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**AGAINST HYPOTHESES.
A RESPONSE CONCERNING *PHYSICS* VIII 1.250B13**

Abstract

This is a response to the article published by Silvia Fazzo, ‘A Hypothetical Premise about Eternal Cosmic Motion in *Physics* VIII 1.250b13’ in a previous issue of *Aristotelica*, in which she argues on the basis of the sources, Vind. Phil. gr. 100 in particular, that at *Physica* VIII 1.250b13 one should adopt the hypothetical reading ἀλλ’ εἰ ἦν, καὶ ἀεὶ ἔσται, rather than the categorical reading ἀλλ’ ἀεὶ ἦν καὶ ἀεὶ ἔσται. We argue that a complete and methodologically sound consideration of all the textual evidence available shows that the proposal is implausible.

Keywords

Physics, Eternity of the Cosmos, Manuscripts,
Arabic Translations, Stemmatic Method

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In a paper recently published in *Aristotelica*, 3 (2023) ‘A Hypothetical Premise about Eternal Cosmic Motion in *Physics* VIII 1.250b13’, Silvia Fazzo argues interestingly in favour of reading the first sentence of *Physics* VIII 1 as follows:

<p>[b11] Πότερον γέγονέ ποτε κίνησις οὐκ οὔσα πρότερον, καὶ φθείρεται πάλιν οὕτως ὥστε κινεῖσθαι μηδέν, ἢ οὔτε ἐγένετο οὔτε φθείρεται, ἀλλὰ εἰ ἦν, καὶ ἀεὶ ἔσται, καὶ τοῦτ’ ἀθάνατον καὶ ἄπαυστον ὑπάρχει τοῖς οὐσιν, οἷον ζῶή τις οὔσα τοῖς φύσει [b15] συνεστῶσι πᾶσιν; (250b11-15)</p>	<p>Has motion once come into being while not being before, and is it destroyed in such a way that nothing moves, or did it neither come into being nor is it destroyed, but if it was, it will also always be, and <i>does it belong/it belongs</i> to the things that are as something immortal and interminable, it being, as it were, some kind of life to all the things that are constructed by nature?</p>
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thus proposing at b13 the hypothetical reading ἀλλ’/ἀλλὰ εἰ ἦν, καὶ ἀεὶ ἔσται against the hitherto universally adopted categorical reading ἀλλ’ ἀεὶ ἦν καὶ ἀεὶ ἔσται.¹ Fazzo’s argumentation for this proposal is two-pronged: on the one hand, she argues that it is found or hinted at in a considerable number of important sources for our reconstruction of the textual tradition of *Physics* VIII and thus for the constitution of the text, while on the other hand she argues that in the context it makes better sense interpretatively as well. Since in the first line of argumentation she frequently refers to the edition of the Arabic translation of *Physics* VIII accompanied by an extensive Greek apparatus (meant to provide evidence for the location of the Greek exemplar of that translation within the Greek textual tradition), which the one of us published in close cooperation with the other, we think it is opportune for us to respond to her proposal. In short, we think that there is no good evidence that the hypothetical reading is the original one, while only the categorical reading is supported by a consideration of all the available evidence together. We also think this is a good opportunity to make a methodological

¹ Cf. Bekker (1831); Ross (1936). Only Ross had the hypothetical reading available to him, as he is the first to have used Vind. Phil. gr. 100 as a source for his edition. The other two editions before Ross’, those by Carteron (1931) and Prantl (1879), could not but have followed Bekker.

point about how to evaluate manuscriptal evidence for or against a certain reading, certainly if the interpretative interests at stake are considerable. Despite the fact that Fazzo's proposal is presented within an interpretative context and has a clear interpretative purpose, relevant to the question how exactly Aristotle argues in the first chapter of *Physics* VIII, we will only briefly say something about the relevance of the interpretative issues.

Fazzo's argumentation on the basis of the manuscripts starts with the correct observation that Vind. Phil. gr. 100 at folium 44r reads ἀλλ' εἰ ἦν. Vind. Phil. gr. 100, also known under the siglum **J**, is our oldest extant manuscript containing the text of the *Physica*, dating back to the middle of the ninth century, as Fazzo carefully stresses, the obviously intended implication being that it is of great authority for the constitution of the text.

Next, she finds important support for this reading in the second oldest extant manuscript containing the *Physica*, Par. gr. 1853, known under siglum **E**, from the 10th century. Fazzo points out that E reads ἀλλὰ εἰ ἦν and that previous collators, among them us, have failed to notice this. Indeed, in the Greek apparatus to our edition we failed to record this reading in E, but the mistake seems in this case of little consequence, for if one looks carefully, one sees that the accents which turn the uninterrupted string of letters αλλαεἰ into ἀλλὰ εἰ are not the only accents written: there are also faintly written accents which turn this string of letters into ἀλλὰεἰ, that is, ἀλλ' ἀεἰ (see the pictures below). Clearly these accents are earlier, meant to be superseded by the accentuation ἀλλὰ εἰ. Thus if we had been more alert, we would have recorded in the apparatus: ἀλλ' ἀεἰ E^{a.c.}: ἀλλὰ εἰ E^{p.c.}²

² The text of Par. gr. 1853 is written in a distinctive way: single letters and groups of letters alternate, and frequently these groupings encompass letters from two different words, as in the case at hand. Probably there were initially only some signs to disambiguate the text, in the case at hand the faint sign separating αλλ from αεἰ (barely visible under the later, much clearer, acutus on ἀλλὰ) and the faint lenis and acutus on ἀεἰ. These first signs were then corrected so as to enforce the reading ἀλλὰ εἰ, perhaps by the same scribe, though more likely not, but there are no indications that the correction is by a much later hand.

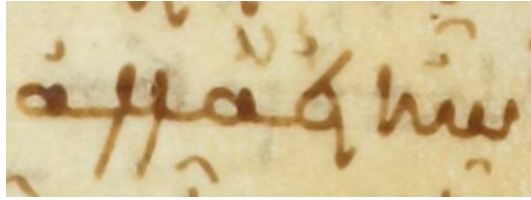


Figure 1

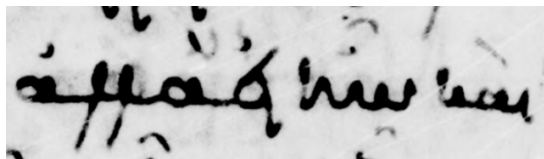


Figure 2

But even if E had unambiguously read only ἀλλὰ εἰ, this still would not have constituted sufficient evidence that ἀλλὰ εἰ would be the reading of the whole of E's branch of the overall stemma, despite the fact that E and J belong to different branches of the stemma, a fact Fazzo may allude to when she says that "E, where the *Physics* is concerned, does not depend on J". For as we have shown in the introduction to the edition mentioned above, E exhibits some contamination whose source can only be the group of manuscripts to which J belongs, or even only J itself.³ Thus if the other manuscripts belonging to E's branch of the stemma do not exhibit the reading ἀλλὰ εἰ (as they mostly do not), the best hypothesis would have been that E would indeed have been contaminated here from J or a close relative of J, and thus for this reading would not have been independent from J.

Now the closest stemmatic relative to E is the exemplar of the Arabic translation by Ishāq ibn Hunayn,⁴ the next witness taken into consideration by Fazzo. She argues that though one cannot find a conditional clause (with εἰ) in this translation, one equally cannot find the two occurrences of ἀεἰ in 250b13 which we have in most manuscripts: the ἀεἰ which might have been there in ἀλλὰ εἰ would be missing. That claim is disputable, however: Ishāq

³ See Hasper (2021) pp. clxxx-clxxxi.

⁴ See Arnzen (2021). This edition is primarily based on manuscripts, and thus not on the translation as quoted in Averroes' Great Commentary on *Physics* VIII, as Fazzo states.

may translate the first *ἀεί* with *lam tazal* (“without coming to an end”, “perpetually”), while he renders the second *ἀεί* differently, namely with *abadan* (“always”, “ever”).⁵ The rendition of *ἀεί* with *lam yazal / lā yazālu* (and its conjugated forms) can perhaps not be found in the Graeco-Arabic translations very often, but Ishāq’s translation here is not unique either. Here are some further examples:

1. Aristotle, *Physica*, 251a21: εἰ δ’ ὄντα προὔπῃρχεν ἀεί κινήσεως μὴ οὔσης = وإن كانت فيما مضى لم تزل بهذه الصفة غير أنه لم تكن حركة p. 6 ed. Arnzen;
 2. Nicomachus Gerasenus, *Introductio arithmetica*, 79.14: καὶ ἀεί οὕτως μέχρι παντός = هذا المثال بالغاً ما بلغ = ولا يزال ذلك يجري على هذا المثال بالغاً ما بلغ p. 65 ed. Kutsch;
 3. Plotinus, *Enneades*, IV 8, 6.13: χωρεῖν δὲ ἀεί, ἕως εἰς ἔσχατον μέχρι τοῦ δυνατοῦ τὰ πάντα ≈ ذاته من يخرج حتى يسلك مسلك الفعل حتى يزال يسلك مسلك *Theologia Aristotelis*, p. 86.3 ed. Badawī;
 4. Galen, *De simplicium medicamentorum temperamentis ac facultatibus*, Vol. 12, p. 311.7: ὡς ἀεί φαμεν = كما لم تزل نقول في ذلك (Ullmann, WGAÜ p. 74);
 5. Galen, *De anatomicis administrationibus*, 281.16: κα̅πειτα διαδοχαῖς πολλαῖς ἀεί χειρῶν γιγνομένη (scil. ἡ τέχνη) = ثم الصناعة ... لم تزل بتداول الناس لها = واحداً بعد آخر تزداد بنفصها p. 72 ed. Garofalo;
 6. Galen, *Anat.* 617.17: ἡ φλὲψ αὕτη παραγίγνεται μὲν ἀεί πρὸς τοῦτο τὸ χωρίον = هذا العرق ... لا يزال يجيء إلى هذه المواضع p. 440 ed. Garofalo;
 7. Galen, *De locis affectis*, 32.15: ὅπερ ... ἀεί λέγων = ما لم أزل أقوله Ms. Wellcome Library 401, fol. 16b11;
 8. Galen, *De diebus decretoriis*, 795.14: καὶ ταῦτ’ εἰσβάλλει μὲν αὐτοῖς τὴν πρώτην σμικρὰ, παραύξεται δ’ ἀεί = وتبتدئ به هذه اليوم الأول هي يسيرة ثم تزداد قليلاً ... ولا يزال كذلك p. 143 ed. Cooper;
 9. Galen, *De methodo medendi*, 326.7: ἀπὸ τῶν πεπονηθῶτων μορίων ἐπὶ τὰ κατὰ φύσιν ἔχοντα ... ἀεί τι προσεπιλαμβάνειν = من الأعضاء المؤوفة إلى الأعضاء السليمة ... لا تزال ترتبط Ms. BNF ar. 2855, fol. 130b20.
- (See soon also Arnzen, 2024: *lemma ἀεί*.)

⁵ If so, since Ishāq ibn Hunayn translates the first *ἀεί* with *lam tazal* and the second *ἀεί* with *abadan*, we think, unlike Fazzo (2023) n. 15, that there is nothing puzzling about Scotus’ translation of Ishāq’s translation: *semper fuit, et semper erit*.

Hence Ishāq’s whole translation of the sentence *lākinnahā lam tazal fīmā maḍā wa-lā tazālu abadan* says: “but it [*scil.* motion] did not come to an end with respect to [its] past [*lit.* to that (part of time) which has elapsed] nor will it ever come to an end”; it is also impossible to understand *lam tazal* in another way. Thus it clearly presupposes the full categorical reading. The two ways of rendering ἀεί may well correspond to a relevant and often useful distinction between *semper a parte ante* and *semper a parte post*.

Also the fragment adduced from another Arabic version of the beginning of *Physics* VIII 1 is of little help for the hypothetical case. It is found in the *Kitāb al-Baḥth*, a work in the so-called *Corpus Gabirianum*, whose dates are the subject of dispute in the literature.⁶ Fazzo suggests that in this fragment, which she cites as an earlier Arabic version, the hypothetical protasis “if-it-was” is found. We take issue with both points. As to its dating: the view that this fragment is an earlier version derives from the discussion by Haq (1994) 27, where he argues that the terminology, style and structure of this alternative translation shows that it is independent from Ḥunayn ibn Ishāq’s translation and also less sophisticated.⁷ Now if one looks at the works mentioned or cited in the *Kitāb al-Baḥth*, they suggest that the work itself was composed at the end of the 9th century or at the beginning of the 10th century, thus contemporaneously with the translation by Ishāq ibn Ḥunayn, who died around 910.⁸ There is no evidence that the *Kitāb al-Baḥth* itself is to be dated before Ishāq ibn Ḥunayn’s translation; on the contrary, Haq’s observation that in another work from the *Corpus Gabirianum* the older form of the title of the *Physica*, *Sam’ al-Kiyān*, is found, while in the *Kitāb al-Baḥth* we encounter the later form *al-Samā’ al-ṭabī’ī*, which is used, and

⁶ See Ullmann (1972) pp. 198-208, and the literature mentioned there.

⁷ This view is related to Haq’s overall thesis in the same chapter that the *Corpus Gabirianum* is older than usually supposed.

⁸ For example, the *Kitāb al-Baḥth* cites Ḥunayn ibn Ishāq’s translation of Galen’s synopsis of Plato’s *Timaeus* (cf. Moseley 2017, p. 209); the title of Alexander of Aphrodisias’ *Quaestio* 1.21 is identical to that of the Arabic translation which is attributed to Abū ‘Uthmān al-Dimashqī (deceased after 914). Further, the anonymous author refers to refutation of Galen’s work on the first mover by Alexander (against the attribution, see Fazzo 2002, pp. 109-44). As far as known, there was only one Arabic version of this work, also by Abū ‘Uthmān al-Dimashqī. Something similar applies to the reference to Alexander’s Work *De intellectu*, whose Arabic translation is probably also produced by Ishāq ibn Ḥunayn. For all these references, see Kraus (1942) pp. 319-30.

possibly introduced, by Ishāq ibn Ḥunayn, suggests that the *Kitāb al-Baḥth* was composed after Ishāq’s translation. What is more, one could even argue that this fragment is dependent on Ishāq’s translation, for even though the terminology of the translation in the *Kitāb al-Baḥth* deviates considerably from that by Ishāq – a well-known feature of the *Corpus Gabirianum*, whose author replaces the philosophical terms often by less specific words or by terms derived from the contemporary theological or alchemist-esoteric literature –, there is some evidence that Ishāq ibn Ḥunayn’s translation is the source for the translation found in the *Kitāb al-Baḥth*. A first indication is that in both translations the interrogative adverb πότερον is rendered with the idiomatic expression *layta shi`ri* (“I wish I knew”), a usage which is characteristic of the translation style of Ishāq ibn Ḥunayn. A second indication is that in both texts ἀεί in ἀεί ἦν is rendered with the rare *lam tazal*, but which is used by Ishāq ibn Ḥunayn more often (see passage 1 on the list above).

At any rate, even if the fragment of the *Physics* from the *Kitāb al-Baḥth* cited by Fazzo had been from an older independent translation, it still does not support the claim that it features the hypothetical protasis. For this fragment translates: “I wish I knew: (a) has motion always been, or (b) did it come into being while not being before, and (c) will it be destroyed after its existence, *if it has come into being*, or how is motion (to be described)?” The underlined clause clearly translates the categorical reading at 250b13, so that it seems a tall order to use this fragment in support of the hypothetical reading. Fazzo focuses on the italicised clause, as she finds there a hypothetical protasis. Indeed, here the Arabic *in kānat* by itself could just as well be translated as “if it was”, but in the context it is clear that the correct translation is “if it has come into being”. It all depends on how one understands the function of clause (c): Fazzo would perhaps interpret its apodosis as corresponding, by way of a negative question “will it be destroyed after its existence”, to the apodosis καὶ ἀεί ἔσται, so that the translation of *in kānat* with “if it was” becomes mandatory. However, not only is this difficult to square with the earlier phrase clearly corresponding to the categorical reading, it also seems far too complicated to understand the negative question in this way. Rather, the function of (c) is to render, together with (b), the finite existence

alternative to the eternal existence of (a). Thus understood, the phrase “if it has come into being’ ensures that (b) and (c) are connected, as it merely repeats (b) in a conditional way. Thus (b) and (c) together correspond to Aristotle’s “Has motion once come into being while not being before, and is it destroyed in such a way that nothing moves”, to which it also stays much closer verbally.

Fazzo suggests that the categorical reading is the product of a corruption of ἀλλ’ εἰ over ἀλλὰ εἰ into ἀλλ’ ἀεὶ and that this corruption “could have arisen by the 12th century (if not before)”, i.e. presumably not at an early stage of the textual tradition. In order to uphold this suggestion, she must dismiss the claim in our apparatus that Simplicius read the categorical version. Now Simplicius says this:

δῆλον ὅτι [...] ζητεῖ [...] καθόλου περὶ κινήσεως, εἰ ἦν τις χρόνος ὅτε οὐκ ἦν κίνησις ὅποια οὖν οὐδὲ ὄλως ἐκινεῖτό τι τῶν ὄντων, ἢ ἔσται τις χρόνος ὅτε οὐδὲν κινήσεται, ἢ ταῦτα μὲν ἀδύνατα φανεῖται, ἦν δὲ ἀεὶ καὶ ἔσται κίνησις, ὥστε τοῦτο, τουτέστι τὴν κίνησιν, ἀθάνατον καὶ ἀπαυστον ὑπάρχειν τοῖς οὕσιν. (*In Physica* 1118.18-24)

Hence it is obvious that Simplicius envisaged the second alternative to consist in the impossibility that there was beforehand a time without motion *and* there is afterwards a time without motion (ταῦτα [...] ἀδύνατα), but “here always was and will be motion”. Not only is there no trace of the hypothetical reading, it is positively excluded that he paraphrases a text with the hypothetical reading, while there is no indication in the paraphrase that he did not have the categorical reading in mind – and his paraphrase is close, from ἦν δὲ ἀεὶ onwards, even so close as to require an elucidation for τοῦτο, without being identical to it: he adds ὥστε (quite correctly), changes ἀλλ’ into δὲ and leaves out the second ἀεὶ, which is not a big deal at all, not even a small one. Thus any attempt to question that Simplicius read ἀλλ’ ἀεὶ ἦν fails.

In this context it is relevant that Fazzo does not discuss here Themistius’ paraphrase of the beginning of *Physica* VIII 1, although this repeats Aristotle almost *verbatim*:

ἔπεται δὲ ἐφεξῆς ἐπισκέψασθαι, πότερον γέγονε ποτε κίνησις οὐκ οὔσα πρότερον καὶ φθείρεται πάλιν οὕτως, ὥστε κινεῖσθαι μηδέν, ἢ οὔτε ἐγένετο οὔτε φθείρεται, ἀλλ’ ἀεὶ ἦν καὶ ἀεὶ ἔσται καὶ

τοῦτο ἀθάνατον καὶ ἀπαυστον ἐν τοῖς οὐσίῃ ἐστιν, οἷον ζωὴ τις ὑπάρχουσα πᾶσι τοῖς ὑπὸ φύσεως συνεστῶσιν. (*In Physica* 209.2-6)

Thus Themistius only changes Aristotle's ὑπάρχει into ἐν [...] ἐστιν and Aristotle's οὐσα into ὑπάρχουσα. From the fact that both Themistius and Simplicius only report the categorical reading, one may infer that Alexander of Aphrodisias also read it and did not report the hypothetical reading, for both were strongly influenced by Alexander's commentary.⁹

Finally, a last piece of evidence mentioned in support of the hypothetical case is to be discussed, namely the exemplar of James of Venice's translation into Latin from the 12th century, which also translates as if its exemplar (which we assigned the siglum **A** to) read ἀλλ' εἰ ἦν: *sed si erat*. Assuming that all manuscripts and translations of the *Physics* before the 12th (E, J and the exemplars to the Latin and Arabic translations) either support the hypothetical proposal or at least do not invalidate it, one could think that the alleged corruption of ἀλλ' εἰ ἦν into ἀλλ' ἀεὶ ἦν is only a relatively late phenomenon in the textual tradition. We have already argued on the basis of Themistius and Simplicius that this suggestion cannot be correct. Here, however, we want to use the correct observation about the early Latin translation to make a methodological point about how to use manuscriptal evidence in support of or against adopting a certain reading.

The fact is that J and A are not the only sources featuring the hypothetical reading; it can be found in two further manuscripts: Par. Suppl. gr. 643 (which we have given siglum **w**, from the 13th century) and Par. gr. 1859 (siglum **b**, also from the 13th century). Moreover, there is also one manuscript that neither has ἀεὶ nor εἰ, but just reads ἀλλ' ἦν: Vossius Q3 (siglum **Q**, from the 12th century). Thus one might think that the reading is more widespread in the tradition than in just one source, and that it is old, since J has it, and thus that it enjoys considerable authority for the constitution of the text – basically the case Fazzo is trying to make in her paper.

Here are some relevant facts, however. First, J, Q and w form a group within the overall stemma for *Physica* VIII and clearly share a common ancestor – this is established by the lists of errors which they uniquely share

⁹ As can be gleaned from Rashed (2011).

among the rather long list of manuscripts and sources we collated for the edition mentioned above.¹⁰ Moreover, this group has an internal structure: J and Q are more closely related to each other than to w, so that we must assume that the common ancestor of the group was copied at least twice, by (the ancestor of) w and by the common ancestor of J and Q.¹¹ Now w has the reading ἀλλὰ εἰ, whereas the common ancestor of J and Q probably read ἀλλ' εἰ (Q subsequently deleting εἰ). That seems to make it equally likely that the common ancestor of the whole group read ἀλλὰ εἰ as that it read ἀλλ' εἰ.

However, we should also take a look at the other groups of manuscripts which are more closely related to the group made up of J, Q and w. There are two of them, one most closely related, consisting of manuscripts Laur. gr. 87.07 (F, from the 12th century), Vat. gr. 1027 (H, from the 12th century), Ambr. M 54 sup. (M, from the 12th century) and Ambr. B 007 sup. (P, from the 12th century), and one more distantly related, but still belonging to the same half of the stemma, consisting for book VIII of manuscripts Vat. Barb. gr. 136 (N, from the 12th century), Vat. gr. 1025 (R, from the 13th century) and Erlangen A4 (L, from the 15th century). Taking these manuscripts into account, we see that the reading ἀλλ' αἰ dominates (manuscripts F, I, M, P and L), while there are also manuscripts which even have ἀλλὰ αἰ (manuscripts N, R and H). This means that the most likely scenario is that the common ancestor of the group J, Q and w also read ἀλλ' αἰ, for otherwise we would have to postulate two more dramatic changes: first from ἀλλ' αἰ (reading of the common ancestor of all manuscripts related to JQw) to ἀλλ' εἰ (sudden disappearance of one letter) and then, in w, back from ἀλλ' εἰ to ἀλλὰ εἰ (sudden addition of one letter), whereas the two changes from ἀλλ' αἰ to ἀλλὰ εἰ (different parsing of the same letters) and then to ἀλλ' εἰ (removing the threat of ambiguity) are much smoother. Similarly, it is more likely that the common ancestor of that side of the stemma, that is, for all the manuscripts related to group JQw, read ἀλλ' αἰ than ἀλλὰ αἰ, for it is easier to explain the addition of an α (one change, to remove the threat of ambiguity) than the disappearance and then again reappearance of a letter.

¹⁰ See Hasper (2021) pp. cxxxvii-cxxxviii.

¹¹ *Ibidem*.

That Λ must have featured $\acute{\alpha}\lambda\lambda(\acute{\alpha}) \epsilon i$ should not have come as a surprise, for stemmatically Λ belongs to the JQw group, as a clear list of shared errors shows,¹² while there are far fewer readings uniquely shared between Λ and other groups on that side of the stemma. The impression that Λ is somehow independent from the JQw group is due to a considerable amount of contamination in Λ , mainly from the other side of the stemma, to which E and the exemplar of the Arabic translation belong.¹³

The lesson to be drawn from these facts and considerations is that one cannot cite individual variants from individual sources for or against a certain reading to be adopted, without situating these sources stemmatically within the whole of the extant tradition. The age of the individual sources plays a subordinate role in this respect and should not be cited in favour of a certain reading in isolation from an assessment of the location of that source within the stemma as a whole. Of course, older sources are usually more important than younger sources, but that is because many of the younger sources are direct or indirect copies from extant sources or closely related to extant sources. The chances that younger sources provide information about the history of the text which is significantly independent from the information provided by older manuscripts are smaller. But they are in no way zero, as the case of, for example, manuscripts b and e (Vind. Phil. gr. 64, from the 15th century) for the text of *Physica* VII 1-3 shows: they are the only two independent sources for the whole α text of those chapters.

What is more, even the chances that a single source in a stemmatically less independent position, like J, uniquely provides us with the correct reading, are not zero – it is possible on two scenarios: (a) if the alternative reading through contamination takes over the rest of the extant manuscript tradition, and this source is the “last man standing”, or (b) if this source alone has been contaminated from an independent part of the textual tradition which is no longer extant. The first scenario occurs rather frequently in the

¹² See Hasper (2021) pp. cxl-cxli.

¹³ A similar but converse point applies to manuscript b, which also features the hypothetical reading: though it, together with Vind. Phil. gr. 64 (siglum ϵ , from the 15th cent.) belongs to the side of the stemma of E and the Arabic translation, it has been heavily contaminated from the other side of the stemma (see Hasper 2021, at pp. cxlv-cliii) – thus it presumably derived its hypothetical reading from the JQw group.

Organon, where there is a lot of contamination, also in the earlier stages of the textual transmission.¹⁴ The second scenario was, for example, the assumed situation for *De motu animalium* before the discovery of manuscripts belonging to a completely independent branch of the stemma: one manuscript (Vat. gr. 1339) uniquely featured readings which were clearly superior, but for the rest it held a subordinate position in the overall stemma.¹⁵ However, the justification for positing one of these two scenarios to explain how a source of apparently less importance features such a reading had better consist in very strong interpretative reasons and it had better not concern a single isolated case, but rather be part of a pattern, so strongly are the odds stacked against these scenarios applying.

This brings us to the interpretative side of the proposal to adopt the hypothetical reading ἀλλ' εἰ at 250b13. Though we are very sceptical of it for interpretative reasons as well, we acknowledge it is open for a proponent of the hypothetical reading to argue in favour of the hypothetical reading by arguing for an emendation to the text, in effect that the reading of the archetype of the extant textual tradition ἀλλ' ἀεὶ constitutes a mistake in parsing the letters in the wrong way, and thus that Aristotle originally wrote ἀλλὰ εἰ – a mistake which is more common at early stages of the textual transmission because of frequent lack of word separations and accents and breathings. Since we have offered a good reason to believe that Alexander of Aphrodisias had the categorical reading, the hypothetical reading would then have disappeared before 200 AD. In this special case the burden of proof for a hypothetical reading would even be lower than normally when one wants to argue that there is an error in the archetype: it would only be necessary to show that the alternative fares better than the reading of the archetype, solely on the basis of interpretative considerations. In normal circumstances, when the emendation involves actual changes to the letters of the text, however, the burden of proof for the emendator is much higher, in that one must show that the reading of the archetype is implausibly difficult and that the proposed emendation is the smallest deviation from the reading of the

¹⁴ For some examples, see Hasper (2024) pp. 279-311.

¹⁵ Compare the stemma provided by Nussbaum (1978) p. 17, with the stemma provided by Primavesi (2020) at p. 133, especially with regard to the position of P (Vat. gr. 1339).

archetype which yields an interpretatively plausible text. As it is, however, the hypothetical reading does not even meet this lower burden of proof.

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