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#### Cover

Mašhad, Kitābḥāna-i Āsitān-i Quds-i Raḍawī 300, f. 1v Paris, Bibliothèque nationale de France, *grec* 1853, f. 186v

# The Arabic Tradition of Aristotle's Sophistici Elenchi

# Gerhard Endress, Pieter Sjoerd Hasper

#### Abstract

Aristotle's book on *Sophistical Refutations* was regarded by its Arabic translators and their readers as the most difficult text of the *Organon*. Of the several Arabic translations of the 9<sup>th</sup> and 10<sup>th</sup> centuries, three are extant in manuscript. Our contribution has two primary purposes. First, to present the Arabic tradition of the *Sophistici Elenchi* in full for the first time – testimonies of the reading of the text in the period of Graeco-Arabic reception, the manuscript tradition, the translators and the sources they relied upon, and samples illustrating the translation techniques and the development of the language and terminology of Arabic logic. Secondly, we want to work out how the Arabic translations relate to their Greek and Syriac originals, what information the versions can provide for the readings of the Greek text and how the underlying tradition relates to that of the Greek manuscript tradition.

Contents. – The Arabic Tradition of Aristotle's Sophistici Elenchi – A. The Manuscript Tradition: ms. Paris, BnF ar. 2346, containing the Arabic Organon – B. The Translators. I. Translatio vetus, ascribed to Ibn Nā'ima II. Translation of Yaḥyā ibn 'Adī. III. 'Īsā ibn Zur'a – C. Text and Interpretation: A Comparative Analysis of Selected Passages – D. Relating the Arabic Translations to the Greek Textual Tradition – E. Glossary of Selected Terms.

The following materials and textual analyses are the result of a Graeco-Arabic cooperation initiated by Pieter Sjoerd Hasper in view of preparing a new critical edition of Aristotle's *Sophistici Elenchi* and for this purpose adducing the evidence of the Arabic translations of the 9<sup>th</sup> and 10<sup>th</sup> centuries. This cooperation was much enhanced and enlivened by our frequent exchanges with Rüdiger Arnzen, whose scholarship in the field has been, and may continue to be, a source of inspiration and of lasting contributions to the study of the Greek heritage and rational science in Arabic Islamic thought.

The great translation movement initiated by the scientists and courtiers from the early Abbasid period of Arabic Islamic civilization mirrors a growing demand for the authorities of demonstrative science. Even as mathematics and medicine dominated the Sciences of the Ancients initially, the logic reading of the Christian schools, transmitted in Syriac translations of the seventh and eighth centuries, was appreciated by Arab readers from the outset, and thus the earliest translations of Aristotelian logic were commissioned to scholars of the Syriac churches, who had kept up the teaching of logic, and of the isagogic tradition of the Alexandrian school.

Most prominent – but quite independent from those of the astrologers and physicians – are the activities of the Nestorian patriarch Timothy I (728-823), working by commission for the caliph al-Mahdī (regn. 775-785), whose letters from the late eighth century give glimpses into the excitement of this activity, i gnited not only by scholarly zeal, but also by the expectation of 'honours, expenses

<sup>&</sup>lt;sup>1</sup> See H. Hugonnard-Roche, "Les traductions du grec au syriaque et du syriaque à l'arabe (à propos de l'*Organon* d'Aristote)", in J. Hamesse – M. Fattori (eds.), *Rencontre de cultures dans la philosophie médiévale: traductions et traducteurs de l'Antiquité tardive au XIV<sup>e</sup> siècle.* Actes du colloque international de Cassino (15-17 juin 1989), Brepols, Cassino – Louvain-la-Neuve 1990 (Rencontres de Philosophie Médievale, 1), pp. 133-47; S. Brock, "Two Letters of the Patriarch Timothy from

and regal presents'. The range of translations commissioned by the Abbasid court – or by the scientists in its service – is remarkably great. It answered the needs and interests of the practitioners, of astronomers as well as physicians, and as a bonus added Aristotele's logic, to be discovered only a century later as the mainstay of any intellectual activity whatsoever:

The royal command required of us to translate the *Topica* of the philosopher Aristotle from Syriac into the Arabic tongue. This was achieved, with God's help, through the agency of the teacher Abū Nūḥ. A small part was done by us as far as the Syriac was concerned, whereas he did it in its entirety, both Syriac and Arabic; the work has already reached a conclusion and has been completed. And although there were some others who were translating this from Greek into Arabic – we have written to inform you how and in what way it happened that all this took place - nevertheless (the king) did not consider it worth even looking at the labours of those other people on the grounds that they were barbaric, not only in phraseology, but also in sense, whether because of the natural difficulty of the subject (hypothesis) – for you are aware of the style (eidos) of the Philosopher in matters of logic, and how and to what extent he infuses obscurity into the beauty of (his) meaning and sense –, or as a result of the lack of training of those who approached such things. For you know the extent and magnitude of the toils (agones) and labours such a task requires. But (the king) entirely approved of our labours, all the more so when from time to time he compared the versions with each other. - Let your Eminence sagely ask and enquire whether there is some commentary or scholia by anyone, whether in Syriac or not, to this book, the *Topica*, or to the *Refutation of the Sophists*, or to the *Rhetorica*, or to the *Poetica*; and if there is, find out by whom and for whom (it was made), and where it is. Enquiries on this should be directed to the Monastery of Mar Mattai – but the enquiries should not be made too eagerly, lest the information, (the purpose of the enquiry) being perceived, be kept hidden [i.e. withheld (from jealousy), rather than disclosed. [...] Send us the other volume of Athanasius, so that we can copy it out. [...] Please search out and copy for us Dionysius [scil. Ps.-Dionysius Areopagita] in the translation of Athanasius or that of Phokas. [...].3

Athanasius, i.e. Athanasius of Balad (d. 686), mentioned here as an author of theological diatribes, was a Jacobite bishop and disciple of the versatile Severus Sēbōkt; it is his Syriac version of the Sophistici Elenchi that was used by both tenth-century Arabic translators of the work. Another Syriac version of the Sophistici Elenchi was made by Timothy's older contemporary, the astrologer Theophilus ibn Tūmā al-Ruhāwī (d. 785), also active at the court of the 'Abbāsid caliph al-Mahdī.<sup>4</sup> But only the end of the 10th century saw Aristotle rise to become the authority of

the Late Eighth Century on Translations from Greek", Arabic Sciences and Philosophy 9 (1999), pp. 233-46; H. Pognon (ed.), Une version syriaque des Aphorismes d'Hippocrate, Hinrichs, Leipzig 1903, introduction; cf. R.J. Bidawid, Les lettres du patriarche nestorien Timothée I: étude critique. Avec en appendice: La lettre de Timothée I aux moines du Couvent de Mar Maron, Biblioteca Apostolica Vaticana, Città del Vaticano 1956 (Studi e Testi, 187), p. 35 ad no. 43, and p. 37 ad no. 48; letter 43 is also edited by O. Braun, "Briefe des Katholikos Timotheos I", Oriens Christianus 2 (1902), pp. 1-32; M. Heimgartner, Die Briefe 42-58 des ostsyrischen Patriarchen Timotheos I. Einleitung, Übersetzung und Anmerkungen, Peeters, Leuven 2012, pp.47-52 (Brief 43).

<sup>&</sup>lt;sup>2</sup> Brock, "Two Letters" (above, n. 1), p. 238, § 3.

<sup>&</sup>lt;sup>3</sup> Brock, "Two Letters" (above, n. 1), pp. 235f.

<sup>&</sup>lt;sup>4</sup> See A. Baumstark, Geschichte der syrischen Literatur: Mit Ausschluß der christlich-palästinensischen Texte, Marcus & Webers, Bonn 1922, pp. 341-2; R. Walzer, Greek into Arabic. Essays on Arabic Philosophy, Bruno Cassirer, Oxford 1962 (Oriental Studies, 1), 1963<sup>2</sup>, pp. 69, 81, 83; F.E. Peters, Aristoteles Arabus. The Oriental Translations and Commentaries on the Aristotelian Corpus, Brill, Leiden 1968 (Monographs on Mediterranean Antiquity), p. 25.

demonstrative science, the 'master of logic' (sāḥib al-manṭiq). After Isḥāq ibn Ḥunayn (d. 910), who had translated some of the most important works of Aristotle - the Categoriae and De Interpretatione among them – from Greek into Arabic, the Christian translators of 10th century Baghdad revived the complete Organon of logic and all of the Greek commentators still available - all on the basis of earlier Syriac versions: the Nestorian Abū Bišr Mattā (d. 940), who made Aristotle's Analytica Posteriora, the Kitāb al-Burhān (Book of Demonstration) and Ars Poetica accessible to the Muslim philosopher al-Fārābī; his Jacobite disciple Yaḥyā ibn 'Adī (d. 974) and the latter's follower 'Īsā ibn Zur'a (d. 1008).

One early, 9th century, Arabic translation of the Sophistici Elenchi of uncertain origin, and then, two successive translations made by Ibn 'Adī and Ibn Zur'a have survived in manuscript.

# A. The Manuscript Tradition: Ms. Paris, BnF, ar. 2346, containing the Arabic Organon

The Arabic manuscript Paris, BnF 2346, represents the reading of Aristotle's Organon in the 10th century school of the Christian philosopher and theologian Yaḥyā ibn 'Adī. The direct source of the manuscript for Aristotle's Categoriae, De Interpretatione, Analytica Priora, Analytica Posteriora, Topica and Sophistici Elenchi was a copy made by al-Ḥasan ibn Suwār, also known under his patronym Ibn al-Ḥammār, from the exemplars of Yaḥyā ibn 'Adī and his disciple 'Īsā ibn Zur'a (Ibn al-Hammār's own teacher). It may be called a 'critical edition' of the Organon representing the state of the art in the school of Bagdad, accompanied by numerous notes giving variants of both the Arabic and the underlying Syriac textual tradition, and explanatory glosses based on the teaching of Ibn al-Hammar.

MS: Paris, Bibliothèque Nationale de France, ar. 2346, foll. 327v-380r. Editions: Kitāb Sūfistīgā [Sophistici Elenchi, arab.] naql Abī ʿAlī ʿĪsā ibn Isḥāq ibn Zurʿa min as-suryānī bi-naql Aṭānis min alyūnānī, in 'A. Badawī (ed.), Manțiq Arisțū, Dār al-Kutub al-Mişriyyah, al-Qāhira, 1948-1952, vol. 3, pp. 737-1018; (2<sup>nd</sup> ed.; Wakālat al-Maṭbūʿāt, Kuwayt 1980, pp. 775-1051). – F. Ğabr, Ğ. Ğihāmī, R. al-ʿAǧam (eds.), al-Naṣṣ al-kāmil li-manțiq Arisțū, Dār al-Fikr al-Lubnānī, Bayrūt 1999, vol. 2, pp. 908-1195. For a detailed presentation of the manuscript and the textual transmission and teaching traditions it is based upon, see: R. Walzer, Greek into Arabic (above, n. 4), pp. 60-113; H. Hugonnard-Roche, "Une ancienne 'édition' arabe de l'Organon d'Aristote: problèmes de traduction et de transmission", in J. Hamesse (ed.), Les problèmes posés par l'édition critique des textes anciens et médiévaux, Brepols, Louvain-la-Neuve 1992, pp. 139-57; Id., "Remarques sur la tradition arabe de l'Organon d'après le manuscrit Paris, Bibliothèque nationale, ar. 2346", in C. Burnett (ed.), Glosses and Commentaries on Aristotilean Logical Texts: the Syriac, Arabic and Medieval Latin Traditions, Warburg Institute, London 1993, pp. 19-28; Id., "Un manuscrit savant, mémoire de quatre siècles de philologie: le Parisinus ar. 2346", Revue des mondes musulmans et de la Méditerranée 99-100 (2002), pp. 147-55; for the translators, see G. Endress, "Die Bagdader Aristoteliker", in Philosophie in der islamischen Welt 1: 8.-10. Jahrhundert, Grundriss der Geschichte der Philosophie (Ueberweg), Schwabe, Basel 2012, pp. 290-345 (1. "Der arabische Aristoteles und seine Lehrüberlieferung in Bagdad: Abū Bišr Mattā ibn Yūnus", pp. 290-303; 2. "Yaḥyā ibn 'Adī", pp. 301-24; 3. "'Īsā ibn Zur'a", pp. 325-33; 4. "Ibn al-Ḥammār", pp. 333-41; 5. "Ibn as-Samḥ", pp. 341-5); G. Endress, The Works of Yaḥyā ibn 'Adī: An Analytical Inventory, Reichert, Wiesbaden 1977.

The first extended study of these texts was submitted as a Paris thesis before any edition or detailed examination of the manuscript had appeared: C. Haddad, Trois version inédites des Réfutations Sophistiques d'Aristote: études et vocabulaire, thèse complémentaire, Université Paris 1 Panthéon-Sorbonne 1952. No close textual study of the translations has been made since (but see below, pp. 70-4, on H. Hugonnard-Roche's research on the testimonies for the Syriac sources available to the Arabic translators). The recently published edition of the Greek text by M. Hecquet, assisted by M. Crubellier for the examination of selected passages, has for the first time used the Arabic versions for the textual criticism of the Greek, but inadequately.<sup>5</sup>

An edition of the complete manuscript of the Arabic Organon (after two partial editions of De Int. by Isidor Pollak [1923], and Cat. by Khalil Georr [1948]) was first presented by 'Abd-al-Raḥmān Badawī (1952, see below n. 7). Due to Badawī's ambition to make the classical heritage known in the Arab world, his main objective was to present an intelligible text, at the price of philological accuracy and adherence to the transmitted text (translating difficult passages and lacunae from the Greek or French). A new edition of the core texts of Aristotelian logic from the same codex - leaving aside Poetica, Rhetorica and Porphyry's Isagoge - was prepared, on the basis of a new autopsy collation of the *Parisinus*, by Farid Jabre (Farīd Ġabr), and published posthumously by Gérard Jéhamy and Rafiq Ajam (1999, see below n. 7). Examination of a number of difficult readings in the text and the marginal glosses has shown that Jabre, while correcting numerous errors, was misled by his predecessor in several instances – see the passages translated in sections B and C. There are also quite a few places where one may suspect an error in the Paris manuscript, but which have not been detected by Jabre. A new edition of these three translations is thus called for.7

The three versions of Aristotle's Sophistici Elenchi contained in the manuscript are not given in one piece each, but in pericopes, the first and second version of each section on the verso of one folio, and the third one on the recto of the following folio, in this order:

- a) nagl Yaḥyā ibn 'Adī 'version of Yaḥyā ibn 'Adī' (d. 974), based on the Syriac version of Athanasius of Balad (d. 687);
- b) nagl'Īsā ibn Zur'a 'version of 'Īsā ibn Zur'a (d. 1008), also based on the Syriac of Athanasius;
- c) nagl qadīm mansūb ilā l-Nā imī 'old version attributed to al-Nā imī', scil. Ibn Nā ima al-Ḥimṣī (fl. 835).

Frequent references to other translations (nagl āḥar, nagl gadīm), and references to a Syriac exemplar, consulted by the author of the marginal annotation or one of his authorities, are given in the notes.

In the colophons of the individual books detailed notes on the exemplars of the Arabic texts and the critical method of the learned 'editors' are supplied for all versions. The sample page shown vis-à-vis (fol. 380r°) contains the end of the Sophistici Elenchi, closing with the third Arabic version ascribed to al-Nā'imī, and providing further relevant information:

<sup>&</sup>lt;sup>5</sup> Aristote, Les Réfutations Sophistiques, transl. and comm. by M. Hecquet, Vrin, Paris 2019.

<sup>6</sup> Taking into account a secondary witness of this same tradition available in MS. Istanbul, Topkapı Sarayı, Ahmet III, 3368, for Isag., Cat., De Int., Anal. Pr. and Anal. Post. — the Soph. El. are not contained in this manuscript.

References are to these two editions: Badawī (cf. Manțiq Arisțū, ed. 'A. Badawī, Dār al-Kutub al-Mișriyyah, al-Qāhira, 1948-1952; Wakālat al-Maṭbūʿāt, Kuwayt 1980²), and Ġabr (cf. al-Naṣṣ al-kāmil li-manṭiq Ariṣṭū, ed. F. Ġabr – Ġ. Ġihāmī – R. al-ʿAǧam, Dār al-Fikr al-Lubnānī, Bayrūt 1999). Badawī's second edition is an exact reprint of the first, but adds 36 to the page numbering.

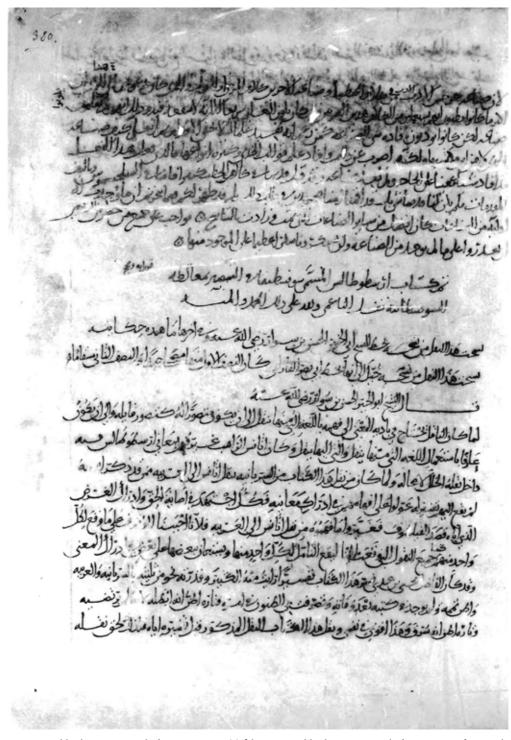


Image 1. Paris, Bibliothèque Nationale de France, ar. 2346, fol. 380r. © Bibliothèque Nationale de France. Expl.: Completed is Aristotle's book called Sophistica on the exposure of the sophistical fallacies. I have copied this translation from an exemplar in the handwriting of the šayl al-Hasan ibn Suwar - may God be pleased with him - at the closing of which it was written as follows: "I have copied this translation from an exemplar appearing to be written in the hand of Abū Naṣr al-Fārābī; the first half of this was correct and well-done, whereas the second half was faulty" (cf. pp. 1016.16-1017.4 Badawī / pp. 1196.18-1198.4 Ğabr).

Then follow remarks of Ibn Suwar on the requirements of a good translator. Being dissatisfied with all of the available versions – both Yaḥyā ibn ʿAdī and ʿĪsā ibn Zurʿa deriving from the Syriac of Athanasius, a translator lacking a sound knowledge of Aristotle's intentions (ġayr qayyim bi-maʿānī  $Arist\bar{u}$ ) -, and not having any commentary at their disposal, he expresses his hope that with the help of all versions, students would be able to arrive at a true understanding of Aristotle's teaching (p. 1017.6-16 Badawī / p. 1197.6-16 Ġabr).

The versions shall be presented in chronological order, with added information taken from the bibliographers and from the glosses and colophons of the *Parisinus*.

#### B. The Translators

I. Translatio vetus (Ar<sup>V</sup>), ascribed to Ibn Nāʿima

The tenth-century bookseller and bibliographer Ibn al-Nadīm (d. 380 H. / 990 A.D.) provides the following information in his Fibrist, 'Catalogue' of books known to him, classified according to the disciplines of the Arabic-Islamic tradition and of the Greek rational sciences:

On Sūfisṭīqā, i.e., deceptive science. Ibn Nāʿima translated it, and Abū Bišr into Syriac. Yaḥyā ibn ʿAdī translated the version of Theophilus into Arabic. Commentators: Quwayrā commented this book. Ibrāhīm ibn Bakkūš translated Ibn Nāʿima's version into Arabic in a more satisfactory way. There is a commentary by al-Kindī on this work. It is related that there was found in Mossul Alexander's commentary on this work (Ibn al-Nadīm, Kitāb al-Fibrist, m. Anm. hrsg. G. Flügel, Leipzig 1871-72, Bd. 1: Text, p. 249; ed. A.F. Sayyid, London 2009, vol. 2, p. 164).8

The indications given in the Paris codex by the compiler, al-Hasan ibn Suwār, differ from the information provided by Ibn al-Nadīm, both in regard of the 'old' translators of the text and the available Syriac versions:

Inc.: Old version attributed to al-Nā'imī, I do not know from which language he translated it (nagl qadīm mansūb ilā l-Nā imī, wa-lastu a lam min ayy luģa nagalahū, f. 327r, p. 70 Badawī = p. 910 Ġabr). Expl.: End of Aristotle's book called Sūfistīqā, on exposing the sophistical fallacies, in the version of al-Nā'imī ... collated and corrected.

Subscriptio: I have copied this version from an exemplar written by the hand of the šaylį. Abū l-Ḥayr al-Ḥasan ibn Suwār, at the end of which I found the following remark, quoted verbatim: "I have copied this from an exemplar that was reproduced by Ibn Suwār from a copy by al-Fārābī" (f. 184v, p. 1017 Badaw $\bar{i} = p. 1197 \, \text{Gabr}$ ).

Ibn Nā'ima or al-Nā'imī is most probably the Christian translator 'Abd-al-Masīḥ ibn Nā'ima al-Ḥimṣi (i.e., from Ḥimṣ, the ancient Emesa), active in the first half of the 9th century in the circle of the philosopher and scientist Ya'qūb ibn Ishāq al-Kindī. Nevertheless, the ascription of this 'old version' to Ibn Nāʿima is doubtful. The only other extant translation explicitly and credibly attributed to Ibn Nā'ima is the Arabic Plotinus current under the title of the Theology of Aristotle.9 The language

<sup>8</sup> If the commentary of Alexander of Aphrodisias existed, it has left no explicit traces in the Arabic tradition. It was not available to Ibn Suwar, who deplores having no commentary at all.

<sup>&</sup>lt;sup>9</sup> Inscribed as follows: "The Book of Aristotle the Philosopher called in Greek *Uṭūlūǧiyā* [*Theologia*], and this is a discourse on the Lordship, commented by Porphyry of Tyre, translated into Arabic by 'Abd-al-Masīḥ ibn 'Abdallāh ibn Nāʿima al-Ḥimṣī, and revised for Aḥmad ibn al-Muʿtaṣim bi-Llāh, by Abū Yūsuf Yaʿqūb ibn Isḥāq al-Kindī" (*Aflūṭīnʿinda* 

of this text, not only in view of its philosophical terminology, which is a priori incommensurable with the dialectical topoi of the Sophistici Elenchi, but also in regard of non-technical language, is totally different in many aspects of translation, grammar, techniques of transposition, and Arabic usage. 10

Examples from the Sophistici Elenchi (SE), Arabic translatio vetus (Ar<sup>v</sup>) ed. Badawī (above, n. 7), and Plotinus, Enneads / Theologia Aristotelis (Utūlū ģiyā) ed. Badawī (quoted above, n. 9):

	SE	$ m Ar^{V}$	Theol. Arist.
άδύνατος	έν τοῖς εἰς τὸ ἀδύνατον συλλογισμοῖς 167 b 24	ʻalā ģayr miṭāl: fì l-sūlūǧismūsāt allatī takūnu ʻalā ġayr miṭāl, p. 787.9	<i>muḥāl</i> , pp. 37.50, 50.7, etc.
	τὸ ἀδύνατον 167 b 31	mā lā yumkin, p. 788.2	
		min ģayr al-imkān:	
	άδύνατον 167 b 17, 33	maʻa lladī hiyaʻalayhi min ġayr alimkān, p. 787.11	
άπλῶς		(references given below, p. 102)	mabsūţ, pp. 31.3,4.15, 32.3, 41,1
	λέγεσθαι 166 b 23; item 166 b 37, 167 a 2		
	σημαίνει άπλῶς 166 a 18	mabsūṭ mursal: dalla ʿalā mabsūṭin mina l-amri mursalin, p. 763 ult.	
ἀρχή	170 a 34	awwal, awā'il	bad', p. 20.10
	167 a 26, 168 a 19, 168 b 22, 26	ibtida <sup>°</sup> mabda <sup>°</sup> , p. 785.2	mabda', p. 87.2
	167 b 15, 16	awwaliyya	
ό αὐτός	167 a 27, 28	wāḥid	huwa mā huwa, p. 141.11

l-ʿArab. Plotinus apud Arabes. Theologia Aristotelis et fragmenta quae supersunt, ed. ʿA. Badawī, Dār al-Nahḍa al-Miṣriyya, Cairo 1955, 1966<sup>2</sup> (Dirāsāt Islāmiyya, 5), pp. 167-83, p. 3.4-9.

<sup>10</sup> This was first pointed out by Remke Kruk in her dissertation on The Arabic Version of Aristotle's Parts of Animals: Book XI-XIV of the Kitāb al-Ḥayawān, Brill, Leiden 1979 (Aristoteles Semitico-Latinus, 2), discussing the identity of the Arabic translator of this text, and comparing this translation, attributed to Yaḥyā ibn al-Biṭrīq, with the Sophistici Elenchi and the ps.-Aristotelian Uţūlūğiyā (Theologia Aristotelis); Kruk concluded (ibid., p. 19) that "it seems hardly plausible that they were translated by the same person", giving a comparative list of terms and expressions. The same conclusion was reached, supported by a detailed comparison of Arabic usage and terminology, by H. Hugonnard-Roche, "Dans l'atelier d'Ibn Na'ima al-Himṣi", forthcoming in: Pseudo-Theology of Aristotle. Text, Translation, History, and Doctrine I: Prolegomena, Brill, Leiden (forthcoming). - Concerning the translator of Aristotle's books De Animalibus, both R. Kruk and G. Endress, Die arabischen Übersetzungen von Aristoteles' Schrift De Caelo, Diss. Univ., Frankfurt a. Main 1966, p. 114f., maintained that there is a close resemblance in terminology and usage between the translatio vetus of the Metaphysica, by Eustathius (Usṭāṭ), and the Arabic De Animalibus, excluding the latter's attribution to Ibn al-Biṭrīq. M. Ullmann's analysis of the Arabic version of Ethica Nicomachea books VI-X (Die Nikomachische Ethik des Aristoteles in arabischer Übersetzung II: Überlieferung, Textkritik, Grammatik, Harrassowitz, Wiesbaden 2012, pp. 15-56 has shown beyond any doubt that this as well must be regarded as a work of the same translator, probably Eustathius, who worked by commission of the philosopher-scientist al-Kindī.

διαιρέω	166 b 15	qassama wa-ğazza'a	ğazza'a
φύσις	172 a 36, 173 a 9, 11	ṭibāʿ	<i>ṭabīʿa</i> , p. 20.9, 139.18
γενόμενος	167 b 15	mukawwan, p. 787.1	mukawwan
φθαρτός	176 b 16	<i>fāsid</i> , p. 919.9	wāqi taḥt al-fasād
νόμος	173 a 10ff., 180 b 25	nāmūs	sunna, p. 74.10 (= Enn. IV 4, 39.13)
στοιχεῖον	172 b 21, 31	<i>aṣl</i> , p. 1028.1, 1031.12 Ğabr	ʻunsur
τὸ εἶναι	passim	al-wuğūd	al-anniyya
τὸ ὄν	passim	al-mawğūd	al-huwiyya
διάνοια	170 b 12	al-maʿnā al-ṭābit fī-l-fikr, al-maʿnā	al-fikr wa-l-rawiyya (= Enn. IV 8,
		al-rākid fī-l-ḍamīr, al-maʿnā fī l-nafs,	
		p. 832.6-10 Badawī / 1000.3-6 Ğabr	

The only term common to the translatio vetus and Ibn Na'ima's version of the Theologia Aristotelis (Uţūlū ğiyā, the Arabic Plotinus) - including the other early translations, notably those of the Kindī circle – is the use of Arabic *mabsūt* 'simple, plain' (translating Syriac *pšīt* as a part. pass.), instead of the more commonly used basīt. However, there is only one occurrence of Greek άπλῶς being rendered by the Arabic hendiadys mabsūṭ mursal, at SE 166 a 18, while otherwise in the Sophistici Elenchi we find mursal. On the other hand, mursal occurs in the Theologia Aristotelis as well – bi-qawl mursal II, p. 39.4 Badawī =  $\dot{\alpha}$ πλῶς εἴρηται Enn. IV 3, 19.6 – as well as in expressions like al-ḥayāt al-mursala, Theol. Arist. X, p. 151.5 Badawī, for τὸ εἶναι ζωή Enn. VI 7, 9.29; al-ʿagl almursal X, p. 151.7 Badawī for τὸ εἶναι νοῦς Enn., VI 7, 9.31; (anfus al-ḥabb) laysat bi-anfus mursala X, p. 144.4 Badawī = (οὔτε γὰρ ἄνευ ψυχῆς) οὔτε ψυχαὶ ἁπλῶς Enn., VI 7, 5.7.

While a contrastive analysis of the vocabulary in a logic text compared to a text of metaphysics is inappropriate in general, the vocabulary of 'being' and 'essence' in Sophistici Elenchi 5 compared to the terminology of early Arabic Neoplatonism in the Theologia Aristotelis and Proclus Arabus provides an instructive contrast. In all of the *translatio vetus*, τὸ ὄν is normally translated by *al-maw ǧūd*, and its negation by *laysa bi-mawǧūdin* (or *laysa mawǧūdan*), τὸ εἶναι by *al-wuǧūd*. This conforms with the terminology introduced by Isḥāq and the 10th century school of Baghdad, familiar from later logical and metaphysical writing, both in translations and in original Arabic works. 11 On the other hand, the terminology of being and essence found in the Neoplatonic (and also Aristotelian) works translated in the circle of the philosopher al-Kindī, among them Ibn Nāʿima's version of the Arabic Plotinus (the *Uṭūlūǧiyā*), is totally absent from the 'old translation' of the Sophistici Elenchi: al-huwiyya τὸ ὄν, al-anniyya τὸ εἶναι, also al-ann. 12

With regard to the language, terminology and style of the 'old' translation, however, it can be assumed that it was produced in the 9<sup>th</sup> century on the basis of a Syriac version (see further, pp. 100-1 below). <sup>13</sup>

<sup>11</sup> Soph. El. 167 a 1: εἰ τὸ μὴ ὄν ἐστι δοξαστόν, ὅτι τὸ μὴ ὂν ἔστιν = in kāna mā laysa bi-mawǧūdin mutawahhaman ka-annahū mawğūdun fa-qad yaşīru i<u>d</u>an mā laysa mawğūdan ka-annahū mawğūdun (Ar<sup>v</sup>, pp. 775.15-776.1 Badawī). Soph. El. 170 b 21-22: οἷον ἴσως τὸ ὂν ἢ τὸ ἕν πολλὰ σημαίνει = ka-qawlika fì l-wāḥidi wa-fì l-mawǧūdi (Ar<sup>v</sup>, p. 832.13-14 Badawī). Soph. El. 180 a 32-33: ἄρ' ἐνδέχεται τὸ μὴ ὂν εἶναι; ἀλλὰ μὴν ἔστι γέ τι μὴ ὄν. ὁμοίως δὲ καὶ τὸ ὂν οὐκ ἔσται· οὐ γὰρ ἔσται τι τῶν ὄντων = wa-naqūlu innahū lā maḥālata hal yumkinu wu ἄudu mā laysa, fa-qad yurā annahū yū ἄadu šay'un laysa bi-mawğūdin; fa-ʿalā hā $\underline{d}$ ā l-nahwi l-mawğudu laysa bi-mawğūdin li-annahū laysa yaşīru šayʾan mina l-ašyāʾi ( ${
m Ar^V},$ pp. 969.16-970.1 Badawī). Examples discussed by Hugonnard-Roche, "Dans l'atelier d'Ibn Nāʿima al-Ḥimṣī" (above, n. 10).

<sup>&</sup>lt;sup>12</sup> See the comparative vocabulary in G. Endress, Proclus Arabus. Zwanzig Abschnitte aus der Institutio theologica in arabischer Übersetzung, Steiner, Beirut – Wiesbaden 1977, pp. 88-109.

<sup>&</sup>lt;sup>13</sup> Another characteristic term for the early 9<sup>th</sup> century group of translators, also occurring in the translatio vetus, is

While Ibn Nāʿima can be excluded, there are several candidates for the authorship of this translation. We have testimonies of other 'old' versions of the Sophistici Elenchi, mentioned in the notes to the nagl qadīm, and, occasionally, in the marginal notes to Ibn Zurʿaʾs version in the Paris manuscript. Two predecessors are explicitly reported by the transmitter of the school of Yaḥyā ibn 'Adī, al-Ḥasan ibn Suwār, to have been available to his masters, viz. those made by Abū Bišr Mattā and Ibn Bakkūš:

#### i. Abū Bišr Mattā (d. 940 A.D.)

Ibn al-Nadīm's information that Abū Bišr translated the Sophistici Elenchi into Syriac is certainly erroneous; he had no Greek, and all of his translations were made on the basis of Syriac versions. He may have revised an older - Ibn Nā'ima's? - translation, relying on a Syriac version available to him, as stated by Ibn Suwar in the colophon of the Paris manuscript:

It is said that Abū Bišr, may God have mercy on him, revised (aṣlaḥa) the first version, or made another version, but this has not come into my hands (p. 1018.10-11 Badawī = p. 1198.6-7 Ğabr).

The 'version of Mattà' (nagl Mattà) is mentioned only once explicitly in the Paris codex, in a note to Ibn Zur'a's version, immediately following a variant rendering according to Theophil's Syriac (p. 785 n. 2 Badawī = p. 952 n. 125 Ġabr) of SE 5, 167 b 23-30 "refutations depending on positing as the ground what is not the ground".

But apart from this, 'another translation' (nagl ābar) is frequently cited in the notes to the translatio vetus: p. 758 n. 2 Badawī = p. 952 n. 125 Ğabr; p. 769 n. 4 Badawī = p. 938 n. 18 Ğabr; p. 770 n. 2 Badawī = p. 939 n. 20 Ğabr; p. 776 n. 3, 5 Badawī = p. 964 n. 62, 65 Ğabr; p. 865 n. 1 Badawī = p. 1031 n. 60 Ğabr; etc., and occasionally in the notes to 'Īsā ibn Zur'a's version, as found in the margins to Ibn Suwār's version (fi nagl qadīm āḥar 'in another old translation', p. 864 n. 4 Badawī = p. 1030.57  $\mathring{G}abr$ ). Here is one example:

SE 4, 165 b 23-24	Ar <sup>v</sup> (p. 753.10-11 Badawī /	Ar <sup>V</sup> in margine 'according to a second
	924.4 -5 Ğabr)	translation' [naql tānī] (p. 752 n. 6
		Badawī / 924 n.1 Ğabr)
Τρόποι δέ εἰσι τοῦ μὲν ἐλέγχειν δύο-	wa-anwāʿu l-tabkīti ʿalā ğihatayni	wa-anwāʿu l-mubākatati nawʿāni
οί μὲν γάρ εἰσι παρὰ τὴν λέξιν, οί	minhā mā yakūnu bi-l-kalimati wa-	minhā mina l-kalimati wa minhā min
δ' έξω τῆς λέξεως.	minhā mā yakūnu ḫāriǧan mina	ḫāri ǧi l-kalimati.
	l-kalimati.	
There are two modes of refuting:	The kinds of refutation are in two	The kinds of refutation are two,
some refutations are dependent on	ways, one of them is with [by means	one of them is in regard of [or: based
the expression, whereas others are	of] the word, the other is outside	on] the word, and the other is outside
independent of the expression.	of the word.	of the word.

The alternative version shows only a slight difference in the preposition used for παρὰ τὴν λέξιν "(operating) with the word" vs. "(departing) from the word", but does not point to a different Greek reading.

But these short excerpts do not provide sufficient evidence for judging their provenance or their relationship in regard of the translation they are accompanying, viz. the vetus said to be Ibn Nā'ima's.

the word na't, 'attribute, predicate', as translating κατηγορία (instead of the later standard maqūla), but not specific to Ibn Nā'ima's Theologia Aristotelis; see below, p. 105.

#### ii. Abū Isḥāq Ibrāhīm Ibn Bakkūš (Bakkūs)

Ibn Bakkūs (Greek Βάκγος) was a learned doctor at the hospital founded in Baghdad by the Būyid amīr 'Aḍud-al-Dawla in 372/982 (al-Bīmāristān al-'Aḍudī; v. Ibn Abī Uṣaybi'a, Kitāb 'Uyūn al-anbā' fi ṭabaqāt al-aṭibbā', ed. A. Müller, al-Qāhira – Königsberg 1882-84, vol. I, pp. 205, 236, esp. p. 244]). He appears in the the circle of Yaḥyā ibn ʿAdī and after Yaḥyā's death, belonged to the group of his disciple 'Īsā b. Zur'a (v. Abū Ḥayyān al-Tawḥīdī, *al-Imtāʿwa-l-muʾānasa*, ed. A. Amīn – A. al-Zayn, Laǧnat al-taʾlīf wa-l-tarǧama wa-l-našr, al-Qāhira 1939-45, 1, p. 384).

He translated medical works as well as Greek texts of logic and natural philosophy, among them (according to Ibn al-Nadīm, Fibrist, p. 249 Flügel = 2: 164 Sayyid, p. 251 Flügel = 2: 168 Sayyid, p. 252 Flügel = 2: 272 Sayyid, p. 316 Flügel = 2: 351 Sayyid) Aristotle's Sophistici Elenchi ["revised from the version of Ibn Nā'ima"], Aristotle's De Generatione et Corruptione, and Theophrastus' De Sensu et Sensato.

Further details of Ibn Bakkūš's work on the Sophistici Elenchi are given by Ibn Suwār in the colophon of the Paris codex:

I have got information that Abū Isḥāq Ibrāhīm ibn Bakkūš translated this book from Syriac into Arabic and that he cooperated with Yūḥannā the Greek priest and geometer known as Ibn Fatīla in revising parts of it from the Greek; this has not become available to me (p. 1018 Badawī = p. 1198 Ġabr).

This may be the *nagl qadīm 'arabī* 'ancient Arabic version' mentioned in a note to Ibn Zur'a's different from the translatio vetus copied in full beside Yaḥyā's and Ibn Zur'a's versions.

# II. Translation of Yaḥyā ibn ʿAdī (Ar<sup>Y</sup>)

Abū Zakariyyā 'Yaḥyā ibn 'Adī, from Takrīt, died in Baghdad in 374/974. There is unanimity that he was the master of the *falāsifa* of Baghdad in his time (Ibn al-Nadīm, *Fihrist*, p. 264.4 Flügel) after his teacher Abū Bišr Mattā, scholarch of the logicians in the previous generation (*Fibrist*, p. 263.25 Flügel).<sup>14</sup>

According to al-Hasan ibn Suwār, both Yaḥyā's and Ibn Zur'a's translations were made from the Syriac of Atānas (i.e. Athanasius of Balad [d. 686]), Jacobite bishop and disciple of Severus Sēbōkt (pp. 737, 739 Badawī = pp. 905, 908 Ġabr). The manuscript was transcribed from the copy of al-Ḥasan ibn Suwār, whose exemplar was a copy of Yaḥyā's autograph:

Expl. Completed is the book of Aristotle on the refutations of the Sophists, translated by the excellent Abū Zakariyyā Yaḥyā ibn 'Adī ... from the Syriac into the Arabic language. – al-Ḥasan ibn Suwār remarked that his exemplar, which this exemplar was transcribed from a copy of Yaḥyā ibn 'Adī's original autograph (dastūr Yaḥyā ibn 'Adī allatī bi-haṭṭihī) (MS Paris, BnF, ar. 2346, f. 379b; p. 1017.11-13 Badawī = p. 1195.1-5 Ğabr).

In the 'Catalogue' (Fihrist) by Ibn al-Nadīm, a different Syriac version is said to have been at the basis of his Arabic version:

<sup>&</sup>lt;sup>14</sup> For his translations of the works of Aristotle and his commentators, see Endress, *The works of Yahyā ibn ʿAdā* (above, p. 61), pp. 25-31.

<sup>&</sup>lt;sup>15</sup> Cf. Baumstark, Geschichte der syrischen Literatur (above, n. 4), pp. 256-7; Walzer, Greek into Arabic (above, n. 4), pp. 68, 83.

Yaḥyā ibn 'Adī translated this work from [the Syriac version of] Theophil (Ibn al-Nadīm, al-Fihrist, p. 249.27 Flügel = vol. 2, p. 164 Sayvid; see also al-Qiftī, Ta'rīh al-hukamā', p. 371.4 Müller-Lippert, and Ḥāǧǧī Ḥalīfa, Kašf al-zunūn, ed. Ş. Yaltkaya, Rifat Bilge, Istanbul 1941-43, pp. 682, 1426).

While contradicting Ibn al-Nadīm's statement that Yaḥyā used Theophil's Syriac version, the testimony of Ibn Suwār – who had recourse to a copy of the autograph of his master – can hardly be doubted. The Syriac translation by Athanasius of Balad was the basis for both Yaḥyā ibn ʿAdī and ʿĪsā ibn Zur'a. This is corroborated by the close resemblance between the two versions. In both, glosses giving explanatory paraphrases and synonyms and alternative renderings are added in the margins and between lines, but only in the version of Ibn Zur'a, Theophil's Syriac version is quoted at length in the marginal notes (see below, pp. 70-4). Apparently, this was not available to Ibn 'Adī at the time of his work on the Sophistici Elenchi. Ibn al-Nadīm's statement that Ibn 'Adī's translation was based on the Syriac of Theophil seems due to a confusion - on account of the references found in the margins of the manuscript (as in the Parisinus or in a related tradition available to Ibn al-Nadīm) between Ibn Zur'a's version, clearly drawing on Theophil's Syriac version for his revision of Yahya's Arabic, and Yaḥyā's original translation from the Syriac of Athanasius.<sup>16</sup>

Ibn 'Adi's authorship of the translation attributed to him in the MS Parisinus ar. 2346 was disputed by Cyrille Haddad in his unpublished thesis Trois versions inédites des Réfutations sophistiques d'Aristote, études et vocabulaire:17 "un foisonnement de barbarismes et de constructions exotiques" (ibid., p. 36) – "que cette version soit de la plume d'Ibn 'Adī ... c'est impossible et absurde!" (ibid., p. 67). While this judgement seems exaggerated, Haddad's conjecture (ibid., pp. 74-7) that the translation said to be Yaḥyā's in the Parisinus is in fact the work of Kyros (Quwayrā), the teacher of Abū Bišr Mattā, and based on the Syriac of Theophilus – thus explaining the divergent statement of Ibn al-Nadīm – is not borne out by the actual text nor by any of the testimonies of the bibliographers or the transmitters' annotation. <sup>18</sup> A commentary by Kyros (Quwayrā, Abū Isḥāq Ibrāhīm) was, however, at Ibn 'Adi's disposal; according to a note appended to his version (p. 851 Badawi; p. 1019.6 Gabr), it reached to Sophistici Elenchi 172 a 38. It is also attested by Ibn al-Nadīm (al-Fibrist, p. 249 Flügel = vol. 2, p. 164.10 Sayyid) together with other commentaries of his on Aristotle's logical works of the muša ž žar type, i.e., notes grouped around the text in a tree-like graphic presentation.

A translation by Isḥāq ibn Ḥunayn is mentioned in Ibn al-Nadīm's account that Yaḥyā ibn 'Adī offered to buy a manuscript containing the Sophistici Elenchi, the Poetica and the Rhetorica in the [Syriac?] version of Ishaq, from Ibrahim ibn 'Abdallah al-Naqid for fifty dinārs, but he would not sell it, and burnt it at the time of his death (v. Ibn al-Nadīm, al-Fihrist, p. 253.3-4 Flügel = vol. 2, p. 174.10 Sayyid ; see also al-Qiftī, *Tārīḥ al-ḥukamā*', p. 54.14-16 Müller-Lippert; Ibn Abī Uṣaybi'a, *ʿUyūn al-anbā' fī ṭabaqāt al-aṭibbā'*, vol. 1, p. 703.4 Müller). If Isḥāq did translate the *Sophistici* Elenchi, his version has left no other trace, save, perhaps, in the altera versio quoted in the margins of the *translatio vetus* in Ibn Suwār's edition, preserved in the *Parisinus*.

Yaḥyā ibn 'Adī also devoted a commentary to the work. According to Ibn Suwār (pp. 1017-1018 Badawī; p. 1197.17-22 Ğabr) it was in both Syriac and Arabic; he had seen about two thirds, and supposed his teacher had completed it, but it was not found among his books after his death.

<sup>16</sup> See H. Hugonnard-Roche, "Contributions syriaques aux études arabes de logique à l'époque abbasside", ARAM Second International Conference: Syriac and Arab Cultures during the Abbasid Era in Iraq (Oxford, 23-26 Sept. 1991), ARAM 3/1-2 (1991), pp. 193-210, part. pp. 198-200.

<sup>&</sup>lt;sup>17</sup> Cf. Haddad, Trois versions inédites des Réfutations sophistiques d'Aristote: Études et vocabulaire, Thèse compl., ex. dactylographié, Paris 1952, pp. 24-5, 35-8, 63-77.

<sup>&</sup>lt;sup>18</sup> Cf. Haddad, Trois versions inédites, p. 38.

Ibn Suwār declares that he was undecided what to think – whether the author had discarded it because he was not satisfied with his work, or whether it had been stolen. Since he had started work on the commentary only after he had made his translation, this would explain, according to Ibn Suwār, the inadequacy of his translation based on the Syriac (of Athanasius) alone in the first place (lahiga naglahū ʿtiyāṣun-mā li-annahū lam yušārifi l-maʿnā wa-ttabaʿa l-suryāniyya fī l-nagl).

# III. Translation of 'Īsā ibn Zur' a (Ar<sup>Z</sup>)

The manuscript is quite clear in ascribing the second version to Ibn 'Adī's close disciple 'Īsā ibn Zur'a (d. 1008), who is said to have used the same Syriac translation, i.e. that by Athanasius of Balad, as his primary source:

Inc. Kitāb Sūfistīgā nagl Abī ʿAlī ʿĪsā ibn Isḥāg ibn Zurʿa min as-suryānī bi-nagl Aṭānis min al-yūnānī ("The Book of Sophistika, translated by Abū 'Alī 'Īsā ibn Ishāq ibn Zur'a from the Syriac in the translation of Athanasios from the Greek")

Expl. Tamma kitāb Sūfisṭīqā ay al-tazāhur bi-l-ḥikma li-Arisṭūṭālis al-faylasūf, naqlʿĪsā ibn Zurʿa min al-suryānī bi-naql Aṭānis. Wa-kutibat hādihi l-nusha min nushat al-Hasan ibn Suwār, wa-hiya manqūla min dastūr al-nāqil ("End of the Book of Sophistika, i.e. the pretension of wisdom by Aristotle the Philosopher, translated by 'Īsā ibn Zur'a from the Syriac in the translation of Athanasios. This copy has been transcribed from the exemplar of al-Ḥasan ibn Suwār, based on the translator's autograph [dastūr]").

In addition, Ibn Zur'a used the Syriac of Theophilus ibn Tūmā al-Ruhāwī, i.e. of Edessa (d. 785), an astrologer at the court of the 'Abbāsid caliph al-Mahdī, and also a translator from Greek into Syriac. 19 As noted above, Theophilus' Syriac version is the one mentioned by Ibn al-Nadīm as being Ibn 'Adī's Syriac Vorlage. It is adduced in the glosses in 35 cases: fi nagl min < nagl> Ţiyūfīlā, and, in one instance fi nushat Tāwufīlā ('in the exemplar of Theophile'). In the glosses to the same version, we also find the formula *fi nusḥa uḥrā suryāniyya* ('in another Syriac exemplar').

Other materials added to the version of 'Īsā ibn Zur'a (Ar<sup>Z</sup>) refer to the readings of another exemplar (*nusha*, copy) of his Arabic version:<sup>20</sup>

SE 1, 164 a 26	Ar <sup>z</sup> (p. 739.8 Badawī / p. 909.1 Ğabr)	ʻanother copy' ( <i>nusḫa uḫrā</i> ), p. 739,
		n. 8 Badawī / p. 909 n. 31 Ğabr)
(καὶ γὰρ) τὴν ἕξιν οἱ μὲν	(wa- <u>d</u> ālika anna baʿḍa l-nāsi) ğamīlu	lahū malakatun maḥmūdatun
έχουσιν εὖ (οἱ δὲ φαίνονται)	l-iʿtiqādi	
With regard to their condition,	Some people have a fine conviction	They have a laudable disposition
some people are really in good shape		_
(others only seem to be so)		

If we had not had this remark, we might have surmised that Ibn Zur'a's translation goes back to another reading in a Syriac or Greek manuscript, for example one which had ἕξιν replaced with δόξαν or πίστιν; the present remark makes that scenario less likely.

In his detailed analysis of the Paris Organon and of 'Īsā ibn Zur'a's version in particular, Henri Hugonnard-Roche<sup>21</sup> has pointed out that Theophil's Syriac version is quoted in the margins of Ibn Zur'a's Arabic version only. Comparing the translations ascribed to Yaḥyā ibn 'Adī (Ar<sup>Y</sup>) and 'Īsā ibn

<sup>19</sup> See Baumstark, Geschichte der syrischen Literatur (above, n. 4), pp. 341-2; Walzer, Greek into Arabic (above, n. 4), pp. 69, 81, 83; Peters, Aristoteles Arabus (above, n. 4), p. 25.

<sup>&</sup>lt;sup>20</sup> Hugonnard-Roche, "Une ancienne 'édition' arabe" (above, p. 61), p. 153.

<sup>&</sup>lt;sup>21</sup> See Hugonnard-Roche, "Contributions syriaques" (above, n. 16).

Zur'a (Ar<sup>Z</sup>) with the Syriac version of Theophil (translated into Arabic in the marginal notes added to Ibn Zur a's translation in the Paris manuscript), and against the Greek, we can observe that in some cases Ibn Zur a's version departs from that of Ibn 'Adī while following more closely Theophil's interpretation. Here are the examples given by Hugonnard-Roche:

SE 5, 168 a 1-3	Ar <sup>Y</sup> (p. 790 Badawī / p. 951.12, 955.11–956.2 Ğabr)	Ar <sup>z</sup> (p. 957.12 Ğabr)	Theophil (in the margin of Ar <sup>z</sup> 'from Theophil's [Syriac] translation' (p. 790 n. 3 Badawī / p. 957 n. 3 Ğabr)
Έπ' ἐνίων μὲν οὖν ῥάδιον	ammā fī awḥādin fa-laysa	fa-ammā fī baʻḍi l-umūri	fa-ammā ʻinda baʻḍi l-nāsi
ίδεῖν ὅτι πλείω καὶ ὅτι	yashalu an yatabayyana	fa-laysa yashalu l-wuqūfu	fa-qad yashalu l-wuqūfu ʻalā
οὐ δοτέον ἀπόκρισιν,	annahā kaṭīratun wa-allā	ʻalā annahā kaṭīratun wa-	annahū kaṭīrun wa-annahū
ἐπ' ἐνίων δ' ἦττον	yuʻṭā afūfūnsīs [sic ms. pro	yumtanaʻu ʻani l-iğābati	lā yanbaģī an yuğāba ʿanhu,
	afūqrīsīs = ἀπόκρισις	ʻanhā, miṯālu <u>d</u> ālika wa-	miṯālu <u>d</u> ālika wa-ʻinda
	ʻalā annahū wāḥidun fa-	hādā fī baʻdi l-ašyā i	baʻḍi l-nāsi
	ammā fī awḥādin qalīlatin		
[Arguments depending on	As for single [cases], it is not	As for some matters, it is not	As for some people, with
making two questions one:]	(οὖκ) easy to make it clear	(οὐκ) easy to comprehend	them it is (οὖν) easy to
In some cases it is easy to	that they are many and that	that they are many, and that	comprehend that it is about
see that there are several	no answer should be given	engaging in an answer be	many (matters), and that it is
questions and that one should	under the supposition that	avoided, as for example	not necessary to engage in an
not give an answer but in	they are one, for example	and in some cases	answer, as for example but
other cases it is less easy	but as for a few single cases		with some people

Though Ibn Zur'a's vocabulary is closer to Theophil's (at least in its Arabic rendering), he crucially declines to follow Theophil in two respects: with Yaḥyā he takes ἐνίων to refer to cases rather than people, and he maintains the negation in 'it is not easy'.

SE 6, 168 b 17-19	Ar <sup>Y</sup> (p. 799.10-12 Badawī /	Ar <sup>Z</sup> (p. 801.4-6 Badawī /	Theophil (In the margin of
	p. 965.16-17 Ğabr)	p. 967.1-3 Ğabr)	Ar <sup>Z</sup> 'from Theophil's [Syriac]
			translation', p. 801 n. 3
			Badawī / p. 967 n. 66 Ğabr)
φανερώτατοι δὲ πάντων	wa-ha'ula'i llawati wuṣifna	wa-yaṣīru ʻindanā azharu	wa-yaṣīru mā ḥaraǧa ʿan
οί πρότερον λεχθέντες	awwalan aʻrafu min	min ğamī i l-ašyā i llatī	ḥaddi l-tabkīti azharu min
παρὰ τὸν τοῦ ἐλέγχου	ğamî ihā min ḥaddi l-tabkīti	taqaddama <u>d</u> ikruhā min	ğamī i l-ma <u>d</u> kūrati awwalan,
διορισμόν· διὸ καὶ	lla <u>d</u> ī min qibalihī luqibat	ḥaddi l-tabkīti lla <u>d</u> ī minhu	wa-li-hā <u>d</u> ā ayḍan luqibat
προσηγορεύθησαν	hāka <u>d</u> ā, wa- <u>d</u> ālika anna	luqqibū, wa- <u>d</u> ālika anna	bi-hā <u>d</u> ā l-laqabi, fa-inna
οὕτως· παρὰ γὰρ τοῦ	l-taḥayyula yakūnu min	l-šubhata tadhuluʻalā l-qawli	l-wahma yadḫulu ʻalā l-qawli
λόγου τὴν ἔλλειψιν ή	qibali nuqṣāni l-kalimati.	li-mā fīhi mina l-naqṣi.	min ğihati nuqşānihī.
φαντασία γίνεται.			
Fallacies that were previously	Those that have been	And it turns out in our	And it turns out that what
called dependent on the	described before are the most	opinion as being the most	emerges from the definition of
definition of refutation are	conspicuous (a'rafu, 'best	evident of the things that	the refutation is clearer than
the clearest cases of all. That	known') of all as a definition	were mentioned before as	all (cases) mentioned before;
is also why they were called	of the refutation, which	being a definition of the	and for this reason they were
thus, for the appearance	received this designation in	refutation, named after	also given this name, for
comes about due to an	this respect, viz. because the	these, viz. that the doubt	the imagination encroaches
omission from the definiens.	representation is due to the	enters a statement because of	('enters') upon the speech in
	lack of a word.	a deficiency found in it.	regard of its deficiency.

SE 11, 171 b 3-6	Ar <sup>Y</sup> (p. 1008.3-4 Ğabr)	Ar <sup>z</sup> (p. 1010.3-4 Ğabr)	Theophil (in the margin of
			Ar <sup>Z</sup> 'from Theophil's [Syriac]
			translation', p. 842 n. 1
			Badawī / p. 1010 n. 18 Ğabr)
Έτι τὸ φάναι ἢ ἀποφάναι ἀξιοῦν	wa-ayḍan fa-in yu'ahhala an	wa-ayḍan fa-inna	wa-ayḍan fa-inna
οὐ δεικνύντος ἐστὶν ἀλλὰ πεῖραν	yaḍaʿa aw an yarfaʿa laysa	l-mubarhina laysa lahū	l-mubarhina laysa lahū
λαμβάνοντος ή γὰρ πειραστική	huwa li-lla <u>d</u> ī yubarhinu,	immā an yaḍaʿa aw an	an ya'tiya bi-l-īğābi wa-
έστι διαλεκτική τις διό περί	lākin li-lla <u>d</u> ī ya'ḫu <u>d</u> u	yarfaʻa bi-l-sawiyyati, bal	l-salbi, lākin ʻindamā
πάντων ἐπισκοπεῖ καὶ θεωρεῖ οὐ	tağribatan, wa-l-tağribatu	<u>d</u> ālika li-lla <u>d</u> ī yamtaḥinu,	yurīdu l-imtiḥāna, li-anna
τὸν εἰδότα ἀλλὰ τὸν ἀγνοοῦντα καὶ	hiya ğadaliyyatun-mā.	wa- <u>d</u> ālika anna l-imtiḥāna	l-ṣināʿata l-mumtaḥiniyyata
προσποιούμενον.		ğuz'un min şinấ ati l-ğadali.	ğadaliyyatun-mā.
Further, to demand that something	Further, if it should be deem-	Further, it is not for	Further, it is not for the
be affirmed or denied is not the job	ed suitable ( <i>hab</i> . ἀξιοῦν) to	the demonstrator (om.	demonstrator (om. ἀξιοῦν)
of somone who demonstrates, but	posit or to suspend something,	άξιοῦν) to posit or, in the	to provide affirmation
rather of someone engaged in critical	this is not for him who	same way, to remove, but	and negation, but [he will
examination, for critical examination	demonstrates, but for him	this is for somebody who	do so] while he intends
is a kind of dialectic and considers not	who proposes an experiment,	examines. For (critical)	examination, because the
the person with knowledge, but the	and the experiment is a (kind	examination is part of the	examinative discipline is a
ignorant person who pretends to have	of) dialectic.	discipline of dialectic.	(kind of) dialectic.
knowledge.			

It seems that Ibn Zur'a used Theophil against Ibn 'Adī's version in case of doubt in order to clarify the interpretation of certain passages, and in some cases adopted his reading. But there can be no question that he used Theophil systematically, let alone that he assigned to him a major degree of authority. He never adopts Theophil's version verbatim, as quoted, and in several cases spurns his emendations against Ibn 'Adī's or his own reading.

In addition, we present two further passages added by 'Īsā ibn Zur'a in order to elucidate a difficult proposition, adducing the version of Theophil and, in one case, that of Abū Bišr Mattā (see further below, p. 73):

Ar <sup>Y</sup> (p. 795.6-10 Badawī /	Ar <sup>z</sup> (pp. 796.12-797.1 Badawī	Theophil (in the margin of Ar <sup>Z</sup>
p. 961.17, 962.4 Ğabr)	/ p. 963.5-9 Ğabr)	'version of Ṭāwufilā' (p.796 n.1
	-	Badawī / p. 963 n. 36 Čabr)
wa-lā in kāna l-muṯallaṯu <u>d</u> ā	wa-lā ayḍan in kāna l-muṭallata	wa-laysa yanbaġī (yanbaġī
<zawāyā> musāwiyatin li-</zawāyā>	huwa lla <u>d</u> ī zawāyāhu l-ṯalāṯu	om. edd.) an yakūna
qa'imatayni, wa-ʻarada lahū	musāwiyatan li-qāimatayni,	l-muṭallaṭa mutasāwiya
an yakūna šaklan-mā aw an	wa-qad 'araḍa lahū an yakūna	l-sāqayni li-anna hā <u>d</u> ā
yakūna fī l-šakli awwalan	šaklan-mā, wa- (leg. aw) an yakūna	yaʻridu fi hādā l-šakli bi-
fa-fi l-awwali aw fi l-mabda'i	awwalan fi maʻnā l-šakli aw fi	ʻaynihī awi l-awwali awi
min qibali anna l-bada	l-awwali aw fi l-ibtidāi min qibali	l-mabda'i, min qibali anna
šaklun awi l-awwalu lla <u>d</u> ī	anna l-mabdåa huwa l-šaklu awi	l-šakla mabda'un (mimmā
huwa hāka <u>d</u> ā, wa- <u>d</u> ālika	l-awwalu lla <u>d</u> ī hā <u>d</u> ihī ḥāluhū —	edd.) aw yakūnu l-awwala
anna l-burhāna laysa huwa	wa-laysa <u>d</u> ālika lahū bi-mā huwa	lla <u>d</u> ī yağrī hā <u>d</u> a l-mağrā,
bi-maʻnā awwalin, lākin bi-	šaklun wa-lā bi-mā huwa awwalu,	wa- <u>d</u> ālika annahū laysa
maʻnā l-muṭallaṭi, wa-ʻalā	bali l-burhānu ʻalayhi innamā	yakūnu šaklan li-ʿaraḍin,
hādā l-miṭāli bi-ʿaynihī wa-fī	huwa bi-mā huwa salb, waʻalā	fa-mā taqaddamna <u>d</u> alika.
hāualāi l-uḥari. fa-i <u>d</u> an in	hā <u>d</u> ā l-mi <u>t</u> āli fi l-umūri l-uḫari.	
kāna l-tabkītu qiyāsan-mā,	fa-i <u>d</u> ā kāna l-tabkītu qiyāsan-mā,	
lā yakūnu l-tabkītu lla <u>d</u> ī ka-	fa-laysa yakūnu l-tabkītu lla <u>d</u> ī ʻalā	
l-ʿaraḍi.	ğihati l-ʿaraḍi.	
	p. 961.17, 962.4 Ğabr)  wa-lā in kāna l-mutallatu dā <zawāyā> musāwiyatin li- qā imatayni, wa-araḍa lahū an yakūna šaklan-mā aw an yakūna fi l-šakli awwalan fa-fi l-awwali aw fi l-mabda'i min qibali anna l-bada's aklun awi l-awwalu lladī huwa hākadā, wa-dālika anna l-burhāna laysa huwa bi-ma'nā awwalin, lākin bi- ma'nā l-mutallati, wa-'alā hādā l-mitāli bi-'aynihī wa-fi hāualā'i l-uḥari. fa-idan in kāna l-tabkītu qiyāsan-mā, lā yakūnu l-tabkītu lladī ka-</zawāyā>	p. 961.17, 962.4 Ğabr)  wa-lā in kāna l-muṭallaṭu dā <zawāyā> musāwiyatin li- qā imatayni, wa-ʻaraḍa lahū an yakūna šaklan-mā aw an yakūna fi l-šakli awwalan fa-fi l-awwali aw fi l-mabda'i min qibali anna l-bada šaklun awi l-awwalu llaḍī huwa hākaḍā, wa-ḍālika anna l-burhāna laysa huwa bi-maʾ nā awwalin, lākin bi- maʾ nā l-muṭallaṭi, wa-ʾalā hāḍā l-miṭāli bi-ʾaynihī wa-fi hāualāʾ l-uḥari. fa-iḍan in kāna l-tabkītu qiyāsan-mā, lā yakūnu l-tabkītu llaḍī ka- fi p. 963.5-9 Ğabr)  / p. 963.5-9 Ğabr)</zawāyā>

Nor is it the case that if a triangle has angles equal to two right angles, and it is accidentally a figure (or primary or a principle), then a figure (or something primary or a principle) is necessarily so. For the demonstration applies to it not as a figure (nor as something primary), but as a triangle. In other cases it is the same. Therefore, if a refutation is a kind of deduction, there will not be a refutation in virtue of what is accidental.

Nor [does it follow] when the triangle has angles (da <zawā -yā>: zawāyā om. ms.) equal to two right angles, and it is accidentally a figure (šaklunmā, 'some shape'), or in the figure primarily, and then in first  $(\tilde{\eta} \pi \rho \tilde{\omega} \tau o \nu)$  or in the principle  $(\tilde{\eta} \ \tilde{\alpha} \rho \gamma \tilde{\eta})$  — (to make a conclusion) from (the inference) that the principle (ή ἀργή) is 'a figure' or 'the first' that is like this (τοιοῦτον), for the demonstration is not (applied) to the notion of a 'figure' or a 'first', but to the concept of the triangle. And in the same way it is in those other (cases). So if the refutation is a sort of syllogism, the refutation like (ka-, 'in the state of') an accident is not so.

And again, it is not (valid to say), when the triangle is that which has three angles equal to two right angles, and it is accidentally a figure, or is primarily conceived of  $(bi-ma'n\bar{a}, \tilde{\eta})$  as a figure or as the first or as the principle, in respect of the principle  $(\dot{\eta} \ \dot{\alpha} \rho \chi \dot{\eta})$  being the figure, or the first qua being of this description (τοιοῦτον) — this does not belong to it by being a figure and not by being first, but the demonstration is based only on its being a figure (salb: leg. šakl). And in this same way the rule holds for the other matters: if the refutation is some (sort of) syllogism, the refutation is not (a valid syllogism) being in virtue of the accident.

And it (the conclusion) is not necessary (yanbaġī, om. Gabr) that the triangle is isosceles because this holds accidentally of this very figure, or 'the first', or 'the principle' insofar as the figure is a principle (mimmā: leg. mabda') or the first that should be of this description (τοιοῦτον), for it is not a figure because of an accident; and (similarly) in the preceding cases.

[Marginal quotation of Theophil's version ends

Here it is striking how Ibn Zur'a combines, presumably, the Syriac translation by Athanasius with that by Theophil: while with Yaḥyā he retains 'the principle' ( $\dot{\eta}$  ἀρχή) as subject at b 2 and also adopts a reading of  $\mathring{\eta}$  πρώτω  $\mathring{\eta}$  ἀρχ $\widetilde{\eta}$  which rather seems to correspond to  $\mathring{\eta}$  πρώτω  $\mathring{\mathring{\eta}}$  ἀρχ $\widetilde{\eta}$ , he sides with Theophil in understanding ὅτι as 'because', rather than, as Yaḥyā correctly has it, with 'that'.

Also in the margins of Ibn Zur'a's translation, the Arabic version of Abū Bišr Mattā is quoted once (*nagl Mattā*, cf. above, p. 67):

SE 5, 167 b 21-26	Ar <sup>Z</sup> (p. 785.6-10 Badawī	Theophil (in the margin of	Mattā (in the margin of Ar <sup>Z</sup> ,
	pp. 952.7-953.9 Ğabr)	Ar <sup>z</sup> , p. 785 n. 2 Badawī /	p. 785 n. 2 Badawī / p. 952
		p. 952 n. 125 Ğabr)	n. 125 Ğabr)
Ό δὲ παρὰ τὸ <τὸ> μὴ	fa-ammā l-mawāḍiʿu llatī		
αἴτιον ώς αἴτιον, ὅταν	takūnu min waḍʻi l-ʻillati,		
προσληφθῆ τὸ ἀναίτιον	fa-takūnu i <u>d</u> ā udīfa ilā		
ώς παρ' ἐκεῖνο γινομένου	mā yu'ḫaḏu ilā mā laysa		
τοῦ ἐλέγχου. συμβαίνει δὲ	bi-ʻillatin, wa-qad yaʻriḍu		
τὸ τοιοῦτον ἐν τοῖς εἰς τὸ	miṯlu <u>d</u> ālika fī l-qiyāsāti		
άδύνατον συλλογισμοῖς.	l-sā iqati ilā muḥāli.		
έν τούτοις γὰρ ἀναγκαῖον	wa- <u>d</u> ālika annā qad	wa- <u>d</u> ālika annā nadṭarru fī	wa-fī hā <u>d</u> ihi l-maqāyīsi
άναιρεῖν τι τῶν κειμένων.	naḍṭarru fī hāḏihī ilā rafi	hā <u>d</u> ihī ilā ibṭāli šay'in mina	l-sā iqati ilā l-muḥāli qad
έὰν οὖν ἐγκαταριθμηθῆ	šay'in mina llatī wuḍiʿat, fa-	l-umūri l-mawḍūʻati, <fa-></fa->	yağibu darūratan an yurfaʻa
<τι> ἐν τοῖς ἀναγκαίοις	in kāna wāḥidan wa-ʿuddida	in kāna maʿdūdan fī l-masā ili	[sic leg. pro yūqaʿ] šayʾan min
έρωτήμασι πρός τό	fī ğumlati mā yus'alu 'anhu	l-iḍṭirāriyyati, fa-l-tabkītu	hādihi l-qaḍāyā l-mawḍūʻati
συμβαΐνον ἀδύνατον,	mina l-iḍṭirāri fī luzūmi	yakūnu mirāran ka <u>t</u> īratan	l-muʻṭāti, wa- <u>d</u> ālika l-šay'u
δόξει παρὰ τοῦτο	mā yaʻriḍu, wa-kaṯīran-mā	ḥāriğan min hā <u>d</u> ihi l-umūri	lla <u>d</u> ī laysa mutbaʻan lahū
γίνεσθαι πολλάκις ό	{lā} yumkinu an yuzannu	naḥwa an yaʻriḍu muḥālun	maʻdūdan minhu wa-ʻillatan.
έλεγχος.	l-tabkītu yakūnu min hā <u>d</u> ā.	aw yuzannu <u>d</u> ālika.	

The one depending on positing as the ground what is not the ground occurs when one secures in addition what is not the ground, as if the refutation comes about due to that. Such a thing occurs in deductions of an παρ' ἐκεῖνο γινομένου) impossibility,

for in them it is necessary to discard one of the premises. So if something should be counted among the questions necessary for the resulting impossibility, the refutation will often seem to come about due to that.

As for the instances (oi) (of refutations) which depend on positing as a cause what is not a cause, these occur when there is added to what is taken (in the first instance) what is not a cause (om.  $\dot{\omega}\varsigma$  this occurs likewise in the syllogisms leading to the absurd, for in those we are obliged to suspend one of the things posited (as a premiss); so if it is one thing and is counted (εν καὶ  $\mathring{\alpha}$ ριθμηθη?) among the sum of what must be asked for by necessity in view of the stringency of what obtains (πρὸς τὸ συμβαῖνον), and frequently it is not possible to suppose (as if ἀδύνατον δοκεῖν) that the refutation  $|\delta$ οκοῦν). is due to this.

This is because we are obliged in these cases to annul one of the things posited, <and> if this is counted among the necessary questions, the refutation will in many instances be leading outside of these things (translating  $\pi \alpha \rho \dot{\alpha}$ τοῦτο 'disregarding') towards an absurdity obtaining or thought to obtain (as if  $\pi \rho \delta \zeta$ τὸ συμβαῖνον ἀδύνατον ἢ

And in these syllogisms leading to absurdity it is necessary to suspend (yūqa' edd.: leg. yurfa') one of the statements posited and given (before), while the thing that is not following from it is counted as belonging to and (as being) a cause.

Here Ibn Zur'a, in deviation from Yahyā (not translated here), translates so as if ἀδύνατον governs a new separate clause about the refutation, and fiddles with the function of δόξει accordingly. Also Theophil features the same grammatical partition, though he accommodates the incongruent parts differently.

#### IV. The Translation of 'Isā ibn Zur'a in the Further Reception of the Organon

The Arabic readers found the *Sophistici Elenchi* the most difficult of Aristotle's works on logic. The remarks of the transmitter of the Paris manuscript, quoted above (pp. 64, 70), are eloquent enough in this respect. After the period of translations, the Sophistici Elenchi are included only in the great summae of Aristotle's philosophy and logic, if at all. Later expositions of fallacies used in disputation, being dependent on Aristotle's work (contrary to the kutub al-ğadal of the Islamic law college), are predominantly based on 'Īsā ibn Zur'a's translation. But Ibn Zur'a himself did not include the Sophistici Elenchi in his compendium of logic, covering only De Interpretatione, and Analytica Priora and Posteriora.<sup>22</sup>

Two authors are standing out and are responsible for all later treatments of the subject:

Ibn Sīnā (Avicenna, b. ca. 970, d. 1036) provided a précis of the topic in all of his manuals of philosophy written in the course of his life, the great Kitāb al-Šifā ('The Healing'), the concise Kitāb al-Naǧāt (The Salvation) and its Persian counterpart, Dānišnāma (Book of Knowledge), and the late,

<sup>&</sup>lt;sup>22</sup> Ibn Zurʿa, *Manṭiq Ibn Zurʿa: al-ʿIbāra, al-Qiyās, al-Burhān*, ed. Ġ. Ġihāmī – R. al-ʿAǧam, Dār al-Fikr al-Lubnānī, Bayrūt 1994.

most advanced – and most developed with regard to the Aristotelian source – Kitāb al-Išārāt wa-ltanbīhat (Remarks and Admonitions).<sup>23</sup>

Ibn Rušd (Averroes, 1126-1198), the faithful interpreter of Aristotle in his monumental corpus of epitomes, commentary-paraphrases and 'long' literal commentaries, adheres closely to the First Teacher of philosophy, whom he regards as a gift of providence to mankind. The Sophistici Elenchi are treated in the early epitome of logic, al-Darūrī fī l-manțiq (What is Necessary [knowledge] in Logic, and the commentary-paraphrase, Talhīs, al-Safsaṭa. In the latter, Averroes is strictly dependent on 'Īsā ibn Zur'a's translation, but had a hard time with the many passages remaining obscure even in this most adequate of the translations, and closes with a sharp criticism of the Arabic version:24

This is the end whereby this man (Aristotle) closed his book. We have handed down of it what we have come to understand, as far as it has been in our capacity at this time. We shall come back again to it for further study if God will grant us life and means of leisure. This book is very difficult, either because of the translation or because Aristotle intended it that way. We did not find any commentary by one of the exegetes, neither a literal commentary nor a commentary(-paraphrase) interpreting the meaning, except something found in the Book of Healing by Avicenna. This (Aristotle's) book as it has come down to us on this (topic) is extremely defective, and in addition this man has a difficult way of expression. Whoever will read our present book and will see that something is missing in our discourse of what is in his text, or that I have a given to his words a turn different from what he intended, shall excuse me. He who undertakes to understand his words without any other interpreter preceding him is like a beginner in this discipline. And therefore much of what we have presented here is at the level of conjecture and speculation. You will realise this when you study the original text. Still I hope that nothing has eluded me of the genera of discourse which he presented in this book nor of his general objectives.

In the end he cannot but deplore that nobody has achieved Aristotle's objective - echoing Avicenna's closing words of his chapter on Safsața, after summarizing the First Teacher: "As far as I am concerned, I can only say to all students and adepts of the sciences: Look at what this great one has said, and then judge for yourself whether since then - for almost 1330 years - someone has come as far as those who would reproach him for missing something, and rightly acknowledge such and such shortcomings, and whether someone has come forward after him who would have gone beyond him in this discipline?".25

# C. Text and Interpretation: A Comparative Analysis of Selected Passages

In this section we translate a few programmatic passages, in which some of the main ideas and basic concepts of the Sophistical Refutations are introduced and set forth, from all three of the Arabic versions. We discuss the translators' interpretations and the Greek readings that can be gleaned from them. In addition to the abbreviations 'Ar', 'Ar' and 'ArZ', we use in this and the next section the following conventions:

<sup>&</sup>lt;sup>23</sup> For references and a translation of the section 'On Fallacious Syllogisms' from the *Išārāt*, see Ibn Sīnā, *Remarks and* Admonitions I: Logic, trans. S.C. Inati, Pontifical Institute of Mediaeval Studies, Toronto 1984, esp. pp. 158-60.

<sup>&</sup>lt;sup>24</sup> Ibn Rušd, *Tallņīş al-Safsaṭa*, ed. M. Salīm, Dār al-Kutub wa-l-waṭā'iq al-Qawmiyya, al-Qāhira 1972, pp. 177-8.

<sup>&</sup>lt;sup>25</sup> Ibn Sīnā, *al-Šifā*', [1:] *al-Manṭiq*, 7: *al-Safṣaṭa*, A.F. al-Ihwānī, Wizārat al-Tarbiya wa-l-Taʿlīm, al-Qāhira 1958, pp. 114.1-5.

SE	Greek text as in Hasper's planned new critical edition, followed by his English	
	translation <sup>26</sup> and a concise statement of relevant variants from the Greek and	
	Arabic witnesses (the Greek phrases concerned are printed in bold).	
$\Psi^{_{ m V}}$	Supposed reading underlying the translatio vetus	
$\Psi^{\scriptscriptstyle  m Y}$	Supposed reading underlying the translation of Yaḥyā ibn ʿAdī	
$\Psi^{\mathrm{Z}}$	Supposed reading underlying the translation of 'Īsā ibn Zur'a	
$\Psi^{\Sigma}$	Supposed reading underlying the Syriac version of Athanasius of Balad, the immediate	
	(primary) source of both Ar <sup>Y</sup> and Ar <sup>Z</sup> .	
$\Psi^*$	Supposed reading of the common Greek ancestor underlying the Arabic translations	
	(Ar <sup>V</sup> , Ar <sup>Y</sup> and Ar <sup>Z</sup> ) or their Syriac <i>Vorlagen</i> (that there is such a common ancestor will	
	be argued in the next section).	

For the sigla for the Greek manuscripts appearing in the apparatus, we refer to the next section.

# 1. Definitions of Syllogism and Refutation

#### SE 1, 164 b 25 - 165 a 3

τὸν αὐτὸν δὲ τρόπον καὶ συλλογισμὸς καὶ ἔλεγγος ὁ μὲν ἔστιν, ὁ δ' οὐκ ἔστι μέν, φαίνεται δὲ διὰ τὴν ἀπειρίαν· οἱ γὰρ ἄπειροι ὥσπερ ἂν ἀπέγοντες πόρρωθεν θεωροῦσιν. ὁ μὲν γὰρ συλλογισμὸς ἐχ τινῶν ἐστι τεθέντων ὥστε λέγειν ἕτερον ἐξ ἀνάγκης τι τῶν κειμένων διὰ τῶν κειμένων, ἔλεγχος δέ συλλογισμός μετ' άντιφάσεως τοῦ συμπεράσματος.

164 a 1 λέγειν  $A\Lambda C$ cueh $\Psi^{Y}$ : συνάγειν B: συμβαίνειν  $\Psi^{Z}\Psi^{V}$ : συλλέγειν GbD | a 2 διὰ τῶν κειμένων BGb: om. AΛDCcuehΨ\*

In the same way, one argument constitutes a real deduction or a real refutation, while another does not, even though it appears to due to our lack of experience. For those without experience are like people remaining at a distance and judging from far away. For a deduction is an argument based on certain granted points, such that it states, by way of necessity, something different from the points laid down, while a refutation is a deduction together with the contradictory of its conclusion.

Ar <sup>Y</sup> (p. 738.7 -11 Badawī / 908.3-6 Ğabr)	Ar <sup>z</sup> (p. 740.2 -7 Badawī / 909.7-11 Ğabr)	Ar <sup>v</sup> (p. 741.10-742.3 Badawī / 910
		ultp. 911.5 Ğabr)
In the very same way it is with the	In the same way it is with the syllogism	The same applies to the syllogism and the
syllogisms as well as the reprimands (al-	and the refutation, that is existent, and	refutation contradicting the syllogism, and
tawbīḥāt), this one is existent, that one is	this is not existent but is deemed to be so	this is called inversion, one exists truly (bi-l-
not existent, except that is should appear	due to lack of experience; for those who	ṣɨḥḥa, validly), and the existence of the other
(to be so) due to lack of experience; for	have no experience because they missed	is not truly (valid), but it appears (to be so) to
those unexperienced, insofar as they have	it, are like those looking from afar. Now	one who has no expertise and no experience
no practice, judge from afar only. Now	the syllogisms is an argument (qawl)	of the matter, as if he were looking at things
the syllogism is made from things laid	made from things laid down so that	from afar, and because of this, he is deceived
down so that it may be said (λέγειν)	another thing follows (συμβαίνειν)	(yuštabahʻalayhi). Actually, the syllogism is
that something different is (obtained) in	from it ( <i>li-yalzam ʿanhā</i> ) (om. διὰ	something preceded by things (premises)
respect to $(min)$ those laid down $(om. \delta\iota\dot{\alpha})$	τῶν κειμένων) by necessity, and the	from which other things are resulting
τῶν κειμένων), while the refutation is a	refutation is a syllogism containing	(συμβαίνειν, <i>om</i> . διὰ τῶν κειμένων) by
syllogism together with the contradictory	(yatadamman) the contradictory of	necessity, while the refutation is a syllogism
(munāqaḍa) of the conclusion.	the conclusion.	contradicting the conclusion.

<sup>&</sup>lt;sup>26</sup> Taken from P.S. Hasper, "Aristotle's Sophistical Refutations. A Translation", in Chr. Rapp – P.S. Hasper (eds.), Fallacious Arguments in Ancient Philosophy. Special Issue, Brill, Leiden [etc.] 2012 (Logical Analysis and History of Philosophy, 15), pp. 13-54, in a few cases adapted to the new text.

Immediately striking are not only the paraphrastic nature of the translatio vetus, but also the additions to the text, at least in comparison to the Greek original. Quite a few of these additions are misleading, to say the least: the refutation needs not be contradicting the syllogism; even if it were, it would still be difficult to understand why this should be 'inversion'; and a refutation is not a syllogism contradicting the conclusion, but is rather a syllogism accompanied by a contradiction of its conclusion. On the other hand, the translatio vetus understands the function of the comparison with people looking from afar, while Yahyā misses out on the comparison. In the revision by Ibn Zur'a the comparison reappears again; actually, the difference is so considerable here that one may suspect that Ibn Zur'a was relying here on another source as well, just as he must have for the choice for 'follow' (presumably derived from συμβαίνειν, or alternatively from συνάγειν, to infer) rather than 'say' (λέγειν). The genitive τῶν κειμένων, which in the Greek depends on ἕτερον, is rendered in all three translations in such a way that the dependency on eterov is lost. There is no trace of  $\delta\iota\dot{\alpha}$   $\tau\tilde{\omega}\nu$ κειμένων in any of the three versions.<sup>27</sup> None of the translations renders the γὰρ in the sentence defining the syllogism, but it must be acknowledged that it takes some careful thought to see what its function in fact is. The ex in this definition, which Hasper understands as 'based upon', but which one could also render, as Yaḥyā and Ibn Zurʻa do, not doubt following Athanasius, as 'consisting of', 28 is interpreted in the *translatio vetus* as temporal.

# 2. Types of Arguments in Dialectic

SE 2, 165 a 38 - b 11

Έστι δὴ τῶν ἐν τῷ διαλέγεσθαι λόγων τέτταρα γένη, διδασκαλικοὶ καὶ διαλεκτικοὶ καὶ πειραστικοί καὶ ἐριστικοί. διδασκαλικοί μὲν οί ἐκ τῶν οἰκείων ἀρχῶν ἑκάστου μαθήματος καὶ ούκ ἐκ τῶν τοῦ ἀποκρινομένου δοξῶν συλλογιζόμενοι (δεῖ γὰρ πιστεύειν τὸν μανθάνοντα), διαλεκτικοί δὲ οἱ ἐκ τῶν ἐνδόξων συλλογιστικοὶ ἀντιφάσεως, πειραστικοὶ δὲ οἱ ἐκ τῶν δοκούντων τῷ ἀποχρινομένω καὶ ἀναγκαίων εἰδέναι τῷ προσποιουμένω ἔγειν τὴν ἐπιστήμην (ὃν τρόπον διώρισται εν ετέροις), εριστικοί δε οί εκ τῶν φαινομένων ενδόξων φαινόμενοι συλλογιστικοί. περί μὲν οὖν τῶν ἀποδεικτικῶν ἐν τοῖς ἀναλυτικοῖς εἴρηται, περί δὲ τῶν διαλεκτικῶν καὶ πειραστικών ἐν ἄλλοις· περὶ δὲ τῶν ἀγωνιστικών καὶ ἐριστικών νῦν λέγωμεν.

 $165\,b$  3 γὰρ ABGbΛDCcueh $\Psi^{\rm Y}$  : ἄρα  $\Psi^{\rm Y}\Psi^{\rm Z}$ ? | b 4 ἀντιφάσεως ABGbDCcu : ἀντιφάσεων Λeh : ἀντιφάσεων  $\Psi^{\mathsf{V}}$ ? : om.  $\Psi^{\mathsf{V}}$  | b 5 ἀναγκαίων ADcu $\Psi^{\mathsf{V}}$  : ἀναγκαῖον BGb $\Lambda$ Ceh $\Psi^{\mathsf{V}}$  – Al. Aphr. *In Topica* p. 25.23 ed. M. Wallies  $(1898, CAG\ II.3)\ |\ b\ 6$  τρόπον  $GbD\Psi^*$ : τρόπον δέ  $AB\Lambda$ cueh: δὲ τρόπον  $C\ |\ b\ 7$  ἐνδόξων  $AGbC\Psi^*$ : ἐνδόξων μὴ ὄντων δέ B $\Lambda$ Dcueh (δέ om. h)  $\Psi^2\Psi^\vee$  | b 8 φαινόμενοι συλλογιστικοί  $\Lambda$ GbDCc $\Psi^\Sigma$ : συλλογιστικοί ἢ φαινόμενοι συλλογιστικοί  $Buh\Psi^v$ : συλλογιστικοί  $\Lambda$ : συλλογιστικοί  $\mathring{\eta}$  φαινόμενοι  $e\mid b$  9 των  $ABGb\Lambda DCe\Psi^v$ : τῶν διδασκαλικῶν καὶ cuh $\Psi^{\Sigma}$  | b 10 ἄλλοις ABGb $\Lambda$ DCueh $\Psi^{\Sigma}$ : τοῖς πρότερον c $\Psi^{V}$ 

In discussions there are four domains of argument, didactic, dialectical, critically examinative and eristic. Those arguments are didactic that deduce on the basis of the principles appropriate to the discipline in question and not on the basis of the views of the answerer (for the student should rely on them). Those arguments are dialectical that, on the basis of acceptable views, constitute a deduction of a contradictory. Those arguments are critically examinative that are based on views of the answerer or on things that

<sup>&</sup>lt;sup>27</sup> This point is missed in the new edition of the *Sophistici Elenchi* by Hecquet (above, n. 5).

<sup>&</sup>lt;sup>28</sup> See also Aristotele, *Le confutazioni sofistiche*, intr., trad., comm. P. Fait, Laterza, Roma – Bari 2007 (Biblioteca Universale Laterza, 599), p. 3.

must be known by anyone who purports to have scientific knowledge (in a way which has been specified elsewhere). And those arguments are eristic that, based on points that appear acceptable, appear to constitute a deduction. Demonstrative arguments have been discussed in the *Analytics*, dialectical and critically examinative arguments elsewhere. Now we must discuss competitive and eristic arguments.

#### Ar<sup>Y</sup> (p. 913.5-914.2, 918.6-13 Ğabr)

# Ar<sup>z</sup> (p. 916.3-4, 920.4-12 Ğabr)

#### Ar<sup>V</sup> (p. 918.3-4, 921.8-922.8 Ğabr)

And now we may state as a known fact (fa- $h\bar{a}$  nahnu  $naq\bar{u}lu$  l- $\bar{a}na$  bi- $maw\check{g}\bar{u}din = \check{\epsilon}\sigma\tau\iota$   $\delta\dot{\eta}$ ) in what we discuss four genera of discourse — didactic ( $ta'l\bar{i}m\bar{i}$ ), dialectical ( $\check{g}adal\bar{i}$ ), examinative ( $mumtahan\bar{i}$ ), and eristic ( $mir\bar{a}\bar{i}$ ).

The genera of discourse occurring in discussion are four: demonstrative (burhānī), dialectical (ğadalī), examinative (imtiḥanī), and eristic (mirāī).

The genera of discourse used in each art of it (*scil.* of *kalām*, discussion) are four, the didactical genus, the genus of dialectic, the genus of examination, and the genus of eristic (*mumāhaka*).

Regarding the didactic, these are syllogistic arguing from principles specific to each science ('ilm,μάθημα), not based on the beliefs of those who answer (al-mu ğībīn) — for it is necessary that also the student should trust it. As for the dialectical, these are established (maw ğūda) as syllogisms (arguing) from the accepted (views) (mašhūr,  $\xi \nu \delta o \xi \alpha$ ). As for the examinative, these are those which the respondent holds (to be true) while it is necessary (ἀναγκαῖον) that he who is constructing the figures (šakl) should know the one who has that knowledge in the way obtained (om.  $\delta \dot{\epsilon}$ ) in the other (sc. the respondent). As for the eristic, these are those which, coming from those appearing to be acceptable (maskūrāt: leg. mašhūrāt) (om. μὴ ὄντων δέ), held to be (bi-zayy: leg. yurā) syllogistical (qiyāsiyya) (om. συλλογιστικοί ή).

As for the demonstrative, these are (arguments) the student is bound to trust, since (ἄρα pro γὰρ?) they are deduced from principles proper to each discipline, not from the beliefs of the answerer. The dialectical are those concluding from accepted beliefs. The examinative are those concluding from things according to the belief of the answerer, and it is necessary (ἀναγκαῖον) that he who establishes the syllogism should know this in view of the existence of this knowledge according to what has been defined  $(om. \delta \dot{\epsilon})$  elsewhere. The eristic (arguments) are those concluding from things held to be acceptable, but are not so (μή ὄντων δέ), and for this reason are supposed to be syllogistical (qiyāsiyya) (om. συλλογιστικοί ἢ).

The genus of discourse used in the way of instruction and the sharing of knowledge will obtain only (in arguments) from principles specific to the knowledge to be shared and not (in arguments) drawn from whatever happens to come forth from the respective answerer, and therefore  $(\alpha \rho \alpha)$  the learner must comply with it. The genus of dialectic discourse will be based only on all acceptable (ways of) thought opposed (ἀντιφάσεων?) to the (respective) argument. The genus of examinative argument will (reason) only from premises supposed (to be true) by the answerer, and from those the knowledge of which is necessarily accepted (ἀναγκαίων) by him who wants to establish wisdom like the one  $(om. \delta \dot{\epsilon})$  we have detailed and proved in another book. The genus of eristic argument will obtain only from things that are apparently acceptable, and do not in reality (un) ὄντων  $\delta \dot{\varepsilon}$ ) belong to the deductive type rather than (συλλογιστικοὶ ἢ) being so only in appearence.

Now on the didactical and (διδασκαλικοὶ καὶ) demonstrative (arguments) there has been a discussion in the *Analytics*. As for the dialectical and the examinative, in other works. As for the agonistic and the eristical (al-muǧāhidiyya wa-l-mirāiyyya), we shall speak of these now.

As for the didactical and (διδασκαλικοὶ καὶ) demonstrative (arguments), we have discussed them in the *Analytics*, and we have discussed the dialectical and the examinative arguments in other places. And we shall now discuss the agonistic and the eristic (*al-muğāhada wa-l-mirā*) (*scil.* genera of argument).

And we have discussed in the book of *Analytica*— the third of our books— the genera of didactical and (διδασκαλικῶν καὶ) demonstrative arguments, and we have also discussed the genera of dialectical and examinative argument before this book (τοῖς πρότερον), *viz.* the fourth book, *apodeiktikē*. As for the eristic and agonistic arguments, we shall discuss them in this our (present) book, being the fifth (book of the logic).

Though the translatio vetus contains again some clear inaccuracies in comparison with the Greek text (for example, "to establish wisdom like the one we have detailed" connects τὴν ἐπιστήμην and ὂν τρόπον in a way impossible in the Greek, perhaps due to ambiguity in the Syriac exemplar; μὴ ὄντων δέ is translated as if συλλογιστικοί belongs to it), and identifies the fourth book of the Organon, the Topica, with the apodeiktike, it is not as paraphrastic as in the first fragment, and generally gets things right. Both his and Ibn Zur'a's translations are quite accurate. Ibn Zur'a renders διδασκαλικοὶ with "demonstrative", but that may just be a matter of translation. The major difference between these two translations is, apart from some vocabulary, that Ibn Zur'a must have used an alternative source, for on quite a few places his translation goes back to different readings in the Greek.

#### 3. Fallacy Justifying Principles and Completeness Claim for Aristotle's List

SE 8-9, 169 b 30 - 170 a 22

- [a] "Οτι δ' ἔγομεν αὐτοὺς τῆ αὐτῆ μεθόδω, δῆλον· παρ' ὅσα γὰρ φαίνεται τοῖς ἀχούουσιν ὡς ήρωτημένα συλλελογίσθαι, παρά ταῦτα κᾶν τῷ ἀποκρινομένῳ δόξειεν, ὥστ' ἔσονται συλλογισμοὶ ψευδεῖς διὰ τούτων ἢ πάντων ἢ ἐνίων· [b] ὁ γὰρ μὴ ἐρωτηθεὶς οἴεται δεδωκέναι, κἂν ἐρωτηθεὶς θείη. πλην ἐπί γέ τινων ἄμα συμβαίνει προσερωτᾶν τὸ ἐνδεὲς καὶ τὸ ψεῦδος ἐμφανίζειν, οἶον ἐν τοῖς παρὰ τὴν λέξιν καὶ τὸν σολοικισμόν.
- [c] Εἰ οὖν οἱ παραλογισμοὶ τῆς ἀντιφάσεως παρὰ τὸν φαινόμενον ἔλεγχόν εἰσι, δῆλον ὅτι παρὰ τοσαῦτα ἂν καὶ τῶν ψευδῶν εἴησαν συλλογισμοὶ παρ' ὅσα καὶ ὁ φαινόμενος ἔλεγγος. [d] ὁ δὲ φαινόμενος παρά τὰ μόρια τοῦ ἀληθινοῦ· ἑκάστου γὰρ ἐκλείποντος φανείη ἂν ἔλεγχος, οἶον ὁ παρὰ τὸ μὴ συμβαῖνον διὰ τὸν λόγον (ὁ εἰς τὸ ἀδύνατον), καὶ ὁ τὰς δύο ἐρωτήσεις μίαν ποιῶν παρὰ τὴν πρότασιν, καὶ ἀντὶ τοῦ καθ' αύτὸ ὁ παρὰ τὸ συμβεβηκός, καὶ τὸ τούτου μόριον ὁ παρά τὸ ἐπόμενον· ἔτι τὸ μὴ ἐπὶ τοῦ πράγματος, ἀλλ' ἐπὶ τοῦ λόγου συμβαίνειν· ϵἶτ' ἀντὶ τοῦ καθόλου τὴν ἀντίφασιν καὶ **κατὰ ταὐτὸ καὶ πρὸς ταὐτὸ** καὶ ὡσαύτως, παρά τε τὸ ἐπί τι, ἢ παρ' ἕκαστον τούτων· ἔτι παρὰ τὸ μὴ **ἐναριθμουμένου** τοῦ ἐν ἀρχῆ **τὸ δ' εν ἀρχῆ** λαμβάνειν. [e] ὥστ' ἔγοιμεν ἂν παρ' ὅσα γίνονται οἱ παραλογισμοί· παρὰ πλείω μὲν **γὰρ** οὐx ἂν εἶεν, παρὰ δὲ τὰ εἰρημένα ἔσονται πάντες.
- [f] Έστι δ' ό σοφιστικὸς ἔλεγχος οὐχ ἀπλῶς ἔλεγχος ἀλλὰ πρός **τινα**· καὶ ό συλλογισμὸς ώσαύτως. ầν μὲν γὰρ μὴ λάβη ὅ τε παρὰ τὸ όμώνυμον ἕν σημαίνειν καὶ ὁ παρὰ τὴν όμοιοσχημοσύνην τὸ μόνον τόδε, καὶ οἱ ἄλλοι ὡσαύτως, οὕτ' ἔλεγγοι οὕτε συλλογισμοὶ ἔσονται, οὕθ' άπλῶς οὕτε πρὸς τὸν ἐρωτώμενον. ἐὰν δὲ λάβωσι, πρὸς μὲν τὸν ἐρωτώμενον ἔσονται, άπλῶς δ' οὐκ ἔσονται· οὐ γὰρ έν σημαϊνον εἰλήφασιν ἀλλὰ φαινόμενον, καὶ παρὰ τοῦδε.
- [g] Παρὰ πόσα δ' ἐλέγγονται οἱ ἐλεγγόμενοι, οὐ δεῖ πειρᾶσθαι λαμβάνειν ἄνευ τῆς τῶν ὄντων ἐπιστήμης ἀπάντων. τοῦτο δ' οὐ μιᾶς ἔστι τέχνης $\cdot$

169 b 34 δ BGΛCcueh : δ AVbDΨ\* | 170 a 2 μη ABVGbDCh : om. ΛcueΨ $^{\Sigma}$  [Ψ $^{V}$ ] | a 4 ἀντὶ codd.  $\Psi^{\text{V}}: \not\text{av } \tau\iota \ \Psi^{\Sigma} \mid \delta \ ABVGb \Lambda DC \text{cueh}: \text{om. } \Psi^{\text{Z}} \left[ \Psi^{\text{V}} \right] \mid \tau \delta^{2} \ ABVGb DC \text{eh}: \text{om. } \text{cu} \Psi^{\text{Z}} \left[ \Lambda \right] \left[ \Psi^{\text{Y}} \right] \mid a \ \delta \ \epsilon \tilde{\iota} \tau'$ ABVGbΛDCeh : εἴτε cu : ἔτι  $\Psi^{\Sigma}$ ?  $[\Psi^{V}]$  | ἀντὶ codd.  $\Psi^{V}$  : ἄν τι  $\Psi^{\Sigma}$  | a 7 κατὰ ταὐτὸ ABΛDCcue : κατ' αὐτὸ  $VGbh\Psi^{\Sigma}$   $[\Psi^{V}]$  | καὶ πρὸς ταὐτὸ  $codd.\Psi^{\Sigma}$ [raised  $\Sigma$ ] : om.  $\Psi^{V}$ [raised V] | a 9 ἐναριθμουμένου ABVGbCcueh : ἐναριθμούμενον  $D\Psi^{\Sigma}$  : συναριθμουμένου  $\Lambda \mid \tau$ ὸ δ' ἐν ἀρχῆ ABVGbD : τὸ ἐν ἀρχῆ  $\Lambda$ Ccueh : om.  $\Psi^* \mid a$  11 γάρ ABVGbDCcueh $\Psi^{\Upsilon}$  : om.  $\Psi^{Z}$ ? $\Psi^{V}$ ?  $\mid a$  13 τινα codd.  $\Psi^{V}$  : τι  $\Psi^{\Sigma} \mid a$  17 τὸν<sup>1</sup>  $ABVGbDCcueh\Psi^{V}: τὸ C\Psi^{\Sigma} \mid τὸν^{2} ABDcueh\Psi^{\gamma}\Psi^{V}: τὸ \Psi^{Z} [VGb] \mid a 19 τοῦδε ABVGbDCueh: τὰ λοιπά$  $\Lambda$ cΨ\* | a 20 παρὰ πόσα ABVGbDCeh : παρ' ὁπόσα cuΨ' : παρ' ὅσα  $\Lambda$ Ψ'  $^{Z}$ Ψ' | a 22 οὐ μιᾶς  $\Lambda$ cuΨ\* : οὐδεμιᾶς ABVGbDCeh

- [a] That we know them through the same system is clear. For on those grounds on which it appears to the audience that a deduction has come about, as if they had been asked, it may seem so to the answerer as well, so that there will be incorrect deductions in these ways, either in all of them or in some. [b] For what one thinks one has conceded without having been questioned, one would also grant if questioned (except that in at least some cases the incorrectness comes to light at the same time, namely when one in addition asks for what is missing, for example, in arguments dependent on the expression or on a solecism). [c] So if fallacious arguments for the contradictory point depend on an apparent refutation, it is clear that deductions of something incorrect will depend on just as many grounds as an apparent refutation.
- [d] Now, apparent refutations depend on the parts of a genuine refutation, since for each part that is omitted there would appear to be a refutation, for example, one is due to what does not follow on the basis of the argument (the one inferring an impossibility); the one which makes two questions one is due to the proposition; also the one due to what is accidental (instead of the thing in itself), and a part of this, the one due to the consequence; further, for the conclusion not following at the level of the object, but at the level of the sentence; next (instead of the contradiction holding universally, in the same respect, in relation to the same thing and in the same way) due to it holding to a certain extent, or also due to each of those qualifications; further, due to securing the point at issue, despite the clause 'the point at issue not being included.' [e] Thus we should know on how many grounds fallacies come about, for they could not depend on more; they will all depend on those mentioned.
- [f] A sophistical refutation is not a refutation without qualification, but rather one relative to a person, and similarly for deduction. For unless the one depending on homonymy secures that one thing is signified, and the one depending on similarity of expression that only something individual is signified, and the other ones likewise, they will neither be refutations nor deductions, neither without qualification nor relative to the person questioned. However, if they do secure it, they will be relative to the person, and not without qualification. For they have secured not what signifies one thing, but what appears to, and done so from a certain person.
- [g] Without knowledge about everything there is one should not try to establish on how many grounds those who are refuted are refuted. That, however, does not belong to a single expertise.

Ar <sup>Y</sup> [pp. 984.3-986.4, 990.6 Ğabr]	Ar <sup>z</sup> [pp. 986.6-988.5, 991.ult. Ğabr)	Ar <sup>v</sup> (pp. 988.7-989.9 Ğabr)
[a] That the method (sinā'a, τέχνη) is available to us regarding these very (arguments) is known: regarding those which appear to the hearers, as if they were asked and a syllogism were constructed from these, and if the answerer is of the same opinion, then faulty syllogisms will obtain in this regard, either all of them or individually.	[a] It is known that what is available (lit. existent, at our disposal) for us in this same art $(\tau \dot{\epsilon} \chi \nu \eta)$ is handled $(\sigma \upsilon \lambda \lambda \epsilon \lambda \circ \gamma \dot{\iota} \sigma \vartheta \alpha \iota)$ according to what is apparent (supposed, naḥw al-umūr al-maznūna), and this holds with the hearers in the same way as with the answerers; and the conclusion for this is drawn if the answerer is the (same) one as the one who supposes (this to be true). And then the incorrect syllogisms will be either based on all of these things or on individual things among them.	[a] Now this is well-known in their art and their discourse, and to the extent of what is provided to the hearers, they will believe that the question arises necessarily from the composition of the discourse. And to this extent, error will befall the answere in the answer he is requiring. And therefore it is necessary that the faulty syllogisms should only come about either due to all of these or due to some of these.
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- [b] For he (6) who, if he has not been asked, is supposed to concede (the argument), will, if asked in his turn, concede (it). But in individual cases, it will occur at the same time that he will add, asking for what is missing (yanguḍ edd. : leg. yanguş) and for the fault to be exposed (yubarhan 'demonstrated'), for example in regard of the formulation or of a barbarism ('u ǧūmiyya).
- [c] Now if the fallacies of contradiction belong to (the type of) apparent refutation, it is evident that the syllogisms inferring falsehood belong to all those of the (type of) apparent refutation as well, and (likewise) the apparent refutation from parts of the truthful (veracious).
- [d] For the refutation appears (to be accomplished) for every single missing (part), as for example that which infers from an accident (om.  $(\mu \dot{\eta})$  in respect to the argument which is ad impossibile (min qibal al-kalima allatī fi ġayr al-mumkin); further the one which makes two questions into one in respect to the proposition; and if  $(\alpha v \tau \iota)$  a thing is taken singly (by itself), it is by accident, and part of this results (argues) from (om. δ) what is the consequence. Further those (refutations) that apply not to the thing but to the argument. Further (ἔτι) if something (ἄν τι) applying universally is made to refer to the contradiction by itself (only) (κατ' αὐτὸ), and in relation to one and the same and in the same way as it is said in regard of this thing or of each one of these. And further if it has not been taken into account (yu'adda, 'enumerated') (τὸ μὴ ἐναριθμούμενον) that it (the conclusion) is taken from the beginning (initial proposition) (om. τὸ δ' ἐν ἀρχῆ).

- [b] And the one (\ddot) who believes the answer before the question is put - now, if he were asked he would admit (the point), but in some cases two things would obtain together (at once), viz. that he should ask a missing question (leg. nāqiṣan) and that he should reveal a falsehood. An example for this are the topoi arguing from the wording, and those based on a solecism.
- [c] Now if the fallacies arising from a contradiction belong to those based on a supposed refutation, it is evident that the erroneous syllogisms arise from all of these, that is to say from all of the things from which the supposed syllogism arises.
- [d] Now the supposed refutation results from the parts of the valid syllogism. For the deficiency (nagd: leg. nags) in the refutation is evident to each one (leg. ἑκάστω?), as for example in one (refutation) obtaining (om.  $\mu\dot{\eta}$ ) in regard of the argument (logos) in that it leads to absurdity. And the (refutation) which makes two questions into one question in the premisses, even though  $(\alpha \nu \tau \iota)$  the thing by itself belongs to the accidental, and what belongs to the consequence is (made) a part thereof. Further if that which obtains does not belong to the thing itself but to the argument (kalām, logos), and further (ἔτι), if (ἄν τι) the thing in the contradiction (scil. under controversy) is taken universally and by itself (κατ' αὐτὸ), and in relation to one and the same thing and said in one and the same way, but then is stated of one thing (only), or of each one of these (instances). And also if from the initial (assumption) there is itemised (iqtadat: leg. ugtuṣṣat) (om.  $\tau \delta \delta$ ' ἐν ἀρχῆ) something not meant to be enumerated (τὸ μὴ ἐναριθμούμενον).

- [b] For he who (δ) does not ask will suppose that he has asked, and he who is asked supposes that he has given the answer while he has not yet given (an answer). But in some cases a combination of both will obtain, a duplication of the question and a presentation (izhār) of error in this. Now this will arrive either because of some wording, or because of the barbarism of the questioner.
- [c] Now since the fallacies (mudillāt) deriving from contradictions will only result from appearance (taḥayyul) or invalidation (tah ǧīn) in the discourse, it is evident that the error of the one who is asked and his <faulty> supposition that he had already answered (leg. wa-zannahū annahū qad ağāba) - while he has not yet answered - does arrive only because he has been made to believe in the pretended invalidation and refutation (al-tah ğīn wa-l-tabkīţ) in the discourse.
- [d] Now the apparent invalidation (al-tahǧīn al-taḥayyul : leg. al-tah ǧīn al-mutaḥayyal?) in the discourse will arrive only <p. 889 Gabr> because of missing parts in the true discourse. For every deficient discourse will appear to be a refutation (tabkīt) and invalidation (tah ğīn), like (om. παρὰ τὸ μὴ συμβαῖνον διὰ τὸν λόγον ὁ εἰς τὸ ἀδύνατον) the one which makes of two questions one, and this comes about from a missing premiss only, and like the one which introduces (yudhil) the accident in place of the essential, and this because of a missing part of the argument (kalām, logos), and in that the argument on the whole is inserted (ulḥiqa) in place of the part; and further that one supposes the accident to be an accident in the discourse explaining the thing, not the thing itself; and it is suggested (uriya) that the contradicting statement on the whole is generalised in the same way (om. κατὰ ταὐτὸ καὶ πρὸς ταὐτὸ) and that it applies either to one of them or to each of them; and further (a pretended refutation) results from the enumeration of something obtaining in the initial question, this being made part of it (om.  $\tau \delta \delta$ '  $\dot{\epsilon} \nu \dot{\alpha} \rho \chi \tilde{\eta}$ ).

- [e] So we have said from how many (grounds) the fallacies will arise, for they will not result from additional ones, but all of them arise from one of those we have mentioned.
- [f] Now [wa-anna ed.: leg. fa-inna] the sophistical refutation is not an absolute refutation, but is in relation to something  $(\tau\iota)$ , and likewise the syllogism. For on the one hand (ammā), if we do not accept that what is based on homonymy signifies one thing, and what is based on the coincidence of the form signifies this thing alone, and likewise with those others - then there are neither refutations nor deductions taken absolutely, nor with regard to what is being asked (τὸ ἐρωτώμενον). And on the other hand (wa-ammā), if they accept, either in regard of him who asked - there will be (sc. refutations), or absolutely - then there will not be. For they will accept not what signifies one thing, but what seems so. And from among the remaining things (τὰ λοιπὰ) <p. 986.3 Ğabr>
- [g] how many refutations ( $\delta\pi\delta\sigma\alpha$ ) these will refute, one need not try to assess without knowledge of all beings, but this does not belong <p. 986.4  $\check{G}abr>|<$ p. 990.6  $\check{G}abr>$  to one ( $o\mathring{\upsilon}$   $\mu\iota\tilde{\alpha}\varsigma$ ) of the arts.

- [e] We have now established from how many things fallacies will come about, and  $(om. \gamma \dot{\alpha} \rho)$  that they will not come from additional ones, and that they in their entirety will arise only from the things mentioned,
- [f] Now [wa-anna ed.: leg. fa-inna] the sophistical refutation is not an absolute refutation, but in respect of something  $(\tau\iota)$ ; and likewise the syllogism. For either one does not accept that what is based on a homonymous expression is signifying one thing, and what is based on the coincidence of the form is signifying this thing only, and likewise those other things - then there will be neither refutations nor syllogisms, neither absolutely nor with regard to the thing the question is asked about (τὸ ἐρωτώμενον). Or if it is accepted, they will obtain with regard to what the question was asked about  $(\tau \delta)$ ἐρωτώμενον), but will not obtain absolutely. For what they accepted they did not accept as signifying one thing, but as what was deemed so, and accordingly the matter goes in the remaining things  $(\tau \grave{\alpha} \ \lambda o \iota \pi \grave{\alpha})$ .
- [g] And it is not necessary to try to determine the ways in which ( $\delta\sigma\alpha$ ) the rejection of those who refute will occur before knowing all beings, because this does not belong to one (où  $\mu\iota\alpha\zeta$ ) of <p. 991.17 Ğabr> the arts.

- [e] Now it has become clear in how many ways the misleading (arguments) come about, and (om.  $\gamma \dot{\alpha} \rho$ ) that they do not arise from more things than these, but that they come from the kinds (of errors) stated.
- [f] Now the sophistical refutation and the invalidation in their discourse is not a general invalidation common to many (cases), but is applied with regard to someone (only) (leg. yulāqā bihī wāhid), and similarly their syllogism. But as long as one does not accept a single thing being signified coming forth from the homonymy of names, or when they take one thing to be signified by another shape not similar to it;29 and the rest of their argument is likewise, they do not produce a refutation nor a syllogism, neither generally nor individually with regard of ('adad: leg. 'inda) the one who is asked. And if they produce their argument universally, it may be that their syllogism and their refutation be in agreement with the one who is asked, not with the many, because they take a thing by its single signification in appearance, not in reality. What regards the other aspects  $(\tau \dot{\alpha} \lambda o \iota \pi \dot{\alpha})$  of refutation and invalidation in argument, [g] we need not try to grasp them  $(\delta \sigma \alpha)$ without knowledge of all things, and this does not belong to a single (οὐ μιᾶς) discipline only.

For our understanding of the structure of Aristotle's theory of fallacy this passage is of utmost importance. Aristotle distinguishes, most explicitly in section [f], with some of the conceptual framework being introduced in sections [a] and [b], between three ways in which one might think that a refutation is brought about: 1. a proper refutation, according to the rules of good dialectic; 2. an apparent refutation, committing one of his thirteen or twelve types of fallacy, which make the argument merely appear to constitute a refutation; and 3. a refutation which is in a way a real refutation, because the answerer has granted all the relevant premisses, and the argument does not contain any logical gaps, but on the other hand does not yet constitute a proper refutation, because among the premisses granted by the answerer

<sup>&</sup>lt;sup>29</sup> Ar<sup>V</sup> in margine: naql āḥar (alia translatio), "and what has a common shape is that thing only".

there is one of the principles justifying a fallacy – principles a good dialectician should never have granted, but which appear acceptable or are even thought to be accepted, especially if one does not give the issue any thought. The example given by Aristotle of such fallacy justifying principles is the principle that a certain ambiguous word has one meaning. Type 3 refutations he calls 'a refutation relative to a person'. This framework allows Aristotle to give a more informative definition of a proper refutation, more informative than the definition provided in SE 1, 164 a 25 - 165 b 3 (discussed above, at the beginning of this part of the article): a proper refutation is an argument which on the basis of premisses granted deduces with necessity a conclusion which contradicts the thesis of the answerer, and for which a number of clauses are in place which rule out all the possible fallacy justifying principles (section [c]). These clauses and the related possible fallacy justifying principles are listed in section [d]. Aristotle attaches a completeness claim for his list of fallacies to this more informative definition of a proper refutation (section [e]).

Yaḥyā ibn 'Adī handles section [a] more or less correctly: he understands the correspondence between what appears to the hearers regarding possible fallacy justifying principles and what answerers would grant. Ibn Zur'a, on the other hand, makes a complete mess of these two sentences, mainly because he seems to construe the sentence quite differently: ὅτι ἔχομεν he renders as if there had been ὅ τι ἔχομεν ("what is available for us"); and then συλλελογίσθαι as depending on δῆλον, with παρ' ὅσα φαίνεται becoming a clause indicating the respect in which. The remaining clauses he then states separately, in one case in a completely incomprehensible way. The Syriac translation underlying the translatio vetus is grammatically probably more precise than that of Athanasius, for one may recognise even more of the grammatical structure of the Greek in the translatio vetus, even ώς ἢρωτημένα ('to the extent of what is provided to the hearers'), but the unclarity of the vocabulary destroys the good effect this could have.

Section [b] is rendered almost perfectly by Yaḥyā, though he does so by a slight of hand getting rid of the difficulties caused by reading  $\delta$  instead of  $\delta$ , and again Ibn Zur'a revises in such a way that the relative clarity disappears. This time this is because he actually stays closer to the grammar of the Greek, by inserting as subject for ἐμφανίζειν the same person who asks the question – but Aristotle means that in the asking of the missing question the falsehood of the proposition asked is revealed. In the translation by Ibn Zur'a probably a marginal remark ended up in the text, for "And the conclusion for this is drawn if the answerer is the (same) one who supposes (this to be true)" seems an intrusion which could have had the function of an elucidating remark. In the translatio vetus the first sentence is completely restructured, with many new elements, presumably because the translator or his Syriac predecessor did not understand what is going on. Moreover, 'adding a question' is understood as 'duplication of a question', which may be correct in arithmetic (1 + 1 = 2) but yields nonsense in case of questions asked.

None of the Arabic translations understand that in sections [c] and [d] Aristotle sets up a more informative definition of a proper refutation by relating clauses in that definition to fallacies. This, however, is mainly due to errors which were already in place in the underlying Greek manuscripts. If one leaves out  $\mu \dot{\eta}$  at 170 a 2 (or the whole phrase, as in Ar<sup>V</sup>), one will not be able to recognise the reference to the fallacy of non causa. If one reads ἀντί twice as ἄν τι, as Athanasius did, one does not understand that in the definition the extra clauses hold instead of the fallacy justifying principles. Similarly if one does not render  $\tau \delta \delta$ ' ev  $\dot{\alpha} \rho \gamma \tilde{\eta}$ , as all three translations do, one cannot recognise this overall scheme in [d]. It is clear that all three translations struggle to make sense of the text, but most incoherent is here the translatio vetus, since in some places it is very difficult to recognise the connection between Aristotle's text and what we read in the translation.

The three Arabic translations all state the completeness claim in [e] correctly, though they all fail to render Aristotle's ἔγοιμεν in terms of knowledge – Ibn Zur'a comes closest to it. Ibn Zur'a and the translatio vetus both miss out on the γαο, in case of Ibn Zur'a thus deviating from Athanasius' Syriac version.

In [f] both Yaḥyā and Ibn Zur'a get it more or less right, except that they do not introduce 'argument' as subject for λάβη and λάβωσι but rather people. The only problem with both versions is that both render τι rather than τινα, as well as the first πρὸς τὸν ἐρωτώμενον as πρὸς τὸ ἐρωτώμενον. It seems likely that at least one of the two deviations goes back to Athanasius' Syriac version, but it may be that the other of these two is due to systematisation in light of the other deviation. As to the second πρὸς τὸν ἐρωτώμενον Ibn Zurʿa indeed systematises, whereas Yaḥyā does not. The reading τὸ ἐρωτώμενον was around in the Greek manuscript tradition, as it appears in C (*Par. Coisl.* 330), but the error may just as well have come about twice. At any rate, the point that a fallacious refutation may become a real refutation of some sort because the answerer accepts a fallacy justifying principle, will be lost with this deviation.

In terms of its grammatical structure, the translatio vetus fares quite well, but the main point of passage [f] is lost because of some surprising vocabulary, especially rendering the clause "if [arguments] do secure [a fallacy justifying principle]" with "if [these people] produce their argument universally". It may be that the subsequent phrase 'be in agreement with the one who is asked, not with the many', which with 'with the many' and 'in agreement with' contains elements which are not in the Greek is meant to make sense of this earlier rendering.

All three translations presuppose at the end of [f] the reading  $\pi\alpha\rho\dot{\alpha}$   $\tau\dot{\alpha}$   $\lambda\omega\iota\pi\dot{\alpha}$ , which must have arisen because παρὰ τοῦδε was not understood, and a need was felt for a generalising clause after the one example of a fallacy justifying principle (applying only for the linguistic fallacies). That is indeed how Ibn Zur'a understands the phrase, but both Yahyā and the translatio vetus give it another function, by connecting it with [g], what is in modern editions the beginning of the next chapter, though in different ways, neither of which makes much sense.

# 4. Two Kinds of Sophistical Arguments

#### SE 11, 171 b 3-14

Έτι τὸ φάναι ἢ ἀποφάναι **ἀξιοῦν** οὐ δεικνύντος ἐστὶν ἀλλὰ πεῖραν λαμβάνοντος· ἡ γὰρ πειραστική ἐστι διαλεκτική τις: διὸ περὶ πάντων ἐπισκοπεῖ καὶ θεωρεῖ οὐ τὸν εἰδότα ἀλλὰ τὸν ἀγνοοῦντα καὶ προσποιούμενον. ὁ μὲν οὖν κατὰ τὸ πρᾶγμα θεωρῶν τὰ κοινὰ διαλεκτικός, ὁ δὲ τοῦτο φαινομένως ποιῶν σοφιστικός, καὶ συλλογισμὸς ἐριστικὸς καὶ σοφιστικός ἐστιν εἶς μὲν ὁ φαινόμενος συλλογιστικός περί ὧν ή διαλεκτική πειραστική ἐστι, κᾶν ἀληθὲς τὸ συμπέρασμα ἦ (τοῦ γὰρ διὰ τί ἀπατητικός ἐστι), καὶ ὅσοι μὴ ὅντες κατὰ τὴν ἑκάστων μέθοδον παραλογισμοὶ δοκοῦσιν εἶναι κατὰ τὴν τέχνην. τὰ γὰρ ψευδογραφήματα οὐκ **ἐριστικά** (κατὰ γὰρ τὰ ὑπὸ τὴν τέχνην οἱ παραλογισμοί), οὐδέ γ' εἴ τί ἐστι ψευδογράφημα περὶ ἀληθές.

b 3 ἀξιοῦν ABVGbΛDCcueh $\Psi^{\rm Y}$  : om.  $\Psi^{\rm Z}\Psi^{\rm V}$ Theoph. | b 5 διὸ περὶ πάντων ἐπισκοπεῖ  $VGb\Lambda DCcue\Psi^{V}$ : διὸ περὶ τούτων ἐπισκοπεῖ  $\Psi^{\Sigma}$ : διὸ ἐπισκοπεῖ h: om.  $AB\mid b$  10 ἀπατητικός  $\operatorname{codd}$ . Ψ<sup>V</sup> : ἀπαιτητικός Ψ<sup>Σ</sup> | b 13 ἐριστικά  $\operatorname{codd}$ . Ψ<sup>V</sup> : ἀνεριστικά Ψ<sup>Σ</sup>?

Further, to demand that something be affirmed or denied is not the job of some one who demonstrates, but rather of someone engaged in critical examination. For critical examination is a kind of dialectic and considers not the person with knowledge, but the ignorant person who pretends to have knowledge. Someone who considers common things in accordance with the object is a dialectician, whereas someone who does so in appearance is a sophist. One kind of eristic and sophistical deduction consists of arguments that are apparently deductive concerning things about which dialectic is critically examinative, even if the conclusion is true (for it is deceptive about the ground). There are also deductions that, though they are not fallacies in accordance with the systematic study of each of the objects, still seem to be in accordance with the expertise. For false proofs are not eristic (for the

fallacies are in accordance with what falls under the expertise), not even if something is a false proof of a truth.

#### ARY (p. 1008.3-6 Gabr)

#### AR<sup>Z</sup> (p. 1010.3-7 Gabr)

#### ARV (pp. 1012.3- 1013.4 Ğabr)

Further, to encourage (yu'ahhil =  $\dot{\alpha}\xi\iota \tilde{\upsilon}\tilde{\upsilon}\nu$ ) that one should posit (yada', affirm) or remove is not for somebody who demonstrates, but for somebody who is probing (ahada tağribatan, πεῖραν λαμβάνοντος), and probing is somehow dialectical, and in this respect considers those (matters) (τούτων), for it does not regard one who knows, but someone who does not know, and presumes.

As to somebody who regards in a matter those common things, he is a dialectician, whereas somebody who does this in pretence (muhayyilan, ostensibly) is a sophist. The eristic and the sophistical deduction (qiyās, syllogism) is, on the one hand, one which pretends to present a deduction in regard of whom the dialectical (art) (al-ğadaliyya) is (rather) examinative (mumtaḥina); even though (wa-in: leg. fa-an) the conclusion is true, and this because it is contentious (mutalib = απαιτητικός) in regard of 'why'  $(m\bar{a}-\underline{d}\bar{a}: leg. li-m\bar{a}-\underline{d}\bar{a}).$ On the other hand, these (eristic/ sophistical deductions) are all those deceptive ones that are not according to the (respective) disciplines (sināʿāt, τέχναι) of each of them.

As for those mendacious diagrams, these not non-eristic (ἀνεριστικά?), but are those that fall under the (respective) art, being παραλογισμοί (leg. fārālū ğismū), and it is not – if there is some mendacious diagram - concerning the truthful.

Further, it is not for the demonstrator (mubarhin, δεικνύντος) to posit or, in the same way, to remove, but this is for somebody who examines (yamtaḥin, πεῖραν λαμβάνοντος). For the (critical) examination is part of the discipline of dialectic, and for this reason it looks into these matters (τούτων), for its regard is not with one who knows, but with him who does not know, but is supposed to know.

As to somebody who regards the matter in respect of the common things, he is a dialectician. And he who pretends that he has actually done such a thing, is a sophist. As for the eristic and the sophistical deductions, these two are one, (both) supposed to be deductive, and in respect of these two (sc. of being dialectic and sophistical) are examinative. (Even) if the conclusion is true, then (fa-) the deduction that is in regard of 'why the thing is' is (still) contentious (¿ālib: leg. mutalib = απαιτητικός). Secondly, all the deceptive (deductions) are those that are not made in respect of the approach (maḥṣūl, μέθοδος) of even one of the disciplines, while being supposed to be according to the discipline.

And this is because these mendacious diagrams non-eristic (ἀνεριστικά?), but the faulty deduction goes back things to mendacious diagram does not result in though their doctrine be truthful.<sup>30</sup> the truth.

Further, affirmation and negation are not for one who wants to show the way, but rather for one who examines and investigates (thoroughly), because it is proper for the dialectician to examine and to test and to scrutinize. Because of this, his approach proceeds in all ways, he will examine the clever one and he will examine the ignorant one and he will examine one who clads the cloak of the scientists.

And somebody who looks into the true nature of all the things is a sound dialectician, but somebody who does this in appearance is a sophist. Now the deductions of the troublemaker and the sophist are one (and the same), giving the appearance of a sound deduction, to which the men of dialectic through examination will submit, even if (fa-in: leg. wa-in) a true conclusion should result from their discourse, because the matter 'because of which' their deduction is, is obscured (mu'tan: leg. muġaṭṭan). All that is like this (among deductions), such that it is not being according to the (proper) method, belongs to the deceptive ways in method, because all the books (γραφήματα), wherein it is answered to names of people, are not in the way of contention and troublemaking, because the deceptive deductions intend to confound the method, while the falsely attributed books falling under the discipline, but the (ψευδογραφήματα) are not so, even

<sup>&</sup>lt;sup>30</sup> Ar<sup>v</sup> add. in margine: 'Another version [SE 171 b 10]: "Even though there is a true conclusion, demanding (muṭālib: ἀπαιτητικός, scil. an answer to the question) 'because of which it is', and all these deceptive (deductions) that are not according to method in one category, but are supposed to be according to the (relevant) method. As to these mendacious appellations, they are not non-eristic (ἀνεριστικά?), but those that fall under the (relevant) method". Like in all other glosses on the translatio vetus, this is

One important innovation of the Sophistical Refutations is that Aristotle distinguishes between two kinds of sophistical arguments: arguments which are not real refutations (whose types are the dialectical fallacies) and arguments which pretend to be scientific (and thus pretend to explain or to prove) without actually being so - regardless of whether the premisses are true or not. Aristotle can distinguish between these two kinds, because he strictly distinguishes between scientific and dialectical arguments (also regardless of whether the premisses are true or not).<sup>31</sup> The present passage is the place where he explicitly draws the distinction.

Again the translatio vetus is looser in terms of vocabulary and contains a few additions (for example, "he will examine the clever one", "wherein it is answered to names of people" and "while the false attributed books are not so"), but frequently it follows the order of clauses in the Greek more closely than the other two translations. For example, in the last sentence the translatio vetus connects the main clause (false proofs not being eristic), the clause offered in justification ( $\gamma \alpha \rho$ ), and the admissive sub-clause (οὐδὲ εἰ, even if) in the right way, while the other two translations get the main clause wrong and miss out on the justificationary γὰρ (perhaps Athanasius' exemplar read δὲ?), and also on the admissive 'even if'.

There are striking similarities between the *translatio vetus* and Ibn Zur'a's translation: both leave out a word corresponding to ἀξιοῦν and both interpret εἶς, not as number one on the list, but as being used to claim that two kinds of arguments are one and the same, whereas Yaḥyā renders it correctly on both occasions.

#### 5. Summing up

SE 34, 183 a 27-36

Έκ πόσων μὲν οὖν καὶ ποίων γίνονται τοῖς διαλεγομένοις οἱ παραλογισμοί, καὶ πῶς δείξομέν τε ψευδόμενον καὶ παράδοξα λέγειν ποιήσομεν, ἔτι δ' ἐκ τίνων συμβαίνει ὁ **σολοικισμός**, καὶ πῶς έρωτητέον καὶ **τίς** ή τάξις τῶν ἐρωτημάτων, ἔτι δὲ πρὸς τί χρήσιμοι **πάντες** εἰσὶν οί τοιοῦτοι λόγοι, καὶ περὶ ἀποκρίσεως ἀπλῶς τε πάσης καὶ πῶς λυτέον τοὺς λόγους καὶ τοὺς **σολοικισμούς**, είρήσθω περί άπάντων ήμῖν ταῦτα. λοιπὸν δὲ περί τῆς ἐξ ἀρχῆς προθέσεως ἀναμνήσασιν εἰπεῖν τι βραχύ περί αὐτῆς καὶ τέλος ἐπιθεῖναι τοῖς εἰρημένοις.

183 a 30 σολοικισμός VGb $\Psi^*$ : συλλογισμός ABΛDCcuh|τίς ABVGΛDCcuh $\Psi^V$ : πῶς b $\Psi^Z|$ a 31 πάντες εἰσὶν  $ABGb\Lambda DC$ cuh $\Psi^{\Sigma}$ : εἰσι πάντες V: om. πάντες  $\Psi^{V}$ ? | a33 σολοικισμούς  $V\Psi^{*}$ : σολοικισμούς συλλογισμούς G: σολοικισμούς καὶ συλλογισμούς b: συλλογισμούς ΑΒΛDCcuh

On how many and what grounds fallacies come about among dialectical interlocutors, how we are to expose someone making incorrect statements, and how we are to lead him to unacceptable statements; next, from what kind of questions solecism results, how one should ask questions and what the order of questions should be; and further, to what end all these accounts are useful, and about answering, both in general and as to how one should solve arguments and solecisms — we have discussed all these things. It remains to remind ourselves of the initial purpose, briefly to say something about it, and to draw these remarks to a close.

a  $\it naql\, \bar a \it har not$  ascribed to a specific translator, but in view of the parallels with  $Ar^{\rm Y}$  and  $Ar^{\rm Z}$ , may go back to the Syriac of Athanasius as well.

<sup>&</sup>lt;sup>31</sup> On the demarcation criterion between scientific and dialectical arguments, see P.S. Hasper, "Between Science and Dialectic: Aristotle's Account of Good and Bad Peirastic Arguments in the Sophistical Refutations", in Rapp - Hasper (eds.), Fallacious Arguments (above, n. 26), pp. 286-322.

#### ARY (p. 1185.3-93 Ğabr)

Regarding how many (the fallacies are) and from which (grounds) the fallacies come about for those who are discussing, and how we expose [yubayyin ms.: leg. nubayyin] him who lies or (ammā ms. [?]: leg. immā) how we also make him say strange things, and also from which (things) the solecism arises, and on (the matter of) how one asks and what is the order of the questioning (sq. ex  $\Sigma$ ?) is, and further, toward what (end) all arguments (λόγοι) like these are useful, and absolutely in (regard of) every answer, and (in the matter of) how the arguments and the solecisms are solved - all these have been discussed. And from now on we shall say something in brief containing the scope obtaining from the beginning,

mentioning and bringing to the close

what has been said.

#### Ar<sup>Z</sup> (p. 1187.3-9 Ğabr)

Regarding how many and of what kind the things are from which the fallacies come about for the discussants, and how one operates (or: we should operate - yu'mal: leg. na'mal?) in exposing the lie of the liar who in his argument comes up with strange things, and also whence arises the solecism, and how one asks, and how  $(\pi \tilde{\omega} \zeta)$  the order of the questions is, and toward what (end) a use can be made of all these arguments (λόγοι) which are in this way, and on every answer in an absolute way, and how the arguments and the solecism are analysed (yangaṣṣ ms.: leg. yanqadd 'dissected') - we have discussed all these things. And now let us discuss briefly the scope that we have envisaged from the very beginning in the way of a reminder; and then we shall finish what we have discussed.

#### Ar<sup>V</sup> (p. 1189.3-9 Ğabr)

This is what we said about the kinds of fallacies and in how many ways this occurs for those who engage in argument (ahl al-kalām), and how we recognize (yurā: leg. narā) him who uses them as a liar, and how we push him (nulği'uhū) so that he makes unacceptable statements, and from what decisive factors arises the solecism (isti'ğām 'broken language'), and how the question should be asked, and which are the orders of the questions, and why a profit can be made by arguments (om. πάντες?) like these, and generally how every answer (is to be given), and how the argument is to be analysed, and the solecism (isti'ğām) is recognised. And since we have accomplished all this and have mentioned what we promised in the beginning of our book, let us say something brief about this, and then we shall finish our book.

All three translations get it quite right, the translatio vetus only being looser, both in terms of the connections between the points mentioned and in vocabulary (for example, 'recognised' instead of 'solved' with regard to solecisms). On the other hand, it should be noticed that the last sentence, which in the Greek consists of three elements: reminding ourselves about the purpose of the work; saying something about it; and concluding the discussion, is indeed rendered in this way in the translatio vetus, whereas the Syriac translation underlying the other two Arabic translations probably merged the first two elements. One may also wonder the singular "order of the questioning" in Yaḥya's translation is due to the Syriac translation; in that case the correct plural "order of the questions" in Ibn Zur'a's translation may be accidental or due to a second source.

# D. Relating the Arabic Translations to the Greek Textual Tradition

With the three Arabic translations of Aristotle's Sophistici Elenchi we have not only three ways of trying to render some occasionally complex logical thoughts expressed in a sophisticated technical vocabulary and in dense and syntactically difficult sentences into a new language, but also three sources which provide us access to three lines of textual tradition, in two different languages: each of the three translations goes back, through a Syriac translation, to a Greek exemplar, and though this concerns, in the case of the translations by Yaḥyā and ibn Zur'a, the same Syriac translation and thus the same Greek exemplar, the revision by ibn Zur'a is partly based on at least one other Syriac translation and thus ultimately on a further Greek exemplar.

In this article we will posit three hypothetical Greek 'exemplars', one for each of the three Arabic translations; they can be regarded as the sets of all supposed Greek readings underlying each of the translations:

- $\Psi^{V}$ Supposed readings underlying the translatio vetus
- $\Psi^{Y}$ Supposed readings underlying the translation of Yaḥyā ibn 'Adī
- $\Psi^Z$ Supposed readings underlying the translation of 'Īsā ibn Zur'a

Now we know that the translation by Yahyā and ibn Zur'a both use the Syriac translation by Athanasius of Balad as their (primary) source. Thus we may assume that if these two translations share underlying Greek readings, these readings were also underlying that Syriac translation. For these readings we use:

Supposed readings underlying the Syriac version of Athanasius of Balad (VII)

It will be difficult, though not always impossible, to determine the supposed readings underlying these translations without comparison to the Greek tradition. Moreover, in order to appreciate the significance of these readings, one must know the outlines of the Greek textual transmission. For the Sophistici Elenchi these outlines are rather complicated, especially because of the degree of contamination and correction, though not as complicated, it seems, as other parts of the Organon. For his new edition of the Sophistici Elenchi Hasper uses, as things stand at the moment, the following 12 manuscripts:

```
Α
          Vat. Urb. gr. 35 (ca. 900)
```

- В Marc. gr. 201 (954)
- S Par. Suppl. gr. 1362 (IX) (a majuscule fragment of two leaves)
- V Vat. Barb. gr. 87 (X) (unfortunately only from 168 a 40 onwards)
- G Gud. gr. 24 (XII)
- Ь Durham C.I.15 (XV)
- D Par. gr. 1843 (XII)
- $\mathbf{C}$ Par. Coisl. 330 (XI)
- Vat. gr. 1024 (ca. 1000)
- Basil. F.II.21 (XII) 11
- Laur. Conv. Soppr. 192 (XII) (Ioannikios) e
- h Marc. gr. IV.53 (XII)

In addition there is Boethius' translation, which gives us access to an exemplar from around 500:

Λ Exemplar Boethii translationis (ca. 500)

Traditionally editors hold manuscripts A and B to be the best manuscripts and in many cases they adopt their readings accordingly, sometimes even if only one of them provides the only support for a reading.<sup>32</sup> Stemmatically this is, however, an indefensible preference. One can distinguish three clear groups in the direct transmission:

- AB
- **SVGb** β
- CU Υ

<sup>32</sup> This is true for Aristotelis Organon graece, II, ed. T. Waitz, Hahn, Leipzig 1846; Aristotelis Topica cum libro De sophisticis elenchis, ed. J. Strache - M. Wallies, Teubner, Leipzig 1923; Aristotelis Topica et Sophistici Elenchi ed. W.D. Ross Clarendon Press, Oxford 1958, and now also Hecquet (cf. Aristote, Les Réfutations Sophistiques [above, n. 5])

Groups α and β share a considerable number of errors, even though they have partly been corrected away in individual manuscripts. Together they constitute one branch of the stemma, which we shall call  $\varphi$ . On the other hand,  $\Lambda$  and the  $\gamma$  group also share errors against  $\varphi$ , thus going back to a common ancestor and sub-archetype  $\gamma$ . There are a few errors shared by  $\phi$  and  $\gamma$ , which thus must have been errors of the archetype  $\omega$ .<sup>33</sup>

That seems simple enough, but then there are the following complications. First, the  $\gamma$  group does not only share errors with  $\Lambda$ , but also with  $\beta$ : it constitutes a 'mixed' tradition. Moreover, this group is littered with variant readings, some of which are clearly additions and corrections - and quite a few of these we also find in other individual manuscripts, sub-groups and even groups of the  $\varphi$  branch. In late antiquity there seems thus to have been a lively practice of adding to or changing the text. This practice continued in the period from the 10th century onwards, as we can detect from the resulting contaminations in the extant manuscripts and can witness in the activity of second hands as well. As a matter of fact, almost all manuscripts from the 13th century onwards thus primarily belong to the tradition of which c and u are the earliest representatives, even if we can show for some of them that they also go back to manuscripts affiliated to the  $\alpha$  or  $\beta$  groups.

A second complication is that already at an early stage other clearly mixed manuscript traditions came into being. We have D, which is probably for the whole Organon a copy of Sinaiticus NE gr. M138, of which 11 leaves spread over most of the Organon (but not the Sophistici Elenchi) are preserved. Now this Sinai manuscript already shares, at least for the Topica and the Analytica Priora, readings with Gb, even though it also goes often together with other strands of the textual tradition, notably the famous Ambr. L 93 sup. (n – IX) in the Analytica. The second hand in the Sinai manuscript usually provides the variants we find in D, thus constituting another layer of contamination. We also have C and h, which seem to share a common ancestor which featured variants, whether in first or second hand, from all over the place: quite a few from the  $\beta$  group, but also from the  $\alpha$  group and, of course, the  $\gamma$  tradition. Finally we have e, which is part of the Aristotle 'edition' of Ioannikios,<sup>34</sup> which to a large extent shares readings with the  $\gamma$  group, but also from all other groups, including D and Ch and, quite surprisingly, at a few places  $\Lambda$ .

It is within this complicated network of lines of transmission that we have to give a place to  $\Psi^{\Sigma}$  and  $\Psi^{V}$ . That may seem a very difficult task, because we have not been able to check the whole translations against the Greek text with all its variants, so that our evidential basis is limited, but also because the underlying readings we find for  $\Psi^{\Sigma}$  and  $\Psi^{V}$  are not specifically related to any part of the Greek textual tradition, not even to the mixed traditions. However, there is one important fact, one which easily might escape notice within this bewildering variety of possible affiliations with the Greek tradition, that makes the task much easier: there is convincing evidence that  $\Psi^{\Sigma}$  and  $\Psi^{V}$  share a common ancestor featuring errors unique or almost unique to them. Despite our limited evidential basis, we have still found the following four clear cases:

<sup>33</sup> For further information, including lists of evidence, see P.S. Hasper, "A New Independent Group of Manuscripts for Aristotle's Sophistici Elenchi" (forthcoming).

<sup>&</sup>lt;sup>34</sup> For more on this 'edition', see D. Baldi, "Ioannikios e il corpus aristotelicum", Revue d'histoire des textes, N.S. 6 (2011), pp. 15-26.

```
167 a8
                  'Ινδός ABGbADCueh : om. c – Ψ<sup>Σ</sup>Ψ<sup>V35</sup>
170 a 9
                  τὸ δ' ἐν ἀρχῆ ABVGbD : τὸ ἐν ἀρχῆ \LambdaCcueh : om. Ψ^{\Sigma}Ψ^{V}
171 b 36
                  τῆ διαλεκτικῆ ABVGbDCcueh : τῷ διαλεκτικῷ \Psi^{\Sigma}\Psi^{V}
                  οὖ ABVbΛDCcueh Theoph.: om. G – Ψ<sup>Σ</sup>Ψ<sup>V</sup>
172 a35
```

Four places are already quite significant, especially given the small number of places collated, but further support can be gleaned from the covariance found among these exemplars: time and again they share readings which, though these readings also occur in other parts of the tradition, can only be found in different and different parts of the tradition:

```
λόγων γένος ABGb[λώγον] Ccueh : γένος λόγων ΛD – ΨΣ?Ψ<sup>V</sup>?
165 a 32
165 b 6
                 τρόπον δέ ABΛ cueh : δὲ τρόπον C : τρόπον GbD - Ψ<sup>Σ</sup>Ψ<sup>V</sup>
166 b 32
                 πάντα γὰρ οὕτως ἔσται τὰ αὐτά Gb\Lambda DC cueh : om. AB - \Psi^{\Sigma}\Psi^{V}
167 a 6
                 καὶ τοῦ μὴ εἶναί τι τὸ μὴ εἶναι ABΛCeh : καὶ τὸ μὴ εἶναί τι τὸ μὴ εἶναι b :
                 καὶ τὸ μὴ εἶναί τι τοῦ μὴ εἶναι u: τὸ μὴ εἶναι c: om. GD - \Psi^{\Sigma}\Psi^{V}
                 τὸ ABGbDCc : τῷ VΛueh – Ψ<sup>Σ</sup>Ψ<sup>V</sup>
169 a 25
                 μή ABVGbDCh : om. Λcue – Ψ<sup>Σ</sup>Ψ<sup>V</sup>
170 a 2
                 τοῦδε ABVGbDCueh : τὰ λοιπά Λc – Ψ<sup>Σ</sup>Ψ<sup>V</sup>
170 a 19
170 a 22
                 οὐδεμιᾶς ABVGbDCeh : οὐ μιᾶς Λcu – \Psi^{\Sigma}\!\Psi^{V}
                 ἔσται ABVGbC : ἐστὶν ΛDcueh – ΨΣΨΥ
170 b 24
                 παραλογισμοῦ ABVGbDceh : συλλογισμοῦ ΛCu – ΨΣΨΥ
171 a 3
                 προλάβη ABΛCu : προσλάβη SVGbDceh- Ψ<sup>Σ</sup>Ψ<sup>V</sup>
177 a 16
                 οὐδαμῶς ABΛDCh : οὐ κακῶς Gb : om. Vcu – \Psi^{\Sigma}\Psi^{V}
183 a 19
183 a 30
                 συλλογισμός ABADCcuh: σολοικισμός VGb – Ψ<sup>2</sup>Ψ<sup>V</sup>
                 συλλογισμούς ΑΒΛDCcuh: σολοικισμούς συλλογισμούς G:
183 a 33
                 σολοικισμούς καὶ συλλογισμούς b: σολοικισμούς V-\Psi^{\Sigma}\Psi^{V}
183 b 38
                 έρωτητικούς ABΛcu : ἐρωτηματικούς Ch : οἱ δὲ ἡητορικούς V :
                 έρωτητικούς έριστικούς b : έριστικούς \Psi^{\scriptscriptstyle V} : έρωτικούς D-\Psi^{\Sigma_{36}}
```

Of these places 170 a 2, 170 a 19, 183 a 19 and 183 b 38 definitely concern errors. Other places concern clearly correct readings: 169 a 25, 171 a 3 and 183 a 30 and 33, whereas the remaining ones are neither clearly correct nor clearly incorrect.

Also the places where merely  $\Psi^{Y}$  and  $\Psi^{V}$  show covariance, when the reading of  $\Psi^{Z}$  is presumably the result of Ibn Zur'a's revision, are relevant here:

```
μαλ ABGbΛueh – Ψ<sup>Z</sup>: om. DCcΨ<sup>Y</sup>Ψ<sup>V</sup>
165 a 8
                165 a 32
                τοιοῦτον AbADCcueh - Ψ<sup>Z</sup> : τοιούτων BG - Ψ<sup>Y</sup>Ψ<sup>V</sup>
165 a 32
               ἐλέγγουσιν ABVGb\LambdaCcueh – \Psi^Z Theoph. : ἐλέγουσιν D : om. \Psi^Y\Psi^V
172 a 34
182 a 1
                σημαίνει ABVGbDCcue: σ.μβαίνει h: om. \Psi^Z: σημαίνειν \Lambda - \Psi^Y \Psi^V
```

<sup>35</sup> This is a mistake, the sentence at 167 a 7-8 δ Ἰνδός, ὅλος μέλας ών, λευχός ἐστι τοὺς ὀδόντας does not make good sense without Ἰνδός. One could imagine the sentence without ὅλος (just as at 167 a 11), but apart from Boethius there is no source for that reading; the disappearance of either Ἰνδός or ὅλος is easy to explain as due to the similarity between INΔOC and OλOC.

<sup>&</sup>lt;sup>36</sup> Here clearly the reading of  $\Psi^V$ , just as those of VbCh, constitutes an attempt to improve upon the reading of  $\Psi^\Sigma$ , which is the originally erroneous reading.

This list probably adds 172 a 34 to the places where  $\Psi^{\Sigma}$  and  $\Psi^{V}$  share a unique error. The reading of 182 a 1 is clearly the correct one, while the three remaining places concern neutral readings.

The fact that there is a common ancestor shared by  $\Psi^{\Sigma}$  and  $\Psi^{V}$  licenses us to introduce:

```
ψ*
                  Supposed readings of the common Greek ancestor underlying the Arabic translations
                  (Ar<sup>V</sup>, Ar<sup>Y</sup> and Ar<sup>Z</sup>) or their Syriac exemplars
```

and to ask how this common ancestor  $\Psi^*$  related to the rest of the textual tradition. Here is a list of readings that  $\Psi^*$  shares with the  $\varphi$  branch, that is, the  $\alpha$  and/or  $\beta$  groups, alone:

```
165 a 24
              om. ΛDCc: εν ABGbueh - Ψ*
               τοιοῦτον AbADCcueh - Ψ<sup>Z</sup> : τοιούτων BG - Ψ<sup>Y</sup>Ψ<sup>V</sup>
165 a 32
              τρόπον δέ ABΛcueh : δὲ τρόπον C : τρόπον GbD - Ψ*
165 b 6
              πάντα γὰρ οὕτως ἔσται τὰ αὐτά GbADCcueh: om. AB – Ψ*
166 b 32
              προειρημένην \Lambda cu : εἰρημένην ταύτην eh : εἰρημένην ABVGbDC - \Psi^*
169 b 16
169 b 34
              δ BGACcueh : δ AVbD - Ψ*
172 b 25
              \delta ABDcueh : om. VGbCΨ<sup>Σ</sup>?Ψ<sup>V</sup>? [\Lambda]
              συλλογισμός ABADCcuh: σολοικισμός VGb - Ψ*
183 a 30
183 a 33
              συλλογισμούς ΑΒΛDCcuh: σολοικισμούς συλλογισμούς G: σολοικισμούς καὶ
              συλλογισμούς b: σολοικισμούς V-\Psi^*
              έρωτητικούς ABΛcu : έρωτηματικούς Ch : οί δὲ ρητορικούς V : έρωτητικούς
183 b 38
              έριστικούς b : έριστικούς \Psi^{V} : έρωτικούς D - \Psi^{Z37}
```

There are two clear mistakes in this list, at 169 b 34 and at 183 b 38. The one at 169 b 34 is only a matter of accentuation, while the one at 183 b 38 is a mistake which occurs more often and needs not be very significant. Two places feature the obviously correct reading: 183 a 30 and 33. The other passages are neither clearly false nor clearly correct.

The list of places at which  $\Psi^*$  shares readings with the  $\gamma$  branch alone is somewhat longer and, more importantly, features errors:

```
165 a 2.
             διὰ τῶν κειμένων BGb : om. AADCcueh - Ψ*
             καὶ ABGbΛueh – \Psi^Z: om. DCc – \Psi^Y\Psi^V
165 a 8
             λόγων γένος ABGbCcueh: γένος λόγων ΛD - Ψ*?
165 a 32
             om. BG : μη b : οὖκ AΛDCcueh - Ψ*
165 b 2
166 a 28
             σημαίνοι ABGbD : σημαίνει ΛCcueh - Ψ*
166 b 28
             συλλογισμοί Bb: παραλογισμοί AGADCcueh - Ψ*38
166 b 34
             ἄνθρωπον AGb : ἀνθρώπου BADCcueh - Ψ*
168 b 24
             εἶναι αἴτια τοῦ ABVGb : εἶναι αἴτια h : εἶναι ΛDCcue - Ψ*
169 a 24
             τὸ ὂν C : om. BVGb : καὶ τὸ ὂν ΑΛDcueh - Ψ*
169 a 25
             τὸ ABGbDCc: τῷ VΛueh - Ψ*
170 a 19
             τοῦδε ABVGbDCueh : τὰ λοιπά Λc – Ψ*
170 a 22
             οὐδεμιᾶς ABVGbDCeh: οὐ μιᾶς Λcu – Ψ*
             ἔσται ABVGbC : ἐστὶν ΛDcueh - Ψ*
170 b 24
```

<sup>37</sup> See footnote 36.

 $<sup>^{38}</sup>$  This is a case of φ featuring the incorrect συλλογισμοί, but this being corrected in A and G.

```
171 a 3
              παραλογισμοῦ ABVGbDceh: συλλογισμοῦ ΛCu - Ψ*
178 a 29
              ος τις ABADCeh: τις τι VGcu - Ψ*?39
              έστι νικᾶν ὅς γ' ἐρεῖ VG? : ἐστιν ἱκανὸς λέγειν A : ἐστὶν κᾶν οὕτως ἐρεῖ b :
180 b 27-28
              ἐστιν ἱκανῶς λέγειν BADCcueh - Ψ*
              σημαίνει ABVGbDCcue : σ.μβαίνει h : om. \Psi^Z : σημαίνειν \Lambda - \Psi^Y \Psi^V
182 a 1
              οὐδαμῶς ABADCh : οὐ κακῶς Gb : om. Vcu – Ψ*
183 a 19
```

Most of these places constitute readings in  $\Psi^*$  which are obviously correct, while these places concern Bindefehler of the α and β groups: 165 b 2, 166 a 28, 166 b 28, 166 b 34, 168 b 24, 169 a 24, 169 a 25, 171 a 3 and 182 a 1. However, there are Bindefehler between  $\Psi^*$  and representatives of the χ branch at 165 a 2, 170 a 19, 180 b 27-28 and 183 a 19. The remaining places are neither clearly correct nor clearly incorrect.

There is also a list of places for which we only have the reading of  $\Psi^{\Sigma}$  to go on, which is relevant here:

```
168 b 2
                   \mathring{\eta}^3 AΛDCeh : \mathring{\eta} BVGb?cu – \Psi^{\Sigma} [\Psi^{V}]
                   τοῦτο ABVGbΛDC : τοῦτό ἐστιν ueh : τοιοῦτό ἐστιν c - \Psi^{\Sigma}[vel sine ἐστιν] [\Psi^{V}]
168 b 2
                   ένὶ ABVGbh : ἔνια C : ένὶ καὶ Λ<br/>Dcue – \Psi^{\Sigma}\left[\Psi^{V}\right]
168 b 31
                   λαμβάνειν ABVGbDeh : λαμβάνει ΛCcu – Ψ<sup>Σ</sup>?
169 a 2
170 a 2
                   μη ABVGbDCh : om. Λcue – Ψ^{Σ} [Ψ^{V}]
                   δή ABVGbDCue : δέ \Lambda?ch\Psi^{\Sigma} [\Psi^{V}]
170 b 19
```

These places provide some corroborating evidence that  $\Psi^*$  belongs to the  $\chi$  branch of the stemma (the agreement with the  $\varphi$  branch at 168 b 2 only concerns an accent and is thus not significant).

Once the fact that  $\Psi^\Sigma$  and  $\Psi^V$  have a common ancestor which heads an independent branch of the textual tradition, is established, it changes the perspective from which we have to judge the differences between them: they must be due to mistakes, corrections or contaminations in one of the two lines of descent. Here are the places where  $\Psi^{\Sigma}$  and  $\Psi^{V}$  have different readings, due to an error arising in the tradition of  $\Psi^{\Sigma}$ :

```
165 b 4
                 συλλογιστικοί ἀντιφάσεως ABGbDCcu : συλλογιστικοί ἀντιφάσεως Λe :
                 συλλογιστικόν ἀντιφάσεως h? : ἀντιφάσεων \Psi^{V}? : συλλογιστικοί \Psi^{\Sigma}
166 b 31
                 καὶ καθ' οὖ κατηγορεῖται ABGb\LambdaDCcueh – \Psi<sup>V</sup>? : om. \Psi<sup>Σ</sup>
                 διαρθροῦν ABVGbΛDCcueh – \Psi^V: διορθοῦν \Psi^\Sigma
169 a 7
                 άντὶ ABVGbΛDCcueh – \Psi^V: ἄν τι \Psi^\Sigma
170 a 4
                 άντὶ ABVGb\LambdaDCcueh – \Psi^{V}: άν τι \Psi^{\Sigma}
170 a 6
171 b 5
                 διὸ περὶ πάντων ἐπισκοπεῖ VG b \Lambda DC cue - \Psi^V : διὸ ἐπισκοπεῖ h : om. AB :
                 διὸ περὶ τούτων ἐπισκοπεῖ \Psi^{\Sigma}
171 b 10
                 ἀπατητικός ABVGb\LambdaDCcueh \Psi^V: ἀπαιτητικός \Psi^\Sigma
                 ἐριστικά ABVGb\LambdaDCcueh \Psi^{V}: ἀνεριστικά \Psi^{\Sigma}?
171 b 13
                 οὖν ABVbΛDCcueh – \Psi^V Theoph. : γὰρ G : οὖκ \Psi^\Sigma
172 a 34
                 έστι Ross : ἔτι ABSVGbΛDCcueh – \Psi^{V} : εἴτε \Psi^{\Sigma}
176 b 20
                  ἀστράγαλον ... ἀστραγάλους ABVGΛDCacueh – \Psi^{\rm V} : pedem ... pedes \Psi^{\rm \Sigma}
178 a 31
                 ἀποβαλεῖν ABVGbΛCcueh – \Psi^{\text{V}} : ἀποβάλλειν D : λαβεῖν \Psi^{\text{\Sigma}}
180 b 21
                 τάληθές ABVGb\LambdaDCeh – \Psi^{V}: τάληθη cu : om. \Psi^{\Sigma}
181 a 17
```

<sup>&</sup>lt;sup>39</sup> Here the whole  $\beta$  group is presumably contaminated from the  $\gamma$  group.

Some of these may well be the result of the Syriac translation by Athanasius, either because he thought that it would be better to render a term differently in view of the grammatical properties of Syriac, unable to reproduce the Greek metalanguage (e.g. 178 a 31) or because he failed to understand the Greek (e.g. 170 a 4 and 6, and 181 a 17), but others are clearly due to corruptions in the Greek tradition (169 a 7, 171 b 5, 172 a 34, 176 b 20, 180 b 21). It is also not to be excluded that in the course of the transmission of the Syriac translation something went wrong, e.g. at 166 b 31.

Here is the list of places where  $\Psi^{\Sigma}$  and  $\Psi^{V}$  have different readings due to an error arising in the tradition of  $\Psi^{V}$ :

```
γὰρ ABGbΛDCcuehΨY: ἄρα ΨZ?ΨV
165 b 3
166 b 6
                 οξύτερον ABDC^2h\Psi^\Sigma: οξύτερον βαρύτερον GbC^1?u: βαρύτερον ce: om. \Psi^V[\Lambda]
166 b 13-14 \, \dot{\eta} \, τὸ διακείμενον ποιοῦν ABGbΛDCcueh\Psi^{\Sigma}: om. \Psi^{V}
                ἐπ' ἐνίων – δοτέον ἀπόκρισιν ABVGb\LambdaDCcueh\Psi^{\Sigma}: om. \Psi^{V}
168 a 1-2
                ὅτι – τοῦτο ABVGb\LambdaDCcueh\Psi^{\Sigma}: om. \Psi^{V}
168 b 2
168 b 31-32   τὰ γὰρ – εἶναι ταὐτά ABVGbΛDCcuehΨ^{\Sigma} : om. Ψ^{V}
                καὶ πρὸς ταὐτὸ ABVGb\Lambda DCcueh\Psi^{\Sigma}: om. \Psi^{V}
170 a 7
170 a 11
                γὰρ ABVGbDcuehΨ<sup>Σ</sup> : γὰρ ἂν C : om. <math>Ψ<sup>V</sup> [Λ]
                λάβωσι ABVGb\Lambda Ccueh\Psi^{\Sigma}: λάθωσι D: faciunt \Psi^{V}
170 a 17
179 a 17
                ἔμψυχον ABVb\Lambda DCeh\Psi^{\Sigma}: ἔμψυχον ον cu: ἄψυχον \Psi^{V}[G]
181 b 39
                προστιθέμενον ABVGb\LambdaCcueh\Psi^{\Sigma}: τιθέμενον D: om. \Psi^{V}
182 a 18
                \lambdaίθος ABVGb\LambdaDCcueh\Psi^{\Sigma}: ξύλον \Psi^{V}?
                δοκούντων ὅτι μάλιστα ABVGb\LambdaDCcueh\Psi^{\Sigma}: om. \Psi^{V}
182 b 38
183 a 1-2
                άεὶ – κατασκευάσει ABVGb\LambdaDCcueh\Psi^{\Sigma}: om. \Psi^{V}
```

The most common source of error in  $\Psi^{V}$  is that phrases dropped out without there being a context conducive to it (166 b 13-14, 168 b 2, 168 b 31-32, 183 a 1-2); a possible explanation lies in the periphrastic nature of the translatio vetus, but also in the lack of understanding on the part of the translator, which also may show itself at 170 a 11, 181 b 39 and 182 a 18.40 At 168 a 1-2, however, the omission involves a jump from ἀπόκρισις to ἀπόκρισιν, so that this is probably a case of saut du même au même, just as the simpler cases at 170 a 7 and 182 b 38, whether in the Greek or in the Arabic, and perhaps 168 b 2 in the Arabic. There are also clear cases of errors which must be due to the Greek transmission, e.g. 165 b 3 and 179 a 17, and presumably 170 a 17 as well, even though it is unclear how the corruption could have come about. The omission at 166 b 6 might be the result of confusion in the Greek tradition, but also of the fact that the point made by Aristotle is languagespecific, also the reason why Boethius does not render it.

More interesting are the places at which  $\Psi^{\Sigma}$  or  $\Psi^{V}$  deviate from  $\Psi^{*}$  in a way we also find elsewhere in the textual tradition of the *Sophistici Elenchi*. Here is a list of places where  $\Psi^{\Sigma}$  probably or perhaps is contaminated from elsewhere:

```
αὐτὰ ABGbΛDCeh – \Psi^{V}: αὐτὰ καθ' αύτὰ cu – \Psi^{\Sigma}?
165 a 6
                τῶν ABGbΛDCe – \Psi^{V}: τῶν διδασκαλικῶν καὶ cuh – \Psi^{\Sigma}
165 b 9
```

<sup>&</sup>lt;sup>40</sup> After all, the translatio vetus leaves out the whole section of SE 32, 182 a 20-34, part of the difficult issue of solecism.

```
νῦν ABGb\Lambda DCcu - \Psi^V: om. eh -\Psi^\Sigma
166 a 3
170 b 24
                  η ABVGbΛDCcuh – Ψ<sup>V</sup> : καὶ e – Ψ<sup>Σ</sup>
172 b 29
                  παράδοξον VGbΛh[-ξων] – \Psi^{V}: παράδοξα ABDCcue – \Psi^{Y}?\Psi^{Z}
180 a 37
                  τὸ δὲ μὴ ὂν οὖκ SΛDCeh – \Psi^{V}: δοτέον οὖ γὰρ VGb : οὖ γὰρ cu : τὸ γὰρ μὴ ὂν οὖκ AB – \Psi^{\Sigma}
```

This list is not long, and the cases of 166 a 3 and 170 b 24 are not so clear. The other four cases point to contamination from the cu tradition or from a tradition in which at 180 a 37 γὰρ had replaced δὲ, which influenced AB and VGb<sup>41</sup> as well as cu. The corresponding list for  $\Psi^{V}$  is much longer:

```
αναγκαῖον BGbΛCeh – \Psi^{\Sigma} – Al.Aphr. In Topica, p. 25.23 Wallies: ἀναγκαίων ADcu – \Psi^{V42}
165 b 5
165 b 8
                  φαινόμενοι συλλογιστικοί AGbDCc - \Psi^{\Sigma}: συλλογιστικοί \Lambda: συλλογιστικοί \mathring{\eta}
                  φαινόμενοι e: συλλογιστικοί \mathring{\eta} φαινόμενοι συλλογιστικοί Buh[φαινομένων] - \Psi^V
165 b 10
                  άλλοις ABGb\LambdaDCueh – \Psi^{\Sigma}: τοῖς πρότερον c – \Psi^{V}
                  μόνη VGb\LambdaCcu – \Psi^{\Sigma}: om. ABDeh – \Psi^{V}?
169 a 11
                  τοὺς VGb\Lambda ceh - \Psi^{\Sigma}: λόγους, ἐτέρους ABDCu - \Psi^{V}?
170 b 12
                  τὴν ἀντίφασιν BVGb\LambdaDC – \Psi^{\Sigma}: om. Acueh – \Psi^{V}
171 a 6
173 a 25
                  ἐν λόγ\omega ABΛD – \Psi^\Sigma: λόγοις e : ἐν λόγοις u?h : σοφοῖς VGbCc – \Psi^V
                  ράδιον SVGbΛcu - ΨΣ: ρᾶον ABDCeh - ΨV
177 a 8
                  ύπάρχη ἢ μὴ ὑπάρχη Gb\Lambda c[-\chi \epsilon \iota, -\chi \epsilon \iota] u - \Psi^{\Sigma} : ὑπάρχει Aeh : ὑπάρχη BVDC - \Psi^{V}
181 b 4
181 b 39-182 a 1 ἄλλα ... σημαίνειν \Psi^{Y}: ἄλλα ... om. \Psi^{Z}: ἀλλὰ ... σημαίνει codd.: om. ... σημαίνειν \Lambda - \Psi^{V}
182 b 27
                  διὰ ABVΛDCeh – \Psi^{\Sigma}? : παρὰ διὰ G : παρὰ bc?u – \Psi^{V}?
                  φάναι ABVGbΛDCeh – \Psi^{\Sigma}: φαίνεται cu – \Psi^{V}
182 b 27
182 b 38
                  ἀναιρῆ ABADCeh – \Psi^{\Sigma}: ἀναιρῆ καὶ κατασκευάζη VGcu – \Psi^{V}: ἀναιρῆ τις ἣ
                  κατασκευάζη b
```

All these places concern readings in  $\Psi^{\Sigma}$  which can be found in at least two of the three groups AB, (V)Gb and  $\Lambda$ , so that it seems more likely that if  $\Psi^{\Sigma}$  has such a reading,  $\Psi^*$  had this reading as well – so that the deviating reading in  $\Psi^{V}$  must come from somewhere else. The only place for which one cannot be sure is 181 b 4, where it might be that Gb is contaminated from the γ branch, rather than that  $\mathring{\eta}$  μ $\mathring{\eta}$  ὑπάργ $\mathring{\eta}$  dropped out. For most places the reading of  $\Psi^{V}$  is also found in one of cu, but also AB and D figure frequently on this list. Only 181 b 39 - 182 a 1 stands out as suggesting a connection between  $\Lambda$  and  $\Psi^{\rm v}$ ; it is unclear how to explain this, but it is very difficult to imagine that  $\Psi^*$  did not have the correct reading that we still find in  $\Psi^{\Sigma}$ .

There are also places for which it is not so easy to determine which of  $\Psi^{\Sigma}$  and  $\Psi^{V}$  was changed:

```
τὸ GbDCc - \Psi^{V} : τ \tilde{\omega} AB\Lambda ueh - \Psi^{\Sigma}
168 a 4
                 γαρ ABVGbDCcueh – Ψ<sup>Σ</sup> : δὲ Λ – Ψ<sup>V</sup>
172 b 31
                 \muαθών ἢ εύρων ABVbC – \Psi^{\Sigma}: εύρων ἢ \muαθών ΛDcueh – \Psi^{V} [G]
178 b 34
                 δὲ ABSVGbDCeh – \Psi^{\Sigma}: γὰρ Λcu – \Psi^{V}
180 a 39
181 a 16
                 πυνθανομένων μεν BCch – ΨΣ: πυνθανομένων D: πυνθανομένου μεν VGb:
                 πυνθανομένω μέν Aue: πυνθανόμενον Λ - Ψ^{V}?
```

<sup>&</sup>lt;sup>41</sup> The reading of VGb is the result of corruption of the correct reading (which can be found in the manuscript S affiliated with VGb) together with the addition of γαρ.

<sup>&</sup>lt;sup>42</sup> Here the reading ἀναγκαίων is obviously correct, but the result of a correction of the impossible ἀναγκαῖον, which, given the evidence, including that of Alexander, must have been the reading of the archetype.

Given the connection between  $\Psi^*$  and the  $\gamma$  branch, it may be that the readings mentioned last were also found in  $\Psi^*$ , even though one should not bet on it. There is no evidence for a special connection between  $\Lambda$  and  $\Psi^*$ , as there might be between  $\Lambda$  and  $\Psi^V$ , so that at 172 b 31 and 181 a  $16^{43}$ (just as at 181 b 39 in the previous list) it could also be, or is perhaps even more likely, that again the reading of  $\Psi^{V}$  is the one that has been changed away from that of  $\Psi^{*}$ . This is also true for 178 b 34 and 180 a 39. The only place for which it could go either way is 168 a 4; there  $\tau \delta$  definitely is the correct reading, but the incorrect  $\tau \tilde{\omega}$  is found in both branches of the stemma, in casu in AB and in  $\Lambda$ , so that  $\Psi^*$  may have been in error as well.

Thus we see that there is some correction and contamination in the tradition leading to  $\Psi^{\Sigma}$  and rather extensive correction and contamination in the tradition leading to  $\Psi^{V}$ . Next we should have a look at the extent of interference between the Greek tradition and the revision of Yahyā's translation by Ibn Zur'a. As we know, Ibn Zur'a used the Syriac translation by Theophilus in addition to that by Athanasius, but it may be that he used other alternative sources as well. The first set of evidence for connections, whether direct or indirect, with the Greek tradition is the following:

```
om. DCc – \Psi^Y \Psi^V: καὶ ABGbΛueh – \Psi^Z
165 a 9
165 a 32
               ἔστι DCh – \Psi^{Y}?\Psi^{V}? : τί Gb : ἔστι τι ABΛcue – \Psi^{Z}
               τοιούτων BG - ΨΎΨ' : τοιοῦτον AbADCcueh - ΨΖ
165 a 32
               διδασκαλικοὶ ABGbADCcueh – \Psi^{Y}\Psi^{V}: ἀποδεικτικοὶ \Psi^{Z}, cf. Michael of Ephesus 17.17
165 b 1
               ποιεῖν ABGbΛDCeh – \Psi^Y? : ποιοῦν cu – \Psi^Z [\Psi^V]^{44}
166 b 14
               ἀπόκρισιν ABGbΛDCcueh – \Psi^{\rm Z} Theoph. : μίαν ἀπόκρισιν \Psi^{\rm Y} [\Psi^{\rm V}]
167a2
               ἐλέγγουσιν ABVGb\LambdaCcueh\Psi^Z Theoph.: ἐλέγουσιν D: om. \Psi^Y\Psi^V
172 a 34
               προαναστατέον ABSΛC\Psi^Y\Psi^V:προτατέον b:προστατέον h:προενστατέον VGD\Psi^Z:
176 b 26
               προενιστατέον cu [e]<sup>45</sup>
177 b 19
               άλλ' ἔστι κακῶν σπουδαία ἐπιστήμη ΑΒΛε : ἀλλ' ἔστι κακοῦ σπουδαία
               ἐπιστήμη Ch: om. VGbDcu: ἀλλὰ τὸ σπουδαῖον οὐ κακόν <math>\Psi^{Y}: ἀλλὰ ἡ μὴ κακῶν
               έπιστήμη σπουδαΐα \Psi^{\rm Z}: ἀλλὰ τὸ κακὸν καὶ ἡ τῶν κακῶν ἐπιστήμη κακόν \Psi^{\rm V}
               τίς ABVGΛDCcu – \Psi^{Y}\Psi^{V}: πῶς b – \Psi^{Z}
183 a 30
```

This first set of evidence concerns places where  $\Psi^V$  agrees with  $\Psi^Y$ , or at least does not disagree with  $\Psi^Y$ , so that it is more likely that  $\Psi^Y$  retains the reading of  $\Psi^\Sigma$  and thus that  $\Psi^Z$  deviates from the translation by Athanasius. Only for 167 a 2 this is not so clear, as it seems quite possible that Yahyā introduced 'one' in the translation. Except for that passage and for 177 b 19, there most likely was a Greek source for Ibn Zur'a's deviation.

There is also a list of places where  $\Psi^Z$  and  $\Psi^V$  agree against  $\Psi^Y\!\!:$ 

<sup>&</sup>lt;sup>43</sup> It is also possible that in translations the impossible μὲν of the exemplars was ignored. At any rate, the odds are that the archetype featured the impossible πυνθανομένων μὲν, which was then at least partially corrected into πυνθανομένω or πυνθανόμενον. That the correct reading was πυνθανόμενον (without μεν) appears from the accusative λέγοντα in the next line.

<sup>&</sup>lt;sup>44</sup> This is a place at which the archetype was probably incorrect in reading ποιεῖν; the correction into ποιοῦν is rather

<sup>&</sup>lt;sup>45</sup> The form προενιστατέον is morphologically incorrect, but could easily have been mistaken for the morphologically correct form προενστατέον; alternatively this form is due to a 'correction' of προαναστατέον by way of a supralinear εν.

```
λέγειν A\Lambda Ccueh\Psi^Y: συνάγειν B: συμβαίνειν \Psi^Z \Psi^V: συλλέγειν GbD^{46}
165 a 1
165 b 3
                  γὰρ ABGbΛDCcueΨY: ἄρα ΨZ?ΨV
166 a 18
                  ἐπίσταται ABGΛCDeΨ<sup>Υ</sup>?: ἐπίστασθαι bcuΨ<sup>2</sup>Ψ<sup>V</sup>?
                 τὸ ABGbΛDCcueh\Psi^Z \Psi^V: ὁ \Psi^Y
166 a 19
                  ἐπίσταται ABGbDcue\Psi^{Y}: ἐπίστασται h? : ἐπίστασθαι \Lambda C \Psi^{Z} \Psi^{V}
166 a 20
                  ἐνδόξων AGbC\Psi^{Y}: ἐνδόξων μὴ ὄντων δέ B\Lambda Dcueh[\delta \text{\'e} \ om.] \Psi^{Z} \Psi^{V}
166 b 7
                 \tauον<sup>2</sup> ABVGb\LambdaDcueh – \Psi^{Y}: \tauο C\Psi^{Z}\Psi^{V}
170 a 17
170 a 20
                  παρὰ πόσα ABVGbDCeh : παρ' ὁπόσα cu – \Psi^{Y} : παρ' ὅσα \Lambda – \Psi^{Z}\Psi^{V}
                  πρότερον ABVGb\LambdaDCcueh\Psi^Z\Psi^V: προτέρου \Psi^Y
171 a 3
                  ἀξιοῦν ABVGbΛDCcuehΨY: om. ΨΖΨV Theoph.
171 b 3
                  τὸν γεωμέτρην A\Lambda[τ\tilde{\eta} γεωμετρία]ueh – \Psi^Z\Psi^V: τὸν γεωμετρικόν BVGbDCc:
171 b 37
                  τὰ γεωμετρικά ΨΥ
172 a 34
                  ἀτέχνως γὰρ ABVGb\LambdaDCcueh\Psi^Z\Psi^V Theoph. : om. \Psi^Y
                   ἐντέχνως ABVGbΛDCueh\Psi^{Y}: τέχνως c: om. \Psi^{Z}\Psi^{V}
172 a 35
172 a 36
                  ταῦτα καὶ VGb\Lambda D\Psi^Y: ταὐτὰ καὶ Cu: ταῦτα Aceh\Psi^Z\Psi^V: ταὐτὰ B
                  δὲ VG^2\Lambda\Psi^Z\Psi^V: δὲ καὶ ABG^1?bDCcueh\Psi^Y
172 b 33
                  τε καὶ φασίν ABVGbΛDCcueh\Psi^Z\Psi^V: om. \Psi^Y
172 b 37
                  μος θηρός VGbΛuh – \Psi^{Y}: μος θηρός \mathring{\omega}στ' έσται άγαθός σκυτεύς μος θηρός ABDCce – \Psi^{Z}\Psi^{V}
177 b 15
                  οὐ γάρ bΛ – \Psi^{Y} : ἀλλ' οὐκ ABVDCcueh – \Psi^{Z}\Psi^{V} [G]
179 b 22
                  οὐ ABVGbΛDCcuehΨ<sup>Z</sup>Ψ<sup>V</sup>: om. Ψ<sup>Y</sup>
182 a 16
182 b 25
                  ἕτερον ABVGb\Lambda DCcue\Psi^{Z}?\Psi^{V}: ἑτέρων? \Psi^{Y}
```

One might think that because  $\Psi^Z$  and  $\Psi^V$  agree for all these places, their readings derive from  $\Psi^*$ , and thus that  $\Psi^{Y}$  deviates from  $\Psi^{*}$ . Now it might be that at 166 a 19, 171 a 3, 171 b 37, 172 a 34, 172 b 37, and 182 a 16 Ibn Zur'a has improved upon Yaḥyā's rendition of Athanasius' Syriac translation, but this does not seem to apply to the other places. Yahya's mistake at 182 b 25 seems difficult to explain without a corruption in Athanasius' translation or its Greek exemplar. At 165 a 1, 165 b 3, 166 a 18, 166 b 7 and 172 a  $36 \, \Psi^{Y}$  features a reading that is correct, but has also suffered from a popular 'correction', and since we have established that both  $\Psi^Z$  and  $\Psi^V$  contain quite a few contaminations from Greek sources, it seems more likely that here as well both of them were contaminated. The same may well be true for 166 a 20, 170 a 17, 170 a 20, 177 b 15 and 179 b 22, and perhaps even for 172 b 33 (though there the addition of καὶ may have come naturally). In fact, only 171 b 3 and 172 a 35 might be taken to suggest that rather than making a mistake in his rendition of Athanasius' translation, Yaḥyā used a second source as well. Of these two places 172 a 35 is part of the conundrum in the Arabic translations related to the disappearance of ἐλέγγουσιν at 172 a 34 and οὖ at 172 a 35 in Ψ\* and the corruption of οὖν into οὖκ at 172 a 34 in  $\Psi^{\Sigma}$ , and thus may betray more about attempts at solving it than anything else. And at 171 b 3 we know that Theophilus' Syriac translation also left out the verb ἀξιοῦν, so it may have been the underlying Greek tradition which explains that it was dropped in both  $\Psi^Z$  and  $\Psi^V$ . Thus this list does not provide real evidence that Yaḥyā, just as Ibn Zurʿa, deviated from Athanasius' translation on the basis of further sources. Thus barring failures to understand Aristotle's arguments on Yaḥyā's part, either because of mistakes in Athanasius' translation or because of the unfamiliar subject matter, there is no reason to assume that  $\Psi^{Y}$  deviates from  $\Psi^{\Sigma}$ .

<sup>&</sup>lt;sup>46</sup> The impossible συλλέγειν is a contamination of the correct λέγειν with the gloss συνάγειν or of συνάγειν with the correction λέγειν. Given the Bindefehler between the α (in casu B) and β (in casu Gb) groups, I would guess the second scenario is the historically correct one.

The general conclusion is thus that the three Arabic translations ultimately go back to a common Greek ancestor, and that in the course of the transmission of the text, including the translation into Syriac, the translatio vetus underwent considerable influence from other Greek sources, that the exemplar for the Syriac translation by Athanasius suffered comparatively little contamination, and that Ibn Zur'a's use of other sources featuring alternative Greek manuscript readings can be recognised in his deviations from Yaḥyā's translations, and that we hardly have traces of Yaḥyā using other sources than Athanasius' translation, if at all.

Finally we should like to discuss in an indicative way the value of these findings about the relations between the three Arabic translations and the Greek manuscript tradition for the constitution of the text. The first list concerns places where one may at least suspect  $\Psi^*$  to have the correct reading, without any support from other manuscripts:

```
174 b 6
                             μείζω καὶ μεγάλα codd. Λ : πολλὰ καὶ ὀλίγα καὶ μείζω καὶ μείω \Psi^{\rm V} :
                             μείζω καὶ μείω \Psi^{\Sigma}
                             άλλα ... σημαίνειν \Psi^Y : άλλα ... om. \Psi^Z : άλλὰ ... σημαίνει codd. :
181 b 39 - 182 a 1
                             om. ... σημαίνειν \Lambda - \Psi^V
                             \mathring{\eta} κατασκευάσει codd. \Lambda : om. \Psi^{\Sigma} [\Psi^{V}]
183 a 1
```

Of these three places, the third is not so remarkable, because it may just as well be that Athanasius also thought the phrase out of place and thus did not translate it. The first would not be a correction beyond the possibilities of a late ancient corrector, but the fact that  $\Psi^V$  and  $\Psi^\Sigma$  agree would make it then a very early correction, which one might expect to have spread to other parts of the textual tradition as well. The drawback of assuming that  $\Psi^*$  retained the correct reading, on the other hand, is that it seems difficult to explain how this error appeared in all other parts of the stemma. As to the third passage, the difference between the correct ἄλλα and the incorrect ἀλλά is of course negligible, but what is most remarkable is that, on the one hand, all other Greek manuscript subsequently also tampered with σημαίνειν, and, on the other, Boethius, just as  $\Psi^{V}$ , drops ἄλλα altogether, presumably in an attempt to solve the same problem for which the change into σημαίνει was adopted; only  $\Psi^{\Sigma}$ held on to the correct combination.

The fact that  $\Psi^*$  is to be situated within the  $\gamma$  branch of the stemma, sharing errors with  $\Lambda$  and  $\gamma$ , provides a reason for adopting any reading appearing in  $\Psi^*$  and (part of) the  $\phi$  branch. There are quite a few of them:

165 a 32	τοιοῦτον $Ab\LambdaDCcueh\Psi^Z$ : τοιούτων $BG\Psi^Y\Psi^V$
165 b 6	τρόπον δέ ABΛcueh : δὲ τρόπον C : τρόπον GbDΨ*
165 b 7	ἐνδόξων $\mathrm{AGbC}\Psi^{\mathrm{Y}}$ : ἐνδόξων μὴ ὄντων δέ $\mathrm{B}\Lambda\mathrm{Dcue}\Psi^{\mathrm{Z}}\Psi^{\mathrm{V}}$ : ἐνδόξων μὴ ὄντων h
165 b 8	φαινόμενοι συλλογιστικοί $AGbDCc\Psi^\Sigma$ : συλλογιστικοὶ ἢ φαινόμενοι συλλογιστικοί
	$\mathrm{Buh}[\varphi$ αινομένων $]\Psi^{\mathrm{V}}$ : συλλογιστικοί $\Lambda$ : συλλογιστικοὶ ἢ $\varphi$ αινόμενοι $\mathrm{e}^{47}$
166 b 32	πάντα γὰρ οὕτως ἔσται τὰ αὐτά GbΛDCcueh : om. ΑΒΨ*
167 a 6	καὶ τοῦ μὴ εἶναί τι τὸ μὴ εἶναι ABΛCeh : καὶ τὸ μὴ εἶναί τι τὸ μὴ εἶναι b : καὶ τὸ μὴ εἶναι t : τὸ μὴ εἶναι u : τὸ μὴ εἶναι c : om. $GD\Psi^{*48}$
169 b 16	προειρημένην Λcu : εἰρημένην ταύτην eh : εἰρημένην ΑΒVGbDCΨ*

<sup>&</sup>lt;sup>47</sup> One may surmise that both the reading of Λ, and perhaps even that of e, is derived from συλλογιστικοὶ ἢ φαινόμενοι συλλογιστικοί.

<sup>&</sup>lt;sup>48</sup> It is clear that the readings of b, c and u are corrections and thus that their ancestors equally omitted the phrase.

```
μέν VGbΛcu : μέν οὖν ABDCehΨΣ?
172 b 12
172 b 25
                 τρόπος VGbA : τόπος ABDCcuehΨ*
                 \delta ABDcueh : om. VGbCΨ\Sigma?Ψ^{V}? [\Lambda]
175 b 25
172 b 29
                 παράδοξον VGbΛh<sup>2</sup>Ψ<sup>V</sup>: παραδόξων h<sup>1</sup>: παράδοξα ABDCcueΨ<sup>Y</sup>?Ψ<sup>Z</sup>
                 δὲ VG^2\Lambda\Psi^Z\Psi^V: δὲ καὶ ABG^1?bDCcueh\Psi^Y
172 b 33
177 a 16
                 προλάβη ABAC<sup>1</sup>u : προσλάβη SVGbDC<sup>2</sup>cehΨ*
                 οἴδε ABVDCCuh : οὖτοι Ge : οὕτως \Psi^Y \Psi^Z? [b][Λ][\Psi^V]
178 a 29
                 ὅ τις ABADCeh : τις τι VGcuΨ*
178 a 29
178 b 34
                 μαθών \mathring{\eta} εύρων ABVbC\Psi^{\Sigma}: εύρων \mathring{\eta} μαθών ADcueh\Psi^{V}[G]
                 δὲ ABSVGbDCehΨ<sup>Σ</sup> : γὰρ ΛευΨ<sup>V</sup>
180 a 39
180 b 20
                 \mathring{a}γαθον ABΛCh : om. VGbDcue\Psi^{\Sigma} [\Psi^{V}]
                 σολοικισμός VGbΨ*: συλλογισμός ABADCcuh
183 a 30
                 σολοικισμούς V\Psi^* : σολοικισμούς συλλογισμούς G : σολοικισμούς καὶ
183 a 33
                 συλλογισμούς b : συλλογισμούς ABADCcuh
183 b 39
                 ἐδίδοσαν VbcuΨΣ: ἐδίδασκον ΑΒΛDChΨ<sup>V</sup>? [G]
```

There are mainly two types of places on this list: there are some for which  $\Psi^*$  obviously or, in case only  $\Psi^{\Sigma}$  or even  $\Psi^{Y}$  provides evidence for it, probably agrees with both the  $\alpha$  and  $\beta$  groups, i.e. the φ branch, against at least Boethius' exemplar – 165 a 32, 165 b 7, 168 b 8, 169 b 16, 178 b 34 and 180 a 39; and there are some for which there is agreement with only one of  $\alpha$  and  $\beta$ , again against at least Boethius' exemplar - 165 b 6, 166 b 32, 167 a 6, 172 b 12, 172 b 251, 172 b 252, 172 b 29, 177 a 16, 178 a 29, 180 b 20, 183 a 30, 183 a 33 and 183 b 39. Since  $\Psi^*$  belongs to the  $\gamma$  branch of the stemma, for the first type we should in principle decide for the  $\varphi + \Psi^*$  reading. For none of the six places this is problematic. More complicated are the second type of places, for there we have chiastic distributions in that part of  $\varphi$  goes with part of  $\chi$  against the other parts of  $\varphi$  and  $\chi$ . For some of these places it is still relatively easy to decide, for example for 166 b 32 (there are no paleographical reasons for the long phrase dropping out, and the text make perfect sense without the addition, so probably this is a matter of  $\beta$  and  $\Lambda$ , as well as the mixed traditions, featuring an intrusion), and 183 a 30 and a 33 (σολοικισμός and σολοικισμούς are clearly superior readings, and we can still witness the pressure to replace it with συλλογισμός in Gb).

Most of the other places, however, are very difficult to judge. Take, for example, 183 b 39: though ἐδίδοσαν is obviously the correct reading, it is so difficult to explain why in both branches of the stemma the impossible ἐδίδασκον appeared (either through a copying error or through contamination), that one should entertain the hypothesis that the archetype featured the incorrect reading, and that it was only corrected in part of the tradition. At 165 b 6, 167 a 6 and 180 b 20, one could try and apply the general rule that is more common that words are added than that they disappear if there is a change of meaning, so that at these places one should adopt the shorter readings supported by  $\Psi^*$ , but in all three cases one could just as well point out that the contexts would be conducive to words dropping out (δὲ διώρισται > διώρισται at 165 b 6, εἶναι καὶ τοῦ μὴ εἶναί τι τὸ μὴ εἶναι > εἶναι at 167 a 6, and ἀγαθὸν ἀγαθόν > ἀγαθόν at 180 b 20), so that it might be that the same change happened twice.

The remaining cases are even more complicated, with the exception, perhaps, of those where either the evidence about  $\Psi^*$  is uncertain (172 b 12, 172 b 29, 172 b 33) or the reading of  $\Lambda$  cannot be determined (178 a 29). The latter passage is actually quite remarkable, because we have only access to the probable reading of  $\Psi^*$  because  $\Psi^{\Sigma}$  featured the corruption οὕτως:<sup>49</sup> this is a rather common corruption of o $\tilde{\upsilon}$ toι ( $\omega$ /o change, with majuscule  ${\bf C}$  and  ${\bf I}$  resembling each other), so that  $\Psi^*$  probably agreed with part of the  $\beta$  group. Since we do not know the reading of  $\Lambda$  the odds are that  $\tilde{obvol}$  is the original reading.<sup>50</sup>

There are also a few places for which the evidence from the Arabic translations probably establishes or confirms suspicions that the archetype of the extant textual tradition for the Sophistici *Elenchi* featured errors:

```
165 b 5
              άναγκαίων ADcu\Psi^{V}: ἀναγκαῖον BGb\LambdaCeh\Psi^{\Sigma} Al.Aphr. In Topica, p. 25.23 Wallies
              ποιοῦν cu\Psi^Z: ποιεῖν ABGb\Lambda DCeh\Psi^Y? [\Psi^V]
166 b 14
171 a 12
              πότερον ABDCcueh : πρότερον VGbΛΨ*
181 a 16
              πυνθανομένων μεν BCch - Ψ<sup>Σ</sup> : πυνθανομένων D : πυνθανομένου μεν VGb :
              πυνθανομένω μέν Aue : πυνθανόμενον Λ - Ψ^{V}?
```

In all these cases the reading in bold is impossible, but its distribution over the manuscripts shows that the correct reading was only introduced later.

Finally we provide a list of places at which readings presupposed by the Arabic translations confirm findings resulting from the addition of the  $\beta$  group to the evidential base for the *Sophistici Elenchi*, namely that the consensus of  $\beta$  with Boethius' exemplar is to be preferred over the readings provided by the  $\alpha$  group, which has always been held in such high esteem by editors:<sup>51</sup>

```
άλλὰ Gb\LambdaDueh\Psi^{\Sigma}: άλλ' \delta A[άλλὰ \delta]BCc [\Psi^{V}]
166 a 5
                οὐρανός GbΛCcueΨ*: ὁ οὐρανός ABDh
168 a 3
                μόνη VGb\Lambda Ccu\Psi^{\Sigma}: om. ABDeh\Psi^{V}?
169 a 11
170 b 12
                τοὺς VGb\Lambda ceh\Psi^{\Sigma}: λόγους έτέρους ABDCu\Psi^{V}?
170 b 26
                ἄρα VGb\Lambda\Psi^{\Sigma}[ἆρα] : γὰρ ABDCcueh
170 b 39
                αὐτοὺς VGbΛCcΨΣ: τούτους ABDueh
                ποιεῖν ce\Psi^*: παθεῖν ABCu: παθεῖν ποιεῖν VGb: παθεῖν καὶ ποιεῖν D: παθεῖν ἡ
171 a 35
                ποιεῖν \Lambda:...h^1: πάσχειν η ποιεῖν h^2
                διὸ περὶ πάντων ἐπισκοπεῖ VGb\Lambda DCcue\Psi^{\Sigma} [τούτων] \Psi^{V} : διὸ ἐπισκοπεῖ h : om. AB
171 b 5
                ταῦτα καὶ VGb\Lambda D\Psi^Y: ταὐτὰ καὶ Cu: ταῦτα Aceh\Psi^Z\Psi^V: ταὐτὰ B
172 a 36
172 b 5
                τόποι VGbΛeΨ*: τρόποι ABDCcuh
                τί ἐπιγειρεῖ GbΛΨ*: τι ἐπιγειρεῖν ABVDCcueh
174 b 34
                 ράδιον SVGb\Lambdacu\Psi^{\Sigma}: ράσον ABDCeh\Psi^{V}
177 a 8
177 a 38
                καὶ VGbΛDcueΨ* : κἀκ ABCh
                μοχθηρός VGb\Lambda uh\Psi^Y: μοχθηρός ιστ' έσται άγαθός σκυτεύς μοχθηρός ABDCce\Psi^Z\Psi^V
177 b 15
                οὐ γάρ bΛΨΥ: ἀλλ' οὐκ ABVDCcuehΨΖΨV [G]
179 b 22
                ύπάρχη ἢ μὴ ὑπάρχη \operatorname{GbAc}[-\chi \epsilon\iota, -\chi \epsilon\iota] u \Psi^{\Sigma}: ὑπάρχη \operatorname{BVDC}\Psi^{V}: ὑπάρχει \operatorname{Aeh}
181 b 4
                οὖτοι οἱ λόγοι VGbΛcuΨ*: οὖτοι ABD : αὐτοὶ Ch : οἱ τοιοίδε e
181 b 19
```

The editors agree on almost all of these passages, opting time and again for the readings offered by AB. The only exceptions are that Waitz reads ταῦτα καὶ at 172 a36, that Strache-Wallies prefer

 $<sup>^{49}</sup>$  It is more unlikely that it featured  $\tilde{\omega}\delta\epsilon$ , for it rarely happens that οἴδε is corrupted into  $\tilde{\omega}\delta\epsilon$ .

<sup>&</sup>lt;sup>50</sup> It is also easy to understand how οὖτοι οἱ λόγοι, over ΟΥΤΟΙΛΟΓΟΙ , led to οἴδε οἱ λόγοι, while the other way round is not easy.

<sup>&</sup>lt;sup>51</sup> See footnote 32.

ποιεῖν at 171 a 35, and that Ross and Hecquet recognise the quality of the reading τί ἐπιχειρεῖ at 174 b 34. The evidence provided by the Arabic translations is of great importance for a more realistic assessment of the interrelations between the several parts of the textual tradition and of the relevance of these parts for the constitution of the text.

#### E. Glossary of Selected Terms

In the techniques of linguistic transposition and in the development of scientific terminology, the 'early translation' (naql qadīm) of the Parisinus represents many characteristics of the earlier period of Greek-(Syriac-)Arabic translations. While the tentative attribution to 'al-Nā'imī', a surmise of the transmitter, cannot be confirmed (see above, pp. 65-6), these general traits point to the first half of the 9<sup>th</sup> century.<sup>52</sup>

Most conspicuous in the older translations in general is the frequent use of transliterated Greek words present in the Syriac already. Some of these old borrowings continued to be part of the basic technical language (such as  $ustuquss = \sigma \tau o\iota \chi \epsilon \tilde{\iota} o \iota$ ,  $hay \tilde{u}l\tilde{a} = \tilde{\upsilon} \lambda \eta$ ). Other foreign words transliterated by the early translators were forgotten as soon as they were replaced by Arabic terms, now functioning as technical terms by convention, or by new formations.

In the early period foreign words are often explained by an approximate translation. The older translators, who did not yet have an established convention of scientific terminology at their disposal, struggled to reproduce the individual expression accurately. To solve these problems, they did not only use simple *verbume verbo* equations, but also differentiated techniques like transposition and periphrase. Characteristic of the early stage of technical terminology is the blurriness of the approximation, which does not reproduce analytically, but gives a metaphor or a descriptive metonymy.

The replacement of transliterated foreign words by Arabic terms is only one tendency we can observe in the development of a professional technical language. On the one hand, Greek loanwords were not abandoned even when Arabic equivalents had come into use; the Greek word was considered more accurate and unambiguous than the frequently changing and competing terms of the older translators. Thus we find  $\sigma u \lambda \lambda \sigma u \sigma u \delta u$  in the *translatio vetus* represented by a whole range of Arabic words and syntagms, including the transliterated Greek, while in Yaḥyā it was consistently translated by *qiyās*; but then, for the sake of precision and avoiding ambiguity, Ibn Zurʻa falls back to the Greek loanword in certain cases:

συλλογισμός =  $s\bar{u}l\bar{u}$   $\check{g}$   $ism\bar{u}s$   $Ar^V$  (concurring with Arabic [ $ta'l\bar{i}f$ ]  $miqy\bar{a}s$ ) and  $Ar^Z$ , mostly in combination with  $ta'l\bar{i}f$ , 'conjunction, composition', representing the Greek prefix συν-, but also used singly for συλλογισμός, συμπλοκή – see also below.

### Other examples of transliterations are:

```
σοφιστικός = s\bar{u}fist\bar{a}i Ar<sup>V</sup>, Ar<sup>Z</sup>; οἱ σοφιστικοί = al-s\bar{u}fist\bar{a}iyy\bar{u}na Ar<sup>V</sup> \tau \rho i \gamma \omega v ov = atr\bar{i}g\bar{u}n\bar{u}n Ar<sup>V</sup> \psi \tilde{\eta} \phi o \varsigma, acc. \psi \tilde{\eta} \phi o v SE 22, 178 b 12 = fas\bar{i}fun Ar<sup>V</sup> (here Ar<sup>Z</sup> has his\bar{a}b 'reckoning chip,' and Ar<sup>V</sup> 'ayn 'eye'). σολοικισμός = s\bar{u}l\bar{u}qism\bar{u}s, in conjunction with, and replaced by, the Arabic equivalents isti 'u\check{g}am, 'u\check{g}ma 'barbarism'.
```

<sup>&</sup>lt;sup>52</sup> For a survey of the development of scientific language and technical terminology, with references taken from a wider range of translations, see G. Endress, "Die Entwicklung der Fachsprache", in W. Fischer – H. Gätje (eds.), *Grundriss der Arabischen Philologie* III, Reichert, Wiesbaden 1992, pp. 3-20.

On the other hand, the Graeco-Arabic translations of Isḥāq ibn Ḥunayn and his circle, of the late 9<sup>th</sup> and early 10<sup>th</sup> centuries, to whom we owe superior (and for the students of the next generation, definitive) versions of Aristotle's logic, physics and metaphysics, replacing early translations from the Syriac, were not able to assert their usage universally – the less so, when earlier translations for a difficult and less commonly read text like the *Sophistici Elenchi* were missing altogether.

Before the integration and standardization of terminology by the Falāsifa – al-Fārābī, Yaḥyā ibn ʿAdī and above all, Ibn Sīnā, a constant process of word-forging, rendering abstract concepts by paradigmatic equivalents and syntagmatic explanations. This was closely observed by the transmitters and readers. Our codex Parisinus of the Organon is a fascinating witness of this work in progress, covered all over with marginal and interlinear 'cribs' of synonyms and explanations. At SE 3, 165 b 15, where Aristotle enumerates 'how many goals those who compete and battle it out in discussions have – these are five in number: refutation, falsity, unacceptability, solecism, and, fifth, making the interlocutor babble', σολοικισμός is transliterated by Yaḥyā ibn 'Adī as al-sūlūqismūs (with the Arabic definite article al-). At this point (p. 749 n.p. 4 ad 750.1 Badawī / p. 919 n.p. 4 ad 920.1 Ğabr) of Yaḥyā ibn 'Adī's version, the Paris manuscript has a long marginal gloss of the redactor, al-Ḥasan ibn Suwār, on sūlūqismūs used in the sense of 'uǧma 'barbarism' (from Arabic 'ağam, an onomatopoetic – just as the Greek βάρβαροι – for 'non-Arabs, speaking indistinctly', in the course of time mostly used for Iranians):

The šaylį Abū Zakariyyā (scil. Yaḥyā ibn ʿAdī) – may God have mercy on him – employed at this place al-sūlūqismūs in the way of al-'uğma. He did not use the right word, because solecism is something different from barbarism in the language of the Greeks, according to the statement I found with the famous authorities in Greek, as follows: "Barbarism is an error in the pronunciation of one of the letters (lafz harf) or in the phonetic enunciation (mahrağ al-ġanam, scil. vocalization), for example bayda [with voiceless d] instead of bayza [with voiced z], or as bīda instead bayda ['egg']". 'So the difference between barbarism and solecism, i.e. the linguistic error, is that the barbarism is in the letters, while the language error is in the sentence. The barbarism concerning one of the letters consists either in a missing letter, for example saying baya instad of bayda, or in the confusion [as in the preceding example] bayza instead of bayda [...] [here some illegible examples of phonetic and grammatical errors follow]. One also speaks of barbarism when a word is used in a meaning deviant from the one (commonly) used in language, e.g. miswara for mihadda ('cushion, pillow'). [Adding more examples, Ibn Suwār further elaborates on the difference between mistakes in the formation and usage of single words (ism, nomen) and those in syntactic structure (kalim, 'speech', coll. of kalima 'word'), as also between phonetic barbarism and grammatical mistakes. He closes with the admission that in present day usage 'uğma comprises both solecism as well as barbarisms in the narrower sense of the word, and in this way after all vindicates the translation of the šayh Yahyā ibn 'Adī.]

The exact capture of the term, differentiation and nuance often require approximation by an accumulation of synonyms (the *translatio vetus* and other early translators use a combination of Greek loanwords with an Arabic term) when a single equivalent is not sufficient (*hendiadys*). Such 'double translations' often reflect the fluctuation of terminology in early times.

Synonyms, however, also serve as means of demonstrative rhetoric (exaggeratio, amplificatio); such emphatic hendiadys is another characteristic of the early translations: e.g.  $\delta \tilde{\eta} \lambda o \nu SE 8$ , 169 b 28 =  $w \bar{a} dihun \ bayyinun \ Ar^V$ , p. 852.12 Badaw $\bar{i}$  = p. 984.13  $\check{G}$ abr.

#### άπλοῦς

Ar <sup>∨</sup> mabsūţ	Ar <sup>y</sup> <i>basīṭ</i>	Ar <sup>z</sup> basīṭ
		muṭlaq

#### mabsūţ, plain

άπλοῦς: ὅταν τὸ συντεθὲν πλείω σημαίνει, κεχωρισμένον δὲ ἁπλῶς SE 4, 166 a 17- $18 = i\underline{d}\bar{a}$  kāna murakkaban mu'allafan dalla 'alā l-katīri, wa-i $\underline{d}\bar{a}$  kāna muftariqan 'alā ġayri ta'līfin dalla 'alā mabsūṭin mina l-amri mursalin  $Ar^{\rm V}$ , p. 763.16 Badawī / p. 933.8 Ğabr || ὅστε μὴ ἀπλοῦ ὅντος τοῦ ἐρωτήματος ἀπλῶς ἀποκρινομένοις οὐδὲν συμβαίνει πάσχειν SE 30, 181 a 39 - b 1=min ağli  $\underline{d}$ ālika man ağāba bi-ğawābin mabsūṭin mursalin li-man lam takun ma'salatuhū mabsūṭatun lam ya'riḍu lahū šay'un min al-taḍlili  $Ar^{\rm V}$ , p. 990.14 Badawī / p. 1162.8 Ğabr.

#### basīţ, simple بسيط -

ArY and ArZ passim.

#### muţlaq, absolute مطلق -

άπλοῦς SE 30, 181 a 39 = muṭlaq Ar<sup>Z</sup> p. 982.16-17 Badawī / p. 1160.8 Ğabr (see below under άπλῶς).

#### άπλῶς

Ar <sup>V</sup> bi-l-(qawl) al-mursal	Ar <sup>y</sup> ʿalā l-iṭlāq	Ar <sup>z</sup> ʿalā l-iṭlāq
mabsūṭ mursal		muṭlaqan
		ʻalā wāḥid

#### muţlaqan, adv. absolutely مطلقا -

άπλοῦς : ὥστε μὴ ἀπλοῦ ὄντος τοῦ ἐρωτήματος ἀπλῶς ἀποκρινομένοις οὐδὲν συμβαίνει πάσχειν SE 30, 181 a 39 -b 1 = fa-idā lam yakuni l-suʾālu idan muṭlaqan wa-kāna ğawābunā ʿalā l-iṭlāqi, fa-laysa yaʿriḍu min dālika šayʾun muʾdin Ar², p. 982.16-17 Badawī / p. 1160.8 Ğabr.

# alā l-iṭlāq, adv. absolutely على الإطلاق -

άπλῶς = ʿalā l-iṭlāq: ὅταν τὸ συντεθὲν πλείω σημαίνη, κεχωρισμένον δὲ ἀπλῶς SE 4, 166 a 18 = matā kāna idā rukkiba yadullu ʿalā kaṭīrīna, fa-idā fuṣṣila ʿalā l-iṭlāq Ar², p. 760.1 Badawī / p. 930.2 Ğabr || τῶν δ᾽ ἔξω τῆς λέξεως παραλογισμῶν εἴδη ἔστιν ἑπτά, εν μὲν παρὰ τὸ συμβεβηκός, δεύτερον δὲ τὸ ἀπλῶς ἢ μὴ ἀπλῶς ἀλλὰ πὴ ἢ ποὺ ἢ ποτὲ ἢ πρός τι λέγεσθαι SE 5, 166 b 22-23 = fa-ammā l-taḍlīlātu l-ḥāriğatu ʿani l-qawli fa-anwā ʿuhā sabʿatun, ammā l-awwalu fa-mina l-aʿrāḍi, fa-in yuqālu ʿalā l-iṭlāqi aw lā ʿalā l-iṭlāqi wa-lākin fī šayʾin aw ayna aw matā aw bi-l-iḍāfati ilā šayʾin Ar², p. 766.10 Badawī / p. 935.12 Ğabr; wa-anwāʿu l-taḍlīlātu l-ḥāriğati ʿani l-qawli sabʿatun, fa-l-awwalu l-maʾhūdu min al-aʿrāḍi, wa-l-ṭānī min ḥamli šayʾin ʿalā šayʾin ʿalā l-iṭlāqi, aw laysa ʿalā l-iṭlāqi bal fī šayʾin aw bi-ḥayṭu aw fī zamānin aw bi-l-iḍāfati Ar², p. 769.3 Badawī / p. 937.16-17 Ğabr || ὥστε μὴ ἀπλοῦ ὄντος τοῦ ἐρωτήματος ἀπλῶς ἀποκρινομένοις οὐδὲν συμβαίνει πάσχειν SE 30, 181 a 39 - b 1 = fa-iḍā lam yakuni l-suʾālu iḍan muṭlaqan wa-kāna ğawābunā ʿalā l-iṭlāqi, fa-laysa yaʿriḍu min ḍālika šayʾun muʾḍin Ar², p. 982.16-17 Badawī / p. 1160.9 Ğabr; similarly SE 30, 181 b 5 = Ar², p. 983.2 Badawī / p. 1160.11Ğabr.

### mursal, absolute مرسل -

In hendyadis ἀπλῶς = mabsūṭ mursal: ὅταν τὸ συντεθὲν πλείω σημαίνει, κεχωρισμένον δὲ ἀπλῶς SE 4, 166 a 18 =  $i\underline{d}$ ā kāna murakkaban mu'allafan dalla' alā l-kaṭīri, wa- $i\underline{d}$ ā kāna muftariqan 'alā ġayri ta'līfin dalla 'alā mabsūṭin mina l-amri mursalin Ar<sup>V</sup>, p. 763.16 Badawī / p. 933.8 Ğabr.

- على واحد 'alā wāḥidin (dist 'alā katīrin, ἀπλῶς signifying 'singly, simply')

ὅταν τὸ συντεθὲν πλείω σημαίνη, κεχωρισμένον δὲ ἀπλῶς SE 4, 166 a 17 = 'indamā yakūnu l-qawlu idā rukkiba dalla 'alā katīrin, wa-ida fuṣṣila dalla 'alā wāḥidin Ar², p. 761.13 Badawī / p. 931.11 Ğabr.

#### ἀρχή

Ar <sup>V</sup> <i>awwaliyya</i> , 'priority' p. 787.2, 4 Badawī /	Ar <sup>Y</sup> <i>ibtidā</i> , 'beginning' p. 783.3, 5 Badawī /	Ar <sup>z</sup> <i>mabda</i> ', 'start' p. 784.10, 785.2 Badawī /
pp. 953.17, 954.1 Ğabr	p. 950.13, 14 Ğabr	p. 952.1 Ğabr
	mabda' 'start(ing point)' p. 783.6 Badawī / p. 950.15 Ğabr	
	p. /85.6 Badawi / p. 950.15 Gabi	

#### διδασκαλικός (λόγος, συλλογισμός)

## taʻlīmī, didactic تعليمي -

διδασκαλικός =  $ta'l\bar{t}m\bar{t}$  (didactic): Έστι δὴ τῶν ἐν τῷ διαλέγεσθαι λόγων τέτταρα γένη, διδασκαλικοὶ καὶ διαλεκτικοὶ καὶ πειραστικοὶ καὶ ἐριστικοί SE 2, 165 a  $37=fa-h\bar{a}$  naḥnu naqūlu l-āna bi-mawǧūd fi an natakallama arba'ata aǧnāsis min al-kilam, ta'l $\bar{t}$ miyyatan wa-ġadaliyyatan wa-mumtaḥaniyyatan wa-mirā'iyyatan  $Ar^{Y}$ , p.744.11 Badawī / p.914.3 Ġabr; = wa-aǧnāsu l-alfāzi llatī taǧr $\bar{t}$  min al-mufāwaḍati arba'atun, al-burhāniyyatu (! – leg. ἀποδεικτικοί  $\Psi^{Z}$ ) wa-l- $\bar{g}$ adaliyyatu wa-l-imtiḥāniyyatu wa-l-mirā'iyyatu  $Ar^{Z}$ , p.746.13 Badawī / p.916.3-4 Ġabr;  $\pi$ ερὶ μὲν οὖν τῶν  $\{\delta$ ιδασκαλικῶν καὶ add.  $\Psi^{Z}\}$  ἀποδεικτικῶν ἐν τοῖς ᾿Αναλυτικοῖς εἰρηται SE 3, 165 b 9=fa-fi hā $\underline{d}$ ihi l-ta'limiyyati wa-l-burhāniyyati qad qlla fi Anālūt̄lqā  $Ar^{Y}$  p.749-l Badawī / p.918.11 Ğabr; = fa-ammā l-ta'limiyyatu wa-l-burhāniyyatu fa-qad takallamnā fihā fi Anālūt̄lqā p.751.2 Badawī / p.920.10 Ğabr.

## ἔλεγχος and ἐλέγχειν

Ar <sup>∨</sup> muģālaṭa mubākata tadlīl	Ar <sup>Y</sup> bakkata, tabkīt	Ar <sup>z</sup> bakkata, tabkīt nāqaḍa
hağğana, tahğīn		

# - بكت II. bakkata, to reproach, refute

ελέγχω (to refute): μάλιστα μὲν γὰρ (γὰρ non vert. Ar<sup>Y</sup>) προαιροῦνται φαίνεσθαι ἐλέγχοντες SE 3, 165 b 18 = wa-hum yašā ūna akṭara an yuraw annahum yubakkitūna Ar<sup>Y</sup>, p. 754.3 Badawī / p. 924.8 Ğ; wa-dālika anna akṭara mā yu'ṭirūna an yuzanna bihim annahum qad bakkatū Ar<sup>Z</sup>, p. 755.13 Badawī / p. 926.6 Ğabr || φαίνονται δ' ἐλέγχειν διὰ τὸ μὴ δύνασθαι συνορᾶν τὸ ταὐτὸν καὶ τὸ ἔτερον SE 5, 167 a 38 = wa-yurawna annahum yubakkitūna min qibali annahum lā yumkinuhum an yatabayyanū ma nā (sic edd., leg. ma nayay?) l-wāḥidi bi-ʿaynihī wa-l-ġayri Ar<sup>Y</sup>, p. 778.9 Badawī / p. 946.15 Ğabr; wa-innamā yuzannu annahum qad bakkatū li-annahū yata ʿaddaru ʿalayhim an yufarriqū bayna lladī huwa wāḥidun bi-ʿaynihī wa-l-muḥālifi Ar<sup>Z</sup>, p. 780.6 Badawī / p. 948.4 Ğabr || ἢ ὁμολογοῦσι τὸ μὴ ἀποκρίνεσθαι τὸ ἐρωτώμενον ἢ ἐλέγχεσθαι φαίνονται SE 5, 168 a 4 = fa-immā aqarra annahū lā ğawāba ʿindahū fīmā yus'alu ... wa-immā an yubakkata fa-ka-anna l-zāhira minhu annahū qad bukkita (sic leg. pro bkt edd.) bi-l-ḥayrati Ar<sup>V</sup>, pp. 792.16-793.1 Badawī / p. 960.1-2 Ğabr; fa-immā ʿtarafū bi-annahum lā yu ǧībūna ʿammā ʿanhu kānati l-mas'alatu

wa-immā an yazhara annahum qad bukkitū Ar<sup>z</sup>, p. 791.2 Badawī / p. 958.2 Ğabr || ποιεῖν ἔλεγχον (to effect a refutation): οὐ ποιεῖ ἔλεγχον, φαίνεται δὲ διὰ τὴν ἄγνοιαν τοῦ τί ἐστιν ἔλεγχος SE 6, 168 b 15 = fa-innahū lam yubakkit bal yuzannu dālika li-ʿadami l-maʿrifati bi-māhiyyati l-tabkīti Ar<sup>z</sup>, p. 801.2 Badawī / p. 966.21 Ğabr.

#### - تبكيت II. tabkītun, pl. tabkītātun maṣdar

έλεγγος (refutation): περὶ δὲ τῶν σοφιστικῶν ἐλέγχων (post ἐλέγχων add. καὶ codd : om. Arab.) τῶν φαινομένων (post φαινομένων add. μὲν codd. : om. Arab.) ἐλέγχων, ὄντων δὲ παραλογισμῶν ἀλλ' οὐκ ἐλέγχων, λέγωμεν SE 1, 164 a  $20 = allad\bar{t}$  yanḥūhu [scil. Arisṭūṭālīs] fi hādā l-kitābi tabkītu l-sūfisṭā'iyyīna lladī yuzannu annahū naqdun li-l-qiyāsi wa-laysa huwa fī l-haqīqati ka-dāka bal huwa muġālatatun lā haqīqata lahā wa-ġayru mubṭilatin li-l-qiyāsi Ar<sup>v</sup>, p. 740.12 Badawī / p. 910.3 Ğabr || οί μὲν οὖν παρὰ τὴν λέξιν ἔλεγγοι ἐκ τούτων τῶν τόπων εἰσίν SE 4, 166 b 20 = fa-l-tabkītātu mina <math>l-qawli hiya amṭālu hādihi l-mawādiʻi  $Ar^{Y}$ , p. 766.8Badawī / p. 925.10 Ğabr; fa-hādihī hiya l-tabkītātu llatī fī l-qawli wa-wuğūduhā yakūnu min *amṭāli hādihi l-mawāḍiʻi* Ar<sup>z</sup>, p. 769.1 Badawī / p. 937.14 Ġabr || εἰ οὖν οἱ παραλογισμοὶ τῆς ἀντιφάσεως παρὰ τὸν φαινόμενον ἔλεγχόν εἰσι, δῆλον ὅτι παρὰ τοσαῦτα ἂν καὶ τῶν ψευδῶν εἴησαν συλλογισμοὶ παρ' ὅσα καὶ ὁ φαινόμενος ἔλεγχος SE8, 169 b 38-40 = fa-in kānat ḍalālātul-tanāquḍi hunna (an hiya leg.?) min tabkītin yurā fa-maʿlūmun anna qiyāsāti l-kadibi hiya min ğamî i ha ula i llawatī li-l-tabkīti lladī yurā ayḍan Ar<sup>v</sup>, p. 817.8-9 Badawī / p. 984.9 Ğabr; fa-in kānati l-taḍlīlātu l-kā'inatu 'ani l-tanāquḍi innamā takūnu mina l-tabkīti l-maẓnūni fa-ma'lūmun anna qiyāsāti l-kadibi takūnu min ǧamī i hādihī aʿnī min ǧamī i l-ašyā i llatī ʿanhā yakūnu l-tabkītu *l-maṣnūnu* Ar<sup>Z</sup>, p. 819.5 Badawī / p. 986.13 Ğabr.

sem. etym, in expr. ἐλεγχοειδής (like a refutation) = šabīhun / yušbihu bi-l-tabkīti: μὴ δόντος δέ, δοκεῖν δ' ὁμολογοῦντος, ἐλεγχοειδές (scil. γίνεσθαι) SE 15, 174 b 18 = wa-in lam yusallim fatawahhama fihi annahū qad sullima fa-šabīhun bi-l-tabkīti  $\operatorname{Ar}^Z$ , p. 889.4 Badawī / p. 1056.12 Ğabr || ἀλλ' ἢ ὅτι τὸ συμπέρασμα φαίνεται ἐλεγχοειδές SE 17, 175 a 40 = lākin anna l-natīğata bi-ʿaynihā turā annahā tušbihu l-tabkīta  $\operatorname{Ar}^Y$ , p. 897.14 Badawī / p. 1066.9 Ğabr; illā anna l-natīğata yuzannu annahā šabīhatun bi-l-tabkīti  $\operatorname{Ar}^Z$ , p. 899.11 Badawī / p. 1068.11 Ğabr.

# تبكيتيّ - tabkītiyyun n. rel. maṣdar II.

τά ἐλεγκτικά (things aiming at / related to refutation) = al-umūru l-tabkītiyyatu : ἔτι καθάπερ καὶ ἐν τοῖς ὁητορικοῖς, καὶ ἐν τοῖς ἐλεγκτικοῖς ὁμοίως τὰ ἐναντιώματα θεωρητέον SE 15,  $174 \, \mathrm{b} \, 19 = wa-aydan \, fa-mitla \, ma \, yuf \, alu \, fi \, l-ašyā i \, l-hutbiyyati \, fal-yuf \, al \, fi \, l-umūri \, l-tabkītiyyati mina \, l-nazari fi \, l-addādi \, \mathrm{Ar}^{\mathrm{Z}}, \, \mathrm{p.} \, 889.5 \, \mathrm{Badawī} \, / \, \mathrm{p.} \, 1056.14 \, \mathrm{Gabr}.$ 

# - مبكت II. mubakkatun pass. part.

sem. etym. : transl. ἔλεγχος in ἀνεξέλεγκτος (irrefutable) = ġayru mubakkatin : ἡ γὰρ μεταφορὰ ποιἡσει τὸν λόγον ἀνεξέλεγκτον SE 17, 176 b 25 = wa-dālika anna l-intiqāla yağʻalu l-kalimata ġayra mubakkatatin Ar<sup>γ</sup>, p. 916.13 Badawī / p. 1083.11 Ğabr; min qibali annahā (scil. al-ašyā a llatī tunqalu) tağʻalu mā yantahī ilayhi l-qawlu ġayra mubakkatin Ar<sup>z</sup>, p. 918.11 Badawī / p. 1083.13 Ğabr.

### مباكتة - III. mubākatatun, pl. mubākatātun maṣdar

ἔλεγχος (refutation): περὶ δὲ τῶν σοφιστιχῶν ἐλέγχων (post ἐλέγχων add. καὶ codd.: om. Ar $^{\rm V}$ ) τῶν φαινομένων (post φαινομένων add. μὲν codd.: om. Ar $^{\rm V}$ ) ἐλέγχων, ὄντων δὲ παραλογισμῶν ἀλλ' οἰχ ἐλέγχων, λέγωμεν SE 1, 164 a 20-21 = innā qā ilūna ʿalā <math>l-mubākatāti l-sūfisṭā iyyati llatī turā annahā mubākatātun wa-innamā hiya muḍillātun wa-laysat (wa-laysat nos: wa-laysa edd.) bi-mubākatātin versio altera suppl. apud  $Ar^{\rm V}$ , p. 742.9-10 Badawī / p. 911.111-12 Ğabr ||

(τὸν αὐτὸν δὲ τρόπον καὶ συλλογισμὸς καὶ) ἔλεγχος ὁ μὲν ἔστιν, ὁ δ' οὐκ ἔστι μέν SE 1, 164 b 25 = wa-l-mubākatati fa-inna minhā ṣaḥīḥ (sic ed. pro ṣaḥīḥan) bi-l-ḥaqīqati wa-minhā mā lā ḥaqīqata lahū versio altera apud  $Ar^{\rm v}$ , p. 741 n. 12 Badawī / p. 910 n. 56 Ğabr || οἱ δὲ (scil. παραλογισμοὶ) παρὰ τὸ μὴ διωρίσθαι τἱ ἐστι συλλογισμὸς ἢ τἱ ἔλεγχος παρὰ τὴν ἔλλειψιν γίνονται τοῦ λόγου SE 5, 167 a 22 = fa-ammā lladīna yuḍallilūna wa-hum lā yaḥuddūna mā l-qiyāsu aw mā (sic leg. pro wa-ammā ed.) l-mubākatatu fa-innamā yakūnu dālika minhum li-makāni l-naqṣi fī l-kalāmi  $Ar^{\rm v}$ , p. (777.9-10) 781.2 Badawī / p. (945.19-20) 948.16 Ğabr; οἱ μὲν οὖν παρὰ τὴν λέξιν ἔλεγχοι ἐχ τούτων τῶν τόπων εἰσίν SE 4, 166 b 20 = wa-l-mubākatātu llatī takūnu mina l-kalāmi fa-bi-hādihi l- ģihāti takūnu  $Ar^{\rm v}$ , p. 771.5 Badawī / p. 939.15 Ğabr.

τὰ ἐλεγκτικά (things aiming at/related to refutation): ἔτι καθάπερ καὶ ἐν τοῖς ῥητορικοῖς καὶ ἐν τοῖς ἑλεγκτικοῖς ὁμοίως τὰ ἐναντιώματα θεωρητέον SE 15, 174 b 19 = wa-aydan ka-mā fi bā ulā i l-put biyyāti <math>wa-fi bā ulā i l-mubākatāti i (lac. post al-mubākatāti ind. nos)  $Ar^{Y}$ , p. 888.1 Badawī / p. 1055.7 Ğabr.

### - مبكت II. mubakkitun act. part.

ἐλέγχων: μάλιστα μὲν γὰρ προαιροῦνται φαίνεσθαι ἐλέγχοντες SE 3, 165 b 18 = fa-ġāyatuhum awwalan an yakūnū mubakkitīna fī zāhiri amrihim  $Ar^{V}$ , p. 753.3 Badawī / p. 923.7 Ğabr.

ἐλέγχειν, in hend. muḍallilun mubakkitun: φαίνονται δ' ἐλέγχειν διὰ τὸ μὴ δύνασθαι συνορᾶν τὸ ταὐτὸν καὶ τὸ ἕτερον SE 5, 167 a 38 = wa-bi-dālika l-qadri mina l-kalāmi yurā annahā muḍallilatun mubakkitatun li-lladī lā yağidu sabīlan ilā muqaddimatin li-l-faṣli bayna l-šayʾi min ġayrihī (an wa-ġayrihī leg.?) Ar<sup>v</sup>, p. 782.3 Badawī / p. 949.11 Ğabr.

ποιεῖν ἔλεγχον (to effect a refutation): ἔστι μὲν ὡς ἔλεγχον ἢ ψεῦδος φαινόμενον δόξειεν ἂν ποιεῖν SE 5, 168 a 9=fa-innahū yakūnu aḥyānan ka-l-mubakkiti aw (aw nos: wa- edd.) ka-lladī yuzannu annahū qad azhara kadiban  $Ar^{Z}$ , p. 791.6 Badawī / p. 958.6 Ğabr.

sem., etym.: ἐλεγχοειδής (like a refutation) = šibhu mubakkitin : μὴ δόντος δέ, δοκεῖν δ' ὁμολογοῦντος, ἐλεγχοειδές (scil. γίνεσθαι) SE 15, 174 b 18= wa-ammā (sic leg.) idā lam yu ṭi wa-yuzannu annahū yuqirru fa-šibhu mubakkitin Ar $^{\rm Y}$ , p. 787.13 Badawī / p. 1055.6 Ğabr.

## - تضليل II. taḍlīl maṣdar

ψευδής ἔλεγχος: ὁ γὰρ ἔλεγχος συλλογισμός ἐστιν, ὥστε χρὴ καὶ περὶ συλλογισμοῦ πρότερον ἢ περὶ ψευδοῦς ἐλέγχου SE 10, 171 a  $4 = wa-\underline{d}$ ālika anna l-tadlīla innamā huwa miqyāsun, wa-min aģli  $\underline{d}$ ālika ya ǧibu an natakallama awwalan ʿalā l-maqāyīsi qabla an natakallama ʿalā l-tadlīli l-kā $\underline{d}$ ibi  $Ar^{\rm V}$ , pp. 834.5, 838.2 Badawī / pp. 1002.1-2, 1005.4 Ġabr.

### κατηγορία

- نحت na 't 'attribute' (characteristic for the early 9th cent. group of translators around al-Kindī) κατηγορία: τὰ γένη τῶν κατηγοριῶν SE 22, 178 a 6 = ağnāsu l-nu ūti Ar , p. 936.11 Badawī / p. 1110.4 Ğabr || (οὐ δοτέον τῶν πρός τι λεγομένων) σημαίνειν τι χωριζομένας καθ' αὐτὰς τὰς κατηγορίας SE 31, 181 b 27 = al-dāllu 'alā šay'in idā fuṣilat nu ūtuhū Ar , p. 990.6 Badawī / p. 1171.6 Ğabr.

## maqūla مقولة -

κατηγορία: τὰ γένη τῶν κατηγοριῶν SE 31, 178 a 6 = ağnāsu l-maqūlāti Ar<sup>Y</sup>, p. 933.4 Badawī / p. 1104.4 Ğabr; (in kānat) li-l-maqūlāti ağnāsun Ar<sup>Z</sup>, p. 934 ult. Badawī / p. 1107.4 Ğabr || SE 31, 181 b 27 idā furiqati l-maqūlātu ʿalā nfirādihā Ar<sup>Y</sup>, p. 986.1 Badawī / p. 1164.5 Ğabr; ʿinda tamyīzi l-maqūlāti ... ʿalā nfirādihā Ar<sup>Z</sup>, p. 987.14 Badawī / p. 1167.5 Ğabr.

#### πεῖρα, πειραστική

	Ar <sup>V</sup>	$Ar^{Y}$	Ar <sup>z</sup>
πειραστική	imtiḥān	al-mumtaḥina al-ʿilm al-mumtaḥinī al-miḥna	al-ṣināʿa al-mumtaḥina ṣināʿat al-imtiḥān al-imtiḥāniyya
	imtiḥān wa-ḥtibār	tağriba	al-ṣināʿa al-muǧarriba
πειραστικός (λόγος)	imtiḥānī muğarrib	mumtaḥin mumtaḥinī	mumtaḥin umtaḥinī
πεῖραν λαμβάνειν	aḥaḏa l-imtiḥān imtaḥana aḥaḏa miḥnat al-kalām	aḥaḏa l-taǧriba	imtaḥana aḫa <u>d</u> a l-imtiḥān
	ğarraba		istaʻmala l-tağriba

### - تجربة tağriba 'test, try through experience'

πεῖραν λαμβάνειν = aḥada ta ǧribatan : Ἐτι τὸ φάναι ἢ ἀποφάναι ἀξιοῦν οὐ δεικνύντος ἐστὶν ἀλλὰ πεῖραν λαμβάνοντος SE 11, 171 b 4 = wa-ayḍan fa-in yuʾahhala an yaḍaʿa aw an yarfaʿa laysa huwa li-lladī yubarhinu, lākin li-lladī yaʾhudu ta ǧribatan Ar², p. 840.12 Badawī / p. 1008.3-4 Ğabr.

### امتحن - VIII. imtaḥana ʻput to tests, examine

πεῖραν λαμβάνειν = imtaḥana : ἔτι τὸ φάναι ἢ ἀποφάναι ἀξιοῦν οὐ δεικνύντος ἐστὶν ἀλλὰ πεῖραν λαμβάνοντος SE 11, 171 b 4 = wa-ayḍan fa-inna l-mubarhina laysa lahū immā an yaḍaʿa aw an yarfaʿa bi-l-sawiyyati, bal dālika li-lladī yamtaḥinu Ar², p. 842.4 Badawī / 1010.3-4 Ğabr.

#### امتحان - VIII. imtiḥānun maṣdar

ή πειραστική = al-imtihān: ἔστι δ' ἡ πειραστική μέρος τῆς διαλεκτικῆς SE 8, 169 b 25 = wa-dālika anna ṭarīqa l-muǧādiliyyīna mtihānu ma yurīdu l-mutakallimu an yatakallam bihī  $Ar^{\rm v}$ , p. 816.9 Badawī / p. 983.9 Ğabr || ἡ γὰρ πειραστική ἐστι διαλεκτική τις διὸ περὶ πάντων ἐπισκοπεῖ καὶ θεωρεῖ οὐ τὸν εἰδότα ἀλλὰ τὸν ἀγνοοῦντα καὶ προσποιούμενον SE 11, 171 b 4 = wa-dālika anna l-imtihāna ğuz'un min ṣināʿati l-ğadali, wa-li-hādihi l-ʿillati yakūnu nazaruhā fī hādihi l-maʿānī, wa-dālika anna nazarahā laysa huwa maʿa l-ʿālimi bal maʿa lladī lā yaʿlamu wa-yuzannu dālika bihī  $Ar^{\rm z}$ , p. 842.4 Badawī / 1010.4 Ğabr; ἡ πειραστική SE 34, 183 b 1 = al-imtihān  $Ar^{\rm z}$ , p. 1009.14 Badawī / 1191.7 Ğabr.

In hend. πειραστική = al-imtihān wa-l-ihtibār: ἡ γὰρ πειραστική ἐστι διαλεκτική τις διὸ περὶ πάντων ἐπισκοπεῖ καὶ θεωρεῖ οὐ τὸν εἰδότα ἀλλὰ τὸν ἀγνοοῦντα καὶ προσποιούμενον SE 11, 171 b 4 = li-anna min šảni l-mu ǧādili l-imtihānu wa-l-ihtibāru, min a ǧli dālika kāna basṭuhū (add. supra: baṭšuhū) fī kulli lawnin, fa-yamtaḥinu l-baṣīra wa-yamtaḥinu l-ǧāhila wa-yamtaḥinu l-mutazayyi a bi-zayyi l-ʿilmi Ar $^{\rm V}$ , p. 843.15 Badawī / p. 1012.4 Ğabr.

In expr. arāda l-imtiḥāna = πεῖραν λαμβάνειν: ἔτι τὸ φάναι ἢ ἀποφάναι ἀξιοῦν οὐ δεικνύντος ἐστὶν ἀλλὰ πεῖραν λαμβάνοντος SE 11, 171 b 4 = wa-ayḍan fa-inna l-mubarhina laysa lahū an ya'tiya bi-l-īgābi wa-l-salbi, lākin ʿindamā yurīdu l-imtiḥāna, li-anna l-ṣināʿata l-mumtaḥiniyyata ḡadaliyyatun-mā Theophil (Ar² in marg.) p. 842 n. 1 Badawī / p. 1010 n. 18 Ğabr.

#### - محنة mihna 'test, trial, examination'

πεῖρα : (ἔργον) τῆς πειραστικῆς ... οὐ μόνον πεῖραν δύναται λαβεῖν διαλεκτικῶς ἀλλὰ καὶ ὡς εἰδώς SE 34, 183 b 2 = wa-hādā huwa ʿamalu l-ǧadali bi-dātihī wa-l-miḥnati ... laysat innamā yumkinuhā aḥdu l-tağribati ʿalāṭarīqi l-ǧadali faqaṭ, lākin ka-lladī yaʿlamu Ar̄, p. 1107.16 Badawī / p. 1189.13 Ğabr.

#### "mumtaḥin 'examinator' مُتحن

πειραστική = al-mumtaḥina : ἔστι δ' ἡ πειραστική μέρος τῆς διαλεκτικῆς SE 8, 169 b 25 = wa-l-mumtaḥinatu hiya ğuz'u ṣināʿati l-ğadali  $Ar^Y$ , p. 812.16 Badawī / p. 979.8 Ğabr.

#### - متحنى VIII. mumtaḥinī n. relat., part. act.

πεῖρα = al-ṣinā a al-mumtaḥiniyya: ἔτι τὸ φάναι ἢ ἀποφάναι ἀξιοῦν οὐ δεικνύντος ἐστὶν ἀλλὰ πεῖραν λαμβάνοντος SE 11, 171 b 4 = wa-ayḍan fa-inna l-mubarhina laysa lahū an ya'tiya bi-l-īǧābi wa-l-salbi, lākin ʻindamā yurīdu l-imtiḥāna, li-anna l-ṣinā ata l-mumtaḥiniyyata ǧadaliyyatun-mā Theophil (Ar<sup>z</sup> in marg.), p. 842 n. 1 Badawī / p. 1010 n. 18 Ğabr.

πειραστικός (scil. ἔλεγχος) = al-mumtaḥinī: ὅστε φανερὸν ὅτι τοῦ διαλεκτικοῦ ἐστι τὸ δύνασθαι λαβεῖν παρ' ὅσα γίνεται διὰ τῶν κοινῶν ἢ ὂν ἔλεγχος ἢ φαινόμενος ἔλεγχος, καὶ ἢ διαλεκτικὸς ἢ φαινόμενος διαλεκτικὸς ἢ πειραστικός SE9,  $170b11 = fa-i\underline{d}$  an huwa ṣāhirun anna lil-ǯadaliyyi yū ǯadu an yaǯida an yaʾhuda bi-hāʾulāʾi l-ʿāmmiyyāti an kam takūnu aw hādihi llawātī li-l-tabkītāti awi l-tabkīti lladī yurā awi l-ǯadaliyyati llatī turā awi l-mumtaḥiniyyati p. 828.8 Badawī / 995.4 Ğabr.

### ن - تجربة tağriba 'experiment'

πεῖραν λαμβάνειν = aḫada tağribatan: "Ετι τὸ φάναι ἢ ἀποφάναι ἀξιοῦν οὐ δεικνύντος ἐστὶν ἀλλὰ πεῖραν λαμβάνοντος SE 11, 171 b 4 = wa-ayḍan fa-in yu'ahhala an yaḍa a aw an yarfa a laysa huwa li-lladī yubarhinu, lākin li-lladī ya hudu tağribatan  $Ar^{Y}$ , p. 840.12 Badawī / p. 1008.3-4 Ğabr.

πειραστικός (scil. ἐλεγχος) = al-muntaḥinī: ιστε φανερὸν στι τοῦ διαλεκτικοῦ ἐστι τὸ δύνασθαι λαβεῖν παρ' σσα γίνεται διὰ τῶν κοινῶν ἢ ιν ἔλεγχος ἢ φαινόμενος ἔλεγχος, καὶ ἢ διαλεκτικὸς ἢ φαινόμενος διαλεκτικὸς ἢ πειραστικός SE 9, 170 b 11 = fa-idan huwa ṣāhirun anna li-l-ğadaliyyi yūğadu an yağida an ya'huda bi-hā'ulā'i l-ʿāmmiyyāti an kam takūnu aw hādihi llawātī li-l-tabkītāti awi l-tabkīti lladī yurā awi l-ğadaliyyati llatī turā awi l-muntaḥiniyyati  $Ar^{\rm Y}$ , p. 828.8 Badawī / p. 995.4 Ğabr.

## - مجرّب muğarrib, part. act. putting to test, experimental

πειραστική = (al-sina `a) al-mugarriba : ĕστι δ `ή πειραστική μέρος τῆς διαλεκτικῆς SE 8, 169 b 25 = wal-mugarriba (ms. : wa-l-mugazzi atu edd.)  $Ar^Z$ , p. 814.13 Badawī / 981.9 Ğabr || similarly SE 11, 172 a 21, 25, 28, 31, 36 =  $Ar^Z$ , p. 852.7 ff. Badawī / p. 1019 ult. ff. Ğabr.

### προσφδία

# ' ta 'ǧīm 'intonation, accent'

(διαιρετέον τοὺς φαινομένους συλλογισμοὺς καὶ ἐλέγχους ... ) ἡ δὲ σύνθεσις καὶ διαίρεσις καὶ προσφδία τῷ μὴ τὸν αὐτὸν εἶναι τὸν λόγον ἢ τὸ ὄνομα τὸ διαφέρον SE 6, 168 a 27 = fa-ammā l-tarkību wa-l-qismatu wa-l-ta' ḡīmu fa-min qibali anna l-kalimata wa-l-isma l-muḡayyara laysa huwa wāḥidan bi-ʻaynihī Ar<sup>Y</sup>, p. 794.11 Badawī / p. 961.7 Ğabr; wa-l-tarkību wa-l-qismatu wa-l-ta' ḡīmu taḥduṭu idā lam takun dalālatu l-kalimati awi l-ismi wāḥidatan bi-ʻaynihā aw kānā muḥtalifayni Ar<sup>Z</sup>, p. 792.11 Badawī / p. (957.10-) 961.7 Ğabr; fa-ammā l-ta'līfu wa-l-qismatu wa-l ta' ḡīmu fa-inna l-isma fihā laysa tabdīlan wa-l-ma'nā fī dālika ʻalā ḡayri ḥālin wāḥidatin Ar<sup>V</sup>, p. 794.7-8 Badawī / p. 961.4 Ğabr; wa-bi-l-ta' ḡīmi fa-bi-an lā takūnu l-ṭalāṭatu hiya bi-ʻaynihā wa-l-ismu badalun "versio altera" in marg. apud Ar<sup>V</sup>, p. 794 n. 4 Badawī / p. 961 n. 23 Ğabr.

#### στοιχεῖον

	$\mathrm{Ar^{V}}$	Ar <sup>Y</sup>	$Ar^{Z}$
στοιχεῖον 172 b 21, 31,	aṣl	usṭuqussun	aṣl
174 a 17, 20			

#### aşl root, principle أصل -

στοιχεῖον δὲ τοῦ τυχεῖν ἢ ψεύδους τινὸς ἢ ἀδόξου τὸ μηδεμίαν εὐθὺς ἐρωτᾶν θέσιν, ἀλλὰ φάσκειν ἐρωτᾶν μαθεῖν βουλόμενον SE 12, 172 b 21 = fa-l-aṣlu lladī yaṣīru minhu l-insānu ilā l-kadibi aw ilā ġayri maḥdūdin mina l-qawli allā naǧ ala maš alatahū min awwali ftitāḥi kalāmihī 'an mawdū' in mufradin, bal yakūnu nā iyan 'an maš alatihī wa-huwa muḥtāğun ilā l-taʿlīmi Ar 860.14 Badawī / p. 1028.1 Ğabr = li-anna aṣla mā yaʿriḍu minhu l-kadibu aw šayʾun ġayru maḥdūdin innamā huwa allā yaš ala 'an sāʿatihī "versio altera" in margine apud Ar p. 860 n. 12 Badawī / p. 1028 n. 34 Ğabr ; li-anna l-uṣūla llatī 'anhā yaʿriḍu immā l-kadibu aw šayʾun ġayru mašhūrin hiya allā naš ala min awwali l-amri 'an wāḥidin mimmā yūḍaʿu, bal naš alu idā aradnā an narfaʿa kamā yasʾalu l-mutaʿallimu Ar p. 858.15 Badawī / p. 1025.15 Ğabr; wa-uṣūlu imkāni tabyīni l-kadibi aw mā yuḥālifu l-raʾya l-mašhūra huwa allā yasʾalaʿani l-awḍāʿi aw šayʾin fihi, bal yakūna kalāmunā fihi wa-maŝ alatunā ʿanhu maŝ alata l-mutaʿallimi versio Theophil in margine apud Ar p. 858 n. 3 Badawī / p. 1025 n. 17 Ğabr.

### sic ms. for the usual ustuguss] στοιχεῖον, element

στοιχεῖον δὲ τοῦ τυχεῖν ἢ ψεύδους τινὸς ἢ ἀδόξου ... [etc., see previous reference] SE 12, 172b21 = wa-dālika anna usṭukuss an [an: bi-an Badawī] yaʻriḍa immā l-kadibu wa-immā šay'un gayru mirā iyyin huwa an lā [lā om. Badawī] yasʾala wa-lā waḍʿan wāḥidan yaʻqubu dālika, lākin id yasʾalu an yarfaʿa id yurīdu an yataʿallama Ar' p. 856.13 Badawī / p. 1023.13 Ğabr.

#### συλλογίζεσθαι, συλλογισμός

	Ar <sup>v</sup>	Ar <sup>Y</sup>	Ar <sup>Z Theophil</sup>
συλλογισμός	miqyās taʿlīf scil. al-miqyās sūlū ǧismūs taʾlīf sūlū ǧismūs	qiyās	qiyās
συλλογίζεσθαι	allafa, ta`lif allafa miqyāsan	allafa, ta`lif qarana, iqtarana	allafa, tå līf
συλλογιστικός	mu'allaf		
ἀσυλλόγιστος		lā muqtarin ġayr muqtarin	lā tả līfa fihi

# - الُّف allafa II. to compose, put together

sem. in expr. συλλογίζεσθαι = allafa scil. al-miqyāsa (to put together a syllogism): τῶν δ' ἐριστικῶν δριμύτατος μὲν ὁ πρῶτον εὐθὺς ἄδηλος πότερον συλλελόγισται ἢ οὔ SE 33, 183 a 8 = fa-ammā l-ṣaʿbu min kalāmi ahli l-šaġabi allā yakūna stabāna niṣfu aw kullu mā ullifa minhu l-miqyāsu aw lam yuʾallaf, wa-in kāna taʾlīfan, a-min kadibin taʾlīfuhū am min qismatihī  $Ar^{\rm V}$ , p. 1006.8 Badawī / p. 1188.3-4 Ğabr.

abs. συλλογίζεσθαι = allafa: (εἰ ἤρετο ...) φήσαντος δὲ συλλοιγίζοιτο ὅτι δοίη ἄν τις ὁ μὴ ἔχει, καὶ φανερὸν ὅτι {οὐ} (οὐ om.  $\Sigma$ ) συλλελόγισται SE 22, 178 b 2 = (in kāna saʾala ...) in kāna yaqūlu naʿam, kāna yuʾallifu annahū yuʿtī insānun mā laysa lahū, wa-huwa ẓāhirun annahū muʾallafun Ar̄, p. 941 ult. Badawī / p. 1114.16 Ğabr; (saʾalahū ... ) fa-qāla naʿam, fa-yuʾallifu anna l-insāna yuʿtī mā lā yū ğadu lahū, wa-mina l-bayyini annahū yaʾtalifu (lam yaʾtalif edd.) Ar̄, p. 943.11 Badawī / p. 1116.5 Ğabr.

### ta'līf maṣdar, composition

Also for σύνθεσις =  $tark\bar{\imath}b$   $wa-ta'l\bar{\imath}f$ : ἡ μὲν οὖν ἀμφιβολία καὶ ὁμωνυμία παρὰ τούτους τοὺς τρόπους ἐστίν. παρὰ δὲ τὴν σύνθεσιν τὰ τοιάδε SE 4, 166 a  $23 = fa-l-tašk\bar{\imath}ku$   $wa-l-ištir\bar{\imath}ku$  fi l-ismi  $innam\bar{\imath}$   $yak\bar{\imath}un$  min  $h\bar{\imath}adihi$   $l-anh\bar{\imath}a'$ , wa-qad  $yak\bar{\imath}un$  min a  $l-ta'k\bar{\imath}bi$   $wa-l-ta'l\bar{\imath}fi$   $anh\bar{\imath}a'$  un  $gayruh\bar{\imath}a$   $Ar^{V}$ , p. 764.4  $Badaw\bar{\imath}$  / p. 933.12 Gabr.

#### - تأليف c. neg. lā taʾlīfa fīhi, uncomposed

ἀσυλλόγιστος: πρῶτον μὲν εἰ ἀσυλλόγιστοι· δεῖ γὰρ ἐκ τῶν κειμένων συμβαίνειν τὸ συμπέρασμα ὥστε λέγειν ἐξ ἀνάγκης ἀλλὰ μὴ φαίνεσθαι SE 6, 168 a 21 ammā awwalan fa-innahum in kāna fihā taʾlīfun [!-om. neg.] fa-yağibu an talzama l-natīğatu ʿan al-muqaddimāti l-mawḍūʿati ḥattā naqūla innahā mawǧūdatun mina l-iḍṭirāri lā annahā maṣnūnatun  $Ar^Z$ , p. 792.6 Badawī / p. 959.6 Ğabr.

ἀσυλλόγιστος =  $l\bar{a}$   $t\dot{a}'l\bar{i}fa$  fihi: ἀσυλλόγιστοι μὲν οὖν ἁπλῶς οὖν εἰσὶν οἱ τοιοῦτοι λόγοι, πρὸς δὲ τὸ προκείμενον ἀσυλλόγιστοι SE 5, 167 b 34-35 = fa-ammā  $h\bar{a}\underline{d}$ ihi l-muqaddamātu fa-laysat mimmā  $l\bar{a}$   $t\dot{a}'l\bar{i}fa$  fihi 'a $l\bar{a}$  l-itlāq,  $l\bar{a}$ kinna  $t\dot{a}'l\bar{i}fah\bar{a}$  laysa huwa naḥwa l-amri  $lla\underline{d}$  $\bar{i}$  taqaddama waḍ 'uhū Ar², p. 786.7-8 Badawī / 953.6 Ġabr.

ἀσυλλόγιστος = ġayr muqtarin: ἀσυλλόγιστοι μὲν οὖν ἁπλῶς οὐν εἰσὶν οἱ τοιοῦτοι λόγοι, πρὸς δὲ τὸ προκείμενον ἀσυλλόγιστοι SE 5, 167 b 34-35 = wa-ammā amṭālu hā ulā i l-aqāwīli fa-laysat ġayra muqtarinatin, fa-ammā naḥwu lladī quddima fa-wudi a fa-hiya ġayra muqtarinatin  $\operatorname{Ar}^{\mathsf{Y}}$ , p. 784.3  $\operatorname{Badawi}$  / p. 951.7-8  $\operatorname{Gabr}$  || ἢ δὴ οὕτως διαιρετέον τοὺς φαινομένους συλλογισμοὺς καὶ ἐλέγχους, ἢ πάντας ἀνακτέον εἰς τὴν τοῦ ἐλέγχου ἄγνοιαν, ἀρχὴν ταύτην ποιησάμενος (...) πρῶτον μὲν εἰ ἀσυλλόγιστοι· δεῖ γὰρ ἐκ τῶν κειμένων συμβαίνειν τὸ συμπέρασμα ὥστε λέγειν ἐξ ἀνάγκης ἀλλὰ μὴ φαίνεσθαι SE 6, 168 a 21 = ammā awwalan fa-in lam takun muqtarinatan (muʾallafatan supra), wa-dālika annahū innamā yaǧibu an taʿriḍa l-natīǧatu mina llatī wudi at kaymā takūna ay annahā mina l-iḍtirāri lā annahā turā  $\operatorname{Ar}^{\mathsf{Y}}$ , p. 790  $\operatorname{Badawi}$  / p. 957.6  $\operatorname{Gabr}$ .

## miqyās, measure, gauge مقياس -

συλλογισμός in expr. tả līfu l-miqyāsi: ἐπεὶ δ' ἐστὶν ἡ μὲν ὀρθὴ λύσις ἐμφάνισις ψευδοῦς συλλογισμοῦ, παρ' ὁποίαν ἐρώτησιν συμβαίνει τὸ ψεῦδος, ὁ δὲ ψευδὴς συλλογισμὸς λέγεται διχῶς –ἢ γὰρ εἰ συλλελόγισται ψεῦδος, ἢ εἰ μὴ ὢν συλλογισμὸς δοχεῖ εἶναι συλλογισμός SE 18, 176 b 30-33 = fa-lammā kāna l-naqḍu al-ṣaḥīhu izhāra kadibi ta'līfi l-miqyāsi bi-ayyati mas'alatin ʿaraḍa dālika l-kadbu, wa-ka-dālika ta'līfu l-miqyāsi, fa-qad yuqālu ʿalā ǧihatayni, immā mu'allafun fa-kāna kadiban, wa-immā lam yata'allaf fa-zunna bihī annahū miqyāsun mu'allafun Ar<sup>V</sup>, p. 920.3-4 Badawī /p. 1088.3-5 Ğabr.

periphr. συλλογίζεσθαι = ta'līf al-miqyās : καὶ φανερὸν ὅτι οὐ συλλελόγισται SE 9, 178 b 4 = wa-hā $d\bar{a}$  bayyinun an laysa fihi ta'līfu miqyāsin  $Ar^{V}$ , p. 945.12 Badawī / p. 1117.13 Ğabr || ωστε

καὶ εἴ τις ἐπιχειροίη συνάγειν ἀδύνατον συνάγων εἰς ἀδύνατον, ἁμαρτάνει, κἂν εἰ μυριάκις ἢ συλλελογισμένος· οὐ γάρ ἐστιν αὕτη λύσις· ἦν γὰρ ἡ λύσις ἐμφάνισις ψευδοῦς συλλογισμοῦ παρ' ὁ ψευδής SE 24, 179 b 22-24: min ağli dālika wa-in rāma aḥadun taʾlīfa l-qiyāsi la-badā anna dālika muḥṭi un wa-annahū lā imkāna fìhi, wa-tamma lahū taʾlīfu l-miqyāsi ʿašrata alfi marratin ʿalā hādā l-naḥwi, lamā kāna dālika nāqiḍan li-dālika l-qawli, li-anna baʿḍa l-qawli innamā huwa izhāru kadibi l-miqyāsi mina l-ǧihati lladī huwa fìhā kadibun Ar<sup>v</sup>, p. 960.6-9 Badawī / p. 1133.7-9 Ğabr.

### sūlūğismūs سولو جسموس -

ἀσυλλόγιστος SE 5, 167 b  $34 = laysa huwa mu'allafan minhu 'alā mā yakūnu 'alayhi l-sūlū ǧismūs Ar<math>^{\rm v}$ , p. 788.6 -7 Badawī / p. 955.4 Ğabr.

συλλογίζεσθαι = ta'lif al-sūlūğismūs: δεῖ τὸ ἔλαττον διδόναι, χαλεπώτερον γὰρ συλλογίσασθαι ἐκ πλειόνων SE 17, 176 b 11 = wa-yanbaġī an nuʿṭī awwalan al-aqalla li-annahū ya'suru ta'līfu l-sūlūğismūs mina l-kabīri  $Ar^{\rm V}$ , p. 915.13 Badawī / p. 1082.16 Gabra.

#### σολοιχισμός

### sūlūqismūs سو لو قسمو س -

Πρῶτον δὴ ληπτέον πόσων στοχάζονται οἱ ἐν τοῖς λόγοις ἀγωνιζόμενοι καὶ διαφιλονεικοῦντες. ἔστι δὲ πέντε ταῦτα τὸν ἀριθμόν, ἔλεγχος καὶ ψεῦδος καὶ παράδοξον καὶ σολοικισμὸς καὶ πέμπτον τὸ ποιῆσαι ἀδολεσχῆσαι τὸν προσδιαλεγόμενον SE 3, 165 b14 = fal-yu'ha $\underline{d}$  awwalan min kam yazunnu haulai la $\underline{d}$ ina yu $\underline{g}$ āhidūna fi l-kalimi, wa-ha $\underline{d}$ ihi hiya hamsatu mina l-'adadi, al-tahk $\overline{i}$ tu wa-l-ki $\underline{d}$ hu wa-du'fu l-i tiqādi wa-l-sūlūqism $\overline{u}$ s, wa-l-hāmisu an yas $\overline{i}$ ra lla $\underline{d}$ i yukallimuhū an yah $\underline{d}$ iya wa-yahmuza Ar $^{Y}$ , p. 750.1 Badawī / p. 920.1 Gahr ||  $\varphi$ ανερὸν οῦν ὅτι τὸν σολοικισμὸν πειρατέον ἐκ τῶν εἰρημένων πτώσεων συλλογίζεσθαι SE 14, 174 a 100 = wa-qad zahara annā innamā narūmu ta'lifa l-sūlūqismus min haldihi l-taṣārufi l-malkurati Aru0, u0, u10 u10 u10 u11 u11 u12 u12 u12 u12 u12 u13 u13 u14 u13 u15 u16 u16 u16 u16 u17 u17 u18 u19 u16 u18 u19 u19 u19 u19 u19 u19 u19 u10 u19 u19 u10 u11 u

# ْ عجو ميّة - 'uǧūmiyyatun, barbarism

φανερὸν οὖν ὅτι τὸν σολοικισμὸν πειρατέον ἐκ τῶν εἰρημένων πτώσεων συλλογίζεσθαι SE 14, 174 a 10 = fa-huwa zāhirun annahū yarūmu an yu'allafa 'uǧūmiyyatan min hā $\underline{d}$ ihi l-taṣārīfi llatī qīlat Ar $^{\mathrm{Y}}$ , p. 879.6 Badawī / p. 1946.10 Ğabr.

## isti 'ğām X. maşdar, using barbarism استعجام -

φανερὸν οὖν ὅτι τὸν σολοικισμὸν πειρατέον ἐκ τῶν εἰρημένων πτώσεων συλλογίζεσθαι SE 14, 174 a 10=fa-qad tabayyana anna l-isti 'ğāma immā (leg. innamā) yata'allafu min miṭli hā $\underline{d}$ ihī l-taṣārīfi llatī qīlat  $\Lambda r^{\rm V}$ , p. 881.12 Badawī / p. 1048.12 Ğabr.



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