much attention to the details of the text, whereas others, for instance William of Ockham's on the *Ars Vetus* and the *Sophistical Refutations*, main-

ly consist of summaries of the contents of the sections into which the commentator has divided the work, plus some longer notes on points of special interest. We will not try to present all the many variants of the literal commentary from the 12th to the 15th centuries, instead we shall concentrate on one particularly rich variant, which contains almost all the elements one ever finds.

The *lectio* commentary: description

The *lectio* commentary is so called because it divides the text on which it comments into a series of clearly defined lectures (*lectiones*). Not all commentaries of this sort are the products of actual teaching, but an origin in a classroom context can often be detected, and the advent of this type of commentary does seem to coincide, roughly, with the advent of the universities (beginning of the 13th century). The format seems to have been “designed” so as to yield a comprehensive analysis of the authoritative textbook where the contents of each lecture is given a uniform treatment. This is done by systematically applying a series of standard exegetical operations that help structure the exposition. The length of the piece of text in each lecture may, nonetheless, vary, which means that while every part of the textbook is given a fundamentally uniform treatment, extra attention and care may be bestowed on passages deemed to be exceptionally difficult or important.

Different commentators apply the format differently, and there may be quite pronounced differences in how the discussion is structured from commentary to commentary. On a general level, however, there will usually be a more or less extended introduction plus some lectures consisting of a combination of some of the exegetical operations to be described below.

Introduction (Prooemium)

The introduction, in which some preliminary questions are determined, may form a separate whole or may simply be part of the first lecture. Six points had to be addressed: (1) What is the material cause of the text under consideration? (2) What is the formal cause?

(3) What is the final cause? (4) What is the efficient cause? (5) What is the correct title? and (6) What part of philosophy does it belong to?

Now, asking for the material cause is equivalent to asking what the subject matter of the text is. Asking for the formal cause is asking both (a) which mode(s) of procedure the author uses, for example, definition, division, syllogistic proof, etc., and (b) how the text is structured. Asking for the final cause is asking for the purpose of learning whatever the text has to say. Finally, asking for the efficient cause is asking who wrote it.

Not all of these questions are equally interesting and illuminating, and in some cases the answers are quite obvious and correspondingly brief. However, two questions that will often be dealt with at some length are the ones about the material cause and the formal cause (in the sense of the structure of the text). The introduction will only supply the general answer to the latter question, as the detailed structural analysis is usually parcelled out into the separate lectures (as will be explained below).

Introductory Remarks

Each lecture will normally begin with a lemma, which identifies the piece of text to be discussed. This is followed by a brief introductory remark which places the piece of text in its immediate context by quickly summing up the main theme(s) of the immediately preceding lecture(s). "Having discussed X, the author now proceeds to discuss Y."

Division

The introduction is normally followed by a division. The division is basically an (often extremely) detailed analysis of the structure of the textbook under interpretation. It starts with the text taken as a whole and ends in a very high number of indivisible parts that often are no longer than a sentence. The division is begun in the first lecture and is taken up and continued at the beginning of each subsequent lecture throughout the rest of the commentary. The proce-

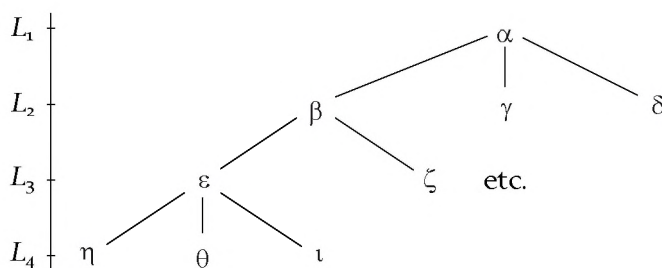


Fig. 1. The method of division.

ture is relatively simple and may be modelled by means of an inverted tree (Figure 1), where the root node is the authoritative text and each successive node a part of that text identified by means of its initial lemma and coupled to a succinct description of its contents.

We begin at level L_1 by dividing the root node α . The output of this operation is the nodes β , γ , δ at level L_2 . We proceed by successive applications of this same operation to the leftmost node of its own output until an atomic part, a leaf, has been isolated (in our model, η at L_4). This path is then closed. We move on by retracing our steps until we reach a node lying on one or more open paths. We then move down the leftmost of these paths to see if it can be extended further by application of the specified operation. If so, we repeat the process. If not, the path is closed and we simply move on as specified. The division is complete once moving on in this way is no longer possible. Even for relatively short texts, the result is a highly complex structure with a very high number of levels, where each minute part of the text is allotted a well-defined place in the argumentational whole that is the authoritative text. Scholastic authors did not use diagrams or figures to model their divisions, and reading them can be quite cumbersome, among other things because the procedure is usually implemented in a highly formulaic and repetitive language.

Paraphrase

The division is usually followed by a paraphrase (*sententia*) of the same piece of text. In the process of dividing the text, the general contents of each part have already been briefly stated, and the paraphrase basically repeats and elaborates on these brief statements. This is done in a way that serves to make clearer the meaning and structure of the argument in the authoritative text, for example by noting when there are unstated premisses which must be supplied and by drawing conclusions that the author has left to be inferred. The language in this part of the lecture is usually also quite formulaic and repetitive.

Running Gloss

Another exegetical operation which is carried out in many *lectio* commentaries is what is sometimes referred to as a literal exposition (*expositio litteralis*). This is simply a running gloss on the authoritative text which serves to make explicit how to read each segment so as to derive from it the interpretation which has been advanced in the division and paraphrase. Among other things, the procedure involves rearranging the word-order so that it becomes clearer how parts, periods, sentences, and phrases hang together; making explicit what pronouns occurring in the text refer to; and explaining difficult words by offering synonyms or paraphrases.

Ordering

Another component found in many *lectio* commentaries is an in-depth explication of (a) how the passage under consideration fits in with what goes before and what comes after and (b) of why its own internal structure looks the way it does. This operation or part is usually referred to as the “order” or “ordering” (*ordo, ordinatio*).

Key Points

Another exegetical operation found in many commentaries of this sort is to supply a list of key points (*notabilia*) which are either important points to be taken from the passage discussed in a given lecture or basic background information that should be kept in mind when thinking about the passage or the philosophical issue it deals with.

Questions

An important, and from a philosophical perspective often more interesting, part of a lecture is a section devoted to questions (*quaestiones*, also called *dubia* or *dubitationes*). In this section a question of any kind arising from the reading of the piece of text under consideration may be raised.

Mostly, the questions are kept short and consist of maximally five items: [1] A question in relation to the text, typically whether some statement or view is true, [2] one or more reasons why the statement or view must be false, [3] one or more reasons why it must be true, [4] a solution of the problem, [5] refutations of arguments (usually those in step [2] that do not agree with the solution given).

Steps [2] – [3] are the *rationes principales* (“initial arguments”), the first set generally introduced with some such formula as *Et videtur quod non*, “And this seems not to be the case”, while the second typically starts *In oppositum* or *Contra (arguitur)*, “Counter-argument(s)”. Step [4] is variously called *determinatio* or *solutio*, and typically starts *Dicendum quod*, “This is what ought to be said”. [5] has no real name, but often the section is introduced by the formula *Ad rationes dicendum*, “This is what ought to be said in answer to the arguments”.

The format is flexible. Within the same commentary some questions may only contain items [1] and [4], some [1] – [2] and [4] – [5], some all of [1] – [5]. Some may contain sub-questions, and in step [4] the solution of the problem may be followed by an objection and its rebuttal, or several possible solutions may be discussed. Also, the *rationes principales* may be followed immediately by the solution, or several questions, *Qu. 1^a*, may follow each other, each accom-

panied by its *rationes principales*, after which comes a corresponding series of solutions_{1-n}.⁶⁸

The length of the discussion accorded to a given question may range from a few lines to several pages, there is no “standard length”.

Thematically, the questions raised in literal commentaries are of several types, ranging from such as deal with sundry matters that are important mainly for the immediate exegesis of the text to such as deal with larger philosophical issues arising from or connected in some way to the topic(s) discussed in the text. Some of the main types are:

1. Questions about Aristotle’s procedure. For example, why he does or doesn’t do this or that, why he does it in that particular order, whether the way he does it is adequate, etc.
2. Questions about whether some definition is correct.
3. Questions about whether some list of items is exhaustive.
4. Questions about claims made by Aristotle that seem to contradict what he says elsewhere.
5. Questions about claims made by Aristotle that seem to be false.
6. Questions about how Aristotle can claim what he does.
7. Philosophical questions not addressed by Aristotle but arising from something he says.

The following examples are all taken from John Pagus’ *Rationes super Praedicamenta*, a commentary on the *Categories* from about the 1240s.⁶⁹

68. All of these variants can be observed in Anonymus Monacensis, *Commentarium super Sophisticos Elenchos*, [SE 34] in Ebbesen 1993.

69. (1) John Pagus, *Rat. sup. Praed.* XVI, q. 4.: “Quarto quaeritur quare non dividit quantitatem per primam et secundam sicut substantiam. (2) XXXI, q. 4: Consequenter quaeritur: Et videtur definitio inconueniens. (3) XIX, q. 8: Ultimo quaeritur quo modo accipitur numerus specierum quantitatis. (4) XV, q. 2: Dicit quod oratio eadem numero est susceptiva veri et falsi. (5) XXIII, q. 3: Dicit quod quantitas non recipit magis et minus. (6) XXX, q. 2: Consequenter quaeritur quae est causa quod si unus definite novit unum relativorum, et reliquum. (7) XV, q. 6: Sexto quaeritur quid sit veritas.”

1. On *Cat.* 6.4b20–25 “Why does he not divide quantity into primary and secondary quantity just as he divided substance?”
2. On *Cat.* 8.8b25 “The definition does not seem to be correct”. The definition meant is Aristotle’s definition of quality: “By a quality I mean that in virtue of which things are said to be qualified somehow.” The definition would seem to be problematic because it defines what is prior by means of what is posterior, namely quality as such by means of quality inhering in a substance.
3. On *Cat.* 6.4b20sq. “In which way is it possible to determine how many species of quantity there are?” Aristotle lists seven sorts of quantity but makes no attempt to justify his list. A standard procedure for solving this type of question is to provide a division of the type *Every quantity is either of type A or type B, every member of type A is either of type A1 or of type A2, Every member of type B is either of type B1 or type B2*, and so on until the desired result is acquired. The divisions are typically, but not necessarily binary.
4. On *Cat.* 5.4a23–26 “He says that one and the same sentence (*oratio*) may be the bearer of both truth and falsehood.” This is problematic because at *Cat.* 6.5a32–36 Aristotle claims that once an *oratio* has been uttered it is gone and cannot be recaptured, which must mean that the true sentence ‘Socrates is running’, uttered at a time when he is running, is not identical with the false sentence ‘Socrates is running’, uttered at a time when he is not running.
5. On *Cat.* 6.6a19–25 “He says that quantity does not admit of more or less”. This does not seem to be right because whatever can be augmented and diminished admits of more or less, and quantity may be augmented and diminished.
6. On *Cat.* 7.8a35–b12 “What is the reason why, if someone has definite knowledge of one of a pair of relatives, he also knows the other one?”
7. On *Cat.* 5.4a23–26 “What is truth?” Truth is not really a topic in the passage commented on, which is about the special property of substances that they can be the bearers of opposite properties, which does not apply to items in any of the other categories, although, Aristotle says, someone might object that one and the same sentence or opinion can be true at one time and false at

another. So, the nature of truth is only tangentially relevant in the context, yet Pagus discusses no fewer than three traditional definitions of truth.

These, then, are the exegetical operations that one may find in a *lectio*. In the following we shall flesh out the above descriptions by means of some concrete examples taken from some actual commentaries.

The *lectio* commentary: exemplification

Introduction: the material cause

The example comes from a commentary on *De interpretatione* composed c. 1240 by Nicholas of Paris.⁷⁰

Establishing what the subject-matter of a given treatise is naturally leads some medieval commentators to explicitly posit the features that separate the subject-matter of the text they comment on from the subject-matter of other treatises closely related to it. In the case of literal commentaries on *De interpretatione*, for instance, the question is raised what separates its subject matter from the subject matter of the other treatises of the *Organon*. Establishing the subject matter of *De interpretatione* by putting it in the perspective of the whole *Organon* yields interesting results; for the comparison with other treatises raises questions that help to highlight features of the text which would not have so clearly appeared without such comparison.

Having determined that the subject-matter of *De interpretatione* is the assertoric sentence (*enuntiatio*), its principles and its properties, and given that the *Prior Analytics* also contains some elucidations about the assertoric sentence, some authors from the first half of the thirteenth century raise the question why it is necessary to treat these subjects separately from the *Prior Analytics*. The question is a legitimate one, insofar as it has often been assumed by interpreters, from late Antiquity until relatively recently, that the determination

70. A partial edition of the text is found in Hansen & Mora-Márquez 2011.

of the nature of the assertion in *De interpretatione* is a necessary preamble to the analysis of syllogisms in the *Prior Analytics*. Nevertheless, the features of assertions that are necessary in order to understand the inferential nature of syllogisms (e.g. universality, particularity, etc.) are sufficiently treated in the *Prior Analytics*. So, what is the point of writing a separate treatise about assertions?

Thirteenth-century commentators, such as Nicholas of Paris, present us with an approach to *De interpretatione* that makes clear what the utility of writing a separate treatise about assertions is. They do so by nuancing the link between *De interpretatione* and the *Prior Analytics*. For Nicholas, the treatment of the assertion in *De interpretatione*, which has at its center the property of being capable of receiving a truth-value, aims at the uses of Aristotelian syllogistics in the *Topics* and in the *Posterior Analytics* more than at the formal analysis of syllogisms in the *Prior Analytics*.

Nicholas starts his determination of the subject-matter of the *De interpretatione* by giving an account of what we could call an intellectual truth. Intellectually true items can appear on two different epistemological levels: there is a first non-reflective true item that is grasped by the faculty of understanding (*verum apprehensum*) and there is a second true item, which is an epistemological reflection on the first, that is grasped by the faculty of judgment (*verum notum*). The knowledge encoded by the second sort of intellectual truth can be either complete, in which case it is labelled as “piece of knowledge” (*scientia*), or incomplete, in which case it is labelled as “opinion” (*verum opinatum vel visum*); and each of these can either be known in itself, in which case it is a premiss (*propositio*), or known by means of a deduction from something else, in which case it is a conclusion (*conclusio*). Now, since utterances are signs of mental items, this division of mental true items can be mapped onto a division of assertions whose truth-value will then depend on the truth-value (and on the sort of truth-value) of the corresponding mental item. The *vera nota notitiâ completâ*⁷¹ correspond to demonstrative premisses and conclusions and the *vera nota notitiâ incompletâ* correspond to dialectical

71. We here use the Renaissance convention of marking the long *-a* of ablatives with a circumflex.

premisses and conclusions. The *verum apprehensum*, on the other hand, corresponds to assertions whose truth-value has not yet been asserted by the faculty of judgment and which can eventually be either premisses or conclusions of dialectical or demonstrative deductions. This last sort of assertion is the subject matter of *De interpretatione*, while assertions insofar as they are either scientific statements or opinions are the subject matter of the *Posterior Analytics* and of the *Tópics*. Nicholas presents us thus with a determination of the subject-matter of *De interpretatione* which looks at this treatise from the perspective of the use of assertions in science and dialectic, so that it treats assertions insofar as they are *capable* of receiving a truth-value, while the other two treatises make use of assertions which already have received a truth-value of a specific sort. Now, the absence in Nicholas' account of an immediate link between the *De interpretatione* and the *Prior Analytics* is an interesting approach both to the subject-matter of the former and to its link with the remaining works of the *Organon*, an approach which owes a lot to the strict structural composition of *lectio*-commentaries of the first half of the thirteenth century and which has never been proposed with such detail by contemporary interpreters.

Division

The example is from Robert Kilwardby's commentary on *De interpretatione*, composed c. 1240.⁷²

The questions about the subject matter of *De interpretatione* and about its internal structure are closely related; for the determination of its subject-matter ought to be coherent with its internal structure. Finding such coherence is a difficult task in a text with a structure as complex as that of *De interpretatione*. On the one hand, the relation between chapters 1-4 (the so-called semantic part) and the rest of

72. For an edition of Kilwardby's proemium and first *lectio* on *De interpretatione* from ms Cambridge, Peterhouse 206, ff.65vb-67ra = *P*, ms Madrid, Bib. Univ. 73 = *M*, ff. 44ra-45va and ms Venezia, Bib. Marc. LVI.66, ff. 1r-2v = *V*, see Lewry 1978. We are grateful to Alessandro Conti for having given us access to Lewry's transcriptions of Kilwardby's commentaries on *Cat.* and *Int.*

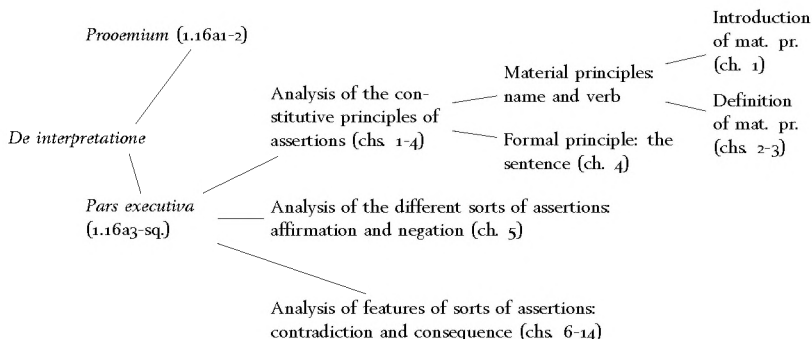


Fig. 2. Kilwardby's analysis of *De interpretatione*.

the treatise is not all that clear, to the effect that one could question the relevance and the utility of the semantic part. On the other hand, the complicated structure of chapter 1 (the semantic chapter *par excellence*) has made it difficult to understand its utility and its link with the rest of the semantic part. Here the medieval procedure of division of a text appears to be particularly helpful; for the exercise of schematizing the internal structure of this treatise and of making it coherent with the determination of its subject matter demands a deep and global understanding that could be useful for contemporary analysis of the structure and the scope of *De interpretatione*.

Having posited that the subject-matter of *De interpretatione* is the assertoric sentence which is capable of receiving a truth-value, Robert Kilwardby goes on to propose that the overall structure of the analysis of assertions in *De interpretatione* is as depicted in Figure 2, above.

The initial bipartite division of the work into an introduction (*prooemium*, 1.16a1-2) in which Aristotle states the intended subject-matter of the treatise – in this case the assertion – and a *pars executiva* (1.16a3-sq.) in which he analyzes the subject matter is a standard feature of Aristotelian commentaries of the period. This second part is divided into three further parts that correspond to (i) the analysis of the constitutive principles of the assertion (chapters 1-4); (ii) the analysis of the different sorts of assertions (affirmation and nega-

tion, chapter 5); and (iii) the analysis of some relevant features of the different sorts of assertions (contradiction and consequence, chapters 6-14). Part (i) is further divided into the analysis of the material principles of the assertion – the name⁷³ and the verb (chapters 1-3) – and the analysis of the formal principle of the assertion (chapter 4) – the sentence. Finally, the part about the material principles is divided into the part where the material principles to be defined are laid down (chapter 1) and the part where the material principles already laid down are defined (chapters 2-3). Hence, (a) the establishment of the assertion as the subject matter of *De interpretatione* in combination with (b) the fact that an analysis of any subject-matter ought to involve an analysis of its essential principles (matter and form), of its division into species (affirmation and negation) and of some relevant accidental features (contradiction and consequence) – leads to a schema of the internal structure of this text that is neither arbitrary nor absurd.

Paraphrase

The example is from Robert Kilwardby's commentary on *De interpretatione*.

Kilwardby presents us with a noteworthy paraphrase of the first chapter of *De interpretatione*, a chapter whose interpretation is still a matter of scholarly discussion. The chapter in question states that:⁷⁴

73. We use 'name' rather than 'noun' to render *nomen* (ὄνομα) because the latter is a purely grammatical term, and in the context it is important that *nomen* is used in both logic and grammar, albeit not in exactly the same way.

74. In the following quotations the English translation is Ackrill's, the Latin Boethius'. This is Kilwardby's text: "In prima ergo istarum partium sic procedit: accipit hanc particulam "significatiuum" per talem diuisionem, uocum quedam est significatiua, quedam non. In qua sic procedit: ponit alterum membrum, scilicet quod intendit, innuendo reliquum; et neutrum demonstrat, quia satis patet eorum demonstratio ex doctrina *Predicamentorum*. Et hoc est, *Sunt ergo ea* (1.16a3), sic significando de quibusdam uocibus et non de omnibus. In parte quidem secunda sic procedit: accipit hanc particulam "ad placitum" per talem diuisionem, uox significatiua aut significat ad placitum aut naturaliter. <M 45vb> In qua sic procedit: solum demonstrat alterum diuidentium, <P 67rb> scilicet illud quod intendit, in suo conuertibili, reliquum innuendo. Et est demonstratio ista: littere sunt note uocum;

First we must settle what a name is and what a verb is, and then what a negation, an affirmation, a statement and a sentence are (*Int.* 1.16a1-2).

Primum oportet constituere quid sit nomen et quid verbum, postea quid est negatio et adfirmatio et enuntiatio et oratio.

Now spoken sounds are symbols of affections in the soul, and written marks symbols of spoken sounds (*Int.* 1.16a3-4).

Sunt ergo ea quae sunt in voce earum quae sunt in anima passionum notae, et ea quae scribuntur eorum quae sunt in voce.

And just as written marks are not the same for all men, neither are spoken sounds. But what these are in the first place signs of – affections of the soul – are the same for all; and what these affections are likenesses of – actual things – are also the same. These matters have been discussed in the work on the soul and do not belong to the present subject (*Int.* 1.16a5-8).

Et quemadmodum nec litterae omnibus eadem, sic nec eadem voces; quorum autem hae primorum notae, eadem omnibus passiones animae sunt, et quorum hae similitudines, res etiam eadem. De his quidem dictum est in his quae sunt dicta de anima – alterius est enim negotii.

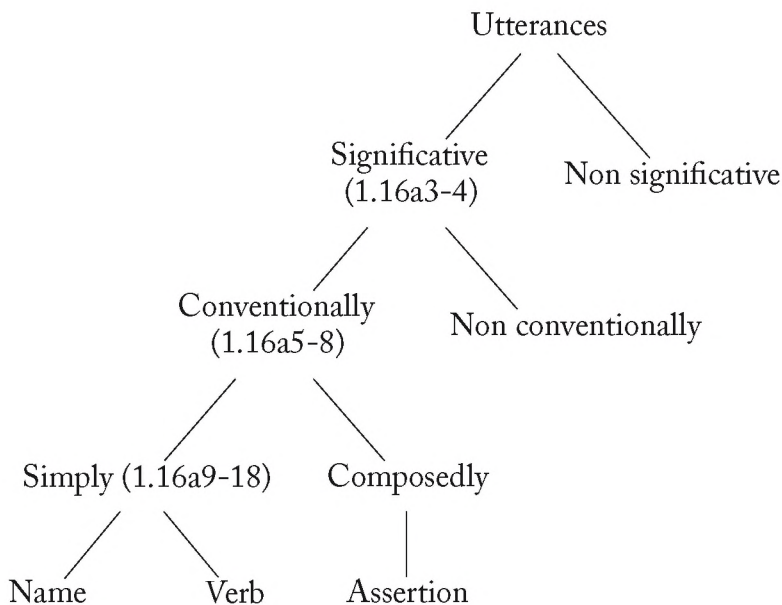
littere non sunt eadem apud omnes; ergo nec uoces. Et hec conclusio conuertitur cum hac, quedam uoces sunt ad placitum. In hac ergo demonstratione sic procedit: primo ponit maiorem, et hoc est, *et que scribuntur* (1.16a4); secundo dat manifestationem minoris et conclusionis, et hoc est, *Et quemadmodum nec littere* (1.16a5); tertio addit quiddam ad explanationem, et hoc est, *quorum autem primorum* (1.16a6). In tertia quidem parte sic procedit: accipit hanc particulam “incomplexum” per talem diuisionem, uox significatiua ad placitum aut est complexa aut incomplexa. In qua sic procedit: demonstrat utrumque membrum; et demonstrat hoc membrum “incomplexum” ratione nominis et uerbi, et hoc membrum “complexum” ratione enuntiationis uel orationis. Non autem sic fuit in aliis diuisionibus, cum alterum diuidentium nullo modo potuit conuenire alicui principio enuntiationis, nec materiali nec formali. Vt ergo significet quod differenter sit de hiis diuisionibus et aliis, demonstrat utrumque membrum in hiis”. Robert Kilwardby, *In Perih.* (Lewry’s transcription, *P* 67ra-rb; *M* 45va-vb; *V* 2v).

Just as some thoughts in the soul are neither true nor false while some are necessarily one or the other, so also with spoken sounds. For falsity and truth have to do with combination and separation. Thus names and verbs by themselves – for instance ‘man’ or ‘white’ when nothing further is added – are like the thoughts that are without combination and separation; for so far they are neither true nor false. A sign of this is that even ‘goat-stag’ signifies something but not, as yet, anything true or false – unless ‘is’ or ‘is not’ is added (either simply or with reference to time) (*Int.* 1.16a9-18).

Est autem quemadmodum in anima aliquotiens quidem intellectus sine vero vel falso, aliquotiens autem cum iam necesse est horum alterum inesse, sic etiam in voce; circa compositionem enim et divisionem est falsitas veritasque. Nomina igitur ipsa et verba consimilia sunt sine compositione vel divisione intellectui, ut ‘homo’ vel ‘album’, quando non additur aliquid; neque enim adhuc verum aut falsum est. Huius autem signum: ‘hircocervus’ enim significat aliquid, sed nondum verum vel falsum, si non vel ‘esse’ vel ‘non esse’ addatur vel simpliciter vel secundum tempus (*Int.* 1.16a9-18).

Combining the procedures of division and paraphrase, and having already stated in the division that this chapter aims at establishing the material parts of the assertion, Kilwardby now divides the chapter (without the proem) into three parts. His rationale is the following. Name and verb (*nomen* = ὄνομα and *verbum* = ῥήμα), which are the two material parts of the assertion, share three essential and constitutive features: signification, conventionality of signification and simplicity of signification, all three of which are explicitly mentioned by Aristotle in the respective definitions. According to Kilwardby, then, the chapter has three parts, each introducing one of the three features.

Hence, taking the utterance as starting point, the passage 1.16a3-4 introduces the significative character of names and verbs, the passage 1.16a5-8 introduces the conventional character of their signification and the passage 1.16a9-18 introduces the simplicity of their signification. Names and verbs are thus introduced by means of a division process starting from utterances, a process which can be summarized in the following table:



Kilwardby's paraphrase of the third part – the one that introduces the simple character of the signification of names and verbs by opposition to the composed character of the signification of assertions – deserves a longer explanation given the complexity of its structure. According to the paraphrase, the passage proceeds in this way:⁷⁵

75. Robert Kilwardby, *In Perih.* (Lewry's transcription, P 67rb; M 45vb; V 2v): "Et est demonstratio talis: intellectus aliquando est sine uero et falso, aliquando cum uero et falso; et uoces sunt note intellectuum; ergo et uoces quedam sunt sine uero et falso, et sunt incomplexae, quedam cum uero et falso, et sunt complexae. In hac sic procedit: dat maiorem et conclusionem in sua materia, et hoc est, *est autem, quemadmodum* (1.16a9); supponendo minorem, cum sit presupposita, ut ibi, *Sunt ergo*, etc. (1.16a3); adiungendo quiddam ad explanationem, cum dicit, *circa compositionem* (1.16a12); concludendo tunc conclusionem correlariam ex predictis manifestam, cum dicit, *Nomina igitur* (1.16a13); que quamuis ex predictis sit manifesta, tamen subdit suam ostensionem, et hoc per locum a maiori sic, dictio composita non significat uerum uel falsum de qua magis uidetur, ergo nulla. In hac autem sic procedit: solum dat maiorem cum sua probante, cum dicit, "*ycoceruus*" enim, etc. (1.16a16-17); et incipit hec ostensio cum dicit, *Huius autem signum est* (1.16a16)".

1. Composed utterances and simple utterances are introduced by means of the following argument:

Some thoughts are true or false and some thoughts are without truth or falsity (major, given explicitly in *est autem quemadmodum etc.*)

Utterances are signs of thoughts (minor, assumed from *Int.* I.16a3-4)

Therefore, some utterances are true or false and some are without truth or falsity

2. An explanation is added about the truth and falsity of composed utterances, in *circa compositionem et divisionem etc.*
3. A conclusion is drawn from this explanation about the simplicity of names in *Nomina igitur etc.*
4. Aristotle reinforces the simple character of the signification of names and verbs with an *a fortiori* argument in *Hircocervus enim etc.*

Therefore, the whole third part aims at introducing the simple character of the signification of names and verbs, both by contrasting it with the composed character of assertions and by reinforcing it with an *a fortiori* argument, all of which leaves the way open to the specific definitions of names and verbs in chapters 2 and 3.

Running gloss

The gloss might look like the following example, which comes from the *Categories* commentary composed by John Pagus. The passage being glossed is the famous definition of homonymy with which the *Categories* begin:⁷⁶

Those items are called homonymous, i.e., things subject to homonymy, whose, i.e., things whose, name alone is common, supply: taken materially, whereas the account, i.e., the definition, of the substance, i.e., of the underlying thing, corresponding to the name, is different.

76. John Pagus, *Rat. sup. Praed.* I (ed. Hansen, 11): “Illa dicuntur *aequivoca*, id est res *aequivocatae*, *quorum*, id est quarum rerum, *nomen*, supple secundum materiam, *commune est solum*, *secundum nomen vero ratio*, id est definitio, *substantiae*, id est rei quae sub est, est *diversa*.”

As Pagus' gloss is mainly concerned to point out, the important thing to understand about this passage is that it contains a definition of *things*, not *words*. The point has not always been appreciated by commentators, but as the modern Oxford commentary on the text also takes care to point out, "the terms 'homonymous' and 'synonymous', as defined by Aristotle in this chapter, apply not to words but to things."⁷⁷

Ordering

Our example of this part of the *lectio* constitutes part of an explanation of why Aristotle's discussion in *Categories* 4-9 is structured the way it is. Our source is the commentary on that work composed by Nicholas of Paris ca. 1240:⁷⁸

The order of this part is self-evident, for dividing the subject matter [*Cat.* 4] is prior to discussing the members of the division in detail [*Cat.* 5-9].

Furthermore, dividing the subject into its parts [4.1b25-27] is prior to explaining the members of the division by means of examples [4.1b27-2a4]; and, thirdly, to confirm the division [4.2a4-10].

Furthermore, the part in which he discusses the members of the division in detail is ordered, because he discusses substances [*Cat.* 5] first before the rest, because substance is the principle and foundation of all the others; for all of them spring from the principles of substance.

77. Ackrill, transl., 1963: 71.

78. Nicholas of Paris, *in Cat.* II (ed. Hansen, forthcoming): "Ordo partis huius in se patet, quia prius est dividere subiectum quam membra divisionis prosequi. Item, prius est dividere subiectum in partes suas quam membra divisionis per exempla explanare, tertio vero divisionem approbare. Item, pars in qua prosequitur membra divisionis ordinata est, quia primo prosequitur de substantia quam de aliis eo quod ipsa substantia est principium et fundamentum omnium aliorum; omnia enim a principiis substantiae oriuntur. Item, pars in qua prosequitur de substantia ordinata est quia prius est determinare substantiam secundum se et membra divisionis substantiae quam huius proprietates assignare, quia subiectum est ante proprietates."

Furthermore, the part in which he discusses substance in detail is ordered, because treating substance in itself as well as the members of the division of substance [5.2a11-3a6] is prior to assigning the properties of substance [5.3a7-4b19], since the subject comes before its properties.

Depending on how finely the commentator has divided the text he has commented on, the *ordering* can become quite a lengthy affair.

Key points (Notabilia)

This section of a *lectio* commentary is devoted to points that should be taken from or are of relevance for the understanding of the passage being commented upon. For example, when trying to understand the curious passage at the end of *Categories* 8 where Aristotle addresses the issue of how items such as knowledge are to be categorized,⁷⁹ one thing to keep in mind, according to Robert Kilwardby, is the following:⁸⁰

Furthermore, understand that knowledge can be considered in two ways, just like a picture (as we noted previously); but what it is, in itself, is a quality.

The section can grow quite long, as the points can sometimes be quite numerous or be explained in more detail than is here the case. In many commentaries, the points will therefore be numbered.

Questions

We have already given examples of types of question one is likely to find in a *lectio* commentary. The utility of the question procedure can be illustrated by means of an example taken also from Kilwardby's commentary on *De interpretatione*.

79. See Case Study 2, pp. 116ff., below.

80. Robert Kilwardby, in *Cat.* XV (Lewry's transcription, *M* 34ra; *P* 60ra): "Item, intellige quod scientia dupliciter potest considerari sicut pictura, secundum quod supra notavimus; per se tamen, id quod est, qualitas est."

Other than questions closely tied to the exegesis of the text, Kilwardby also raises questions dealing with philosophical problems arising from its interpretation. This happens, for instance, in his exegesis of chapter 1, part 3, where he raises a noteworthy question about the claim *circa compositionem enim et diuisionem est falsitas veritasque* (“falsity and truth have to do with composition and division”),⁸¹ a claim that medieval interpreters rightly consider in need of further explanation. Kilwardby’s question proceeds from the intuitive assumption that affirmative assertions amount to a composition and negative assertions amount to a division, and asks if there is any sort of composition in the negative assertion. If there is one, it will either be the same as in the corresponding affirmative assertion or it will be different; if it is the same, then there is no difference between the affirmative and the negative assertion; if it is not the same, then the affirmative assertion and the corresponding negative are about different things, and therefore there could be no contradiction between them. On the other hand, if there is no composition in the negative assertion, it would seem that the negative assertion is not an assertion at all, since being composed belongs to the very essence of assertions. Hence, what is at stake in this question is the formal structure of the negative assertion; for a wrong account of its formal structure would bring about undesired implications for the notion of contradiction between assertions.

Kilwardby’s question is interesting as regards the logic of the notion of contradiction, even though his response is not, perhaps,

81. Robert Kilwardby, *In Perih.* (Lewry’s transcription, *P* 68ra; *M* 46va; *V* 3v): “Post hoc dubitatur de hac propositione, *circa compositionem et diuisionem*, etc. (1.16a12-13), si compositio sit affirmatio, et diuisio negatio <et> qualiter diuiduntur ab inuicem. Cum dicat Aristoteles quod diuisio in negatione intelligitur de termino, queritur ergo: aut est compositio in negatiua, aut non; si est, aut est eadem que fuit in affirmatiua, aut alia; si eadem, et extrema eadem, ergo tota propositio eadem; si alia, non est contradicere, quia non idem negat negatio quod affirmat affirmatio; si non est ibi compositio, non erit propositio. <Responsio>. Et dicendum quod ‘compositio’ equiuocatur ad orationem compositam affirmatiuam et ad ipsam notam compositionis. Primo modo distinguntur ab inuicem sicut oratio affirmatiua et oratio negatiua, et sic hec dictio ‘circa’ sumetur pro hac dictione ‘in’. Si secundo modo, non est separata compositio a diuisione secundum substantiam, tamen secundum actum et uirtutem: nam a substantia compositionis est propositio propositio, ab actu uero componendi dicitur affirmatiua propositio.”

much clearer than the Aristotelian claim itself. Our paraphrase of his intention would be that he tackles the problem by resolving an equivocation of the term ‘composition’, which can stand both for the whole affirmative assertion (e.g. *homo est animal*) and for that which links the parts of the affirmative assertion (e.g. the verb ‘est’ in *homo est animal*). If one takes ‘composition’ in the first sense, the composition encoded in the affirmative assertion *homo est animal* is opposed to the division encoded in the negative assertion *homo non est animal*. But if one takes ‘composition’ in the second sense, there is no opposition between composition and division; for both ‘est’ and ‘non est’ are marks of a composition of terms which is the very nature of the assertion. In other words, Kilwardby takes the expression *circa compositionem et divisionem etc.* to mean that there is truth and falsity in affirmative and negative assertions which represent the mental composition or separation of things, and not that a negation is not a composed assertion.

Question Commentaries

About the middle of the 13th century a new type of commentary appears, the question commentary, usually consisting of a proem explaining why it is important to study the Aristotelian work under consideration and a number of *quaestiones*.

The pure question-commentaries of the late 13th century retain some of the flexibility of the question sections of the *lectio* commentary, but typically contain all of items [1] through [5] (see p. *** above), i.e. formulation of question, initial arguments for a no- and a yes-answer, determination, refutation of such initial arguments as do not agree with the determination. Typically, they have at least a couple of *rationes quod non*, while there is often just one argument *in oppositum*. Also, the determination [4] often grows into a longish piece of text, not rarely introduced by a survey of previous solutions of the problem at hand and refutations of those solutions. Occasionally, an author offers two solutions as both plausible.⁸²

82. The variations mentioned in this paragraph may all be observed in Incerti Auctores, *Quaestiones super Sophisticos Elenchos*.

Question commentaries may contain all the same types of questions as the literal commentaries, but simple matters of textual exegesis are only rarely dealt with. Let us exemplify by means of a commentary on the *Sophistical Refutations* from the 1270s.⁸³ It starts with some very general questions about the discipline of sophistic:

1. Is sophistic a science? *Utrum sophistica sit scientia.*
2. Is sophistic a common science? *Utrum sophistica sit scientia communis.*
3. Is sophistic a common and real science? *Utrum sophistica sit communis scientia realis.*
4. Is the sophistical syllogism the subject of the science of sophistic? *Utrum sophistica sit de syllogismo sophistico ut de subiecto.*

The first three questions aim at establishing whether sophistic fulfills the requirements of an Aristotelian science, and if it does, what sort of science it is. Any Aristotelian science must have its own subject matter, so the next question asks about the well-foundedness of the commonly accepted view that in the case of sophistic this is the sophistical syllogism.

The fifth question asks “Does it pertain to this science to deal with materially faulty syllogisms?” (*Utrum huius scientiae sit determinare de syllogismo peccante in materia*). It was widely accepted that there are two main types of defective syllogism, the materially and the formally defective. The distinction, which can be traced back to Alexander of Aphrodisias’ *Topics* commentary, was used by the 12th-century Greek scholar Michael of Ephesus to explain what Aristotle might have meant by his opening words in the *Sophistical Refutations*: “Let us now talk about the sophistical refutations and those that appear to be refutations but are paralogisms”. Michael offered two expositions of the passage:⁸⁴ (a) Sophistical refutations are such as are only materially defective, whereas apparent refutations are such as are formally defective. (b) the clause “and those ...” is epexegetic,

83. The C-commentary in Incerti Auctores, *Quaestiones super Sophisticos Elenchos*. The questions are there numbered 801, 802 etc. to distinguish them from questions 1, 2 etc. of a related commentary published in the same volume.

84. Michael Ephesius, *Comm. SE* 7.

and really refers to the same class of arguments as “the sophistical refutations”. When Michael’s commentary was translated into Latin sometime about 1130 his exegesis of the passage passed into the Western tradition.⁸⁵

Thus the fifth question is ultimately occasioned by a specific passage in Aristotle’s text, and the commentator also makes the connection explicit, but he does not ask “Is this interpretation of the opening sentence correct?” Instead, he assumes that whether the interpretation of this particular place is correct or not, the distinction between materially and formally defective syllogisms is a relevant one in the context of sophistical refutations, and so it deserves to be investigated whether the science of sophistic ought to deal with both types or, perhaps, keep to the analysis of formally defective arguments.

After three more questions about materially and formally defective syllogisms the author asks whether the demonstrative and the dialectical syllogism are two species under a common genus, the *sylogismus simpliciter*, which is the naked syllogism of the *Prior Analytics* to whose premisses no particular epistemic conditions attach (*Utrum sylogismus simpliciter sit genus ad dialecticum et demonstrativum*). The question is linked to the preceding ones because the difference between the two types of syllogism may be described as one of different matter (different sorts of premisses), while they share the form of the naked syllogism. But what is the connection to the text of the *Sophistical Refutations*? The connection is the list of four types of disputation (didactic/demonstrative, dialectic, peirastic and sophistic) in chapter 2, which had always seemed odd because there seems to be no element of disputation in a teacher’s demonstrative proof of something to a pupil.⁸⁶ The link to the text is there, but it is rather tenuous.

Question 10 starts “We shall now ask about certain matters in the text. For Aristotle says that in a disputation we do not carry the things with us but instead use names as symbols of the things. Concerning this statement we ask two questions: (1) whether names are

85. Cf. Ebbesen 1981: 3.133-135.

86. On this, see Ebbesen, forthcoming.

known to us by nature, or, in other words, whether we have some natural language.” There follows a debate of this question, and then “The next question is whether it is possible for a word to signify a real thing.”⁸⁷ As is evident, the author takes the debate to a higher level than just an exegesis of Aristotle’s remark in *SE* 1.165a6-8.

Qu. 12 “Whether a sophist rather seeks to appear to be wise than to be wise without appearing so” (*Utrum sophista magis appetat videri esse sapiens quam esse et non videri*) directly addresses a statement in the text (*SE* 1.165a19-24), but the point discussed is not whether sophists have historically so behaved. The point is: how can anyone decline from rationality in that way?

Qu. 13 starts “The next question is about the exhaustivity of <Aristotle’s list of> disputations <in *SE* 2> and other text-related matters. But they belong in the exegesis of the text, and therefore we shall direct our attention to the section that starts *There are two ways of arguing*”,⁸⁸ i.e. the author jumps to chapter 4, where Aristotle starts his treatment of the thirteen fallacies, the first of which is homonymy.

Notice that the author seems to have a list of relevant questions before him, probably one that directly or indirectly came from a *lectio* commentary, but decides to drop some questions because they are better treated in connection with the textual exegesis. This suggests that at the time the discussion of *quaestiones* had become untied from the “reading” of the text to the extent that it was conducted in special classes, which, however, were taught concurrently with the text-bound exegesis that is reflected in the *lectio* commentaries. Closely text-related questions would be reserved for the *lectio* class,

87. Incerti Auctores, *Quaest. super SE*, qu. 810: “Consequenter quaeritur circa quaedam in littera. Dicit enim Aristoteles quod in disputatione non ferimus res nobiscum, sed nominibus notis utimur pro rebus. Et circa hoc duo quaeruntur: primo utrum nomina nobis sint nota secundum naturam, et hoc est quaerere utrum sit nobis aliquod idioma naturale.” And qu. 811: “Consequenter quaeritur utrum possibile sit vocem rem veram significare.”

88. Incerti Auctores, *Quaestiones Quaest. super SE*, qu. 813: “Consequenter quaeritur de sufficientia disputationum et aliis litteralibus. Haec tamen videri habent super litteram, et ideo attendendum est ad partem illam “Modi autem arguendi sunt duo” et cetera.”

while more over-arching ones could be taken up in both contexts, but more thoroughly in the special *quaestiones* class.⁸⁹

After announcing that he will jump to chapter 4, the anonymous embarks on a series of twelve questions about equivocation, the first being whether it is at all possible for one word to signify several things equally primarily. Only two of the questions are clearly linked to a particular place in Aristotle's text (qu. 21 "How many modes are there of the fallacy of equivocation" (*Quot sunt modi in fallacia aequivocationis*) and 24 "Whether the proposition "The ailing man is healthy" needs to be distinguished" (*Utrum haec sit distinguenda 'laborans sanus est'*), i.e. whether one must operate with two senses of the proposition in question).

The questions on the subsequent fallacies proceed in a similar way, concentrating on matters of principal importance for understanding how each fallacy functions without paying much attention to details in the Aristotelian text except for some of its examples of fallacies, the discussion of which opens up for deeper analysis.

The fallacies are treated in the order in which they are presented in the *Sophistical Refutations*. The set of questions used here for exemplification is incomplete since it treats only eight of the thirteen fallacies, but it certainly was not the author's intention to mimic the structure of Aristotle's work. In the latter, the fallacies are first introduced in chapters 4-5, then chapter 6 shows how they can all be construed as based on ignorance and neglect of what is required of a refutation, while chapter 7 explains the source of deception in each fallacy and chapters 19-30 teach how to solve the fallacies. All extant question commentaries simply treat the fallacies one by one, making use of material drawn from both ch. 4-7 and ch. 19-30.

Another characteristic feature is that purely medieval conceptual tools are allowed to play a role not only in the solution but in the very formulation of the questions. Thus qu. 19 asks "Whether an equivocal term is distributed for the suppositis of all its significates

89. The earliest evidence for such a practice that we are aware of comes from the *Categories* commentary of Anonymus D'Orvillensis (ca. 1200), in which the author repeatedly says that he will leave certain questions (*dubitabilia*) for the disputation (*disputationi relinquimus*). See Ebbesen 1999: 242-243.

by one single act of distribution.” The suppositis of a significare are the referents contained under it, and the term is “distributed for” them when a proposition contains a quantifier (*signum distributivum*) – for all of them if the quantifier is ‘every’, for some if it is ‘some’, and so on. Aristotle had no word for distribution, although the notion is arguably there in *De interpretatione*, just not with a name of its own. It requires some rather tough manhandling of the text to read the medieval notion of a suppositis of a significare into the *Organon*. Our author does not try to do so either. He is trying to solve a question that, to his mind, ought to arise to anyone thinking seriously about the concept of equivocation.

The result of disengaging deeper discussion of matters of philosophical importance from the textual exegesis was two sorts of courses on the same text that – in the hands of a competent teacher – complemented each other admirably. In the “reading” the student would get all the necessary exegetic help plus a good idea, thanks to the *dubitaciones/quaestiones*, of what broader issues might deserve closer attention. In *quaestiones* class he could learn a lot more about those broader issues. And, of course, written commentaries that more or less faithfully reproduce the procedure of oral teaching could complement each other in the same way. You may not wish long discussions of over-arching issues when you are struggling with a fundamental understanding of the text, but you may wish to be alerted to the existence of those issues and to know where to find a more thorough discussion of them.

Not all teachers were equally competent, so some question commentaries contain too much matter that is strictly exegetic, or do not treat the questions raised in depth; and even after the invention of dedicated question commentaries, some literal ones contain unnecessarily long discussions of fundamental matters that would have been better relegated to the other sort of commentary. But by and large, once the question commentary had become a genre of its own, it worked beautifully as an advanced continuation of the spade work done in the literal commentary.

Over time, the format of the questions developed and local variants appeared.

Oxonian questions from the early 14th century often have a com-

plicated structure with a lot of ping-pong argumentation, as may be seen in Walter Burley's first question on *De interpretatione*, which runs to sixteen printed pages:⁹⁰

1. Formulation of question: Whether words primarily signify the thing or the passion [sc. of the soul] (*Utrum vox primo significet rem vel passionem*).
2. Arguments to the effect that words do not primarily signify things
 - 2.1 Argument 1
 - 2.2 Argument 2
 - 2.2.1 Statement of argument
 - 2.2.2 Objection
 - 2.2.3 Refutation of objection
 - 2.2.4 Objection
 - 2.2.5 Refutation of objection
 - 2.2.6 Objection
 - 2.2.7 Refutation of objection
 - 2.3-2.17 Arguments 3-17, most of them also followed by ping-pong between objections and their refutations
3. Arguments to the effect that words do primarily signify things
 - 3.1 Argument 1
 - 3.2 Argument 2 with objection and refutation
4. A proposed solution
 - 4.1 Statement of the solution
 - 4.2 Eight arguments against the proposed solution
5. Clarification of the term 'passion'
 - 5.1 An alien view about passions
 - 5.1.1 Presentation of the view
 - 5.1.2 Three arguments in support of this view
 - 5.1.3 Five arguments against this view
 - 5.1.4 Conclusion
6. Determination
7. Answers to the sixteen arguments in 2

90. Edition in Brown 1979.

A commentary on the *Metaphysics* produced in Erfurt in the 1430s uses the following format:⁹¹

1. Formulation of question.
2. Clarification of terms occurring in [1]. This item may be omitted.
3. One or more theses (*conclusiones*) with proofs.
4. Arguments against the first thesis.
5. Rebuttals of the arguments in [4]
6. Repetition of steps 4-5 regarding thesis 2, and so on until all theses have been covered.

The function of step 3 is fundamentally the same as that of the *determinatio* in the 13th-century format, but usually the justification of each thesis is rather brief. However, this brevity is counterbalanced both by the fact that there are often several theses occasioned by the same question (three are common, and there are examples of seven), and by the relatively high number of counter-arguments (most commonly three) in step 4 which must be answered in step 5.

Whichever variant of the *quaestio* is used, the format leaves room for a thorough discussion of the matter at hand, and the rules for all variants include the obligation not to leave any argument unanswered if its conclusion disagrees with the solution espoused by the author.

Some Unusual Types of Commentary

One of the most idiosyncratic commentaries is Robert Grosseteste's on the *Posterior Analytics*, produced in England in the 1220s or 1230s, it seems, and the oldest known Latin commentary on the work. It is fundamentally a literal commentary, but does not conform to any normal format. Its most striking feature, however, is its attempt to interpret the text as an example of demonstrative method in practice. According to Grosseteste, the *Posterior Analytics* proves one theorem (*conclusio*) after another, and this succession of theorems with proofs is the backbone of the structure of the work.⁹²

91. Thuo de Vibergia (Tue of Viborg), *Disputata Metaphysicae*.

92. For more details, see Bloch 2009.

It is not uncommon for literal commentaries to point out that a certain part of Aristotle's text proves some conclusion (which is obviously true of many parts), but only Grosseteste makes this the structuring principle of a whole work.

In a less radical way Walter Burley in the early 14th century took up Grosseteste's idea and applied it to the *Politics*, adding to the commentary a list of Aristotle's *conclusiones*. Indeed, he did a great deal to make that particular commentary do more than was usual for the reader, as appears from his preface:⁹³

At the beginning of each book I intend to list the principal questions raised and determined in it, and at the end of each book I shall list such remarkable propositions as have a place in human conversation and company, so that people can more easily memorize the intended aim of the whole book.

In my exposition of the text I shall divide each book into treatises, the treatises into chapters, the chapters into sections, and the sections into mini-sections, performing those divisions on the basis of difference in contents and not according to quantity of text, as philosophers have done. Furthermore, since the Philosopher sometimes is raising doubts, sometimes is narrating, and sometimes is clarifying, I shall, when needed, distinguish between the inquisitive, the narrative

93. There are several versions of Burley's commentary, and the passage quoted is not found in all manuscripts. The following text is based on ms Cambridge, Pembroke 158: 1rA. § "Et intendo in principio cuiusque libri ponere quaestiones principales motas et determinatas in illo. Et in fine cuiusque libri ponam propositiones notabiliores quae ¶com///¶ locum habent in conversatione hominum et convictu, ut per haec poterit homo facilius intentionem totius libri memorabiliter retinere. In exponendo vero textum dividam quemlibet librum in tractatus et tractatus in capitula, et capitula in partes, et partes in particulas, faciendo istas divisiones secundum diversitatem sententiae, et non secundum quantitatem litterae, quemadmodum philosophi dividerunt. Et quia Philosophus quandoque procedit dubitando, quandoque narrando, et quandoque declarando, distinguam capitula, ubi opus est, in partem inquisitivam, narrativam et declarativam, ut per hoc poterit sciri quod dictum Aristotelis debet allegari aut recipi tamquam /// Non enim quodlibet dictum Aristotelis in libris suis est authenticum: quae enim in dubitationibus dicuntur, non dicuntur semper ex intentione. Unde quod dicitur in parte declarativa aut narrativa tamquam authenticum est tenendum."

and the clarifying sections of the chapters, in order that it may be known which of Aristotle's statements deserve to be quoted as supportive evidence or be taken to be authoritative.⁹⁴ For it is not the case that every single statement made by Aristotle in his books is authoritative. Statements that occur in doubting sections do not always express his views, but statements that occur in a clarifying or a narrative section should be held to be authoritative.

Works that fill in gaps in the Aristotelian corpus

Since the medievals used Aristotle's writings as textbooks, they had a didactic problem when some important subject was not treated in the corpus. Since antiquity it had been felt that a treatise on division (classification) and one on definition were missing. For division, the medievals had Boethius' *De divisionibus*, which in a 1255 statute of the faculty of arts at Paris is listed as an integral part of a course on the *Ars Vetus*.⁹⁵ By contrast, Marius Victorinus' *De definitionibus* did not enter the university curriculum, presumably because it was felt that the subject was sufficiently covered by Porphyry's *Isagoge*, which already in late antiquity had become an indispensable part of the *Organon*.

Even supplemented with *De divisionibus* and the *Isagoge*, the *Organon* was felt to need a further addition. In *Categories* 4 the six minor categories (action, passion etc.) are introduced on a par with substance, quantity, quality and relation, but later on they are given short shrift in the tiny little chapter 9 (14 Bekker lines in all). This is clearly unsatisfactory for any reader and a serious defect when the book is used as the set text for a university course. This made an unidentified scholar from the late 12th century produce a little treatise of his own on the six neglected categories. His *De sex principiis* was quickly integrated into the teaching of logic in Paris, as evidenced by several 13th-century commentaries on the *Ars Vetus* which include a section on *De sex principiis* as well as; also, a considerable number of

94. The word 'authoritative' is missing in the ms.

95. Denifle & Chatelain 1889, No. 246: "Veterem logicam, videlicet librum Porfirii, predicamentorum, periarmentias, divisionum et thopicorum Boecii, excepto quarto."

manuscripts of the *Ars Vetus* itself which include the booklet. The *De sex principiis* was not totally integrated, however, for instead of occupying its natural place after the *Categories* it usually appears as the last item, after *De interpretatione*. Moreover, the booklet is explicitly mentioned in the 1255 statute of the faculty of arts, though not as a part of *Ars Vetus*. Once it had entered the curriculum it was hard to make it leave again – it stayed there till the end of the Middle Ages, although already 13th-century masters repeatedly questioned its value.⁹⁶

A similar deficiency of the Aristotelian corpus was felt in its treatment of natural phenomena, which includes no treatise on minerals. So, Avicenna's *De mineralibus* was used as a stopgap and taught together with *Meteorology* book IV.

With the exception of Porphyry's *Isagoge* none of the stopgaps exerted any significant influence on the way the medievals read Aristotle.

Treatises on special topics

Treatises on selected topics within Aristotelian philosophy did not, it seems, play any major role in medieval teaching, but they did play an important role in academic debate. Some famous examples of the genre were produced in the second half of the 13th century, when some of the hottest topics were:

1. The right interpretation of the Aristotelian doctrine of the human soul, with two main sub-questions: (1a) Is it just one form, the intellect subsuming the lower faculties (vegetative and animal soul), or is it in some sense an aggregate of the vegetative, the animal and the intellectual soul, each being a form with some degree of independence? (1b) Are there as many intellects as there are humans, or do all share one supra-individual intellect (the "Averroistic" view)?
2. The tenability of the Aristotelian view that the world is temporally infinite ("eternal").

96. Cf. Lewry 1987.

The first problem elicited, among other works, Thomas Aquinas' *De unitate intellectus* and Siger of Brabant's *Tractatus de anima intellectiva*. The second problem was examined by Aquinas, Siger of Brabant and Boethius of Dacia in treatises that all go under the designation *De aeternitate mundi*.

Other treatises from the same period include Boethius of Dacia's *De somniis*, which is closely linked to Aristotle's treatment of dreams in *Parva Naturalia*, and the same author's *De summo bono*, which is a spirited defense of the view of the final good for man presented in the *Nicomachean Ethics*.

Such treatises were free from the constraint of following the structure of the Aristotelian text, and thus allowed for the debate in one place of clusters of problems that would typically occur in different locations in Aristotle, and consequently also in literal and question-commentaries on his text.

There was no standard format for the specialized treatises, but several of them were much influenced by the format of the *quaestio* with its marshalling of arguments before the presentation of the preferred solution and the refutation of "wrong" arguments. Also, like in the *quaestio*, arguments would tend to be presented in syllogistic form. Siger of Brabant's *De anima intellectiva* and his *De aeternitate mundi*, as well as Boethius of Dacia's *De aeternitate mundi* and *De somniis* all exhibit many of the characteristic traits of the *quaestio* literature, though to varying degrees. On the other hand, there are hardly any typical *quaestio* traits in the two treatises by Thomas Aquinas mentioned above, and not in Boethius of Dacia's *De summo bono* either – the latter is one long sustained argument for the author's thesis.

Whereas treatises like the ones mentioned so far were meant as contributions to debates about controversial issues, others were simply meant to present the contents of some Aristotelian sub-discipline, and thus were closely akin to the genre of *summulae*. This is the case, for instance, with a considerable number of treatises on fallacies from the 12th century onwards,⁹⁷ which in a free form relate the main points of the lore of the *Sophistical Refutations* as understood,

97. For a list of such treatises from the 12th and 13th centuries, see Ebbesen 1993.

developed and systematized by medieval scholars. As mentioned above in the section on *summulae* (p. 56), it could happen that an originally independent treatise got the role of a chapter in a *summulae*.

Towards the end of the scholastic period Francisco Suárez produced the most grandiose treatise of them all on an Aristotelian discipline, the *Disputationes Metaphysicae*, the first edition of which appeared in 1597. The work retains many of the above mentioned features of the question commentary. Roughly, Suárez sets out his arguments by stating a thesis or claim (*sententia, ratio*), offering arguments in its favour or against it and concludes by stating his solution (*resolutio*). It contributes further to this question-and-answer impression that Suárez dedicates his work directly to the reader (*christianus lector*) in his proem⁹⁸ and on quite some occasions introduces the objections or doubts of the reader in the course of his arguments: “You say that this follows only for so and so”, to which Suárez sometimes responds in his own voice “but I think” and sometimes impersonally “but it should be said”.⁹⁹ Furthermore, the discussion of authoritative philosophers is prominent in the work and marks another line of continuity with its ancestor the *quaestio*.¹⁰⁰

However, the *Disputationes Metaphysicae* is also an innovative work within the medieval tradition. It surpasses in both scale and ambition the above-mentioned smaller treatises on special topics. The work consists of 54 disputations that read more or less like individual treatises covering almost 2000 pages of densely printed double column Latin. Yet, its really distinctive feature is its ambition and the consequences of this ambition for the structure of the text.

98. Suárez, *Disputationes Metaphysicae Ad lectorem*: “[O]pus hoc, quod nunc, Christiane lector, tibi offero...”

99. See e.g. Suárez, *Disputationes Metaphysicae* 32.2.35: “Dices: quamvis hoc verum sit de accidente in abstracto sumpto, tamen in concreto videtur... Respondetur: ...” “You will say: even if this should be true of accident taken abstractly, nevertheless taken concretely it seems ... It is responded: ...”.

100. The sheer number of quotes and references to other philosophers or theologians is striking. Concern for interconfessional co-existence or, put more pointedly, fear of religious prosecution might explain this feature of Suárez’s work. For more on this see the excellent article by Specht 1988.

Suárez offers nothing less than a systematic treatment of metaphysics, and noticeably this means that he refrains from following Aristotle's text by that name. Instead of following Aristotle's exposition Suárez structures his work according to the requirements of a demonstrative science, it would seem. In the first volume he investigates "being", in a special sense, as this is laid down as the object studied by metaphysics. Then follow detailed accounts of the transcendental attributes of being, i.e. predicates that will be attributed to all being simply in so far as it is being. In the second volume he introduces first the division of "being" into infinite and finite being, after which follows the division between substance and accident. The investigation is concluded with a treatise on the beings of reason which, strictly speaking, fall outside the confines of metaphysics but cannot be ignored by the metaphysician. This way of structuring metaphysics had an enormous impact on Suárez's contemporaries and decided for roughly two centuries how metaphysics should be studied. That Suárez represents something hitherto rarely seen in connection with Aristotle's *Metaphysics* is clear from the following statement:¹⁰¹

In order for us to proceed more directly and briefly, and to investigate all things with a more suitable method, we have decided to abstain from a verbose explication of the Aristotelian text and to contemplate the very things with which this wisdom is concerned according to the order of exposition and style of expression that are most suitable for them. For, as far as the Philosopher's text in the *Metaphysics* is concerned, some parts of it are of little use, either because he puts forth questions and problems and leaves them unsolved, as in the whole of

101. *Disputationes Metaphysicae* 2 prooem.: "Ut enim majori compendio ac brevitate utamur, et conveniente methodo universa tractemur, a textus Aristotelici proluxa explicatione abstinendum duximus, resque ipsas, in quibus haec sapientia versatur, eo doctrinae ordine ac dicendi ratione, quae ipsis magis consentanea sit, contemplari. Nam, quod spectat ad Philosophi textum in his Metaphysicae libris, nonnullae partes ejus parum habent utilitatis, vel quod varias quaestiones ac dubitationes proponat, easque insolutas relinquat, ut in toto tertio libro, vel quod antiquorum placitis referendis, et refutandis immoretur, ut ex primo fere libro, et ex magna parte aliorum constare facile potest, vel denique quod eadem quae in prioribus libris dicta fuerant, vel repetat, vel in summam redigat, ut patet ex libro II, et aliis."

book III, or because he dwells on relating and refuting the opinions of ancient philosophers, as is obviously the case in book I and in large parts of other books, or, finally, because he repeats or summarizes points already stated in earlier books, as happens in book XI and others.

Allegedly Suárez departs from Aristotle's *Metaphysics* for pedagogical reasons, i.e. "the order of exposition" (*doctrinae ordo*) requires this. But he must have been aware that this move is bold and perhaps shocking, since he attaches a condensed question commentary to his *Metaphysical Disputations* with the purpose of showing the connections between his own text and Aristotle's *Metaphysics*. His work marked a new era in the approach to metaphysics and to Aristotle, but it is nonetheless anchored in the medieval tradition.

Sophismata

The genre of *sophismata* did not have Aristotelian exegesis as its aim. A sophisma in the sense relevant here is a discussion of a problematic proposition¹⁰² that can, apparently, equally well be proved to be true and to be false. The propositions considered are primarily such as contain logical operators (*syncategoremata*) such as quantifiers (*signa distributiva*), modal expressions, words meaning 'only' (*dictiones exclusivae*) or 'except' (*dictiones exceptivae*) and the pair 'begins' and 'ceases' (*incipit, desinit*). Variants of the Liar paradox were also included. The simplest format of a sophisma is a variant of that of a standard *quaestio*: [1] Presentation of the sophismatic proposition, sometimes accompanied with a stipulation about the situation in which it is supposed to be pronounced. [2] Proof(s) of its truth. [3] Proof(s) of its falsity. [4] Solution. [5] Refutation of arguments in steps 2-3 that did not agree with the solution.

In the late 13th and early 14th centuries the faculty of arts at the university of Paris cultivated a sort of disputation in which a sophisma of the simple form just described was just the opening move in a complex joust. Steps 4-5 were the responsibility of a bachelor, i.e.

102. 'Proposition' as used here is not in opposition to 'sentence'.

an advanced student. When he had finished step 5, a number of problems with some relation to the sophisma were proposed for debate, some, typically four, were selected and the debate began on the first one, following the standard format of a *quaestio*, the job of delivering a solution and refuting counter-arguments being the bachelor's. When he had done so, members of the audience could attack his solution and his refutations, he was then obliged to defend himself, after which he could be subjected to new attacks, and a ping-pong between the bachelor and opponents could go on for some while. Once the ping-pong finished, the remaining questions were given the same treatment. At this point the session was probably adjourned until some days later, when the presiding master of arts would deliver his considered determination of each question and refute all those arguments from the first session's debate that did not agree with his determination.

The written reports of such disputations are long texts: in extreme cases they may run to as much as seventy printed pages. This means that there is room for an in-depth discussion of the problems selected for debate. Some of the problems are closely linked to the sophistic proposition and concern logical operators and the like, which usually means that there is no or only a slender connection to Aristotelian texts. But there are also cases of problems with a clear Aristotelian connection. Thus sophismata involving the syncategoremes 'begins', 'ceases' and 'infinite' addressed central problems of the *Physics* concerning time, continuity and infinity,¹⁰³ and sophismata involving 'necessarily' would often address problems linked to the exegesis of both the *Prior* and the *Posterior Analytics*. In an important sophisma by Boethius of Dacia from the 1270s, *Every man by necessity is an animal*, four problems are raised:¹⁰⁴

103. Cf. Kretzmann, ed., 1982.

104. Edition by S. Ebbesen in preparation (an old, but not very reliable, edition is found in Grabmann 1940). The titles of the *problemata* are: 1. *Utrum haec sit vera 'omnis homo de necessitate est animal' nullo homine existente*, 2. *Utrum rebus corruptis oportet scientiam de rebus corrumpi*. 3. *Utrum rebus corruptis necesse sit terminos cadere a suis significatis*. 4. *Utrum natura generis existens in specie sit aliquid in actu praeter ultimam differentiam speciei*. For more information about this sophisma, see Ebbesen & Goubier 2010: 2.289.

1. Is 'Every man by necessity is an animal' true if no man exists?
2. Must knowledge about things be destroyed if the things in case are destroyed?
3. Is it necessary that terms lose their signification if the things they signify are destroyed?
4. Is the nature of the genus which exists in its species anything in actuality over and above the final difference of the species?

The four questions touch deep and very Aristotelian issues, first and foremost how to understand what is required for scientific propositions to be both true and necessary. Do essences suffice as truth-makers or are actually existing referents of the terms of the proposition required? Can any proposition about contingent beings be necessary?

Un-Aristotelian authoritative books

The medievals considered Porphyry's *Isagoge* to be almost as authoritative as Aristotle's writings. Another book that enjoyed much esteem, and was taught in the universities, was the anonymous *Liber de causis*, a 12th-century translation of an Arabic work, *On the Pure Good*, which in turn was a digest of Proclus' *Elements of Theology*. The origin of *Liber de causis* was unknown until the late 13th century when it became possible to compare it with Proclus' work, a Latin translation of which was produced by William of Moerbeke in 1268.

Liber de causis teaches fire-breathing Neoplatonic metaphysics. It consists of 31 propositions, each accompanied by explanatory comments. The first two propositions are:¹⁰⁵

1. Every primary cause exerts a greater influence on its effect than any secondary universal cause. *Omnis causa primaria plus est influens super causatum quam causa universalis secunda.*
2. Every superior being is either superior to eternity and before it, or with eternity, or after eternity and above time. *Omne esse superius aut est*

105. Edition: Pattin 1966 (see our bibliography under Anonymus, *Liber de causis*).

superius aeternitate et ante ipsam, aut est cum aeternitate, aut est post aeternitatem et supra tempus.

Generally, medieval scholars had only vague notions about late-ancient Platonism, and at least in the 13th century many thought the book's metaphysics was somehow compatible with Aristotle's.¹⁰⁶

An even stronger influence on the Westerners' approach to Aristotle was exercised by Avicenna's *Al Shifā*, important parts of which (the books on logic, natural philosophy and metaphysics) had likewise been translated into Latin in the late 12th century. In many ways Avicenna follows in Aristotle's footsteps, albeit in a very independent way, so it was obvious for the Latins to see him as an interesting interpreter of the Stagirite. He left his imprint on western theories about the subject matter of the *Organon* ("second intentions") and of the *Metaphysics* (being *qua* being, not God and separate substances), he gave the West the concept of a common nature of quiddity that is indifferent to such distinctions as particular or universal, existence and non-existence, and he also strongly influenced theories of sense perception, just to mention a few of the cases in which he played a role for the way Aristotle was read.

Equally important was Averroes, whose commentaries on *Physics*, *De anima*, *De caelo*, *Ethics* and *Metaphysics* would be consulted by every Latin commentator after they had been translated in the 1220s. His *De anima* commentary famously convinced many that both the passive ("possible") and the active intellect are fundamentally supra-individual entities that individual human beings may just plug into, as it were. But his influence was by no means restricted to this famous piece of doctrine.

Finally, of course, there was the theological tradition, with Augustine as the authority *par excellence*. Its influence on the interpretation of Aristotle was modest, not least thanks to the institutional separation of the faculties of arts and theology in the universities, although some commentators (Robert Grosseteste among them)

106. Among them was Boethius of Dacia. See Ebbesen 2005b. In questions on the *Metaphysics* from the late 13th century both *Liber de causis* and Proclus are quoted, and often with approval. See Ebbesen 2014.

fell for the temptation to introduce divine illumination into their Aristotelian exegesis.¹⁰⁷ Augustine did, however, do Aristotelian exegesis a service in another way, namely by supplying alternative views about epistemology, time and sundry other topics, which the medievals could contrast with Aristotle's and thus test the force of the latter's positions.

107. See Bloch 2009.

PART 3
Case Studies

CASE STUDY I

The Advantage of Being Medieval

Medieval interpreters had many disadvantages compared to their modern counterparts. Lack of access to the original Greek text, lack of good reference books (not to mention the internet), lack of historical knowledge about Aristotle's world ... The list of their disadvantages is long. They did have a few advantages, though. One was the relatively small amount of codified knowledge, which made it possible to master more disciplines than is possible for any person nowadays. Another was the dedication to exactly *Aristotelian* studies in higher education, which meant that scholars who made it to a master's degree had spent years, sometimes as many as seven, with Aristotelian studies as their main fare. Finally, they were medieval, which means that they lived in a low-tech world that was much more similar to Aristotle's than is ours. They shared his experience of the difficulty of obtaining reliable information about just about anything as well as his experience of the laborious process of copying manuscripts and of reading them without the help of spectacles. They shared with him the experience of living in a primarily oral culture, even among academics dedicated to the study of written texts. Finally, some of them shared his experience of living in a small town in which teachers who could not avoid knowing and meeting each other competed for the attention of students, each offering his own distinct brand of philosophy, and in which each teacher's pupils were often his very devout disciples, the teacher-pupil relationship being a very strong bond.

12th-century Paris was a stage on which fiercely competitive masters and their disciples performed their antics. The masters set up shop within easy walking distance of each other in the centre of the city, and although they taught the same basic texts, their interpretations and their personal philosophical views differed widely. Great masters gathered devout disciples, who would even continue their respective teachers' brand of philosophy for some generations and fiercely defend it against attacks from the other philosophical sects (*sectae*). Sects received names: *vocales* or *nominales* (followers of Abe-

lard), *Meludinenses* (followers of Robert of Melun), *Adamitae* or *Parvipontani* (followers of Adam of Balsham, who taught at Petit Pont, *Parvus Pons* in Latin), *Porretani* (followers of Gilbert of Porré), etc. The sects issued lists of provocatively paradoxical theses that they were willing to defend, just as the ancient Stoics had declared to the world that only a wise man is a king, only a wise man is free, and so on. And members of different schools would meet and fight for victory in oral debates (disputations).¹⁰⁸

All this is well documented for the 12th century, while the sects seem to have died out soon after the end of the century, probably as a result of increased co-operation between the arts masters within the new framework of a guild of masters, the faculty of arts, and its inclusion in the association of guilds/faculties that became the University of Paris.

Modern Aristotelians do not usually think of Aristotle's Athens as a place similar to 12th-century Paris as far as higher education is concerned. But there are reasons to think that much was similar. Among the important similarities: (1) The cities were small by modern standards, virtually all intellectuals would know each other, they simply could not avoid meeting each other. (2) There was no institution like a university under the umbrella of which individual teachers could work, each was left to his own devices.

Plato and his circle in the Academy surely resemble a Parisian teacher with his disciples, some of whom continue the school after the founder's death. And we know that Plato had competitors with noticeably different philosophical views, Antisthenes for instance, and Aristippus, both of whom had once, like Plato himself, been followers of Socrates. Aeschines, another Socratic, may also have been a competitor, though teaching is not recorded in his case. And then there were, of course, the people whom Plato would not even count as philosophers because they demanded to be paid for their teaching ("sophists") and/or were, to his mind, rather rhetoricians

108. Evidence for the claims in this paragraph may be found in Iwakuma and Ebbesen 1992 and Ebbesen 1992. Ebbesen 1992 assumed that the sects died about the 1180s, but new evidence suggests that some of them survived till the first decade of the 13th century.

(Isocrates, who, he suggests in *Phaedrus* 279a-b, was a wasted philosophical talent).¹⁰⁹

Antisthenes had at least one important disciple, Diogenes of Sinope, the first cynic, whom Aristotle knew under his nick-name *The Dog* (*Rh.* III.10.1411a24), and whose pupil Crates he must also have known, at least in his later years. Then there were the pupils of Euclid of Megara, the *Megarics*, as Aristotle himself calls them (*Metaph.* IX.3.1046b29), among whom the most prominent was probably Eubulides of Miletus, who is known to have stayed in Athens long enough to become a public figure worthy of being ridiculed in a comedy.¹¹⁰ Notice that Aristotle clearly conceives of the Megarics as a well-defined philosophical sect and names them, not after where they practice their trade, but after the home town of the school founder,¹¹¹ just like the 12th-century *Meludinenses* were named after a town (*Meludinum*, i.e. Melun) where the school founder's once taught. Finally, but not least, in his later years Aristotle's old fellow-students from Plato's Academy had become his competitors.

In the generation immediately after Aristotle both his and Plato's school continued to exist, and more schools arose: the Stoa and the Garden of Epicurus, just to mention the two most important ones.

Plato's dialogues paint a picture of a late 5th-century Athens in which Socrates was just about the only resident philosopher, while many wandering teachers passed through the city. In the next generation there certainly were several resident teachers as well as passing guests. In Aristotle's day the number of both resident and non-resident teachers is likely to have increased, and Eubulides was scarcely the only one among the non-permanent ones to stay for more than a short time.

Most philosophy teaching obviously took place in public buildings: Academy, Lyceum, Stoa Poikile, Kynosarges, all within easy

109. For a convenient survey of what is known about Plato's and Aristotle's potential competitors, see Döring 1998. For a more detailed argumentation for the claims made in the following about the similarity between Aristotle's situation and that of 12th-century Parisian scholars, see Ebbesen 2011a.

110. Diogenes Laertius, *Vitae Philosophorum* II.108.

111. They are *Megarics*, Μεγαρικοί, i.e. of the Megarian type, not *Megarians* (Μεγαρείς).

walking distance one from another. The intellectual milieu was so small, and the places used for teaching located so close to each other, that as a young man Aristotle must have met Plato's and later his own competitors, and his pupils must have met both his competitors and their pupils. Of course, they may have just politely greeted each other and listened to each other's discourses, but there is every reason to believe that ancient philosophers and their students were as much spoiling for a good fight in an oral discussion as are their modern counterparts, probably even more, because it was so much more cumbersome to carry on a debate in writing.

Evidence for inter-school debates can be found in the *Sophistical Refutations*, which starts with an argument to the effect that there is such a thing as bad arguments and that sophists, people who seek apparent wisdom to earn money, will use such arguments. The whole work aims at arming Aristotle's audience with the means to resist sophists. The audience addressed must be assumed to be primarily members of Aristotle's own school (irrespective of whether the work dates from his Academy or from his Lyceum years). But who are the sophists? They are obviously not fellow-members of his own school. L.-A. Dorion in his 1995 commentary on the *Sophistical Refutations* argues that they are Megarics.¹¹² But although they may be one group that Aristotle would consider sophists, they cannot be the only one.

There is, in fact, in the *Sophistical Refutations* one unmistakable reference to debates with adherents of more than one other school:

With a view to [making the answerer] say implausible things (*paradoxa*), one must look at what group the disputant belongs to, and then ask about something which they claim but which is implausible to ordinary people – each group, of course, has something of the sort.¹¹³

112. Dorion 1995: 37-58.

113. Arist., *SE* 12.172b29-31: “Πάλιν πρὸς τὸ παράδοξα λέγειν σκοπεῖν ἐκ τίνος γένους ὁ διαλεγόμενος, εἴτ' ἐπερωτᾶν ὃ τοῖς πολλοῖς οὗτοι λέγουσι παράδοξον· ἔστι γὰρ ἑκάστοις τι τοιοῦτον.”

There is a long-standing tradition for taking the “group” (γένος) to be a philosophical school, but – remarkably – not for thinking in terms of Aristotle’s contemporary competitors. Heracliteans and Protagoreans have been proposed as examples of the groups Aristotle had in mind,¹¹⁴ but it is doubtful that any such were around in his day.

We submit that an important part of the purpose of the *Sophistical Refutations* was to teach Aristotle’s students how to come out victorious in public dialectical debates (disputations) with representatives of other philosophical schools. Aristotle offers his students two main sorts of tool, (1) analytical tools to demask deceptive arguments, (2) a variety of strategies for tricking the other party in the disputation and for making him say things that might make an unfavourable impression on the audience.

This interpretation of the work is directly inspired by 12th and early 13th-century commentators, and in particular by their understanding of the passage just quoted as presupposing disputations like they knew them from their own Paris, i.e. between representatives of philosophical schools, each of which had its own paradoxical tenets.

One commentator from the very early 13th century comments on the passage as follows: ¹¹⁵

114. Fait 2007: 164.

115. Anonymus Cantabrigiensis, *Commentarium SE* 2.172b29: “*Rursum* Ponit locum proprium. †Ideo primo† considerandum est de quo genere est ille qui disputat. Genera autem disputantium secundum principales positiones cognoscuntur, ut si sint de eorum genere qui dicunt quod quicquid semel est verum semper est verum, vel eorum qui dicunt quod nihil sequitur ex falso, vel quod ex impossibili sequitur quidlibet. Et tunc considerandum est, quod secundum alios in eius opinione si[n]t improbabilius, quia circa illud facilius ducetur ad inopinabile. Et hoc est *Rursum* etc. <12.172b31> *Est* Diceret aliquis forte in eius opinione nihil esse inopinabile, ideo dicit *Est enim in singulis* opinionibus *aliquid* tale i.e. inopinabile aliis, quemadmodum in nostra opinione inopinabile quod numquam esset verum te esse in Paradiso, in aliorum opinione inopinabile est quod non possunt nobis facere necessaria argumenta procedendo ex hac ‘Quod semel est verum semper est verum’, quia dicunt quod ex falso nihil sequitur.” For another example of the same interpretation of the passage by a 12th-century author, see Ebbesen 2011a: 84, n. 21.

The various groups of disputants are characterized by their main theses. For instance, they may belong to the group of those who claim that whatever is true at one time is true forever, or to the group of those who say that nothing follows from a falsehood or that from the impossible anything follows. And then one must take into account what to other people is the most unacceptable point in the doctrine he adheres to, for that is the means by which he is most easily forced into saying something implausible. [. . .] Someone might perhaps say that his doctrine contains nothing implausible, and that is why Aristotle says *Each doctrine, of course, has something of the sort*, i.e. something that is implausible to others. For example, in our doctrine there is the implausible claim that it would never be true that you are in Paradise, in the doctrine of others the implausible feature that they cannot produce necessary arguments against us by using ‘Whatever is true at one time is true forever’ as a premiss, because they say that nothing follows from a falsehood.

This commentator must have belonged to the school of the *Nominales*. How they defended the claim that “it would never be true that you are in Paradise” is unknown, but ‘Whatever is true at one time is true forever’ is a well-known thesis of theirs,¹¹⁶ and “Nothing follows from a falsehood” an equally well-known thesis of the *Meludinenses*. The point about the last two theses is that a *Meludinensis* has blocked himself from deriving anything at all from the paradoxical thesis of the *Nominales* because he holds that thesis to be false, and also holds that nothing follows from a falsehood.

To our mind, this is by far the most plausible interpretation of the passage about taking into account which group one’s adversary belongs to, and if it is right, it has important consequences for our understanding of Aristotle’s environment and of the purpose of the *Sophistical Refutations*, as indicated above.

The same commentator also reads the following passage in the light of the customs of his own times:¹¹⁷

116. For an explanation, see Ebbesen 1997a: 156-157.

117. Arist., *SE* 15.174b19-23: “Ἐτι καθάπερ καὶ ἐν τοῖς ῥητορικοῖς, καὶ ἐν τοῖς ἐλεγκτικοῖς ὁμοίως τὰ ἐναντιώματα θεωρητέον ἢ πρὸς τὰ ὑφ’ αὐτοῦ λεγόμενα ἢ πρὸς οὓς ὁμολογεῖ καλῶς λέγειν ἢ πράττειν, ἔτι πρὸς τοὺς δοκοῦντας τοιοῦτους ἢ πρὸς τοὺς ὁμοίους, ἢ πρὸς τοὺς πλείστους ἢ πρὸς πάντας.”

Moreover, just as in rhetoric, so also in elenctic, one should examine the discrepancies between [the answerer's statements] and other statements of his own, or with persons whom he admits to say or do aright, or who seem to be such persons, or with people who are similar [to himself], or with most or all people.

Our commentator says:¹¹⁸

One more precept. Just as it is necessary for an orator to examine whether his adversary towards the end of his plea says anything that conflicts with previous statements of his, so in disputations one must consider whether the respondent says anything that conflicts with his previous statements, or whether he says anything that conflicts with the doctrine of his master, in which case one should show that he does not defend his master's doctrine properly. Moreover, one should examine whether he says anything that conflicts with [the views of] those who hold a similar thesis. For example, if someone says that an argument consists of a proposition, a conclusion and a premiss, one should examine whether what he says conflicts with [the views of] those who say that it is the dictum of the proposition that is the argument, because the latter position has to be defended in the same way as the former.

It is less obvious that he has hit the nail on its head this time, but it is a tempting thought that among the situations Aristotle had in mind was one in which a disputant is forced to choose between being refuted or appearing to betray his master.

118. Anonymus Cantabrigiensis on *SE* 15.174b19: "*Amplius* Aliud praeceptum: Sicut necessarium est oratori considerare utrum adversarius in fine causae dicat aliquid quod sit contrarium alicui illorum quae prius dixit, similiter in disputationibus considerandum est utrum respondens dicat aliquid quod sit contrarium ei quod prius dixit, vel utrum dicat aliquid quod sit contrarium sententiae magistri sui, et tunc ostendendum est quod non bene tenet sententiam magistri sui. Considerandum est etiam si dicat contrarium illis qui similem sustinent positionem, ut si dicat quis propositionem–conclusionem–praemissam esse argumentum, considerandum est utrum dicat contrarium eis qui dicunt quod dictum propositionis est argumentum, quia eodem modo debet sustineri haec positio et illa."

We conclude that commentators from the 12th to very early 13th century provide us with a clue to a plausible interpretation of certain passages of the *Sophistical Refutations* and to a plausible reconstruction of the environment in which the recipients of Aristotle's teaching were to function. These commentators' insights were lost long before our time, in fact they were lost already in the 13th century. As far as we are aware, the last to interpret *SE* 12.172b29-31 in the old way was (?Ps.-) Robert Grosseteste, whose commentary is hardly later than the middle of the 13th century. In fact, his brief comment is just a distant echo of what was once a forceful interpretation. He mentions no specific school theses and offers only "*Reales* and *Nominales* and the rest" as a gloss on Aristotle's "what group".¹¹⁹ While *Nominales* were once a well-defined group, *Reales* never were, they were all sorts of non-nominalists. Clearly, the old philosophical sects were dead when Grosseteste(?) commented on the passage, and with the death of the sects in the early 13th century people lost sight of a promising approach to the *Sophistical Refutations*.

119. Robertus Grosseteste (?), *Comm. SE*, ms Oxford, Merton College, 280: 20rB: "Primum tale: considerandum est de quo genere est qui respondet, utrum sc. de genere realium vel nominalium, et ita de aliis".

CASE STUDY 2

Aristotle and the Medievals on *Categories*

The *Categories* is one of the few texts by Aristotle that was available in Latin translation from the very beginning of philosophical studies in the Middle Ages, and it became the object of a spate of commentaries.¹²⁰ A large number are still extant. Many more were, undoubtedly, written.

Although not all of the problems facing a medieval commentator are relevant to his present-day colleagues, there are nonetheless many points where medieval and contemporary scholars face similar problems and engage in much the same discussion. Here we shall look at some medieval approaches to one such problematic interpretive issue: are Aristotle's categories supposed to be mutually exclusive?

Take what we might call the Principle of Categorical Exclusivity and let it be defined as follows:¹²¹

Categorical Exclusivity: No item subject to categorial inclusion is in more than one category

Contemporary philosophers are wont to think of exclusivity as a desirable feature of a system of categories, but is it a feature that should be ascribed to Aristotle's categories?

According to an old, very prominent, and still widespread interpretation of Aristotle's doctrine of categories, it seems that they ought to comply with this principle. On this interpretation, the categories are to be construed as highest kinds or genera.¹²² That is to say, for each of the ten categories Aristotle lists – substance, quantity, quality,

120. The *Categories* were among the texts translated into Latin by Manlius Boethius in the early 6th century; see p. 33 above.

121. Cf. Morrison 1992: 20.

122. The idea seems to go back at least to Alexander of Aphrodisias in the late second to early third century AD; see his *inAPr.* 4.16–18.

relative, where, when, position, having, doing, and being-affected – there is some sort of hierarchy crowned by that item, which via some (perhaps extremely many) intermediate genera and species terminates in some most special species under which fall only individuals.¹²³ We may call this interpretation the Generic Interpretation.

The Generic Interpretation presumably owes its longevity to the fact that it would seem to have strong textual support. Indeed, Aristotle more than once refers to the categories as *genera*.¹²⁴ For example, when taking up that most honourable investigation into the nature of the soul, he says:¹²⁵

First, no doubt, it is necessary to determine in which of the genera soul lies and what it is – is it a this something and a substance or is it a quality or a quantity or some other of the remaining categories that we have distinguished.

And the idea that the categories are *highest* genera seems also on occasion to be implied. Thus, for example, in *Metaphysics* V we are told that items sharing the same categorial figure are one in genus:¹²⁶

Again, some things are one in number, others in species, others in genus, others by analogy; in number those whose matter is one, in species those whose definition is one, in genus those to which the same categorial figure applies, by analogy those which are related as a third thing is to a fourth.

The only way to make proper sense of the third type of unity here mentioned seems to be to attribute to Aristotle the assumption that, as Ross puts it, “the categories are the only genera proper,

123. See Porphyry, *Isag.* 4.10–5.17; 6.5–12.

124. Cf. Rohlf 1978: 381–382n20.

125. Transl. Smith, modified. Arist., *de An.* I.1.402a23–25: “πρῶτον δ' ἴσως ἀναγκαῖον διελεῖν ἐν τίνι τῶν γενῶν καὶ τί ἐστί, λέγω δὲ πότερον τόδε τι καὶ οὐσία ἢ ποιὸν ἢ ποσόν, ἢ καὶ τις ἄλλη τῶν διαιρεθεισῶν κατηγοριῶν.”

126. Transl. Ross, modified. Arist., *Metaph.* V.6.1016b30–35: “ἔτι δὲ τὰ μὲν κατ' ἀριθμὸν ἐστὶν ἓν, τὰ δὲ κατ' εἶδος, τὰ δὲ κατὰ γένος, τὰ δὲ κατ' ἀναλογίαν, ἀριθμῶ μὲν ὧν ἡ ὕλη μία, εἶδει δ' ὧν ὁ λόγος εἷς, γένει δ' ὧν τὸ αὐτὸ σχῆμα τῆς κατηγορίας, κατ' ἀναλογίαν δὲ ὅσα ἔχει ὡς ἄλλο πρὸς ἄλλο.”

since they are the only genera that are not also species.”¹²⁷ That is to say, the categories are *highest genera*.

The piece of doctrine in question is put to use in the *Physics*:¹²⁸

Motion is one generically according to the different categories to which it may be assigned; thus any locomotion is one generically with any other locomotion, whereas alteration is different generically from locomotion.

In other words, the generic unity of a given category spills over to the motions that take place with respect to items belonging to that category. Thus, alterations, which are motions with respect to the category of quality (think of Socrates going from being pale to being tanned and Plato going from being healthy to being sick), are generically one in the sense that their terms (being pale, being tanned; being healthy, being sick) are generically one because they belong to the same category, namely, the category of quality. Again, this presupposes that the categories are not only genera but also the highest such. There seems, in other words, to be some evidence in the texts for attributing this idea to Aristotle.

On such an interpretation of the categories, it would seem, then, that they ought to be mutually exclusive. Given that no category contains another category, their mutual exclusivity appears to follow from what we might call the Principle of Generic Exclusivity.¹²⁹ Using Aristotle’s formulation in *Topics* VI.6.144a12–3, we may define this principle as follows:

Generic Exclusivity: The same thing cannot be in two genera unless one of them contains the other.

The principle underlies several dialectical strategies outlined in the *Topics*. For example:¹³⁰

127. Ross 1924: 1.305.

128. Transl. Hardie & Gaye. Arist., *Phys.* V.4.227b4–6: “γένει μὲν οὖν μία κατὰ τὰ σχήματα τῆς κατηγορίας ἐστὶ (φορὰ μὲν γὰρ πάση φορᾶ τῷ γένει μία, ἀλλοίωσις δὲ φορᾶς ἕτερα τῷ γένει).”

129. Cf. Morrison 1992: 21.

130. Transl. Pickard-Cambridge, slightly modified. Arist., *Top.* IV.2.122a39–b6:

If establishing a view, it is useful to see whether the proposed genus is predicated in what it is; for if so, the result will be that the genus and the species will be predicated of the same object in what it is, so that the same object falls under two genera; the genera must therefore of necessity be subordinate one to the other, and therefore if it is proved that the one we wish to establish as genus is not subordinate to the species, clearly the species will be subordinate to it, so that it is proved that it is the genus.

If the same item falls under two different genera, these genera must – by Generic Exclusivity – be related so that one falls under the other.

It should be noted, however, that Aristotle seems to have some reservations about the principle. At least, in book IV he toys with the idea of softening it up somewhat:¹³¹

Yet a principle of this kind gives rise to a difficulty in some cases. For some people hold that prudence is both virtue and knowledge, and that neither of its genera is embraced by the other – although certainly not everybody admits that prudence is knowledge. If, however, any one were to admit the truth of this assertion, yet it would still be thought to be necessary that the genera of the same object must at any rate be subordinate either the one to the other *or both to the same thing*, as actually is the case with virtue and knowledge. For both fall under the same genus; for each of them is a state and a disposition.

“κατασκευάζονται δ', εἰ κατηγορεῖται ἐν τῷ τί ἐστι, χρήσιμον. συμβήσεται γὰρ τὸ γένος καὶ τὸ εἶδος τοῦ αὐτοῦ ἐν τῷ τί ἐστι κατηγορεῖσθαι, ὥστε τὸ αὐτὸ ὑπὸ δύο γένη γίνεται, ἀναγκαῖον οὖν ὑπ' ἄλληλα τὰ γένη εἶναι. ἂν οὖν δειχθῆ ὁ βουλόμεθα ὡς γένος κατασκευάσαι μὴ ὄν ὑπὸ τὸ εἶδος, δῆλον ὅτι τὸ εἶδος ὑπὸ τοῦτ' ἂν εἴη, ὥστε δεδειγμένον ἂν εἴη ὅτι γένος τοῦτο.”

131. Transl. Pickard-Cambridge. *Arist., Top.* IV.2.121b28–37: “ἔχει δ' ἀπορίαν ἐπ' ἐνίων τὸ τοιοῦτο δοκεῖ γὰρ ἐνίοις ἢ φρόνησις ἀρετὴ τε καὶ ἐπιστήμη εἶναι καὶ οὐδέτερον τῶν γενῶν ὑπ' οὐδέτερου περιέχεσθαι, οὐ μὴν ὑπὸ πάντων γε συγχωρεῖται τὴν φρόνησιν ἐπιστήμην εἶναι, εἰ δ' οὖν τις συγχωροῖ τὸ λεγόμενον ἀληθὲς εἶναι, ἀλλὰ τὸ γε ὑπ' ἄλληλα ἢ ὑπὸ ταῦτο ἄμφω γίνεσθαι τὰ τοῦ αὐτοῦ γένη τῶν ἀναγκαίων δόξειεν ἂν εἶναι, καθάπερ καὶ ἐπὶ τῆς ἀρετῆς καὶ τῆς ἐπιστήμης συμβαίνει· ἄμφω γὰρ ὑπὸ τὸ αὐτὸ γένος ἐστίν· ἐκάτερον γὰρ αὐτῶν ἕξις καὶ διάθεσις ἐστίν.” Cf. Morrison 1992: 46n54.

Let us call this softened version of the principle “Soft Generic Exclusivity” and define it as follows:

Soft Generic Exclusivity: The same thing cannot be in two genera unless (a) one contains the other, or (b) there is a third genus to which both are subordinate.

Whatever the depth of Aristotle’s commitment to this version of the principle, it still implies that if the categories are highest genera, they are mutually exclusive, since on this assumption there can be no third genus to which two categories are both subordinate.

There are, however, passages in Aristotle’s writings that seem to tell against this whole line of interpretation. Most significantly, as recent scholars have pointed out, a passage at the end of chapter 8 of the *Categories*, where Aristotle himself addresses the issue of categorial exclusivity, contains ideas that seem very difficult to square with the picture of the categories sketched above.¹³²

Now, in the Middle Ages many commentators were committed to some version of the Generic Interpretation. But they were also engaged in a form of exegesis which combined close textual analysis with a keen eye for inconsistencies in the texts under interpretation. It is thus to be expected not only that commentators of this period would have been aware of the tensions between their overall construal of the theory of categories and the passage in *Categories* ch. 8, but also that they had solutions to offer to the interpretive difficulties arising from these tensions. In the following we shall present three 13th-century attempts to overcome those difficulties.

However, before turning to these 13th-century interpretations and the problematic passage itself, let us take a step back and notice that problems of overlap between categories are brought up explicitly by Aristotle twice in the *Categories*. First, at the end of chapter 7, which deals with the category of relatives, and again at the end of chapter 8 which treats the category of quality. In the first case, Aristotle raises the worry that the definition (ὀρισμός) of relatives that he

132. The passage in question is *Cat.* 8.11a20–38. See esp. Ackrill 1963: 108–109; Oehler 2006: 322–324; Rohr 1978; Morrison 1992: 32–35.

proposed at the beginning of the chapter is satisfied by certain secondary substances such as head and hand (8a13–35). To see the problem, consider the initial definition of relatives:¹³³

We call relatives all such things as are said to be just what they are *of* or *than* other things, or in some other way in relation to something else.

The definition is immediately followed by some examples:¹³⁴

For example, the larger is called what it is than something else (it is called larger than something); and the double is called what it is of something else (it is called double of something); similarly with all other such cases. The following, too, and their like, are among the relatives: state, condition, perception, knowledge, position. For each of these is called what it is (and not something different) of something else.

As the examples make clear, the criterion for being relative is satisfied if an item is said to be or called what it is (and not something different) *of* or *than* etc. something else. For example, the master is called what he is, namely master, *of* (a) slave. By contrast, the man is *not* called what he is, namely man, *of* or *than* etc. something else (although he may perhaps be called ‘something different’ – larger, for example – of or than something else). Master, in other words, satisfies the criterion, man does not. The problem is, however, that some universal substances, namely those which are or designate parts, seem to satisfy the definition as well:¹³⁵

133. Transl. Ackrill. Arist., *Cat.* 7.6a36–37: “Πρός τι δὲ τὰ τοιαῦτα λέγεται, ὅσα αὐτὰ ἄπερ ἐστὶν ἐτέρων εἶναι λέγεται ἢ ὅπως οὖν ἄλλως πρὸς ἕτερον.”

134. Transl. Ackrill, slightly modified. Arist., *Cat.* 7.6a37–b2: “οἷον τὸ μείζον τοῦθ’ ὅπερ ἐστὶν ἐτέρου λέγεται, – τινὸς γὰρ μείζον λέγεται, – καὶ τὸ διπλάσιον ἐτέρου λέγεται τοῦθ’ ὅπερ ἐστὶν, – τινὸς γὰρ διπλάσιον λέγεται – ὡσαύτως δὲ καὶ ὅσα ἄλλα τοιαῦτα. ἔστι δὲ καὶ τὰ τοιαῦτα τῶν πρὸς τι οἷον ἕξις, διάθεσις, αἴσθησις, ἐπιστήμη, θέσις πάντα γὰρ τὰ εἰρημένα τοῦθ’ ὅπερ ἐστὶν ἐτέρων λέγεται καὶ οὐκ ἄλλο τι.”

135. Transl. Ackrill, slightly modified. Arist., *Cat.* 7.8a26–28: “οἷον ἡ κεφαλή τινὸς λέγεται κεφαλή καὶ ἡ χεὶρ τινὸς λέγεται χεὶρ καὶ ἕκαστον τῶν τοιούτων, ὥστε ταῦτα τῶν πρὸς

For example, the head is called head of someone and the hand is called hand of someone, and so on; so that these would seem to be relatives.

In order to avoid this consequence, Aristotle offers a revised definition:¹³⁶

Now if the definition of relatives given above was adequate, it is either exceedingly difficult or impossible to reach the solution that no substance is spoken of as a relative. But if it was not adequate, and if those things are relatives for which being is the same as being somehow related to something, then perhaps some answer may be found.

He goes on to point out that all items satisfying this revised definition will also satisfy the first:¹³⁷

The previous definition does, indeed, apply to all relatives, yet this—their being called what they are, of other things—is not what their being relatives is.

Since this revised definition is explicitly introduced to exclude certain items satisfying the initial definition, the converse obviously does not hold; it is not the case that all items satisfying the first definition also satisfy the second one. In sum, since for items such as head and hand *being* is not, apparently, the same as *being somehow*

τι δόξειεν ἄν εἶναι.” According to Aristotle, the problem does not arise with primary substances, e.g. this particular hand or this particular head, simply because “an individual hand is not called someone’s individual hand (but someone’s hand), and an individual head is not called someone’s individual head (but someone’s head).” Transl. Ackrill. *Arist., Cat.* 7.8a18–21: “ἢ γὰρ τις χεῖρ οὐ λέγεται τινός τις χεῖρ ἀλλὰ τινός χεῖρ, καὶ ἢ τις κεφαλὴ οὐ λέγεται τινός τις κεφαλὴ ἀλλὰ τινός κεφαλὴ.”

136. Transl. Ackrill. *Arist., Cat.* 7.8a28–33: “εἰ μὲν οὖν ἰκανῶς ὁ τῶν πρὸς τι ὀρισμὸς ἀποδέδοται, ἢ τῶν πάνυ χαλεπῶν ἢ τῶν ἀδυνάτων ἐστὶ τὸ λῦσαι ὡς οὐδεμία οὐσία τῶν πρὸς τι λέγεται· εἰ δὲ μὴ ἰκανῶς, ἀλλ’ ἔστι τὰ πρὸς τι οἷς τὸ εἶναι ταυτὸν ἐστὶ τῷ πρὸς τί πως ἔχειν, ἴσως ἄν ῥηθῆι τι πρὸς αὐτά.”

137. Transl. Ackrill. *Arist., Cat.* 7.8a33–35: “ὁ δὲ πρότερος ὀρισμὸς παρακολουθεῖ μὲν πᾶσι τοῖς πρὸς τι, οὐ μὴν τοῦτό γέ ἐστι τὸ πρὸς τι αὐτοῖς εἶναι τὸ αὐτὰ ἄπερ ἐστὶν ἐτέρων λέγεσθαι.”

related to something, overlap between the categories of substance and relative is avoided and Categorical Exclusivity is not threatened.¹³⁸

A similar worry is brought up at the end of chapter 8 of the *Categories*. The passage in question stands as the conclusion to Aristotle's discussion of the category of quality, but the problem once again involves the category of relatives. The passage runs as follows:¹³⁹

(o) We should not be disturbed lest someone may say that though we proposed to discuss quality we are counting in many relatives (since states and conditions are relatives).

(ι) For in pretty well all such cases the genera are spoken of in relation to something, but none of the particular cases is. For knowledge, a genus, is called just what it is, of something else (it is called knowledge of something); but none of the particular cases is called just what it is, of something else. For example, grammar is not called grammar of something nor music music of something. If at all, it is in virtue of the genus that these too are spoken of in relation to something: grammar is called knowledge of something (not grammar of something) and music knowledge of something (not music of something). Thus, the particular cases are not relatives. But it is with the particular cases that we are said to be qualified, for it is these which

138. The exact difference between the two definitions of relatives is a difficult and controversial issue. For some contemporary proposals, see Mignucci 1986 and Sedley 1992. For some medieval suggestions as to what the difference amounts to, see below.

139. Transl. Ackrill. *Arist., Cat.* 8.11a20–38: “Οὐ δεῖ δὲ ταράττεσθαι μή τις ἡμᾶς φήσῃ ὑπὲρ ποιότητος τὴν πρόθεσιν ποιησαμένους πολλὰ τῶν πρὸς τι συγκαταριθμεῖσθαι· τὰς γὰρ ἕξεις καὶ τὰς διαθέσεις τῶν πρὸς τι εἶναι.

σχεδὸν γὰρ ἐπὶ πάντων τῶν τοιούτων τὰ γένη πρὸς τι λέγεται, τῶν δὲ καθ' ἕκαστα οὐδὲν ἢ μὲν γὰρ ἐπιστήμη, γένος οὖσα, αὐτὸ ὅπερ ἐστὶν ἑτέρου λέγεται, – τινὸς γὰρ ἐπιστήμη λέγεται. – τῶν δὲ καθ' ἕκαστα οὐδὲν αὐτὸ ὅπερ ἐστὶν ἑτέρου λέγεται, οἷον ἢ γραμματικὴ οὐ λέγεται τινὸς γραμματικὴ οὐδ' ἢ μουσικὴ τινὸς μουσικὴ, ἀλλ' εἰ ἄρα κατὰ τὸ γένος καὶ αὐτὰ πρὸς τι λέγεται· οἷον ἢ γραμματικὴ λέγεται τινὸς ἐπιστήμη, οὐ τινὸς γραμματικὴ, καὶ ἢ μουσικὴ τινὸς ἐπιστήμη, οὐ τινὸς μουσικὴ ὥστε αἱ καθ' ἕκαστα οὐκ εἰσὶ τῶν πρὸς τι. λεγόμεθα δὲ ποιοὶ ταῖς καθ' ἕκαστα· ταύτας γὰρ καὶ ἔχομεν, – ἐπιστήμονες γὰρ λεγόμεθα τῷ ἔχειν τῶν καθ' ἕκαστα ἐπιστημῶν τινά· ὥστε αὐτὰ ἂν καὶ ποιότητες εἴησαν αἱ καθ' ἕκαστα, καθ' ἅς ποτε καὶ ποιοὶ λεγόμεθα αὐτὰ δὲ οὐκ εἰσὶ τῶν πρὸς τι. ἔτι εἰ τυγχάνει τὸ αὐτὸ ποῖον καὶ πρὸς τι ὄν, οὐδὲν ἄτοπον ἐν ἀμφοτέροις τοῖς γένεσιν αὐτὸ καταριθμεῖσθαι.”

we possess (it is because we have some particular knowledge that we are called knowledgeable). Hence these – the particular cases in virtue of which we are on occasion said to be qualified – would indeed be qualities; and these are not relatives.

(2) Moreover, if the same thing really is a quality and a relative there is nothing absurd in its being counted in both the genera.

Aristotle's worry arises from the fact that in his discussion of the category of quality he has ranked under this heading a number of items that in the immediately preceding discussion of the category of relatives were taken to be relatives.¹⁴⁰ But if such items can be both relatives and qualities, the categories can hardly be mutually exclusive.

Aristotle seeks to alleviate the worry in two ways. First, in (1), by denying that the cases of apparent overlap are anything but just apparent. This is done by invoking the definition of relatives given at the beginning of chapter 7 and the definition of qualities given at the beginning of chapter 8, and by then claiming that 'in pretty well all' the problematic cases the *genus* is spoken of in relation to something, and so satisfies the initial definition of a relative, whereas *the particular cases* (presumably = the species; cf. *Top.* IV.4.124b15-19) of *that genus* do not satisfy that definition, but rather that of qualities.¹⁴¹ Secondly, Aristotle states in (2), the assumption on which the objection rests is false. There is nothing problematic in one and the same item actually falling under both genera if it should indeed happen to be both a quality and a relative.

The solution in (2) looks like an outright rejection of Categorical Exclusivity. In referring to the two categories as genera, however, it also *prima facie* seems to be an endorsement of the Generic Interpretation. The solution in (1) on the other hand does not violate Cate-

140. The items in question are state, condition, knowledge, and virtue. State, condition, and knowledge are taken to be relatives at 6b2-3, and virtue and knowledge are taken to be so at 6b15-17. State and condition are listed as qualities at 8b26, knowledge and virtue at 8b29, and virtue at 10b5-9.

141. The definitions in question are the following. Of relatives, *Cat.* 7.6a36-6b3: "Πρός τι δὲ τὰ τοιαῦτα λέγεται, ὅσα αὐτὰ ἄπερ ἐστὶν ἐτέρων εἶναι λέγεται ἢ ὅπως οὖν ἄλλως πρὸς ἕτερον." Of qualities, *Cat.* 8.8b25: "Ποιότητα δὲ λέγω καθ' ἣν ποιοὶ τινες λέγονται."

gorial Exclusivity, but it seems to be inconsistent with the Generic Interpretation. To see why, consider the following advice given in the *Topics*:¹⁴²

Look, also, at the genus of the given genus, and so continually at the next higher genus, and see whether all are predicated of the species, and predicated in what it is; for the higher genus should be predicated of the species in what it is. If, then, there is anywhere a discrepancy, clearly what is given is not the genus.

A genus is predicated “in the what it is”, that is to say, essentially, of its species, and this relation is clearly transitive. Assuming that the categories are genera, they will be predicated essentially, not only of any given genus subordinate to them, but also of the species of that genus. But Aristotle’s first way of meeting the objection clearly implies a denial of this with respect to the sequence: *Relative, Knowledge, Grammar*, of which the first item is a category, the second a genus belonging to that category, and the third a species of that genus. So it seems that the assumption – and so, the Generic Interpretation – must be false.¹⁴³

Having thus considered the passage, which the modern Oxford commentary to the text is surely correct in describing as “perplexing”, and the problems it poses, let us now consider three medieval solutions to the exegetical tangle. The first will be that of John Pagus, one of the earliest known masters of arts at the University of Paris, who at some point in the second quarter of the 13th century wrote an extensive commentary on the *Categories*. The second will be the one found in an anonymous commentary, presumably written around the middle of the century by an English author, who may have been the reputedly brilliant John of Secheville.¹⁴⁴ The third

142. Transl. Pickard-Cambridge. Arist., *Top.* IV.2.122a3–7: “Σκοπεῖν δὲ καὶ τὸ γένος τοῦ ἀποδοθέντος γένους καὶ οὕτως αἰεὶ τὸ ἐπάνω γένος, εἰ πάντα κατηγορεῖται τοῦ εἴδους, καὶ εἰ ἐν τῷ τί ἐστὶ κατηγορεῖται: πάντα γὰρ τὰ ἐπάνω γένη κατηγορεῖσθαι δεῖ τοῦ εἴδους ἐν τῷ τί ἐστίν, εἰ οὖν που διαφωνεῖ, δῆλον ὅτι οὐ γένος τὸ ἀποδοθέν.”

143. Rohr 1978; cf. Morrison 1992: 33–34.

144. Lewry 1978: 117–121; but cf. Piché 2005: 48–46.

will be from the commentary written by John Duns Scotus at the end of the 13th century.

John Pagus considers each of Aristotle's two solutions in turn. Aristotle's first solution consists, as we have seen, in the claim that in the problematic cases there really is no overlap between categories since while the genera are spoken of in relation to something, the species are not. Now, how is this possible? Pagus replies:¹⁴⁵

It is to be said that speaking according to truth and being, the species are in the same category as the genus, as the objection goes. It is possible, however, for the genera of state to be in the genus of relation according to the way they are expressed, even though their species are not.

The reply is somewhat compressed and needs a bit of unpacking. The important point here is the distinction between something 'according to the way it is expressed' (*secundum dici*) and something 'according to being' (*secundum esse*). This is a common medieval distinction with respect to the category of relatives, based on the two definitions of relatives that, as we saw earlier, Aristotle offers in *Categories* 7.¹⁴⁶ In a sense, the second of Aristotle's two definitions re-

145. John Pagus, *Rat. sup. Praed.* XXXVII, Q₃ (ed. Hansen, 217): "Et dicendum quod loquendo secundum veritatem et esse in quocumque praedicamento est genus, et species, ut obicitur. Genera tamen habituum possunt esse in genere relationis secundum dici, licet non sint species in eodem."

146. For Aristotle's two definitions of relatives, see n. 133 and n. 134 above. The "linguistic" reading of Aristotle's initial definition of relatives has a long history and has been embraced by commentators from Ammonius to Ackrill. Its merits have recently been disputed by Sedley 2002: 332sq., but note that the medievals do not, as Sedley seems to think, usually claim that there is no basis in reality for the fact that certain items are *said* or *called* in relation to something (see, for example, Thomas Aquinas, *Summa theologiae* I 13, 7 ad 1). Indeed, it is not entirely clear that the medieval way of putting the distinction is worse off in this respect than is Sedley's own way of explicating the difference between what he calls soft relativity and hard relativity respectively (Sedley 2002: 334): "On the original definition, which I shall call soft relativity, *F* is relative provided only that the statement that *x* is *F* requires a completion: *x* is *F* of *y*, than *y*, for *y*, or whatever the relation might be. On the revised definition, which I shall call hard relativity, being *F* does not merely entail some such relation, but actually consists in that relation." (our underlining).

places the linguistic criterion of the first definition with an ontological one. That is to say, the second definition apparently concerns the being of things, whereas the first relies on certain facts about how they are expressed. This is what the medieval distinction captures: relatives *secundum dici* are items satisfying the first of Aristotle's two definitions, relatives *secundum esse* are such as satisfy the second. According to Aristotle, all items satisfying the second definition also satisfy the first, but not vice versa.¹⁴⁷ And ultimately it seems to be satisfaction of the second, more restrictive, definition that is required for something to count as a true relative.

Pagus' claim, then, is this: The genera that Aristotle mentions are all relatives *secundum dici*. They satisfy the first of the two definitions, but this does not imply that they satisfy the second. And, in fact, Pagus takes it, they don't. They are not relatives *secundum esse*. They are internal states of their bearers and, as such, qualities. Consequently, they do in fact fall under the same category as their species, and so the inconsistency with the Generic Interpretation is merely apparent.

This solution is rather neat. As Pagus has seen, Aristotle in the passage here concerned invokes the first of his two definitions of relatives. But since he has already indicated that that definition is too broad, nothing here strictly speaking forces one to accept that knowledge – or, for that matter, any other state or condition – is truly relative. The interpretation also avoids a clash with a general rule found in the *Topics*:¹⁴⁸

To speak generally, the genus ought to fall under the same division as the species; for if the species is a substance, so too should be the genus, and if the species is a quality, so too the genus should be a quality; e.g. if white is a quality, so too should colour be. Likewise also in other cases.

147. Arist., *Cat.* 7.8a33–35.

148. Transl. Pickard-Cambridge. Arist., *Tóp.* IV.1.121a5–9: “καθόλου δ' εἰπεῖν ὑπὸ τὴν αὐτὴν διαίρεσιν δεῖ τὸ γένος τῷ εἶδει εἶναι· εἰ γὰρ τὸ εἶδος οὐσία, καὶ τὸ γένος, καὶ εἰ ποῖόν τι τὸ εἶδος, καὶ τὸ γένος ποῖόν τι οἶον εἰ τὸ λευκὸν ποῖόν τι, καὶ τὸ χρῶμα, ὁμοίως δὲ καὶ ἐπὶ τῶν ἄλλων.”

According to this rule, since grammar is a quality, its genus, knowledge, should also be a quality. And that, on Pagus' interpretation, is exactly what it is.

What then about Aristotle's second solution, namely the claim that one and the same item might fall under both the genus of quality and the genus of the relative? Pagus' take on this is more vague. Aristotle's claim here should be understood, he says, so that the same item, *taken in different respects*, may fall under two coordinate genera.¹⁴⁹ What precisely this position amounts to is not entirely clear. However, since Pagus seems to take it that the fact that some items satisfy the first definition of relatives is at bottom due to their being somehow *non-essentially* related to something, perhaps he means to say that, taken according to this non-essential aspect, they are in some loose sense in the category of relatives – similar, perhaps, to the way in which some items are said to be *per accidens* quantities in *Categories* 6.5a38–b10.¹⁵⁰

If this is correct, Pagus' interpretation may be summed up as follows: The fact that several of the same items turn up both in the discussion of quality and of relatives is due to the peculiar way in which Aristotle proceeds in his discussion of the latter category. Once the true definition of relatives has been secured, the problem in fact vanishes. Aristotle's remarks that there are qualities which have relative genera must be understood in the broad linguistic sense of relatives as they are initially defined in chapter 7, and taken in this way the claim is perfectly consistent with the Generic Interpretation. The second claim that Aristotle makes is to be understood so that something might be in one category *per se* and in another *per accidens*. Such double classification is suggested by Aristotle

149. John Pagus, *Rat. sup. Praed.* XXXVII, Q₄ (ed. Hansen, 217): "Et dicendum quod intelligit secundum diversos respectus, sicut patet de disciplina, quia accepta absolute prout subiectum denominat et qualificat est in praedicamento qualitatis, in quantum vero est actio doctoris in discipulum, ut Ali attestatur, quia tunc non habet suum esse in doctore absolute acceptum sed etiam prout a discipulo recipitur, sic est in praedicamento relationis." The reference is to Ali Ibn Ridwan's commentary on the *Tegni* of Galen.

150. For Pagus on categorial exclusivity and on relatives, see Hansen 2012: 97*–100*, 125*–135*.

himself with respect to quantity and would seem to be fairly benign: it is still not possible for one and the same item to be in more than one category *per se*. Categorical Exclusivity still holds when it comes to categorization in the strict (*per se*) sense.¹⁵¹

Let us turn now to the second interpretation. It is, as already mentioned, found in an anonymous commentary dating from around the middle of the 13th century. The anonymous commentator tries to cut through the exegetical knot in the following way:¹⁵²

But perhaps the name, ‘knowledge,’ like any other relative, brings together in itself two items, one of which is a thing and the other a respect or directedness of the thing signified by the name, ‘knowledge.’ Knowledge is, without a doubt, a quality; the directedness, however, belongs to the genus of relation. And because this relation inheres in the quality in question, the quality is paronymously called from such a relation, and this paronymy is signified when it is said that ‘Knowledge is towards something’ or ‘Knowledge is a relative.’

151. Thus interpreted, Pagus subscribes to a version of what Morrison 1992 calls weak exclusivity. Morrison (35) objects to this type of interpretation, which he finds in some of the ancient commentators, as a solution to the passage in question, but to the three reasons Morrison gives for this Pagus would perhaps respond by saying (ad 1) that Aristotle here in fact invokes the initial definition of relatives, not the revised definition which restricts the category of relatives to essential (*per se*) relatives; (ad 2) that the initial list of relatives in ch. 7 is really just a list of items that satisfy the initial definition of relatives, which does not make them essential relatives; and (ad 3) that virtue (which is what the essentialist language in *Topics* 124b20-22 is used of), like knowledge, is relative merely *per accidens*, whereas essentially it is a quality like noble and good.

152. Anon. *Domus Petri* 205, in *Cat.* (ed. Hansen, forthcoming): “Aut forte hoc nomen, ‘scientia,’ sicut et omne relativum, aggregat in se duo, quorum unum est res et alterum est respectus vel inclinatio illius rei significatae per hoc nomen, ‘scientia.’ Qualitas sine dubio est scientia, ipsa vero inclinatio est de genere relationis. Et quia ista relatio est in hac qualitate, ipsa qualitas denominatur a tali relatione; et haec denominatio significatur cum dicitur, ‘Scientia est ad aliquid’ vel ‘Scientia est relativum.’ Denominative igitur praedicatur res praedicamenti relationis de scientia, et ex hoc non sequitur quod scientia sit de genere relationis. Immo potius sequitur oppositum, scilicet quod non sit, quia nihil praedicatur denominative de rebus sui generis. Non ergo est scientia de genere relationis licet sit relativa, sicut non est substantia de genere qualitatis licet sit qualis vel quantitatis licet sit quanta. Erit ergo scientia solum in genere qualitatis, et sic non erit idem in diversis generibus.”

Thus, a thing belonging to the category of relation is predicated paronymously of knowledge, and from this it does not follow that knowledge belongs to the genus of relation. Actually, it is rather the opposite which follows, namely, that it does not belong to the genus of relation, for nothing is predicated paronymously of things belonging to its own genus. Therefore, knowledge does not belong to the genus of relation, even though it is relative, just like a substance does not belong to the genus of quality, even though it is qualified, or to the genus of quantity even though it is quantified. Therefore, knowledge will belong only in the genus of quality, and so the same thing will not be in different genera.

The idea seems to be basically this: The apparent problem here stems from a failure to properly distinguish between the abstract and the concrete – a distinction which Aristotle himself is careful to draw in his discussion of the category of quality.¹⁵³ What that category strictly speaking collects are items such as whiteness and justice, not the white and the just.¹⁵⁴ Similarly, the category of *πρός τι* collects items such as equality and similarity rather than the equal and the similar. Of course, Aristotle has no abstract noun corresponding to the Latin *relatio*,¹⁵⁵ but he does, in fact, recognize the relevant distinction also with regard to this category in his philosophical lexicon in *Metaphysics* V, and allows a use of the expression *πρός τι* in which it refers to the abstract properties in virtue of which things are said to be relative:

Further, there are the properties in virtue of which the things that have them are called relative, e.g. equality is relative because the equal is and similarity because the similar is.¹⁵⁶

153. Arist., *Cat.* 8.10a27–29: “Ποιότητες μὲν οὖν εἰσὶν αἱ εἰρημέναι, ποιά δὲ τὰ κατὰ ταύτας παρωνύμως λεγόμενα ἢ ὀπωσοῦν ἄλλως ἀπ’ αὐτῶν.”

154. Cf. Ackrill 1963: 73.

155. This fact is obscured by Boethius’ Latin translation, a version of which is used by the commentators here in question, since Boethius renders *πρός τι* sometimes as *ad aliquid*, sometimes as *relativum*, and sometimes as *relatio*.

156. Transl. Ross, modified. Arist., *Metaph.* V.15.1021b6–8: “Ἔτι καθ’ ὅσα τὰ ἔχοντα λέγεται πρὸς τι, οἷον ἰσότης ὅτι τὸ ἴσον καὶ ὁμοιότης ὅτι τὸ ὅμοιον.”

According to our anonymous commentator, then, knowledge is a quality, but it is a quality that somehow involves a directedness towards something, namely, towards an object of knowledge. This directedness taken in itself, however, belongs to the category of relation and must be distinguished from the quality that grounds it. It is true to say that ‘knowledge is relative,’ but this does not imply that knowledge is a relation and so belongs to the category of relation, rather it is a case of paronymous predication and as such it as a rule involves items in different genera.¹⁵⁷ It is, in other words, a statement to the effect that an item in one category holds of an item in another. There is, then, no problem, as the objection supposes, in including many *relatives* when proposing to discuss quality, simply because many qualities, such as knowledge, *are* relatives.

The question is, of course, how on this interpretation one can make sense of Aristotle’s apparent denial that grammar is relative:¹⁵⁸

But seeing as grammar holds the same relation to its specific object of knowledge as knowledge taken simply does to the object of knowledge taken simply, why cannot grammar be said to be relative because of the directedness that it has to its specific object of knowledge just as well as knowledge is said to be relative because of the directedness that it has to the object of knowledge taken simply?

This question is important, because a plausible answer to it is required for the interpretation to be successful. The answer is this:¹⁵⁹

157. Arist., *Tóp.* II.2.109b4-7: “ἀπ’ οὐδενὸς γὰρ γένους παρωνύμως ἡ κατηγορία κατὰ τοῦ εἴδους λέγεται, ἀλλὰ πάντα συνωνύμως τὰ γένη τῶν εἰδῶν κατηγορεῖται· καὶ γὰρ τοῦνομα καὶ τὸν λόγον ἐπιδέχεται τὸν τῶν γενῶν τὰ εἶδη.” For Aristotle’s definition of paronyms, see Arist. *Cat.* 1a12-15: “παρόνυμα δὲ λέγεται ὅσα ἀπὸ τινος διαφέροντα τῇ πτώσει τὴν κατὰ τοῦνομα προσηγορίαν ἔχει, οἷον ἀπὸ τῆς γραμματικῆς ὁ γραμματικὸς καὶ ἀπὸ τῆς ἀνδρείας ὁ ἀνδρεῖος. Cf. Ackrill’s comments in Ackrill 1963: 72-73.

158. Anon. *Domus Petri* 205, in *Cat.* (ed. Hansen, forthcoming): “Sed ex quo grammatica habet eandem relationem ad suum scibile quam habet scientia simpliciter ad scibile simpliciter, quare non potest adeo bene grammatica dici ad aliquid per inclinationem quam habet ad suum scibile sicut dicitur scientia ad aliquid per inclinationem quam habet ad scibile simpliciter?”

159. Anon. *Domus Petri* 205, in *Cat.* (ed. Hansen, forthcoming): “Et hoc est quia per hoc nomen, ‘scientia,’ significatur ista res et ista inclinatio, et ideo scientia dicitur ad

This is because the name ‘knowledge’ signifies both the thing and the directedness, and so knowledge is said to be relative. The thing, however, signified by the name ‘grammar’ does in truth have such a directedness, but that directedness is not actually signified by that name, and so grammar is not said to be relative. But if you were to invent a name that signified a species of this sort as well as this directedness, that name would be said to be relative.

The problem, in other words, boils down to linguistic facts, namely, what the nouns ‘knowledge’ and ‘grammar’ signify. Basically, the claim is that ‘knowledge’ signifies a quality plus a relation, whereas ‘grammar’ signifies only a quality. We may perhaps say that ‘knowledge’ seems to be open to an additional complement (knowledge *of* B) which ‘grammar’ isn’t, and that our commentator in sum seems to take this ‘openness’ as being significative of a directedness or relation which the thing signified by the name bears and taken separately from which it cannot be said to be relative; thus, if this ‘openness’ is missing from the signification of the name of a given item, as is the case with ‘grammar’, that item cannot simply under that name be described as relative.

In sum, the objection is met. It is explained why it is unproblematic to count in many relatives when proposing to discuss quality, and it is also explained how a species in contrast to its genus can fail to count as relative. Neither of these scenarios is detrimental to Categorical Exclusivity. With regard to its categorial status, apparently, the fact that an item can be paronymously described as relative implies no more than that it does not belong to the category of relation.

What, then, about Aristotle’s second solution? According to the anonymous commentator, it actually amounts to the same: If the same thing happens to be a quality and a relative in the way just described there is nothing absurd in this. One and the same thing can be a quality and a relative, but it cannot be a quality and a rela-

aliquid. Res vero significata per hoc nomen, ‘grammatica,’ in veritate habet inclinationem, sed illa inclinatio in veritate non significatur per illud nomen, et ideo non dicitur ad aliquid grammatica. Sed si tu imponeres nomen quod significaret huiusmodi speciem simul cum hac inclinatione, illud nomen diceretur ad aliquid.”

tion, and it is only this latter scenario that would compromise Categorical Exclusivity.¹⁶⁰

The third interpretation is that of John Duns Scotus, writing around the turn of the 14th century. In Scotus' commentary the following objection to Aristotle's first type of quality (state and disposition) is raised:¹⁶¹

The items which are posited in this species, such as knowledge, virtue, and suchlike, are relatives according to what Aristotle himself says above in the chapter on relation and in many of the precepts he gives about relative opposites in the fourth book of the *Topics*. And if they are towards something, then their genus, namely, state, is towards something (that this follows is clear from Aristotle's first precept about relative opposites in the fourth book of the *Topics* (IV.4.124b16)). Thus, state is not a species of quality.

Scotus replies to the objection as follows:¹⁶²

nothing that is in this mode <of quality> – according to the signification by which it is essentially a quality – is in the genus of relation in and of itself, neither as a relation nor as a paronym of relation. If it is, this is according to another signification.

160. Anon. Domus Petri 205, in *Cat.* (ed. Hansen, forthcoming): “Non est ergo solutio alia quam ponit Aristoteles cum dicit: *Amplius si contingit* etc. (8.11237) Sed ex antecedente posito sub conditione infert quod intendit, et suum antecedens ostendit in parte praecedenti, scilicet quod contingit unum et idem esse qualitatem et relativum, non autem unum et idem contingit esse qualitatem et relationem.”

161. John Duns Scotus, *Quaestiones super Praedicamenta Aristotelis* q. 31 (ed. Andrews et al., 475): “Item, quae ponuntur in hac specie, ut scientia, virtus et huiusmodi, sunt relativa per Aristotelem supra in capitulo de relatione et in quarto *Topicorum* in multis considerationibus de relative oppositis. Et si illa sint ad aliquid, igitur genus eorum, quod est habitus, est ad aliquid. Consequentia patet per Aristotelem quarto *Topicorum*, prima consideratione de relativis oppositis. Igitur non est species qualitatis.”

162. Scotus, *Quaest. sup. Praed.* q. 31 (ed. Andrews et al., 485): “nullum quod est in hoc modo, secundum illam significationem secundum quam est essentialiter qualitas, est per se in genere relationis, sive ut relatio sive ut dictum denominative ab relatione; sed si sic, hoc est secundum aliam significationem.”

Scotus' point is that if any one of these items (knowledge, etc.) seems to show up in two distinct categories, this is because there is not actually one but rather two distinct items which are homonyms in the sense of *Categories* I.¹⁶³

That 'knowledge' is, in fact, ambiguous in this way is explicitly stated by Scotus elsewhere in his commentary:¹⁶⁴

In this way, it can be said that items that are *per se* relatives are in the genus of relation, just like the concreta of the others are in the other genera, as will be explained later. And so, it is not the case that one and the same item is essentially a *per se* relative and a species of some other genus. Thus, 'knowledge' is homonymous between signifying a state of the mind and signifying an image of that which can be known; and these two are essentially distinct. The first is a species of quality, the second is a *per se* relative.

'Knowledge' is ambiguous between (a) the state of (the mind of) the person who knows something and (b) the relation of representation which holds between (presumably) that state and the object of knowledge. Of these, (a) is an item belonging to the category of quality, whereas (b) is an item belonging to the category of relation (taken concretely).¹⁶⁵ Let us refer to these two items as knowledge_Q and knowledge_R respectively.

163. For Aristotle's definition of homonyms, see Arist., *Cat.* 1.1a1-6: "Ὁμώνυμα λέγεται ὧν ὄνομα μόνον κοινόν, ὁ δὲ κατὰ τοῦνομα λόγος τῆς οὐσίας ἕτερος, οἷον ζῶον ὃ τε ἄνθρωπος καὶ τὸ γεγραμμένον· τούτων γὰρ ὄνομα μόνον κοινόν, ὁ δὲ κατὰ τοῦνομα λόγος τῆς οὐσίας ἕτερος· ἂν γὰρ ἀποδιδῶ τις τί ἐστὶν αὐτῶν ἑκατέρῳ τὸ ζῶον εἶναι, ἴδιον ἑκατέρου λόγον ἀποδώσει." Cf. Ackrill's comments in Ackrill 1963: 71-72.

164. Scotus, *Quaest. sup. Praed.* q. 10 (ed. Andrews et al., 338): "Ideo potest dici quod per se relativa sunt in genere relationis, sicut concreta aliorum sunt in aliis generibus, de quo dicitur post; et ita nihil idem essentialiter est per se relativum et species alterius generis. 'Scientia' ergo aequivocum est ad significandum habitum mentis et ad significandum imaginem scibilis, quae duo essentialiter sunt diversa. Primo modo est species qualitatis, secundo modo per se relativum."

165. Scotus thus disagrees with the anonymous commentator whose views were discussed above about what the categorial status of paronyms is. Basically, the disagreement seems to hinge on the question *what* a paronym properly speaking is.

Scotus explicitly denies that the distinction between relatives according to expression and according to being is an ontologically valid division of *relatives*:¹⁶⁶

Relatives are in no way divided into relatives according to being and relatives according to expression, because if the members are taken strictly (*praecise*), a relative according to expression is no more a relative than a dead man is a man.

‘But,’ he adds:¹⁶⁷

perhaps *beings* are divided so that some are relative according to being, such as those that are said paronymously from relations; others, however, are relatives according to expression, such as those that belong to other genera and are said towards other things according to some relation; these are not, however, relatives simply speaking.

On this view, knowledge_Q will be relative according to expression, as will head and hand. When it comes to things that are relative according to being, however, Scotus maintains that they come in two varieties:¹⁶⁸

Scotus seems to take it to be an accidental form taken concretely; the anonymous commentator seems to take it to be the item which bears such a form.

166. Scotus, *Quaest. sup. Praed.* q. 26 (ed. Andrews et al., 443): “Dicendum igitur quod relativa nullo modo dividuntur in relativa secundum esse et relativa secundum dici, quia sumendo membra praecise, relativum secundum dici non est magis relativa quam homo mortuus est homo.”

167. Scotus, *Quaest. sup. Praed.* q. 26 (ed. Andrews et al., 443): “Forte tamen entia sic dividuntur quod quaedam sunt relativa secundum esse, ut illa quae denominative dicuntur a relationibus, quaedam autem sunt relativa secundum dici, ut quae sunt in aliis generibus et secundum aliquam habitudinem dicuntur ad alia; illa tamen simpliciter loquendo non sunt relativa.”

168. Scotus, *Quaest. sup. Praed.* q. 26 (ed. Andrews et al., 443-44): “Sed vere relativorum quaedam dicuntur secundum suam propriam formam ad aliud, ut quae sunt primo relativa, alia sunt vere relativa et per se, sed non dicuntur secundum propriam formam ad alia, ut sunt relativa secundum genus; illa enim sunt per se relativa sed non primo, et dicuntur ad alia secundum formam sui generis, ut si scientia sit per se relativum, impossibile est illud quod est eius species secundum illam significationem

But of true relatives some are said towards something else according to their own proper form, such as those items which are relatives in a primary way (*primo*); others are indeed true relatives and *per se* but are not said towards something else according to their own proper form, such as those items which are relative in virtue of their genus. For these are *per se* relatives but not in a primary way, and they are said towards something else via the form of their genus. For example, if knowledge is a *per se* relative, it is impossible for that which is a species of it according to that signification, not to be a relative (for then the genus and species would not be in the same genus), but it is not relative in a primary way, for it is not by virtue of what it adds to its genus; and so, it is said towards the correlative of the genus via the genus itself.

The basic idea here is that something may be a *per se* relative in two ways, either in a primary way or in a derivative way, that is, either in virtue of itself or in virtue of the genus to which it belongs. Knowledge_R is a *per se* relative in virtue of itself, and so species of knowledge_R will also be *per se* relatives, albeit only in virtue of their genus (knowledge_R). Grammar, for example, is, as Aristotle says, not called *grammar* of something (it is not said towards something else according to its own proper form). It is, however, called *knowledge* of something¹⁶⁹ (it is said towards something else via the form of its genus), and it is a *per se* relative, although not in a primary way. In fact, Aristotle himself might be understood to say exactly this in the chapter on relatives in *Metaphysics V*:¹⁷⁰

Things that are by their own nature called relative are called so sometimes in these senses, sometimes because the classes that include them are of this sort, e.g., medicine is thought to be relative because its genus, knowledge, is thought to be relative.

non esse relativum (quia tunc genus et species non essent in eodem genere). Sed non est primo relativum quia non secundum illud quod superaddit suo generi, et ideo dicitur ad correlativum generis secundum ipsum genus.”

169. Arist., *Cat.* 8.11a26–31.

170. Transl. Ross, modified. Arist., *Metaph.* V.15.1021b3–6: “τὰ μὲν οὖν καθ’ ἑαυτὰ λεγόμενα πρὸς τι τὰ μὲν οὕτω λέγεται, τὰ δὲ ἂν τὰ γένη αὐτῶν ἢ τοιαῦτα, οἷον ἡ ἰατρικὴ τῶν πρὸς τι ὅτι τὸ γένος αὐτῆς ἢ ἐπιστήμη δοκεῖ εἶναι πρὸς τι.”

So, arguably there seems to be a basis in Aristotle for Scotus' approach.

For Scotus, then, the problems here resolve into homonymy. If something happens to actually turn up in two distinct categories, this is unproblematic, as Aristotle's second solution in *Categories* 8 would have it, as long as it is recognized that that something is, in fact, homonymous. And since in this case, there is not actually one but rather two (or more) distinct items, this is perfectly consistent with Categorical Exclusivity. Furthermore, once the ambiguity has been removed, the species and the genus will always be in the same category. The species of Knowledge_R are themselves *per se* relatives, as the Generic Interpretation would seem to require, and as Aristotle himself says in *Metaphysics* V.

We have seen, we believe, three interesting suggestions of how to interpret a "perplexing" passage in Aristotle's *Categories*, and we have found solutions to the problems it poses that to a large extent rely on ideas found in Aristotle's own writings. Furthermore, all three commentators actually manage to make sense of the passage without sacrificing Categorical Exclusivity and the Generic Interpretation. None of them perhaps manages to settle the matter once and for all, but as Aristotle himself points out at the end of his discussion of the category which seems to be causing all these problems, the category of relatives:¹⁷¹

It is perhaps hard to make firm statements on questions such as these without having examined them many times. Still, to have gone through the various difficulties is not unprofitable.

171. Transl. Ackrill, slightly modified. Arist., *Cat.* 7.8b21-24: "ἴσως δὲ χαλεπὸν περὶ τῶν τοιούτων σφοδρῶς ἀποφαίνεσθαι μὴ πολλακίς ἐπεσκεμμένον, τὸ μέντοι διηπορηκέναι ἐφ' ἕκαστον αὐτῶν οὐκ ἄχρηστόν ἐστιν."

CASE STUDY 3

Aristotle and the Medievals on *De Interpretatione*

Since late Antiquity, if not even earlier, an influential approach to Aristotle's linguistic ideas holds that the *Categories*, *De interpretatione* and the *Prior Analytics* form a logical triad that deals with preliminaries to the demonstrative method, so that the *Categories* deals with the logic of simple terms (meaning), *De interpretatione* with the logic of assertions (truth and falsity) and the *Prior Analytics* with the logic of syllogisms (validity).¹⁷² According to this approach, which we shall call the "formal" approach, *De interpretatione* constitutes an analysis of premisses as regards truth-conditions, an analysis that is a necessary preamble to the analysis of formal validity in the *Prior Analytics*. This approach, famously taken by Aristotle's Neo-Platonic commentators, is still reflected in the organization of logical *summae* of the 13th century as well as in commentaries on Aristotelian logic from the same period (e.g. Thomas Aquinas), and it sat well with the programme of 20th-century analytical philosophy of language. Ackrill, for instance, also considered the treatise as a preamble to the *Prior Analytics*;¹⁷³ and, as we shall show below, a similar assumption underlies Putnam's severe judgment of the Aristotelian semantic tradition.¹⁷⁴

172. Cf. Simplicius, *In Cat.* (ed. Kalbfleisch, 4); and Porphyry, *In Cat.* (ed. Busse, 56), where Porphyry rejects the title Πρὸ τῶν τοπικῶν for the *Categories* and proposes that in such a case $\text{Πρὸ τοῦ Περὶ ἑρμηνείας}$ would be more adequate. According to Richard Bodéüs, this organization of the three treatises in the same "logical" block would owe a lot to the intention of ancient editors of and commentators on Aristotelian logic to present it as a formal logical system equivalent to the one that is found in stoic logic. This explanation is put forth and documented in his introduction to the edition of the *Categories* in *Les Belles Lettres*. See Bodéüs 2002: XI-XXIII.

173. Cf. Ackrill 1963: 69-70.

174. See below Appendix, p. 189

Some contemporary Aristotelian scholars have questioned this traditional approach to the subject matter of *De interpretatione* and the traditional place given to it within the *Organon*. Whitaker, for instance, sees the treatise as a preamble to the *Topics* and the *Sophistical Refutations* rather than to the analytical treatises (Whitaker 1996); and Jonathan Barnes sees no link at all to the analytical treatises.¹⁷⁵

In the study to follow, we shall introduce a different possible approach to the *De interpretatione*, namely the one that we find in a couple of masters of Arts of the University of Paris in the 13th century – Nicholas of Paris (ca. 1240s) and Radulphus Brito (ca. 1290s). This approach, which we shall call “communicational”, as opposed to the traditional “formal” one, presents us with a different perspective both on the subject matter of the treatise and of its place within the *Organon* by giving a central place to the communicational use of language while somewhat neglecting its formal analysis. This has the effect that certain linguistic problems – ambiguity, for instance – are dealt with in a way that seems to be more compatible with Aristotle’s attitude towards language. Therefore, we shall try to argue that a communicational approach to Aristotle’s linguistic ideas should be seriously considered in contemporary Aristotelian scholarship.

The Case of Master Nicholas of Paris

Nicholas of Paris’ commentary on *De interpretatione* has come down to us in two versions, which we shall call the Munich and the Vatican recensions.¹⁷⁶ In the proem of the Munich recension Nicholas, in accordance with standard procedure in his day, determines the ma-

175. Barnes 2009: 143: “Tout comme les *Catégories* ne disent rien, ou presque rien, d’utile par rapport au *De l’interprétation*, de même le *De l’interprétation* ne dit rien, ou presque rien, d’utile par rapport aux *Analytiques*. Tout ce dont les *Analytiques* ont besoin relativement à la grande partie du *De l’interprétation* est sans pertinence pour la syllogistique. De plus, il y a des passages qui contredisent, ou qui semblent contredire, la doctrine des *Analytiques*.”

176. The Munich recension is found in ms Bayerische Staatsbibliothek, clm. 14460, ff. 62ra–100vb) and the Vatican recension in ms Vat. lat. 3011, ff. 21vb–34vb). For an edition of lections 1 to 3 of both recensions of Nicholas of Paris’ commentary on *De interpretatione*, see Hansen & Mora-Márquez 2011.

terial cause, i.e. the subject matter, of the text.¹⁷⁷ He starts with a description of the cognitive faculties and operations of the soul – the sensitive and the rational faculties and the operations of apprehending (*apprehensio*) and judging (*iudicium*). In order to show that the rational operation of apprehending is prior to the rational operation of judging, Nicholas establishes a parallel between the processes involved in sensitive knowledge and those involved in rational knowledge. Operating with such a parallelism was common enough at the time, and could even claim Aristotelian descent (cf. *De anima* III.4.429a16-18). In the Munich recension the priority of apprehension over judgment is simply stated as a matter of fact, but in the Vatican recension Nicholas puts forth the following argument: If apprehending the object of sensation were not prior to judging it, then mirrors would judge about their object; this is obviously false; therefore etc.¹⁷⁸ He points out, however, that this priority is not temporal, but natural – one cannot perceive it, but it follows from the different nature of the two operations.

Just as in sensitive cognition apprehending is prior to judging, so rational apprehending is prior to rational judging. Nicholas describes the psychological mechanisms of these operations as follows:

1. The *species*¹⁷⁹ that are received in the sensitive faculty are offered to the rational faculty.
2. The rational intellect separates them from individuating conditions, thanks to the illumination of the agent intellect.
3. They are then received in (or apprehended by) the possible intellect.
4. Thereafter, the rational intellect turns itself to its *species* and composes or separates them, and judges (*iudicat et discernit*) about the truth and falsity of this composition or separation.¹⁸⁰

177. See pp. 60-61.

178. Cf. Nicholas of Paris, in *Perih.*, 52, 5-7 (ed. Hansen & Mora-Márquez).

179. Note that the term 'species' in this context refers to the cognitive representation of a form, whether it is in the sensitive faculty (*species sensibilis*) or in the rational faculty (*species intelligibilis*).

180. Nicholas of Paris, in *Perih.*, 13, 1-14, 2 (ed. Hansen & Mora-Márquez): "Omne

Nicholas next introduces the notion of a “true item” (*verum*), which is the result of the rational operations of apprehending and judging. Hence, there is a true item corresponding to apprehending – the *verum apprehensum*, and there is a true item corresponding to judging – the *verum notum*. This last true item can, in its turn, be a true item known by complete knowledge or *scientia* – a *verum notum completa notitia*, when the reflexive knowledge of the intellectual composition or division is “complete”.¹⁸¹ This knowledge is further divided into a *scientia* acquired *per se* and a *scientia* acquired by means of an argument. A true item known by incomplete knowledge or opinion – a *verum notum incompleta notitia* – occurs when the reflexive knowledge is “incomplete”.¹⁸² Incomplete knowledge is further divided into opinion acquired *per se*, and opinion acquired by means of an argument.¹⁸³

iudicium praecedit apprehensio. Et hoc apparet in cognitione sensitiva. [...] Similiter in cognitione intellectiva. Nam species receptae in phantasia offeruntur intellectui, et intellectus eas abstrahit a phantasmate et condicionibus materialibus, et sic recipiuntur in intellectu possibili, illuminante agente. Post receptionem et apprehensionem convertit se super species receptas et componit vel dividit et de veritate compositionis vel divisionis iudicat et discernit. Licet enim apprehensionis et iudicii non percipiatur distantia in tempore, nec in sensu nec in intellectu, tamen apprehensio naturaliter praecedit cognitionem et iudicium de eo quod apprehensum est.”

181. Nicholas uses Augustinian terminology when he makes this distinction between true items, so that the different sorts of reflexive knowledge of the intellectual composition and division are referred to with the terms *notitia* and *scientia*. Cf. *De trinitate*, XIV, VII, 9-10 (ed. IEA).

182. One could suppose that for a knowledge to be complete its truth ought to be evident *per se* to everyone, whereas a knowledge is incomplete if its truth is accepted by everyone, or by most people, or by the wise, or by most of them, or by the most famous of them, etc. (cf. *Tóp.* I.1).

183. Nicholas of Paris, in *Perih.* 14, 3 – 17 (ed. Hansen & Mora-Márquez): “Patet ergo quod differt verum prout apprehensum et prout notum. Item, differunt vera nota. Nam quoddam est notum completa notitia, quoddam incompleta notitia (et appello completam notitiam intellectum vel scientiam prout intellectus est nomen habitus, incompletam vero opinionem). Item, verum notum incompleta notitia, quod est opinatum vel visum, adhuc differt, quoniam aliquod visum est per se sive per aliquid intra se, quoddam visum est per aliud [...]. Similiter, verum notum completa notitia quoddam est notum per se sive per aliquid intra se, quoddam per aliud.”

The following step is to introduce a parallel between language and the intellectual realm, a parallel that is justified by the claim that “utterances are marks of passions of the soul” (*Int.* I.16a3) and that is followed by a mapping of different sorts of utterances onto three of the treatises of the *Organon*, namely *De interpretatione*, *Topics* and *Posterior Analytics*. Significant expressions can be divided in the same way as the true items in the intellectual realm, so that we have:

1. *Verum notum incompleta notitia visum per se* = dialectical premiss (*Topics*).
2. *Verum notum incompleta notitia visum per aliud* = dialectical conclusion (*Topics*).
3. *Verum notum completa notitia notum per se* = demonstrative premiss (*Posterior Analytics*).
4. *Verum notum completa notitia notum per aliud* = demonstrative conclusion (*Posterior Analytics*).
5. *Verum notum apprehensum circumscripta omni notitia* = assertion (*De interpretatione*).¹⁸⁴

Hence, the subject matter of *De interpretatione* is the assertion (*enuntiation*) that is susceptible of becoming a dialectical or a demonstrative premiss or conclusion, depending on whether its truth-value is evident *per se* or generally accepted, but without regard to the *actual*

184. Nicholas of Paris, in *Perih.*, 14, 18 - 15, 9 (ed. Hansen & Mora-Márquez): “Quoniam autem voces sunt notae passionum et compositionum quae sunt penes animam, sicut differt verum apprehensum et verum notum, et verum notum sic et sic, ut dictum est, ita differunt sermones significantes. Verum enim notum incompleta notitia quod visum est per se significatur per propositionem dialecticam. Si vero videtur per aliud, significatur per conclusionem dialecticam; [...]. Verum autem notum notitia completa quod notum est per se vel per aliquid intra se significatur per propositionem demonstrativam, quod vero notum est per aliud significatur per conclusionem demonstrativam. Verum autem vel falsum prout est apprehensum, circumscripta omni notitia, significatur per interpretationem vel per enuntiationem. De propositione dialectica et conclusione simul agit Aristoteles in *Topics* [...]. De propositione et conclusione demonstrativa agit Aristoteles in libro *Posteriorum* [...]. De enuntiatione vero significante verum vel falsum, circumscripta notitia topici vel demonstrationis, agit Aristoteles in hoc libro *Perihermeneias*. Et est enuntiatione sive interpretatio causa materialis huius doctrinae.”

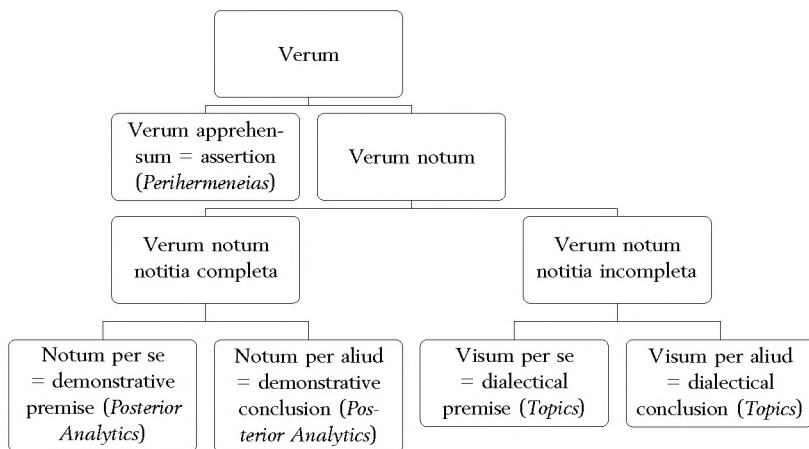


Table 1: Knowledge, Language and the *Organon* in Nicholas of Paris

determination of its truth-value. In other words, the subject matter of *De interpretatione* is the assertion that is eventually to be used in actual argumentations, but the focus here is on the features that make it a potential premiss or conclusion rather than on the features that make it an actual premiss or conclusion.

It is noteworthy that no direct link between *De interpretatione* and the *Prior Analytics* is established, but it would rather seem that *De interpretatione* makes a group together with the *Topics* and the *Posterior Analytics*. Now, the separation of *De interpretatione* from the *Prior Analytics* is made explicit in the Vatican recension, where Nicholas makes the following claim:¹⁸⁵

Because one deals here with the assertion that is separated from all matter and that can be used in every proving syllogism (and I say “proving” because it cannot be used in an inferring [syllogism]), therefore the assertion that is treated here does not yet involve a mat-

185. Nicholas of Paris, in *Perih.*, 53, 26-29 (ed. Hansen & Mora-Márquez): “Quia tractatur hic de enuntiatione abstracta ab omni materia et quae potest valere ad omnem syllogismum probantem (et dico probantem quia ad inferentem non valet). Unde per enuntiationem quae tractatur hic non adhuc intelligitur materia vel probabilis vel necessaria vel apparens, sed haec enuntiatio est tantum apprehensio de qua intellectus adhuc nihil potest iudicare.”

ter, whether probable, necessary or apparent, but this assertion is only an apprehending about which the intellect cannot yet produce any judgment.

By ruling out an immediate link with the *Prior Analytics* (which deals with “inferring” syllogisms) Nicholas implicitly denies that *De interpretatione* deals with truth-conditions, which are a prerequisite for the determination of validity-conditions in the *Prior Analytics*.¹⁸⁶ On the contrary, *De interpretatione* complements the argumentative treatises. As Nicholas considers the argumentative treatises to be fundamentally communicational (see below), *De interpretatione* must, on his view, focus on the features of the assertion that are relevant for the purpose it is supposed to serve in the communicational setting of the argumentative treatises.¹⁸⁷

The communicational character that is only suggested in the passage about the subject matter of the treatise is explicitly stated in *lectio* 2, where Nicholas discusses the content of *De interpretatione* 16a3-8.

In the Munich recension, Nicholas raises a question about the order and the sufficiency of the three “signs” introduced by Aristotle in 1.16a3-4 – written signs, utterances and thoughts.¹⁸⁸ The ques-

186. Aristotle accounts for truth-conditions in *Metaphysics* IX.10, and it is common to supplement his statement about truth and falsity in the first chapter of *De interpretatione* with this part of the *Metaphysics*, either when one is to discuss truth in Aristotle or when one wants to comment on *De interpretatione*'s claim. In the last case, however, this move is not only problematic (it is not evident at all how to square the claim in *De interpretatione* with the claims about truth and falsity with respect to uncompounded things in the *Metaphysics*), but it is also unnecessary for the understanding of *De interpretatione*, since this treatise deals with assertions that are *capable* of receiving a truth-value and with the features that make them *capable* of receiving a truth-value, but accounting for this does not amount to an account of how one *actually* determines such a truth-value.

187. Master Nicholas is not alone in thinking that the *Posterior Analytics* is set in a master-pupil setting. In fact, contemporary interpreters such as Barnes and Burnyeat have put forth a similar idea, with Burnyeat proposing against Barnes a strictly scientific master-pupil setting. Cf. Barnes 1969 and Burnyeat 1981. *Contra* Wiens 1989 with a general treatment of the modern discussion.

188. Nicholas of Paris, in *Perih.*, 27, 17-22; cf. Vatican recension, L2, Q.7-8. One ought

tion is why Aristotle introduces precisely these three kinds of sign, and why in the semantic order written signs/utterances/thoughts (i.e., written signs represent utterances that, at their turn, represent thoughts). Nicholas' response relies on a fundamentally different assumption from the common view that Aristotle's intention in *De interpretatione* is to give an account of truth-conditions for assertions, and therefore an account of univocal meaning and reference for their terms.¹⁸⁹ Nicholas assumes that Aristotle's intention is to provide us with an explanation of how languages contribute to the effective transmission of knowledge (or opinion). His argument for defending the order and the sufficiency of the triad *littera-vox-intellectus* goes as follows:

- a. These three items, no less and no more, are needed for the acquisition and the transmission of knowledge. (Statement to be proved)
- b. In order to teach, it is necessary to be in possession of the knowledge to be transmitted.
- c. One cannot be in possession of knowledge, unless one is in possession of a mental representation of the object of knowledge.
- d. Therefore, the thought is the first sign – the one that is a necessary condition for knowing.
- e. Now, there is no effective transmission of knowledge, unless the master expresses this thought by means of an utterance.
- f. Therefore, the utterance is the second sign – the one that is a necessary condition for teaching.
- g. But the transmission of knowledge depends also on there being a pupil, and the pupil could not retain the knowledge transmitted unless he could write it down by means of written signs.
- h. Therefore, the written sign is the third sign – the one that is a necessary condition for the perpetuation of knowledge.¹⁹⁰

to say that Aristotle does not introduce thoughts as a kind of sign, but rather as a resemblance of external things. Nevertheless, the exegetical tradition of considering thoughts as a kind of sign is at least as old as Manlius Boethius.

189. Cf. p. 131, above.

190. Nicholas of Paris, *in Perih.*, 30, 10-28 (ed. Hansen & Mora-Márquez): "Ad aliud dicendum quod haec signa necessaria sunt ad scientiam vel ad doctrinam et tot et sic

Nicholas is then strongly suggesting that the underlying intention of introducing the triad *littera-vox-intellectus* in the first chapter of *De interpretatione* is to explain the mechanisms of the effective communication and perpetuation of a given thought. Hence, the subject matter of *De interpretatione* is the assertion that is capable of becoming a premiss or a conclusion of a dialectical or a demonstrative piece of argumentation, and moreover *both* uses of the assertion – the demonstrative and the dialectical – are expected to take place in a communicational setting.

For Nicholas, as well as for some of his contemporaries and for Aristotle himself, the possession of knowledge (or of an opinion) is thus intimately connected to its public expression, whether to a pupil or to an opponent. Their concerns, then, regard the effective communication of knowledge rather than the determination of the accuracy of knowledge or of the univocity of signification and reference.¹⁹¹ Nicholas's setting in a predominantly oral culture was not fundamentally different from the Aristotelian one, and that gave

ordine ut primum sit passio animae, secundum vox, tertium littera. Ad hoc enim quod aliquis doceat, oportet quod prius sciat. Impossibile autem est quod sciat rem nisi rei similitudo [...] recipiatur in anima, quae similitudo repraesentat rem extra; et haec similitudo est signum rei, quod signum necessarium est ad sciendum. Quando autem sciens vult docere speciem receptam, significat eam per vocem, et est vox significativa signum passionis in anima. Sed quoniam doctrina non solum dependet a doctore sed a discipulo (oportet enim non solum doctorem docere, sed oportet discipulum retinere, ad hoc quod multiplicetur scientia), ideo, quia discipulus non poterat voces retinere propter hoc quod sunt succesivae et impermanentes, invenit sibi discipulus signum vocis permanens, id est litteram sive figuram quae est signum vocis. Et ita sunt tria signa, quorum primum, scilicet passio animae, necessarium est ad sciendum, secundum, scilicet vox, ad docendum, tertium, scilicet littera, ad retinendum.”

191. As a matter of fact, one of the main worries of Aristotle himself is how to avoid or resolve unavoidable ambiguities, and notably the ones that can take place between two interlocutors. One could claim that accounting for the logical properties of an ideal univocal language was not Aristotle's concern at all, since ambiguity is an inescapable feature of human language and therefore the ideal of perfect univocity is not an Aristotelian one. In fact, Aristotle gives extensive treatment to ambiguity (cf. *Tópicis*, *Sophistical Refutations*, *De interpretatione*). The intention underlying his treatment of ambiguity is to introduce a set of rules that brings about univocity, rather than to assume that univocity just happens and explain how it happens.

him a certain advantage over present-day interpreters when approaching the linguistic ideas that Aristotle deployed in his *De interpretatione*.¹⁹²

The Case of Radulphus Brito

A somewhat different approach to the determination of the subject matter of *De interpretatione* is found in the late 13th-century Master Radulphus Brito. As for Nicholas, so for Brito the practice of “science” is fundamentally conducted in a communicational setting – a didactic setting involving at least a master and a pupil.¹⁹³ With this underlying assumption, Brito, in the proem to his commentary on the *Isagoge*, goes on to determine the subject matter of all the treatises of the *Organon*. His determination starts by stating that there must be a science that studies the tools for scientific practice as regards the “method” – the *modus sciendi* – and this science is logic.¹⁹⁴ Now, the main tool for scientific practice as regards the method is the syllogism. Therefore, the subject matter of logic is the syllogism

192. For an analysis of the medieval oral setting as compared to the Aristotelian one, see above Case Study 1, p. ***, below.

193. Radulphus Brito, in *Isagogen, prooemium* (ed. Venice 1499, images 5 – 9) : “Aliae sunt scientiae speculativae quae sunt adminiculativae istis et sunt duae, scilicet logica et grammatica. Quod autem logica et grammatica sint adminiculativae et administrativae principalibus scientiis potest sic ostendi, et primo de logica: Quia quaelibet scientia habet modum sciendi, et propter hoc ne in qualibet ratione repetatur frequenter, oportet aliquam scientiam habere quae probet passiones et proprietates modi sciendi per eius propria principia. [...] Item. Istud probatur de grammatica, scilicet quod ipsa est adminiculativa tam scientiis speculativis quam aliis scientiis, quia quod quilibet invenit de scientia parum est; multum autem est quod ab aliis per doctrinam vel disciplinam adiscitur, ut dicitur secundo *Metaphysicae*; modo instrumentum doctrinae sive disciplinae est sermo significativus, [...]; et ideo grammatica est necessaria per disciplinam et doctrinam in omni scientia quae considerat sermonem, qui est instrumentum disciplinae. Et sic patet quod grammatica est adminiculativa omnibus aliis scientiis. Cum omnis scientia fit per disciplinam, cuius instrumentum est sermo significativus, de quo considerat grammatica, cum parum sit quod quilibet invenit, sed omnia fere habemus per disciplinam..”

194. Grammar, on the other hand, is the science that studies speech. It is noteworthy that in this respect Brito steps away from the tradition of the first half of the century, a tradition that considers speech the object of study of *both* grammar and logic.

and, hence, the division of logic into parts must depend on an analysis of the syllogism.¹⁹⁵

The syllogism can be analyzed into a formal and a material part. The *Prior Analytics* presents us with the study of the syllogism as regards its form. The matter of a syllogism can be either necessary or probable, and this difference gives rise to two species of syllogism. The *Posterior Analytics* studies the syllogism whose premisses are necessary – the demonstrative syllogism, whereas the *Topics* studies the syllogism whose premisses are probable – the dialectical syllogism. The sophistical syllogism, which is treated in the *Sophistical Refutations*, falls outside the division of the syllogism into species because, says Brito, it *is* no syllogism but only appears to be one due to a certain similarity.¹⁹⁶

Finally, the syllogism can also be analyzed into its constitutive parts – assertions and simple terms. *De interpretatione* studies its proximate constitutive parts, which are assertions when potentially in a syllogism, but premisses and conclusions when actually in a syllogism. The *Categories* studies its remote constitutive parts, which are sayables (*dicibilia*) when potentially in a syllogism, but simple terms when actually in a syllogism.¹⁹⁷

195. Radulphus Brito, in *Isagogen, prooemium* (ed. Venice 1499, images 5 – 9) : “Obmissis autem omnibus aliis, solum de logica hic intendimus; et ideo logica dividenda est secundum divisionem sui subiecti principalis. Subiectum autem in logica est modus sciendi secundum quod est instrumentum sciendi, cuiusmodi est logica, [...]. Et quia omnis modus sciendi ad quae ordinantur omnes alii modi sciendi est syllogismus, ideo secundum divisionem istius modi sciendi principalis quod est syllogismus qui dicitur esse subiectum in tota logica, et ipsa logica dividatur.”

196. Radulphus Brito, in *Isagogen, prooemium*.

197. Radulphus Brito, in *Isagogen, prooemium* (ed. Venice 1499, images 5 – 9) : “Si autem consideretur syllogismus secundum quod habet esse in partibus suis, et partibus integralibus, hoc est dupliciter, quia habet esse in partibus integralibus propinquas, et sic est liber *Peryhermeneias*, in quo determinatur de enuntiatione et propositione et de aliis quae sunt partes propinquaes syllogismi (ex pluribus enim propositionibus in modo et figura ordinatis fit syllogismus). Si autem consideretur syllogismus ut habet esse in suis partibus remotis, sic est de eo liber *Praedicamentorum*, in quo determinatur de dicibili incomplexo secundum quod est ordinabile in genere quod est pars remota syllogismi.”

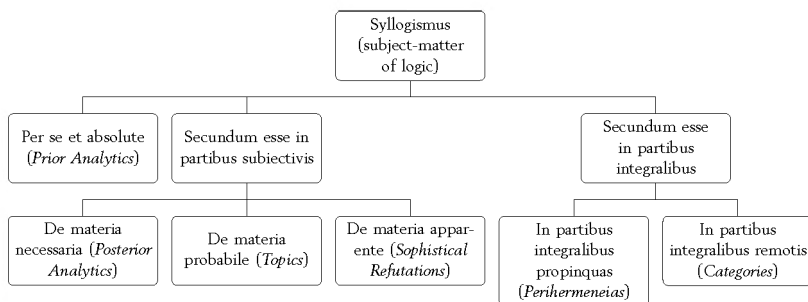


Table 2: Knowledge, Language and the *Organon* in Radulphus Brito

Just as in the case of Nicholas of Paris, here again no direct link is established between *De interpretatione* and the *Prior Analytics*. On the contrary, the assertion is considered as the proximate potential material part of dialectical and demonstrative syllogisms, syllogisms that are the main tool for practices that are fundamentally conducted in a setting of communication.

When we take a closer look at Brito's account of signification in his question-commentary on *De interpretatione* and in his question-commentary on the *Sophistical Refutations*, his communicational approach to language surfaces more clearly.

On the one hand, in his commentary on *De interpretatione*, Radulphus adheres to a description of signification according to which:

'x' signifies x if and only if 'x' brings forth the concept [x] of x to the mind of the listener.¹⁹⁸

This description of signification, whose immediate source is *De interpretatione* chapter 3,¹⁹⁹ explicitly makes the understanding of the listener a necessary condition for a word 'x' to have a signification.

198. Cf. Radulphus Brito, *in Perih. Q.3* (ed. Venice 1499, image 142) : "Maior patet quia sicut dicit Phylosophus primo huius, capitulo de verbo, "significare est intellectum constituere"; ubi probatur quod verbum aliquid significat, quia verbum prolatum constituit intellectum, et qui audit quiescit".

199. Cf. Arist., *Int.* 3.16b19-21.

The fundamental role of the listener in Brito's account of signification is even clearer in his treatment of equivocal terms, since he suggests that the disambiguation of an equivocal term can only take place by means of a collaboration between the interlocutors in a communicational exchange. This position is particularly important given that it clashes with the position taken by some earlier masters of arts. Let us illustrate this with an example.

"Whether 'a dog exists, therefore something that is able to bark exists' (*canis est, ergo latrabile est*) is a valid inference" is a question that is commonly raised in 13th-century commentaries on the *Sophistical Refutations*. In ch. 4 of that work Aristotle himself gives 'dog' (*canis*) as an example of an equivocal term;²⁰⁰ it is equivocal because it is in use both to represent a barking animal, a sea animal and a constellation. The question, then, is whether the listener is allowed to infer that something that is able to bark exists when the speaker has claimed that a dog exists. One reply to the question, e.g. the one given by Incertus SF, proposes that such an inference is not valid, because the equivocal term 'dog' in "there is a dog (*canis est*)" represents at the same time a four-footed animal, a sea-animal and a constellation, and there is no reason to assume that it represents only one of them – e.g. the four-footed animal. By contrast, if the speaker says: "there is a four-footed dog (*canis quadrupes est*)", it is possible for the listener to infer that there is something that is able to bark, because the ability to do so is uniquely characteristic of the four-footed type of dog.²⁰¹

The core problem discussed by means of the *canis est* example is whether equivocation can be removed by disambiguation, and this was an important matter of discussion for scholars from the 13th century, who standardly ask whether an equivocal term can be disambiguated by means of the adjunction of another term.²⁰² In other words, the question is whether the adjunction of a term restricting the scope of some equivocal term will make it possible to determine the truth-value of a statement containing it, and thus to determine

200. Cf. Arist., *SE* 4.166a15-20.

201. See for example Ebbesen 1997b: 156-159, for Robert Kilwardbys' position.

202. Cf. Ebbesen 1977 and 1979.

the validity of an argument containing that statement as a premiss. Now, such an adjunction can be either immediate (i.e. by means of an immediate qualification of the term, as in ‘four-footed dog’ (*canis quadrupes*)), or mediate (i.e. by means of a qualification in the predicate, as in “a dog is four-footed” (*canis est quadrupes*)). Most authors hold that an equivocal term cannot be disambiguated by means of a *mediate* adjunction,²⁰³ but several (e.g. Incertus SF) accept that its signification can be restricted by the *immediate* adjunction of a qualification, as, for instance, in ‘four-footed dog (*canis latrabilis*)’.

Brito, however, while holding that the inference is invalid, *unless* the term ‘dog’ is disambiguated, denies that the adjunction of ‘four-footed’ to ‘dog’, as in ‘four-footed dog’ (*canis quadrupes*), can disambiguate the ambiguous term ‘dog’. Indeed, his solution to these problems seems to be more in line with Aristotle’s position about homonymy in the *Sophistical Refutations*. For he claims that the question about the validity of the inference “a dog exists, therefore something that is able to bark exists” (*canis est, ergo latrabile est*) cannot be answered with either yes or no, because one ought not to give a simple response to a multiple question, and the question whether this is a valid inference is multiple because of the equivocity of the term ‘dog’.²⁰⁴ So, in a way, not very distant from Aristotle’s, Brito proposes not to give a yes or no reply, but to ask for a disambiguation of the antecedent, so that if ‘dog’ in the antecedent indicates a four-footed animal, then the inference is valid, otherwise it is not valid.²⁰⁵ But how can the listener know that the speaker is making a claim about the four-footed animal?

203. Incertus SF in *Incerti Auctores, Quaest. super SE* q. 55 (ed. Ebbesen, 127, 29 – 30): “[...] determinatio mediata non tollit aequivocationem ... sicut patet hic: ‘Canis currit’: li currit enim non competit nisi pro uno significato, tamen ista est distinguenda.”

204. Cf. Arist., *SE* ch. 17 and *Int* 8.18a13 – 27.

205. Radulphus Brito, *Quaestiones sup. SE* q. I.15 (cf. Ebbesen 1998, 205): “[...] Non sequitur: modo in ista consequentia antecedens potest esse verum et consequens falsum; ideo etc. [...] Ad istam quaestionem dico [...] quod non est respondendum unica responsione, immo ista est distinguenda, et debet dici quod pro uno significato est vera et pro alio est falsa; [...] omnis intentio fundata in aliquo obiecto habet multipliciter illius obiecti; ergo cum consequentia sit quaedam intentio fundata in

It is Brito's position that if a term has several significates as a result of as many impositions,²⁰⁶ it signifies, by virtue of these impositions, actually and at the same time all its significates whenever it is uttered. However, contrary to most of his contemporaries, Brito does not lay the burden of disambiguation on the speaker, but on the listener, even if the former tries to make explicit his intended meaning by adding a qualification to the equivocal term. The speaker cannot restrict the range of significates of the equivocal term because when he utters it, he actually indicates all of them. The relation between an equivocal term and its significates is not like that of a universal term to its individuals. When uttered, a universal term indicates its individuals only in potency, and its extension can be restricted by the addition of a qualification (a quantifier or a demonstrative, for instance). Nevertheless, if the speaker gives a hint to the listener of his intended meaning by adding a qualification, the listener may apply a charitable interpretation – because he wants the act of communication to succeed – and take the term to indicate the significate that is most coherent with the qualification.²⁰⁷

aliquo objecto complexo mediante habitudine terminorum illius complexi, secundum multiplicatam terminorum in tali complexo positorum multiplicatur consequentia. [...] modo omnis consequentia multiplex est distinguenda; ergo talis consequentia est distinguenda, et debemus dicere quod pro uno significato est vera et pro alio falsa.”

206. In medieval semiotics, the act of imposition – the act of coining a word by giving it a value – is the act by means of which human beings create significative words. Thus, a word (*dictio*) is created when an utterance (*vox*) is imposed on some thing that becomes the word's value (*significatum*). The notion of imposition can be traced back at least to Porphyry and it was transmitted to the middle ages through the commentaries on Aristotelian logic by Manlius Boethius.

207. Radulphus Brito, *Quaestiones sup. SE* q. I.17 (cf. Ebbesen 1998, 213 – 214): “Dico tamen duo ad istam quaestionem: primo quod terminus aequivocus de virtute sermonis non potest contrahi ad alterum significatum solum per aliquam determinationem sibi adiunctam; secundo dico quod de bonitate intelligentis potest contrahi vel determinari per aliquam determinationem sibi adiunctam. Primum declaratur sic: quia omne illud quod est determinabile per aliud est in potentia ad illud per quod determinatur, sicut dicendo ‘homo albus’ ‘homo’ ibi determinatur per ‘albus’ quia est in potentia ad albedinem; modo terminus aequivocus non est in potentia ad sua significata [...] Secundo declaratur sic: quia aliquis potest intelligere terminum aequivocum pro uno significato ita quod non pro alio, et ita potest ipsum

Thus, Brito's verdict on the validity of "there is a dog, therefore there is something that is able to bark" seems to be that it is a valid inference only if 'dog' can be disambiguated. But, the resolution of the equivocation of 'dog', and thus the determination of the truth-value of the antecedent and of the validity of the inference all depend on a collaboration between speaker and listener, and cannot be achieved by any formal manipulation of the expression.

Brito's position regarding the problem of resolution of equivocation appears strikingly Aristotelian, if we take into account the fact that Aristotle himself also proposes that disambiguation must take place by means of a communicational exchange between questioner and respondent in a dialectical joust,²⁰⁸ and to the best of our knowledge, he nowhere proposes anything similar to a formal disambiguation of homonymy. In view of the above, we feel justified in concluding that the communicational approach taken by master Nicholas of Paris in the first half of the 13th century was embraced even more strongly by master Radulphus Brito.

Just as some 12th-century masters offer plausible interpretations of some aspects of the *Sophistical Refutations*, so such 13th-century masters as Nicholas and Radulphus, present us with a plausible interpretation of a piece of Aristotelian doctrine, namely of the subject-matter of *De interpretatione* and of the semantic notions that this text involves. In the case of the notion of signification, these masters' analyses hold that in this context Aristotle's stress on the significant character of assertions and their constitutive parts aims at explaining how they can bring about an effective act of communication – that is, how speaker and listener can take exactly the same attribute to be applied to exactly the same subject in a statement, and so be able to agree that a pair of statements are contradictory.

intelligere sumi pro illo significato ita quod non pro alio, et sic de bonitate intelligentis potest contrahi ad alterum eius significatum per aliquam determinationem adiunctam sibi." Similarly in a question *Utrum aequivocationes tollantur per adiuncta* in his *Quaestiones super librum Divisionum Boethii*, Brito says (ms Bruxelles, BR 3540-47: 471vB): "est intelligendum quod licet aequivocatio non possit terminari per adiunctum de virtute sermonis, potest tamen hoc fieri de bonitate intelligentis."

208. cf. Arist., *SE*, ch. 19.

The position that Aristotle's analysis of assertions in *De interpretatione* is guided by the functions that assertions have to fulfil in actual uses of language – dialectical and demonstrative discussions – is, we submit, a position that deserves serious consideration in contemporary studies about this short and elliptic Aristotelian treatise.

CASE STUDY 4

Aristotle and the Medievals on Certainty

In the *Posterior Analytics* book I, chapter 27.87a31-37, Aristotle describes three conditions for how one science is more ἀκριβής than another. The first, which is the most important, links up with important analysis of “the fact”/“the that” (τὸ ὄτι) and “the reason”/“the cause”/“the why” (τὸ διότι) in I.13.78a22-79a16. The brief claim in I.27 is as follows:²⁰⁹

ἀκριβεστέρα δ' ἐπιστήμη ἐπιστήμης καὶ προτέρα ἢ τε τοῦ ὄτι καὶ διότι ἢ αὐτή, ἀλλὰ μὴ χωρὶς τοῦ ὄτι τῆς τοῦ διότι,

If one were to give a translation of this passage, without too much prior reflection, it might perhaps read:

One science is more exact than, and prior to, another science: the one that treats both fact and reason, and not the fact separately, is more exact than, and prior to, the one that treats reason, ...²¹⁰

However, several problems arise here, and, seeing that the passage is important for our understanding of some basic features of Aristotle's theory of demonstration, it deserves serious consideration: What constitutes an ἀκριβεστέρα ἐπιστήμη, according to Aristotle?

In his comment on 87a31-33, Ross points to and uses an ancient tradition to try to solve a basic problem of interpretation:²¹¹

At first sight it looks as if we should put a comma after χωρὶς τοῦ ὄτι, and suppose A[ristotle] to be placing a science which studies both the fact and the reason, and not the fact alone (if we take χωρὶς adverbally), or not the reason without the fact (if we take χωρὶς as a preposi-

209. Arist., *APo.* I.27.87a31-33 (ed. Ross).

210. The interpretation involved in this translation will be discussed on the following pages.

211. Ross 1949: 596.

tion), above one which studies the reason alone. But it seems impossible to reconcile either of these interpretations with A.'s general view, and there is little doubt that T[hemistius]. 37.9-11, P[hiloponus]. 299.27-8, and Zabarella are right in taking ἀλλὰ μὴ χωρὶς τοῦ ὅτι τῆς τοῦ διότι to mean, by hyperbaton, 'but not of the fact apart from the knowledge of the reason'. A. will then be referring to such a situation as is mentioned in 78b39-79a13, where he distinguishes mathematical astronomy, which knows the reasons, from nautical astronomy, which knows the facts, and similarly distinguishes mathematical harmonics from ἡ κατὰ τὴν ἀκόρν [sic!], and mathematical optics from τὸ περὶ τῆς ἴριδος, the empirical study of the rainbow. The study of the facts without the reasons is of course only by courtesy called a science at all, being the mere collecting of unexplained facts.

Thus A. in the first place ranks genuine sciences higher than mere collections of empirical data.

It seems that the best known commentators from some of the earliest parts of the Aristotelian tradition (4th century) to its alleged collapse in the 17th century agree on the interpretation of the passage: Aristotle cannot be claiming that a science which studies both facts and reasons is more exact than a science that studies only the reason. We need to read the sentence as an example of hyperbaton, it is claimed; that is, as an example of a sentence, in which the word-order deviates from normal practice. Thus, in Barnes' translation, which we take to be the standard one in English, the text reads:²¹²

One science is more exact than another and prior to it if it is concerned both with the facts and with the reason why and not with the facts separately from the science of the reason why.

This, we think it is fair to say, is so obvious that it is hard to believe that Aristotle felt it needed to be stated. After all, he had already described "knowledge that" and "knowledge why" in an important chapter in the same work,²¹³ and even before this he had stated that

212. Barnes 1993²: 41.

213. Arist., *APb*. I.13.78a22-79a16.

the all-important necessary and immediate premisses are obtained in “knowledge why”,²¹⁴ and that “knowledge why” is a higher kind of knowledge than “knowledge that”.²¹⁵ Who would ever dream of thinking that the latter could under any circumstances be better on its own? One would therefore have thought that more was at stake in *Posterior Analytics* I.27. The treatise as a whole is concerned with the nature of knowledge, understanding and science, and this particular chapter constitutes an important part of grasping what these are, according to Aristotle.

James of Venice’s Latin Translation

In between the ancient Greek scholars and the late scholastic and renaissance thinkers we have the so-called Middle Ages. Manlius Boethius may have translated the *Posterior Analytics* in the 6th century, but no such translation survives. The Latin West got its first version of the work around 1130 when James of Venice translated it directly from the Greek.²¹⁶ He rendered our passage as follows:²¹⁷

Certior autem scientia est et prior quaeque ipsius quia et propter quid eadem est, sed non est ipsius quia extra eam quae est propter quid, ...

Two features are important here: (1) The disambiguation of the phrase ἀλλὰ μὴ χωρὶς τοῦ ὅτι τῆς τοῦ διότι by the translation *sed non est ipsius quia extra eam que est propter quid*. (2) The translation of ἀκριβεστέρα into *certior*, which is also found in the other 12th-century translation by an otherwise unknown “John” and in William of Moerbeke’s from the 13th century.²¹⁸

214. Arist., *APo.* I.6.74b5-75a37.

215. Arist., *APo.* I.9.76a4-15.

216. On the introduction of the *Posterior Analytics* to the Latin West, see Dod 1970; Ebbesen 1977; Dod 1982; Ebbesen 2004; Bloch 2008; Bloch 2010; Bloch 2012.

217. Minio-Paluello & Dod 1968: 60.

218. Gerard of Cremona has (= Minio-Paluello & Dod 1968: 239): “Et quedam scientie sunt in capitulo perscrutationis et vere credulitatis plus quam scientia alia. Scientia enim que ostendit quod res existit et ostendit illud per causam, est melior et prior quam scientia que ostendit quod res est et non ostendit illud per causam”.

The Modern Interpretation of ἀκριβέστερα

What does it mean that a science is ἀκριβής? Almost all modern interpreters agree: it means that it is *exact*, in some sense of the word.

Ross used “more precise” in his paraphrase.²¹⁹ Tredennick in the Loeb edition has “more accurate”,²²⁰ Poste has “exacter”,²²¹ and Mure translates “more exact”.²²² In his second edition of the translation, Barnes also uses “more exact”, which he describes as the “orthodox” translation; in the first he used “more certain”, which he now considers “heterodox”.²²³ It may be concluded that, with the exception of Barnes’ first edition, exactness, accuracy and precision in relatively modern, and almost synonymous, senses of the words are the features stressed in all modern English translations, and the situation is similar in other modern languages.²²⁴ But Barnes rightly notes that the Greek term is not easy to translate,²²⁵ and Anagnostopoulos elaborates on this by saying that Aristotle’s conception of exactness may indeed often differ from ours.²²⁶

219. Ross, ed., 1949: 596.

220. Tredennick in Tredennick & Forster, transl., 1960: 153.

221. Poste, transl., 1850: 87.

222. Mure in Ross, ed., 1928, no page numbering.

223. Barnes, transl., 1993^a: 189-190.

224. We have e.g. “genauer” (Detel transl., 1993: 154.) and “plus exacte” (Tricot transl., 1938: 142, and Pellegrin transl., 2005: 213). In his 19th-century edition, Waitz uses *subtilior* and *accuratior* to paraphrase ἀκριβέστερα (Waitz, ed., 1894-96: 2.371).

225. Barnes transl., 1993^a: 189-190: “‘exact’ translates *akribês*. The adjective is a favourite of Aristotle’s (Bonitz, 27b43-28a47), and he applies it to the senses (e.g. *de An.* II.9.421a12), the intellect (e.g. *Tóp.* VI.4.141b13), units of measurement (e.g. *Metaph.* X.1.1053a1), definitions (e.g. *Cael.* I.9.279a29), and arguments (e.g. *Rhet.* II.221396a33-b3). Aristotle himself glosses the word by ‘clear’ (*saphês*: *Tóp.* II.4.111a9); and in general being *akribês* seems to amount (vaguely enough) to being of good epistemic quality. In some contexts, the relevant quality is certainty; in others, rigour; in others exactness or precision. [...] (Yet, in truth, I doubt if the notion of *akribêia* is itself very exact.)”

226. Anagnostopoulos 1994: 2. For a substantial analysis of terms denoting “exactness” in *Corpus Aristotelicum*, see Anagnostopoulos 1994, in particular pp. 103-122.

The Latin West on Aristotelian Science, Exactness and Certainty

As already mentioned, James of Venice's translation resembled modern ones in making the translated text syntactically clearer than the original Greek, and there is actually very little in modern interpretations that is not foreshadowed in medieval interpreters. Inspired by Augustinian views, Robert Grosseteste had claimed that God's divine light provided humans with certain knowledge,²²⁷ but he further argued that a science which produces both "knowledge that" and "knowledge why" is not only more certain but also *better* (*melior*) than a science that produces only one of them (*quae facit scire alterum tantum*).²²⁸ Thus, according to him, Aristotle is focusing on comprehensiveness in this passage, and this set the stage for a number of more purely Aristotelian authors (Robert Kilwardby,²²⁹ Albert the Great, Thomas Aquinas,²³⁰ Giles of Rome²³¹ and others). A number of different arguments and interpretations were put forward by these authors, for instance: (1) Aristotle is not actually interested in the "knowledge that"-part, but only wants to demonstrate that "knowledge why" is the better and more certain knowledge; (2) "knowledge that" is obtained through a remote cause or effect, whereas "knowledge why" is always obtained through the immediate and essential cause, and in this way the latter in some sense comprises the former, since a remote cause is not the actual cause; (3) the difference between a science that has only "knowledge that" and one that includes both "knowledge that" and "knowledge why" is the same as that between a subalternating and a subalternated science. The latter includes only "knowledge that",

227. On Grosseteste and his writings, see Dales 1961; McEvoy 1983; Southern 1992: 111-140. On the philosophical content of the commentary, see Serene 1982; Bloch 2009; van Dyke 2009; van Dyke 2010.

228. Robertus Grosseteste, *Commentarius in Posteriorum Analyticorum Libros I.17.337-I.17.376* (ed. Rossi), pp. 255-257. There is a partial translation in Crombie 1953: 129.

229. Robertus Kilwardby, *Notule Libri Posteriorum* (ed. Cannone, vol. 2), p. 285.

230. Editio Leonina 1989: 151a-b, 152b.

231. Aegidius Romanus, *Super libros Posteriorum Analyticorum* (Venice 1488; repr. Frankfurt 1967), without pagination.

whereas the former includes both “knowledge that” and “knowledge why”.

Thus, just like contemporary scholars, the medievals had a wealth of available to make sense of *Posterior Analytics* I.27, but, as we shall see, they also had something that their modern counterparts are generally missing in the discussion: they had clear analyses of the term *certus*.

APo. I.27. Aristotle, Medievals and Moderns on Certainty

We shall argue that the translation of ἀκριβεστέρα as *certior* was important, just like a similar translation was in the Arabic tradition (see below), and that this, Barnes’ “heterodox” translation, may after all be felicitous. The medievals provided several deep analyses of certainty, and from these it is clear how they reacted to James’ *certior*. It should also be noted that Barnes (in the 1st edition) did not claim that “certainty” corresponded precisely to the Greek word; it was simply the best solution, and although he abandoned the idea in the 2nd edition, we believe it deserves serious consideration.²³² At least, the medievals have shown that sense can be made of this understanding of ἀκριβεστέρα with rather simple means.

As regards the syntax of the passage, they had no way of knowing that James of Venice had already made an important decision on their behalf by translating the passage as if it contained an hyperbaton. Therefore, it is both very interesting, and rather surprising, that – unintentionally – the medieval interpretation actually provides a key to understanding the passage without resorting to the notion of hyperbaton.

Thinkers from Albert the Great and onwards seem to assume that it is at least possible for “knowledge why” to exist without prior “knowledge that”, which must be considered a somewhat controversial assumption. After all, several passages in *Posterior Analytics* II strongly indicate that this is wrong.²³³ On the other hand, *Posterior*

232. For criticism of Barnes’ reasons for using “certainty”, see Anagnostopoulos 1994: 106–107.

233. Arist., *APo.* II.1.89b29–31; *APo.* II.2.89b38–90a1; and, in particular, *APo.*

Analytics I.13 seems to allow for the possibility,²³⁴ and there was a well-attested 12th-century tradition for connecting “knowledge why” and “knowledge that” with “cause” and “effect”, respectively. On this understanding of the two sorts of knowledge, just as the cause can exist without the effect (and vice versa), so can the one type of knowledge exist without the other.²³⁵ And, according to Aristotle, one should, if possible, always try to obtain knowledge through the prior cause rather than through the posterior effect.²³⁶ Many 13th-century thinkers seem to have focused attention on *Posterior Analytics* I and the demonstrative tradition, while ignoring *Posterior Analytics* II on this particular issue.

Another great problem in modern scholarship has been the claim that the addition of “knowledge that” to “knowledge why” gave “more exact” knowledge. As we have already seen, modern interpreters have generally chosen this translation for ἀκριβεστέρα, and Myles Burnyeat has even claimed that “more certain” would be the *wrong* translation.²³⁷ Aristotle simply does not discuss certainty at all in the *Posterior Analytics*, Burnyeat claims. The relevant considerations have to do with “explanation rather than with considerations about what we can know or be certain of”.²³⁸ Burnyeat’s argument and conclusions have only rarely been explicitly disputed.²³⁹

II.8.93a16-20.

234. See also Arist., *APo.* I.1.71a17-24, and *Metaph.* I.1.981a12-b10, on knowing the universal or simply the “theory”/“explanation” (λόγος), without knowing all the particulars.

235. Strongly supported by Arist., *APo.* II.16.98a35-b24.

236. Cf. Arist., *Tóp.* VI.4.141b15-22.

237. Burnyeat 1981: 115 n. 35. For criticism of the translation “more certain”, see also Anagnostopoulos 1994: 106-107.

238. Burnyeat 1981: 110. But see also Burnyeat 1981: 126-133, where he refers to, but dismisses, passages in which Aristotle seems to show awareness of the importance of certainty.

239. For exceptions, see Irwin 1988: 530 n. 24; Kiefer 2007: 4-5. And see also Harari 2004: 117-120, and Bauman 1998: 71, who both seem to take it for granted that certainty is among the important characteristics of demonstration, according to Aristotle. Sedley 2002: 337 n. 20 states that ἀκριβής generally covers both exactness and certainty. Also, if Burnyeat 1981: 99-100 with his note 3 is right that “the dependence in question [in *APo.* I.2] [...] is the epistemological relation of a cognitive

As regards the medieval tradition of the *Posterior Analytics* and science in general, Robert Pasnau has recently echoed Burnyeat and put forward an account of how “certainty” became an important concept in the Middle Ages.²⁴⁰ According to him, this was a result of the Arabic tradition, in which certainty unquestionably plays a major role and was generally connected with discussions of the *Posterior Analytics*.²⁴¹ The influence is not yet clear in Grosseteste’s commentary, he says, but it is already prominent in Albert’s paraphrase, and in John Buridan’s *Summulae* from the 14th century it is extremely prominent. If a process that made certainty more and more important actually took place through the steps and sources mentioned, it would have consequences for our understanding of the history of demonstrative science.

For the medieval scholars, for whom ἀκριβεστέρα was translated as *certior*, Aristotle *does* talk about certainty in the *Posterior Analytics*, and thus certainty was brought into the Latin tradition from its very beginning in a very direct and explicit way.

Words like “exact” and “certain” have been thrown around here. But in fact it is not entirely obvious what we mean by “certainty”. Burnyeat seems almost to take for granted that this concept is clear and easily understood, but there is an immense literature to prove that this is not so. It is somewhat curious that so many are willing to claim almost without reflection that Aristotle does not consider “certainty” in the *Posterior Analytics*. In modern literature, a discussion of certainty oftens pairs, or compares, it with probability, which is often thought to describe one of the most basic features of dialectical premisses. From this perspective, then, it would seem a natural supposition that certainty was the most basic feature of Aristotelian demonstration. On the other hand, it might be argued that it would only be natural if Aristotle did not see a problem here; for the problems connected with “certainty” are normally directly connected

state [...] to its grounds, not the logical relation of conclusion to premisses” (p. 99), then it seems unlikely that certainty should be irrelevant.

240. Pasnau 2010a. On “certainty” as an ingredient of theories of science in the Middle Ages, see also Pasnau 2010b: 24, 30-33.

241. See Black 2006: who also agrees that no words for “certainty” can be found in the Greek version of the *Posterior Analytics*: Black 2006: 12.

with problems in skepticism, and Aristotle never really regarded skepticism as a serious threat.²⁴²

“Certainty” is a property that belongs either to a person or a belief/proposition.²⁴³ In some cases, however, the distinction is not clearcut. For instance, we can call a belief or proposition “certain” when the subject is absolutely convinced that it is true. This is *psychological* certainty. On the other hand, a belief or proposition can be called certain in the sense that it cannot be disputed, and in this case we have *epistemic* certainty. Before looking at Aristotle’s vocabulary, we might try to determine whether Aristotle had a conception of certainty, or even different kinds of certainty. It seems clear to us that this is the case. Aristotle does have conceptions of both the psychological and the epistemic kind of certainty, and it is probably fair to say that he considers the first as supporting evidence for the second, and as something that will usually accompany it, although it does not have to do so. In this he is, we would argue, no different from most philosophers throughout history.

In the first chapters of *Posterior Analytics*, he informs the reader that one must πιστεύειν the principles, that is, “have confidence in” or “be certain of” them,²⁴⁴ and in the *Nicomachean Ethics* πίστις is one of two basic conditions that must be satisfied if one is to have knowledge in a non-incidental way.²⁴⁵ Also, he characterizes a person with knowledge in the absolute sense of the word as someone who cannot be convinced that things are otherwise.²⁴⁶ Aristotle, then, seems to express the “indubitability” criterion that has been important since Descartes, but it has been so in relation to epistemic certainty, that is, the important thing is whether the beliefs or propositions are certain, not whether the person who holds them is certain of them. For some modern philosophers, the weakness of this criterion

242. Arist., *APo.* I.3.72b5-73a20, with Burnyeat 1981: 136-139. Harari 2004: 140 claims that “Aristotle formed his theory of knowledge in answer to the skeptics of his time”, but this seems highly unlikely.

243. This we take to be a standard view. See e.g. Dancy & Sosa & Steup 2010²: 272-275.

244. Arist., *APo.* I.2.72a25-b4. See also *APr.* I.25.41b36-42a5; *APr.* II.23.68b8-14.

245. Arist., *EN.* VI.3.1139b31-35.

246. Arist., *APo.* I.2.72a37-b4. Cf. *APo.* I.33.89a6-8. Of course, this is also Plato’s view: *Tim.* 51d3-e6.

lies in exactly the fact that this seems *not* to be epistemic certainty, but rather psychological certainty, and thus “certainty” might seem an inappropriate term to use. At the very least, psychological certainty does not live up to the same demanding standards that epistemic certainty must.²⁴⁷

Aristotle would obviously agree that you cannot exclude the epistemic factor, but he would also claim that you cannot know without being clear that you know.²⁴⁸ Among other things, a successful demonstration “makes clear” (*δηλοῦν*) the attributes of the genus in question.²⁴⁹ This is not to say that demonstration is easy. In fact, it takes very hard work to be certain that one knows, and Aristotle himself recognizes this, but it is a necessary feature of knowledge.²⁵⁰

This leads directly to another conception of epistemic certainty: a proposition is certain only if it cannot be false, the point being that when you are certain of something, it is both true and could never be otherwise. It can hardly be disputed that Aristotle would agree completely that demonstrative knowledge must not only be true but necessarily so, that is, it must always and without qualification be true. From a modern perspective it is difficult to honour this demand; for, apart from disciplines like mathematics, how could one ever establish that such criteria are fulfilled? An appeal to the strength of the grounds for holding the belief immediately results in an infinite regress, unless one can point to beliefs that are immediate and explain *their* certainty. For Aristotle it is perhaps not equally difficult; for he argues in one of the most disputed chapters of the *Corpus Aristotelicum* that human beings have a faculty (which in some cases is apparently rather a state of mind), *νοῦς* or *intellectus*, that apprehends the most basic propositions of human knowledge, that is, the principles.²⁵¹ And, incidentally, this faculty/state of mind is said

247. Reed 2008.

248. Arist., *APo.* I.33.89a11-37. See Burnyeat 1981: 108-109 n. 23.

249. Arist., *APo.* I.7.75a38-b2.

250. Arist., *APo.* I.9.76a26-30: “χαλεπὸν δ’ ἐστὶ τὸ γινῶναι εἰ οἶδεν ἢ μή. χαλεπὸν γὰρ τὸ γινῶναι εἰ ἐκ τῶν ἐκάστου ἀρχῶν ἴσμεν ἢ μή· ὅπερ ἐστὶ τὸ εἰδέναι. οἰόμεθα δ’, ἂν ἔχωμεν ἐξ ἀληθινῶν τινῶν συλλογισμῶν καὶ πρώτων, ἐπίστασθαι, τὸ δ’ οὐκ ἔστιν, ἀλλὰ συγγενῆ δεῖ εἶναι τοῖς πρώτοις.”

251. Arist., *APo.* II.19.99b15-100b17. On *νοῦς*, see also *de An.* III.4.5.429a10-430a25;

to be the only one that is more ἀκριβής/*certus* than knowledge/science (ἐπιστήμη/*scientia*).²⁵² This fits perfectly the more common modern definition of certainty which states that certainty is either the highest form of knowledge or the only epistemic state that surpasses knowledge.²⁵³ In fact, throughout the *Posterior Analytics* Aristotle seems to vacillate between two ways of understanding νοῦς that are very similar to the distinction between a form of knowledge and an epistemic state.²⁵⁴

To sum up, not least in the *Posterior Analytics*, Aristotle shows awareness of several of our modern conceptions of certainty. It is, then, obvious that he at least holds the elements required for an all-embracing conception of certainty. To us it does not seem far-fetched to assume that he would also have this one word, ἀκριβής, to describe certainty; perhaps he even *chose* this word for this particular meaning. It is very clear from the *Nicomachean Ethics* that Aristotle knows a lot of concepts and mental states for which the Greek language, according to him, did not have naturally corresponding words,²⁵⁵ and it has been argued elsewhere that the same could be said about his theory of memory and recollection.²⁵⁶

Substantial discussions and analyses of “certainty”, based on an Aristotelian foundation, are also found in the Middle Ages, and contrary to the modern discussions the medieval ones are direct responses to Aristotelian texts.²⁵⁷ We have already briefly touched on John Buridan’s substantial discussion of certainty in his question on “whether metaphysics is the most certain of all sciences”.²⁵⁸ Buri-

Metaph. XII.7.1072a19-1073a13; XII.9.1074b15-1075a10; *EN* VI.3-8.1139a14-1142a30; X.7.1177a12-1178a8. The interpretations of all these passages are, however, much disputed.

252. Arist., *APo.* II.19.100b8-9.

253. Reed 2008.

254. Cf. e.g. *APo.* I.2.71b9-72b4, and II.19.99b14-100b17, with the statement in I.3.72b18-25.

255. On this, see Anagnostopoulos 1994: 127, 129.

256. Bloch 2007.

257. Pasnau (2010b) has discussed some of them, but not the ones that will be discussed here.

258. P. 52, above. Buridan also discusses certainty in his *Summulae de Dialectica* in book VIII (on demonstration), chapter 4 in particular. For the text, see De Rijk’s 2001

dan masters the *Corpus Aristotelicum* completely and relies on passages from *De Anima*, *Topics*, *Metaphysics* and *Nicomachean Ethics* in distinguishing between six (!) kinds of certainty in science, all of which can be understood from Aristotle's works. (1) Certainty in knowledge, Buridan says, can be the result of the stability and unchangeable nature of the object of the knowledge in question; (2) knowledge can be called certain because it has clear and evident principles; (3) the kind of knowledge that leaves the fewest points of doubt is more certain; (4) the knowledge on which other kinds of knowledge are based is more certain; (5) certain knowledge may be so called because it conforms best to the process of demonstration; and (6) knowledge can be called certain if it is easily grasped.

It is worth noting that Buridan's analysis, although it focuses on *knowledge*, actually covers the basic features of modern conceptions of certainty and more. According to Buridan, certainty can be attributed to an object (nos. 1 and, probably, 4), the propositions/principles that underlie a piece of knowledge (no. 2), or to the activity and state of mind of the knowing subject (nos. 3, 5-6) – and in the latter case the mind may experience certainty due to different kinds of circumstances.²⁵⁹

Some decades before Buridan, around 1300, another prominent arts master in Paris, Radulphus Brito, had discussed the same question.²⁶⁰ His *quaestio* "Whether metaphysics is the most certain science" is not as comprehensive as Buridan's, but it contains other very interesting elements. In particular, the third argument for a No-answer claims that a science which is understood on the basis of principles/premisses known both *simpliciter* (by nature) and by us is more certain than one whose principles are only known *simpliciter*. Although the "known by us"-principles are not really the basic principles of the knowledge in question, some would, according to Bri-

edition. There is an English translation by G. Klima from 2001.

259. It should be noted that we know for a fact that the careful analyses in Buridan's work (whether his own or not) circulated widely. Thus, we find it, for instance, in the work of the Dane, Tue of Viborg, approximately 100 years later: Thuonis de Vibergia *Disputata Metaphysicae* qu. I.2 (ed. A. Tabarroni pp. 7-11).

260. Radulphus Brito, *Quaestiones super Metaphysicam* I.9 "Utrum, ista scientia sit certissima", Ms.: Firenze, BNC, E.I.252: f. 267vB.

to, claim that they add something to the certainty of the knowledge in question. A comprehensive kind of knowledge makes for greater certainty than the very precise one based only on items that are known *simpliciter*.²⁶¹ Brito himself does not accept the argument in the case of metaphysics, but he considers it a relevant objection.

The result of all this is that the medievals had a thorough analysis of certainty at hand, and thus, it seems fair to say, a more solid ground for their understanding and interpretation of *certior* as meaning “more certain” in *Posterior Analytics* I.27 than modern scholars usually have for assuming that ἀκριβεστέρα means “more exact”.

“Exactness” vs. “Certainty” in *APo*. I.27

It remains to look at some of the philosophical consequences of the two different translations of ἀκριβεστέρα in *Posterior Analytics* I.27.

Certainty became part of demonstrative science in the Middle Ages, and it did so explicitly and conspicuously in a passage in which the central concepts were *not* the principles as such but rather the two kinds of demonstration or knowledge: *demonstratio/scientia propter quid* (διότι) and *demonstratio/scientia quia* (ὅτι).

So, which statement is the more relevant?

- ra. “The combination of ‘knowledge that’ and ‘knowledge why’ is more exact than ‘knowledge that’ alone.”
- rb. “The combination of ‘knowledge that’ and ‘knowledge why’ is more certain than ‘knowledge that’ alone.”

There may not be much of a difference on the hyperbatic reading, but even here it may be a more appropriate statement in sense rb. It is the very nature of “knowledge why” to provide the reasons for something, and ‘knowledge that’ does not really contain any clearly defined degree of exactness. It does, however, contain a degree of

261. Ms Firenze, BNC, E.I.252: f. 267vB: “Item, scientia quae praecedit ex notis simpliciter et quoad nos est certior quam illa quae solum procedit ex notis; mathematicae sunt huiusmodi, metaphysica autem procedit ex notis simpliciter tantum; ideo etc.”

certainty. For instance, Aristotle argues, when we infer that planets (S_1) are near (P_1), because they do not twinkle (M_1), we do this because we have perceived and afterwards induced that that which does not twinkle is near. The same kind of certainty is not necessarily gained by the inference that planets (S_2) do not twinkle (P_2), because they are near (M_2), which is the real cause and thus the ‘knowledge why’.²⁶²

If we do not use the hyperbatic reading, the two statements would instead be as follows:

- 2a. “The combination of ‘knowledge that’ and ‘knowledge why’ is more exact than ‘knowledge why’ alone.”
- 2b. “The combination of ‘knowledge that’ and ‘knowledge why’ is more certain than ‘knowledge why’ alone.”

If we choose 2a, we have, in addition to the problems with *Posterior Analytics* II, the apparently unsolvable problem that scholars have tried to avoid since Philoponus: there is no way that the addition of “knowledge that” can make a specific body of knowledge more exact in any acceptable sense of the word than one that is simply ‘knowledge why’. On this, scholars have always agreed.²⁶³

But one might argue that it adds *certainty*. It adds perceptual support, and it adds the fact that what is scientifically established by the “knowledge why” actually holds. Aristotle himself says that that which is not the actual cause (τὸ μὴ αἴτιον) can sometimes be better known than the cause and thus further knowledge.²⁶⁴ Of course, concerning this latter point, most modern scholars would, we suppose, simply argue that this is a case of “better known for us”, and that we would still have to move on to a conceptual “better known by nature”.²⁶⁵ But Aristotle’s wording elsewhere is also suggestive; for he informs us that “the deduction that occurs through the mid-

262. Arist., *APo.* I.13.78a22-b4.

263. See Ross 1949: 596 (cited above).

264. Arist., *APo.* I.13.78a22-39. Cf. Anagnostopoulos 1994: 246, who claims that, at least in some cases, Aristotle regards “better known than” as synonymous with “more convinced”.

265. See e.g. Harari 2004: 9, 120-132, 137.

dle term is prior and better known by nature, but the deduction that occurs through induction is clearer to us”.²⁶⁶ That is, some sort of epistemic component not found in the first kind of deduction is added by the second, and it seems to be a component that adds clarity to our comprehension/knowledge.²⁶⁷

Thus, what we have here is a more *comprehensive* knowledge that contributes to the mental state established by this knowledge and covers more ground than one that simply provides the causes. In this respect, the very first medieval commentator, Robert Grosseteste, was, we believe, on to something. One might say that exactness/precision is no doubt obtained by “knowledge why”, but can you and others be *certain* that what is said actually holds good? You need a more comprehensive and detailed conception of the object in question, and this conception demands both “knowledge why” and “knowledge that”.²⁶⁸ This is particularly clear in the practical sciences.²⁶⁹ In accordance with this interpretation, we also think that Aristotle’s use of δι’ ἀκριβείας, when he refers to previous or forthcoming investigations of a particular topic, means “more comprehensively” or “more substantially”, indicating by this phrase that he will provide all pieces of the puzzle. And, finally, the passage in the *Nicomachean Ethics* on “wisdom” (σοφία) being the most ἀκριβής form of knowledge, apparently as a result of its comprising both ἐπιστήμη proper and νοῦς, also seems to support the above interpretation.²⁷⁰

266. Arist., *APr.* II.23.68b35-37: “φύσει μὲν οὖν πρότερος καὶ γνωριμώτερος ὁ διὰ τοῦ μέσου συλλογισμὸς, ἡμῖν δ’ ἐναργέστερος ὁ διὰ τῆς ἐπαγωγῆς.”

267. Cf. Arist., *Tóp.* I.12.105a10-19.

268. For further support of this interpretation, see Plat., *Resp.* 414a, with the comments in Anagnostopoulos 1994: 47-48. And for some additional passages from the *Corpus Aristotelicum*, see *Tóp.* VII.3.153a11-15; *HA.* I.6.491a7-14; *PA* I.5.644b31-645a7; and, in particular, *EE* II.10.1227a9-11: “εἴρηται δὲ περὶ αὐτῶν ἐν μὲν τοῖς ἐν ἀρχῇ βραχεώς, ἐν δὲ τοῖς ἀναλυτικοῖς δι’ ἀκριβείας.”

269. See Arist., *EN* VI.7.1141b14-21: “οὐδ’ ἐστὶν ἡ φρόνησις τῶν καθόλου μόνον, ἀλλὰ δεῖ καὶ τὰ καθ’ ἕκαστα γνωρίζειν· πρακτικὴ γάρ, ἡ δὲ πρᾶξις περὶ τὰ καθ’ ἕκαστα, διὸ καὶ ἔνιοι οὐκ εἰδότες ἐτέρων εἰδότεων πρακτικώτεροι, καὶ ἐν τοῖς ἄλλοις οἱ ἔμπειροι· εἰ γὰρ εἰδείη ὅτι τὰ κοῦφα εὐπεπτα κρέα καὶ ὑγιεινά, ποῖα δὲ κοῦφα ἀγνοοῖ, οὐ ποιήσει ὑγιειαν, ἀλλ’ ὁ εἰδὼς ὅτι τὰ ὀρνίθεια [κοῦφα καὶ] ὑγιεινά ποιήσει μᾶλλον.”

270. Arist., *EN.* VI.7.1141a9-20.

It is well known, of course, that Aristotle was no stranger to a completeness ideal of science. Certainly, he opposes the Platonist theory of a single science that comprises all the individual sciences, but his general aim in each of the sciences is *complete knowledge*.²⁷¹ Complete knowledge in this context means full explanation by understanding and stating all the causes until one reaches the first principle(s) of the knowledge in question. On this issue, Burnyeat states:²⁷²

I conclude that a teacher can sensibly aspire to conduct Aristotelian demonstrations if it is right to claim that, where we can achieve the full axiomatization of a science, that axiomatization will provide us with a completed structure of explanation which should be the ideal fulfilment of a common conception of understanding. Whether or not a modern proponent of axiomatization could believe this, it is well nigh compelling if (as Aristotle does) you believe, what is now usually held to be false, that for any science there is just one adequate set of axioms and if, further, you believe (as Aristotle does) that these axioms are true, primitive, immediate, more familiar than and prior to and explanatory of a complete and finite set of theorems. If such axiom sets are possible, they are surely necessary for a wholly adequate understanding.

Here is a simple question based on our passage, *Posterior Analytics* I.27: If such axiomatization along with the complete structure of explanation provides the ideal fulfilment of understanding (or knowledge), how could “knowledge that” in any sense make it ἀκριβεστέρα? It seems clear that this cannot be a matter of *precision*, for precision would be a real contribution to understanding. Obviously, it cannot be a contribution to *completeness* in the sense of adding important data or explanations, since this would mean that the ideal fulfilment had not actually been reached. However, the addition of “knowledge that” could perhaps contribute to the kind of *certainty* that the knowing individual feels that his explanations actually hold. That is, it would be a contribution to his cognitive state.

271. See, in particular, Arist., *APo.* I.24.85b27-86a3.

272. Burnyeat 1981: 126.

Incidentally, this seems to be in accordance with the medieval Arabic tradition of demonstration, in which certitude is defined as “the cognitive state produced in the knower by her employment of demonstrative methods”, and in the Arabic translation the corresponding word is even part of the definition of demonstration in *Posterior Analytics* I.2.²⁷³

So, let us end by briefly applying the medieval conceptions of certainty that we explained above to an interpretation of *Posterior Analytics* I.27. Radulphus Brito’s “opponent” stated that comprehensiveness makes for greater certainty in knowledge, which works well as an interpretation of the passage in *Posterior Analytics*. Buridan’s substantial analysis of certainty also sheds light on the passage. Just as metaphysics is the most certain science only in some senses of certain, so knowledge (or science) itself is too. The certainty of the object (no. 1) and that of the basic principles/propositions (no. 2) are both irrelevant in this case, but it is clearly a case of leaving fewer doubts (no. 3), it is of course a case of demonstrative method (no. 5), and, whether or not one reads the passage with the hyperbaton, the addition of one more kind of knowledge (“knowledge that” or “knowledge why”) is sure to make the science in question easier to grasp (no. 6). If one uses a Buridanian foundation as the interpretive key, one would have to conclude that Aristotle is focusing on the knowing subject. If one adds the Britonian argument, one will also see how this certainty is brought about and what it really is. Thus, Brito and Buridan seem to provide us with interesting tools in interpreting this passage, and, more generally, they help us understand how and why certainty might play a part in Aristotle’s theory of demonstration.²⁷⁴

In conclusion, we would argue that “certain” is the more plausible translation of ἀκριβέστερα, and that the medievals have at least

273. Black 2006: 11, 13. Arist., *APo.* I.2.71b17-19 (Arabic transl. Abū Bišr Mattā, transl. into English by Black) “And we say that we also have certain knowledge through demonstration. And I mean by ‘demonstration’ the composite certain syllogism; and I mean by ‘the composite certain syllogism’ one through which we have knowledge just by its being existent in us.”

274. Of course, it should also be stressed that Brito and Buridan, although they are prominent thinkers, represent only a small part of the medieval interpretations.

succeeded in showing that this is a possible starting point when one is trying to interpret the passage. Of course, Aristotle also uses the term to mean “exactness”,²⁷⁵ but there is evidence to indicate that this is not how the word is to be understood in *Posterior Analytics* I.27. Regarding the syntax of the passage, the problems posed by *Posterior Analytics* II seem substantial and must be addressed, if the sentence should be read without the hyperbaton.²⁷⁶ On the other hand, it has recently been argued, based on other sources and arguments, that one should indeed do so.²⁷⁷ More work needs to be done not only on this passage, but on the *Posterior Analytics* as a whole. At present, the medieval interpretations seem to us to be one of the most promising tools to unravel the secrets of this marvellous text.

275. See e.g. Arist., *Metaph.* II.3.994b32-995a20, for a very clear example.

276. We suppose that the most simple solution would be to revive the argument about a chronological development found in the different parts of the *Prior* and *Posterior Analytics*, but this we will not try to do here.

277. Fink 2009: 49-55. Harari 2004: 131-132 comes intriguingly close to a position that would also allow for this reading: “Accordingly, knowledge of the fact and knowledge of the reason why are two types of understanding – perceptual and conceptual. Both types capture the universal facet of the object, yet each articulates this universal facet differently.” But she goes on to specify that “knowledge why” is the true, full-fledged knowledge, which develops from the less complete “knowledge that”.

CASE STUDY 5

Analogy of Being, Focal Meaning and Metaphysics as a Demonstrative Science: Late Medieval Challenges to a Recent Theory

Aristotle begins *Metaphysics* IV by asserting the existence of “some sort of” science (ἔστιν ἐπιστήμη τις) concerned with being as such and what is *per se* attributed to being.²⁷⁸ A few lines down he makes the further assertion:²⁷⁹

(IV. 2) Τὸ δὲ ὄν λέγεται μὲν πολλαχῶς, ἀλλὰ πρὸς ἓν καὶ μίαν τινὰ φύσιν καὶ οὐχ ὁμωνύμως ἀλλ’ ὥσπερ καὶ τὸ ὑγιεινὸν ἅπαν πρὸς ὑγίειαν, τὸ μὲν τῷ φυλάττειν τὸ δὲ τῷ σημεῖον εἶναι τῆς ὑγιείας τὸ δ’ ὅτι δεκτικὸν αὐτῆς.

Being is said in many ways but with respect to one thing, i.e. some one nature, and not homonymously but as every instance of “healthy” [is said] with respect to health: about what preserves health, about what brings about health, about what is a sign of health and about what is receptive of health.

In Aristotelian parlance, *A* is said homonymously (= equivocally) of *B*_{*i-n*} if it applies to each of the members of class *B* in virtue of a different definition, whereas it is said synonymously (univocally) of *B*_{*i-n*} if it applies to all members of the class according to the same definition. I.e., in synonymous predication *A* picks out some common trait shared by the members of *B*, whereas in homonymous predication it picks out a different trait for each of the members of the class. However, to the consternation of many a contemporary reader, Ar-

278. *Metaph.* IV.1.1003a21-22.

279. *Metaph.* IV.2.1003a33-b1.

istotle does not restrict the designations “homonym” and “synonym” to linguistic items, things may also be so styled.²⁸⁰

So, “being” is not said homonymously. But since it is nevertheless said in many ways Aristotle can hardly think that “being” is synonymous either. Consequently, “being” must be said in a way that is neither outright homonymous nor outright synonymous, and Aristotle’s way to express this is to say that “being” is said *proshen* (Latin: *ad unum*). By introducing this formula Aristotle takes a decisive step towards developing the discipline of metaphysics as a science.

Recent interpreters have devoted much attention to Aristotle’s claim, especially since the seminal paper by G.E.L. Owen ‘Logic and Metaphysics in some Earlier Works of Aristotle’ from 1960. Here Owen introduced “focal meaning” into the study of Aristotle’s *Metaphysics*. According to Owen, a term has focal meaning, if it is said in many ways – has several senses – without for this reason being outright homonymous. Some terms exhibit this peculiar feature. They have more than one use, or more than one sense, but the different senses of one such term will nevertheless be united by being predicated with respect to one thing (πρὸς ἓν) primarily. By construing “being” (ὄν) as a term exhibiting focal meaning Aristotle – so Owen – paves the way for the science (ἐπιστήμη) of being as being (τοῦ ὄντος ἢ ὄν). In other words, focal meaning secures for Aristotle a real science of metaphysics. Furthermore, focal meaning allows Aristotle to subordinate any science concerned with non-substantial items, such as for example arithmetic which deals with quantities, under the science of substance: “The claim of IV that ‘being’ is an expression with focal meaning is a claim that statements about non-substances can be reduced to – translated into – statements about substances ...”.²⁸¹ Focal meaning, then, provides the theoretical framework for the all-encompassing science of metaphysics.

280. See the remarks in Ward 2008: 1-42.

281. Owen 1986: 192 (first published 1960).

Owen's argumentation provoked a debate that is taking place even today.²⁸² We shall here focus on the discussion of focal meaning as an element of demonstrative science.

In response to Owen, Michael Ferejohn points out that neither Aristotle nor Owen were very clear about how "focal meaning" is supposed to work for "being". He thinks Owen left it to others to reconstruct the theory of science in which "focal meaning" is embedded.²⁸³ In response to his own challenge, Ferejohn offers a reconstruction of the doctrine of "focal meaning" which fits an Aristotelian science, and more recently this general idea that focal meaning is compatible with Aristotelian demonstrative science has been taken up and developed much further by Kyle Fraser.²⁸⁴

Ferejohn's and Fraser's reconstructions of focal meaning and its role in metaphysics conceived as a demonstrative science lead to a number of interesting results, which force upon the interpreter of Aristotle's *Metaphysics* new ways of thinking about the text. But they fail to explicate one crucial feature: What could Aristotle demonstrate by means of the term "being", or, in other words, what kind of science would metaphysics be, if it were to be demonstrative?²⁸⁵

In this case study we propose to challenge the more recent interpretations of *Metaphysics* IV.1-2 on two points: (1) We will first defend a much repudiated piece of interpretation in order to find out whether it could account for "focal meaning". We have in mind Francisco Suárez's doctrine of the analogy of being (*analogia entis*) and his application of it to *Metaphysics* IV.1-2. Having defended this doctrine we will (2) offer an outline of what kind of demonstrations metaphysics could produce according to Suárez if the analogy of being is applied to the science of being as being; in this way we offer one way of filling the gap in Ferejohn's and Fraser's accounts of "focal meaning".

282. Irwin 1981 (in particular 531 with note 12) is a prominent critic of Owen. He is followed to some extent by Shields 1999.

283. Ferejohn 1980: 118.

284. Fraser 2002 who argues that focal meaning is an integrated part of demonstrative science.

285. Fraser 2002: 44-45 and 73-75 makes a few remarks about what kind of demonstrative science metaphysics could be. See also Fraser 2003.

Contemporary Criticism of the Analogy of Being

The analogy of being has been heavily criticized by recent interpreters. Pierre Aubenque is the hardest critic and an influential scholar. Aubenque is of special interest since he is well-acquainted with Suárez and deals directly with him, though to a limited extent. Aubenque's two principal worries are: (1) Aristotle uses "analogy" as a mathematical term, and as such analogy does not apply to *Metaphysics* IV.2.²⁸⁶ (2) The analogy of being is irrelevant to Aristotle's concerns in *Metaphysics* IV.1-2, though relevant to the concerns of Christian theology and the special problems following from positing a creator God and his creation.²⁸⁷

We shall meet these objections as we proceed. To take the last one first, it is undeniable that to Suárez the analogy of being serves theological purposes which are utterly irrelevant to Aristotle. Indeed, in his *Metaphysical Disputations* Suárez is quite explicit about the theological relevance of the notion. As we have already seen above (pp. 91-93), the work is structured in such a way that the argument proceeds from the more general to the more specific. Suárez treats "being" in its most abstract sense and its attributes (including causality) in the first volume of this extensive work. But the first division introduced into "being", at the beginning of the second volume, is the division between infinite and finite being, i.e. the division between God and creature; and the remedy Suárez applies to keep God and creature within the same objective concept of being is the analogy of being (more on the objective concept of being below). Thus, there is no point in denying a theological purpose in his operating with an *analogia entis*. What we will deny, though, is that it serves this purpose only. The analogy of being is introduced not merely to account for the use of the term "being" with respect to God and creature; it is just as much designed to explain something about the application of "being" to both substances and accidents.²⁸⁸ In fact, "analogy" seems to work as a general explanation

286. Aubenque 2009: 240. The same objection found in Owen 1986: 192-193.

287. Aubenque 2002: 199.

288. Suárez is certainly not the first interpreter to make this move. Albert, *Metaphysica*,

for concepts exhibiting focal meaning and is invoked by Suárez in his treatment of “principle”, “cause” or “accident”, for example.²⁸⁹ Since what Suárez says about “being” as predicated of substance and accident “analogically”, or what he says about other focal meaning concepts, does not depend upon what he claims about the analogy of being between God and creature, the theological concerns of the analogy of being are irrelevant to its application on substance and accidents. So Aubenque’s second objection to the analogy of being falls.

Suárez on the Analogy of Being

In order to understand Suárez’s account of the analogy of being, and in order to meet Aubenque’s first objection, let us go briefly into the ancient and medieval presuppositions against which Suárez’s interpretation should be seen. The following is only an extremely brief outline.²⁹⁰

The story begins with Porphyry who places “analogy” as a subdivision of homonymy. His first division is into homonyms by chance and homonyms by thought. The latter is then subdivided, and “from analogy” turns up as the distinctive feature of one of three distinct types of homonymy by thought: homonymy according to similarity, homonymy from analogy and homonymy through *aph’ henos* or *pros hen* predication.²⁹¹ So on Porphyry’s division analogy and *pros hen* predication (focal meaning) are distinct kinds of ho-

L. 4, Tr. 1, cap. 3 (pp. 163-165 ed. Geyer) gives an analogical interpretation of “being” and “everything included in it as its parts” (“Dicamus igitur, quod **ens multis quidem modis dicitur** de his quae sunt sub ipso ut partes ipsius ... [e]t hoc videre possumus in analogia communitatis”, p. 163, bold type ours in order to indicate a quote from *Metaphysics*). Albert invokes the analogy of being explicitly (p. 165). See also Incerti Auctores, *Quaest. super SE*, qu. 57 (p. 133 ed. Ebbesen) for a clear statement. 289. See Suárez, *Disputationes Metaphysicae* 12.1.13 (principle); 27.1.9 (cause); 39.3.12 (accident).

290. For an elaborate account see Ashworth 2008 and, for Suárez in particular, 1995. Aristotle’s position with respect to analogy is treated by Lonfat 2004: 36-54.

291. Porphyry, in *Cat.* 65.15-17: Ὡς μὲν ἀνωτάτω εἰπεῖν δύο, ὧν ὁ μὲν ἐστὶν ἀπὸ τύχης, ὁ δὲ ἀπὸ διανοίας, διελόντι δὲ καὶ ἀπὸ διανοίας εἷς τε τὸν καθ’ ὁμοιότητα καὶ τὸν ἐκ τῆς ἀναλογίας καὶ τὸν ἀφ’ ἑνὸς καὶ πρὸς ἓν οἱ πάντες ἔσσονται τρόποι.

monymy. This division was taken over by Boethius and transmitted to the Latin West with ἀναλογία rendered as *proportio*.²⁹² At some point in the Middle Ages, however, *proportio* was replaced by *analogia*.²⁹³ This explains why scholastic philosophers from the 13th century onwards thought about “analogy” and *pros hen* predication (focal meaning) in terms of homonymy.

Suárez begins his account of the analogy of being by confronting two claims that would seem to conflict. He states first that “being” is *not* homonymous and credits Scotus with being the first philosopher to go against Porphyry on this point.²⁹⁴ On the other hand, he thinks (a) that Aristotle himself agreed with virtually all his ancient interpreters in taking “analogy” to be a subtype of homonymy and (b) that when defining “analogy” as a subdivision of homonymy Aristotle was talking about the analogy of being.²⁹⁵ In short, “being” both is and is not said homonymously. “Being” is *not* said homonymously because it has one common objective concept to back it up. The objective concept of being is the backbone of Suárez’s metaphysics. It is being, not as thought of by any intellect (human or divine) but as a purely mind-independent concept. This helps Suárez exclude the so-called ‘beings of reason’ (*entia rationis*) from his metaphysics, exactly because such beings—the chimera for example—have no objective concept of being to back them up.²⁹⁶

292. See Boethius, *in Cat.* 166B-C. In contrast to Porphyry, Boethius distinguishes between ἀφ’ ἑνός (*ab uno*) and πρὸς ἓν (*ad unum*) homonyms and so posits four kinds of homonyms.

293. See Ashworth 2008: 23-24, 45-46. Moerbeke in his translation of Simplicius’ *Categories* commentary (ca. 1266) uses *analogia* instead of *proportio*. However, it is not entirely clear when and how “*analogia*” entered the vocabulary of scholastic philosophers.

294. Suárez, *Disputationes Metaphysicae* 32.2.1. Porphyry, *Isag.* 6.5-9. Porphyry interprets Aristotle as holding the homonymy of “being”. This interpretation might go back to Alexander of Aphrodisias (*in APr.* 292.37-293.1).

295. Suárez, *Disputationes Metaphysicae* 32.2.1: “Deinde dicendum est ab antiquis auctoribus analogia sub aequivocis comprehendi, ut constat ex Aristotele, in Antepredicam., cap. 4 ... Et hoc significavit Aristoteles, locis infra citandis, de analogia entis, et praesertim in 1 Elench., c. 6, ubi agens de aequivocis, exempla ponit in ente.”

296. We shall refrain from going into the debates about the distinction between the

Being, then, is not said homonymously but rather analogically; yet this really means that “being” *is*, after all, said homonymously, but in a qualified sense of “homonymy” (“analogy” being a subtype of homonymy). Aristotle talks about this feature of “being” as *pros hen* predication, Owen as focal meaning, and Suárez uses the phrase ‘the analogy of being’.

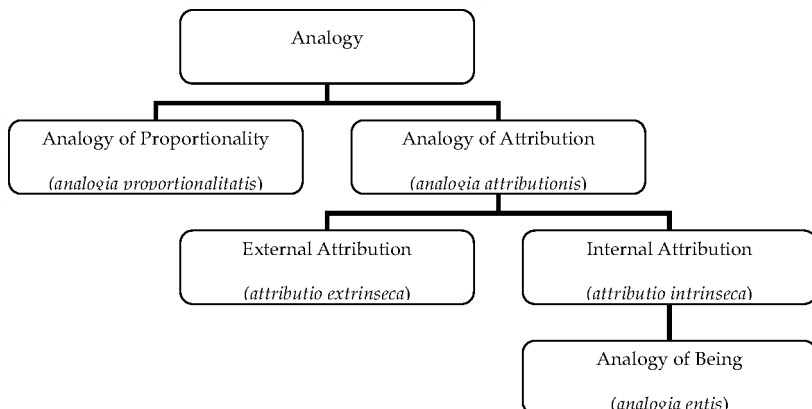
If “being” were outright homonymous there could be no science of being as being. If “being” were merely a name with no common objective concept to back it up, a science of being could never work, since the glue keeping a normal Aristotelian science together, its *genus*, would be missing. There would be no necessary connections to prove, just as there are no necessary connections between “dog the animal” and “dog the constellation”.²⁹⁷ All this, nevertheless, does not mean that “being” is predicated synonymously, i.e. synonymously of all other things, presumably. Thomists have advanced a number of arguments against the synonymy of “being”. But caution is called for in these arguments. The problem is, as Suárez puts it, that the arguments against synonymy either do not work or prove too much; they are either too weak or too strong. The weak arguments are not relevant in the present context, so we leave them at their worth. The excessively strong arguments, on the other hand, are problematic because they tend to prove not only that “being” is not said synonymously but also that there can be no common objective concept of being.²⁹⁸ This would ruin Suárez’s metaphysics. In short, the task facing adherents of the analogy of being is to show how there can be one common concept of being (in our case study: for substance and accidents) without having to posit the synonymy of being with everything else.

The following division should help place the analogy of being as Suárez interprets this doctrine:

formal and the objective concept and its utility with respect to analogical predication. For details see Ashworth 1997: 55-58.

297. Suárez, *Disputationes Metaphysicae* 32.2.1.

298. Suárez, *Disputationes Metaphysicae* 32.2.6. See also *op.cit.* 28.3.9.



As the division makes clear, Suárez does not respect Porphyry's and Boethius' division of homonymy into homonymy according to similarity, from analogy and through *pros hen* predication. *Pros hen* predication or focal meaning is now a sub-division of analogy (it was, as will be remembered, a sub-division of homonymy in the Porphyrian division) Now, Aubenque's first objection to the analogy of being was that to Aristotle analogy was the mathematical concept of equality of proportions between discrete items $A : B :: C : D$,²⁹⁹ and in this sense "analogy" has no relevance for the interpretation of *Metaphysics* IV.2.

In scholastic terminology, this type of analogy, on which Aubenque bases his objection, is called an analogy of proportionality (*analogia proportionalitatis*). Crucially, though, Suárez holds that the analogy relevant for explaining the focal meaning of "being" is an analogy of attribution (*analogia attributionis*).³⁰⁰ However, analogy of attribution has almost nothing in common with analogy of proportionality (also called mathematical analogy). These are simply two different kinds of analogy. The analogy of proportionality may be disjunctive and comprise four members or analogates: $A : B :: C : D$ or it may be conjunctive and comprise three members: $A : B :: B : C$

299. Arist., *EN* V.3.1131a31-32.

300. Suárez, *Disputationes Metaphysicae* 32.2.12.

with one member stated twice.³⁰¹ An analogy of attribution, on the other hand, may comprise indefinitely many members with the crucial feature that the analogates exhibit some kind of order among them (for explanation, see below); they are exactly directed at one (*pros hen, ad unum*) item primarily. By taking the analogy of being as an analogy of attribution, Suárez ‘disarms’ the first objection levelled at the medieval doctrine of the analogy of being by Aubenque. Let us just grant that analogy of proportionality (*analogia proportionalitatis*) has no relevance for the interpretation of “being”. To this Suárez would actually agree.³⁰² He would, however, point out to Aubenque that the analogy of being is not an analogy of proportionality. It is a completely different kind of analogy (an analogy of attribution). In short, Aubenque’s first objection has no bearing on Suárez’s application of the analogy of being to *Metaphysics* IV.2. The first objection falls.³⁰³

As is clear from the division above, the attribution in an analogy of attribution may be external or internal (*extrinseca/intrinseca*). The analogy of being falls under internal attribution:³⁰⁴

The second [type of analogy of attribution] holds that a form or formal account is found intrinsically in all analogates with some order or relation among them ... this analogy [*i.e.*, the analogy of being] is of the second and not of the first mode.

301. See Thomas Aquinas, *Expositio Libri Posteriorum* I.12, 46.93-103 (reference in Ashworth 2008: 45-46, who mistakenly calls disjunctive proportionality ‘conjunctive’ and the other way around here).

302. See Suárez, *Disputationes Metaphysicae* 32.2.12. Suárez claims that the analogy in question can only be an analogy of attribution and not one of proportionality: “Non quod non possit a nobis considerari illa proportio, quod sicut substantia se habet ad suum esse, ita accidens se habeat ad suum; nam sicut revera in re est proportio, ita etiam potest a nobis considerari; sed, quod accidens neque sit, neque denominatur ens propter hanc proportionem.”

303. Aubenque is right, of course, to question Suárez’s move of claiming that Aristotle himself applies the analogy of being in *Metaphysics* IV.2. What we are after here is whether the analogy of being helps explain focal meaning and not whether Aristotle accepts or applies the analogy of being himself.

304. Suárez, *Disputationes Metaphysicae* 32.2.14: “[A]ltera, quae dicit formam seu rationem formalem intrinsece inventam in omnibus analogatis cum aliquo ordine, vel habitudine eorum inter se ... hanc analogiam esse posterioris modi, non prioris.”

“Being” is attributed to both substance and accident *internally*. This means that “being” is not predicated of a substance or an accident through anything other than or external to themselves. An accident, for example, is not said to be in the way a house is said to be seen because some perceiver external to the house sees it. Accidents are “beings” (*entia*) because they have being internally, but, and this is crucial, “being” is attributed to substance and accidents internally *with some order or relation among them*. This order is the only feature of the analogy of being that saves Suárez from positing the synonymy of being.

Suárez conceives of the order as a dependency relation found in the concept of being itself. Thus, the analogy of being posits an asymmetric relation among its analogates while keeping an objective concept to back them up:³⁰⁵

This analogy, then, comes with an internal relation or inclusion in the formal account of being both for accident and for substance. From this it follows that this analogy cannot consist in anything but this: the formal account of being does not descend to accident and substance altogether equally or indifferently, but with some order and relation required of it *per se*, namely that it be found first and absolutely in substance and next in accident attended by a relation to substance.

By this statement Suárez seems to claim the definitional priority of substance with respect to accident. “Being” is attributed internally to both but implies a built-in asymmetry between them. This definitional priority of substance with respect to accident is clearly stated at a later juncture in Suárez’s argument. Talking about the definitional priority of substance Suárez says:³⁰⁶

305. Suárez, *Disputationes Metaphysicae* 32.2.14: “Est ergo haec analogia cum intrinseca habitudine seu inclusionem rationis formalis entis, tam in accidente quam in substantia. Unde fit, hanc analogiam non posse in alio consistere, nisi in hoc quod illamet ratio formalis entis non omnino aequaliter et indifferenter descendit ad accidens et substantiam, sed cum quodam ordine, et habitudine quam per se requirit, nimirum, ut prius sit absolute in substantia, et deinde in accidente cum habitudine ad substantiam.”

306. Suárez, *Disputationes Metaphysicae* 38.2.1: “Quae prioritas in hoc consistit, quod

This priority consists in this that accident cannot be defined with an essential and proper definition except through substance. Substance, on the other hand, doesn't need accidents for its exact definition since from the point of view of its essence it includes neither accidents nor a relation to accidents.

These statements should make clear to which extent Suárez would accept the following recent definition of *pros hen* predication (here called “core-dependent homonymy” = CDH):

CDH: *a* and *b* are homonymously *F* in a core-dependent way iff: (i) *a* is *F*; (ii) *b* is *F*; and either (iii a) the account of *F* in ‘*b* is *F*’ necessarily makes reference to the account of *F* in ‘*a* is *F*’ in an asymmetrical way, or (iii b) there is some *c* such that the accounts of *F*-ness in ‘*a* is *F*’ and ‘*b* is *F*’ necessarily make reference to the account of *F*-ness in ‘*c* is *F*’ in an asymmetrical way.³⁰⁷

Suárez obviously would not state his position in this formalized manner. But nothing in his account of the analogy of being prevents him from endorsing CDH in its (iii a) variety. Now, Shields formulates CDH in two mutually exclusive versions, (iii a) and (iii b). If, therefore, Suárez assumes (iii a), as we think he would have done, he cannot accept (iii b) and, as we shall see presently, he would, had he known it, probably have denied that (iii b) holds of the analogy of being (after all, the attribution of “being” to substance and accident is internal). In Suárezian terms, the definition of the analogical predication of being with respect to substance and accidents might look something like this:

Analogy of being: substance and accident are homonymously Being in a *pros hen* way iff: (i) substance is Being; (ii) accident is Being; and (iii a) the account of Being in ‘accident is Being’ necessarily makes reference to the account of Being in ‘substance is Being’ in an asymmetrical way.

accidens non potest definiri, nisi per substantiam, definitione essentiali et propria; substantia vero, quia ex sua essentia neque accidentia neque habitudinem ad accidentia includit, non indigit illis, ut exacte definiatur.”

307. Shields 1999: 58.

Suárez on *Metaphysics* IV.2.

Suárez firmly believes that *Metaphysics* IV.2 is all about the analogy of being. He thinks that there is an analogy between substances and accidents. The problem is: what kind of analogy? As we have already seen he discards the analogy of proportionality and says that the analogy in question is one of attribution as Aristotle explains in *Nicomachean Ethics* I.6 and in:³⁰⁸

Metaphysics IV.2 [where] he says “being is said in many ways but truly with respect to one thing” and compares this to “healthy” which is an analogate of attribution.

The logicians among Suárez’s medieval forerunners seem not to have discussed the different types of analogy in much detail, at least in the twelfth to fourteenth centuries.³⁰⁹ Among theologians Thomas Aquinas, as Suárez points out, could seem to subscribe to the analogy of proportionality as the type relevant for the analogy of being. But in fact, Suárez assures us, Thomas should be interpreted as holding that *Metaphysics* IV.2 is all about the analogy of attribution.³¹⁰ So Suárez’s interpretation of *Metaphysics* IV.2 should be warranted from a Thomistic point of view.

However, he faces a quite serious problem in *Metaphysics* IV.2 itself. As we have just seen, Suárez claims that “healthy” is attributed to whatever it is said about by an analogy of attribution. But crucially, “healthy” is not attributed to all its analogates *internally*. The attribution is external, meaning that “healthy” is said primarily (and internally) of one analogate, in this case bodily health, but externally of all the remaining analogates.³¹¹ A vitamin is called healthy externally, i.e. seen from the perspective of bodily health,

308. Suárez, *Disputationes Metaphysicae* 32.2.13

309. Ashworth 2008: 51-52.

310. Suárez, *Disputationes Metaphysicae* 32.2.13.

311. Suárez, *Disputationes Metaphysicae Index Lib. IV*, cap. 2. Q. 2 [Vivès vol. 25, XV]. The *Index [locupletissimus in Metaphysicam Aristotelis]* is Suárez’s condensed question commentary on the *Metaphysics* mentioned p. 93 above. Vivès refers to the edition of the *Opera Omnia*, 28 volumes, eds. André & Berton, Paris, 1856-1878.

and not internally, i.e. not from its own essence or definition. This means that Aristotle's example of "healthy" is badly suited for the science of being as being (at least as Suárez conceives of this).³¹² According to Suárez, Aristotle employs this example, because in *Metaphysics* IV.2 he is talking about "being" in its broadest possible sense, including privations and negative terms (not-being "is" in a certain way for example), whereas in *Metaphysics* IV.1, where Aristotle proposes the science of being as being, he is talking about "being" in a more restricted sense, i.e. being as being and its *per se* attributes.³¹³ This means that "being" has one common concept to back it up, whereas "healthy" does not have such a concept. For this reason, the analogical attribution of "healthy" is not the same as the analogical attribution of "being" but merely similar to it. This distinction between the internal attribution of "being" (*Metaphysics* IV.1) and the external attribution of "healthy" (*Metaphysics* IV.2) also explains why Suárez, in our view, would endorse the above definition of *pros hen* predication (CDH) in the (iii a) version and reject the (iii b) version. There is no reference to any external entity, "c" in Shields' formulation of (iii b), that warrants the unity of being in Suárez's account of the analogy of being.

Let us sum up the results thus far. The two recent objections to the analogy of being fall short with respect to Suárez's interpretation of this doctrine: that the analogy of proportionality is irrelevant to *Metaphysics* IV.2 (first objection) is itself irrelevant to Suárez's analogy of being, which is not an analogy of proportionality; and the theological backdrop of his doctrine (second objection) has no bearing on his interpretation of the analogy between substance and accident. Further, Suárez holds a view on the analogy of being that is fully compatible with recent accounts of *pros hen* predication (Shields' account of CDH). With this in mind, let us face the question about what kind of metaphysical science the analogy of being allows according to Suárez.

312. Recent interpreters are obviously also aware of this, see Fraser 2002: 81-82.

313. Suárez, *Disputationes Metaphysicae, Index Lib. IV, cap. 2, Q. 2* [Vivès 25, XV]. See *Metaph.* IV.2.1003b9-10. Fraser 2002: 69 with note 41 suggests a different solution to the problem concerning negations and negative terms.

Focal meaning and metaphysics as a transcendental science

That “being” is attributed to both substance and accident internally means that they share the same objective concept of being (though, as we have seen, this concept comes with an asymmetric relation between substance and accident). From such an objective common concept of being it follows, according to Suárez, that “being” can operate both as an extreme and as a middle term in demonstrations of its own properties.³¹⁴

It is not entirely clear whether he means to say that “being” may hold the position of the major extreme or the minor extreme in a categorical syllogism, but since he does not specify on this question, it would be natural to think that he means to say that “being” may occur in both positions. If this is correct, his claim is that “being” may act as subject term in the conclusion (minor extreme), as predicate term in the conclusion (major extreme) or as middle term in the demonstration (see examples below). This means that the metaphysician will demonstrate *P* about being (minor extreme), or demonstrate that *S* is being (major extreme) or demonstrate that *S* is *P* through being (middle term). So the question obviously is what other terms apart from “being” could replace *S* or *P* in these demonstrations. Suárez thinks that these will be the *per se* attributes of being as such mentioned by Aristotle in *Metaphysics* IV.1 (see note 314, above: *proprietates illi [i.e. enti] adaequatae de ipso demonstrantur* “the properties adequate to it [*i.e.*, being] will be demonstrated of it”). The adequate properties are the transcendental attributes of being, *one, good, true* and possibly also the so-called divisions of being which are, if not transcendental, then transcendental-like.³¹⁵

314. Suárez, *Disputationes Metaphysicae Index* Lib. IV, cap. 2, Q. 2 [Vivès 25, XV]: “Unde fit, ut ens secundum adaequatam significationem possit esse extremum demonstrationis, in qua proprietates illi adaequatae de ipso demonstrantur”. See also Suárez, *Disputationes Metaphysicae* 32.2.18: “... ens potest esse medium, et extremum demonstrationis, et ex eo potest confici vera distributio et contradictio”.

315. See Suárez, *Disputationes Metaphysicae* 3.2.11. The divisions of being are, e.g., infinite/finite, act/potency and possibly also cause/effect. According to the interpretation of Schnepf 2006: 237 “cause” is for Suárez indeed a transcendental attribute of being.

In other words, the metaphysician will be able to demonstrate that (“being” as a minor extreme):

Every being is a true thing
Every true thing is one thing
Every being is one thing

or (with “being” as the middle term) that:

Every true thing is being
Every being is one thing
Every true thing is one thing

So metaphysical demonstrations employing the concept of “being” will prove the essential features of being as such. Since, however, being is attributed *internally* to both substance and accident in the analogy of being, what the metaphysician demonstrates of “being” will hold for substance and accident also. Through the internal attribution “being” transfers its own transcendental properties to all its inferiors.³¹⁶ Thus, the metaphysician may safely syllogize as follows:

Every substance is being
Every being is one
Every substance is one

or:

Every accident is being
Every being is one
Every accident is one

The analogy of being warrants the shift from “being” to “substance” and from “substance” to “accident” since it is based on one common objective concept of being attributed to substance and accident in-

316. See Suárez, *Disputationes Metaphysicae* 32.2.14 and the discussion in Doyle 2010: 69-70 with note 118.

ternally. In short, Suárez can explicate what “being” means when said of a substance or an accident. Noticeably, he cannot through the analogy of being explicate *what* a substance or an accident is. He can demonstrate only what it means that they are “beings” (*entia*) and what this means is that they share a set of transcendental properties.³¹⁷

The challenge offered by Suárez to recent interpretations of *Metaphysics* IV.1-2 is this: (1) the analogy of being cannot be dismissed as a possible interpretation of *Metaphysics* IV.2 and focal meaning on the grounds offered by recent scholars; (2) the analogy of being allows us to see how the metaphysician might use being demonstratively to prove essential features of substance and accidents. Admittedly, the kind of demonstration that the metaphysician may provide are not very illuminative. We have argued for a deflationary view of metaphysical demonstrations. On such a deflationary view, these demonstrations yield little information about the things they demonstrate; or put more boldly: they reveal how little can be done in metaphysics by way of demonstration. Perhaps this is the best metaphysics can do, if it is to proceed demonstratively. The problem with more recent attempts to show that Aristotelian metaphysics is a demonstrative science is that they fail to explain a point that should be crucial to such a science: what kind of demonstration it offers and how they are relevant to the study of metaphysics.

317. This deflationary view of what the analogy of being actually provides for the science of metaphysics is somewhat controversial. Some scholars believe that Suárez actually thought he could deduce the categories (substance / accidents) from his common concept of being see e.g. Doyle 2004: 77: “Being has enough unity to be the middle term in demonstrations. This is especially presupposed by the basic plan of the *Disputationes metaphysicae*, which in the first 27 Disputations deals with being in general and then in Disputations 28 to 53 descends in a quasi-deductive way to the subjective parts (God and creatures, substance and accidents) contained under being in general.” It would take us too far to go into this interpretation.

APPENDIX

Contemporary Philosophers and Aristotle

Several great philosophers of the 20th century have taken Aristotle seriously as a philosopher in his own right and not just as an historical figure. They have found his philosophy challenging and directly relevant to their own philosophical concerns. Others have used him superficially simply to state their own case. Without any pretension of exhaustivity we wish to present illustrative samples of how first-rate 20th-century philosophers have used Aristotle in the fields of metaphysics, epistemology, ethics and logic.

Martin Heidegger

Heidegger (1889-1976) is controversial to a much higher degree than most other leading 20th-century philosophers, not least, but also not only, for political reasons. Admired by some, despised by others, he is perhaps read too favourably by the first, and not at all by the latter. He was trained in (neo)scholastic theology, well-versed in medieval Western philosophy, wrote a dissertation on what was at the time believed to be a text by Duns Scotus,³¹⁸ and worked extensively on Greek philosophy. In terms of influence on the investigation of Aristotle's philosophy in the 20th century, Heidegger has been a major figure, especially in German speaking areas but also in France. His interpretations of Aristotle have in different ways inspired Gadamer's interest in Aristotelian *phronesis* (*Wahrheit und Methode*), Wolfgang Wieland's interest in the *Physics* (as more central than the *Metaphysics*) and Pierre Aubenque's investigations of Aristotle's metaphysics.³¹⁹

318. The text, *Modi Significandi*, is in fact by Thomas of Erfurt, who was roughly contemporary with Scotus.

319. Aubenque 2002 (first published 1962) and Wieland 1992 (first published 1962).

Heidegger worked on Aristotle particularly in his early years at the universities of Freiburg and Marburg, giving his last lecture course devoted directly to Aristotle in 1931. At that stage of his life he apparently envisaged a monograph concerned with Aristotle and what he then called the hermeneutics of facticity. This is clear from the so-called Natorp Report (*Natorp Bericht*) written in 1922, re-discovered and made publicly available in 1989. The report was requested by Paul Natorp in connection with Heidegger's appointment in Marburg and has the official title *Phenomenological Interpretations into Aristotle* (*Phänomenologische Interpretationen zu Aristoteles*). Its aim is to indicate the outlines of Heidegger's research into Aristotle. The first part of the report was known by Gadamer prior to its publication in 1989 and exercised a strong influence on him,³²⁰ whereas it is uncertain to what extent other Aristotelian scholars like Wieland or Aubenque knew the text. The Natorp Report seems to capture the basic features of Heidegger's approach to Aristotle in a well structured and brief form. For this reason, we base the following remarks on the report. In addition to the general theory that Heidegger sets forth, he outlines very briefly his interpretations of *Nicomachean Ethics* VI, *Metaphysics* I.1-2 and *Physics* I-II, III.1-3.

The Natorp Report is not intended as a traditional, scholarly interpretation of Aristotle. Rather, what Heidegger outlines is nothing less than a revolutionary new philosophy in which the focal point is living a "real life", by Heidegger called "facticity", i.e. something like living here and now (not in some afterlife or a future life of the sort promised by religions or political ideologies), paying attention (*Sorge*) to one's immediate environment, being intentionally directed towards it, and towards one's finitude, that is, to the fact that this life ends at some point in time (*Tod*). The bold claim of the Natorp Report is that this "facticity" has ontological priority over all other ontological items so that understanding ontology generally presupposes understanding "facticity".³²¹

320. Gadamer 2003: 78: "Mir war der Anfang dieses Manuskriptes schon seit 1922 bekannt" & "Dieser Text wurde für mich zu einer wahren Inspiration."

321. Heidegger 2003: 29: "Die Problematik der Philosophie betrifft das *Sein* des faktischen Lebens. Philosophie ist in dieser Hinsicht *prinzipielle Ontologie*, so zwar, dass

But, as Heidegger himself asks, what has this to do with Aristotle and with the history of philosophy more generally?³²² The short answer is that, in Heidegger's view, the way philosophers think about facticity has been decisively shaped by Aristotle and the Christian Aristotelian tradition (scholastic and neo-scholastic philosophers and theologians plus their forerunners: Neo-Platonists, Augustine, Paul and the Gospel of St John). Aristotle is relevant because he is the ultimate source of the meaning generally assigned to the term 'real life' or 'facticity' by Heidegger's contemporaries. The proposed monograph on Aristotle, which never materialized, was to investigate and critically question the Aristotelico-Christian terms in which "life" had been seen, to destroy them and try to find the original sources that motivated the formation of these terms.³²³

This was a grand project and it may not be entirely obvious that Heidegger needed to go all this way back through the Aristotelian and Christian traditions to Aristotle in order to develop his own philosophy of "life". In the Natorp Report, however, he took this to be necessary, because he held that philosophical interpretation must take three aspects into consideration. The first is what he calls (1) the "life situation" of the interpreter: Who am I?, Why do I ask the questions that I ask?, How do I ask them?, and so on. The second is (2) the way in which the object of interpretation has already been thought about in the tradition, i.e. the way a term or a philosophical problem has been framed, formed or pre-figured. The third aspect concerns (3) the specific purpose for which the interpretation is conducted: Which problem or question do I want to raise?, What do I aim to achieve?, etc.³²⁴ Now, philosophical interpretation should take these aspects into account because if any one of them is

die bestimmten einzelnen welthaften regionalen Ontologien von der Ontologie der Faktizität her Problemgrund und Problemsinn empfangen" (italics by Heidegger).

322. Heidegger 2003: 31.

323. Heidegger 2003: 34.

324. Heidegger 2003: 5-6. Heidegger talks about these three aspects as the "point or stand of view" (*Blickstand*), the "having in view" (*Blickhabe*) and the "direction of view" (*Blickbahn*). These are good examples of his notorious neologisms. Some will find them annoying (because unnecessarily opaque), others philosophically important and some perhaps just charming oddities.

left out, the interpretation will suffer a loss of transparency. The interpretation will be less transparent because it will not be able to account for itself, i.e. explain what it does and why.

In the first part of the Natorp Report, Heidegger attempts to account for (1), i.e. for his own “life situation” and its relevance for his investigations of Aristotle.³²⁵ (2) necessitates the detour to Aristotle because he stands at the fountain-head of the tradition as regards the term ‘life’ (facticity). Having outlined (1) and (2) Heidegger needs only indicate (3): the aim of his investigation and what he hopes to achieve by it. Now, the Natorp Report was addressed to the leading member of the Neo-Kantian school, so Heidegger prudently stresses that his investigations aim at destroying the late scholastic manner in which Aristotle and “facticity” have been interpreted.³²⁶ But in fact he seems to have had a double motivation for his study of Aristotle. In his 1921/22 lectures (on which the Report seems to be based), Heidegger makes it perfectly clear that his research into Aristotle is not only motivated by the “positive” reception accorded to him by late scholastic and Neo-scholastic philosophers, but just as much by the “negative” verdict passed on Aristotle by the Neo-Kantians.³²⁷ Heidegger, in fact, seems to want to provide an entirely new way of interpreting the old philosopher; he wants an Aristotle contaminated by neither scholastic nor Neo-Kantian ways of thinking.

At this point it seems fair to ask how well Heidegger justifies his focus on Aristotle. Why Aristotle and not Plato, for example? Or why not pre-Socratic philosophy or the earliest Greek sources? If (2) above is to be taken quite literally, one should think that the preference for Aristotle actually makes Heidegger’s interpretation less transparent, since Aristotle had already inherited certain ways of thinking about “life”, which, for the sake of transparency, must be taken into account in a study of “facticity”. Heidegger tries to meet this objection by claiming that Aristotle provides a fundamen-

325. Heidegger 2003: 31: “Damit [i.e. in the preceding argument pp. 5-31] ist der Blickstand angezeigt, den die folgenden Interpretationen ... nehmen.”

326. Heidegger 2003: 39.

327. Heidegger 1994: 4-6.

tally new basis for discussing the topic.³²⁸ Still, it is hard to deny that Aristotle did not start quite without inherited preconceptions. If Heidegger was in the possession of arguments by which to disarm this objection, he failed to produce them. A charitable commentator might suggest that a thorough discussion would be too much to expect in a programmatic proclamation like the Natorp Report.

Heidegger's approach to the investigation of Aristotle is most unusual in the annals of Aristotelian scholarship. Hardly anyone among his predecessors had devoted as much attention to what it means to interpret an Aristotelian text, and no one had stressed, as he did, the importance of paying attention to the historical nature of old texts and the ensuing philosophical challenges involved in their interpretation. He shared his anti-scholasticism with many other 20th-century interpreters of Aristotle. But unlike quite a few of the detractors of scholasticism, he was actually familiar with parts of the medieval tradition, and thus his anti-scholastic approach to Aristotle did at least have *some* scholarly foundation.

Hilary Putnam

Hilary Putnam (1926-) is another example of a recent philosopher who has taken an interest in Aristotle. Putnam, of course, belongs to the analytical tradition of philosophy, and his approach to Aristotle is very different from Heidegger's. Putnam's Aristotle is a man whose arguments can be interpreted without serious attention to their historical context. Putnam is not, strictly speaking, an Aristotelian scholar, but in some of his most influential articles he either criticizes or praises features of Aristotle's philosophy, and by so doing he has provoked strong reactions among Aristotelian scholars.

Putnam's interest in Aristotle has been mainly concerned with the concept of *form*, and he has reached rather different results in the cases of philosophy of language and philosophy of mind. In the case of language and semantics, Putnam sees in Aristotle the starting point of a misguided approach to the question of meaning, an

328. Heidegger 2003: 38-39.

approach that was followed by Aquinas, Mill, Locke and Frege, among others, and reached its peak with the logical positivism of the first half of the 20th century. In philosophy of mind, on the other hand, he considers Aristotle as an old, very intelligent ally whose views deserve to be taken seriously. Let us look at these two cases.

Putnam, Aristotle and Philosophy of Mind

In a 1975-article entitled ‘Philosophy and Our Mental Life’³²⁹ Putnam put forward his *functionalist* theory, which argues that the perennial question whether we are “matter or soul-stuff” is misguided and rests on false assumptions. The way to solve the problem, he claimed, is to apply the concept of *functional isomorphism*. “Two systems are functionally isomorphic if *there is a correspondence between the states of one and the states of the other that preserves functional relations.*”³³⁰ In such systems, one must focus attention on the functions and states of matter, but not on the matter itself. In principle, the same functions can be realized in many, if not infinitely many, different physical constitutions. For the philosophy of mind this means that no particular kind of matter is needed; what is interesting is the configuration of matter and the correspondence with respect to configuration between two different material bearers. A description of this configuration for the different bearers would constitute a description of *the mental*. And then, at the very end of the article, Putnam suddenly claims that the essential feature of this theory was already stated by Aristotle long ago when he said that what is interesting is not the matter but its form.³³¹

Aristotle’s part in this would probably have been negligible had it not been for Martha C. Nussbaum’s *Aristotle’s De Motu Animalium* (1978) in which she adopted and developed Putnam’s relatively modest remark. Aristotle was now a functionalist, or at least a proto-

329. Putnam 1975.

330. Putnam 1975: 291.

331. Putnam 1975: 302: “Let me close by saying that these examples support the idea that our substance, what we are made of, places almost no first order restrictions on our form. And that what we are really interested in, as Aristotle saw, is form and not matter. *What is the intellectual form?* is the question, not what matter is.”

functionalist, who had proposed a very modern theory more than 2,000 years before it resurfaced.

This provoked responses, the most famous coming from Myles Burnyeat at a conference in 1983, but published as late as 1992.³³² Burnyeat argued that matter, far from being inessential in an Aristotelian theory of mind, had to be of a very particular sort; in fact, of a kind that we could hardly relate to any more. He used perception as his example and argued that for Aristotle this particular kind of matter was “impregnated with consciousness”, so to speak. Consciousness simply arises when one perceives, and incredibly, from our point of view, it does so without the matter undergoing any physical change. This completely excludes the possibility of a functionalist theory; for changes in material constitutions are necessary conditions for functionalism to work. This being so, Burnyeat concluded, we have only one option concerning Aristotle’s views on mind, soul and matter: Junk it!

A huge number of monographs, papers and articles have discussed this question, and the debate is hardly settled. What this seems to show, though, is that it is considered a question of some importance whether Aristotle is actually “contemporary” and relevant to philosophical debates even in the 21st century. It also seems to show that scholars tend to go to extremes in their interpretations of Aristotelian views that have the resemblance of something recent. Aristotle’s view that the soul is *form* in the sense of being the first actualization of a natural body potentially having life (*de An.* II.1) is clearly a sophisticated view that admittedly resembles a functionalist theory. For this *form* must comprise the essential features of the human being, its functions, its possible mental states, etc. But, on the other hand, it can hardly be realized in just any matter. Still, Burnyeat goes very far in introducing a kind of change that is counter-intuitive, even (or so it would seem) from an Aristotelian point of view, and one that is not otherwise described in the works on natural philosophy.

Putnam’s original aim was to establish a dialogue with Aristotle, but he incidentally started a dialogue with Aristotelian scholars

332. Burnyeat 1992. For the origin of the paper, see p. 15 of his article.

also. Moreover, he helped continue the debate by co-authoring with Martha Nussbaum a response to Burnyeat, even after he himself had given up on a strict version of functionalism.³³³ Thus, a rather casual remark made in the context of modern analytical philosophy sparked a controversy in Aristotelian scholarship.

Putnam, Aristotle and Philosophy of Language

Putnam's judgment of Aristotle's philosophy was not always as favourable as in the case we have just presented. In particular, he has blamed Aristotle's theory of meaning for initiating a long history of failed attempts to account for the notions of meaning and reference of language. In his article 'Meaning, Other People and the World',³³⁴ Putnam presents us with his own interpretation of Aristotle's account of meaning in the following words:³³⁵

In *De interpretatione* [Aristotle] laid down a scheme which has proved remarkably robust. According to this scheme, when we understand a word or any other "sign," we associate that word with a "concept." This concept determines what the word refers to.

Next, having told us that this account of meaning became some sort of semantic model for posterity, Putnam describes the so-called Aristotelian model in the following way:³³⁶

[T]he picture is that there is something in the mind that picks out the objects in the environment that we talk about. When such a something (call it a "concept") is associated with a sign, it becomes the meaning of the sign.

According to him, this model, which prevailed for more than two thousand years, and of which we find instantiations in linguistic

333. Nussbaum & Putnam 1992.

334. Putnam 1988.

335. Putnam 1988: 19

336. Putnam 1988: 19

theories from Aristotle until 20th-century logical positivism, relies on three assumptions:

- I. Every word used by a speaker is associated by him with a concept;
- II. Two words are synonymous if they are associated with the same concept by the speaker;
- III. The concept determines the reference of the word, if it refers to anything at all.³³⁷

Putnam goes on to pass a severe judgment of the Aristotelian model of meaning, which he considers to be overtly false, because “there cannot be such things as ‘mental representations’ which simultaneously satisfy all three of these conditions.”³³⁸ Let us show why, according to Putnam, this model necessarily involves a falsification of how language hooks on to the world.

Let ‘x’ represent a word in a language L and [x] represent the concept associated with ‘x’. We have by (i) that for every word ‘x’ in L, there is a concept [x] which is the meaning of ‘x’ (henceforth $m('x')$). We have by (ii) that for some ‘x’ and ‘y’ in L, ‘x’ and ‘y’ are synonymous if and only if $m('x') = m('y')$, that is if and only if $[x] = [y]$. By (iii) we have that $m('x') = m('y')$ implies that $r('x') = r('y')$, that is the referents of ‘x’ and ‘y’ are identical. Therefore, from (i) to (iii) it follows that ‘x’ being synonymous with ‘y’ amounts to $r('x') = r('y')$. In other words, sameness in meaning amounts to sameness in reference.³³⁹

Now, according to Putnam “none of the methods of representation that we know has the property that the representations *intrinsically* refer to whatever they are used to refer to,” because “[a]ll of the representations we know about have an association with their referent which is contingent, and capable of changing [...]”³⁴⁰ This contingency also applies to mental representations or concepts. There-

337. Putnam 1988: 20; *cf.* 1988: 19.

338. A much less severe criticism of the Aristotelian model is found in Putnam 1994.

339. Cf. Putnam 1988: 20.

340. Putnam 1988: 21-22.

fore, since concepts do not *intrinsically* refer to something, and thus won't *always and necessarily* have the same referent, the Aristotelian model fails to explain both the univocity of meaning and of reference of the words in a language. Since concepts are items susceptible to change, words cannot be made into rigid designators of reality by associating them with concepts.

Putnam's interpretation of Aristotle relies on an assumption that has a long history. From late antiquity onwards, readings of Aristotelian semantics rely in some way or another on an assumption about Aristotle's underlying intention when treating linguistic matters in the *Organon* – the assumption that Aristotle's account is a formal device for calculating meaning and reference of words in a language. Now, if it is true that for Aristotle words are associated with concepts, there is another possible reading of this that does not necessarily involve a concern about the univocity of meaning and reference. One could argue that the association of words and concepts is introduced – at least in *De interpretatione* – in order to highlight the function of words as vehicles for the transmission of thoughts, and not in order to explain how language univocally hooks on to the world. In other words, association with concepts is not here a formal device, but a communicational device, so that even if assumptions (i) to (iii) in Putnam's description may be found somehow in Aristotle's work, they were not meant to be arranged so as to form an explanation of a much desired univocity of meaning and reference.

Aristotle is probably not even interested in such an explanation, since according to him homonymy is an unavoidable feature of human languages (cf. *SE* I.165a6-13). As a matter of fact, Aristotle never claims or suggests that univocity of meaning (and reference) is ensured by the link to concepts, but rather by an agreement between the participants in an act of communication. Aristotle's awareness of this unavoidable feature of language, that is, homonymy, leads him to discuss it in four of the six treatises of the *Organon* (*Categories*, *De interpretatione*, *Sophistical Refutations* and *Topics*), and his way of tackling this issue is one that requires a cooperation between speaker *and* listener. Aristotle's concerns are thus more directed towards identifying and resolving homonymy in a communicational

setting than towards a formal explanation of univocity (*συνωνυμία*). One might even venture the claim that no one was more aware of the contingency of linguistic representations than Aristotle himself.

Alasdair MacIntyre and Virtue Ethics

Leaving metaphysics and epistemology, it is safe to say that Aristotle's impact on 20th-century moral theory, especially virtue ethics, has been considerable. In 1981 Alasdair MacIntyre (1929-) created a sensation with a book called *After Virtue*, in which he claimed that our language of morality is in a state of grave disorder, and "what we possess [...] are the fragments of a conceptual scheme, parts of which now lack those contexts from which their significance derived".³⁴¹ MacIntyre sees emotivism as the dominant view of his time, i.e. "the doctrine that all evaluative judgments and more specifically all moral judgments are *nothing but* expressions of preference, expressions of attitude or feeling, insofar as they are moral or evaluative in character".³⁴² Yet, in spite of this widely held doctrine we often speak as if there were some impersonal rational foundation of our moral judgments.

Our moral language is flotsam from the wreckage of Aristotelian virtue ethics. MacIntyre tries to write, in outlines, the history of the development of moral thought in post-medieval European culture, linking changes in views of morality to other changes in society, not least the appearance of Lutheran protestantism, and he argues forcefully that none of the successive attempts to give morality a rational foundation has been successful. In the end, most of these attempts defend sets of precepts that enjoin us to do or not do the sort of things that a traditional virtuous person might be expected to do or refrain from.

We are, so MacIntyre, forced to make a choice between Aristotle, on the one hand, and Nietzsche's destruction of all morality, on the

341. MacIntyre 2007: 2 (We use the third edition, which keeps the main text of the first, but has a new prologue as well as a postscript which was added in the second edition).

342. MacIntyre 2007: 112-113.

other. We cannot, of course, just take over Aristotelian ethics lock, stock and barrel, we live in different times, our historicity is a central feature of ourselves. We cannot take over unchanged the Aristotelian teleology, but we can operate with a *telos* of a human life. The self of the emotivist has been stripped of all context, but in fact each human life is a narrative, part of and intersecting with other narratives – those of one’s family history, of one’s community, one’s fellow human beings etc. It is the narrative that constitutes the identity of the self and makes a human life a unity from birth to death, and it is through being able to answer the question “Of what story or stories do I find myself part?” that one may become able to answer the question “What am I to do?”³⁴³

Within such a conception of a human life there is room for the notion of a *telos*, though not one that we are served on a silver platter, for (and this is un-Aristotelian) “it is through conflict and sometimes only through conflict” involving incompatible goods “that we learn what our ends and purposes are”.³⁴⁴ It is also possible to keep the Aristotelian insight that we are radically social beings, “and yet to view the city-state in an historical perspective as only one [...] in a series of social and political forms in and through which the kind of self which can exemplify the virtues can be found and educated”.³⁴⁵ It is also possible to move from *is* to *ought*, because we need not have the modern impoverished notion of what makes a human human.

MacIntyre stands out as a philosopher who not only thinks Aristotle has something to offer, but who has clearly spent much time mulling over the *Nicomachean Ethics*, just as he displays first-hand acquaintance with a large number of other important works from the whole of the history of western culture. Already when he wrote *After Virtue*, Thomas Aquinas was one of his heroes: “Aquinas’ commentary on the *Nicomachean Ethics* has never been bettered”, he claimed.³⁴⁶ In the prologue to the third (2007) edition of *After Virtue* he amusingly tells the reader that when he wrote the book he was already an

343. MacIntyre 2007: 216.

344. MacIntyre 2007: 164.

345. MacIntyre 2007: 163.

346. MacIntyre 2007: 178.

Aristotelian, but that later he became a Thomist “in part because I became convinced that Aquinas was in some respects a better Aristotelian than Aristotle”.³⁴⁷

MacIntyre was not the first 20th-century philosopher to plead for a partial return to Aristotelian ethics, he had been preceded as early as the 1950s by G.E.M. Anscombe,³⁴⁸ but it is probably true to say that he has been both the historically best founded and the most influential writer in the revival of virtue ethics.

The Logicians

Heidegger, Putnam and MacIntyre are not the only modern philosophers who think that old Aristotle deserves attention. Among logicians Aristotle has also been a fertile point of reference. True, Bertrand Russell, one of the founders of modern logic, had little but scorn left for the father of the discipline. In his *History of Western Philosophy*, at the end of a chapter about Aristotle’s logic, he wrote:³⁴⁹

I conclude that the Aristotelian doctrines with which we have been concerned in this chapter are wholly false, with the exception of the formal theory of the syllogism, which is unimportant. Any person in the present day who wishes to learn logic will be wasting his time if he reads Aristotle or any of his disciples.

Russell felt cock-sure that his and Whitehead’s logic would supersede anything else. But at the time the first edition of his book appeared, in 1946, several other first-rate logicians had become painfully aware that Russell’s logic did not render everything else superfluous, and some of them had a healthy interest in Aristotle.

One such logician was Jan Łukasiewicz (1878-1956), the inventor of the Polish notation. One of his early publications was a 1910 article about Aristotle’s principle of contradiction, later translated into

347. MacIntyre 2007: viii.

348. See, for instance, Crisp 1998 and Hursthouse 2012. Anscombe published her ground-breaking article ‘Modern Moral Philosophy’ in 1958.

349. Russell 1961: 212.

English (Łukasiewicz 1971), and one of his last publications (1954) was on Aristotle's modal syllogistic, while his landmark *Aristotle's Syllogistic*, a post-WW2 English reconstruction of a Polish book that had perished in a German bomb attack in 1939, first appeared in 1951, and, enlarged with a chapter on modal syllogistic, reappeared in a second edition in 1957. Arthur Prior (1957: 26), probably correctly, said that Łukasiewicz's "3-valued logic of 1920 seems to have been originally designed to formalize a theory of Aristotle's about the truth-values of statements with their tenses taken seriously", i.e. Łukasiewicz's starting point had been the famous sea-battle in *De interpretatione* 9. Apparently, he was a logician who always had Aristotle at the back of his mind, even though he was not afraid of criticizing his ancient predecessor.

In *Aristotle's Syllogistic*, Łukasiewicz presents us with a thorough analysis of the non-modal syllogistics of the *Prior Analytics*. Besides Aristotle himself, he also discusses the most influential ancient commentators – Alexander of Aphrodisias, Philoponus and Ammonius. While the ancients are treated with some respect, a scathing critique is levelled at two more recent interpreters, Carl Prantl (1820-1888) and Heinrich Maier (1867-1933), both of whom are accused of gross misunderstanding of Aristotle's syllogistics due to logical incompetence. Łukasiewicz repeatedly contrasts Aristotle's system with that of the Stoics, which he finds equally brilliant.

Łukasiewicz's analysis, which tries to present Aristotle's syllogistics in a systematic way, but without introducing foreign elements, has the great advantage of reconstructing the "system" only from evidence provided by Aristotle himself. He presents the Aristotelian system as a "theory of four constants,"³⁵⁰ namely A: 'all – is', E: 'no – is', I: 'some – is', and O: 'some – is not', which are relations of two arguments, whose values can only be concrete universal terms. From these four constants and the logical operators 'if – then', 'and' and 'no', theses of the form 'if α and β , then γ ' – syllogisms, that is – can be produced. Of these theses some are axioms – theses whose truth is self-evident –, and some are derived from the axiomatic ones, either by a direct proof with the help of the laws of conversion

350. Łukasiewicz 1957: 74.

or by *reductio ad impossibile*. An additional axiom is introduced by Łukasiewicz himself (actually discovered by his student Slupecki) in order to assure the decidability of the system, and particularly the decidability of false theses. According to Łukasiewicz, the lack of this axiom is the major flaw of Aristotelian logic.

Łukasiewicz shows the greatest respect for Aristotle as a logician. He rejects the traditional view according to which Aristotle's logic is formal in the sense that it is a theory of the forms of thought. It would be more accurate to say that it is formal because it is a logical system that has a form, without this form being necessarily derived from the form of our thought. This is perhaps the weakest point of Łukasiewicz's otherwise superb contribution to Aristotelian scholarship: his eagerness to portray Aristotle as a great logician who already more than 2000 years ago understood quite well the requirements that a logical system has to meet. It is hard to acquit his overall interpretation of Aristotle's syllogistics of the charge of anachronism, and this applies in particular to his interpretation of its aim.

Jaakko Hintikka (born 1929) has lived a life, and a long one, as an innovative logician in constant symbiosis with Aristotle. From his first publications in the late 1950s and for about half a century thereafter, his publication pattern has been one of primarily ahistorical contributions to modern logic (and other parts of philosophy) mixed with a considerable number of papers on Aristotle (and more rarely other great figures in the history of philosophy). Most of his Aristotelian studies fall in either of two categories:³⁵¹ (1) investigations of Aristotle's notion of modalities, with the claim that he subscribed to some variant of the "principle of plenitude", i.e. that any genuine possibility must some day be actualized, and (2) studies of Aristotle's theories of argumentation and science, with the claim that the question-answer model of argumentation that is so obvious in the dialectical works (*Top.*, *SE*), also underlies much of what goes on in the *Analytics*, and, indeed, in Aristotle's non-logical works, where problem-solving, question-answering, is much more

351. The two types of studies are well represented in Hintikka 1973 and 2004, respectively (both are collected essays).

important than deduction. Hintikka sees a direct link between Aristotelian procedures and his own modern theory of argumentational games, his theory being able to throw light on what goes on in Aristotle. To all appearances, Hintikka has throughout his life had Aristotelian problems as one among several sources of inspiration for his “modern” theories, while his modern theories have in turn inspired new ways of looking upon Aristotle.

Let us conclude by mentioning another illustrious 20th-century logician with an interest in, and a respect for, Aristotle. Arthur Prior (1914-1969), the founder of modern tense logic, who corresponded with Łukasiewicz after the publication of the latter’s book on Aristotle, even took an interest in Aristotle’s much-despised medieval “disciples”, as Russell had called them, not least in Walter Burley (ca. 1275-1345) and John Buridan, the master-logician of the 14th century.³⁵² Prior’s attitude to his medieval predecessors was exactly the one we would like to promote with this book. About Burley’s *De puritate artis logicae* he wrote:³⁵³

This should surely be a set text in any institution where it can be assumed that students of logic are able to read Latin. The Latin is so easy; the man’s problems and interests are modern enough to hold the twentieth-century reader’s attention, and his methods medieval enough to teach us something unfamiliar; and I do not know any other medieval logic-book in which you have to wade through as little dross to find as much pure gold.

The last remarks about dross were not meant to indicate that all other medieval logic books are terrible. Prior found several others interesting and deserving of our attention.

352. For Prior’s reading and use of medieval logicians see Uckelman 2011. In his published work, his interest in Buridan is particularly evident in Prior 1962.

353. Prior 1958, here quoted from Uckelman 2011: section 2.2.

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ABBREVIATION

CIMAGL = *Cahiers de l'Institut du Moyen-Âge Grec et Latin*

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