

Annotated bibliography on Aristotle's *De Interpretatione* (*Peri Hermeneias*)

BIBLIOGRAPHY

1. Ademollo, Francesco. 2010. "The Principle of Bivalence in *De Interpretatione* 4." *Oxford Studies in Ancient Philosophy* no. 38:97-113.
2. Anscombe, G. E. M. 1956. "Aristotle and the Sea Battle. *De Interpretatione* Chapter IX." *Mind* no. 65:1-15.
Revised reprint in: J. M. E. Moravcsik (ed.), *Aristotle: A Collection of Critical Essays*, London: Macmillan, 1968, pp. 15-33 and in: *The Collected Philosophical Papers of G.E.M. Anscombe*, Vol. 1: *From Parmenides to Wittgenstein*, Oxford: Blackwell, 1981, pp. 44-55.
"Aristotle's point (as we should put it) is that "Either p or not p" is always necessary; this necessity we are familiar with. But - and this is from our point of view the right way to put it, for this is a novelty to us - that when p describes a present or past situation, then either p is necessarily true, or $\sim p$ is necessarily true; and here "necessarily true" has a sense which is unfamiliar to us. In this sense I say it is necessarily true that there was not - or necessarily false that there was - a big civil war raging in England from 1850 to 1870; necessarily true that there is a University in Oxford; and so on. But "necessarily true" is not simply the same as "true"; for while it may be true that there will be rain tomorrow, it is not necessarily true. As everyone would say: there may be or may not. We also say this about things which we don't know about the past and the present. The question presents itself to us then in this form: does "may" express mere ignorance on our part in both cases?
Suppose I say to someone: "In ten years' time you will have a son; and when he is ten years old he will be killed by a tyrant." Clearly this is something that may be true and may not. But equally clearly there is no way of finding out. (Unless indeed you say that waiting and seeing is finding out; but it is not finding out that it will happen, only that it does happen).
Now if I really said this to someone, she would either be awestruck or think me dotty; and she would be quite right. For such a prediction is a prophecy.
Now suppose that what I say comes true. The whole set of circumstances - the prophecy together with its fulfilment - is a miracle; and one's theoretical attitude (if one has one at all) to the supposition of such an occurrence ought to be exactly the same as one's theoretical attitude to the supposition that one knew of someone's rising from the dead and so on." (p. 53 of the reprint)
3. Arens, Hans, ed. 1984. *Aristotle's Theory of Language and Its Tradition. Texts from 500 to 1750*. Amsterdam: Benjamins.
Selection, translation and commentary by Hans Arens.
Contents: Preface 1; 1. The extraordinary fate of *Peri hermeneias* 6; 2. Aristotle's text (*Peri hermeneias* 16a1 - 17a7) 16; 3. Commentary to Aristotle 24; 4. Ammonius Hermeiu: Commentary to Aristotle's *Peri hermeneias* 58; 5. Commentary to Ammonius 124; 6. Anicius Manlius Severinus Boethius: Commentaries to Aristotle's *Peri hermeneias*. *Second edition*. 159; 7. Commentary to Boethius 205; 8. Peter

Abaelard: *Glosses on Peri hermeneias* 231; 9. Commentary to Abaelard 303; 10. Albertus Magnus: *Perihermeneias*. Paraphrase 339; 11. Commentary to Albert 376; 12. Thomas Aquinas: *Exposition of Aristotle's Perihermeneias* 397; 13. Commentary to Thomas 434; 14. Martinus de Dacia: *Quaestions concerning Peri hermeneias* 458; 15. Commentary to Martin 471; 16. Johannes a S.Thoma: *Artis logicae prima pars* 484; 17. Commentary to John of St.Thomas 507; 18. James Harris, an Aristotelian of the 18th century 514; References 523; Concordance 527; Index of Persons 530-532.

"It is a very small particle of the philosophic and scientific cosmos that bears Aristotle's name, in fact, it is little more than one page of the whole corpus that I am going to consider, that one page out of 1500 where, in the frame of his logic, he formulates his general views on language. Yet, here, in the first four chapters of *Peri hermeneias*, he is not primarily interested in language, which is a natural - and therefore self-evident - instrument of expression and communication: he considers it only as the indispensable means of forming a proposition, which is part of a syllogism. The linguistic theory sketched here without any pretence to originality would not claim our serious attention and careful examination if those 48 Greek words in ch. 1 had not proved of such incredibly far-reaching influence in the development of linguistic thought. This influence was rendered possible by the steady tradition of the text, and this book is intended as its documentation. As far as I know there exist no modern translations of all the old commentaries I present, and so I hope to do some pioneer work in the field. As the list in ch. 1 shows, I offer only a selection: the works of eminent authors available in modern editions.

Up to Martinus de Dacia the material consists of explanations of the Philosopher's words, and it is obvious that the same words must often lead to the same explanations, the more so as the explainers did not want to criticize him, but to prove him right. This attitude was bound to lead to many parallelisms between the different texts. I could not omit all those repetitions if I did not want to present mere fragments to the reader. Fortunately the writers are different personalities with different styles and ways of handling the matter so that the reader does not only get acquainted with the medieval ways of thinking and argumentation, but also with the different forms of that sort of literature: the commentary, the exposition, the glosses, the paraphrase, and the questions. At the same time he can follow the development of the scholastic method. And with all the burden of formalism, traditionalism, and dependence on authority which the authors carry along, they have ideas of their own - more or less, of course - and all these chapters add up to a book on linguistic logic or the logic of language, which makes an interesting section in the history of linguistics, being a museum of past views on language. And my serious advice is to wander through it and see what is there, so as to avoid presenting thoughts as new and progressive which are in fact very old - it is always a poor sight and a little ridiculous too.

I had to content myself with presenting the Greek and Latin material in English and adding my comment where I thought it necessary or at least desirable. I am not giving a philosophical exegesis, but an interpretation from the linguistic point of view. The *grammatica speculativa* and the *grammaire générale* or universal grammar could not be included, though I end with the latter (James Harris). From Aristotle on, the translation is always more or less an interpretation, sometimes not really possible, because there is no exact equivalent, for instance, of *onoma* and *rhema*. And the interpretation is a hazardous enterprise because of the distance of time (1500 years between us and our first commentator) and the lack of an elaborate terminology, which manifests itself in the polysemy of the essential terms, especially in the Latin commentaries, for instance: *forma*, *vox*, *intellectus*, *ratio*. And, also from

Aristotle on, one often cannot be sure that the text is correct or whether by an error of the author, of the scribe, of the editor or, lastly, of the printer, there is something wrong with it - sometimes the only thing one knows (or thinks one knows). For all these reasons, and because I am neither an expert medievalist nor a logician, I can, despite several revisions of my text, not guarantee that my translation is always correct." (From the Preface)

4. Aubenque, Pierre. 1991. "Herméneutique et ontologie. Remarques sur le *Peri Hermeneias* d'Aristote." In *Penser avec Aristote*, edited by Sinaceur, Mohammed Allal, 93-105. Toulouse: Éditions Érès.
Repris dans P. Aubenque, *Problèmes aristotéliens. Philosophie théorique*, Paris: Vrin 2009, pp. 101-116.
5. ———. 1992. "Das Verhältnis von Hermeneutik und Ontologie am Beispiel des 'Peri hermeneias' von Aristoteles." *Perspektiven der Philosophie* no. 18:27-46.
6. Ax, Wolfram. 1979. "Zum isolierten ῥῆμα in 'Aristoteles' *De interpretatione* 16b19-25." *Archiv für Geschichte der Philosophie* no. 61:271-279.
7. ———. 2007. "*Psophos*, *phoné* und *dialektos* als Grundbegriffe aristotelischer Sprachreflexion." *Glotta* no. 56:245-271.
8. Bäck, Allan. 1992. "Sailing through the Sea Battle." *Ancient Philosophy* no. 12:133-151.
9. Baffioni, Carmela, and Nasti de Vincentis, Mauro. 1981. *Il capitolo 9 del De interpretatione di Aristotele nel commentario di Al-Farabi*. Napoli: Istituto Universitario Orientale.
Con un'appendice di Emanuela Galanti.
10. Bärthlein, Karl. 1984. "Nochmals über das isolierte Aussagewort (CA, *De Interpretatione*, Kap. 3). Mit einem Anhang zur Diskussion über die Echtheit dieser Schrift." *Rheinisches Museum für Philologie* no. 127:227-258.
"In den Schriften, die Aristoteles zugeschrieben und im Corpus Aristotelicum (CA) zusammengefaßt werden, gibt es so manche Stelle, die wegen der Knappheit ihrer Formulierung oder wegen Zweifeln an der Überlieferung des Textes schwer zu interpretieren ist und daher immer wieder zu neuen Deutungsversuchen anregt. Zu diesen Stellen gehört zweifellos die zweite Hälfte des Kapitels 3 der dem "Organon" zugerechneten Schrift "De Interpretatione".
Dazu hat Hans Wagner 1971 eine Interpretation veröffentlicht (1). Mit dieser Interpretation Wagners möchte ich mich hier auseinandersetzen und mit zwei weiteren Interpretationsvorschlägen: dem von Wolfram Ax (2), der einen Gegenvorschlag zu dem wichtigsten Punkt der Interpretation Wagners darstellt, und zu dem Vorschlag von Hermann Weidemann (3), der auf einer Auseinandersetzung mit den Deutungen von Wagner und Ax beruht.
Die Auseinandersetzung mit diesen drei Auslegungen wird mich, vereinfacht gesagt, zur traditionellen Auslegung zurückführen, von der sich Wagner distanziert, auf die Ax wieder zurückkommt, und von der Weidemann wieder weggeht; mein Zurückkommen auf die traditionelle Auslegung wird allerdings mit einigen Präzisierungen dieser Auslegung verbunden sein." (p. 227)
1) Hans Wagner: Aristoteles, *De Interpretatione*, 3.16b 19-25, in: *Philomathes. Studies and Essays in the Humanities in Memory of Philip Merlan*, ed. by R. B. Palmer and R. Harnerton-Kelly, The Hague 1971, p. 95-115. Dieser Aufsatz liegt inzwischen in einem Zweitdruck vor in: Hans Wagner: *Kritische Philosophie. Systematische und hist. Abhandlungen*, Würzburg 1980, S. 201-212. Ich gebe hier

- jedesmal zuerst die Seiten nach dem Erstdruck an, dann die nach dem Zweitdruck.
- 2) Zum isolierten ῥῆμα in Aristoteles' *de interpretatione* 16b 19-25, in: *Arch. f. Gesch. d. Philos.* 61 (1979), S. 271-279.
- 3) Aristoteles über das isolierte Aussagewort: *De int.* 3, 16b 19-25, in: *Arch. f. Gesch. d. Philos.* 64 (1982), S. 239-256.
11. Becker, Albrecht. 1934. "Zwei Beispiele für Interpolationen im Aristoteles-Text: *Hermeneutik* 13. 22 b 38 - 23 a 26 und *Metaph.* Θ 4. 1047 b 14-30." *Hermes* no. 69:444-450.
12. ———. 1936. "Bestreitet Aristoteles die Gültigkeit des „Tertium non datur“ für Zukunftsaussagen? (Zum 9. Kapitel der Aristotelischen *Hermeneutik*)." In *Actes du Congrès International de Philosophie Scientifique (Paris 1935), VI: Philosophie des Mathématiques*, 69-74. Paris: Hermann.
13. Belardi, Walter. 1975. *Il linguaggio nella filosofia di Aristotele*. Roma: Kappa Libreria Editrice.
14. ———. 1981. "Riconsiderando la seconda frase del *De interpretatione*." *Studi e Saggi Linguistici* no. 21:79-83.
15. Bluck, Richard. 1963. "On the interpretation of Aristotle, *De interpretatione* 12-13." *Classical Quarterly* no. 13:214-222.
 "Chapters 12 and 13 of the *De Interpretatione* present some puzzles, which it is my purpose to try to solve. The latest commentator, Professor Jaakko Hintikka, attempts in *Acta Philosophica Fennica XIV* (1962), 5-22, to abolish the difficulties by taking certain verbs in an unusual way. He suggests that in these chapters ακολουθεῖν, which is usually taken to denote logical consequence, sometimes expresses simply compatibility (2Ib35-22a1, 22b11-14, 22b17-22), sometimes equivalence (22a14 and 33, 22b22 ff., 23a18 ff.), and that at 22a38 ff., 22b30, and 23a17 ἔπεσθαι, which again is usually taken to denote consequence, in fact expresses compatibility. I propose to counter Hintikka's arguments and to maintain that both verbs express consequence; but as my main purpose is to give my own explanation of the general trend of Aristotle's remarks, I shall take the passages discussed by Hintikka in the order in which they occur in Aristotle's text.
 The root of the difficulties that arise is what appears, at least at first sight, to be a confusion about the meaning of 'possible' (δυνατόν), which may mean 'contingent' or may include what is necessary. For convenience I shall keep in my translations to the rendering 'possible', and where necessary discuss the meaning of the word in the commentary that follows. Where either of the above-mentioned verbs occurs, I shall translate as though it expresses consequence, since I wish to show that good sense can thus be obtained." (p. 214)
16. Bobzien, Susanne. 2007. "Aristotle's *De Interpretatione* 8 is about Ambiguity." In *Maieusis. Essays in Ancient Philosophy in Honour of Myles Burnyeat*, edited by Scott, Dominic, 301-321. New York: Oxford University Press.
 "My goal in this paper is to show that contrary to the prevalent view, in his *De Interpretatione* 8, Aristotle is concerned with homonymy; more precisely, with homonymy of linguistic expressions as it may occur in dialectical argument. The paper has two parts. In the first I part argue that in *Soph. el.* 175 b 39 - 176 a 5, Aristotle indubitably deals with homonymy in dialectical argument; that *De Interpretatione* 8 is a parallel to *Soph. el.* 175 b 39 - 176 a 5; that *De Interpretatione* 8 is concerned with dialectical argument; that, hence, *De Interpretatione* 8, too, deals with homonymy in dialectical argument. In the second part I discuss objections that have been put forward against the view that *De Interpretatione* 8 is about homonymy

- and shows that they do not succeed." (p. 301)
17. Bolonyai, Gábor. 2005. "Aristotle on Sentence Types and Forms of Speech." *Acta Antiqua Academiae Scientiarum Hungaricae* no. 45:143-152.
 18. Bosley, Richard. 1978. "In Support of an Interpretation of *On Int.* 9." *Ajatus* no. 37:29-40.
 19. Brandon, E. P. . 1978. "Hintikka on ἀκολουθεῖν." *Phronesis. A Journal for Ancient Philosophy* no. 23:173-178.
 "Hintikka has argued (1) that the term ἀκολουθεῖν, usually translated in logical contexts as 'follow from', is in fact less definite, sometimes possessing a wider sense of 'going together with', 'accompanying', 'being compatible with', 'conforming with', sometimes a stronger sense of 'logically equivalent with'. These claims were originally used to clear up some difficulties in Aristotle's *De Interpretatione* 12-13, but they have subsequently been employed in an attempt to obtain a consistent interpretation of Pappus' remarks about the geometrical method of analysis and synthesis.(2)
 It is not my intention to query the general claim that ἀκολουθεῖν and its cognates have a less definite meaning in ordinary Greek than 'to follow logically from'. What I do wish to show, however, is that Hintikka does not give sufficient grounds for disputing the traditional understanding of this term in the discussion of modal notions in the *De Interpretatione*. (3)" (p. 173)
 (1) In 'On the Interpretation of *De Interpretatione* 12-13' originally published in *Acta Philosophica Fennica* 1962, reprinted with revisions as chapter III of his *Time and Necessity* (Oxford, 1973). All page references to this later version.
 (2) J. Hintikka and U. Remes, *The Method of Analysis* (Dordrecht, 1974) *passim*, esp. ch. II.
 (3) Thus my argument has no immediate consequences for the understanding of Pappus. It may be noted, however, that, as Hintikka and Remes show, the method of analysis Pappus seeks to characterise is in fact largely deductive, so that it would not be wildly irresponsible to suggest that the part of his characterisation that involves an 'upward' movement through ἀκολουθεῖν somewhat misleading. Cf. Mueller's review of Hintikka and Remes, *Journal of Philosophy* 73 (1976) 158-62.
 20. Brekle, Herbert E. 1970. "A Note on Aristotle's *De Interpretatione* 20b-21a." *Folia Linguistica* no. 4:167-173.
 "This contribution is intended to be a discussion of a few passages of Aristotle's *de interpretatione* (20b-21a) where the Philosopher deals with the notion of 'simplicity of a proposition' and with certain relations holding between several types of predicates contained in a proposition. It is the aim of these remarks to clarify — as far as possible — Aristotle's view of the problems just mentioned and, secondly, to venture an explanation of one of the questions raised in terms of modern linguistics." (p. 167)
 21. Broadie, Sarah Waterlow. 1982. *Passage and Possibility. A Study of Aristotle's Modal Concepts*. Oxford: Clarendon Press.
 22. ———. 1987. "Necessity and Deliberation: An Argument from *De Interpretatione* 9." *Canadian Journal of Philosophy* no. 17:289-306.
 23. Brunschwig, Jacques. 1969. "La proposition particulière et les preuves de non-concluance chez Aristote." *Cahiers pour l'Analyse* no. 10:3-26.
 Repris dans Albert Menne, Niels Offenberger (Hrsg.), *Über den Folgerungsbegriff in der aristotelischen Logik*, Hildesheim: Georg Olms, 1982, pp. 182-205.

"Je me propose ici d' étudier une incidence particulière avec quelque détail: le problème que posent le sens et l'usage de la proposition particulière, notamment en rapport avec le rôle qu'elle joue dans les procédures par lesquelles est démontrée la non-concluance des couples de prémisses autres que ceux des modes syllogistiques valides. J'espère en effet montrer que les textes relatifs à ces questions manifestent une modification significative de l'attitude d'Aristote, et qu'ils permettent de saisir sur le vif le travail du logicien, d'abord victime des équivoques du langage naturel, prenant ensuite de ces équivoques une conscience progressive, sous la poussée interne des problèmes eux-mêmes, et parvenant enfin à les maîtriser. Au terme de cette évolution, la proposition particulière abandonne celles de ses connotations usuelles qui perturbent son maniement logique, et n'est plus définie que par sa place dans un système d'oppositions, avec toutes les conséquences que cela comporte."

24. ———. 2008. "Le chapitre 1 du *De Interpretatione*. Aristote, Ammonius et nous." *Laval Théologique et Philosophique* no. 64:35-87.
 "La treizième réunion du *Symposium Aristotelicum*, en 1993, a eu une très étrange et très triste destinée. Certes, elle s'est tenue dans le cadre enchanteur de la Chartreuse de Pontignano, près de Sienne; elle a donné lieu, comme ses devancières, à des communications et à des discussions d'un vif intérêt. Mais l'édition de ses Actes, pour une fois, s'est heurtée à d'insurmontables obstacles. La charge en avait été initialement confiée à Mario Mignucci et à Michael Frede, deux des plus fidèles et stimulants participants du Symposium. Ils ont été tragiquement enlevés à notre admiration et à notre affection, le premier en 2004, sous les coups d'une longue et impitoyable maladie, le second en 2007, en conséquence d'un accident imprévisible et brutal. Le retard causé à la publication du XIIIe Symposium par cette double et douloureuse disparition n'a pu être comblé jusqu'à présent; les membres du comité organisateur m'ont assuré qu'à leur avis, il risquait de ne l'être jamais. Par une coïncidence émouvante (en tout cas pour moi), trois semaines seulement avant la mort de Michael Frede, mon collègue et ami Thomas De Koninck me demanda si j'accepterais de publier dans le *Laval théologique et philosophique* l'étude que j'avais présentée, plus de dix ans auparavant, au XIIIe Symposium. Je passe sur les divers scrupules qui me firent hésiter quelque temps. L'insistance du Professeur De Koninck et celle de ses collaborateurs, Paul Asselin et Martin Achar, en eurent finalement raison, ce dont je leur suis très profondément reconnaissant. Quant à ce texte, le lecteur voudra bien se souvenir de la longue histoire dont il est l'ultime fruit. Il serait bien difficile de le résumer: il est, il tente d'être cela même pour quoi il se donne, à savoir pour une lecture détaillée du commentaire par Ammonius du célèbre premier chapitre du *De Interpretatione*, lecture focalisée non pas tellement sur la lumière que le commentaire ancien peut (ou peut ne pas) jeter sur la lettre et sur l'interprétation du texte aristotélicien que sur ce que ce commentaire peut nous apprendre sur les méthodes, les choix, les comportements intellectuels de son auteur lui-même, et sur ses propres motivations philosophiques et pédagogiques face à un texte comme celui qu'il entreprend de commenter."
25. Burrell, David. 1964. "Aristotle and 'Future Contingencies'." *Philosophical Studies* no. 13:37-52.
26. Butler, Edward J. 1955. "Aristotle's Sea Fight and Three-Valued Logic." *Philosophical Review* no. 64:264-274.
 "Certainly the most formidable threat to the law of excluded middle in recent times came with the development of many-valued logics, and notably with Lukasiewicz's three-valued system." (p. 264)
 (...)

It becomes diagrammatically apparent that the introduction of " $\frac{1}{2}$ " has to some extent modified the significance of both "1" and "0".

The Harvard logician, Professor Donald Williams, supports this conclusion concerning the truth-values in Lukasiewicz's system. "Lukasiewicz," he writes, "seems to have believed at one time that we should abandon the ordinary meanings of 'true,' 'false' and 'not' in favour of something which does fit his three-valued logic, but he did this because he thought he had independent arguments, essentially Aristotle's, against the admission of truth about the future." (4)

Nevertheless, when Aristotle discussed the application of the principle of excluded middle to contingent propositions about the future, I do not think he was suggesting that the usual meanings of "true," "false," and "not" should be modified in any way (nor, indeed, that the law of excluded middle, when formulated in a certain way, is subject to any exceptions at all). Aristotle's problem is that if "it is an irrefragable law that of every pair of contradictory propositions . . . one must be true and the other false," then "all that is or takes place is

the outcome of necessity" (18b 26). (5) But determinism he could not accept, because there are real alternatives concerning the future, events which have a "potentiality in either direction" (19a 10). If this were not so, "there would be no need to deliberate or to take trouble,

on the supposition that if we were to adopt a certain course, a certain result would follow, while, if we did not, the result would not follow" (18b 32). Instead of abandoning the law, however, he attempted so to formulate it that its application to the future is consonant with his view that some future events are not predetermined. Accordingly he concluded that "everything must either be or not be, whether in the present or in the future, but it is not always possible to distinguish and state determinately which of these alternatives must necessarily come about" (19a 27)." (p. 266)

(4) D. C. Williams, "The Sea Fight Tomorrow," *Structure, Method and Meaning*, ed. by P. Henle et al. (New York, 1951), p. 285.

(5) *De Interpretatione*, ch. IX. All quotations are from the Oxford translation, ed. by Sir David Ross.

27. Butler, Travis. 1997. "The Homonymy of Signification in Aristotle." In *Aristotle and After*, edited by Sorabji, Richard, 117-126. London: Institute of Classical Studies, University of London.
28. Cahn, Steven M. 1967. *Fate, Logic and Time*. New Haven: Yale University Press.
29. Carson, Scott. 2000. "Aristotle on Existential Import and Non Referring Subjects." *Synthese* no. 124:343-360.
 Abstract: "Much contemporary philosophy of language has shown considerable interest in the relation between our linguistic practice and our metaphysical commitments, and this interest has begun to influence work in the history of philosophy as well.(1) In his *Categories* and *De interpretatione*, Aristotle presents an analysis of language that can be read as intended to illustrate an isomorphism between the ontology of the real world and how we talk about that world. Our understanding of language is at least in part dependent upon our understanding of the relationships that exist among the enduring $\pi\rho\acute{\alpha}\gamma\mu\alpha\tau\alpha$ that we come across in our daily experience. Part of the foundations underlying Aristotle's doctrine of categories seems to have been a concern, going back to the Academy, about the problem of false propositions: language is supposed to be a tool for communicating the way things are, and writers in antiquity were often puzzled by the problem of how we are to understand propositions that claim that reality is other than it is.(2) Aristotle's

analysis of propositions raises a particular problem in this regard: if the subject of a proposition does not refer to anything, how can the proposition be useful for talking about a state of the world?

The problem falls into two separate but related parts: propositions whose subjects are singular terms and hence make claims about some particular thing, and propositions whose subjects are general terms and hence make claims about classes. In this paper I will explain Aristotle's treatment of each kind, focusing in particular on what has widely been perceived as a problem in his treatment of singular terms. My discussion of his treatment of general terms will be more brief, but will show that his treatment of them is consistent with his treatment of singular terms."

(1) An interesting treatment of this topic that illustrates how such concerns intersect with issues in the history of philosophy can be found in Diamond (1996), Introduction II (pp. 13–38). Whittaker (1996) also touches on these themes.

(2) On the treatment by ancient philosophers of the problem of falsehood see Denyer (1991).

References

Denyer, N.: 1991, *Language, Thought and Falsehood in Ancient Greek Philosophy*, Routledge, London.

Diamond, C.: 1996, *The Realistic Spirit: Wittgenstein, Philosophy, and the Mind*, MIT Press, Cambridge, MA.

Whittaker, C.: 1996, *Aristotle's De Interpretatione: Contradiction and Dialectic*, Clarendon Press, Oxford.

30. ———. 2003. "Aristotle on Meaning and Reference." *History of Philosophy Quarterly* no. 20:319-337.
31. Cauquelin, Anne. 1990. *Aristote: le langage*. Paris: Presses Universitaires de France.
32. Celluprica, Vincenza. 1977. *Il capitolo 9 del De interpretatione di Aristotele. Rassegna di studi 1930-1973*. Bologna: Il Mulino.
 Indice: Presentazione 7; PARTE PRIMA Gli orientamenti della critica moderna 11; I. Il *De interpretatione* 9 nei recenti studi sulla logica di Aristotele 11; II. Il contenuto del *De interpretatione* 9 24; III. Caratteri della storiografia novecentesca sul *De interpretatione* 9 29; IV. Interpretazione 'tradizionale' e interpretazione 'non-standard' 32; V. Genesi polemica del *De interpretatione* 9 37; VI. L'interpretazione 'tradizionale' 43; 1. Lukasiewicz e la logica a tre-valori 44; 2. Le interpretazioni 'filologiche' 48; 3. 'Lettura analitica' del *De interpretatione* 9 52; 4. Logica temporale e logica atemporale di fronte al *De interpretatione* 9 54; 5. Determinismo e fatalismo 62; VII. L'interpretazione 'non-standard' 66; VIII. Un'interpretazione 'anomala' 71; PARTE SECONDA Schede bibliografiche 79: Indice dei nomi 185-188.
 "Il presente volume fornisce un panorama pressoché completo del materiale, relativo al *De interpr.* 9 di Aristotele, pubblicato tra il 1930 e il 1973.
 Sono stati presi in esame gli studi specifici sull'argomento, quelli sulla logica aristotelica, le storie generali di storia della logica, gli studi sullo stoicismo e infine tutta una serie di lavori in cui il riferimento ad Aristotele è occasionato dalla trattazione dei temi del determinismo e del fatalismo o di alcuni problemi di logica e di epistemologia.
 Alle indicazioni bibliografiche tratte da l'*Année Philologique* si aggiungono pertanto quelle ricavate, nel corso del lavoro, da varie riviste e quelle desunte dagli studi presi in esame.
 Si è cercato di semplificare il più possibile il simbolismo, in modo che il volume fosse immediatamente utilizzabile anche da coloro che non fossero esperti di logica

formale." (Presentazione , p. 7).

33. ———. 1987. "Logica e semantica nella teoria aristotelica della predicazione." *Phronesis. A Journal for Ancient Philosophy* no. 32:166-187.

34. ———. 2005. "Il determinismo logico nel *De interpretatione* IX di Aristotele." In *La catena delle cause. Determinismo e antideterminismo nel pensiero antico e contemporaneo*, edited by Natali, Carlo and Maso, Stefano, 59-74. Amsterdam: Adolf M. Hakkert.

"Nel capitolo 9 del *De interpretatione* Aristotele discute un'argomentazione che fa parte del cosiddetto determinismo logico, in quanto stabilisce un nesso tra la necessità di tutte le cose e la verità/falsità delle proposizioni. Si tratta, come è noto, di un testo molto problematico, che ha suggerito interpretazioni molto diverse sia dell'intero capitolo sia dei principali punti (1). Le principali questioni sulle quali gli interpreti si sono trovati in disaccordo sono sostanzialmente le seguenti:

1) quale sia esattamente l'argomentazione; 2) se Aristotele ne accetti o meno la validità; 3) quale sia la «soluzione» aristotelica; 4) se Aristotele ha ragione o meno nel derivare dal determinismo logico il fatalismo, l'affermazione cioè che per l'uomo è inutile prendere decisioni ed agire, poiché in ogni caso accadrà ciò che è necessario che accada." (p. 59)

(1) 1 Cfr. Celluprica [1977]. Per ulteriore bibliografia cfr.: Weidemann [1994], Gaskin [1995], Whitaker [1996], Zadro [1999].

References

Aristotele. *De interpretatione*, A. Zadro (ed.), Napoli: Loffredo 1999.

Aristoteles. *Peri Hermeneias*, übersetzt und erläutert von H. Weidemann, Berlin: Akademie Verlag 1994.

35. Charles, David. 1994. "Aristotle on Names and Their Signification." In *Language*, edited by Everson, Stephen, 37-73. Cambridge: Cambridge University Press. Revised and reprinted as Chapter 4: *The Signification of Names* in: D. Charles, *Aristotle on Meaning and Essence*, New York: Oxford University Press 2000, pp. 78-109.

"Aristotle's discussion of names (*onomata*) and their meaning or signification (*semainein*) is part of his general account of linguistic signification, definition and thought. This is still a somewhat neglected area or study.

(...)

My starting-point will be Aristotle's discussion of the signification of names and 'name-like expressions' in the *Posterior Analytics* (*An. Post.*) and *de Interpretatione* (*Int.*). While he comments on these issues elsewhere (for example in the *Topics*, *Categories* (*Cat.*), *Metaphysics* (*Met.*), *Physics* (*Phys.*) and *Poetics*), *de Interpretatione* and the *Posterior Analytics* suggest the basis for a relatively systematic view, which is clearly connected with his account of definition and thought (*noein*). It may well be that at other times Aristotle held other views on the same topics. But I shall focus mainly on *de Interpretatione* and the *Analytics*, and not attempt an overall survey of all his writings on these issues. The account which he offers there is a striking one which plays a major role in shaping his discussion of other central issues.

In this paper, I shall outline Aristotle's discussion of accounts of what names signify in the *Analytics* (section 2). and of names and similar expressions in *de Interpretatione* (3). This sketch will bring into sharper perspective his discussion of empty names and existence (4). and of permissible substitutions in knowledge (and belief contexts (5). From this vantage-point, I shall seek to articulate some of Aristotle's views on the interconnections between signification, thought and

- definition (6). In the final sections (7) and (8) I shall make a few remarks about the role his account of signification plays in motivating certain of his other views, and about the philosophical problems which it faces. These final sections do not attempt an exhaustive treatment of the issues they raise, but aim merely to suggest avenues for further Investigation." (pp. 37-38)
36. Chiesa, Curzio. 1986. "Symbole et signe dans le *De Interpretatione*." In *Philosophie du langage et grammaire dans l'Antiquité. Actes du Colloque International sur philosophie du langage et théories linguistiques dans l'Antiquité. Grenoble 3-6 septembre 1985*, edited by Joly, Henri, 203-218. Bruxelles: Ousia.
37. ———. 2012. "Le problème de l'être dans le « *De interpretatione* » (chapitre 11)." In *Physique et métaphysique chez Aristote*, edited by Bonelli, Maddalena, 19-37. Paris: Vrin.
38. Conso, Daniele. 2001. "Remarques sur la terminologie du « *Liber Peri Hermeneias* » et de la tradition logique de langue latine antérieure à Boèce." *Latomus* no. 60:944-961.
 Résumé: "Après avoir rappelé les principales concordances et divergences entre la terminologie logique latine avant et après Boèce, on examine deux choix propres soit à l'auteur du « *Peri hermeneias* » (PH) transmis sous le nom d'Apulée, soit à la première tradition logique de langue latine : celui de « *pars* » (« *particula* ») et celui de « *formula* » (« *forma* » chez Martianus Capella), choix auxquels Boèce substituera « *terminus* » et « *figura* », pour rendre le notion de « *terme* » (ὄρος chez Aristote) et celle de « *figure* (du syllogisme) » (σχήμα chez Aristote). Dans chaque cas, on passe en revue la distribution des emplois dans le PH et chez Martianus, en signalant les attestations antérieures ou postérieures à ces traités. On s'interroge enfin sur les raisons possibles du choix effectué par l'auteur du PH et maintenu ou modifié par Martianus Capella."
39. Craig, William Lane. 1988. *The Problem of Divine Foreknowledge and Future Contingents from Aristotle to Suarez*. Leiden: Brill.
 Chapter I. *Aristotle*, pp. 1-58.
 Summary: "In summary, we have seen that in chapter 9 of *De interpretatione* Aristotle argues that if one grants that the Principle of Bivalence holds for all future singular propositions, then fatalism results. For the semantic relation between propositions and corresponding reality is such that if a proposition is true, then necessarily reality must correspond to it, and if it is false, then necessarily reality must fail to correspond to it. Hence, if a future singular proposition has a truth value, future reality must eventuate according as the proposition is true or false. Because contradictions cannot exist in reality, the relevant state of affairs and its opposite cannot both be actualized; so when the time of the event arrives, one or the other state of affairs must be realized. Hence, in an antiphesis of future singular propositions, both cannot be true, nor can both be false. But both can be indeterminate, in that they lack a truth value. Hence, not all future singular propositions are true or false.
 The joker in this deck, if we may call it that, would seem to be Aristotle's view of truth as correspondence.(137) It might be thought that a future singular proposition must be true if it corresponds to what will in fact be, and if not, then it is false. Accordingly, future-tense propositions must be as bivalent as past- or present-tense statements. But Aristotle apparently thought that if reality were as yet undetermined, then corresponding propositions were also indeterminate as regards their truth value. Ackrill explains that Aristotle held to "a rather crude realistic correspondence theory

of truth, and we might well expect him to think that if the state of affairs now is such that it is not settled whether x will or will not occur, then ' X will occur' is not now either true or false: there is not yet anything in the facts for it to correspond or fail to correspond with." (138) On such a view, the only future singular propositions which could now have a truth value would be ones about things which will happen necessarily as part of an everlasting cyclical process. In their case, although there is no future state of affairs now existent with which a proposition may correspond, nevertheless there are in the present the conditions which make the future realization of the state of affairs a necessity, and hence a future singular proposition may be truly asserted of it. But future contingent singular propositions have as yet no truth value. On the basis of the presently existing conditions all that may be truly said of a contingent future singular is "It is going to be." But in such a case, the truth of the proposition says nothing about the eventual actualization of the event—it may or may not occur. Aristotle does not explicitly say that future contingent singular propositions become true or false; but he says they are not already true or false. Technically speaking, they do not become true or false; it is the present-tense version of the statements that comes to possess a truth value. It is not unlikely that this distinction did not concern Aristotle, but he does not in any event commit himself clearly to saying the future-tense versions come to be true or false. (139) When the time of the event arrives, then exactly one of the states of affairs is actualized and in the antiphrasis one of the propositions becomes actually true in its present-tense version. Since future contingent singular propositions are not antecedently true or false, the argument for fatalism based on antecedent truth and the necessity of the semantic relation fails." (pp. 57-58)

(137) See Lukasiewicz, *Aristotle's Syllogistic*, p. 156; Ross, *Aristotle*, p. 26; Taylor, "Future Contingencies," 3, 16; Frede, *Aristoteles und die "Seeschlacht"*, p. 66; McKim, "Fatalism and the Future," p. 103; Dickason, "Sea Fight," p. 20-1; White, "Fatalism and Causal determinism," pp. 233-6.

(138) Ackrill, *Aristotle's "De Interpretatione"*, pp. 140-1.

(139) Frede, *Aristoteles und die "Seeschlacht"*, p. 72-3.

References

Dickason, Anne. "Aristotle, the Sea Fight, and the Cloud." *Journal of the History of Philosophy* 14 (1976): 11-22.

Lukasiewicz, Jan. *Aristotle's Syllogistic from the Standpoint of Modern Formal Logic*. 2d ed. Oxford: Clarendon Press, 1957.

McKim, Vaughn. "Fatalism and the Future: Aristotle's Way Out." *Review of Metaphysics* 25 (1971-72): 80-111.

Ross, W. D. *Aristotle*. 5th ed. London: Methuen, 1953.

Taylor, Richard. "The Problem of Future Contingencies." *Philosophical Review* 66 (1957): 1-28.

White, Michael J. "Fatalism and Causal Determinism: an Aristotelian Essay." *Philosophical Quarterly* 31 (1981): 231-41.

40. Crivelli, Paolo. 2001. "Empty terms in Aristotle's logic." *Proceedings of the Boston Area Colloquium in Ancient Philosophy* no. 17:237-269.
41. ———. 2004. *Aristotle on Truth*. Cambridge: Cambridge University Press.
Contents: Acknowledgments IX; Notes on the text X; List of abbreviations of titles of Aristotle's works XI; Introduction 1; Part I. Bearers of truth or falsehood 45; 1. States of affairs, thoughts, and sentences 45; 2. Truth conditions for predicative assertions 77; 3. Truth conditions for existential assertions 99; Part II. 'Empty' terms 129; 4. Truth as correspondence 129; 5. 'Vacuous' terms and 'empty' terms 152; Par

- III. Truth and time 183; 6. Truth and change 183; 7. Truth and determinism in *De Interpretatione* 9 198; Appendix I. *Metaph.* Theta 10 1051b 1: the text 234; Appendix 2. *Metaph.* Theta 10 1051b 2-3: the text 238; Appendix 3. *Int.* 7, 17b 16-18: the text 239; Appendix 4. The two place relations in Aristotle's definition of truth 254; Appendix 5. Aristotle's theory of truth for predicative assertions: formal presentation 258; Appendix 6. The failure of Bivalence for future-tense assertions formal presentation 266; References 284; Index of names 313; Index of subjects 319; Index of passages 321.
42. ———. 2009. "Aristotle on Signification and Truth." In *A Companion to Aristotle*, edited by Anagnostopoulos, Georgios, 81-100. Malden: Wiley-Blackwell. "Aristotle discusses signification and truth in passages from several works, mainly the *Categories*, *de Interpretatione*, *Sophistici Elenchi*, *de Anima*, the *Metaphysics*, and the *Poetics*. Signification and truth are not the main topic of these works: their discussions of these subjects are asides. This study reconstructs some views on signification and truth to which Aristotle can be plausibly taken to be committed by his scattered remarks." (p. 81)
43. Dancy, R. M. . 1975. *Sense and Contradiction. A Study in Aristotle*. Dordrecht: Reidel.
Appendix I. *De interpretatione* 14 143-152.
"Ammonius (in *De int.* 251.27ff.) suspected that this chapter was either not by Aristotle or a dialectical exercise. The only visible reason for doubting its authenticity is that some of what it says conflicts with things said elsewhere in Aristotle, and that is not much of a reason. So let us take it as genuine (cf. Ackrill, *Cat. & De int.* p. 153).
In any case, the chapter contains some astounding confusions. So either Aristotle is genuinely confused, or Ammonius' second alternative is right, and he is just trying out arguments. For present purposes, it does not matter which alternative we take." (p. 143)
Appendix II. *De interpretatione* 11. 21a. 25-27 153-155.
"Among too many other things, Aristotle is concerned in *De int.* 11 with patterns of inference in which the cancellation of a term yields a conclusion: it follows from 'this is a pale man' that this is pale, and that it's a man (21a18-20), but not from 'this is a dead man' that this is a man (a21-24). He says of the uncanceled term in the conclusion that it is used 'simply' (απλός a5, etc.): an alternative paraphrase might be 'on its own'. Thus if you went (illicitly) from 'Socrates is a good cobbler' to 'Socrates is good', you would be concluding that Socrates is good simply, or that 'good' on its own applies to Socrates (cf. 20b35-36, 21a14-15).
We can represent this device (which, I think, is almost purely syntactic) with a linguist's boundary marker: your conclusion would be 'Socrates is good#.'" (p. 153)
44. d'Avino, Rita. 1988. "Un proemio esemplare: Aristotele, Peri Hermeneias, 16 a 1-16." *Studi e Saggi Linguistici* no. 28:127-146.
45. De Angelis, Alessandro. 2002. "Materialità e funzionalità del segno linguistico nel Proemio del Περί ἑρμηνείας." *Linguistica e Letteratura* no. 27:9-37.
46. De Cuyper, Ludovic, and Willems, Klaas. 2008. "Meaning and Reference in Aristotle's Concept of the Linguistic Sign." *Foundations of Science* no. 13:307-324. Abstract: "To Aristotle, spoken words are symbols, not of objects in the world, but of our mental experiences related to these objects. Presently there are two major strands of interpretation of Aristotle's concept of the linguistic sign. First, there is the structuralist account offered by Coseriu (*Geschichte der Sprachphilosophie. Von den*

Anfängen bis Rousseau, 2003 [1969], pp. 65-108) whose interpretation is reminiscent of the Saussurean sign concept.

A second interpretation, offered by Lieb (in: Geckeler (Ed.) *Logos Semantikos: Studia Linguistica in Honorem Eugenio Coseriu* 1921-1981, 1981) and Weidemann (in: Schmitter (Ed.) *Geschichte der Sprachtheorie 2. Sprachtheorien der abendländischen Antike*, 1991), says that Aristotle's concept of the linguistic sign is similar to the one presented in Ogden and Richards's (*The meaning of meaning: A study of the influence of language upon thought and of the science of symbolism*, 1970 [1923]) semiotic triangle. This paper starts off with an introductory outline of the so-called *phýsei-thései* discussion which started during presocratic times and culminated in Plato's *Cratylus*. Aristotle's concept of the linguistic sign is to be regarded as a solution to the stalemate position reached in the *Cratylus*. Next, a discussion is offered of both Coseriu's and Lieb's analysis. We submit that Aristotle's concept of the linguistic sign shows features of both Saussure's and Ogden and Richards's sign concept but that it does not exclusively predict one of the two. We argue that Aristotle's concept of the linguistic sign is based on three different relations which together evince his teleological as well empiricist point of view: one internal (symbolic) relation and two external relations, i.e. a likeness relation and a relation *katà synthéken*."

47. Delcomminette, Sylvain. 2007. "L' un, l'être et le nécessaire dans le « De interpretatione » d'Aristote." *Elenchos. Rivista di studi sul pensiero antico* no. 28:41-78.
48. Denooz, Joseph. 1996. "L'étendue du lexique chez Aristote." In *Aristotelica Secunda. Mélanges offerts a Christian Rutten*, edited by Motte, André and Denooz, Joseph, 81-90. Liège: Université de Liège. Faculté de Philosophie et Lettres.
49. Di Cesare, Donatella. 1980. *La semantica nella filosofia greca*. Roma: Bulzoni.
50. ———. 1981. "Die Semantik bei Aristoteles." *Sprachwissenschaft* no. 6:1-30.
51. Di Mattei, Steven. 2006. "Rereading Aristotle's *De interpretatione* 16a3-8: verbal propositions as symbols of the process of reasoning." *Ancient Philosophy* no. 26:1-21.
52. Dickason, Anne. 1976. "Aristotle, the Sea Fight, and the Cloud." *Journal of the History of Philosophy*:11-22.
 "Since nearly the time Aristotle wrote, interest has waxed and waned in his early work, *De Interpretatione* ix; (1) recent controversy was sparked in 1951, when D. C. Williams discussed the problem of the sea fight in relation to modern logic, and although the flurry of journal articles has quieted down, the problems are not yet solved. One reason for this is that in this passage there is not only the difficulty of evaluating whether Aristotle is correct, but there is the added intrigue of trying to decipher just what it is that he is saying, or even with what issue he is primarily concerned. Many commentators believe he is supporting a correspondence theory of truth by denying the law of the excluded middle for future tense propositions; others believe he is concerned more with metaphysical contingencies and the threat of fatalism than with logical difficulties. Still others take the main point to be about the relation of tensed sentences to infinite past or future truth; and a few come full circle, interpreting Aristotle as not denying the excluded middle at all, only examining the question of whether the future will be like the past.
 In general, all of these fit into one of two broad areas of interpretation; either they are concerned with the distinction between "necessarily (p or not p)" and "necessarily p or necessarily not p," or with the distinction between "necessarily (p is true or not p

is true)" and "necessarily (p will be true or not p will be true)." (2) Because of these different readings of Aristotle it is not enough for us simply to present the text and then examine different conclusions about it. Instead, we will consider the most important commentaries, tracing the development of recent criticism as well as establishing the uniqueness of each position, and then draw our own conclusions based on these interpretations and our own reading of the text. (3) Due to the volume of material on the sea fight, not all commentaries can be discussed here; some, e.g., Albritton (4) and Ryle, (5) are omitted because they do not focus enough on Aristotle, while others, e.g., Strang (6) and McKim (7), are not covered because their basic arguments are found elsewhere." (pp. 11-12 note 3 omitted. The authors summarized are: D. C. Williams, Linsky, Butler, Anscombe, Ackrill, Hintikka, and Frede.)

(1) The problem of the universal applicability of the excluded middle was debated by the Stoics and Epicureans, and specific commentaries on *De Interpretatione* have come down to us from Ammonius and Stephanus. Both Alexander of Aphrodisias and Simplicius wrote commentaries on other Aristotelian works, and these often include remarks relevant to the problems of the sea fight.

(2) D. C. Williams, "Professor Linsky on Aristotle," *Philosophical Review*, 63 (April, 1954), 253.

(4) R. Albritton, "Present Truth and Future Contingency," *Philosophical Review*, 66 (January, 1957), 29-46.

(5) Gilbert Ryle, "It Was to Be," *Dilemmas* (Cambridge: The University Press, 1954).

(6) C. Strang, "Aristotle and the Sea Battle," *Mind*, LXIX (October, 1960), 447-465.

(7) V. R. McKim, "Fatalism and the Future: Aristotle's Way Out," *Review of Metaphysics*, 25 (September, 1971), 80-111.

References

Leonard Linsky, "Professor Donald Williams on Aristotle," *Philosophical Review*, 63 (April, 1954), 250.

53. Diebler, Stéphane. 2002. "Les canons de Proclus: problèmes et conséquences de l'interprétation syriano-proclienne du *De interpretatione*." *Dionysius* no. 20:71-94. "Ammonius' commentary on the third section of Aristotle's *De interpretatione* offers insight into the hermeneutical and logical debates of the 5th-cent. Neoplatonic school in Athens. These debates reveal one of the rare cases of a theory that was developed by Proclus in contradiction to that of his teacher Syrianus, and in the course of which the authoritative status of *De interpretatione* as a carefully composed, syntagmatic work was itself put into question. Ammonius was concerned to establish the coherence of Int. 19 B 19-20 B 12. According to his interpretation, this section falls into two further sections, arranged around two types of logical sequences : the first section (19 B 19-20 A 6) is explained according to an interpretation that derives from Syrianus ; the second (20 A 20-20 B 13) recalls the canons of Proclus."
54. Du Lac, Henri. 1949. "The 'Peri Hermenias'. Its Place in Logic and Its Order." *Laval Théologique et Philosophique* no. 5:161-169. "Aristotle and St. Thomas commonly divide logic according to the three operations of the human intellect, because logic is the art which directs man in the very act of reasoning that he might proceed in good order, with ease, and without error. (1) The first two acts of the mind are properly called acts of intellect rather than of reason, because they are not acts of discourse. The first act is the understanding of what is indivisible or incomplex, and is therefore called simple apprehension. By this act the intellect grasps the essence of a thing. The *Predicaments* of Aristotle treats the part

of logic pertaining to this operation. The second act of the intellect is that of composition or division, in which truth or falsity is found. Aristotle treated what pertains to this act in the *Peri Hermeneias*. The third operation of the mind is properly called an act of reason, because in it the mind moves from a knowledge of a known truth to a knowledge of a truth previously unknown. This is the act of discourse, that is, of going from one to another. The remaining books of the *Organon* treat of what pertains to this act - the *Prior Analytics*, the *Posterior Analytics*, the *Topics*, and the *Sophistic Refutations*. Just as the first of these acts is ordered to the second, and the second to the third, so the *Predicaments* is ordered to the *Peri Hermeneias* and the latter to the *Prior Analytics* and the books that follow."

(1) St. Thomas, *Expositio in Libros Posteriorum Analyticorum*, I, lect. 1 (ed. Leonina), nn. 1, 4.

55. Fédier, François. 1985. "Interprétations." In. Paris: Press Universitaires de France.
56. Fine, Gail. 1984. "Truth and Necessity in *De interpretatione*." *History of Philosophy Quarterly* no. 1:23-47.
57. Frede, Dorothea. 1970. *Aristoteles und die "Seeschlacht". Das Problem der contingentia futura in De interpretatione 9*. Göttingen: Vandenhoeck & Ruprecht.
58. ———. 1972. "Omne quod est quando est necesse est esse." *Archiv für Geschichte der Philosophie* no. 54:153-167.
59. ———. 1985. "The Sea-Battle Reconsidered. A Defence of the Traditional Interpretation." *Oxford Studies in Ancient Philosophy* no. 3:31-87.
60. ———. 1990. "Fatalism and Future Truth." *Proceedings of the Boston Area Colloquium in Ancient Philosophy* no. 6:195-227.
61. ———. 1998. "Logik, Sprache und die Offenheit der Zukunft in der Antike: Bemerkungen zu zwei neuen Forschungsbeiträgen." *Zeitschrift für Philosophische Forschung* no. 52.
Review of Aristoteles, *Peri hermeneias*, translated and commented by Hermann Weidemann, Darmstadt: Akademie Verlag, 1994 and Richard Gaskin, *The Sea Battle and the Master Argument* (1995).
62. Gaskin, Richard. 1995. *The Sea Battle and the Master Argument. Aristotle and Diodorus Cronus on the Metaphysics of the Future*. Berlin: Walter de Gruyter.
63. ———. 1996. "Sea Battles, Worn-out Cloaks, and Other Matters of Interpretation: Weidemann on Aristotle's *peri Hermeneias*." *Archiv für Geschichte der Philosophie* no. 78:48-59.
64. Graffi, Giorgio. 1986. "Una nota sui concetti di *rhema* e *logos* in Aristotele." *Athenaeum* no. 74:91-101.
"Si mostra come i termini aristotelici "rhema" e "logos", tradizionalmente tradotti con "verbo" e "discorso", abbiano in realtà il valore più ampio di "predicato" (in senso sintattico) e "combinazione di parole", rispettivamente."
65. Gyekye, Kwame. 1974. "Aristotle on Language and Meaning." *International Philosophical Quarterly* no. 14:71-77.
66. Hafemann, Burkhard. 1999. "Indefinite Aussagen und das kontingente Zukünftige: Akzidentien allgemeiner Gegenstände und graduelle Wahrheit in Aristoteles' *De Interpretatione* 7 und 9." *Philosophiegeschichte und logische Analyse — Logical Analysis and History of Philosophy* no. 2:109-137.
Abstract: "It is argued that an indefinite statement as introduced by Aristotle in *De*

- Int. 7 refers to a universal which may partly partake in contradictory accidental predicates together. This fact is mirrored on the semantic level by ascribing truth to some degree to both parts of a contradiction. Accordingly, Aristotle should be interpreted as saying in De Int. 9 that the statement that a certain individual object will be F at some time in its contingent future is to be taken to be true to some degree. This is because an individual object cannot yet, with respect to its contingent future, be regarded as factual but only as - time-independently - exemplifying a universal. In this context, fundamental connections become apparent between indefinite statements on the one hand and Aristotelian modal logic, statistics and theory of science on the other."
67. Hankinson, Robert James. 1987. "Improper Names. On intentional Double Ententes in Aristotle's *De interpretatione*." *Apeiron* no. 20:219-225.
 68. Hintikka, Jaakko. 1962. "On the Interpretation of *De Interpretatione* 12-13." *Acta Philosophica Fennica* no. 14:5-22.
Reprinted with revisions as chapter III of his *Time and Necessity*, Oxford, 1973.
 69. ———. 1964. "The Once and Future Sea Fight: Aristotle's Discussion of Future Contingents in De Interpretatione IX." *The Philosophical Review* no. 74:461-492.
Revised and reprinted as Chapter VIII in: J. Hintikka, *Time and Necessity. Studies in Aristotle's Theory of Modality*, New York: Oxford University Press, 1973, pp. 147-178.
 70. Hintikka, Jaakko, Remes, Unto, and Knuuttila, Simo. 1977. "Aristotle on Modality and Determinism." *Acta Philosophica Fennica* no. 29.
 71. Hoffmann, Philippe. 1999. "Les analyses de l'énoncé: catégories et parties du discours selon les commentateurs néoplatoniciens." In *Théories de la phrase et de la proposition. De Platon à Averroès*, edited by Buttgen, Philippe, Diebler, Stéphane and Rashed, Marwan, 209-248. Paris: Éditions Rue d'Ulm.
 72. Hudry, Jean-Louis. 2011. "Aristotle on Meaning." *Archiv für Geschichte der Philosophie* no. 93:253-280.
Abstract: "Abstract: This paper shows that Aristotle's *De Interpretatione* does not separate syntax from semantics (contra Boger 2004). Linguistic sentences are not syntactic entities, and non-linguistic meanings are not semantic propositions expressed by linguistic sentences.
In fact, Aristotle resorts to a mental conception of meaning, distinguishing linguistic meanings in a given language from non-linguistic mental contents in relation to actual things: while the former are not the same for all, the latter are shared by everyone. Aristotle is not a modern logician, like Boole, Frege, or Russell, in so far as a mental conception of meaning does not reveal an abstract semantics for a syntactic language."
References
Boger, George 2004. "Aristotle's Underlying Logic". In *Handbook of the History of Logic*. Eds. D. Gabbay/J. Woods. Amsterdam, 101–246.
 73. Hugonnard-Roche, Henri. 2005. "Scolies syriaques au *Peri Hermeneias* d'Aristote." In *Scientia in margine. Études sur les marginalia dans les manuscrits scientifiques du Moyen Âge à la Renaissance*, edited by Jacquart, Danielle and Burnett, Charles F., 27-55. Genève: Droz.
 74. Husson, Suzanne, ed. 2009. *Interpréter le De Interpretatione*. Paris: Vrin.
Table des matières: Jonathan Barnes: Avant-propos 7; Suzanne Husson: Introduction

11; Pierre Aubenque: Sens et unité du traité aristotélicien *De l'interprétation* 37; Maddalena Bonelli: Alexandre d'Aphrodise et le *De interpretatione* 51; Cristina Viano: Aristote contre les astrologues. Olympiodore sur le *De interpretatione*, chap. 9 69; Ali Benmakhlouf: La similitude entre les verbes et les noms dérivés 89; Irène Rosier-Catach: Sur le verbe substantif, la prédication et la consignification - *Peri hermeneias* 16 b 20-25 dans les traductions et les commentaires en latin 97; Jonathan Barnes: Le *De interpretatione* dans la philosophie moderne 141; Jean Baptiste Gourinat: Le traité *De l'interprétation* entre logique classique et logique non-classique 163; Bibliographie 193; Index des sources 205; Index des noms 211; Index des notions 215-222.

"Pendant les années 2003-2005 les membres du Centre Léon Robin ont décidé de consacrer leurs heures de travail commun à une étude du *De interpretatione*. Chaque mois, un samedi matin a été consacré à une séance close où nous avons lu ensemble le texte d'Aristote; chaque mois, un vendredi après-midi s'est tenue une conférence publique sur le thème: "Le *De interpretatione* et sa réception". Le présent livre en rassemble, sous une forme revue, une sélection.

Inutile de dire que le livre ne donne pas une histoire de la fortune du *De interpretatione*: une telle histoire remplirait deux volumes chacun de cinq cents pages. Inutile de dire que le livre n'offre pas de récit continu: les recueils de conférences ne sont pas comme cela. Mais il vaut la peine de dire que le livre possède une certaine cohérence, qu'il possède une unité thématique.

Après une introduction générale de la main de Suzanne Husson qui a édité le recueil, le premier chapitre, écrit par Pierre Aubenque, ancien directeur du Centre Léon Robin, discute de la nature et de la spécificité du traité aristotélicien; ensuite, six chapitres présentent six échantillons, les résultats de six sondages pris dans l'histoire du *De interpretatione*. Deux des sondages ont été faits sur l'Antiquité, deux sur le Moyen Âge, deux sur l'époque moderne. Les échantillons font ressortir l'influence du traité sur l'histoire des sujets qu'il a abordés: sur la théorie des parties du discours, par exemple, ou sur la conception de la signification. Ils font également ressortir l'influence du traité sur des sujets apparemment éloignés de ses propres intérêts: sur les attaques contre l'astrologie, par exemple, ou sur le développement d'une logique qui reconnaît plus de deux valeurs de vérité. Ils démontrent comment ce ne furent pas seulement les doctrines professées dans le traité qui déterminèrent la pensée de ses lecteurs mais aussi les détails-parfois même des variantes textuelles ..." p. 9

75. Ihrig, Ann H. 1965. "Remarks on Logical Necessity and Future Contingencies." *Mind* no. 74:215-228.
76. Irwin, Terence H. 1982. "Aristotle's Concept of Signification." In *Language and Logos. Studies in Ancient Greek Philosophy Presented to G. E. L. Owen*, edited by Schofield, Malcolm and Nussbaum, Martha, 241-266. Cambridge: Cambridge University Press.
77. Isaac, Jean. 1953. *Le Peri hermeneias en Occident de Boèce à Saint Thomas. Histoire littéraire d'un traité d'Aristote*. Paris: Vrin.
78. Jacobs, William. 1979. "Aristotle and Nonreferring Subjects." *Phronesis. A Journal for Ancient Philosophy* no. 24:282-300.
79. Joja, Athanase. 1969. "La théorie de la modalité dans le *De interpretatione*." *Revue Roumaine des Sciences Sociales. Série de Philosophie et Logique* no. 13:323-342.
80. Jones, Russell E. 2010. "Truth and Contradiction in Aristotle's *De Interpretatione* 6-9." *Phronesis. A Journal for Ancient Philosophy*:26-67.
Abstract: "In *De Interpretatione* 6-9, Aristotle considers three logical principles: the

principle of bivalence, the law of excluded middle, and the rule of contradictory pairs (according to which of any contradictory pair of statements, exactly one is true and the other false). Surprisingly, Aristotle accepts none of these without qualification. I offer a coherent interpretation of these chapters as a whole, while focusing special attention on two sorts of statements that are of particular interest to Aristotle: universal statements not made universally and future particular statements. With respect to the former, I argue that Aristotle takes them to be indeterminate and so to violate the rule of contradictory pairs. With respect to the latter, the subject of the much discussed ninth chapter, I argue that the rule of contradictory pairs, and not the principle of bivalence, is the focus of Aristotle's refutation. Nevertheless, Aristotle rejects bivalence for future particular statements."

81. Judson, Lindsay. 1988. "La bataille navale d'aujourd'hui." *De interpretatione* IX." *Revue de Philosophie Ancienne* no. 6:5-37.
"Réexamen, mené dans la perspective de la philosophie analytique, des arguments discutés par Aristote à propos des futurs contingents et illustrés par l'exemple de la bataille navale. Aristote ne nie pas la "vérité-par-avance", mais il explique plutôt ce qui est erroné dans l'argument nécessitariste. En outre, il ne répond pas dans le *De int.* IX à l'argument de la vérité future, mais à un argument subtilement apparenté à celui-ci. Enfin il propose une solution qui vaut non seulement pour le problème qu'il discute, mais aussi pour d'autres problèmes posés par l'idée de "vérité-par-avance".
82. Kasabova, Anita, and Marinov, Vladimir. 2016. "Aristotle on Verbal Communication: The First Chapters of *De Interpretatione*." *Empedocles: European Journal for the Philosophy of Communication* no. 7:239-253.
Abstract: "This article deals with the communicational aspects of Aristotle's theory of signification as laid out in the initial chapters of the *De Interpretatione (Int.)*. We begin by outlining the reception and main interpretations of the chapters under discussion, rather siding with the linguistic strand. We then argue that the first four chapters present an account of verbal communication, in which words signify things via thoughts. We show how Aristotle determines voice as a conventional and hence accidental medium of signification: words as 'spoken sounds' are tokens of thoughts, which in turn are signs or natural likenesses of things. We argue that, in this way, linguistic expressions may both signify thoughts and refer to things. This double account of signification also explains the variety of ontological, logical and psychological interpretations of the initial chapters of *Int.*"
83. King-Farlow, John. 1959. "Sea-Fights Without Tears." *Analysis* no. 19:36-42.
84. Kirwan, Christopher. 1986. "Aristotle on the Necessity of the Present." *Oxford Studies in Ancient Philosophy* no. 4:167-187.
85. Kretzmann, Norman. 1974. "Aristotle on Spoken Sound Significant by Convention." In *Ancient Logic and Its Modern Interpretations*, edited by Corcoran, John, 3-21. Dordrecht: Reidel.
"A few sentences near the beginning of *De interpretatione* (16a3-8) constitute the most influential text in the history of semantics. The text is highly compressed, and many translations, including the Latin translation in which it had its greatest influence, have obscured at least one interesting feature of it. In this paper I develop an interpretation that depends on taking seriously some details that have been neglected in the countless discussions of this text.
The sentence with which *De interpretatione* begins, and which immediately precedes the text I want to examine, provides (as Ackrill remarks 1) the program for Chapters 2-6.

... we must settle what a name is [Chapter 2] and what a verb is [Chapter 3], and then what a negation [Chapters 5 and 6], an affirmation [Chapters 5 and 6], a statement [Chapters 4 and 5] and a sentence [Chapters 4 and 5] are. (16a1-2) (2)

But Aristotle says "First we must settle what a name is ...", and that is what he does in Chapter 2. The remainder of Chapter 1, then, may be thought of as preparatory to the main business of those chapters. And since their main business is to establish definitions, it is only natural to preface them with a discussion of the defining terms. At the beginning of Chapter 2, for instance, Aristotle defines 'name' in these terms: 'spoken sound', 'significant by convention', 'time', and 'parts significant in separation'. These terms continue to serve as defining terms beyond Chapter 2, and the remainder of Chapter 1 (16a3-18) is devoted to clarifying them. The special task of the text I am primarily concerned with is the clarification of the proximate genus for the definitions in Chapters 2-6: "spoken sound significant by convention" (3)." (p. 3)

(1) In the notes to his translation (J. L. Ackrill, *Aristotle's Categories and De Interpretatione*, Clarendon Press, Oxford, 1963; reprinted with corrections, 1966), p. 113.

(2) I am using Ackrill's translation, the only one in English that shows an understanding of the text.

(3) Cf. Ackrill, *op. cit.*, Notes, p. 115: "'A spoken sound significant by convention' gives the genus under which fall not only names but also verbs (Chapter 3) and phrases and sentences (Chapter 4)".

86. Lallot, Jean. 1988. "Origines et développement de la théorie des parties du discours en Grèce." *Langages* no. 92:11-23.

Résumé : "Cet article a un double propos, historique et méthodologique. Après avoir (1) esquissé brièvement ce qu'on pourrait appeler la « préhistoire » de la théorie des parties du discours en Grèce — préhistoire qui s'achève avec Platon — , puis (2) rappelé les étapes du développement qui nous conduit, au seuil de l'ère chrétienne, à une liste de huit parties (nom, verbe, participe, article, pronom, préposition, adverbe, conjonction), j'examinerai (3), chez le grand grammairien alexandrin du 2e siècle de notre ère, Apollonius Dyscole, quels sont les critères et les principes mis en oeuvre dans les opérations de classement grammatical des mots de la langue grecque. Une question retiendra plus spécialement mon attention dans cette dernière partie : dans les cas où un même signifiant semble pouvoir légitimement prétendre à figurer dans plus d'une classe, que fait le grammairien grec ? quel discours tient-il ? pour justifier quelle décision ?"

"2. D'Aristote aux grammairiens : l'inventaire des parties du discours

Après le coup d'envoi platonicien, les contributions décisives au développement de la théorie sont celles d'Aristote (2.1.), des Stoïciens (2.2.) et des grammairiens d'Alexandrie (2.3) Je me limiterai ici, faute de place, à des indications brèves sur ces apports successifs, en renvoyant chaque fois le lecteur à des exposés plus détaillés : sur l'ensemble de cette histoire, on pourra se reporter à Steinthal *1890-91, Robins *1966, Pinborg *1975.

2.1. Aristote

La réflexion aristotélicienne sur la langue est dispersée dans l'ensemble de son oeuvre : bonne étude synthétique de McKeon 1946-47. Pour les parties du discours, les deux textes principaux sont les chap. 2 à 4 du *De interpretatione* (voir le commentaire d'Akrill, Oxford 1968) et le chap. 20 de la *Poétique* (voir Pagliaro *1955, Morpurgo-Tagliabue 1967 et Dupont-Roc & Lallot *1980).

Aristote fait fond sur l'analyse platonicienne du logos en *onoma* + *rhēma*. Il précise la définition du verbe en en faisant un mot « qui signifie en plus le temps » (*prossēmainon khronon*, *De int.* 16 b 6) et enrichit l'inventaire des « parties de

l'expression » (*mere lexeôs*, *Poét.* 1456 b 20) de deux nouvelles unités : la « conjonction » (*sundesmos*) et l'« articulation » (*arthron*) (3). Le texte où ces derniers termes sont définis (*Poét.* 1456 b 37 sqq.) étant très confus, il n'est pas possible d'établir de manière sûre quelles classes de mots ils désignaient au juste. Quoi qu'il en soit, les termes eux-mêmes manifestent l'attention portée par Aristote aux mots qui, d'une façon ou d'une autre (conjonctive, prépositive, anaphorique...), remplissent dans le discours une fonction connective.

Un autre apport important d'Aristote à la théorie linguistique est le concept de « cas » (*ptôsis*). Aristote désigne par là, tant pour le verbe que pour le nom, toute forme qui s'écarte, pour le nom, du nominatif (exprimant la fonction sujet) et pour le verbe, de l'indicatif présent (prédicat par excellence de la proposition assertive).

Fondée sur des critères à la fois morphologiques et sémantico-logiques, la notion de « cas » était appelée à jouer un rôle important dans la description de la morphologie nominale." (p. 15)

(3) Il y a doute sur l'authenticité de l'attestation de *arthron* chez Aristote. D'après les témoignages (reflétant sans doute la même source) de Denys d'Halicarnasse, *De comp. verb.* ch. 2, et de Quintilien, *Inst. or.* I 4.18, Aristote ne distinguait que trois parties du discours :

nom, verbe et conjonction. Aujourd'hui encore la question reste controversée.

Références

Dupont-Roc R. & Lallot J. (1980) : *Aristote, la Poétique*, texte, traduction, notes, Paris, Le Seuil [chap. XX].

McKeon R. (1946-47) : « Aristotle's conception of language and the arts of language ». *Classical Philology* 41 : 193-206 et 42 : 21-50.

Morpurgo-Tagliabue G. (1967) : *Linguistica e stilistica di Aristotele*. Filosofia e critica 4. Roma, Ateneo.

Pagliari A. (1965) : « Il capitolo linguistico délia Poetica di Aristotele », *Nuovi saggi di critica semantica*, Firenze, d'Anna, 77-131.

Pinborg J. (1975) : « Historiography of linguistics : Classical Antiquity : Greece », *Current Trends in Linguistics* 13, 69-126, The Hague-Paris, Mouton [section 2.7.2].

Robins R. H. (1966) : « The Development of the Word Class System of the European Grammatical Tradition », *Foundations of Language* 2, 3-19.

Steinthal H. (1890-91) : *Geschichte der Sprachwissenschaft bei den Griechen und Römern mit besonderer Rücksicht auf die Logik*, Berlin [I, 260-266, 297 sqq. ; II, 209-327].

87. Larkin, Miriam Therese. 1971. *Language in the Philosophy of Aristotle*. The Hague: Mouton.
88. Linsky, Leonard. 1954. "Professor Donald Williams on Aristotle." *The Philosophical Review* no. 63:250-252.
89. Lo Piparo, Franco. 2005. *Aristotele e il linguaggio*. Bari: Laterza.
90. Lowe, Malcolm F. 1980. "Aristotle on the Sea-Battle. A Clarification." *Analysis* no. 40:55-59.
91. Łukasiewicz, Jan. 1930. "Philosophische Bemerkungen zu mehrwertigen Systemen des Aussagenkalküls." *Comptes Rendus des séances de la Société des Sciences et des lettres de Varsovie XXIII 1930, Classe III*:51-77.
Nachdruck in David Pearce, Jan Wolesnki (Hrsg.), *Logischer Rationalismus. Philosophische Schriften der Lemberg-Warschauer Schule*, Frankfurt a. M.: Athenäum 1988, ss. 100-119.
92. ———. 1957. *Aristotle's Syllogistic from the Standpoint of Modern Formal Logic*,.

- Oxford: Clarendon Press.
Second edition enlarged.
93. ———. 1967. "On Determinism." In *Polish Logic 1920-1939*, edited by McCall, Storrs, 19-39. Oxford: Clarendon Press.
Published also in J. Łukasiewicz, *Selected Works*, edited by L. Borkowski, Amsterdam: North-Holland 1970, pp. 110-128.
94. ———. 1970. "Philosophical Remarks on Many-Valued Systems of Propositional Logic." In *Jan Łukasiewicz. Selected Works*, edited by Borkowski, Ludwik, 153-178. Amsterdam: North-Holland.
English translation of *Philosophische Bemerkungen zu mehrwertigen Systemen des Aussagenkalküls*, (1930).
First English translation in Storrs McCall (ed.), *Polish Logic*, Oxford: Clarendon Press 1967, pp. 40-66.
95. ———. 1973. "Über den Determinismus." *Studia Leibnitiana* no. 5:5-25.
Übersetzung von G. Patzig.
96. Maier, Heinrich. 1900. "Die Echtheit der Aristotelischen *Hermeneutik*." *Archiv für Geschichte der Philosophie* no. 13:23-72.
Nachdruck als Anhang in H. Maier, *Die Syllogistik des Aristoteles*. 2 Bde., Tübingen 1896-1900.
97. Manetti, Giovanni. 1993. *Theories of the Sign in Classical Antiquity*. Bloomington: Indiana University Press.
Original Italian edition: *Le teorie del segno nell'antichità classica*, Milano: Gruppo Editoriale Fabbri, 1987.
Translated by Christine Richardson.
See Chapter Five: *Language and signs in Aristotle*, pp. 70-91.
98. Mariani, Mauro. 1988. "Determinismo e verità: *De Int.* 9 e sue interpretazioni." *Teoria* no. 8:3-33.
Ristampato in M. Mariani, *Logica modale e metafisica. Saggi aristotelici*, Pisa: Edizioni ETS 2018, pp. 23-52.
99. McKim, Vaugh, R. 1971. "Fatalism and the Future: Aristotle's Way Out." 80-111.
100. Modrak, Deborah. 2001. *Aristotle's Theory of Language and Meaning*. Cambridge: Cambridge University Press.
101. Montanari, Elio. 1984. *La sezione linguistica del Peri hermeneias di Aristotele*. Firenze: Università degli Studi.
Vol. 1: Il Testo (1984); Vol. 2: Il Commento (1988).
102. ———. 1996. "Ὀνομα ἢ ῥῆμα nel X capitolo del «Peri hermeneias» aristotelico (19b19-22)." In *ΟΛΟΙ ΔΙΖΕΣΙΟΣ. Le vie della ricerca: studi in onore di Francesco Adorno*, edited by Funghi, Maria Serena, 345-356. Firenze: Olschki.
103. Monteil, Jean-François. 1996. "De la traduction en arabe et en français d'un texte d'Aristote: le chapitre VII du *Peri Hermeneias*." *Bulletin d'Etudes Orientales* no. 48:57-76.
"Les propositions indéterminées du chapitre VII de *Peri Hermeneias* sont des particulières traduites par des universelles fausses. La cause de cette bizarrerie est dans le maître, et non dans les traducteurs. Aristote mutile un système naturel de propositions dont l'intégrité est restaurée par l'hexagone de Robert Blanché. Celui-ci ajoute deux postes au carré: Y (quantité partielle) et U (exclusion de la quantité

- partielle). Le carré représente A (totalité) et E (quantité zéro), mais pas avec la tierce quantité Y. Or, la quantité partielle (Y) est essentielle: c'est celle des particulières naturelles contenant notoirement plus d'information que les particulières logiques. U (exclusion de la quantité partielle) est le signifié commun aux deux phrases qu'Aristote élimine du système naturel."
104. ———. 2001. "Une exception allemande: la traduction du *De Interpretatione* par le Professeur Gohlke: la note 10 sur les indéterminées d'Aristote." *Revue de Études Anciennes* no. 103:409-427.
 "Professor Paul Gohlke (*) is the only translator to fully respect Aristotle's own conception of indeterminates. He was the first to perceive the linguistic problem raised by the indeterminate negative. All the other translators of *De Interpretatione* mistakenly render Aristotle's indeterminates, which are particulars, as universals. The origin of this mistake lies in one of the two Arabic translations."
 (*) *Kategorien und Hermeneutik*, Paderborn, Ferdinand Schöningh, 1951
105. ———. 2004. "La transmission d'Aristote par les Arabes à la chrétienté occidentale: une trouvaille relative au *De Interpretatione*." *Revista Española de Filosofía Medieval* no. 11:181-195.
 "Some men are not white and Some men are white versus No man is white are illegitimately identified to the two pairs of logical contradictories constituting the logical square: A versus O and I versus E, respectively. Thus, the level of natural language and that of logic are confused. The unfortunate Aristotelian alteration is concealed by the translation of propositions known as *indeterminates*. To translate these, which, semantically, are *particulars*, all scholars, except for Paul Gohlke, employ the two natural *universals* excluded by the Master! The work of Isador Pollak, published in Leipzig in 1913, [*Die Hermeneutik des Aristoteles in der Arabischen Übersetzung des Ishik Ibn Honain*] reveals the origin of this nearly universal translation mistake: the Arabic version upon which Al-Farabi unfortunately bases his comment. In adding the vertices Y and U to the four ones of the square, the logical hexagon of Robert Blanché (*) allows for the understanding of the manner in which the logical system and the natural system are linked."
 (*) *Structures Intellectuelles. Essai sur l'organisation systématique des concepts* - Paris, Vrin, 1966; *Raison et Discours. Défense de la logique réflexive* - Paris, Vrin, 1967
106. ———. 2005. "Isidor Pollak et les deux traductions arabes différentes du *De interpretatione* d'Aristote." *Revue d'Études Anciennes* no. 107:29-46.
 "Dans le chapitre VII du *De interpretatione*, Aristote mutile un système naturel de trois couples de contradictions naturelles. Il évince le couple où deux universelles naturelles "Les hommes sont blancs", "Les hommes ne sont pas blancs" s'opposent contradictoirement. Conséquence grave: les deux couples de contradictoires naturelles, qu'Aristote considère exclusivement, sont identifiés illégitimement aux deux couples de contradictoires logiques constituant le carré logique. Cette mutilation est dissimulée par la traduction des propositions dites "indéterminées". L'ouvrage d'Isidor Pollak, publié à Leipzig en 1913 (*Die Hermeneutik des Aristoteles in der arabischen Übersetzung des Ishak Ibn Honain, Abhandlungen für die Kunde des Morgenlandes*, 13,1), révèle l'origine de cette faute de traduction quasi universelle: la version arabe sur laquelle al-Farabi fonde son commentaire."
107. Morpurgo Tagliabue, Guido. 1971. "Asserzione ed esistenza nella logica di Aristotele." *Filosofia* no. 22:29-60.
108. Nasti de Vincentis, Mauro. 1981. "L'affermazione da trasposizione in *De Int.* 10 e A.

- Pr. A 46." In *Atti del Congresso nazionale di logica. Montecatini Terme, 1-5 ottobre 1979*, edited by Bernini, Sergio, 617-645. Napoli: Bibliopolis.
109. Noriega-Olmos, Simon. 2013. *Aristotle's Psychology of Signification. A Commentary on De Interpretatione 16a3–18*. Berlin: Walter de Gruyter.
110. Panayides, Christos Y. 2009. "Aristotle on Causal Determinism and Fatalism." *Ancient Philosophy* no. 29:107-122.
111. Patzig, Günther. 1959. *Die aristotelische Syllogistik. Logisch-philologische Untersuchungen über das Buch A der "Ersten Analytiken"*. Göttingen: Vandenhoeck & Ruprecht.
112. ———. 1968. "Aristotle's Theory of Syllogism. A Logico-Philological Study of Book A of the *Prior Analytics*." In: Dordrecht: Reidel.
English translation by Jonathan Barnes of *Die aristotelische Syllogistik. Logisch-philologische Untersuchungen über das Buch A der Ersten Analytiken*, Göttingen: Vandenhoeck & Ruprecht, 1959.
113. ———. 1971. "Aristotle, Łukasiewicz and the Origins Of Many-Valued Logic." In *Proceedings of the Fourth International Congress for Logic, Methodology and Philosophy of Science*, 921-929.
114. Pépin, Jean. 1985. "Sumbola, sêmeia, homoiomata. A propos de *De interpretatione* 1, 16a3-8 et *Politique* VIII 5, 1340a6-39." In *Aristoteles Werk und Wirkung. Paul Moraux gewidmet. Band I: Aristoteles und seine Schule*, edited by Wiesner, Jürgen, 22-44. Berlin: Walter de Gruyter.
115. Perreiah, Alan. 2003. "Orality and Literacy in the *De interpretatione* Tradition." In *Aristotle's Peri hermeneias in the Latin Middle Ages. Essays on the Commentary Tradition*, edited by Braakhuis, Henk Antonius and Kneepkens, Corneille Henri, 51-66. Groningen: Ingenium Publishers.
116. Polansky, Ronald, and Kuczewski, Mark. 1990. "Speech and Thought, Symbol and Likeness: Aristotle's *De interpretatione* 16a 3-9." *Apeiron*:51-63.
117. Prior, Arthur Norman. 1953. "Three-Valued Logic and Future Contingents." *The Philosophical Review* no. 3:317-326.
118. Purnelle, Gérald. 1996. "La proportion des conjonctions de subordination dans six oeuvres d'Aristotle." In *Aristotelica Secunda. Mélanges offerts a Christian Rutten*, edited by Motte, André and Denooz, Joseph, 91-102. Liège: Université de Liège. Faculté de Philosophie et Lettres.
119. Quarantotto, Diana. 2005. "Aristotele sulla naturalità e convenzionalità del linguaggio." *Elenchos. Rivista di studi sul pensiero antico* no. 26:139-159.
120. Rapp, Christof. 1991. "'ΕΣΤΙ ΤΡΙΤΟΝ – Aristoteles, *De Interpretatione* 10, 19b21—22." *Archiv für Geschichte der Philosophie* no. 73:125-128.
121. Rehder, W. 1980. "Über J. Hintikkas Interpretation von ακολουθειν in *De Interpretatione* 12-13." *Archiv für Geschichte der Philosophie* no. 62:58-66.
122. Rehn, Rudolf. 1986. "Zur Theorie des *Onoma* in der griechischen Philosophie." In *Sprachphilosophie in Antike und Mittelalter*, edited by Mojsisch, Burkhard, 63-119. Amsterdam: Grüner.
123. Remes, Unto. 1978. "Aristotle's Sea-Fight Discussion Against Its Background in the *Topics*." *Ajatus* no. 37:41-47.

124. Rijen, Jeroen van. 1989. *Aspects of Aristotle's Logic of Modalities*. Dordrecht: Kluwer.
125. Rijk, Lambertus Marie de. 1987. "The Anatomy of the Proposition. *Logos* and *Pragma* in Plato and Aristotle." In *Logos and Pragma. Essays on the Philosophy of Language in Honour of Professor Gabriel Nuchelmans*, edited by Rijk, Lambertus Marie de and Braakhuis, Henk Antonius, 27-61. Nijmegen: Ingenium Publishers.
- "Introductory*
- This study is written in honour of a scholar who, among many other things, has laid the solid basis for the study of what may be considered the kernel of the semantics of the statement-making utterance, viz. the definition of the bearers of truth and falsity. In the first section I present a survey of Plato's semantics of the statement-making expression and a number of key notions involved. Next, I explore Aristotle's views of the matter, starting with a discussion of Aristotle's notion of *pragma* including that of being *qua* truth and not-being *qua* falsehood. In search for the nature of Aristotle's *logos*, I discuss this notion as it occurs on the *onomazein* level as well as the way in which it acts on the *legein* level. Next, I investigate the important notions of *synthesis* and *dihairesis* and the role of *einai* as a monadic functor and *qua* syncategorematic container of categorial being. Finally, I attempt to present a characterization of Aristotle's statement-making utterance.
- (...) p. 27
- "Epilogue*
- We may summarize what we have found as follows:
- 1 For Plato,
- 1.1 a *logos* is a composite expression consisting of a name (*onoma*) and an attribute (*rhêma*) which as such is not yet a statement-making utterance
- 1.2 a *logos* represents a state of affairs (*pragma*), i.e. an actual combination of some participata (*dynameis*) in the outside world
- 1.3 a *logos eirêmenos* is a statement-making utterance; it asserts that the *pragma* represented by the *logos* is actually the case.
- 2 For Aristotle,
- 2.1 a *logos* is a composite expression consisting of an *onoma* and a *rhêma* which represents both a notional and an ontological state of affairs. It may be characterized as a 'stable complex'
- 2.2 a *pragma* is a state of affairs either *ontologically*: state of affairs being part of the outside world or *semantically*: state of affairs conceived of and expressed by a *logos*
- 2.3 a *logos apophantikos* ('statement-making utterance') is a *logos* actually stated (either asserted or denied)
- 2.4 a *logos* may as such be used either on the *onomazein* level or on the *legein* level (*qua logos apophantikos*). Similarly, *phasis* (*kataphasis*, *apophasis*) may be used on either of these levels
- 2.5 *synthesis* is either *synthesis*₁, = the act of uniting an *onoma* and a *rhêma* into a *logos* (on the *onomazein* level) or *synthesis*₂ = the assertion of such a union accomplished in a *logos apophantikos*, (on the *legein* level), while *dihairesis* is always the denial of such a union (on the *legein* level)
- 2.6 the *esti* forming part of a *logos apophantikos* is not a copula, properly speaking. Rather, it is a sign of (it consignifies, to speak with *De interp.* 3,16b24-5) *synthesis*₂. The *onoma* and *rhêma* are already united to make up a *logos* ('stable complex') by *synthesis*, and, then, the *esti* rather than acting as a dyadic copulative functor, is merely a monadic sign of the 'stable complex' being actually stated
- 2.7 The propositional structure found in the *logos apophantikos* may be described as follows:

linguistically: a logos expressing categorial being (i.e. syncategorematic being implemented by one or more of the ten categories of being) is stated (either affirmatively or negatively) by means of the monadic functor 'be' or 'not be' *semantically*: the pragma represented by the logos is said to be (or not to be, respectively) part of the outside world (or: 'be (not) the case')." pp. 53-54 (notes omitted).

126. ———. 1996. "On Aristotle's Semantics in *De Interpretatione* 1-4." In *Polyhistor: Studies in the History and Historiography of Ancient Philosophy Presented to Jaap Mansfeld on his Sixtieth Birthday*, edited by Algra, Keimpe, Horst, Pieter van der and Runia, David, 115-134. Leiden: Brill.

"By and large, in *De interpretatione* Aristotle is concerned with our capability to speak about all that presents itself to our mind. From chapter 4 onwards, he deals with the statement-making expressions (affirmation and negation), which are the main tools for conveying our thoughts about things. This discussion is prepared (chapters 1-3) by some important observations concerning the basic elements of such expressions, viz. *onoma* and *rhema*. The present contribution contains some comments on Aristotle's view of the proper nature of statement-making as put forward in *De interpretatione*. First, I would like to highlight Aristotle's, what Sir David Ross has called 'frankly 'representative' view of knowledge' by discussing the terms *omoioma* and *pragma*. Next, I will discuss what is meant by a term's 'time-connotation', and finally I will examine the semantics of *onoma*, *rhema* and *logos*." (p. 115)

127. ———. 2002. *Aristotle: Semantics and Ontology. Volume I: General Introduction. The Works on Logic*. Leiden: Brill.

From the Preface: "In this book I intend to show that the ascription of many shortcomings or obscurities to Aristotle resulted from persistent misinterpretation of key notions in his work. The idea underlying this study is that commentators have wrongfully attributed anachronistic perceptions of 'predication', and statement-making in general to Aristotle. In Volume I, what I consider to be the genuine semantics underlying Aristotle's expositions of his philosophy are culled from the *Organon*. Determining what the basic components of Aristotle's semantics are is extremely important for our understanding of his view of the task of logic -- his strategy of argument in particular.

In chapter 1, after some preliminary considerations I argue that when analyzed at deep structure level, Aristotelian statement-making does not allow for the dyadic 'S is P' formula. An examination of the basic function of 'be' and its cognates in Aristotle's philosophical investigations shows that in his analysis statement-making is copula-less. Following traditional linguistics I take the 'existential' or hyparctic use of 'be' to be the central one in Greek (*pace* Kahn), on the understanding that in Aristotle hyparxis is found not only in the stronger form of 'actual occurrence' but also in a weaker form of what I term 'connotative (or intensional) be' (1.3-1.6). Since Aristotle's 'semantic behaviour', in spite of his skilful manipulation of the diverse semantic levels of expressions, is in fact not explicitly organized in a well-thought-out system of formal semantics, I have, in order to fill this void, formulated some semantic rules of thumb (1.7).

In chapter 2 I provide ample evidence for my exegesis of Aristotle's statement-making, in which the opposition between 'assertible' and 'assertion' is predominant and in which 'is' functions as an assertoric operator rather than as a copula (2.1-2.2). Next, I demonstrate that Aristotle's doctrine of the categories fits in well with his view of copula-less statement-making, arguing that the ten categories are

'appellations' ('nominations') rather than sentence predicates featuring in an 'S is P' formation (2.3-2.4). Finally, categorization is assessed in the wider context of Aristotle's general strategy of argument (2.5-2.7).

In the remaining chapters of the first volume (3-6) I present more evidence for my previous findings concerning Aristotle's 'semantic behaviour' by enquiring into the role of his semantic views as we find them in the several tracts of the *Organon*, in particular the *Categories De interpretatione* and *Posterior Analytics*. These tracts are dealt with *in extenso*, in order to avoid the temptation to quote selectively to suit my purposes."

128. Riondato, Ezio. 1957. *La teoria aristotelica dell'enunciazione*. Padova: Antenore.
129. Sadun Bordoni, Gianluca. 1994. *Linguaggio e realtà in Aristotele*. Bari: Laterza.
130. Sainati, Vittorio. 1968. *Storia dell' "Organon" aristotelico. I: Dai "Topici" al "De Interpretatione"*. Firenze: Le Monnier.
131. Saunders, John Turk. 1958. "A Sea Fight Tomorrow?" *The Philosophical Review* no. 67:367-378.
132. Scarpat, Giuseppe. 1950. *Il discorso e le sue parti in Aristotele*. Arona: Paideia. In appendice edizione, traduzione e commento di *De interpretatione* 16 a 1 - 17 a 7.
133. Sedley, David. 1996. "Aristotle's *De interpretatione* and Ancient Semantics." In *Knowledge through Signs. Ancient Semiotic Theories and Practices*, edited by Manetti, Giovanni, 87-108. Turnhout: Brepols.
French revised version: *Aristote et la signification*, in: *Philosophie Antique*, 4, 2004, pp. 5-25.

"Studies of ancient semantics are inclined to concentrate on the significations of individual words. But most ancient thinkers are likely to be misrepresented by such an approach. In Aristotle's classic treatment of the subject, I shall argue, the primary signifier is the sentence, and individual words are considered only secondarily, in so far as they contribute to the sentence's function. Moreover, this emphasis is to be found elsewhere in the Platonic tradition of which, in this respect, Aristotle is a part - not just in Plato himself, but also in the Stoics. In fact only the Epicureans, among ancient thinkers, can be seen to make individual word-meaning primary.

This difference, if it can be established, should not cause surprise, since it merely reflects the general metaphysical outlook of the thinkers in question. Plato, Aristotle and the Stoics are teleologists, who regard the whole as ontologically prior to the part: the part can only be fully understood by reference to its function within the whole. (1) Epicurus by contrast is an atomist. He standardly treats parts as discrete items which, in coming together, generate larger complexes - be they atoms forming phenomenal bodies, or humans forming societies - but which in no sense have that as their pre-existing nature or function. Even bodily parts like hands and tongues came into being before any functions - including their communicative functions - were found for them. (2) On this same anti-teleological model, Epicurus regards the central core of language as an original set of naturally uttered "names" (probably nouns, adjectives and verbs), correlated to individual objects or contents of experience, and only at a later stage supplemented and inflected into a full-scale language. (3)

In developing this contrast, I shall concentrate primarily on Aristotle's *De interpretatione*, whose opening chapters became in antiquity a *locus classicus* on signification. This is not because I believe that the *De interpretatione* must have directly influenced any of the other thinkers in the story. While we cannot positively exclude the possibility of its influence in the fourth and third centuries, perhaps even

- on Plato himself, I see no clear signs of it. The reason for my choice is that the *De interpretatione* is, if I am right, the most seriously misunderstood text in ancient semantics. If I can make out my case with regard to it, it will provide a valuable perspective on the other philosophers in question." (pp. 87-88)
- (1) See e.g. Plato, *Laws* X 903b-d, Aristotle, *Pol.* 1253a19ff., and, for the Stoics, Plutarch, *St. Rep.* 1054E-F.
- (2) Lucretius 4.823-57.
- (3) See Long and Sedley (*The Hellenistic Philosophers*, 1987, section 19).
134. ———. 2004. "Aristote et la signification." *Philosophie Antique*:5-25.
 Résumé : "Aristote dit au début du *De interpretatione* que les mots symbolisent des pensées, qui, à leur tour, ressemblent aux choses. Le présent article soutient qu'Aristote parle alors principalement de la signification des phrases entières et au mieux de façon secondaire de la sémantique des mots individuels. Cette proposition est défendue en attirant l'attention sur un changement dans la signification de « signe » et des termes apparentés ; changement qui a lieu au cours du premier chapitre, qui nous permet de séparer la manière dont les mots « signifient » des pensées (déclaratives, interrogatives, etc.) en les exprimant, de la manière plus étroitement sémantique dont on dit par conséquent qu'ils signifient des choses. La déclaration initiale célèbre d'Aristote ne trouve pas son application principale dans la grammaire rudimentaire des noms et des verbes qui suit dans les chapitres 2-3, mais plus loin dans le traité et surtout dans le chapitre 14, où elle est invoquée pour établir, dans la perspective de la dialectique, que la relation entre une phrase et sa négation est la plus forte de toutes les contrariétés. On explique aussi l'insistance d'Aristote, dans ce même traité, sur le caractère conventionnel de la langue : car, dans des chapitres 8 et 11, c'est à cause du caractère conventionnel de la langue et de l'échec qui en résulte de toute tentative pour le langage de correspondre systématiquement à la distinction des choses entre elles, que ce qui est, d'un point de vue grammatical superficiel, une phrase simple peut s'avérer constituer en réalité deux ou plusieurs phrases, autrement dit, signifier (c'est-à-dire exprimer) deux ou plusieurs pensées différentes. L'importance primordiale accordée par Aristote à la signification des phrases entières s'explique ainsi par le rôle du *De interpretatione* en tant qu'ouvrage subordonné à la dialectique, discipline pour laquelle la relation entre les paires d'affirmations contradictoires est fondamentale. En outre, en le comparant avec le lekton stoïcien, on montre que la prépondérance accordée par Aristote à la phrase entière reflète le cadre téléologique de sa pensée."
135. Sluiter, Ineke. 1997. "The Greek Tradition." In *The Emergence of Semantics in Four Linguistic Traditions: Hebrew, Sanskrit, Greek, Arabic*, edited by Koerner, Ernst Frideryk Konrad, 149-224. Philadelphia: Benjamins.
136. Sonderegger, Erwin. 1989. "'...denn das Sein oder Nichtsein ist kein Merkmal der Sache...". Bemerkungen zu Aristoteles, *De interpretatione* 3, 16 b 22f." *Zeitschrift für philosophische Forschung* no. 43:489-508.
137. Sorabji, Richard. 1980. *Necessity, Cause, and Blame. Perspectives on Aristotle's Theory*. Ithaca: Cornell University Press.
138. Soreth, Marion. 1972. "Zum infiniten Prädikat im zehnten Kapitel der Aristotelischen Hermeneutik." In *Islamic Philosophy and the Classical Tradition: Essays Presented by His Friends and Pupils to Richard Walzer on His Seventieth Birthday*, edited by Stern, S. M., Hourani, Albert Habib and Brown, Vivian, 389-424. Wiesbaden: Bruno Cassirer.
 Nachdruck mit Corrigenda in: Albert Menne, Niels Offenberger (eds.), Zur

- modernen Deutung der Aristotelischen Logik. Band III: Modallogik und Mehrwertigkeit, Hildesheim: Georg Olms 1988, pp. 184-190.
139. Spellman, Lynne. 1980. "DI 9. An Exegetical Stalemate." *Apeiron* no. 14:115-124.
140. Strang, Colin. 1960. "Aristotle and the Sea Battle." *Mind* no. 69:447-465.
141. Strobach, Niko. 1998. "Logik für die Seeschlacht - mögliche Spielzüge." *Zeitschrift für philosophische Forschung* no. 52:105-119.
142. Talanga, Josip. 1986. *Zukunftsurteile und fatum. Eine Untersuchung über Aristoteles' De interpretatione 9 und Ciceros De fato, mit einem Überblick über die spätantiken Heimarmene-Lehren*. Bonn: Habelt.
See in particular pp. 169-185.
143. Taylor, Richard. 1957. "The Problem of Future Contingencies." *The Philosophical Review* no. 66:1-28.
144. Teixidor, Javier. 1996. "L'introduction au *De interpretatione* chez Proba et Paul le Perse." In *Symposium Syriacum VII. Uppsala University, Department of Asian and African Languages, 11-14 August 1996*, edited by Lavenant, René, 293-301. Roma: Pontificio Istituto Orientale.
145. Thompson, Manley. 1953. "On Aristotle's Square of Opposition." *The Philosophical Review* no. 62:251-265.
146. Thorp, John. 2009. "Aristotle on Splitting the Semantic Atom." *Apeiron* no. 42:153-166.
147. Tomberlin, James E. 1971. "The Sea Battle Tomorrow and Fatalism." *Philosophy and Phenomenological Research* no. 31:352-357.
148. Verbeke, Gérard. 1956. "Ammonius et saint Thomas. Deux commentaires sur le *Peri hermeneias* d'Aristote." *Revue Philosophique de Louvain* no. 54:228-253.
"La comparaison entre le commentaire d'Ammonius, dans la traduction latine de Guillaume de Moerbeke, et celui de saint Thomas, permet de préciser dans quelle mesure saint Thomas s'inspire d'Ammonius. Édition critique du texte latin du *Peri hermeneias* d'Aristote, dans la traduction de Moerbeke du commentaire d'Ammonius, avec références au texte des manuscrits grecs."
149. ———. 1991. "Interprétation et langage dans la tradition aristotélicienne." In *Historia philosophiae Medii Aevi. Studien zur Geschichte der Philosophie des Mittelalters*, edited by Mojsisch, Burkhard and Pluta, Olaf, 1029-1045. Amsterdam: R. Grüner.
"A la lumière des analyses qui précèdent, qu'en est-il maintenant du titre *peri hermeneias*? Ce titre correspond-il au contenu de l'ouvrage?
La question posée ne vise pas directement l'authenticité Aristotélicienne de la formule: il est vrai cependant, qu'un titre qui ne traduirait pas bien le contenu du traité, aurait peu de chances d'avoir été rédigé par le Stagirite. Par contre, il est probable que l'ouvrage ait reçu un certain titre de la part de son auteur et si le titre traditionnel correspond au contenu de l'écrit, il peut très bien remonter à l'auteur lui-même. Quoi qu'il en soit de la question d'authenticité, nous croyons pouvoir conclure que le titre donné recouvre bien le contenu du traité, dont le sujet principal est l'énonciation catégorique et ses composants. En se basant sur les analyses de Boèce et d'Ammonius, on peut dire que tous ces éléments correspondent à l'idée d'interprétation telle qu'elle est expliquée dans le traité:
1. L'énonciation y est conçue comme l'interprétation d'un contenu de pensée.

Toutefois si le langage se rapporte directement à un objet pensé, il se réfère indirectement au réel: il en résulte que le discours énonciatif est aussi une interprétation de la réalité. Il l'est à un double niveau: le contenu particulier de chaque énonciation se rapporte à un sujet déterminé du monde et en exprime certaines caractéristiques; on peut donc le considérer comme un acte d'interprétation. Par ailleurs, il y a la structure même du jugement, qui, elle aussi, est une interprétation à un niveau plus fondamental de la physionomie du réel.

2. Les noms et les verbes constituent à leur tour un acte d'interprétation. Selon Aristote, la signification des mots est conventionnelle: elle est le résultat de la vie en communauté, où les hommes sont amenés à se mettre d'accord sur des notions fondamentales de la vie morale et sociale. Ammonius croit que le sens des mots n'est pas purement artificiel, mais qu'il est adapté à la nature des choses. Quoi qu'il en soit, le fait d'appliquer au réel des noms et des verbes est un acte d'interprétation.

Exprimer le réel dans les catégories du langage implique toujours un acte interprétatif.

La doctrine aristotélécienne sur la nature du langage justifie donc le titre de *peri hermeneias*."

150. Visentin, Mauro. 1999. "La sospensione del linguaggio fra verità e realtà in Aristotele. Breve commento filosofico del *De interpretatione*." *Annali dell'Istituto Italiano per gli Studi Storici* no. 16:125-200.
151. Vuillemin, Jules. 1983. "Le chapitre IX du *De interpretatione* d'Aristote : vers une réhabilitation de l'opinion comme connaissance probable des choses contingentes." *Philosophiques* no. 10:15-52.
152. ———. 1988. "Le chapitre IX du *De Interpretatione* et la connaissance probable." In *Aristote aujourd'hui*, edited by Sinaceur, Mohammed Allal, 77-93. Paris: Éditions érès.
153. Wagner, Hans. 1971. "Aristoteles, *De Interpretatione* 3, 16 b 19-25." In *Philomathes. Studies and Essays in the Humanities in Memory of Philip Merlan*, edited by Palmer, Robert B. and Hamerton-Kelly, Robert, 95-115. The Hague: Nijhoff.
154. Walz, Matthew D. 2006. "The Opening of « On Interpretation » : Toward a More Literal Reading." *Phronesis. A Journal for Ancient Philosophy* no. 51:230-251.
155. Waterlow, Sarah. 1982. *Passage and Possibility. A Study of Aristotle's Modal Concepts*. Oxford: Clarendon Press.
156. Wedin, Michael. 1978. "Aristotle on the Existential Import of Singular Sentences." *Phronesis. A Journal for Ancient Philosophy* no. 23:179-196.
157. Weidemann, Hermann. 1982. "Ansätze zu einer semantischen Theorie bei Aristoteles." *Zeitschrift für Semiotik* no. 4:241-257.
158. ———. 1982. "Aristoteles über das isolierte Aussagewort: *De int.* 3, 16b 19-25." *Archiv für Geschichte der Philosophie* no. 64:239-256.
159. ———. 1985. "Textkritische Bemerkungen zum Siebten Kapitel der aristotelischen 'Hemeneutik': *Int.* 7, 17 b 12-16/16-20." In *Aristoteles Werk und Wirkung. Erster Band: Aristoteles und seine Schule*, edited by Wiesner, Jürgen, 45-56. Berlin: Walter de Gruyter.
160. ———. 1985. "Das isolierte Aussagewort in *De int.* 3: Eine Entgegnung." *Hermes* no. 113:62-68.
161. ———. 1991. "Grundzüge der aristotelischen Sprachtheorie." In *Geschichte der*

- Sprachtheorie: 2. Sprachtheorien der abendländischen Antike*, edited by Schmitter, Peter, 170-192. Tübingen: Narr.
162. ———. 1995. "Aristoteles über attributive und prädikative Adjektive: (*Peri hermeneias* 11)." *Incontri Linguistici* no. 18:61-67.
163. ———. 2005. "Le proposizioni modali in Aristotele, *De interpretatione* 12 e 13." *Dianoia* no. 10:27-41.
Traduzione italiana di Luca Castagnoli.
164. ———. 2012. "De Interpretatione." In *The Oxford Handbook of Aristotle*, edited by Shields, Christopher, 81-112. New York: Oxford University Press.
165. ———. 2013. "Die Seeschlacht und das Meisterargument." In *Klassische Argumentationen der Philosophie*, edited by Puster, Rolf W., 73-89. Münster: Mentis.
166. ———. 2017. "Was ist echt im 13. Kapitel der Aristotelischen « Hermeneutik » und was nicht?" *Philologus* no. 161:187-215.
167. Wheeler, Mark Richard. 1999. "Semantics in Aristotle's « Organon »." *Journal of the History of Philosophy* no. 37:191-226.
168. Whitaker, C.W.A. 1996. *Aristotle's De interpretatione. Contradiction and Dialectic*. Oxford: Clarendon Press.
169. White, Michael J. 1979. "Aristotle and Temporally Relative Modalities." *Analysis* no. 39:88-93.
170. ———. 1980. "Necessity and Unactualized Possibilities in Aristotle." *Philosophical Studies* no. 31:298-298.
171. Wieland, Wolfgang. 1979. "Aristoteles und die Seeschlacht. Zur Struktur prognostischer Aussagen." *Berichte zur Wissenschaftsgeschichte* no. 2:25-33.
172. Williams, Donald Cary. 1951. "The Sea Fight Tomorrow." In *Structure, Method and Meaning: Essays in Honor of Henry M. Sheffer*, edited by Henle, Paul, 282-306. New York: Liberal Arts Press.
Reprinted in In Michael Tooley (ed.), *Analytical Metaphysics. A Collection of Essays. Vol. 2: Time and Causation*, New York: Garland (1999), and in D. C. Williams, *The Elements and Patterns of Being: Essays in Metaphysics*, New York: Oxford University Press 2018, pp. 139-158.
173. ———. 1954. "Professor Linsky on Aristotle." *The Philosophical Review* no. 63:253-255.
174. Wolanin, Hubert. 1995. "Aristotle on the Word as a Vehicle of Semantic Function." *Eos. Commentarii Societatis philologiae Polonorum* no. 83:251-263.
"In order to understand Aristotle's perception and description of language at its most basic level, i.e. the semantics of the single word, some aspects of the Aristotelian conception of the word as unit of linguistic communication are analyzed. The *Poetics* and *De interpretatione* are particularly meaningful in this context."
175. Wright, Georg Henrik von. 1979. "Time, Truth and Necessity." In *Intention and Intentionality. Essays in Honour of G. E. M. Anscombe*, edited by Diamond, Cora and Teichman, Jenny. Brighton: The Harvester Press.
176. ———. 1984. "'Omne quod est quando est necesse est esse'." In *Philosophical Papers, vol. III: Truth, Knowledge, and Modality*, edited by Wright, Georg Henrik von, 72-85. Oxford: Basil Blackwell.

177. Zadro, Attilio. 1979. *Tempo ed enunciati nel De Interpretatione di Aristotele*. Padova: Liviana.
178. Zirin, Ronald. 1974. "Inarticulate Noises." In *Ancient Logic and Its Modern Interpretations*, edited by Corcoran, John, 23-25. Dordrecht: Reidel.

RELATED PAGES

The Logical Works of Aristotle

[Aristotle's *De Interpretatione*: Semantics and Philosophy of Language](#)

[Aristotle's Logic: General Survey and Introductory Readings](#)

[Selected Bibliography on the Logic of Aristotle: General and Introductory Readings](#)

Aristotle's Earlier Dialectic: the *Topics* and *Sophistical Refutations*

[Aristotle's *Prior Analytics*: the Theory of Categorical Syllogism](#)

[Selected Bibliography on Aristotle's Theory of Categorical Syllogism](#)

Aristotle's *Prior Analytics*: the Theory of Modal Syllogism

[Selected Bibliography on Aristotle's Theory of Modal Syllogism](#)

Aristotle's *Posterior Analytics*: The Theory of Demonstration

[Selected Bibliography on Aristotle's *Posterior Analytics*](#)

Ancient Commentators on Aristotle:

[Bibliography of Ancient Commentaries on De Interpretatione](#)

[On the website "Theory and History of Ontology"](#)

[Aristotle: Bibliographical Resources on His Logical and Metaphysical Works](#)

Aristotle's *Categories*. Annotated Bibliography of the studies in English:

[First part: A - C](#)

[Second part: D - H](#)

Third part: I - O

Fourth part: P - Z

Bibliographie des études en français sur les *Catégories* d'Aristote

Bibliographie der deutschen Studien zur Aristoteles *Kategorien*

Bibliografia degli studi italiani sulle *Categorie* di Aristotele

Annotated Bibliography of the studies in English: Complete Version (only PDF)