History of Logic from Aristotle to Gödel

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Writings of E. J. Ashworth on the History of Logic. Fourth Part: Articles from 1997 to 2017

The bibliography is composed of four parts:

- First: Books authored and edited by E. Jennifer Ashworth; Articles from 1967 to 1976

- Second: Articles from 1977 to 1988

- Third: Articles from 1989 to 1996

- Fourth: Articles from 1997 to 2017

ARTICLES

1. Ashworth, Earline Jennifer. 1997. "Petrus Fonseca on Objective Concepts and the Analogy of Being." In *Logic and the Workings of the Mind. The Logic of Ideas and Faculty Psychology in Early Modern Philosophy*, edited by Easton, Patricia A., 47-63. Atascadero: Ridgeview.

    "Petrus Fonseca was a Portuguese Jesuit who lived from 1528 to 1599. He was one of those responsible for drawing up the Jesuit *Ratio Studiorum* which set the curriculum for Jesuit schools across Europe, and he was also responsible for initiating the production of the Coimbra commentaries on Aristotle, or Conimbricenses, which served as texts for many schools and universities in the seventeenth century.(1) He was himself the author of two popular texts, an introduction to logic, and a commentary on Aristotle's Metaphysics. (2) His logic text was one of two alternatives prescribed by the *Ratio Studiorum* of 1599, and may have been used at La Flèche; (3) his *Metaphysics* commentary was used at many Jesuit schools, and may also have been used at La Flèche. (4) In short, Fonseca was a leading figure in the Scholastic Aristotelian tradition of the late sixteenth century, a tradition which lies behind many of the developments in early modern philosophy, and which in many ways is more important than the humanist tradition represented by Petrus Ramus. (5)

    I have chosen to discuss Fonseca on objective concepts and the analogy of being both because an examination of these issues will help us to understand how logic came to be bound up with the philosophy of mind and because the history of how these issues were treated helps solve a small problem about Descartes's sources. My paper has four parts. I shall begin by giving a historical outline of treatments of analogy and their relevance to Descartes. (6) Secondly, I shall discuss late medieval theories of signification, particularly as they appear in Fonseca, in order to show how logicians turned away from spoken language to inner, mental language. Thirdly, I shall explain how it was that analogy, as a theory of one kind of language use, was particularly bound up with the discussion of concepts. Finally, I shall look at the distinctions Fonseca made while discussing the concepts associated with analogical terms.

1 Historical Outline: From Scotus to Descartes

In *Meditation* 3, Descartes uses a distinction between formal and objective reality with respect to ideas in order to prove the existence of God. In the secondary literature this distinction is invariably linked with a distinction between formal and objective concepts found in Suarez, whose *Metaphysical Disputations* (published in 1597) was cited by Descartes on one occasion. (7) However, as the literature acknowledges, it is not clear where the distinction originated, or how Descartes came to know of it. The earliest paper I know of, published by Dalbiez in 1929, looked in two directions.(8) Dalbiez quite accurately traced the distinction back to Duns Scotus and his discussion of the kind of being creatures had in God's mind prior to creation, (9) but Dalbiez thought it improbable that Descartes would have read Duns Scotus. He then suggested that the notion is more likely to have come from Suarez and another near-contemporary, Vasquez, both of whom used the notion in a theological dispute about the views of the fourteenth-century theologian Durandus of Saint Pourçain (d. 1334) on the nature of truth. (10) Little new light has been shed since 1929. (11) In recent papers, Norman Wells still privileges both Suarez and the debate about Scotus on divine ideas. (12) In a paper entitled "Meaning and Objective Being: Descartes and His Sources," Calvin Normore first discusses Duns Scotus and William of Alnwick on objective being in the context of God's ideas; and he then shows how the notion was used by Peter Aureol, William Ockham, and Walter Chatton in a variety of contexts. However, Normore acknowledges that there is a gap between about 1340 and the beginning of the seventeenth century. In his conclusion, he writes that his examination "suggests a Descartes firmly rooted in a Scholastic tradition which is deeply in debt to Duns Scotus and closely allied with fourteenth-century developments in epistemology and in the theory of meaning. This makes the problem of Descartes' immediate sources and the question of his originality even more puzzling." (13)

My own recent work on analogy as a theory of one kind of language use shows that at least one historical path between Scotus and the early seventeenth century can be traced through the Thomistic tradition, though we must remember that late medieval and Renaissance Thomism embraced a variety of different approaches and doctrines. What Thomists had in common was a kind of moderate realism with respect to common natures that differentiated them from the nominalists on the one hand and the Scotists on the other. Nonetheless, Thomists embraced many theses put forward by nominalists, especially Pierre d'Ailly (d. 1420/1); and much of their agenda had been set by Duns Scotus rather than by Aquinas himself." (pp. 47-48)

(...)

"Conclusion.

I don't want to claim that I can point to precise passages in Fonseca which have influenced Descartes, or Mersenne, or Arnauld, or any other early modern philosopher. On the other hand, I do want to claim that this is the style of discussion, and these are the types of distinctions, with which early modern philosophers, at least up to and including Locke, would have been familiar through the scholastic texts by which they were educated." (p. 63)

(1) On Fonseca's life and works, see Charles H. Lohr, *Latin Aristotle Commentaries: II. Renaissance Authors* (Florence: Olschki, 1988), pp. 150-51; and John P. Doyle, "Peter Fonseca," *Routledge Encyclopedia of Philosophy*, E. J. Craig, ed. (Routledge: 1998).

(2) Pedro da Fonseca, *Instituiçoes Dialécticas. Institutionum Dialecticarum Libri Octo*, 2 volumes, Joaquim Ferreira Gomes, ed. and trans. (Coimbra: Universidade de Coimbra, 1964), cited as *Instit. Dial.*, Petrus Fonseca, *Commentariorum In Metaphysicorum Aristotelis Stagiritae Libros* (2 volumes), (Cologne, 1615; reprinted Hildesheim: Georg Olms, 1964), cited as *In Met.* Volume 1 contains Tomus I-II and has numbered columns; volume 2 contains Tomus III-IV, and has numbered pages.

(3) Timothy J. Cronin, *Objective Being in Descartes and in Suarez* (Roma: Gregorian University Press, 1966), p. 34

(4) Cronin suggests, pp. 32-33, that Fonseca's commentary was normally used in Jesuit schools.

(5) Useful background is provided by Peter Dear, *Mersenne and the Learning of the Schools* (Ithaca and London: Cornell University Press, 1988). However, Dear overemphasizes the influence of Ramist-style humanism on Fonseca's logic: see pp. 19-21. For an alternative assessment of Fonseca, see E. J. Ashworth, "Changes in Logic Textbooks from 1500 to 1650: The New Aristotelianism," *Aristotelismus und Renaissance: In Memoriam Charles B. Schmitt*, Eckhard Kessler, Charles H. Lohr and Walter Spam, eds. (Wiesbaden: Otto Harrassowitz, 1988), pp. 82-84.

(6) Jean-Luc Marion, *Sur la théologie blanche de Descartes* (Paris: Presses Universitaires de France, 1981), devotes much of his book to the theme of Descartes's reaction to Suârez's doctrine of the analogy of being. In his discussion, he notes the relation between the analogy of being and objective concepts (e. g., p. 119), and he also mentions Fonseca briefly (p. 123). However, the nature and scope of our investigations is quite different.

(7) Descartes, *Replies* IV, AT VII 235. For discussion see Roger Ariew, "Descartes and scholasticism: the intellectual background to Descartes' thought," *The Cambridge Companion to Descartes*, John Cottingham, ed. (Cambridge: Cambridge University Press, 1992), pp. 58-90, esp. p. 79.

(8) R. Dalbiez, "Les sources scolastiques de la théorie cartésienne de l'être objectif à propos du 'Descartes' de M. Gilson," Revue d'histoire de la philosophie 3 (1929), pp. 464-472.

(9) For Fonseca on God's ideas, including reference to formal and objective concepts, see *In Met*., III, pp. 280b-296b, esp. 286a-288b (Lib. VII, cap. VIII, q. 2).

(10) Dalbiez, pp. 468-470.

(11) Cronin, p. 206, opts for Scotus and Suarez as Descartes's sources. One useful source is Gabriel Nuchelmans, *Judgment and Proposition from Descartes to Kant* (Amsterdam, Oxford, New York: North-Holland Publishing Company, 1983). He traces the early history of the phrases "esse obiective" and "conceptus obiectivus" in Hervaeus, Aureol, and Durandus, pp. 17-26. In discussing Descartes, he says (p. 41), "it remains difficult to single out any individual sources. His debt is of a very general nature and could have come from any work belonging to a certain climate of thought. There can be little doubt, however, that one of the main determinants of this climate was the objective-existence theory as it had been developed by such thinkers as Durandus and Aureolus."

(12) Norman J. Wells, "Objective Reality of Ideas in Descartes, Caterus, and Suarez," *Journal of the History of Philosophy* 28 (1990), pp. 33-61, esp. pp. 49-50. See also Norman J. Wells, "Objective Being: Descartes and His Sources," *The Modern Schoolman* 45 (1967), pp. 49-61; id., "Objective Reality of Ideas in Amauld, Descartes, and Suàrez," The Great Amauld and Some of His Philosophical Correspondents, Elmar J. Kremer, ed. (Toronto, Buffalo, London: University of Toronto Press, 1994), pp. 138-183.

(13) Calvin Normore, "Meaning and Objective Being: Descartes and His Sources," *Essays on Descartes' "Meditations,"* Amélie Oksenberg Rorty, ed. (Berkeley, Los Angeles, London: University of California Press, 1986), pp. 223-241, esp. p. 240.

2.   ———. 1997. "L'analogie De L'être Et Les Homonymes. *Categories*, 1 Dans La "*Guide De L'étudiant*"." In *L'enseignement De La Philosophie Au Xiii Siècle. Autour Du "Guide De L'étudiant" Du Ms. Ripoll 109. Actes Du Colloque International*, edited by Lafleur, Claude and Carrier, Joanne, 281-295. Turnhout: Brepols.

"C'est par trois définitions que s'ouvrent les *Catégories* d'Aristote (1). Dans la traduction d'Yvan Pelletier, Aristote écrit: «On dit homonymes les êtres dont le nom seul est commun, tandis que la définition de l'essence signifiée par ce nom est différente. Par exemple, l'animal, c'est à la fois l'homme et son image peinte [...]. Par ailleurs, on dit synonymes les êtres dont le nom est commun et pour lesquels, de plus, la définition de l'essence signifiée par ce nom est la même. Par exemple, l'animal, c'est aussi bien l'homme que le bœuf [...]. Enfin, on dit paronymes tous les êtres qui, tout en différant d'un autre par leur cas, reçoivent leur appellation d'après son nom. Ainsi dénomme-t-on, d'après la grammaire, le grammairien et, d'après le courage, le courageux » (2).

Ces trois définitions courtes et sèches nous donnent un point de départ pour examiner les rapports entre la théorie des catégories et la théorie de l'analogie, ou plutôt les théories de l'analogie, chez les logiciens du XIIIe siècle. J'ai dit «les théories de l'analogie», parce qu'il y en a au moins deux. D'un côté, il y a l'analogie comme théorie du langage; d'un autre côté, il y a l'analogie comme théorie métaphysique des rapports hiérarchiques entre substance et accident, Dieu et créature. Dans son analyse approfondie des sources gréco-arabes de la théorie médiévale de l'analogie de l'être, Alain de Libéra parle de divers textes et problématiques, soit sémantiques, soit théologiques, qui sont à l'origine de cette théorie. Pourtant, en soulignant l'importance primordiale des textes aristotéliciens, il dit: «La théorie médiévale de l'analogie de l'être est principalement issue de la rencontre de *Cat.*, I, 1, *Eth. Nic.*, 1, 4 et *Métaph.,* IV, 2», pour ajouter ensuite : « Avant cette synthèse, la notion d'analogie a été utilisée en dehors de toute préoccupation métaphysique, comme concept sémantique lié à l'interprétation des deux problèmes logiques standards de l'homonymie: l'élucidation de la distinction entre homonymes et synonymes dans *Cat.*, I, 1 ; l'analyse des mécanismes sémantiques de la *fallacia aequivocationis* dans *Ref. soph.*, 17» (3). De Libera a raison quand il dit que l'on trouve l'analogie comme théorie du langage ou théorie sémantique dans les manuels de logique plutôt que l'analogie de l'être, et que, pour comprendre l'analogie de l'être, il faut faire tout particulièrement attention à la *Métaphysique* d'Aristote et à ses commentateurs arabes. Néanmoins, pour des raisons que j'essaierai d'expliquer dans ce travail, il y a des liens étroits entre les *Catégories* et l'étude de l'être comme tel, et il me semble que dans le «Guide de l'étudiant» et dans les autres sources contemporaines que j'ai examinées, nous trouvons la préhistoire de l'analogie de l'être, une préhistoire fondée sur une lecture strictement ontologique des *Catégories* d'Aristote. En même temps, étant donné les problèmes causés par une telle lecture, on peut très facilement comprendre pourquoi les logiciens de la fin du XIIIe siècle et du début du XIVe siècle préféraient, soit une interprétation linguistique, soit une interprétation conceptualiste des catégories elles-mêmes et des notions liées d'analogie et d'homonymie.

Les textes sur lesquels repose mon interprétation sont tout d'abord le «Guide de l'étudiant» et le *De communibus artium liberalium*, édités par Claude Lafleur avec la collaboration de Joanne Carrier (4). À part les commentaires sur les *Catégories* de Boèce et du Pseudo-Augustin (5), j'utilise le commentaire de Jean le Page, écrit entre 1231 et 1235, le commentaire de Robert Kilwardby, écrit vers 1240, et les *Tractatus* écrits entre 1230 et 1245 (6). Tous ces textes sont à peu près contemporains du «Guide de l'étudiant». En plus, j'utilise les *Summule dialectices* de Roger Bacon, écrites vers 1250, la *Summa* de Lambert de Lagny, dont la première rédaction date de 1250-1255, ainsi que le commentaire sur les

Catégories d'Albert le Grand, écrit vers 1260 (7). Ces trois textes sont à peu près contemporains du *De communibus artium liberalium*. Enfin, pour donner une idée des développements doctrinaux dans la dernière partie du XIIIe siècle, je ferai référence aux commentaires de Pierre d'Auvergne, de l'Anonyme de Madrid, de Simon de Faversham et de Martin de Dacie, tous écrits entre 1270 et 1300 (8).

Mon étude se divise en trois parties. En premier lieu, comme introduction à mon thème principal, je donnerai un bref aperçu de l'analogie dans les manuels de logique et dans les commentaires sur Aristote. Ensuite, je traiterai du sujet de la logique aristotélicienne en général et du sujet des Catégories en particulier. Mon but ici est de montrer l'importance de l'être, surtout dans le contexte de deux questions: y a-t-il une science unique des catégories, et quels sont les rapports entre la logique et la métaphysique ? Pour terminer, j'aborderai les rapports entre homonymes, synonymes et paronymes, interprétés comme des réalités et non pas comme des mots, dans le contexte de la question: pourquoi Aristote a-t-il placé les homonymes avant les synonymes et les paronymes?" (pp. 281-283)

(...)

"Avant de terminer, je voudrais examiner les paronymes de plus près. Rappelons la définition aristotélicienne: «on dit paronymes tous les êtres qui, tout en différant d'un autre par leur cas, reçoivent leur appellation d'après son nom». L'expression «par leur cas» («solo casu» en latin) suggère une variation de forme purement linguistique, mais l'auteur du «Guide de l'étudiant» réussit à trouver une interprétation ontologique. Il dit que «solo casu» veut dire «par une inclinaison ou une contraction ou une agrégation relative à un sujet» («inclinatione uel contractione uel concretione ad subiectum», § 539), et on peut lier ce passage à celui dans la section sur la grammaire (§ 224) où il dit que le logicien s'occupe de la relation entre les accidents et la substance («logicus intendit de compara-tione quam habent accidentia ad substantiam»). À première vue, Kilwardby semble donner une interprétation voisine de celle de notre auteur. Il dit que les termes dénominatifs signifient cum casu car ils signifient un accident en fonction de sa relation à un sujet, et que le mot principal signifie *sine casu*, c'est-à-dire sans une relation au sujet (61). Cependant, quand il nous offre ses précisions sur l'expression « sola cadencia ad materiam a principali» comme explication de «différant solo casu», il parle de la matière des *voces*. Roger Bacon nous offre trois interprétations de l'expression «solo casu», dont deux sont linguistiques (62). En premier lieu, le cas peut être une simple variation de forme, et on trouve cette interprétation chez Albert le Grand (63). En deuxième lieu, le cas peut être une variation de forme relevant de la dérivation lexicale, et ici il emploie l'expression «sola cadentia unius ab alio, sive formatione». On trouve cette interprétation chez Lambert de Lagny (64). En troisième lieu, le cas peut être la chute d'une forme vers la matière et le sujet, et ici il emploie l'expression «sola cadentia formae ad materiam et ad subiectum». Cette dernière interprétation est la plus proche de celle de notre auteur." (pp. 294-295)

Voilà donc un bref aperçu de la façon dont l'auteur du «Guide de l'étudiant» et ses contemporains traitent de la problématique de l'être dans le contexte des Catégories. Je suis persuadée qu'une étude plus approfondie et plus longue que la mienne nous aidera à mieux comprendre l'apparition de l'analogie de l'être chez les philosophes et théologiens du XIIIe siècle.

(1) Aristote, *Catégories*, I (la 1-15).

(2) *Les Attributions (Catégories). Le texte aristotélicien et les prolégomènes d'Ammonios d'Hermeias*, présentés, traduits et annotés par Y. Pelletier, Montréal: Bellarmin/Paris: Les Belles Lettres, 1983, p. 23 (Collection d'études anciennes publiée sous le patronage de l'Association Guillaume Budé. Collection Noêsis publiée par le Laboratoire de recherches sur la pensée antique d'Ottawa).

(3) A. De Libera, Les sources gréco-arabes de la théorie médiévale de l'analogie de l'être, dans *Les études philosophiques* 3/4 (1989), p. 321.

(4) Cl. Lafleur, avec la collaboration de J. Carrier, *Le « Guide de l'étudiant » d'un maître anonyme de la Faculté des arts de Paris au XIIIe siècle. Édition critique provisoire du ms. Barcelona, Arxiu de la Corona d'Aragô, Ripoll 109, fol. 134ra-158va*, Québec, 1992 (Publications du Laboratoire de philosophie ancienne et médiévale de la Faculté de philosophie de l'Université Laval, I): j'utilise ici cette prépublication dont la division du document en paragraphes demeurera inchangée dans l'édition révisée à paraître chez Brepols, dans la *Continuatio mediaevalis du Corpus Christianorum*; *Id., Un instrument de révision destiné aux candidats à la licence de la Faculté des arts de Paris, le «De communibus artium liberalium» (vers 1250?),* dans *Documenti e studi sulla tradizione filosofica medievale* 5, 3 (1994), pp. 129-203.

(5) Boèce, *In Categorias Aristotelis libri quatuor*, PL 64, col. 159-294. Pour les *Categoriae decem* du Pseudo-Augustin, longtemps attribuées à Augustin mais aujourd'hui éditées sous le titre de *Paraphrasis Themistiana*, voir *Categoriae vel Praedicamenta, translatio Boethii [...] Pseudo-Augustini Paraphrasis Themistiana*, éd. L. Minio-Paluello, Bruges-Paris, Desclée de Brouwer, 1961, pp. 133-175 (AL, I, 1-5).

(6) Pour Jean le Page, avec extraits de son texte, voir E. Franceschini, *Giovanni Pago: le sue «Rationes super Predicamenta Aristotelis» e la loro posizione nel movimento aristotelico del secolo XIII*, dans *Sophia* 2 (1934), pp. 172-182, 329-350, 476-486. Pour une discussion de Robert Kilwardby avec une édition partielle (pp. 367-378) de ses *Notule super librum Predicamentorum*, voir P.O. Lewry, *Robert Kilwardby's Writings on the «Logica Vêtus» Studied with Regard to Their Teaching and Method*, Oxford, 1978 (thèse inédite). Pierre d'Espagne (Petrus Hispanus Portugaliensis), *Tractatus Called afterwards Summule Logicales*, éd. L.M. De Rijk, Assen, Van Gorcum, 1972 (Philosophical Texts and Studies,

XXII).

(7) Pour l'édition de l'ouvrage de Roger Bacon, voir A. de Libéra, *Les «Summulae dialectices» de Roger Bacon: I - II. De termino, De enuntiatione*, dans AHDLMA 53 (1986), pp. 139-289; Lambert d'Auxerre (= Lambert de Lagny), *Logica (Summa Lamberti)*, éd. Fr. Alessio, Firenze, La Nuova Italia Editrice, 1971; Albert Le Grand, *Liber de praedicamentis*, dans *B. Alberti Magni, Ratisbonensis episcopi, Ordinis Praedicatorum, Opera omnia,* éd. A. Borgnet, Paris, Vivès, 1890, t. I, pp. 149-304.

(8) Pour Pierre D'Auvergne, voir R. Andrews, *Petrus de Alvernia, « Quaestiones super Praedicamentis»: An Edition*, dans CIMAGL 55 (1987), pp. 3-84; Martin de Dacie, *Quaestiones super librum Praedicamentorum*, dans *Martini de Dacia Opera*, éd. H. Roos, Hauniae, Gad, 1961, pp. 153-231 (Corpus Philosophorum Danicorum Medii Aevi, II); Simon de Faversham, *Quaestiones super libro Praedicamentorum*, dans *Magistri Simonis Anglici sive de Faverisham Opera omnia, volumen primum: Opera logica*, t. Ior, éd. P. Mazzarella, Padova, CEDAM, 1957, pp. 69-148 ; pour ΓAnonyme de Madrid voir R. Andrews, *Anonymus Matritensis, « Quaestiones super librum Praedicamentorum»: An Edition*, dans CIMAGL 56 (1988), pp. 117-192.

(61) Robert Kilwardby, *Notule super librum Predicamentorum*, éd. Lewry, pp. 376-377. Cf. Pierre d'Espagne, *Tractatus, III*, 1, éd. De Rijk, p. 27,1. 3-4: «Differunt solo casu, idest sola cadentia que est a parte rei [...]».

(62) Roger Bacon, *Summule dialectices*, 1,2, éd. De Libera, pp. 190-191.

(63) Albert le Grand, *Liber de praedicamentis*, tract. I, cap. 4, éd. Borgnet, p. 158a: «Et quod subdicitur solo casu differentia, dicitur hic casus quaecumque inflexio nominis secundum finem nominis sive dictionis».

(64) Lambert d'Auxerre (Lambert de Lagny), *Logica*, III (*De predicamentis*), éd. Alessio, p. 64: «Differant enim solo casu, id est sola cadentia, quia unum cadit ab alio, id est derivatur, ut a grammatica grammaticus et sic de aliis». Cf. Ibid., III (*De predicamentis*), p. 66.

3.   ———. 1998. "Analogy and Equivocation in Thomas Sutton O.P." In *Vestigia, Imagines, Verba. Semiotics and Logic in Medieval Theological Texts (Xiith-Xivth Century). Acts of the Xith Symposium on Medieval Logic and Semantics. San Marino, 24-28 May 1994*, edited by Marmo, Costantino, 289-303. Turnhout: Brepols.

"One of the most obvious places where theology and logic meet is in the diuscussion of the divine names. From the 1240s on, the standard way for theologians to handle the problem of religious language involved an appeal to the theory of analogy, (1) a theory which was worked out in the logic textbooks in the context of equivocal and univocal terms (cfr. Ashworth, "Analogy and Equivocation in Thirteenth-Century Logic. Aquinas in Context", *Mediaeval Studies* 54, 1992, pp. 94-135). The problem of religious language can be put roughly like this. Words such as 'good', 'just', and 'wise' do not seem to have exactly the same sense when used of God as they do when used of human beings. That is, they are not univocal. On the other hand, they cannot be used with a completely different sense if religious discourse it to have any point. That is, they cannot be equivocal. If they are neither univocal nor equivocal, they must be used with some related sense,that is, analogically. But what is the appropriate model for analogical usage? If the model is that of the word *sanum* (healthy), which can be applied in an extended sense to a diet on the grounds that the diet is causally related to the animal which is called healthy in the primary sense, then we have what Cajetan later called the analogy of attribution. (2) On the other hand, if the model is that of the word *principium* (principle), which is applied both to a point and to a source on the grounds that the source is related to a river in the way that a point is related to a line, we have what Cajetan later called the analogy of proportionality. The first type of analogy, the analogy of attribution, involves just one relationship whereas the second type, the analogy of proportionality, involves a comparison between two relationships. As is well known, Thomas Aquinas appealed to the analogy of proportionality in *De veritate* q. 2, a. 11, but more usually appealed to the analogy of attribution. Cajetan, on the other hand, claimed that the analogy of proportionality was the only true analogy, and that it should be employed in metaphysics and theology.

Thomas Sutton, an Oxford Dominican who lived from about 1250 to 1315 or 1320, has attracted some attention because he employed the analogy of proportionality in his *Quaestiones ordinariae*, written in the first decade of the fourteenth century. (3) Insofar as he did so, he was described by Montagnes (1963, p. 124) as a precursor of Cajetan who moed away from Aquinas. Schneider (1977), in his introduction to the *Quaestiones* tried to modify Montagnes's judgment, by suggesting that there was no real break with Aquinas; (4) but none of those who have discussed Sutton in the literature have done other than suggest that he appealed to analogy of proportionality to resolve problems of linguistic use, whereas the analogy of attribution had to do with those relations of things that ground our language. In an early article on Sutton, Przezdziecki (1959) presented Question 32 as showing that *ens* is an analogical term, but turned to Question 33's account of proportionality for an explanation of what type pf analogy was involved, completely ignoring the discussion of attribution in the earlier question. (5) In a recent book, Riva (1989) noted the presence of the two types of analogy in Sutton's work, but argued that the tension between them is resolved by the distinction between words and things. (6) He claims that for Sutton proportionality has to do with terms, while attribution concerns the relations among things on which talk about

proportionality is based.

In this paper I intend to look at the details of Sutton's theory of analogy in relation both to the authors with whom he is debating, and to the basic logical distinctions he employed. In the first section I shall give a brief outline of what the logicians had to say. In the second section Ishall discuss the word *ens*, beginning with three views that Sutton rejected before going on to examine his own views about *ens* in metaphysics in theology. In the final section, I shall consider Sutton's discussion of the divine names proper, namely perfection words such as 'good', 'wise' and 'just'. I shall show that although Sutton appeals to proportionality in this last case, he uses the analogy of attribution in his discussion of how the word *ens* is applied to substance and accident. Moreover, he is just as much concerned with language in the one case as he is in the other. As a result his overall view is a lot more flexible than Cajetan's." (pp. 289-290)

(...)

"Despite Montagnes's description of Sutton as a precursor of Cajetan, I think that he is in many ways quite different. While holding that the analogy of proportionality is analogy in the strictest sense, he makes no attempt to apply it to metaphysical problems in general or to link it with the distinction between intrinsic and extrinsic denomination. The real importance of the distinction between the analogy of attribution and the analogy of proportion is not that one is in fact linguistically more proper than the other; nor is it that one deals with intrinsic denomination whereas the other deals with extrinsic denomination, for both involve at least some cases of intrinsic denomination. Rather, the real importance of the distinction has to do with the areas of discourse in which the two types of analogy function. The analogy of attribution works at the level of (non-theological) metaphysics and the discussion of created beings; the analogy of proportionality is necessary in theology given the doctrine that an infinite God creates beings which, while finite and infinitely distant from their creator, nonetheless participate in his being and goodness, imitating him as far as they are able." (p. 298)

(1) See, e.g., Alexander of Hales, *Summa theologica*, 4 vols, Ad Claras Aquas (Quaracchi), Collegium S. Bonaventurae, 1924-1948, I, p. 544b: "nomina [...] ut iustus, bonus et huiusmodi, non dicuntur aequivoce nec univoce, quia non penitus secundum aliam rationem nec tarnen secundum eamdem, sed dicuntur analogice secundum prius et posterius". (This passage is continued in note 31.)

(2) For Cajetan, whose *De nominum analogia* was published in 1498, see Bruno Pinchard, *Métaphysique et sémantique. Autour de Cajetan*, Etude [texte] et traduction du "De nominum analogia", Paris, Vrin, 1987.

(3) For recent references concerning Sutton's life and works, see Alessandro D. Conti, "La composizione metafisica dell'ente finito corporeo nell'ontologia di Sutton", *Documenti e studi sulla tradizione filosofica medievale* 2/2, 1991, pp. 317-60 (317-18, note 1). It should be noted that Sutton does not use the word *proportionalitas*, but speaks of *aequivoca secundum proportionem*, see, e.g., p. 918.247.

(4) Cf. Johannes Schneider, "Introduction", in Thomas Sutton, *Quaestiones ordinariae,* Bayerische Akademie der Wissenschaften 1977, pp. 241*-262*, especially pp. 257*-258* and p. 261*.

(5) Przezdziecki, Thomas of Sutton's critique on the doctrine of univocity", in *An Etienne Gilson tribute*, ed. C. J. O'Neil, Milwaukee, Marquette University Press 1959, pp. 189-208. In this article, Schneider's Question 32 A is referred to as Question 33 and Schneider's Question 33 is referred to as Question 34.

4.   ———. 1998. "Aquinas on Significant Utterance: Interjection, Blasphemy, Prayer." In *Aquinas's Moral Theory: Essays in Honor of Norman Kretzmann*, edited by MacDonald, Scott and Stump, Eleonore, 207-234. Ithaca: Cornell University Press.

"It may seem perverse to turn to Aquinas's moral philosophy for light on his philosophy of language, but I argue that his study of human actions forced him to modify the intellectualism prevalent in much thirteenth-century logic and grammar. This intellectualism had three components. First, it privileged the notion of language as a rational, rule-governed system which could be studied in isolation from context and speaker intention.(2) Second, it focused on propositions as the linguistic units which conveyed the information necessary for *scientia* and rejected other forms of discourse as irrelevant. Third, it described individual words as the signs of concepts and ignored utterances which express passions of one sort and another. These components, particularly the second and third, do indeed characterize Aquinas's considered approach to language as expressed particularly in his commentary on Aristotle's *De interpretatione*. Nonetheless, his recognition that human beings are animals with passions, together with his recognition that utterances are themselves a kind of action subject to moral assessment, forced him to take a different direction in other places.(3)

I proceed as follows. In sections 1 and 2, I set forth the intellectualist components of Aquinas's theory, paying particular attention to the manifestation of truth and to the senses in which conventionally significant utterances could also be said to be naturally significant. In sections 3, 4, and 5, I explore the relationships between animal noises and human utterances, paying particular attention to the role of the imagination and to interjections. In sections 6 and 7, I consider the role of human passions and human intentions in the understanding and production of conventional utterances, especially sinful ones. In sections 8 and 9, I look at two aspects of language production which can serve to mitigate sin: slips of the tongue, and linguistic incontinence, or breaking out into ill-considered words. In the last section, I turn to

the situation in which we recite and appropriate the words of others, particularly in prayer. Throughout, I examine not only Aquinas's own doctrines but also those of grammarians and logicians contemporary with him." (pp. 207-208)

(2) For discussion of this approach in the *modistae*, and for full information about grammarians who adopted an alternative approach, which she has dubbed intentionalist because of its focus on the *intentio proferentis*, sec the papers by Irène Rosier cited throughout, all of which contain further references. See esp. Irène Rosier. "La distinction entre *actus exercitus* et *actus significatus* dans les sophismes grammaticaux du MS BN lat. 16618 et autres textes apparentés," in *Medieval Logic and Grammar*, ed. Stephen Read (Dordrecht: Kluwer Academic Publishers, 1992}, pp. 257-59; and her book (published after this paper was written), *La parole comme acte: Sur la grammaire et la sémantique au xiiie siècle* (Paris: J. Vrin, 1994). Rosier's work is particularly important for its demonstration that the modistic paradigm does not apply to much thirteenth-century grammar. I would like to take this opportunity of thanking Irène Rosier for the generous way in which she has shared her as yet unpublished research with me; this e&sav owes much to her work.

(3) Rosier has shown that in his discussion of the sacraments Aquinas was far closer to the intentionalist grammarians than he was to the modistae. See Irène Rosier, "Signes et sacrements: Thomas d'Aquin et la grammaire spéculative", *Revue des sciences philosophiques et théologiques* 74 (1990): 431-32. She writes (p. 394): "Les particularités linguistiques des formules sacramentaires, et du sacrement comme signe non seulement cognitif, mais opératif, l'importance accordée à l'intention du locuteur et du récepteur, la conjonction de ces divers éléments dans un acte à chaque fois singulier, nous situent d'emblée dans la dimension 'pragmatique' du langage, devéloppée, à la même époque, en ce milieu du XIlle siècle, par les grammairiens 'intentionalistes.' " Both here and later (p. 433) she speaks of the encounter between grammarians and theologians, but she refuses to speculate about whose influence was primary (pp. 432-33).

5.   ———. 1998. "Antonius Rubius on Objective Being and Analogy: One of the Routes from Early Fourteenth-Century Discussions to Descartes's *Third Meditation*." In *Meetings of the Minds. The Relation between Medieval and Classical Modern European Philosophy*, edited by Brown, Stephen F., 43-62. Turnhout: Brepols.

"In this paper I shall use Rubius's tract on analogy to show how a rich medieval tradition survived into the seventeenth century and to shed some light on the problem of Descartes's sources for the notion of an idea's objective reality. I shall proceed as follows. First, I shall state the problem as it has been set out in recent secondary literature. Second, I shall trace the distinction between formal and objective concepts from the early fourteenth century to the early seventeenth century in the context of the discussion of analogical terms. Third, I shall examine the analogical use of terms as it was presented by Rubius. Fourth, I shall explain why a theory of language use and a theory of concepts carne to be linked together. Finally, I shall discuss what Rubius had to say about formal and objective concepts, and I shall suggest a relationship between this account and Descartes's own attitude towards mental contents and simple natures."

6.   ———. 1999. "Text-Books: A Case Study - Logic." In *The Cambridge History of the Book in Britain (Vol. 3)*, edited by Trapp, Joseph Burney and Hellinga, Lotte, 380-386. Cambridge: Cambridge University Press.

"This book covers the years 1400 to 1557. In such a long period, we would expect great changes in the logic text-books used at Oxford and Cambridge. Indeed, there were great changes, but their timing is some what unexpected. If one considers just books written by Englishmen and copied or printed in England, then there is hardly any change at all between 1400 and 1530, the year in which the last surviving edition of the compilation text-book known as *Libellus Sophistarum* was printed. A period of fifteen years follows in which no surviving logic text was either written or printed, and then suddenly in 1545 we are confronted with the *Dialectica* of John Seton, a work which was to go through fourteen editions by the end of the sixteenth century, and which represents a completely different type of logic.(1) In what follows, I shall focus on the *fortuna* of just one type of logic text in use between 1400 and 1530, namely the treatises devoted to *obligationes*, or the rules prescribing what one was obliged to accept and reject in a certain kind of logical disputation.

It is necessary first to consider the place of logic in the curriculum and the type of instruction which was offered, then to say something about fourteenth-century logicians and the *obligationes* texts used in the fifteenth century, and finally to examine the *Libelli Sophistarum* and other early printed texts in relation to fifteenth-century manuscript collections." (p. 380)

(1) A useful chronological list of logic books printed in England before 1620 is in Schmitt 1983b [*John Case and Aristotelianism in Renaissance England*, Kingston and Montreal] pp. 225-9. For English logic during the sixteenth century: Ashworth 1985b [*Introduction* to Robert Sanderson. *Logicae artis compendium,* Bologna], especially pp. XXIII-XXXIII; 1991; Giard 1985 [La production logique de l'Angleterre au 16e siècle, *Les Études philosophiques,* 3, 303-324]; Jardine 1974 [The place of dialectic teaching in sixteenth century Cambridge, *Studies in the Renaissance*, 21, 31-62]. No attention should be paid to Howell 1956 [*Logic and rhetoric in England*, *1500-1700*, Princeton] whose account of

developments in logic, particularly during the medieval period, is wildly inaccurate, and this vitiates his judgements about the texts described.

7.   ———. 2000. "Domingo De Soto on *Obligationes*: His Use of *Dubie Positio*." In *Medieval and Renaissance Logic in Spain. Acts of the 12th European Symposium on Medieval Logic and Semantics*, edited by Angelelli, Ignacio and Perez-Ilzarbe, Paloma, 291-307. Hildesheim: Georg Olms.
"Soto's *Opusculum obligationum* was published in 1529 as the last treatise in his *Summulae*. (1) I have chosen to discuss it in this paper both because it is one of the very last serious discussions of the medieval doctrine of *obligationes*, and because it sheds some light on the history of *dubie positio* as a type of obligational dispute. This is important, beeause *dubie positio* is one of the areas pertinent to medieval epistemie logic, and the material found in *obligationes* treatises has not yet been the subject of much investigation. (2) In what follows, I shall first discuss the nature of *dubie positio* and its relation to other types of obligational disputation. I shall then describe the rules which were used. Third, I shall take up a particular problem concerning apparently indubitable propositions, such as 'I exist'. Finally, I shall discuss a sophisma in which the response 'I am in doubt about it' seemed to cause problems for one of the standard obligational rules.
(1) Domingo de Soto, *Opusculum obligationum in Summulae* (Burgos, 1529), ff. cl ra-cliii vb; Domingo de Soto, *De obligationibus* in *Summulae* (Salamanca 1554-1555: reprinted Hildesheim, New York: Georg Olms, 1980), ff 156 ra-159 vb. The latter is a reproduction of the third edition which, as Dr. Angel d'Ors has shown, modifies the second edition in certain respects: see Angel d'Ors, "Las "Summulae" de Domingo de Soto", *Anuario Filosôfico (Universidad de Navarra)* 16 (1983), p. 212. All my references are to the 1529 edition unless otherwise specified.
(2) For a good discussion of some other sources, see Ivan Boh, *Epistemic Logic in the Later Middle Ages*, (London and New York: Routledge, 1993). See also William Heytesbury, 'The Compounded and Divided Senses' (pp. 413-434), and "The Verbs 'Know' and 'Doubt'" [chapter 2 of the *Regulae*] (pp. 435-479) in Norman Kretzmann and Eleonore Stump, trans., *Logic and the Philosophy of Language*, vol. 1 of *The Cambridge Translations of Medieval Philosophical Texts*, (Cambridge: Cambridge University Press, 1988)."

8.   ———. 2003. "L'equivocité, L'univocité Et Les Noms Propres." In *La Tradition Médiévale Des Catégories (Xiie-Xve Siècles). Actes Du Xiii Symposium Européen De Logique Et De Sémantique Médiévales (Avignon, 6-10 Juin 2000)*, edited by Biard, Joël and Rosier-Catach, Irène, 127-140. Louvain: Peeters Publishers.
"Dans ses *Quaestiones in artem veterem*, Albert de Saxe commence la section consacrée aux *Catégories* d'Aristote en posant la question « Est-ce que le même terme peut être équivoque et univoque ? » (1). Un peu plus tard, Marsile d'Inghen reprend cette question, légèrement reformulée, dans ses propres *Questiones libri predicamentorum* (2); et en 1428, Paul de Venise consacre une partie de son *Commentaire sur les Catégories* à la même question (3). De plus, on retrouve une discussion approfondie des rapports entre les équivoques et les univoques dans le *Compendium totius logice Joannis Buridani* de Jean Dorp, qui date probablement de la dernière décennie du xive siècle (4). Certes, la question posée par Albert de Saxe n'était pas nouvelle, ayant son origine dans les commentaires de Boèce et de Simplicius, mais les réponses à cette question introduisent deux thèmes nouveaux, l'univocité des noms propres, et l'équivocité des termes mentaux. Ces deux thèmes sont importants, étant donné que depuis l'Antiquité classique le nom propre est l'exemple standard d'un mot équivoque par hasard (*a casu*), et étant donné la présupposition que le langage mental est un langage clair, donc univoque.
Mon étude se divise en trois parties. En premier lieu, je donnerai un bref aperçu de la doctrine des noms propres, telle qu'on la retrouve chez les grammairiens et les logiciens. Ensuite, je ferai quelques remarques sur les définitions avec lesquelles s'ouvrent les *Catégories* d'Aristote. Finalement, j'aborderai la question principale, celle des rapports entre les équivoques et les univoques, surtout en ce qui concerne les noms propres et les termes mentaux.
Avant d'aller plus loin, je dois préciser que je vais laisser de côté la question, pourtant très intéressante, de l'équivocité du nom propre appliqué au vivant et au mort. Je me concentrerai sur le cas que l'on trouve dans les premières sections des commentaires sur les *Catégories*, celui d'un nom propre appliqué à deux personnes différentes." (pp. 127-128)
(...)
"Conclusion.
Les discussions que nous venons d'examiner montrent comment les logiciens du XIVe et XVe siècles ont essayé de concilier les catégories du nom offertes par Aristote, c'est-à-dire les noms équivoques et les noms univoques, avec les catégories du nom offerts par Priscien, c'est-à-dire les noms propres et les noms communs. En même temps, elles montrent comment les commentateurs des *Catégories* d'Aristote ont absorbé la nouvelle épistémologie qui reconnaissait les concepts singuliers et la nouvelle sémantique qui utilisait la terminologie de la grammaire et celle de la logique pour parler de ces concepts." (p. 140)
(1) Albert de Saxe, *Quaestiones in Artem Veterem*, éd. et trad. esp. A. Munoz Garcia, Maracaibo, 1988, p. 292. Pour plus d'informations sur l'équivocité et l'univocité, voir E.J. Ashworth, « 'Nulla propositio est distinguenda' : la notion d'equivocatio chez Albert de Saxe » dans Joël Biard (éd.), *Itinéraires d'Albert*

de Saxe: Paris-Vienne au XIV siècle, Paris, 1991, pp. 149-160 ; et E.J. Ashworth, « Equivocation and Analogy in Fourteenth Century Logic : Ockham, Burley and Buridan », dans Burkhard Mojsisch et Olaf Pluta (éds.), *Historia philosophiae medii aevi: Studien zur Geschichte der Philosophie des Mittelalters*, Philadelphia, Amsterdam, 1991, vol. 1, pp. 23-43.
(2) Marsile d'Inghen, *Questiones libri predicamentorum Aristotelis*, Bodleian Library, Oxford: MS Canon, misc. 381, fos 16 ra-17 ra et fo 8 rb-va.
(3) Paul de Venise, *In Praedicamenta*, Bodleian Library, Oxford: MS Canon, misc. 452, f°s 81va-83vb, et MS Canon. Lat. Class. 286, fos 68ra-70vb. Je cite le premier manuscrit dans ce qui suit.
(4) Jean Dorp, tract. III, *De predicamentis*, dans *Johannes Buridanus, Compendium totius Logicae*, Venise, 1499 ; repr. Frankfurt/Main, 1965, sign, e 5 vb - sign, e 6 ra. Pour plus d'informations sur Jean Dorp, voir E. P. Bos, « Die Rezeption der Suppositions des Marsilius von Inghen in Paris (Johannes Dorp) und Prag (ein anonymer Sophistria-Traktat) um 1400 », dans M.J.F.M. Hoenen et P.J.J.M. Bakker (éds), *Philosophie und Theologie des ausgehenden Mittelalters. Marsilius von Inghen und das Denken seiner Zeit*, Leiden-Boston-Köln, 2000, pp. 213-230.

9. ———. 2003. "Language and Logic." In *The Cambridge Companion to Medieval Philosophy*, edited by McGrade, Arthur Stephen, 73-96. Cambridge: Cambridge University Press.
"I survey the texts used and the developments from Augustine onwards, and discuss views of the purpose and nature of language and logic, emphasizing their cognitive orientation. I examine the basic semantic notion of signification, the distinction between conventional and natural language, and the notion of mental language. I discuss extended uses of language, especially paronymy and analogy, and theories of reference, especially supposition theory. Finally, I consider various types of paradox: "There is no truth" in proofs for the existence of God, the Liar paradox, and the paradoxes of strict implication as treated in theories of inference."

10. ———. 2004. "Singular Terms and Singular Concepts: From Buridan to the Early Sixteenth Century." In *John Buridan and Beyond. Topics in the Language Sciences 1300-1700*, edited by Ebbesen, Sten and Friedman, Russell L., 121-151. Copenhagen: C. A. Reitzel.
"This article considers medieval treatments of proper names and demonstrative phrases in relation to the question of when and how we are able to form singular concepts. The logical and grammatical background provided by the authoritative texts of Porphyry and Priscian is examined, but the main focus is on John Buridan and his successors at Paris, from John Dorp to Domingo de Soto. Buridan is linked to contemporary philosophers of language through his suggestion that, although the name 'Aristotle' is a genuine proper name only for those who have the appropriate singular concept caused by acquaintance with Aristotle, it can be properly treated as a singular tem by subsequent users because of their beliefs about the original imposition of the name."

11. ———. 2004. "Singular Terms and Predication in Some Late Fifteenth and Sixteenth Century Thomistic Logicians." In *Medieval Theories on Assertive and Non-Assertive Language. Acts of the 14th European Symposium on Medieval Logic and Semantics. Rome, June 11-15, 2002*, edited by Maierù, Alfonso and Valente, Luisa, 517-536. Florence: Olschki.

12. ———. 2005. "Ockham Et La Distinction Entre Les Termes Abstraits Et Concrets." *Philosophiques* no. 32:427-434.
"Quand j'ai lu l'ouvrage magistral de Claude Panaccio (*), je me suis rendu compte que j'aurais de la difficulté à en discuter, parce que je suis d'accord avec tout ce dit l'auteur, surtout en ce qui concerne les problèmes du langage. Je trouve en particulier décisif les arguments qu'il présente contre les thèses de Paul Spade. Ce dernier a argumenté, en se basant sur trois prémisses, qu'il n'y a pas de terme connotatif simple dans le langage mental. Premièrement, chaque terme connotatif a une définition nominale qui, en principe, ne contient que des termes absolus. Deuxièmement, un terme connotatif est synonyme de sa définition.
Troisièmement, il n'y a pas de synonymie dans le langage mental. Il s'ensuit que, dans le langage mental, un terme connotatif sera remplacé par une séquence de termes absolus qui, selon Ockham, réfèrent aux substances et qualités individuelles d'une manière directe. En opposition à Spade, Panaccio a montré qu'il est impossible d'éliminer les concepts connotatifs simples du langage mental et que les termes connotatifs simples ne sont pas synonymes de leurs définitions nominales. Il est vrai que par ses analyses du langage Ockham voulait montrer que l'on pouvait parler du monde sans multiplier les entités, mais on peut atteindre cet objectif tout en admettant une certaine complexité au niveau des concepts simples. En outre, Panaccio a établi deux thèses importantes. D'abord, Ockham ne s'intéresse pas à la construction d'un langage mental idéal mais plutôt au fonctionnement idéal de notre esprit. En deuxième lieu, l'étude de ce fonctionnement idéal ne nous donne pas toutes les solutions aux problèmes de signification parce que, pour comprendre l'acception des termes, il faut connaître les intentions des impositeurs, ceux qui ont donné leur signification primordiale aux termes oraux. Selon Panaccio, Ockham présente une théorie externaliste de la signification du langage." (p. 427)
(*) *Ockham on Concepts*, Aldershot: Ashgate, 2004.

13.   ———. 2006. "Logic Teaching at the University of Prague around 1400 A. D." In *History of Universities. Vol. Xxi/1*, edited by Feingold, Mordechai, 211-221. New York: Oxford University Press.
Review of: *Logica modernorum in Prague about 1400. The Sophistria disputation 'Quoniam quatuor' (MS Cracow, Jagiellonian Library 686, ff. 1ra-79rb), with a partial reconstruction of Thomas of Cleves' Logica* - Edition with an Introduction and Appendices by Egbert P. Bos, Leiden, Brill, 2004.
"This book is largely (45-432) an edition of a *Sophistria* text that represents logic teaching at the University of Prague around 1400 A.D. While the anonymous author shows few signs of intellectual distinction, both the topics chosen for discussion and the large number of direct references to other logicians make the work a valuable source for those interested in the undergraduate curriculum of the late middle ages. The editor, E.P. Bos, has done an excellent job of presenting the Latin text in as perspicuous a fashion as possible, and has provided the reader with an analysis (8-10) of the somewhat haphazard way in which the Prague master presented his sequences of arguments. However, in order to understand the text, or to glean from it anything about university teaching, one needs a good deal more than that. While Bos does provide some basic information about the logicians referred to (11-21), he tells the reader very little about Prague or its curriculum, and his brief list (28-32) of some of the views expressed in the text sheds little light. On page 28 he writes, 'I shall discuss these views in more detail later in the introduction', but unfortunately the promised amplification is never provided. Nor is it clear why some of the views were listed. For instance, the division of singular terms into three types (29-30), including the vague individual (*individuum vagum*), such as 'this human being', is merely the standard interpretation, found in Albert the Great and many later commentators, of a remark by Porphyry in his *lsagoge*. In what follows, I shall provide some context for the *Sophistria* text, before attempting to resolve the issue of its nature and purpose." (p. 211)

14.   ———. 2007. "Metaphor and the Logicians from Aristotle to Cajetan." *Vivarium* no. 45:311-327.
"In this paper I shall sketch an answer to a series of questions about the treatment of metaphor by medieval logicians. One question is linguistic: are the words "translatio" and "transumptio" synonyms of the word "metaphora"?
Three other questions concern analogy and equivocation. First, is metaphor a type of equivocation? Second, is metaphor a type of analogy and if so, what type? Is it linked with analogy in the Greek sense of a similarity between two proportions or relations, or with analogy in the new medieval sense of being said secundum prius et posterius because of some attribution? Third, how many acts of imposition are required for the production of analogical terms and metaphors? This last issue is particularly important, given that words are said to be used proprie only when used in accordance with an act of imposition, and that metaphors are normally said to be taken improprie. I will take up these questions in the context of three sets of texts. I will start with some remarks about the texts of Aristotle and their reception in the Middle Ages.
Secondly, I will look at translatio and transumptio in ancient grammar and rhetoric. Finally, I will look at medieval logic texts, especially commentaries on the *Sophistical Refutations*.
My study will show how ancient traditions in logic, grammar and rhetoric were interwoven and used to tackle specifically medieval problems. Aristotle played a prominent role in the story, but not primarily because of his explicit discussions of metaphor in his *Poetics* and *Rhetoric*. Stoic thinkers contributed the theory of tropes or figures of speech; and Neoplatonic commentators such as Porphyry influenced Boethius's discussion of equivocation and metaphor.
The thirteenth century theory of analogy itself grew out of the interweaving of problems in Christian theology, Aristotelian metaphysics and Aristotelian logic, but was enriched by the long Greek and Arabic tradition of analysing ambiguous terms as being said secundum prius et posterius. The resulting syntheses, especially in late thirteenth and early fourteenth century British logicians, show a skilful use of whatever parts of ancient traditions seemed relevant to the particular interests and doctrines of the author in question." (pp. 311-312)

15.   ———. 2008. "Developments in the Fifteenth and Sixteenth Centuries." In *Mediaeval and Renaissance Logic*, edited by Gabbay, Dov and Woods, John, 609-644. Amsterdam: Elsevier.
Handbook of the history of logic: Vol. 2.
"To understand the significance of these developments for the logician, we have to consider three questions. First, how much of the medieval logic described in the previous chapters survived? Second, insofar as medieval logic survived, were there any interesting new development in tit? Third, does humanist logic offer an interesting alternative to medieval logic?
In Part One of this chapter I shall consider the first two questions in the context of a historical overview in which I trace developments in logic from the later middle ages thorough to 1606, the year in which the Jesuits of Coimbra published their great commentary on Aristotle's logical works, the *Commentarii Conimbricenses in Dialecticam Aristotelis*. I shall begin by considering the Aristotelian logical corpus, the six books of the *Organon*, and the production of commentaries on this work. I shall the examine the fate of the specifically medieval contributions to logic. Finally, I shall discuss the textbook tradition, and the ways in which textbooks changes and developed during the sixteenth century. I shall argue that the medieval tradition in logic co-existed for some time with the new humanism, that sixteenth century is

dominated by Aristotelianism, and that what emerged at the end of the sixteenth century was not so much a humanist logic as a simplified Aristotelian logic.

In Part Two of this chapter, I shall ask whether the claims made about humanist logic and its novel contributions to probabilistic and informal logic have nay foundation. I shall argue that insofar as there is any principled discussion of such matters, it is to be found among writers in the Aristotelian tradition." (p. 610)

16. ———. 2009. "Le Syllogisme Topique Au Xvi Siècle: Nifo, Melanchthon Et Fonseca." In *Les Lieux De L'argumentation. Histoire Du Syllogisme Topique D'aristote À Leibniz*, edited by Biard, Joël and Mariani Zini, Fosca, 409-423. Turnhout: Brepols.

"Examiner l'argumentation topique, les règles de validité du syllogisme topique, les rapports entre l'analytique, la dialectique et la rhétorique soulève deux problèmes. Tout d'abord, il y a une difficulté de vocabulaire. Dans son *Introductio in dialecticam Aristotelis* de 1560, le jésuite Francisco de Toledo parle du *syllogismus dialecticus seu topicus*, mais en général les logiciens des XVe et XVIe siècles parlaient du syllogisme dialectique et non du syllogisme topique (1). Ensuite, il y a une divergence entre d'un côté l'argumentation, le syllogisme, et les règles de validité auxquels s'intéressent les logiciens, d'un autre côté les arguments informels, les techniques de la persuasion et les stratégies non-déductives auxquels s'intéressent les rhétoriciens (2). Afin d'étudier les rapports entre ces deux groupes, et la place des arguments informels dans la logique, s'il y en a, nous devrons aborder la notion de forme logique, non par le biais d'un examen du syllogisme dialectique, mais par le biais d'un examen des notions de conséquence, d'argumentation, et de syllogisme en général. Nous allons découvrir que, pour comprendre les rapports entre la logique et la rhétorique, l'enthymème est beaucoup plus important que le syllogisme dialectique.

Les auteurs de petits manuels humanistes et ramistes ne nous offrent pas de discussion approfondie et détaillée de ces notions. Seuls les aristotéliciens s'en occupaient, et pour cette raison, nous allons examiner trois auteurs qui étaient certes influencés par l'humanisme, mais qui travaillaient dans un cadre aristotélicien enrichi par la logique médiévale. L'italien Agostino Nifo (ca. 1470-1538) a publié sa *Dialectica ludicra* en 1520 (3). Il connaissait très bien la logique médiévale, mais il connaissait aussi bien les commentateurs grecs, et je ferai référence à ses propres commentaires sur les *Premiers Analytiques* et sur les *Topiques* d'Aristote (4). L'allemand Philippe Melanchthon (1497-1560) a publié son premier manuel de logique, Compendiaria dialectices ratio en 1520, et son dernier, *Erotemata dialectices* en 1547 (5). Il manifeste l'influence de l'humanisme par ses exemples et ses simplifications. Le jésuite portugais Pedro da Fonseca (1528-1599) a publié ses *Institutiones dialecticae* en 1564 (6). Chez lui aussi l'influence humaniste est manifeste, surtout par ses références aux commentateurs grecs et son vocabulaire plus classique que médiéval.

Mon exposé se divisera en deux moments. À titre d'introduction, nous examinerons les trois notions clés de conséquence, d'argumentation, et de syllogisme. Ensuite, nous examinerons les textes de Nifo, Melanchthon et Fonseca à la lumière de ces trois notions. (7)" (pp. 409-410)

(1) Francisco de Toledo [Franciscus Toletus], *Introductio in dialecticam Aristotelis*, dans *Opera omnia philosophica I-III*, Cologne 1615-1616 ; réimpr. Hildesheim, Georg Olms, 1985, p. 74b. Dans une édition de Jean Versor [Johannes Versor], *Petrus Hispanus. Summulae logicales cum Versorii Parisiensis clarissima expositione*, Venise, 1572, réimpr. Hildesheim, New York, Georg Olms, 1981, f° 138 v, on trouve le titre "De syllogismo Topico seu probabili", mais dans le texte Versor parle du syllogisme dialectique. Voir aussi Robert Sanderson, *Logicae artis Compendium*, ed. E. J. Ashworth, Bologna, Editrice CLUEB, 1985, p. 179: "Syllogismus Topicus, qui & Dialecticus stricte, est qui ex probabilibus vel quasi probabilibus parit probabilem opinionem conclusionis". Pour deux sources médiévales, voir Gilles de Rome [Aegidius Romanus], *Super libros Posteriorum Analyticorum*, Venise, 1488; réimpr. Frankfurt, Minerva G.M.B.H., 1967, sign. a 5rb : "syllogismus topicus [...] non est necessarius, sed est ut in pluribus"; et Guillaume d'Ockham, *Summa logicae*, ed. P. Boehner, G. Gal et S. Brown, St. Bonaventure, N.Y., St. Bonaventure University, 1974, p. 359: "Syllogismus topicus est syllogismus ex probabilibus".

(2) Pour plus de détails, voir E. Jennifer Ashworth, "Developments in the Fifteenth and Sixteenth Centuries", in D. M. Gabbay & J. Woods (eds.), *Handbook of the History of Logic 2. Mediaeval and Renaissance Logic*, Amsterdam-Boston, Elsevier, 2008, p. 609-643.

(3) Agostino Nifo [Augustinus Niphus], *Dialectica ludicra tyrunculis atque veteranis utillima peripatheticis consona : iunioribus sophisticanribus contraria,* Venetiis, 1521.

(4) Agostino Nifo [Augustinus Niphus], *Super libros Priorum Aristotelis*, Venetiis, 1554; et Agostino Nifo [Augustinus Niphus], *Commentaria in octo libros Topicorum Aristotelis*, Parisiis, 1542.

(5) Philippe Melanchthon, *Compendiaria dialectices ratio*, dans *Opera. Corpus reformatorum XX,* Brunsvigae, 1854; réimpr. New York et Frankfurt am Main, 1963; Philippe Melanchthon, *Erotemata dialectices*, dans *Opera. Corpus reformatorum XIII,* Halis Saxonum, 1846; réimpr. New York et Frankfurt am Main, 1963.

(6) edro da Fonseca [Petrus Fonseca], *Instituiçoes dialécticas. Institutionum dialecticarum libri octo*, ed. J. Ferreira Gomes, Universidade de Coimbra, 1964.

(7) Pour quelques textes, voir l'annexe. [pp. 424-430]

17.　　　———. 2009. "The Problem of Religious Language: What Can We Learn from Twelfth-Century Discussions?" *Paradigmi.Rivista di Critica Filosofica* no. 27:141-152.

"This paper discusses a recent book by Luisa Valente, Logique et théologie: Les écoles parisiennes entre 1150 et 1220, in which she gives a rich account of how twelfth and early thirteenth-century Parisian theologians attempted to solve the problems of religious language by appeal to the notions of propriety and translatio. Words had a proper signification when used in accordance with their original meaning, whereas translatio involved a semantic shift from the proper sense to a new extended sense. However, words used in this way were equivocal, and towards the end of the period theologians tried to save the univocity of at least some of the words we apply to both God and creatures. Their efforts form the background to the new thirteenth-century theory of analogy, a theory to which some contemporary philosophers of religion have returned."

18.　　　———. 2010. "Terminist Logic." In *The Cambridge History of Medieval Philosophy. Vol I*, edited by Pasnau, Robert and Dyke, Christina van, 146-158. Cambridge: Cambridge University Press.

"Terminist logic is a specifically medieval development.(1) It is named from its focus on terms as the basic unit of logical analysis, and so it includes both supposition theory, together with its ramifications,(2) and the treatment of syncategorematic terms. It also includes other areas of investigation not directly linked with Aristotelian texts, notably obligations, consequences, and insolubles (see Chapters to, 13, and 14).

Logic was at the heart of the arts curriculum, for it provided the techniques of analysis and much of the vocabulary found in philosophical, scientific, and theological writing. Moreover, it trained students for participation in the disputations that were a central feature of medieval instruction, and whose structure, with arguments for and against a thesis, followed by a resolution, is reflected in many written works. This practical application affected the way in which logic developed. While medieval thinkers had a clear idea of argumentation as involving formal structures, they were not interested in the development of formal systems, and they did not see logic as in any way akin to mathematics.

Logic involved the study of natural language, albeit a natural language (Latin) that was often regimented to make formal points, and it had a straightforwardly cognitive orientation. The purpose of logic was to separate the true from the false by means of argument, and to lead from known premises to a previously unknown conclusion. In this process, the avoidance of error was crucial, so there was a heavy emphasis on the making of distinctions and on the detection of fallacies. The procedures involved often have the appearance of being ad hoc, and modern attempts to draw precise parallels between medieval theories as a whole and the results of contemporary symbolic logic are generally doomed to failure, even though there are many fruitful partial correlations.

The core of the logic curriculum was provided by the works of Aristotle with supplements from Boethius, Porphyry, and the anonymous author of the *Liber sex principiorum* (about the last six categories), once attributed to Gilbert of Poitiers. The *logica vetus,* or Old Logic, included Porphyry's *Isagoge,* Aristotle's *Categories* and *De interpretatione,* and the *Liber sex principiorum.* During the twelfth century the *logica nova,* or New Logic, was rediscovered. It included the rest of the Organon, namely Aristotle's *Topics, Sophistical Refutations, Prior Analytics* and *Posterior Analytics.* Boethius's discussion of Topics, or ways of finding material for arguments, was also part of the curriculum, though in the fourteenth century his *De differentiis topicis* was largely replaced by the account of Topics given by Peter of Spain in his *Tractatus.* Together these works provided a basis for the study of types of predication, the analysis of simple categorical propositions and their relations of inference and equivalence, the analysis of modal propositions, categorical and modal syllogisms, fallacies, dialectical Topics, and scientific reasoning as captured in the demonstrative syllogism. The texts were lectured on and were the subject of detailed commentaries. Nonetheless, a need was felt for simplified introductions to the material and for the discussion of issues that were at best only hinted at by Aristotle." (pp. 146-147).

(1) Most of the literature dealing with terminist logic is in the form of articles and book chapters. 'Two bibliographical guides are E. J. Ashworth, *The Tradition of Medieval Logic and Speculative Grammar from Anselm to the End of the Seventeenth Century. A Bibliography from 1836 Onwards* (Toronto: Pontifical Institute of Mediaeval Studies, 1978), and Fabienne Pironet, *The Tradition of Medieval Logic and Speculative Grammar from Anselm to the End of the Seventeenth Century*. A Bibliography (1977-1994) (Turnhout: Brepols, 1997). The classic source of material is L. M. de Rijk, *Logica Modernorum A Contribution to the History of Early Terminist Logic* (Assen: Van Gorcum, 1962-7) vol. I: *On Twelfth-Century Theories of Fallacy*, and vol. II: The *Origin and Early Development of the Theory of Supposition*. Translations of various texts are found in N. Kretzmann and E. Stump (eds.) : *Cambridge Translations of Medieval Philosophical Texts*, vol. I: *Logic and the Philosophy of Language* (Cambridge: Cambridge University Press, 1988). Useful discussions are provided by P. Osmund Lewry, "Grammar, Logic and Rhetoric 1220-1320," in J. Catto, (ed.) *The History of University of Oxford*, vol. I: *The Early Oxford Schools* (Oxford: Clarendon Press: 1984) 401-33, and by N. Kretzmann et al. (eds.) The Cambridge History of Later Medieval Philosophy: From the Rediscovery of Aristotle to the Disintegration of Scholasticism. 1100-1600 (Cambridge: Cambridge University Press, 1982).

(2) Not all of these ramifications will be discussed below. I shall omit the discussions of non-referring terms and of relations.

19. ———. 2011. "The Scope of Logic: Soto and Fonseca on Dialectic and Informal Arguments." In *Methods and Methodologies. Aristotelian Logic East and West, 500-1500*, edited by Cameron, Margaret and Marenbon, John, 127-147. Leiden: Brill.

"...I have chosen to examine two sixteenth-century Iberian scholastics, the Spaniard Domingo de Soto (1494-1560) and the Portuguese Petrus Fonseca (1528-1599), in order to see whether the changes in logical method brought about by the supposed influence of humanism are apparent. For Soto, I shall use the second edition of his *Summulae,* printed in 1539/40, because this was the version that was reprinted in Salamanca eight times, and that most successfully introduced Spaniards to earlier sixteenth-century Parisian teachings.(4) Soto's preface (f. ii r-v) shows that he had responded to humanism by simplifying and reorganizing the text of the first edition, and by removing many sophismata. However, he retained much medieval material including supposition, consequences, *exponibilia, insolubilia* and *obligationes.* For Fonseca, I shall use his popular *Institutionum dialecticarum libri octo,* which was first published in Lisbon in 1564.(5) The last of its fifty three editions appeared in Lyon in 1625. It follows Aristotle's *Organon,* taking up material from the *Categories, Perihermenias, Prior* and *Posterior Analytics, Topics* and *Sophistici Elenchi* in turn, but as well as many classical references, it also contains some material about *exponibilia,* consequences and supposition." (pp. 127-128)

(4) Domingo de Soto, *Aeditio Secunda Summularum,* Salamanca, 1539-1540.

Note that the foliation is often inaccurate. I am grateful to Angel d'Ors for providing me with photographs of this edition.

(5) Petrus Fonseca, *Instituções Dialécticas. Institutionum dialecticarum libri octo*, Introdução, estabelecimento do texto, tradução e notas de Joaquim Ferreira Gomes, 2 vols, Coimbra, Universidade de Coimbra, 1964.

(6) For further discussion of both textbooks, see Ashworth, *Changes in logic textbooks from 1500 to 1650: the new Aristotelianism*, 1988, esp. 81-84.

20. ———. 2013. "Analogy and Metaphor from Thomas Aquinas to Duns Scotus and Walter Burley." In *Later Medieval Metaphysics. Ontology, Language, and Logic*, edited by Bolyard, Charles and Keele, Rondo, 223-248. Bronx, NY: Fordham University Press.

"In the history of Aristotelianism and Thomism people often speak about *analogia entis*, the analogy of being, (1) or what, following Giorgio Pini and Silvia Donati, I shall call metaphysical analogy. (2) In fact, this notion was foreign to Aristotle, and for Thomas Aquinas analogy, under that name, was semantic analogy. (3) It belonged to the theory of language, since it was regarded as a type of equivocation, the medieval name for homonymy. Metaphor too was closely related to equivocation, although, unlike analogy, it was an improper use of language, and produced by usage rather than imposition. In the second half of the thirteenth century logicians began to worry about how semantic analogy could be produced by imposition, and how analogical terms could be related to concepts. If a single term is used in different but related senses, does this come about through one original act of imposition, or through two related acts? If there are two acts, can we speak of a single term? If there is just one act, what of the concept or concepts to which that term is subordinated? Can there be a single concept which conveys related senses, and if not, how can the relationship between two concepts be captured by a single act of imposition? As a result of such worries some thinkers, especially John Duns Scotus, abandoned semantic analogy. What was called analogy was now metaphysical analogy, and, at the linguistic level, metaphor replaced semantic analogy. It is the history of these developments that I shall discuss in this essay, and in so doing, I shall show something of the interplay between logic, metaphysics, and philosophy of mind." (p. 223)

(1) For the analogy of being see Pierre Aubenque, "Sur la naissance de la doctrine pseudo-aristotélicienne de l'analogie de l'être," *Les études philosophiques* 3/4 (1989): 291-304; Alain de Libera, "Les sources gréco-arabes de la théorie médiévale de l'analogie de l'être," *Les études philosophiques* 3/4 (1989): 319-45; and E. Jennifer Ashworth, "L'analogie de l'être et les homonymes: *Catégories*, 1 dans le *Guide de l'étudiant*" in *L'enseignement de la philosophie au xiiie siècle. Autour du «Guide de l'étudiant» du ms. Ripoll 109*, ed. Claude Lafleur with the collaboration of Joanne Carrier *(Studia Artistarum* 5. Tumhout, Belgium: Brepols, 1997), pp. 281-95. For a general discussion of analogy, see E. Jennifer Ashworth, *Les théories de l'analogie du XIle au XVIe siècle* (Paris: J. Vrin, 2008).

(2) Silvia Donati, "La discussione sull'unità del concetto di ente nella tradizione di commento della *Fisica*: commenti parigini degli anni 1270-1315 ca." in *Die Logik des Transzendentalen. Festschrift für fan A. Aertsen zum 65. Geburtstag*, ed. Martin Pickavé *(Miscellanea Mediaevalia* 30. Berlin, New York: Walter de Gruyter, 2003), pp. 60-139; and Giorgio Pini, *Scoto e l'analogia. Logica e metafisica nei commenti aristotelici* (Pisa: Scuola Normale Superiore, 2002).

(3) For discussion of Aquinas see E. Jennifer Ashworth, "Signification and Modes of Signifying in Thirteenth-Century Logic: A Preface to Aquinas on Analogy," *Medieval Philosophy and Theology* 1 (1991): 39-67; E. Jennifer Ashworth, "Analogy and Equivocation in Thirteenth-Century Logic: Aquinas in Context," *Mediaeval Studies* 54 (1992): 94-135; Joël Lonfat, "Archéologie de la notion d'analogie d'Aristote à saint Thomas d'Aquin," *Archives d'histoire doctrinale et littéraire du moyen âge* 71 (2004):

35-107; and Seung-Chan Park, *Die Rezeption der mittelalterlichen Sprachphilosophie in der Theologie des Thomas von Aquin. Mit besondere Berücksichtigung der Analogie* (*Studien und Texte zur Geistesgeschichte des Mittalters* 65. Leiden, Boston, Köln: Brill, 1999).

21. ———. 2013. "Aquinas, Scotus and Others on Naming, Knowing and the Origin of Language " In *Logic and Language in the Middle Ages. A Volume in Honour of Sten Ebbesen*, edited by Fink, Jakob Leth, Hansen, Heine and Mora-Márquez, Ana María, 257-272. Leiden: Brill.

22. ———. 2013. "Being and Analogy." In *A Companion to Walter Burley. Late Medieval Logician and Metaphysician*, edited by Conti, Alessandro, 135-165. Leiden: Brill.

"Burley's discussion of being *(ens)* and analogy is notable for his thesis that the word "being" corresponds to a single analogical concept. Moreover, he was part of a movement, begun in the later 13th century, which explicitly opposed semantic analogy, a doctrine of language, to metaphysical analogy, the doctrine that just as creatures are beings analogically through their relationship to God, the first cause, whose very essence is being, so accidents are beings analogically through their relationship to the substance, a being *per se*, on which they depend. Obviously, what is new here is not the doctrine itself, but the fact that the relations between God and creatures, substance and accident, were described as analogical. Unlike John Duns Scotus, who insisted that no single word could express a real relation between things ordered in accordance with priority and posteriority, and that no single concept could capture such a relation, Burley retained the link between semantic analogy and metaphysical analogy, for he believed that our words and our concepts can mirror the world. On the other hand, he broke the link between semantics and ontology for other terms traditionally regarded as analogical, such as "healthy", by construing these as metaphorical in their secondary senses.

In what follows I shall begin by surveying the sources in which Burley's views are expressed. I shall then consider some basic notions in the medieval theory of language, including analogy, but also signification, imposition, and metaphor. Next I shall discuss the standard divisions of equivocation and how these related to both analogy and metaphor in Burley's writings. Finally, I will discuss how Burley deals with ens, first from the point of view of semantics, and then from the point of view of metaphysics." (p. 135).

23. ———. 2013. "Descent and Ascent from Ockham to Domingo De Soto: An Answer to Paul Spade." In *Medieval Supposition Theory Revisited. Studies in Memory of L. M. De Rijk*, edited by Bos, Egbert Peter, 385-410. Leiden: Brill.

Also published as Volume 51, 1-4 (2013) of *Vivarium*.

Acts of the XVIIth European Symposium for Medieval Logic and Semantics, held the University of Leiden, 2nd, 7th June. 2008.

"Paul Spade has attacked the theory of the modes of personal supposition as found in Ockham and Buridan, partly on the grounds that the details of the theory are incompatible with the equivalence between propositions and their descended forms which is implied by the appeal to suppositional descent and ascent. I trace the development of the doctrines of ascent and descent from the mid-fourteenth century to the early sixteenth century, and I investigate Domingo de Soto's elaborate account of how descent and ascent actually worked. I show that although Soto himself shared some of Spade's doubts, including those about the use of merely confused supposition, he had a way of reducing at least some propositions containing terms with such supposition to equivalent disjunctions and conjunctions of singular propositions. Moreover, he gave explicit instructions on how to avoid the supposed problem of O-propositions." (p. 385)

24. ———. 2013. "Domingo De Soto on the *Categories*: Words, Things, and Denominatives." In *Aristotle's Categories in the Byzantine, Arabic and Latin Traditions*, edited by Ebbesen, Sten, Marenbon, John and Thom, Paul, 263-284. Copenhagen: The Royal Danish Academy of Sciences and Letters.

"Despite humanist attacks, notably by Petrus Ramus, Porphyry's *Isagoge* and Aristotle's *Categories* retained their place in university education throughout the sixteenth century and into the seventeenth century. Indeed, as late as the 1660s the logic notes in John Locke's early manuscripts are largely devoted to predication, the five predicables, and the ten categories, (1) and in his *Essay concerning human understanding* Locke found it necessary to complain about those "bred up in the Peripatetick Philosophy" who "think the Ten Names, under which are ranked the Ten Predicaments, to be exactly conformable lo the Nature of Things". (2) Original and sustained discussion of these matters is, however, harder to find. Most textbooks cover the issues only in a summary fashion, and such a leading commentator as Agostino Nifo wrote no commentary on Porphyry's *Isagoge* or on the *Categories*. Domingo de Soto is one exception. His substantial commentary on the *Categories*, combined with commentaries on Porphyry's *Isagoge* and Aristotle's *Posterior Analytics*, was published 18 times between 1543 and 1598, mainly in Salamanca, but with one edition in Louvain and five in Venice. (3)

In his commentary, Soto addresses the main questions faced by medieval and Renaissance thinkers, namely does the work deal with words or things, and why is it classified as an introduction to logic? He then takes up a number of subsidiary questions, two of which I shall discuss below. First, why does the work begin with the discussion of equivocals, univocals and denominatives? Second, are denominatives really like equivocals and univocals in relevant respects? In what follows I shall begin by sketching

Soto's main conclusions about the nature and purpose of Aristotle's *Categories* as a whole. This will lead me into a discussion of predication, and what it is that we predicate. I shall then turn to the subsidiary questions about why the work opens as it does, and about the status of denominatives." (pp. 263-264)

(...)

"Conclusion.

To conclude, what I find striking about Soto's discussion of the parts of the *Categories* that I have chosen to focus on is not only that he provides a coherent and thoughtful discussion, but that he displays the strong influence of the tradition of Oxford realism found in Walter Burley and Paul of Venice. It is easy to think of Soto as a Renaissance Thomist, but in fact, he was a well-read eclectic." (p. 280)

(1) See Ashworth 'Locke and Scholasticism', in M. Stuart (ed.), *A Companion to Locke*, Blackwell: Oxford, forthcoming [December 2015].

(2) Locke, *Essay*, III.x.14, p. 497.

(3) Lohr 1988: 431. For a general summary of Soto's position, see Bos 2000. For a useful introduction to medieval views, see Pini 200a. For Soto on equivocation, see Ashworth 1996. Bos and Ashworth give different dates for Soto's birth, but Angel d'Ors (in private correspondence) supported the view that 1494 is the correct date. I owe much to Angel d'Ors (d. 2012) for his useful comments on an earlier version of this paper.

25.　　　———. 2013. "Logic." In *The Cambridge History of Science. Volume 2: Medieval Science*, edited by Lindberg, David C. and Shank, Michael H., 532-547. Cambridge: Cambridge University Press.

"Medieval logic is crucial to the understanding of medieval science for several reasons.(1) At the practical level, every educated person was trained in logic, which provided not only a technical vocabulary and techniques of analysis that permeate philosophical, scientific, and theological writing but also the training necessary for participation in the disputations that were a central feature of medieval instruction. At the theoretical level, medieval logicians made several contributions. First, they discussed logic itself, its status as a science, its relation to other sciences, and the nature of its objects.

Here it is important to note that medieval thinkers took a science (*scientia*) to be an organized body of certain knowledge that might include theology, logic, and grammar as well as mathematics and physics. Second, they discussed the nature of a demonstrative science and scientific method in general. Third, they provided a semantics that allows one to sort out the ontological commitments carried by nouns and adjectives. The discussion of connotative terms is particularly important here since it allowed logicians to analyze such terms as "motion" without postulating the existence of anything other than ordinary objects and their qualities. Fourth, they provided particular logical strategies that allow one to sort out the truth-conditions for scientific claims. Particularly important here are supposition theory, the distinction between compounded and divided senses, and the analysis of propositions containing such syncategorematic terms as "begins" and "ceases"." (pp. 532-533)

(1) For full information about medieval logic, see Catarina Dutilh Novaes, *Formalizing Medieval Logical Theories: Suppositio, Consequentiae and Obligationes* (Dordrecht: Springer, 2007); Dov M. Gabbay and John Woods, eds., *Handbook of the History of Logic 2: Mediaeval and Renaissance Logic* (Amsterdam: Elsevier/North-Holland, 2008); Klaus Jacobi, ed., *Argumentationstheorie: Scholastische Forschungen zu den logischen und semantischen Regeln korrekten Folgerns* (Leiden: Brill, 1993); Norman Kretzmann, Anthony Kenny, and Jan Pinborg, eds., *The Cambridge History of Later Medieval Philosophy* (Cambridge: Cambridge University Press, 1982); Norman Kretzmann and Eleonore Stump, trans., *The Cambridge Translations of Medieval Philosophical Texts, vol. 1: Logic and the Philosophy of Language* (Cambridge: Cambridge University Press, 1988); and Mikko Yrjonsuuri, ed., *Medieval Formal Logic: Obligations, Insolubles and Consequences* (Dordrecht: Kluwer Academic Publishers, 2001).

26.　　　———. 2014. "Aquinas on Analogy." In *Debates in Medieval Philosophy. Essential Readings and Contemporary Responses*, edited by Hause, Jeffrey, 232-242. New York: Routledge.

"In this short chapter, I hope to demonstrate the importance of pay close attention to the historical context of the theory of analogy, and to the way in which technical terms were actually used when explicating Aquinas' theory of analogy. In addition, I intend to argue that McInerny gets Aquinas' theory wrong partly because he places too little emphasis on the fact that Aquinas was principally concerned with the names we use of God.

Introduction

Analogy is a notion with various uses. In epistemology one can speak of coming to know something new on the basis of an analogy or likeness between two things and such analogies can form the basis for analogical arguments, including the argument from design for the existence of God. In ontology, the so-called analogy of being refers to the doctrine that reality is divided horizontally into the very different realities of substances and accidents, (1) and vertically into the very different realities of God and creatures, and that these different realities are related by some kind of likeness. However, for the purposes of this discussion, we are primarily concerned with analogy as a doctrine belonging to the philosophy of language and most especially as a solution to the problem of religious language.

Aquinas has been hailed through the centuries as making a particularly important contribution, and recent philosophers of religion have taken the doctrines seriously (e.g. Swinburne 1977, Alston 1993). But there

are various problems, many stemming from the fact that nowhere does Aquinas give a sustained account of analogy, but rather he employs the notion on an ad hoc basis to settle the issues under discussion in a particular place. One problem, which I shall touch on briefly below, is whether his account of analogy changed over the years. Two other problems have been discussed fairly extensively by McInerny. One is the question of whether it is a theory of language at all, or whether Aquinas was more concerned with the analogy of being; another concerns the truth of the long-held belief that Cardinal Cajetan's book on analogy, published in 1506, though written in 1498, gave an accurate account of Aquinas. McInerny has successfully argued that Aquinas was indeed concerned with analogical terms, even though his account had certain metaphysical views as its basis, and that Cajetan is not a good interpreter of Aquinas. (2) In what follows, I shall focus on another aspect of Aquinas: how his theory is embedded in specifically medieval semantics. It is here that the fourth chapter of McInerny's book (*Analogous Names,* chapter 13, this volume) offers a useful object lesson in the importance of getting such matters straight. Aquinas wrote in a specific context, and he used terminology with an established meaning that his readers would have known. It is a mistake to read a thirteenth-century author (or any other, for that matter) as if he wrote in a vacuum, and as if his views were only related to thinkers such as Boethius, Cajetan, and John of St. Thomas, who were all far removed from him in time. The only author contemporary with Aquinas cited by McInerny is Albert the Great, and the references are not always helpful." (pp. 232-233)

(1) Editor's note: Aquinas explains that, in contrast to a substance, an accident's mode of being is to exist in something else. For instance, a horse is a substance, but its size, color, are accidents because their nature is to exist in something else.

(2) While McInerny successfully dismisses Cajetan as an interpreter, he does not recognize that much of Cajetan's discussion is directed towards some fifteenth-century authors rather than Aquinas himself.

References

William P. Alston, "Aquinas on Theological Predication: A Look Backward and a Look Forward." In *Reasoned Faith: Essays in Philosophical Theology in Honor of Norman Kretzmann*, ed. Eleonore Stump. Ithaca and London: Cornell University Press, 1993, pp. 145-178.

Ralph McInerny, *Aquinas and Analogy*, Washington, D.C.: The Catholic University of America Press, 1996.

Richard Swinburne, *The Coherence of Theism*, Oxford: Clarendon Press, 1977.

27.   ———. 2015. "Medieval Theories of Signification to John Locke." In *Linguistic Content. New Essays on the History of Philosophy of Language*, edited by Cameron, Margaret and Stainton, Robert J., 156-175. New York: Oxford University Press.

"Locke wrote that "*Words*... came to be made use of by Men, as the *Signs of* their *Ideas*... The use then of Words, is to be sensible Marks of *Ideas*; and the *Ideas* they stand for, are their proper and immediate Signification" (*Essay*, 3.2.1). (1) Behind this brief and controversial passage lies a long development of interrelated discussions of the Aristotelian semantic triangle: the discussion of spoken words as signs, both of things and of concepts; the discussion of whether the things signified are natures (whatever their ontological status) or individual existents; and the discussion of ordering: do words signify things or concepts primarily? In this chapter I hope to do three things: (i) trace the history of developments from the thirteenth to the seventeenth century; (ii) throw some light on the issue of whether the theory of signification is a theory of meaning; (iii) illuminate the immediate background to Locke on language. (2) My treatment is partly synoptic, partly chronological. Given the long period I am dealing with, and the complicated doctrinal history involved, I shall simplify my account by tracing just a few influential doctrines and focusing on just a few authors, though I shall make occasional references to other figures. The main path I intend to follow starts with Thomas Aquinas (1224/5-74), for, although he was not a logician, he had many things to say about language, and his views, particularly as found in his unfinished commentary on Aristotle's *Peri hermeneias*, were influential in the sixteenth and seventeenth centuries. (3) I shall then turn to the two fourteenth-century nominalists, William of Ockham (c. 1287—1347) and John Buridan (1295/1300-1358/ 61). (4) Both men were very influential at the University of Paris in the late fifteenth and early sixteenth centuries, though Thomism also had a role to play there. For my purposes, the most important product of the Parisian schools is the Dominican, Domingo de Soto (1494-1560), who, while absorbing many features of nominalist logic, is more properly described as an eclectic Thomist. He published his popular logical works after his return to Spain, where he retained a strong influence into the seventeenth century. Another important Iberian was the Portuguese Jesuit Petrus Fonseca (1528-99), whose work inspired the Conimbricenses, commentaries on Aristotle's works produced by the Jesuits at Coimbra. The volume on Aristotle's *Organon* was first published in 1606. Other significant Jesuit authors include the two Spaniards Franciscus Toletus (1533-96) and Antonius Rubius (1548-1615) and the Polish logician Martinus Smiglecius (1564-1618). The importance of these late Scholastic authors is twofold. First, they were all moderate realists in the Thomistic tradition, although they were well acquainted with nominalism and Scotism. Second, they were read throughout Europe and, in particular, were used at the University of Oxford. Descartes told Mersenne that he recalled reading the Conimbricenses, Toletus, and Rubius (AT III, 185), (5) and, when Locke was teaching at Christ Church, Oxford, he recorded in a notebook that his students bought works by Smiglecius

(Ashworth 1981: 304)." (pp. 156-157)

(1) Quotations are taken from Locke, *An Essay Concerning Human Understanding*, edited by Peter H. Nidditch, New York: Oxford University Press, 1975, but references will be given in standard format so that other editions can also be used.

(2) See Ashworth (1981, 1984, 1987) for discussion of the sixteenth- and seventeenth-century background.

(3) For a wider perspective on the earlier period, see Rosier, *La Parole comme acte: Sur la grammaire et la sémantique au XIIIe siècle*, Paris: Vrin 1994 and Rosier-Catach, *La Parole efficace: Signe, rituel, sacré*, Paris: Editions du Seuil 2004. For more on Aquinas, sec Ashworth (1999). References to Aquinas will be given in standard format, since there are many editions (and some translations) of his works.

(4) For nominalism, See Biard, *Logique et théorie du signe au XlVe siècle,* Paris: Vrin 1989, Panaccio, *Ockham on Concepts,* Aldershot and Burlington, VT: Ashgate 2004 and Klima, *John Buridan*, Oxford: Oxford University Press 2009.

(5) I give standard references to the Adam and Tannery edition (Descartes 1897-1913).

28. ———. 2015. "Richard Billingham and the Oxford *Obligationes* Texts: Restrictions on *positio*." *Vivarium* no. 53:372-390.

"The study of Oxford *Obligationes* texts in the 14th century owes much to the work of Angel d'Ors.(1) Fittingly, it is also a subject linked with Spain through the work attributed to Juan de Pastrana, the publication of the Oxford *Sophistrie* in 1503, and the presence of texts by Richard Billingham and others in Spanish libraries. (2) In this paper, I intend to focus on one aspect of a group of texts associated with the University of Oxford, namely the restrictions placed on the very first rule of the type of obligations called *positio*, and their relation to the sophismata introduced to illustrate the very difficulties that these restrictions were intended to counter. One of my intentions here is to show what was said in a series of rather modest texts that must have been used in actual teaching.

First, however, it is necessary to say something about the Obligationes treatises themselves and what they were about." (p. 372)

(1) See especially Angel d'Ors, 'Sobre las *Obligationes* de Richard Lavenham', *Archives d'histoire doctrinale et littéraire du moyen âge* 58 (1991), 253-78; Angel d'Ors, 'Sortes non currit vel Sortes movetur (Roger Swyneshed, *Obligationes*, § 137-138)', *Archives d'histoire doctrinale et littéraire du moyen âge* 60 (1993), 165-72; Angel d'Ors and Manuel García-Clavel, 'Sobre las *Obligationes* de Robert Fland. *Antiqua et nova responsio*', *Revista de Filosofía* 7 (1994), 51-8. For some discussion, see E.J. Ashworth, 'Autour des Obligationes de Roger Swyneshed: la *nova responsio*', *Les études philosophiques* 3 (1996), 341-60.

(2) See below for details.

29. ———. 2016. "Locke and Scholasticism." In *A Companion to Locke*, edited by Stuart, Matthew, 82-99. Malden: Wiley-Blackwell.

"*Introduction*. Locke's public attitude to scholasticism is well known. Many are the disparaging references to the schoolmen, their reliance on disputational success rather than the search for truth, and their obscure jargon. In the *Essay Concerning Human Understanding*, he writes that "the Schoolmen" found the "very useless Skill" of disputing "a good Expedient to cover their Ignorance, with a curious and unexplicable Web of perplexed Words" (3.10.8). Yet public attitudes can be misleading. Descartes professed to be making a new start, yet historians of philosophy have become increasingly aware of how much he took for granted of what he had learned from the Jesuits at La Flèche. Moreover, philosophers often turn out to be in dialogue with their predecessors even if they do not make this explicit. We have to ask whether the same is true of Locke. Did he enter into a secret dialogue with any scholastics? Are there features of his thought that can be explained in terms of scholastic assumptions?

In order to answer these questions, we need to look at who the schoolmen referred to by Locke were, and what he might have learned from them, particularly with respect to topics in metaphysics, logic, and language. First, however, we must consider the Oxford curriculum which provided the framework for Locke's years of study and teaching there, as there is little reason to believe that he enriched his acquaintance with the schoolmen in his later career." (p. 82)

30. ———. 2017. "Philosophy of Language: Words, Concepts, Things, and Non-Things." In *The Routledge Companion to Sixteenth-Century Philosophy*, edited by Lagerlund, Henrik and Hill, Benjamin, 350-372. New York: Routledge.
"One of the big questions raised by the philosophy of language is how our words relate to the world we live in. Some of the words we use seem to be names of the things around us: 'Socrates' seems to name an actual person, and 'smiling' seems to name something that he does. Similarly, 'dog' and 'horse' seem to name ordinary examples of types of living thing, but do they also name common natures that have a status of their own, apart from individuals? What about such words as 'blindness' and 'nonbeing,' or the names of fictional entities such as 'chimera'? What about so-called analogical words such as 'being,' which seems to encompass both substances and accidents, both God and creatures? And what about words in particular contexts, such as 'Some men are dead' or 'The meadows are smiling'? In this chapter, I shall first say something about the general background to

sixteenth-century philosophies of language, and I shall then explore the views of two particular groups of philosopher on how it is that our words relate to the world, ending with a detailed examination of doctrines of analogy." (p. 350)

BRIEF ARTICLES

Two articles in *Handbook of Ontology and Metaphysics* edited by H. Burkhardt and B. Smith (Munich: Philosophia Verlag, 1991):

Joachim Jungius,

Post-Medieval Logic.

Seven articles in The Cambridge Dictionary of Philosophy, edited by Robert Audi (Cambridge University Press, 1995), Second edition, 1999:

Giordano Bruno,

Tommaso Campanella,

Marsilio Ficino,

Pedro da Fonseca,

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Language,

Renaissance Philosophy of,

Lipsius, Justus (1547-1606),

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Logic, Renaissance,

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