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## A HYPOTHETICAL PREMISE ABOUT ETERNAL COSMIC MOTION IN *PHYSICS* VIII 1.250B13

### Abstract

This paper is concerned with an important variant reading discovered at the beginning of Book VIII of Aristotle's *Physics*. The reading is found in J, the oldest manuscript of this work (Vind. phil. gr. 100, 9th c.): at VIII 1.250b13, J reads εἰ ᾗν, "if it [*scil.* the movement] was", instead of ἀεὶ ᾗν, "it always was", the only reading so far taken into account. Several early witnesses support J: E (Paris. gr. 1853, 10th c.), the Greek into Latin translation by James of Venice (first half of the 12th c., *si erat*); the earliest Arabic version (*ap.* Jabir ibn Hayyan, ان كانت, "if [the movement] was"). Such early sources thus agree as witnesses of a hypothetical premise concerning the eternity of cosmic motion against the standard vulgate text of the *Physics*. Once the if-reading at 250b13 is accepted, as opposed to the vulgate, Aristotle's conclusion about the eternity of motion will apply not absolutely, but under the condition of the given premise that in no plausible way could motion have begun in time. The difference is important on several grounds. In particular, it fits better with the manner in which the argument is then developed by Aristotle throughout chapter 1 of *Phys.* VIII and with the parallel discussion about the eternity of the cosmos in *De caelo* I 10 and *Metaphysics* Λ 6. However, favouring the variant reading of J for *Phys.* 250b13 raises the problem of evaluating with special care the authority of manuscript J for the textual constitution of the *Physics*, which remains an open question for future scholarship.

### Keywords

Aristotle's *Physics*, Eternity of the World, Vindobonensis phil. gr. 100,  
Variant Readings, Philosophical Imperfect

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This paper is concerned with a variant reading in the first sentence of *Physics* VIII. The newly discovered reading contains a conditional premise concerning the eternal nature of cosmic motion.<sup>1</sup>

I shall begin by analysing the sentence according to Ross' standard critical edition (Oxford, 1936 and *TLG*), chap. 1.250b11-15:<sup>2</sup>

Πότερον (i) γέγονέ ποτε κίνησις οὐκ οὔσα πρότερον, καὶ | φθίρεται πάλιν οὕτως ὥστε κινεῖσθαι μηδέν, (ii) ἢ οὐτ' ἐγένετο οὔτε | φθίρεται, ἀλλ' ἀεὶ ἦν καὶ ἀεὶ ἔσται, (iii) καὶ τοῦτ' ἀθάνατον καὶ | ἀπαυστον ὑπάρχει τοῖς οὖσιν, οἷον ζῶη τις οὔσα τοῖς φύσει | συνεστῶσι πάσιν;

- (i) Was there ever a becoming of motion before which it had no being, and is it perishing again so as to leave nothing in motion?  
(ii) Or it never had any becoming and is not perishing, but always was and always will be –  
(iii) for it is in fact immortal and never-failing, a property of things that are, a sort of life as it were to all things constituted by nature?

This construction is dense and articulated. It firstly expresses the two branches of the fundamental dilemma – *whether movement (i) is generated and perishable or (ii) is eternal*. The dilemma is followed by (iii) Aristotle's commentary on the second option – no doubt, an implicit endorsement of it: movement, if eternal – Aristotle says – permeates the world forever, as if it were a breath of life joining together all beings, even though they are born naturally and perishable.

In the vulgate, at first glance, the dilemma is clear. From the outset, we understand that Aristotle prefers (ii), because of his commentary in (iii), especially the powerful and harmonious worldview at the end of the clause.

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<sup>1</sup> The present case study is prompted by William Wians' article on *Phys.* VIII 1 in this issue of *Aristotelica*. It benefits from the recent monograph on the direct and indirect textual tradition of *Phys.* VIII of Arnzen (2021) and Hasper (2021); my results, however, differ considerably from any previous research. I am grateful for comments and discussion during our Aristotle Reading Seminar, UPO-FINO PhD School, especially by Laura Folli and Marco Ghione, who also assisted in checking manuscripts and early printed editions; to Daniele Bianconi, Angela Longo and Mohammad Javad Esmaili. Any errors that remain are my sole responsibility. Overall, I owe special gratitude to Jill Krayer and to Maria Cristina Dalfino for their generous and exemplary editorial work, and for exercising angelic patience.

<sup>2</sup> The main text of the sentence in Ross' (1936) edition does not differ from Bekker's (1831) edition. Translations of Aristotle in this paper are my modified version of Barnes' (1984) *Revised Oxford Translation* (hereafter: *ROT*).

Nevertheless, it is not clear that everything is in the right place in the description of (ii) the second branch of the dilemma. There, at 250b13, the ἀεὶ ἦν option – an alternative to the Presocratic view of ancient cosmogonies – implies that movement and the cosmos do not arise but have always existed and will last forever. Hence, ἀεὶ ἦν is taken to mean “it was always” in the sense of “it (i.e., motion, see 250b11) *has been there ever since*”.

Several doubts, nevertheless, arise.

a) Why, while expressing a preference in his subsequent comments (iii), does Aristotle not provide reasons or explanations for his choice? He seems to axiomatize in a context where asserting an uncontroversial truth is highly unlikely.<sup>3</sup>

b) Why does Aristotle subsequently describe the same scenario three times in such a concise text? The sentence states that *motion is not born and does not get destroyed* in (iia) ἢ οὐτ’ ἐγένετο οὐτε φθείρεται, and again in (iib) ἀλλ’ ἀεὶ ἦν καὶ ἀεὶ ἔσται, then it repeats that motion does not get destroyed: (iii) καὶ τοῦτ’ ἀθάνατον καὶ ἀπαυστον.

c) Does ἀεὶ (unspecified, without a further particle, see LSJ *s.v.*) really mean “since ever”?

d) Does ἦν mean “it was” in the sense of “it has been” – either in standard classical Greek, or in Aristotle’s philosophical context? Or, as an alternative, what else might it mean? In Greek, “the imperfect not only locates a state of affairs in the past, it also presents this state of affairs as not-closed, as on-going”.<sup>4</sup> On the other hand, Aristotle’s theory of principles has its own *immanent* grammar, which remarkably includes the ‘philosophical’ imperfect tense of the verb to be, ἦν. Its most idiomatic construction is τὸ τί ἦν

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<sup>3</sup> Section (ii) in the *ROT* reads: “Or *are we to say that* it never had any becoming and is not perishing, but always was and always will be ...?”. That is, the words “are we to say that” are supplied by the translator; this suggests that he finds the way alternative (ii) is stated in the vulgate to be overly assertive.

<sup>4</sup> Rijksbaron (2018) 72f.: “The imperfect [...] is the past tense par excellence. [...] The imperfect not only locates a state of affairs in the past, it also presents this state of affairs as not-closed, as on-going. Thus, it typically creates a temporal framework for other states of affairs, serving, as their ‘time anchor’. The latter are, thus, simultaneous with the state of affairs expressed by the imperfect.” It can be also used for references to previous assessments, when the state described in the past persists in the present; see e.g. Kühner-Gerth (1898), §384.5, p. 145f.: “Das Imperfekt scheint bisweilen statt des Präsens zu stehen, indem die durch dasselbe ausgedrückte Handlung in der Gegenwart fortbesteht.”

εἶναι. There, ἦν stands in the middle and conveys *eternal identity with oneself*.<sup>5</sup> Eternal identity with oneself must be the kind of eternity which is at issue in Aristotle's theory of principles: it is appropriate to essences and principles of things, which always are in the way they are. If so, one has to understand ἦν alone, in 250b13 and in the occurrences of τὸ τί ἦν εἶναι, in the sense "it was always": in either case, the state described by ἦν is ongoing and everlasting. If so, neither case requires ἦν, Aristotle's 'philosophical imperfect', to be coupled with the adverb ἀεί.

In fact, ἀεί ἦν at VIII 1.250b13 is not the only reading in ancient manuscripts. A different reading without ἀεί is available in the earliest manuscript of this work, J, Vind. phil. gr. 100, dating back to slightly after the middle of the 9th century (Irigoin 1957).<sup>6</sup>

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<sup>5</sup> That ἦν conveys eternal identity with oneself, is an assumption that would be expected to apply to any possible construction of τὸ τί ἦν εἶναι – for controversial the syntax of the formula can be, whether or not the past tense is spelled out in the translation. A review on synthetic, non-periphrastic translations of τὸ τί ἦν εἶναι is offered by Frede-Patzig (1988) I, p. 24 ("Bonitz' 'Wesenswas' scheint uns ganz unverständlich; Rolfes' 'das wesentliche Sein' ist zu unspezifisch, ebenso Gohlkes 'Wesensbegriff' und Seidls 'Sosein', das er in seiner 'überarbeiteten Neufassung' der Bonitzschen Übersetzung dessen 'Wesenswas' vorzog."). Their own translation being periphrastic instead – "Was es heißt, dies zu sein" – the imperfect as a past tense does not seem to play any major role in it. They explain: "Das 'Was es heißt, dies zu sein' muß so verstanden werden, daß es das bedeutet, was z. B. den Menschen zum Menschen, ein Haus zum Haus macht." In Sonderegger (1983) the choice of the present tense is justified based on Alexander of Aphrodisias *in Top.* 42.1-8: "[Aristotle] uses the phrase 'what it was to be (this)' taking it together as one compound nominal phrase to mean 'the account that signifies what it is for the thing defined to be', i.e. an account so as to bring out what it is to be, for the thing it is the definition of. For he does not here use the verb 'was' as bringing out the past, but instead of 'is'..." (Van Ophuijsen 2000, p. 45 and n. 343). Berti, however, has the imperfect tense in both his Italian and French *Aristotelica* contributions, see Berti (2022a) "che cos'era essere"; Berti (2022b) "ce qu'était l'être une chose". As a philosophical imperfect, Aristotle's ἦν in τὸ τί ἦν εἶναι has been compared with Plato's *Tim.* 28b6, which is also controversial, see Ferrari (2022) p. xli n. 1. I would assume that Plato's 28b6 is echoed in different ways, both by Aristotle's ἦν at 250b13, which means even alone 'it was always', and in its commentary tradition, where ἀεί is often spelled out.

<sup>6</sup> Irigoin (1957) p. 7, dates J to about the middle of the 9th c. A remarkable feature of the manuscript – an alleged proof of its early date – is that second hand notes on J were made by the first copyist of the 9th-c. "philosophical collection". On this collection and its date, see Bianconi-Ronconi (2020). Rossetto (2014a) p. 129, offers a transcription of the passage in question in J. As we can see, most, but not all, of the requisite accents and breathings were

The reading implies an *if*-clause: “*but if it was*, it will always be too”. See the relevant words in J (Fig. 1):

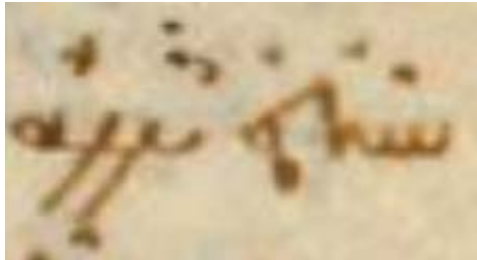


Figure 1

i.e. ἀλλ' ει ἦν.

Paleographically, the two concurrent readings, ἀλλ' εἰ ἦν and ἀλλ' ἀεὶ ἦν, differ due to the presence or absence of the single letter α (*alpha*). Which reading is more likely to arise from the other? Can their textual history be reconstructed?

Semantically, the difference is conspicuous because the logical reasoning is different: by an *if*-clause, the eternity of motion is not postulated absolutely, but under a given condition. Which reading, then, is more likely to express Aristotle's original argument?

With regard to Aristotle, it can be argued that J's reading is preferable, because, if it is accepted, all of the previously difficulties are resolved. For: a) the *if*-clause offers the criterion to resolve the fundamental dilemma of eternity *vs* coming-to-be of the world (as can be seen more clearly in *De caelo* I 10 as a relevant parallel passage; see Appendix below); b) unlike the vulgate text, J's text does not imply a repetition in this sentence but a *questioning* of the main thesis to be argued for; c) ἀεὶ before ἦν at b13 does not occur; d) ἦν exemplifies Aristotle's philosophical imperfect: this is appropriate when talking about anything which *was* in the sense of now and *forever*.

More important still, J's *if*-reading fits better with the way the argument is then developed throughout chapter 1 of *Phys.* VIII, as analysed by Wians in the present issue of *Aristotelica*: Aristotle struggles and dichotomizes with

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first provided there by J's contemporary *diorthotes*: πότερον δε γέγονεν ποτε κίνησις, οὐκ οὔσα πρότερον. καὶ φθείρεται πάλιν οὕτως, ὥστε κινεῖσθαι μηθέν, ἢ οὔτε ἐγένετο οὔτε φθείρεται. ἀλλ' εἰ ἦν καὶ ἀεὶ ἔσται, καὶ τοῦτ' ἀθάνατον καὶ ἀπαυστον ὑπάρχει τοῖς οὔσιν. See also Rossetto (2014b).

previous cosmogonies and with possible reasonings about motion's coming to be at some point in the past (ποτε at 250b11); hence, his major argument against the ceasing of motion in the future.<sup>7</sup>

It is unfortunate, therefore, that the reading of 250b13 in J is misreported in Ross' critical apparatus: it reads ἀλλ' εἶην, instead of ἀλλ' εἰ ἦν.<sup>8</sup> This seems to be one of the main reasons why the variant reading in J has not attracted any editorial attention<sup>9</sup> and why the standard reading ἀλλ' ἀεὶ ἦν at 250b13 has so far not been questioned.

Moreover, in Ross' critical apparatus, the reading of E, Paris. gr. 1853, which is the second oldest Greek manuscript of the *Physics* (10th c.), is ignored. Even today, the reading of E at 250b13 goes unnoticed by scholars. It is very close to J, offering the same sequence of three words, but without elision and with hiatus (Fig. 2):

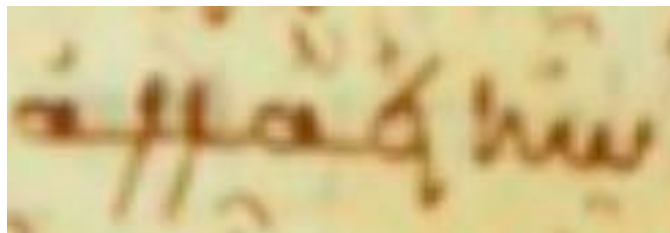


Figure 2

i.e. ἀλλὰ εἰ ἦν.

The interest of the unelided reading in E is twofold. On the one hand, it is identical in meaning with J: E also reads εἰ ἦν, even if E, where the *Physics* is concerned, does not depend on J. If it is true, as is commonly held, that J and

<sup>7</sup> On ἀεὶ in Aristotle's *Physics* see Ugaglia (2009).

<sup>8</sup> In the given context, εἶην, unlike εἰ ἦν, sounds as a *vox nihili* – as if it were: κίνησις ... οὐτ' ἐγένετο οὐτε φθίρεται, ἀλλ' εἶην καὶ ἀεὶ ἔσται.

<sup>9</sup> In Ross' critical apparatus, at 250b13, ἀλλ' εἶην is recorded as 'J<sup>1</sup>' reading, as if it were emended from within the same manuscript: in fact, a bold revision of it is due to a *manus recentior*, which revised the original reading in J with the vulgate ἀλλ' ἀεὶ ἦν reading in the right-hand margin; see Bossier-Brams (1990) p. 350. The reading in J is correctly recorded there and by Hasper (2021) p. 1.

E have significantly different sources, this increases their weight as witnesses of an if-clause at *Phys.* VIII 1.<sup>10</sup>

On the other hand, based on E's unelided reading, one can at least figure out a possible transmission path:

$\acute{\alpha}\lambda\lambda' \epsilon\iota \eta\nu > \acute{\alpha}\lambda\lambda\acute{\alpha} \epsilon\iota \eta\nu > \acute{\alpha}\lambda\lambda' \acute{\alpha}\epsilon\iota \eta\nu$ .

In this way, the vulgate reading  $\acute{\alpha}\lambda\lambda' \acute{\alpha}\epsilon\iota \eta\nu$  could have arisen from  $\acute{\alpha}\lambda\lambda' \epsilon\iota \eta\nu$ .<sup>11</sup>

In this way, the vulgate reading  $\acute{\alpha}\lambda\lambda' \acute{\alpha}\epsilon\iota \eta\nu$  could have arisen from  $\acute{\alpha}\lambda\lambda' \epsilon\iota \eta\nu$  by the 12th century (if not before), when it is found in at least two manuscripts: Ms. Ambrosianus M 46, 12th c., f. 122r5, not collated so far, to the best of my knowledge, and Ms. Laurentianus 87.24 (K *ap.* Hasper 2021). After that point, most later manuscripts offer the vulgate  $\acute{\alpha}\epsilon\iota \eta\nu$  reading, with very few exceptions (mss. w and b *ap.* Hasper 2021).<sup>12</sup>

Seeking for different paths, we are left with the possibility of an indirect tradition, based on earlier sources than the extant manuscripts. According to the scholarly literature and to critical apparatuses, it might seem that most of the indirect tradition sides with the *vulgate*. Whether this holds true or not needs to be verified.

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<sup>10</sup> Since J is such an early manuscript and was copied by the same scribe as the *Metaphysics*, and since it is based on a codex in *scriptio continua* which it reproduces without any noticeable editing process, we would expect the text of the *Physics* in J to have been produced in the same way. See Fazzo-Ghione (2022) for a comparison of J and E for all the books of the *Metaphysics*.

<sup>11</sup> By contrast, it is very difficult to suppose that the original Aristotelian reading was  $\acute{\alpha}\lambda\lambda' \acute{\alpha}\epsilon\iota \eta\nu$  – in uncial script ΑΛΛΑΕΙΗΝ. This reading would have left readers in doubt as to whether they should understand ΑΛΛ ΑΕΙ ΗΝ or ΑΛΛΑ ΕΙ ΗΝ? Aristotle expressly criticizes and forbids this kind of equivocity in *Rhet.* III 5.1407b12-18.

<sup>12</sup> See Hasper's (2021) p. 1 apparatus *ad loc.*: “ $\acute{\alpha}\lambda\lambda' \acute{\alpha}\epsilon\iota$  EΥKeLFI Simpl.<sup>p</sup> [1118.23-24] Them. [209.4] :  $\acute{\alpha}\lambda\lambda\acute{\alpha} \acute{\alpha}\epsilon\iota$  NRH :  $\acute{\alpha}\lambda\lambda\acute{\alpha} \epsilon\iota$  bw :  $\acute{\alpha}\lambda\lambda' \epsilon\iota$  JΛ :  $\acute{\alpha}\lambda\lambda' \text{Q}$ ”, where w is Par. Suppl. gr. 643 – 13th c. and b is Par. gr. 1859 – ca. 1300. Ms Ambrosianus M 46, which I have seen *in situ*, was not accessible to Hasper (2021) see p. cviii n. 247. About Simplicius, whether or not the string  $\acute{\alpha}\lambda\lambda' \acute{\alpha}\epsilon\iota \eta\nu$  is witnessed in his paraphrase, see below.

*1. The Textual History of VIII 1.250b13 in the Indirect Tradition*

In fact, the corruption of εἰ into ἀεὶ could not have influenced the manuscript used a few decades before by James of Venice for his Latin translation of the *Physics*.

Here is James' *translatio vetus* based on the *deperditus codex* Λ:

Utrum **autem** factus sit aliquando motus cum non esset prius, et corrumpitur iterum sic quod que moveri nichil sit, aut neque factus neque corrumpitur, sed **si erat, et semper erit**, et hoc immortale et sine quiete inest his quae sunt, ut vita quedam natura subsistentibus omnibus?

This plainly coincides with the reading in J:

Πότερον δὲ γέγονέ ποτε κινήσις οὐκ οὔσα πρότερον, καὶ  
Φθείρεται πάλιν οὕτως ὥστε κινεῖσθαι μηδέν, ἢ οὔτ' ἐγένετο οὔτε  
φθείρεται, ἀλλ' [ἀλλὰ E] εἰ ἦν καὶ ἀεὶ ἔσται, καὶ τοῦτ' ἀθάνατον καὶ  
ἄπαυστον ὑπάρχει τοῖς οὔσιν, οἷον ζωὴ τις οὔσα τοῖς φύσει  
συνεστῶσι πᾶσιν;<sup>13</sup>

James' translation thus sides with J.<sup>14</sup>

Further witnesses from the indirect tradition include late ancient Greek commentators and Arabic translators, insofar as the reading of the Greek manuscripts they used can be reconstructed. We need to focus on the vulgate reading:

ἀεὶ ἦν καὶ ἀεὶ ἔσται,

which is to be contrasted with the reading in J:

εἰ ἦν καὶ ἀεὶ ἔσται.

There is no exact quotation of either reading in Simplicius. His closest string of words reads:

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<sup>13</sup> James' translation's proximity to J is well known and was pointed out by the editors of the *Aristoteles Latinus* volumes, especially Bossier-Brams (1990). Elsewhere, however, Λ does not always coincide with J, as noted by Bossier-Brams (1990) and Hasper (2021). Λ is therefore not a copy of J. This might increase the value of Λ as a witness in support of J.

<sup>14</sup> In Hasper (2021) p. cxli, this 250b13 reading is mentioned as one of two alleged *Leitfehler* (with 264b4) shared by J with a few other witnesses, including James of Venice.



ἦν δὲ ἂν καὶ ἔσται κίνησις (p. 1118.23 Diels).

It appears that Simplicius is not interested in developing Aristotle's hypothetical setting of the problem; in this regard, he is closer to the vulgate. The question, however, arises: if Simplicius' Aristotelian text was ἂν ἦν καὶ ἂν ἔσται, why does he postpone the adverb ἂν to the verb ἦν? And why does he make the effort to refer a single adverb ἂν to both tenses of the verb to be, ἦν and ἔσται? It would have been enough to repeat ἂν twice, if this was his transmitted string of words. We can therefore conclude that Simplicius' paraphrase does not entirely support either the reading in J or the vulgate reading of 250b13 because it does not have either the duplication of the adverb or the conditional conjunction εἰ.

A similar assessment can be given for the main witness of the Greek into Arabic tradition of *Phys.* VIII. The only preserved Arabic version of *Phys.* VIII as a whole is that of Ishāq ibn Hunayn's (d. 910). It is transmitted as a series of Arabic *textus* within Averroes' Great Commentary on *Physics* VIII. It is now available in a major critical edition by Rüdiger Arnzen (Brill 2021) with two critical apparatuses. The first of these, by Pieter Haspers, provides data from all relevant Greek sources. The Greek *Vorlage* of Ishāq ibn Hunayn's translation is given the siglum Ψ.

With regard to 250b13, Hasper attributes to Ψ the standard ἂν ἦν καὶ ἂν ἔσται reading. I agree that no if-clause can be found in Ψ; however, it is worth going into greater detail. The passage is *textus* n. 1, and in Arnzen's edition, it is at p. 1:

ليت شعري هل حدثت الحركة ولم تكن قبلُ وهل تفسد أيضاً فإذا لا يكون معه شيء  
أصلاً يتحرك أم الحركة لم تحدث ولا تفسد لكنها لم تنزل فيما مضى ولا تزال أبداً وهذا أمر  
لا يواد له وليست تفتقر في الموجودات بل كأنها حياة ما لجميع ما قوامه بالطبيعة؟

As is evident, this translation is not literal. Indeed, while it does not preserve any if-clause, it also does not duplicate the ἂν: if ἂν is rendered with أبداً, this

appears only once. Therefore, one cannot infer with certainty that this version precisely presupposes the vulgate ἀλλ' αἰ ἦν καὶ αἰ ἔσται as the basis of Ψ.<sup>15</sup>

By contrast, the hypothetical protasis 'if-it-was' is found in an earlier Arabic version, *ap.* Jābir ibn Ḥayyān:

ليت شعري كانت الحركة لم تزل أو كانت بعد أن لم تكن وهل تدثر بعد كونها إن كانت أو كيف الحال فيها ثم أخذ في الكلام فيها فقال في رسمها أو حدّها. أما أولاً فقال إنها تمام ما بالقوة وصورة، وأما ثانية فقال إنها طريق من القوة إلى الفعل ...

The phraseology differs from the Greek. But especially for this reason, a part of the clause, "if [the movement] was", إن كانت, is noteworthy since it does not seem to help with the new phraseology. This can be the trace which we have been seeking of αἰ ἦν.<sup>16</sup>

## 2. J, *Vind. phil. gr. 100: The "Wiener Aristoteles"*

Favouring the variant reading of J for *Phys.* 250b13 raises the issue of assessing the authority of this manuscript in relation to the entire textual history of the *Physics* and of Aristotle's physical works.

Dating from the 9<sup>th</sup> century, J antedates all other extant Aristotle's manuscripts. It contains the entire *corpus physicum* – *Physica* (ff. 1r-55v), *De caelo* (56r-86r), *De generatione et corruptione* (86v-102r), *Meteorologica* (102v-

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<sup>15</sup> Strikingly, where 250b13 is concerned, the Latin *translatio Scoti* of the Arabic *textus* 1 is closer to the Greek than the Arabic is, for it presupposes two occurrences of the adverb αἰ. The earliest witness (a. 1243) is probably Ms. Paris Lat. 15354 (a. 1243), f. 95 ra: *Utrum autem motus fuit, et non fuit, et corrumpetur etiam corruptione, in qua nihil movebitur omino, aut motus nec fuit generatum, neque corrumpetur, sed semper fuit, et semper erit, et non habet corruptionem, nec fugit ab entibus, sed est quasi vita omnibus, quale constituuntur per naturam.* How this can happen is unclear and would deserve to be discussed elsewhere. The same *textus* is mirrored in the Venetiis 1562 Junctas edition of the same Latin *translatio Scoti*, f. 338D-E, with few revisions, one of which presupposes collation with the Greek text: *Utrum autem motus aliquando [cfr. 250b11 ποτε] fuit, et non fuit, et corrumpetur in corruptionem, in qua nihil movebitur omino, aut motus nec fuit generatus, neque corrumpetur, sed semper fuit, et semper erit, et hoc non habet corruptionem, nec fugit ab entibus, sed est quasi vita omnibus, quale constituuntur per naturam.*

<sup>16</sup> I am grateful to Lilia Gadri, Reader in Arabic at the University of Eastern Piedmont, for pointing out to me Haq Sied (1994) p. 28 and discussing the transcription of this fragment.

134r) – as well as Theophrastus’ *Metaphysics* (134v-137r) and Aristotle’s *Metaphysics* (138r-201v, from 994a6 Bekker only).<sup>17</sup> Since it remained unknown until the late 19<sup>th</sup> century, there is no trace of J in printed editions before the 20<sup>th</sup> century. Even then, J has not been given stemmatic priority for any of the physical treatises it contains. *Phys.* VIII 1 thus offers a case study of Aristotelian philology which can be compared to that of the *Metaphysics*.<sup>18</sup>

Here as well, J, the oldest Aristotelian manuscript, offers unexplored novelties in its individual readings. The textual tradition of the passage does not especially support the narrative that Aristotle’s text was poorly preserved. His thoughts are shown to be sharp, undogmatic, expressed with exactitude and transmitted with care.

### Appendix

#### *Metaphysics A 6 and De caelo I 10: Two loci paralleli*

Aristotle’s argument about the eternity of motion, as developed in *Physics* VIII 1, is a milestone in Aristotelian cosmology as a whole. On the one hand, it belongs to the broader context of Aristotle’s most contentious physical theory, the eternity of the world: in *De caelo* I 10, especially, the eternity of

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<sup>17</sup> The catalogue and full digital copy are available on the website of the *Österreichischen Nationalbibliothek, Sammlung von Handschriften und alten Drucken*, <https://www.onb.ac.at/>. If Irigoin’s date for J is right (see note 6 above), J is unlikely to antedate the exemplar of the Arabic translation by Ishaq b. Hunayn, d. 910, but it could well antedate the translation itself (*vs.* Arnzen 2021, p. xxxi).

<sup>18</sup> For the *Metaphysics*, J, as the earliest representative of the so-called  $\alpha$  family, plays a key role in lively debates among historians of ancient philosophy and philologists. Ms. J has two contemporary *hands*, J and J’s *diorthotes* J2, with independent access to their exemplars. Accordingly, the *Metaphysics*’ most recent stemma, accessible in *Aristotelica*, 1 (2022), is topped by J as corrected by J<sup>2</sup> (<https://aristotelica.cnr.it/ojs/index.php/A/article/view/711/599>, final page) with direct access to depending directly on  $\Pi$ . Since the end of the 19<sup>th</sup> century, J has been underestimated. This attitude is expressed in Harlfinger’s (1979) stemma by presence of the *deperditus* codex  $\gamma$ , an alleged *interpositus* between J and  $\alpha$ .  $\gamma$  was also supposed to be the source of the further *deperditus*  $\delta$ , the source in its turn of most extant Greek *recentiores*. It has been recently acknowledged, however, that the  $\gamma$  hypothesis does not carry conviction; if this mean that  $\delta$  depends on J; that data it would allow for J a much broader descent than it has previously been assumed: see Fazzo (2022) for details, bibliography and about the history of the problem. For the *Physics*, Hasper’s (2021) *stemma codicum* (p. clxxxvii) has four *interpositi* between  $\omega$  and J. It is an open issue whether this is compatible with the present reconstruction of the textual history of 250b13.

the world is argued for on the basis of the eternity of motion.<sup>19</sup> On the other hand, it plays a key role in his most hotly debated argument for the prime unmoved mover in *Metaphysics* Λ 6-7.<sup>20</sup>

Considering these two cross references might shed some light on the theoretical framework of the *Phys.* VIII 1 passage at issue.

As for the eternity of the world in *De caelo* I 10, this argument, as well as the one in *Phys.* VIII 1, is concerned with Presocratic and Platonic cosmogonies. *De caelo* I 10 provides a rich and informative parallel: Aristotle spells out the theoretical rationale for his way of arguing there and as well as in *Phys.* VIII 1.

In the framework of Aristotle's notion of causality, cosmogonies imply the world to be generated and generable, thus depending on a previous cause, i.e., on a pre-existing motion. But nothing can pre-exist if the world does not exist.

In either case, from the failure of ancient cosmogonies to explain the world's beginnings, Aristotle argues for the eternity of the universe.

By contrast, were the world born or created in time, as it appears to be both in Presocratic cosmogonies and in Plato's *Timaeus*, it could not be eternal. Aristotle's point is expressly directed against Plato's *Timaeus*, insofar as this dialogue makes the world eternal only forward but not backward in time: it is only if the world was not born that it will also never perish.

This is also established in *De caelo* I 10, on the criterion stated at 279b20-23: the nature of beings shows up and applies to things always, or regularly at least. As Aristotle says:

[...] Generated things are always seen to be destroyed. On the other side, a thing whose present state had no beginning, one which could not have been other than it was at any previous moment throughout its entire duration, cannot possibly be changed.<sup>21</sup>

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<sup>19</sup> The argument runs from the physical point of view (φυσικῶς, 280a32) to the conceptual one (καθόλου, in Aristotle's words, 280a33). The two are closely connected, as can be seen in what follows.

<sup>20</sup> That an eternal motion requires an unmoved mover is argued in *Physics* VIII 5 and in *Metaph.* Λ 6-7.

<sup>21</sup> ἅπαντα γὰρ τὰ γινόμενα καὶ φθειρόμενα φαίνεται. Ἐτι δὲ τὸ μὴ ἔχον ἀρχὴν τοῦ ὧδι ἔχειν, ἀλλ' ἀδύνατον ἄλλως ἔχειν πρότερον τὸν ἅπαντα αἰῶνα, ἀδύνατον καὶ μεταβάλλειν, *De caelo* I 10.279b20-23. ed. Moraux (1965) slightly modified. In the same vein, Aristotle adds (279b24-31): Ἐι δὲ πρότερον ἕξ ἄλλως ἐχόντων συνέστη ὁ κόσμος, εἰ μὲν αἰεὶ οὕτως ἐχόντων καὶ

That is:

1. If something came to be in the past, it will eventually be destroyed (against the *Timaeus* cosmogony, which makes the cosmos eternal, though generated).
2. Most importantly for our present purpose: if something did not become or change in the past, it can in no way change in the future at all.

It follows that:

- non-eternal things must be generated,
- things which are generated – as Plato’s cosmos is according to a literal reading of the *Timaeus* – cannot be eternal,
- things which have not been generated must be eternal and cannot be corrupted. This implies that *if* the cosmos is *not* generated, there is no possibility that it could be destroyed.<sup>22</sup>

The argument concerns the nature of things in a broader sense. It includes the natural temporality of the world and of motion. Is the world eternal or perishable? It depends on its own nature. Is motion eternal or not? This depends on the motion’s own nature.<sup>23</sup>

The methodological key expressed in *De caelo* I 10 makes sense of the issue raised by Aristotle in *Phys.* VIII 1.250b11-14: whether movement (κίνησις) has

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ἀδυνάτων ἄλλως ἔχειν, οὐκ ἂν ἐγένετο· εἰ δὲ γέγονεν, ἀνάγκη δηλονότι κάκεινα δυνατὰ εἶναι ἄλλως ἔχειν καὶ μὴ αἰεὶ οὕτως ἔχειν, ὥστε καὶ συνεστῶτα διαλυθήσεται καὶ διαλελυμένα συνέστη ἔμπροσθεν, καὶ τοῦτ’ ἀπειράκις ἢ οὕτως εἶχεν ἢ δυνατὸν ἦν. Εἰ δὲ τοῦτ’, οὐκ ἂν εἶη ἀφθαρτος ... (“If the world was previously made out of elements which were otherwise, then, if their condition was always so and could not have been otherwise, the world could never have come into being. By contrast, if the world did come into being, it is clear that their condition must have been capable of change and not eternal: after combination, therefore, they will be dispersed, just as in the past after dispersion they came into combination, and this process either has been indefinitely repeated, or could have been indefinitely repeated. But if this is so, the world cannot be indestructible ...”).

<sup>22</sup> Cf. also *Metaph.* Θ 8.1050b22-24: διὸ αἰεὶ ἐνεργεῖ ἥλιος καὶ ἄστρα καὶ ὄλος ὁ οὐρανός, καὶ οὐ φοβερὸν μὴ ποτε στῆ, ὃ φοβοῦνται οἱ περὶ φύσεως.

<sup>23</sup> The question has a bold epistemic value. See Plat. *Tim.* 27d6-28a6 with Fronterotta (2003) pp. 30-3, 176-8 nn. 70-3; Ferrari (2022) pp. xxxvi-xlii: the *diáiresis* corruptible *vs.* eternal, i.e., object of opinion *vs.* object of science, is most remarkably spelled out. It is not surprising, therefore, that Aristotle’s option in favour of eternal identity with oneself has also epistemic implications: it makes cosmology possible as a branch of science.

had a beginning ([i] γέγονέ ποτε), or is non-generated in itself, in its own nature ([ii] ἢ οὐτ' ἐγένετο).<sup>24</sup>

For *if*, and only if, motion had a beginning, will it also have an end. By contrast, *if* no previous theory about the beginning of movement proves to be sound, we can conclude that motion is eternal by its own nature ([iii] ἀθάνατον καὶ ἀπαστον ὑπάρχει, 250b13f.).

This implies – in terms of substance's ontological priority over movement and affections – that the heavens, as an eternally moving subject, are also eternal.

This fits with *Metaphysics* Λ 6 as well. No doubt, once the *if*-reading in VIII 1.250b13 is accepted, the projection from past to future might especially affect the nature of Aristotle's argument in Λ 6.

Previously in the same book, in the opening chapter of Λ, the focal meaning theory is restated. Hence, in chapter 6, the argument for the necessity of a prime unmoved mover is based, above all, on *Physics* VIII 1, where Aristotle argues that there was no time when motion did not exist.

This is expressed briefly, at Λ 6.1071b6-7, where the eternity of motion is recalled in a few distinctive words:

ἀλλ' ἀδύνατον κίνησιν ἢ γενέσθαι ἢ φθαρῆναι: ἀεὶ γὰρ ἦν, οὐδὲ χρόνον. οὐ γὰρ οἶόν τε τὸ πρότερον καὶ ὕστερον εἶναι μὴ ὄντος χρόνου.

But it is impossible that movement should either come into being or cease to be, for it <has been argued that it> always exists.<sup>25</sup>

Here Aristotle's concise wording ἀεὶ γὰρ ἦν (Λ 6.1071b7) summarizes the argument expressed in *Physics* VIII 1, where cosmic motion is argued to be indestructible and everlasting in the future: ἀεὶ is now coupled with ἦν. The

<sup>24</sup> The *antithesis* is Plato's, see esp. *Phaedr.* 245d-246a. One is reminiscent of the Eleatic discussion about eternity esp. in Melissus, fr. B2 DK, 2 *ap.* Simplicius in *Phys.* CAG IX 29, 19-26, in part. l. 23.

<sup>25</sup> Here, at 1071b7, the use of an imperfect of backward reference seems more probable by analogy and proximity with a previous imperfect of the verb to be. This is found four Bekker lines before: at Λ 6.1071b3, Aristotle starts the new argument and says "since there *were* (ἦσαν) three substances". This is likely to be a reference back to Λ 1.1069a30 ff.: "there *are* three substances." On this section of *Metaph.* Λ and on its references to *Physics* Θ, cf. Fazzo (2014) 281-90.

imperfect tense ἦν also has a further value now: it refers to an argument which has been given in the past.<sup>26</sup> The argument is based on the hypothesis – the “if” hypothesis – of motion’s everlasting existence in the past. It is supplemented by an important remark: there was no time when time did not exist (ἀδύνατον ... ἢ γενέσθαι ἢ φθαρῆναι ... χρόνον. οὐ γὰρ οἶόν τε τὸ πρότερον καὶ ὕστερον εἶναι μὴ ὄντος χρόνου, *ibid.* b7-9).

The *Lambda* sentence shows, and implies, that the movement’s eternity can be inferred if that movement had no beginning. This amounts to a good summary of the *if* argument in the newly found version of *Physics* VIII 1, which raises the issue at 250b12-13, as in Ms. J, Vind. phil gr. 100:

κίνησις ... οὐτ’ ἐγένετο οὔτε φθείρεται, ἀλλ’ εἰ ἦν καὶ ἀεὶ ἔσται.

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<sup>26</sup> Cf. n. 5 above.

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