SOME REMARKS ON THE TEXT OF
ARISTOTLE'S *METAPHYSICS**

In the course of my work on a Swedish translation of Aristotle's *Metaphysics*, it has become increasingly clear to me that in spite of all the highly qualified scholarly labour expended on the text of this work during the last two centuries, a new edition is desirable. This is not primarily due to the discovery of any new important sources for the text (although a systematic investigation of the Arabic tradition might prove worthwhile), but rather to the accumulation of data indicating that the sources used for the two latest editions, those by Ross and Jaeger, ought to be re-evaluated.[1]

These sources are few. Only three manuscripts are regularly cited by Ross and Jaeger. These are Par. gr. 1853 (E) and Vindob. gr. phil. 100 (J), both representing the branch α, and Laur. gr. 87,12 (A^b), representing the branch β. Besides these manuscripts, there are a number of ancient commentaries on different parts of the work. The most important among these is Alexander of Aphrodisias' commentary on Books *A–Δ* (supplemented by pseudo-Alexander on Books *E–N*); the others are Syrianus' commentary on Books *B–Γ* and *M–N*, Asclepius' commentary on Books *A–Z*, and Themistius' paraphrase of Book *Λ* (only preserved in a Hebrew translation). Further, there are parallel texts by Aristotle himself, namely a part of Book *A* for a part of Book *M* and vice versa, and *Physics* 2–3 and 5 for a part of Book *K*; and there is William of Moerbeke's Latin translation of the whole work. Finally, of course, both editors often resort to conjectures, their own as well as those of others.

A new edition of the *Metaphysics* would have to deal differently with each of these sources. To begin with, Vuillemin-Diem has shown that William of Moerbeke used J for his translation (plus another related manuscript as a complement and corrective).[2] The Latin translation is therefore of negligible value for the constitution of the text.

Second, both Ross and Jaeger fail to maintain a clear distinction between Alexander and pseudo-Alexander as textual witnesses, in spite of the fact that pseudo-Alexander *postdates* α and β by almost three centuries. Scholars such as Ravaisson and Praechter in the nineteenth and early twentieth centuries argued strongly that this author should be identified as Michael of Ephesus (active 1118– 38); this has now been conclusively proved by Luna.[3] Obviously, Michael made use of older material. Moraux was of the opinion that this included the authentic commentary by Alexander, but he also thought it impossible to separate Michael's contribution from what goes back to Alexander himself.[4]

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[1] W. D. Ross, *Aristotle's Metaphysics*, 2 vols (Oxford, 1924); W. Jaeger, *Aristotelis Metaphysica* (Oxford, 1957).

[2] In *Metaphysica, lib. I–XIV, Recensio et Translatio Guillelmi de Moerbeka*, Aristoteles Latinus 25.3, 2 vols (Leiden, New York, and Cologne, 1995), 1.1 2, 165 88.

[3] C. Luna, *Trois études sur la tradition des commentaires anciens à la Métaphysique d'Aristote* (Leiden, Boston, and Cologne, 2001), 1 71.

[4] P. Moraux, *Der Aristotelismus bei den Griechen von Andronikos bis Alexander von Aphrodisias 3. Alexander von Aphrodisias* (Berlin and New York, 2001), 423 7. Moraux's

To illustrate my point I may mention that for Books E and Z, Jaeger systematically notes—and not infrequently adopts—the readings of pseudo-Alexander, but only occasionally takes into account the testimony of Asclepius, who *antedates* α and β by three centuries. Much the same holds for the relation between pseudo-Alexander and Syrianus in Jaeger's text and apparatus for Books M and N. While there is perhaps no reason to doubt Jaeger's statement that the testimonies of Asclepius and Syrianus are 'much inferior to' Alexander's,[5] there is clearly no warrant for extending this evaluation of Alexander to Michael of Ephesus.

Third, Harlfinger showed that there are in branch β two more independent witnesses to the whole text (Ambr. F 113 sup. = M, and Taur. B VII 23 = C), plus one witness to Books $A-E$ (Vat. gr. 115 = V^k), and fragments of Books I and K in the ninth- or tenth-century Par. suppl. gr. 687. He also established that A^b from Book $\varLambda$, chapter 8 to the end of the work in fact represents branch α.[6] The consequences are that in Ross's and Jaeger's editions insufficient account is taken of branch β in Books $A-\varLambda$ 7, and none at all in Books $\varLambda$ 8−N.

Moreover, the value of A^b even for Books $A-\varLambda$ 7 has been debated. Frede and Patzig, in their edition of Book Z, consider it probable that branch β 'eine Tradition vertritt, in der der ursprüngliche aristotelische Text in verschiedener Weise geglättet und reguliert worden ist'.[7] Cassin and Narcy, in their edition of Book $\varGamma$, arrive at a similar conclusion.[8] In both these editions, numerous readings of A^b which were adopted by Ross and Jaeger are consequently discarded.

From a methodological point of view, the most compromising feature of both Ross's and Jaeger's editions is probably their treatment of the dubious Book K. Both editors argued that the former part of the book (up to 1065a26) is authentic. Now, if they had seen no reason to doubt this conclusion, they would indeed have been justified in applying the same methods to this part of Book K as to the rest of the *Metaphysics*, including emendation of passages involving un-Aristotelian thought or language. But they concede that this part of the book may well consist not of Aristotle's own lecture notes but of a student's notes of Aristotle's lectures, and thereby deprive themselves of this justification.[9]

They also lacked justification for the treatment to which they subjected the latter part of Book K. Both agreed that this collection of excerpts from the *Physics* is not

opinion was prompted by his hypothesis that the correspondences in Michael's and Syrianus' commentaries are due to their dependence on a common source. Luna (n. 3) argues that Michael is dependent on Syrianus, and denies (p. 187) that Michael knew the lost parts of Alexander's commentary. On Michael's working technique generally, see also S. Ebbesen, *Commentators and Commentaries on Aristotle's Sophistici Elenchi*, 3 vols (Leiden, 1981), 1. *The Greek Tradition*, 268 85, and H. P. F. Mercken, 'The Greek commentators on Aristotle's Ethics', in R. Sorabji (ed.), *Aristotle Transformed* (London, 1990), 407 43, at 429 36.

[5] Jaeger (n. 1), xix.

[6] D. Harlfinger, 'Zur Überlieferungsgeschichte der *Metaphysik*', in P. Aubenque (ed.), *Études sur la Métaphysique d'Aristote* (Paris, 1979), 7 33.

[7] M. Frede and G. Patzig, *Aristoteles 'Metaphysik Z': Text, Übersetzung und Kommentar* (Munich, 1988), 1.16. Cf. also M. Frede, 'Metaphysics $\varLambda$ 1', in M. Frede and D. Charles (edd.), *Aristotle's Metaphysics Lambda* (Oxford, 2000), 53 80, at 66 7.

[8] B. Cassin and M. Narcy, *La Décision du sens: le livre Gamma de la Métaphysique d'Aristote* (Paris, 1989), 111.

[9] W. Jaeger, *Studien zur Entstehungsgeschichte der Metaphysik des Aristoteles* (Berlin, 1912), 87 8; id., *Aristoteles: Grundlegung einer Geschichte seiner Entwicklung* (Berlin, 1923), 217, n. 2; Ross (n. 1), 1.xxvi. Cf. P. Aubenque, 'Sur l'inauthenticité du livre K de la *Métaphysique*', in P. Moraux and J. Wiesner (edd.), *Zweifelhaftes im Corpus Aristotelicum: Studien zu einigen Dubia* (Berlin and New York, 1983), 318 44, at 321 2.

by the Stagirite. In this they were undoubtedly right. Not only do the excerpts contain deviations in relation to the source-text whose nature implies misunderstanding of Aristotelian doctrines; they also contain a relatively large number of textual errors shared with all or some of our manuscripts of the *Physics*. This seems to indicate that they date from a point of time at which the *Physics* had already undergone a certain history of transmission, arguably from the time of Andronicus' edition. Jaeger himself dated the inclusion of Book *K* in the *Metaphysics* to this time.[10] Yet both he and Ross systematically 'emended' the text of the excerpts, even importing emendations of the parallel passages of the *Physics* into it (for example, 1068a11–12). This method seems calculated to produce a text that is as close as possible to what Aristotle would have written, if he had composed a collection of excerpts like this. But since there is no reason to believe he did, it is hard to see what we are supposed to do with such a text. A methodologically sound edition of the latter part of Book *K* would present us with an approximation of the actual work of the person who composed the collection of excerpts, no matter who he was or when he executed his work. Such an edition would also doubtless facilitate further investigation into the circumstances of the composition.

Finally, there is every reason to believe that the last fifty years of philosophical analysis of Aristotle's arguments have put today's scholars in a position to make use of conjecture with somewhat greater precision, and perhaps also with less frequency. Both Frede and Patzig and Cassin and Narcy in the above-mentioned editions (nn. 7 and 8) manage to make sense of a good many readings of E and J that Ross and Jaeger deemed it necessary to emend.

I have fulfilled my first purpose in this article, which was a practical one: to urge the importance of a new edition of the *Metaphysics*. My second purpose is of a more theoretical nature. It is to discuss a few individual passages where I think the current editions are probably wrong and this has not to my knowledge been convincingly argued by others previously. The lemmata are from Ross's edition.

A 5, 987a9–12 μέχρι μὲν οὖν τῶν Ἰταλικῶν καὶ χωρὶς ἐκείνων μορυχώτερον εἰρήκασιν οἱ ἄλλοι περὶ αὐτῶν, πλὴν ὥσπερ εἴπομεν δυοῖν τε αἰτίαιν τυγχάνουσι κεχρημένοι ...

The immediately preceding passage (a2–9) states that there is (1) one set of early philosophers who posit material principles only, some of whom (1a) posit one material principle, and some (1b) more than one; and (2) another set who posit both material and efficient causes, some of whom (2a) posit one efficient cause, and some (2b) two. περὶ αὐτῶν in a11 refers to these principles or causes.

In a10 the manuscripts have μαλακώτερον (A^b) and μετριώτερον (E). Both these readings are obviously false. Diels argued vehemently in favour of a reading (μορυχώτερον) reported by Alexander (46.23–9) from 'certain manuscripts'.[11] Ross and Jaeger let themselves be persuaded to adopt it in their texts. With this emendation the whole sentence runs, in Ross's translation:[12] 'Down to the Italian school, then, and apart from it, philosophers have treated these subjects rather obscurely, except that, as we said, they have in fact used two kinds of cause ...' (philosophers who have used two kinds of cause are, for example, Anaxagoras and Empedocles, who belong to set (2a) and (2b) respectively).

[10] Jaeger (n. 9, 1912), 179–80, 186.
[11] H. Diels, 'Aristotelica', *Hermes* 40 (1905), 301 16.
[12] The Oxford Translation (1928^2).

Ross suggested that the many variants exhibited by the tradition were 'best explained as attempts to interpret the *hapax legomenon* μορυχώτερον'.[13] But surely this is pushing the principle of *lectio difficilior* too far. I think we would do better to lend an ear to Alexander (46.15–47.1), who rejects the reading on the grounds that (i) the word is unknown; and (ii) if it means 'rather obscurely' (as Diels and Ross thought), the statement will be inconsistent with what Aristotle says in other passages of the book, where the Pythagoreans are not excepted from the accusation of obscurity levelled against the earlier philosophers.[14]

To this one may add that it would be rather absurd for Aristotle to say at this point that the only thing that is completely clear in the earlier thinkers' account of causes is that 'they have in fact used two kinds of cause ...'. After all, he does specify *some* other details in his doxography in chapters 3 and 4; moreover, he particularly complains about the vagueness and arbitrariness of Anaxagoras' and Empedocles' use of two kinds of cause at *A* 4, 985a10–14.

In spite of Diels, who denounced it as 'sinnlos' and 'absurd',[15] I think the standard reading defended by Alexander is very likely to be what Aristotle wrote. This is μοναχώτερον (46.23).[16] The adverb μοναχῶς, meaning 'in only one way', occurs twenty-eight times in Aristotle. The phrase μοναχῶς λέγεσθαι is used by Aristotle five times with a meaning contrary to that of πολλαχῶς λέγεσθαι, that is (of a thing), 'to be spoken of in only one way', or (of a word) 'to be used in only one way' (that is, to have only one sense). With the active intransitive verb (μοναχῶς λέγειν), the meaning must be 'to speak in only one way'.

A case for μοναχώτερον has already been made by van der Valk,[17] but his interpretation of the passage ('Aristote accusait les anciens philosophes d'avoir parlé des premiers principes *avec trop d'uniformité*') is not to my mind convincing. The meaning in context of the phrase 'to speak in only one way' is determined by the reference of the expression περὶ αὐτῶν in a11. This refers to causes or principles. To speak in only one way of causes is to speak of only one kind of cause.

A philosopher who does this could be labelled as a 'causal monist'. 'Too monistically' is indeed how Dooley translates μοναχώτερον in Alexander.[18] A problem with this translation is that it adds to the ambiguity of the term 'monist'. In the context of early Greek philosophy we are used to speaking of 'material', 'numerical', and perhaps 'predicational' monists. Material monists would be those included in set (1a) above, who not only posit only one kind of principle, that is, material ones, but posit only one kind of *material* principle. In contrast, the philosophers who speak μοναχώτερον about causes according to Aristotle in 987a9–11 must be all those included in set (1) above, that is, all those who posit only material principles, whether one or more than one. This accounts well for the exception of the Pythagoreans, since they posited two principles, one material and one 'as modifications and states' (cf. the vexed passage in *A* 5, 986a15–17, with Alexander's commentary, 41.21–6).

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[13] Ross (n. 1), 1.155.
[14] See especially *A* 5, 986b4 6; also *A* 7, 988a20 3; *A* 10, 993a11 15.
[15] Diels (n. 11), 301 2.
[16] Also, μοναχώτερον should clearly be read in 46.16 for μαλακώτερον, glossed as ἑνὶ αἰτίῳ χρῆσθαι. Cf. W. E. Dooley, *Alexander of Aphrodisias, On Aristotle Metaphysics 1* (London, 1989), 72, n. 149.
[17] M. van der Valk, 'Sur un passage d'Aristote (*Métaph.*, 987a9)', *Revue des études grecques* 70 (1957), 235 8.
[18] Dooley (n. 16), 73.

This having been said, we might still for want of a more appropriate term render μοναχῶς as 'in a monistic way', and translate the re-emended passage as follows: 'Down to the Italian school, and apart from it, philosophers have treated the causes in a more or less "monistic" way, except that, as we said, they *have* in fact used two kinds of cause ...'.

A 6, 987b1–4   Σωκράτους δὲ περὶ μὲν τὰ ἠθικὰ πραγματευομένου περὶ δὲ τῆς ὅλης φύσεως οὐθέν, ἐν μέντοι τούτοις τὸ καθόλου ζητοῦντος καὶ περὶ ὁρισμῶν ἐπιστήσαντος πρώτου τὴν διά- νοιαν, ἐκεῖνον ἀποδεξάμενος ...

The understood subject of the sentence is Plato. As it is usually interpreted, the quoted part of the sentence exhibits three grammatical irregularities, none of which is very remarkable on its own, but which together can hardly fail to rouse suspicion.

(1) The sentence is introduced by a genitive absolute whose subject (Σωκράτους) later reappears as the accusative object of a *participium coniunctum* (ἐκεῖνον in b4). (2) This object is expressed by the 'third-person demonstrative', in spite of the fact that it has been the focus of attention from the very start of the sentence, and of the fact that the 'third-person demonstrative' might easily be misunderstood as refer- ring to Cratylus (mentioned in the preceding sentence). (3) The required meaning of this *participium coniunctum* (ἀποδεξάμενος) is not '[Plato] accepted Socrates as his teacher' but '[Plato] accepted what Socrates taught' (cf. Ross [n. 12]: 'Plato accepted his teaching'). Yet when the verb ἀποδέχομαι takes a personal object in the accusative, it usually (though far from always) means 'to accept someone as one's teacher, friend, etc.'.[19] The meaning 'to accept what someone says' is normally expressed by this verb with a personal object in the genitive, usually co-ordinated with a participle.[20]

These three irregularities can be eliminated at one stroke, by changing ἐκεῖνον in b4 into ἐκεῖνος (and removing the preceding comma). Σωκράτους ... πραγματευομένου ... ζητοῦντος καὶ ... ἐπιστήσαντος will then be the object of ἀποδεξάμενος, whereas ἐκεῖνος will serve to call our attention back to Plato, the subject of the sentence.

B 4, 1000a13–17   ... δῆλον ... ὡς ταῦτα τὰ ὀνόματα γνώριμα λέγοντες αὐτοῖς· καίτοι περὶ αὐτῆς τῆς προσφορᾶς τῶν αἰτίων τούτων ὑπὲρ ἡμᾶς εἰρήκασιν εἰ μὲν γὰρ χάριν ἡδονῆς αὐτῶν θιγ- γάνουσιν, οὐθὲν αἴτια τοῦ εἶναι τὸ νέκταρ καὶ ἡ ἀμβροσία ...

In a9–13 Aristotle criticizes Hesiod and other 'theologians' for explaining the fact that some things are mortal (that is, perishable) in a way that nobody else can find satisfactory, namely by saying that these things 'have not tasted the ambrosia and the nectar'. According to the traditional text, what he goes on to say in a13–17 is the following: 'Obviously these words that they used were comprehensible to them- selves. Yet what they say about precisely the application of these causes is beyond us. For if they partake of them for the sake of pleasure, the nectar and the ambrosia are in no way causes of being ...'.

It is not clear how to understand the words 'precisely the application of these causes' in the context. Madigan's suggestion 'the precise contribution of these causes' presupposes a sense of προσφορά for which there seems to be no other evi- dence.[21] The ordinary sense of this noun in the *corpus Aristotelicum* (it occurs

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[19] LSJ s.v. 2.
[20] LSJ s.v. 4a; cf. Aristotle, *Eth. Nic.* 1.1, 1094b26; *Rh.* 2.21, 1395b8.
[21] A. Madigan, *Aristotle, Metaphysics: Book B and Book K 1–2* (Oxford, 1999), 12, 98 9.

mostly in spurious and dubious works) is 'taking (of food, medicine, etc.)'. In fact, this is the sense in all the instances listed in Bonitz.[22] This sense it can also have in our passage, if in a15 we emend the αἰτίων of the manuscripts into σιτίων. This may well have been what Alexander read (218.34—219.1: δεύτερον δὲ καὶ περὶ αὐτῆς τῆς προσφορᾶς τούτων ἁπλῶς εἶπον καὶ οὐδαμῶς γνωρίμως). The corruption could be due to the influence of αἴτια in a16. What Aristotle says in a14—15 will then be: 'Yet what they say about precisely the taking of these foodstuffs [sc. the nectar and the ambrosia] is beyond us.' (αὐτῶν in a16 will thus refer back to τῶν σιτίων, not forward to τὸ νέκταρ καὶ ἡ ἀμβροσία.)

Δ 18, 1022a22–3 ἔτι δὲ τὸ καθ' ὃ τὸ κατὰ θέσιν λέγεται . . .

Jaeger encloses the first τὸ in square brackets, referring to 1022b10 and b13 (misprint for b15) for parallels. Possibly his intention was to enclose the second τὸ: at least this is the operation that 1022b10 and b15 together with τὸ καθ' ὅ in a14 and a19 seem to recommend.

Ζ 9, 1034a29–30 διὸ καὶ λέγεται ποιεῖν, ὅτι ἐκεῖνο ποιεῖ [τὴν ὑγίειαν] ᾧ ἀκολουθεῖ καὶ συμβέβηκε [θερμότης].

According to Ross, 'The manuscript reading if kept would have to be translated "that is why the rubbing (cf. 1032b26) is said to produce health, because that of which health is a consequence produces health, viz. heat".'[23] This makes tolerable sense, no more, and strains the Greek. Taking his cue from Bonitz,[24] Jaeger condemned τὴν ὑγίειαν and θερμότης in a30 as interpolated glosses on λέγεται ποιεῖν in a29. He in turn was followed by Ross as well as Frede and Patzig. According to Ross, the meaning of the printed text will be 'and this is why the heat in the rubbing is said to produce health, viz. because it produces that on which health follows' (that on which health follows being the heat in the body, as is explained in a27—9).[25]

Frede and Patzig pointed out that Michael of Ephesus' paraphrase of the passage (499.37—500.6) shows no evidence of θερμότης.[26] This is true. It even seems to testify against the reading, as Asclepius' paraphrase (410.25—7) definitely does. Frede and Patzig also claimed that Michael must be assumed not to have had τὴν ὑγίειαν in his copy. This, however, is not necessary. What Michael says in 500.3—4 (οὕτω γὰρ χρὴ τῆς λέξεως ἀκούειν "διὸ καὶ λέγεται ποιεῖν, ὅτι ἐκεῖνο ποιεῖ τὴν ὑγίειαν") does not seem to be 'daß man den Text so verstehen habe, daß man sich τὴν ὑγίειαν ergänzt',[27] but rather that the text must be understood as he has just explained (οὕτω); the words that follow are, as Hayduck indicates in the Berlin edition, the text itself in quotation. It is not uncommon for Michael to refer in this way to an exposition he has just given.[28]

I would go so far as to argue that Michael must be assumed to *have* had τὴν ὑγίειαν in his copy, for the following reason: the modern editors and Michael are agreed that ἐκεῖνο in a29 refers to the heat in the body, and that the general drift of the passage is

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[22] H. Bonitz, *Index Aristotelicus* (Berlin, 1870), 649a40 7; cf. ibid. a21 6 for the middle voice of the cognate verb.

[23] Ross (n. 1), 2.192 3.

[24] H. Bonitz, *Aristotelis Metaphysica 2. Commentarius* (Bonn, 1849), 330.

[25] Ross (n. 1), 2.193.

[26] Frede and Patzig (n. 7), 2.160.

[27] Ibid.

[28] Cf. e.g. *In Metaph.* 443.29 30, 580.28 9, 628.5 6, 811.24 6.

that the heat in the rubbing is said to produce health in an indirect sense, by producing the heat in the body. They differ in that the modern editors take ἐκεῖνο as the object of ποιεῖ in a30, whereas Michael takes it as the subject, despite the fact that this entails the pointless and tautological construction of the ὅτι clause that we have seen in Ross' translation of the manuscript reading. If Michael had not read τὴν ὑγίειαν, there would have been no need for him to take ἐκεῖνο as the subject of ποιεῖ.

Since Asclepius leaves no doubt that he had τὴν ὑγίειαν in his copy, we may sum up by saying that the commentators offer support for the deletion of θερμότης but not of τὴν ὑγίειαν. If we now look again at the text and interpretation of Jaeger, Ross, and Frede and Patzig, we will find that they require of us that we first mentally supply 'health' as the object of 'produce' and then repeat it as the subject of 'follows'. This is rather hard, and so one may consider relocating τὴν ὑγίειαν from the position after ποιεῖ in a30 to that after ποιεῖν in a29, instead of deleting it (so as to read διὸ καὶ λέγεται ποιεῖν τὴν ὑγίειαν, ὅτι ἐκεῖνο ποιεῖ ᾧ ἀκολουθεῖ καὶ συμβέβηκε).

Ζ 9, 1034a33–b4 τὸ μὲν γὰρ σπέρμα ποιεῖ ὥσπερ τὰ ἀπὸ τέχνης (ἔχει γὰρ δυνάμει τὸ εἶδος, καὶ ἀφ' οὗ τὸ σπέρμα, ἐστί πως ὁμώνυμον—οὐ γὰρ πάντα οὕτω δεῖ ζητεῖν ὡς ἐξ ἀνθρώπου ἄνθρωπος· καὶ γὰρ γυνὴ ἐξ ἀνδρός—ἐὰν μὴ πήρωμα ᾖ· διὸ ἡμίονος οὐκ ἐξ ἡμιόνου) ...

In 1034a21–6 Aristotle argues that artefacts are always produced by things with the same name (and definition)[29] as themselves, the art being identical with the form of the artefact. In a33 he claims that the same is true of things produced by nature. The claim is supported by an argument which in Ross's translation (n. 12) reads as follows:

For the seed is productive in the same way as the things that work by art; for it has the form potentially, and that from which the seed comes has in a sense the same name as the offspring—only in a sense, for we must not expect parent and offspring always to have exactly the same name, as in the production of 'human being' from 'human being'; for a 'woman' also can be produced by a 'man'—unless the offspring be an imperfect form; which is the reason why the parent of a mule is not a mule.

This translation closely follows Michael of Ephesus' interpretation (500.9–25). It does not, however, follow the text transmitted by the manuscripts. Ross transposed the phrase διὸ ... ἡμιόνου in b3–4, which in all the manuscripts follows immediately after the phrase καὶ γὰρ ... ἀνδρός. The reading ἐὰν μή in b3 is found in Michael's quotation and Asclepius' paraphrase as well as in A^b, whereas E and J have ἀλλ' ἐὰν μή.

Ross thought that Michael could have had the thus transposed text before him.[30] But in 500.33–7 Michael explains that in order to extract the above argument from the text one has to read the text in inverted order. There is no way of knowing to what extent Michael's text really differed from that of the manuscripts, except that (like A^b) he did not read ἀλλ' in b3.

Ross had two complaints about the text of E and J. The first was that 'διὸ ... ἡμιόνου does not follow naturally on the previous clause'.[31] I shall return to this point after I have presented my interpretation of the passage. The other complaint was that 'ἀλλ' ἐὰν ... ᾖ has to be taken rather unnaturally as = "but only if it is not a πήρωμα"'. Why Ross thought this unnatural is not clear to me: there are at least

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[29] For ὁμώνυμον in the sense of συνώνυμον, see Bonitz (n. 22), 514b13 18.
[30] Ross (n. 1), 2.193.
[31] Ibid.

two more instances in Book *Z* alone of ἀλλ᾽ ἐάν meaning 'but only if' (*Z* 4, 1030a10; *Z* 13, 1039a5–6).

Jaeger adopted Ross's transposition, but at the same time marked the words ἐὰν μὴ ... ἡμιόνου as an interpolated marginal note, possibly by Aristotle. Frede and Patzig proposed to move ἐὰν μὴ πήρωμα ᾗ to the position after ἐστί πως ὁμώνυμον in b1, and to read διὸ ⟨καὶ⟩ ἡμίονος οὐκ ἐξ ἡμιόνου in b3–4.[32] The argument that Aristotle presents on their interpretation seems to me to have a clear advantage over the one set out by Michael and Ross. But I venture to think that the text of E and J may convey a very similar argument, albeit densely and elliptically phrased.

Here is how the passage reads in E and J:

τὸ μὲν γὰρ σπέρμα ποιεῖ ὥσπερ τὰ [τὸ E] ἀπὸ τέχνης. ἔχει γὰρ δυνάμει τὸ εἶδος, καὶ ἀφ᾽ οὗ τὸ σπέρμα, ἐστί πως ὁμώνυμον· οὐ γὰρ πάντα οὕτω δεῖ ζητεῖν ὡς ἐξ ἀνθρώπου ἄνθρωπος—καὶ γὰρ γυνὴ ἐξ ἀνδρός· διὸ ἡμίονος οὐκ ἐξ ἡμιόνου—ἀλλ᾽ ἐὰν μὴ πήρωμα ᾗ ...

In literal translation, this would be:

For the seed is generative in the same way as the things that work by art; for it has the form potentially, and that from which the seed comes has with certain qualifications the same name [as the offspring]; for we must not investigate all [naturally generated things] on the assumption that it is from a human being that a human being is generated (for it is indeed from a man that a woman is generated: that is why it is not from a mule that a mule is generated), but only if the thing is not defective.

I think this could be paraphrased as follows: the seed generates things in the same way that the artist generates the works of art, for like him it possesses the form potentially, and (as in the case of artefacts: cf. 1034a22) the animal (or plant) from which the seed comes is with certain qualifications synonymous with the animal (or plant) that is generated. I say 'with certain qualifications', for in our investigation we must not proceed on the universal assumption that the animal from which the seed comes is synonymous with the one that is generated. It is true, for example, that when a human being is generated the seed comes from a human being, but even so the human being whose seed generates a woman is a man, not a woman; and for the same reason the animal whose seed generates a mule is not a mule, but a horse (cf. *Z* 8, 1033b33). In these cases the generated animal is not synonymous with the one from which the seed comes. The reason is that in these cases the generated animal is defective, and the assumption that the animal from which the seed comes and the generated animal are synonymous holds only in so far as the generated animal is not defective.[33]

The advantage that this argument seems to have over the one set out by Michael and Ross is that it is more unified. According to Michael and Ross, there are two exceptions to the rule that progenitor and offspring are synonymous. One is if the offspring is defective: this is illustrated by the case of mules, whose progenitors are horses and who are themselves unable to procreate. But even in the case of non-defective offspring the rule applies only with qualification (πως), for in some cases it must not be assumed: this is illustrated by the fact that the progenitors of women are men. Apart from the fact that this argument introduces two exceptions in a rather jumbled fashion, the qualification in the latter case is obscure. Why is it incorrect to assume the synonymy rule in certain cases involving non-defective

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[32] Frede and Patzig (n. 7), 2.161 2.

[33] For the notion that women are in a sense defective men, see *Gen. An.* 2.3, 737a27 8 (cf. ibid. 4.6, 775a15 16; *Pr.* 10.8, 891b22 3).

offspring, and which are these? Are there other kinds of cases besides cases of different sex?

According to the above interpretation of the text of E and J, on the other hand, the woman and the mule are examples of the same thing: non-synonymy due to the offspring being defective. There is, however, an important difference between the two examples: in the first the progenitor and the offspring do belong to the same species, which may conceal the fact that they are also non-synonymous (thus καὶ γάρ); in the second they do not, and the case is clear (that is, both name and definition differ).

The interpretative problems seem to arise from the fact that first, with ὡς ἐξ ἀνθρώπου ἄνθρωπος in b2 Aristotle offers, as it were, a paradigm case of the synonymy rule instead of the rule itself, and picks up on that by immediately noting an exception to the paradigm case, rather than a paradigm case of exception; and then, although καὶ γὰρ ... ἀνδρός is only a special case of the proviso that defective offspring may be generated from a non-synonymous progenitor, when he comes to the paradigm case of exception he behaves as if he had stated this proviso in general terms: such a statement is the implied antecedent of διὸ ... ἡμιόνου. Such behaviour on Aristotle's part does not seem unthinkable to me, even if the argument would admittedly run smoother with Frede's and Patzig's ⟨καὶ⟩ in b3.

Z 17, 1041b4−5 ἐπεὶ δὲ δεῖ ἔχειν τε καὶ ὑπάρχειν τὸ εἶναι, δῆλον δὴ ὅτι τὴν ὕλην ζητεῖ διὰ τί ⟨τί⟩ ἐστιν· οἷον οἰκία ταδὶ διὰ τί; ὅτι ὑπάρχει ὃ ἦν οἰκίᾳ εἶναι.

1041a10−b11 is concerned with the logical analysis of the question 'why?' as 'why does the predicate *A* belong to the subject *B*?', and thus as a question about the formal cause. In a32−b4, Aristotle points out that in certain cases it may not be immediately clear that the question has this structure. According to the manuscripts, Ross, and Frede and Patzig, these cases are ones like 'what is man?' (b1), which must be analysed as 'why are these constituent parts a man' (b2). Bonitz recommended the adoption of a variant reading in the margin of E to the effect that the cases exemplified in b1 are ones like 'why is man?',[34] but the choice between these readings makes no difference for our present purposes.

According to Ross and Frede and Patzig, ἔχειν in b4 has the sense 'to know', so that the whole passage means: 'Since we must have the existence of the thing as something given, clearly the question is *why* the matter is some definite thing; e. g. why are these materials a house? Because that which was the essence of a house is present.'[35] That 'the fact, i. e. the existence' must be something given for anyone who asks the question 'why?' (and thus cannot be what that question is about) has already been stated by Aristotle in a15 and a23−4.

Ross's translation corresponds with Michael of Ephesus' paraphrase of the passage (ἐπειδὴ δὲ δεῖ τὸν ζητοῦντα περί τινος ἔχειν καὶ γινώσκειν ὅτι ὑπάρχει τόδε τῷδε, 541.29−30). The problem with this interpretation is that the syntax of the ἐπεί clause will be unreasonably complicated, with ἔχειν and ὑπάρχειν having different subjects, and τὸ εἶναι doing duty as both the object of ἔχειν and the subject of ὑπάρχειν. This is scarcely acceptable. On the other hand, there seems to be no other plausible interpretation of this clause as it stands.

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[34] Bonitz (n. 24), 359−60.
[35] Ross (n. 1), 2.224; Frede and Patzig (n. 7), 2.316. The translation is from Ross (n. 12).

Asclepius in his paraphrase (451.6–9) has ὕλην in lieu of τε, and αὐτῇ after ὑπάρχειν in b4 (one may also notice that A^b omits τε in b4). His interpretation is as follows: 'Since the form—that is, the essence—must have matter, and must belong to it—that is, be predicated of it—it is again obvious that when there is an enquiry into the cause, in these cases too the question is why the matter is [the form]' ("ἐπεὶ δὲ δεῖ" τὸ εἶδος, τουτέστι "τὸ εἶναι", "ἔχειν" ὕλην "καὶ ὑπάρχειν" αὐτῇ, τουτέστι κατηγορεῖσθαι αὐτῆς, ἡνίκα ἔχει ζήτησιν τοῦ διὰ τί, "δῆλον" πάλιν ὅτι καὶ ἐπὶ τούτων "τὴν ὕλην ζητεῖ, διὰ τί ἐστιν").

It is not so easy to see how Asclepius can have supplied these two words from the context, if his copy had the same text as any of our manuscripts. Notwithstanding this, it is unlikely that the two words were in his copy, not only because the meaning of the passage on his interpretation is inferior to that on Michael's, but also since the disappearance of the two words would be very difficult to explain. Probably then, his copy had the same text as A^b, but its meaning was not clear to him and he gave himself a free hand in interpreting it.

To salvage the spirit of Michael's interpretation a number of different emendations would be possible. The following three are offered in no order of priority:

ἐπεὶ δὲ δεῖ ἔχειν ὡς ὑπάρχον τὸ εἶναι ('since we must know the existence as a fact').

ἐπεὶ δὲ δεῖ ἔχεσθαί τε καὶ ὑπάρχειν τὸ εἶναι ('since the existence must be known and be a fact'; for the passive, cf. *Rh.* 1.9, 1368a36–7; 2.22, 1396b28–9; *An. post.* 2.13, 97b4–5).

ἐπεὶ δὲ δεῖ ἔχειν τὸ ὑπάρχειν καὶ τὸ εἶναι ('since we must know the truth of the predication, i.e. the existence'; for ὑπάρχειν, cf. a23–4; for εἶναι, cf. a15).

Θ 4, 1047b20–2   εἰ δὴ ἀδύνατον [ἀνάγκη] εἶναι τὸ Β, ἀνάγκη καὶ τὸ Α εἶναι. ἀλλ' ἦν ἄρα τὸ πρῶτον ἀδύνατον· καὶ τὸ δεύτερον ἄρα.

In 1047b14–24, Aristotle argues that the implication of possibility follows from the implication of actuality, that is (*P*): If it is necessary that (if *A* is the case then *B* is the case), then it is necessary that (if *A* is possible then *B* is possible). He tries to demonstrate *P* by refuting the contradictory proposition (¬*P*): if it is necessary that (if *A* is the case then *B* is the case), then it is possible that (*A* is possible and *B* is impossible) (b16–17). I take the argument to be the following (cf. *An. pr.* 1.15, 34a5–12):

Assume that (1) it is necessary that (if *A* is the case then *B* is the case). Assume also that (2) *B* is impossible. It follows that (3) *B* is not the case. But from (1) and (3) it follows (or so Aristotle thinks) that (4) it is necessary that *A* is not the case. It follows that (5) *A* is impossible. Therefore (*P'*), if it is necessary that (if *A* is the case then *B* is the case), then it is impossible that (*A* is possible and *B* is impossible).

The textual tradition of the passage b20–2 is unstable: it is entirely lacking in A^b; there is no evidence for it in Michael of Ephesus' commentary; it is added in the margin in J; and it seems to be corrupt in both J and E. Waitz suggested that it should be deleted; Schwegler was inclined to the same view.[36]

In b20–1, Ross and Jaeger adopt Bonitz's conjecture εἰ δὴ ἀδύνατον εἶναι τὸ Β, ἀνάγκη καὶ τὸ Α εἶναι ('if, then, *B* is impossible, it is necessary that *A* is [impossible] too') for E's and J's εἰ δὴ ἀδύνατον ἀνάγκη εἶναι τὸ Α, ἀνάγκη καὶ τὸ Β εἶναι. In b22, however, they restore E's and J's ἀλλ' ἦν ἄρα τὸ πρῶτον ἀδύνατον· καὶ τὸ δεύτερον ⟨ἄρα⟩ ('but it was assumed [sc. in b20, and cf. b16–17] that the first [=*B*] is

[36] T. Waitz, *Aristotelis Organon Graece* 1. *Categoriae, Hermeneutica, Analytica priora* (Leipzig, 1844), 409–10. See also Bonitz (n. 24), 390.

impossible; therefore, so is the second [=*A*]'), instead of the vulgate reading ἀλλ' ἦν ἄρα τὸ *A* δυνατόν· καὶ τὸ *B* ἄρα ('but it was assumed [sc. in b17—18] that *A* is possible; therefore, so is *B*'). But this does not seem very well advised.

Bonitz presupposed the vulgate reading, reasoning from the hypothesis that *A* is possible and the emended conditional in b20—1 by *modus tollens* to the proposition that *B* is possible, which contradicts hypothesis (2) stated in b20.[37] If E's and J's reading is restored in b22, ἀλλ' ἦν ἄρα τὸ πρῶτον ἀδύνατον will simply be an otiose repetition of ἀλλ' ἦν ἀδύνατον in b20; and καὶ τὸ δεύτερον ⟨ἄρα⟩ will not be the contradiction of hypothesis (2), so the refutation will be incomplete.

In addition, seeing that in b21 (and throughout the passage) τὸ *B* is used as shorthand for τὸ δεύτερον and τὸ *A* for τὸ πρῶτον, it would be utterly perplexing if Aristotle in b22 used τὸ πρῶτον to refer to τὸ *B* and τὸ δεύτερον to refer to τὸ *A*, as the argument would require.

Either, then, the vulgate reading must be kept in b22, or the whole passage must be re-emended, possibly (as Waitz suggested) removed.

Θ 7, 1049a14—16 οἷον τὸ σπέρμα οὔπω (δεῖ γὰρ ἐν ἄλλῳ ⟨πεσεῖν⟩ καὶ μεταβάλλειν), ὅταν δ' ἤδη διὰ τῆς αὑτοῦ ἀρχῆς ᾖ τοιοῦτον, ἤδη τοῦτο δυνάμει· ἐκεῖνο δὲ ἑτέρας ἀρχῆς δεῖται ...

Ross rightly notes that in this example Aristotle 'is not taking account of his own view that the σπέρμα forms no part of the matter of the offspring but is its formal and efficient cause; he writes as if he accepted the popular view which treated the male and female elements as uniting to form the matter of the offspring'.[38] But since, according to this view, the semen is not potentially a human being until it has undergone change in another thing (a14—15), which is to say that prior to this change the semen needs a foreign principle in order to become potentially a human being (a16—17), surely we must in a15 read αὑτοῦ with A^b instead of αὐτοῦ with E, J, Ross, and Jaeger: it is thanks to the principle of the *other* thing (sc. the menstrual fluid) that the semen is potentially a human being.

Θ 8, 1049b35—1050a2 ἀλλὰ διὰ τὸ τοῦ γιγνομένου γεγενῆσθαί τι καὶ τοῦ ὅλως κινουμένου κεκινῆσθαί τι (δῆλον δ' ἐν τοῖς περὶ κινήσεως τοῦτο) καὶ τὸν μανθάνοντα ἀνάγκη ἔχειν τι τῆς ἐπιστήμης ἴσως.

'But because of the fact that part of a thing which is coming to be has already come to be, and part of that which in general is moving has already moved (this is shown in *On Movement*), also a person who is learning must presumably already have a part of the knowledge.'

The reference in b36 is to *Physics* 6.6 (236b19—237a17; 237b9—22). As Ross notes, what Aristotle argues to be a general fact in these passages of the *Physics* is simply that anything that is moving must have already moved. The qualification that it may not be the thing itself but only part of it which has moved is introduced only with reference to substantial change, that is, coming-to-be and passing-away, in 237b9—22. Ross concludes that 'Aristotle in the present passage unnecessarily introduces in the case of movement the distinction which in the *Physics* is drawn only in the case of becoming.'[39] This seems correct.

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[37] Bonitz (n. 24), 389—90.
[38] Ross (n. 1), 2.255.
[39] Ross (n. 1), 2.261 2.

According to Ross, Aristotle makes this distinction in the case of substantial change because of an ambiguity in the perfect tense of γίγνεσθαι which is not found in the perfect tense of κινεῖσθαι. It would be absurd, Ross argues, to say of something that is coming into being that it has already come into being, so this is why Aristotle introduces the qualification that what has come into being may only be part of it. What the Stagirite failed to realize is that the meaning of γέγονε corresponding to κεκίνηται is not 'has come into being' but 'has been coming into being', since 'has come into being' implies a completion which 'has moved' does not imply.[40]

This analysis, I think, is questionable. I shall not enter into the complex issue of the meaning of the Greek perfect in general, but I think it is clear from Aristotle's discussions of movement in *Physics* 6–8 and a few other passages that in his view the perfect tense always implies the completion (and the remaining of the effect) of the verbal action.

To begin with, it is clear from Θ 6, 1048b18–35, that Aristotle regards all kinds of movement as well as substantial change as processes that cannot be completed until they have been finished and have resulted in an external goal. In contrast, activities (ἐνέργειαι) are completed as soon as they occur: they are goals in themselves. This contrast is, according to Aristotle, reflected by the fact that the perfect tense of a verb denoting a movement is always referring to the past, whereas the perfect tense of a verb denoting an activity refers to the present.

Aristotle's view of the semantics of the perfect tense of verbs denoting change, and especially substantial change, is well illustrated by a passage in *Physics* 6.5 (235b25–30). He there states that it is impossible for a thing which has changed (μεταβέβληκεν) to be changing into that into which it has changed, and therefore necessary for it to be in that (place, quantity, or quality) into which it has changed; since this holds universally, he goes on, it is also true that that which has come into being (γέγονε) must be, and that which has perished cannot be.[41]

Thus γέγονε cannot mean 'has been coming into being', nor can κεκίνηται mean 'has been moving', which in Ross's analysis seems to be taken as synonymous with 'has moved'. For Aristotle both these words express the fact that the verbal action, the coming-to-be or the movement, has been completed (and that its effect remains). And this must also be what Aristotle means when he says in *Physics* 6.6 that anything that is moving has already moved and a part of anything that is coming into being has already come into being.

So what *is* the point of the qualification in the case of coming-to-be? As is well known, change for Aristotle always involves something that changes (the subject), something from which it changes, and something into which it changes (the external goal, *terminus ad quem*, or result). That from which and that into which the subject changes are opposites: in substantial change they are contradictories; in the three kinds of proper movement they are contraries or intermediates. Further, movement is continuous, and the continuous is infinitely divisible, which is why there is always an infinite number of previous points of time at which a thing that is now moving has already moved. If a thing is in the process of moving from point 1 to point 2 it will always have already completed a part of that movement, that is, from point 1 to some intermediate point like 1.1, and so on. The result of the

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[40] Ibid.
[41] The rule that a thing which has come into being must be is often stated or implied by Aristotle, e.g. *An. Pr.* 1.15, 34a12; *Ph.* 8.8, 263b23 6; *Metaph. B* 4, 999b11 12.

movement to 2 and the result of the movement to 1.1 are obviously not identical. If they had been identical, it would in fact have been absurd to say that 'that which is moving has already moved' (as is implied by *Ph.* 6.5, 235b25−7, paraphrased above).

That which is said to move in proper movement is the subject of the change. That which is said to come into being in substantial change is not the subject of the change but its result, which is a substance. Now, Aristotle argues in *Ph.* 6.6, 237b9−13, that just as a thing which is in the process of moving from one point to another must have already completed a part of that movement, so a thing which is in the process of coming to be must have already completed a part of that coming-to-be. He obviously does not mean to argue that the result of the completed part is identical with that of the as yet uncompleted total process. If they had been identical, it would indeed have been absurd to say that 'that which is coming to be has come to be', just as in the case of movement. But since the thing which is in the process of coming to be is the result of the coming-to-be, it follows that this thing cannot be identical with the thing that has already come to be as a result of the completed part of the process. This, I imagine, is why Aristotle specifies in 237b11−12 that the thing which has come to be does not have to be the very thing which is in the process of coming to be, but may be only a part of it, for example the foundation stone of a house. Far from being due to a failure to distinguish between a relevant and an irrelevant meaning of γέγονε, then, the qualification is motivated by the different ways in which one speaks of the three kinds of proper movement on the one hand and substantial change on the other: that which is said to move in movement is the subject of the change, but that which is said to come to be in coming-to-be is not the subject of the change but its result. And in any change, the subject has already changed as a whole, but the result has not already come about as a whole, but only in part.

It remains a fact that the qualification is irrelevant in the case of the non-substantial types of change. Thus one may consider emending Θ 8, 1049b35−6, in accordance with the doctrine of *Physics* 6.6, and read ... καὶ τὸ ὅλως κινούμενον κεκινῆσθαί τι .... The meaning of the whole passage would then be 'but because of the fact that part of a thing which is coming to be has already come to be (and that, in general, that which is moving has already completed a movement: this is shown in *On Movement*), also a person who is learning must presumably already have a part of the knowledge'.

For κεκινῆσθαί τι meaning 'to have completed a (certain) movement', cf. *Ph.* 6.2, 232a8−9: εἴη ἂν ἡ κίνησις ... τῷ κεκινῆσθαί τι μὴ κινούμενον; also *Ph.* 6.6, 237a1; 6.8, 239a5. The cause of the corruption in our passage might be that a scribe has misconstrued the phrase as parallel to the preceding one.

K 9, 1065b6−7   ... τὸ μὲν ὂν τὸ δὲ ποσὸν τὸ δὲ τῶν λοιπῶν.

Ross refers to *Ph.* 1.7, 191a12, and *Gen. corr.* 1.3, 317b28, for the use of ὄν in the sense of 'substance'.[42] In the parallel passage in *Ph.* 3.1, 200b26−8, however, we read τὸ μὲν τόδε τι .... Thus Christ and Jaeger print τὸ μὲν ⟨τόδε τι⟩ ὂν τὸ δὲ ποσὸν ... in 1065b6. But if indeed the text should be emended (which is questionable: see above, pp. 106−7), it would be preferable from a palaeographical point of view to print τὸ μὲν ὂν ⟨τόδε⟩, τὸ δὲ ποσόν (for τόδε = substance, cf. 1065b10; 1066a16).

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[42] Ross (n. 1), 2.327.

Λ 1, 1069a20–2   ... κἂν οὕτως πρῶτον ἡ οὐσία, εἶτα τὸ ποιόν, εἶτα τὸ ποσόν. ἅμα δὲ οὐδ᾽ ὄντα
ὡς εἰπεῖν ἁπλῶς ταῦτα, ἀλλὰ ποιότητες καὶ κινήσεις ...

In a22 Jaeger prints οἷον ('for example') instead of the manuscripts' ἀλλά ('but'),
referring to Michael of Ephesus' quotation of the passage (αὐτὸς δὲ καὶ δηλῶσαι
βουληθείς, τίνα ἐστὶ τὰ παρὰ τὴν οὐσίαν, ἐπήγαγεν, "οἷον ποιότητες κινήσεις",
669.25–7). This reading was also preferred by Bonitz; Ross hesitated but decided
in favour of the manuscript reading.[43] Bonitz's and Jaeger's reading is defended by
Elders, although his interpretation of the passage seems misguided.[44] In my
opinion it would be better to stick to the manuscript reading (which seems to be
confirmed by Themistius),[45] since Michael's support for οἷον is dubious: it is not
necessary to assume with Hayduck that the word belongs to a verbatim quotation.

Λ 9, 1074b15–16   τὰ δὲ περὶ τὸν νοῦν ἔχει τινὰς ἀπορίας· δοκεῖ μὲν γὰρ εἶναι τῶν φαινομένων
θειότατον ...

The expression τῶν φαινομένων in b16 is problematic. It usually means either
'observed things/facts' or 'received opinions'. But it is difficult to see how νοῦς
could be 'the most divine thing' in either of these classes. A possible remedy
would be to read θειότερον for θειότατον in the same line, and translate 'for it
seems to be more divine than the perceived [divinities, i.e. the heavenly bodies]'.[46]
The cognate adjective φανερός is used of the perceptible divinities in Α 5, 986a11
and Ε 1, 1026a18; cf. also Ph. 2.4, 196a33–4.

M 9, 1085b23–4   ἔτι ζητητέον καὶ περὶ τοὺς οὕτω λέγοντας πότερον ἄπειρος ὁ ἀριθμὸς ἢ
πεπερασμένος.

In b23 the manuscripts have παρὰ τοὺς οὕτω λέγοντας, which does not yield any accep-
table meaning. Michael of Ephesus' lemma (781.17) has περὶ τοὺς οὕτω λέγοντας,
which is adopted by both Ross and Jaeger. Tredennick in his Loeb edition conjectures
παρὰ τοῦ οὕτω λέγοντος. A more satisfactory meaning than Michael's 'We may
enquire with regard to these thinkers too'[47] may also be achieved by reading πρός:
'Also when arguing with those who state the matter thus we should ask ...'. For
the construction, cf. Γ 4, 1006a13–14; Cael. 2.13, 294b8–9. Corruption of πρός
into παρά may also be suspected in Soph. El. 10, 170b36–7 (παρὰ τοὔνομα, bis).

N 1, 1088a22–4   τὸ δὲ πρός τι πάντων ἥκιστα φύσις τις ἢ οὐσία [τῶν κατηγοριῶν] ἐστι, καὶ
ὑστέρα τοῦ ποιοῦ καὶ ποσοῦ ...

According to Ross, 'τῶν κατηγοριῶν is clearly a gloss on πάντων'.[48] However, as
Jaeger points out in his apparatus ad loc., its deletion makes it impossible to keep
ὑστέρα in a24. Jaeger's solution is to read ὕστερα in a24 and τὰ δὲ πρός τι in a22–

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[43] Bonitz (n. 24), 470; Ross (n. 1), 2.349.
[44] L. Elders, Aristotle's Theology: A Commentary on Book Λ of the Metaphysics (Assen,
1972), 76–7.
[45] See Ross (n. 1), 2.349.
[46] Could the traditional text be interpreted in the same way? I do not think so. The Greek
idiom where a superlative takes a genitive plural denoting a class of things that does not
include the thing denoted by the superlative (as in Thuc. 1.1.4: ... ἀξιολογώτατον τῶν
προγεγενημένων) seems to be restricted to cases involving either of the expressions τῶν
ἄλλων and τῶν προτέρων (or a synonym). See Kühner Gerth³, 1.23 4 (§ 349ᵇ, 4c).
[47] Ross (n. 1), 2.445.
[48] Ibid. 2.473.

3; but since the text of the manuscripts is grammatically unobjectionable, and τῶν κατηγοριῶν if deleted must be mentally supplied (cf. Ross's analysis: 'the least substantial of all the categories'),[49] the simplest solution by far seems to be to let the text of the manuscripts stand.

N 3, 1090b31−2 οὗτοι μὲν οὖν ταύτῃ προσγλιχόμενοι ταῖς ἰδέαις τὰ μαθηματικὰ διαμαρτάνουσιν ...

Ross (n. 12) translates thus: 'These thinkers, then, are wrong in this way, in wanting to unite the objects of mathematics with the Ideas.' This interpretation goes back to Michael of Ephesus (816.36−9). It fits the context well, but in spite of Bonitz and Ross it is hard to see how it can be extracted from the Greek.[50] Judging from the way that the very rare προσγλίχεσθαι is used in *A* 5, 986a7 (and from the usual sense of the not quite so rare γλίχεσθαι), a more likely interpretation of our passage would be: 'These thinkers, then, make a mistake in thus wishfully positing mathematical things in addition to the Ideas.' Since the grammatical construction is irregular, however (γλίχεσθαι normally taking the genitive), one may suspect textual corruption.

N 6, 1093a24−6 ... διὰ τοῦτο τρία μόνον ἐστὶν ἀλλ' οὐχ ὅτι αἱ συμφωνίαι τρεῖς, ἐπεὶ πλείους γε αἱ συμφωνίαι, ἐνταῦθα δ'οὐκέτι δύναται.

In a20−2, Aristotle criticizes the view that the reason why there are three 'double consonants' in the Greek alphabet (*Ζ Ξ Ψ*) is that there are three consonances (the fourth, the fifth, and the octave), for treating as an explanandum what is in fact a mere contingency. In a22−6 he seems to say that even if there should be an explanation it would have to do with the fact that there are three places of articulation, not with the fact that there are three consonances, 'since as a matter of fact the consonances are more than three' (there are also the duodecima, the double octave, and so on). The last clause (in a26) is usually interpreted 'but of double consonants there cannot be more'.[51] So interpreted the clause is at first sight baffling, since at a21−2 Aristotle has reasonably pointed out that there could be as many double consonants in writing as there are in speech. But perhaps he means that *on the given explanation* (ἐνταῦθα) there cannot be more than three double consonants (since there are only three places of articulation)? This makes for a reasonable argument, but will the Greek bear this construction?

ἐνταῦθα δ' οὐκέτι δύναται means, literally, 'but here it/they no longer can'. The clause seems to require two complements from the preceding context: a subject and an object. It would be possible to supply an object from the immediately preceding clause, πλείους γε αἱ συμφωνίαι [sc. εἰσίν]: thus we could construe (as those who accept Ross's translation seem to do) ἐνταῦθα δ'οὐκέτι δύναται [sc. πλείω εἶναι]. But if we take the object from this clause, then surely we must also take the subject from it. This we cannot do, however, since αἱ συμφωνίαι does not agree with δύναται. If we look further afield for a subject, we find τρία μόνον ἐστίν in a25, corresponding to ταῦτα in a21. These are the double consonants. From a grammatical point of view, it would be possible to bracket the intervening clauses and construe ταῦτα ... διὰ τοῦτο τρία μόνον ἐστίν ... ἐνταῦθα δ'οὐκέτι δύναται [sc. τρία εἶναι]. But this would give no acceptable sense.

[49] Ibid. 2.467.
[50] Bonitz (n. 24), 581 2; Ross (n. 1), 2.482.
[51] So Ross (n. 12).

I fail to see any other possible constructions, and conclude that the text must be corrupt. The easiest way of emending it seems to be to read δύνανται for δύναται in a26 and construe ἐπεὶ πλείους γε αἱ συμφωνίαι [sc. εἰσίν], ἐνταῦθα δ' οὐκέτι δύνανται [sc. πλείους εἶναι]. This may be translated 'for in fact the consonances are more than three, but on this argument they no longer can be'. The point would be that not only is the explanation of the number of double consonants by reference to the number of consonances absurd because the number of double consonants is accidental, it is also absurd because *it presupposes that there can only be three consonances*, while in reality there are more than three.

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