

THE INVENTION OF THE GREEK PROSODIC SIGNS

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Abstract: Aristophanes of Byzantium is credited with inventing the signs for Greek accents, breathings and vowel lengths, according to a single source: a short text found in two 16th-century Paris manuscripts. The passage has a doubtful history, but the story it tells is of considerable interest. We first provide a new edition of this text, based on a new examination of both manuscripts, and a complete translation. Secondly we argue that the author consulted a source that was in Latin and that dealt at least in part with the Latin accent. We conclude by considering the implications of our proposal for the text's date and circumstances of composition.

Keywords: ancient Greek, Aristophanes of Byzantium, accents, breathings, quantities

I. Introduction

Aristophanes of Byzantium is widely believed to have invented the Greek accent marks that we still use today, and possibly some other Greek diacritic marks too.¹ The only direct evidence that he did so consists of a short text preserved in two 16th-century Paris manuscripts: Parisinus Graecus 2603 (henceforth 'B'), folios 2^v–4^r, and Parisinus Graecus 2102 (henceforth 'C'), folios 231^v–235^v.² In manuscript C, this text has the heading *Περὶ τῆς τῶν τόνων εὐρέσεως, καὶ τῶν σχημάτων αὐτῶν, καὶ περὶ χρόνων καὶ πνευμάτων* ('On the invention of the accents, and their shapes, and on quantities and breathings'); we shall use *Περὶ τῆς τῶν τόνων εὐρέσεως* as a succinct way of referring to the text in question.

Manuscript C presents the *Περὶ τῆς τῶν τόνων εὐρέσεως* as part of book 20 of Ps.-Arcadius' epitome of Herodian's *Περὶ Καθολικῆς Προσῳδίας*, along with a second introduction to the prosodic marks (*Περὶ προσῳδιῶν*), a section on vowel quantities (*Περὶ χρόνων*) and a section on breathings (*Περὶ πνευμάτων*).³ All copies of Ps.-Arcadius' epitome include a table of contents, where all except C include the following entry for book 20: *τὸ εἰκοστὸν περὶ χρόνων τῶν ἐν φωνήεσι καὶ πνευμάτων* ('the twentieth book is about vowel quantities and breathings'). Material purporting to be book 20 itself, however, appears in manuscript C and in no other copy of Ps.-

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¹ See, for example, Laum (1928) 99–118; Schwyzer (1953) 374; Pfeiffer (1968) 180–81; Callanan (1987) 30–31; cautiously Prauscello (2006) 33–38; Probert (2006) 21–22. Compare also Nagy (2000) 15–16, who argues

that Aristophanes of Byzantium played a role in systematizing a pre-existing system for marking accents.

² We adopt the sigla 'B' and 'C' used by M. Schmidt (1860) in his text of Ps.-Arcadius, although Schmidt himself used the siglum 'T' rather than 'B' for the copy of the *Περὶ τῆς τῶν τόνων εὐρέσεως* and *Περὶ προσῳδιῶν* sections found in Parisinus Graecus 2603, to reflect this manuscript's inclusion of these sections among texts attributed to Theodosius, and separately from the text of Ps.-Arcadius. For a partial transcription of the text in both manuscripts, see Lameere (1960) 90–92. For digital images of the relevant part of B, see <https://gallica.bnf.fr/ark:/12148/btv1b10723382k/f10>; and for the relevant part of C, see <https://gallica.bnf.fr/ark:/12148/btv1b10723675n/f236>.

³ See Roussou (2018) 52–57.

Arcadius' epitome. In manuscript B, the *Περὶ τῆς τῶν τόνων εὐρέσεως* appears separately from Ps.-Arcadius' epitome of Herodian, although this manuscript also contains a text of Ps.-Arcadius.⁴

The copies of Ps.-Arcadius in manuscripts B and C both derive ultimately from the copy in codex Matritensis 4575 = 32 ('M').⁵ In addition, manuscripts B and C are *codices gemelli*, that is to say they share an immediate common source, as far as their texts of Ps.-Arcadius are concerned.⁶ Since only the copy of Ps.-Arcadius in C includes a book 20, it follows that either (i) the common source of B and C included a book 20 in its text of Ps.-Arcadius and this was copied by C but omitted by B, or (ii) the common source did not include a book 20 and this material was added by the scribe of C. The second possibility is by far the more likely, since manuscript B contains a marginal note at the end of book 19 stating that book 20 is missing. The scribe of C (folios 88^r–244^r) was a known forger of his time, Jacob Diassorinus;⁷ it is clear that he put the material purporting to be book 20 together from a series of other sources,⁸ to repair the loss of the original book 20. It follows that the sections that comprise book 20 in manuscript C were not originally part of Ps.-Arcadius' epitome of Herodian; for this reason, Roussou excludes them from her edition of Ps.-Arcadius (Roussou 2018).⁹

The *Περὶ τῆς τῶν τόνων εὐρέσεως* has a separate history from that of Ps.-Arcadius, then, but this does not tell us where the material originated in the first place. Indeed, the point that the *Περὶ τῆς τῶν τόνων εὐρέσεως* has a separate history from that of Ps.-Arcadius makes it worth asking when, where and by whom this text was written.

The copies of the *Περὶ τῆς τῶν τόνων εὐρέσεως* found in manuscripts B and C derive independently from a common source,¹⁰ in all likelihood the manuscript from which both manuscripts derive their copies of Ps.-Arcadius. In the following section, we provide a new critical edition and translation of the *Περὶ τῆς τῶν τόνων εὐρέσεως*, based on a new examination of both manuscripts. Aspects of our text and translation will be defended in section III, where we make a new proposal on the text's prehistory.

⁴ See Nauck (1848) 12 n. 2; Lentz (1867) xxxviii; Laum (1928) 99; Roussou (2018) 53.

⁵ See Roussou (2018) 83–100.

⁶ For the point that this common source derives its copy of Ps.-Arcadius from codex Matritensis 4575 ('M'), as first argued by Schneider (1887) 41–42, see now Roussou (2018) 95–98.

⁷ For the point that Diassorinus copied folios 88^r–244^r, but not the earlier part of the manuscript, see García Bueno (2017) 125, 184, 316. On Diassorinus' role as a forger, see Cohn (1888) 141–43; Galland (1882) 17; García Bueno (2017) 11.

⁸ On other witnesses to the material comprising the sections *Περὶ προσφιδίων*, *Περὶ χρόνων* and *Περὶ πνευμάτων*, see Roussou (2018) 53–54, 55–57.

⁹ See Roussou (2018) 52–57.

¹⁰ The text in B is clearly not derived from the one in C, not least because where manuscript B has the good reading *ἐκσταίη τῆς λέξεως* ('stands aside from the word'; before 'correction' to *ἐκσταίη τὴν λέξιν*), this is very unlikely to be derived from the reading *ἐνσταίη τὴν λέξιν* that we find in C (see section II, text section I, with discussion in sections III.ii and III.iii.iv). The text in C is also not derived from the one in B. This point can be proved more decisively from the section *Περὶ πνευμάτων* than

from the *Περὶ τῆς τῶν τόνων εὐρέσεως* itself. (In the *Περὶ τῆς τῶν τόνων εὐρέσεως*, although B has errors not shared by C, in no case can a correction by Diassorinus be completely ruled out.) For example, the material printed in Schmidt, M. (1860) at p. 225 line 26 to p. 226 line 13 appears in manuscript C but not in B. This material therefore cannot be derived from manuscript B, but it was also not composed from scratch by Diassorinus; related material appears in the *Lexicon de spiritibus* (214.14–19 and 213.34–214.8 Valckenaer² = 240.27–241.2 and 240.11–21 Valckenaer¹), with manuscript evidence predating Diassorinus (for example the 15th-century manuscript Par. Gr. 1270, at f. 244^r line 20–244^v line 6: <https://gallica.bnf.fr/ark:/12148/btv1b107228396/f259.image>). Like the *Περὶ τῆς τῶν τόνων εὐρέσεως*, the *Περὶ πνευμάτων* is found in manuscript C as part of 'book 20' of Ps.-Arcadius and in manuscript B among material attributed to Theodosius (see Roussou (2018) 53–54). Both sections (and others found in both places) are likely to have found their way into these two manuscripts by a similar route, so that if C's copy of the *Περὶ πνευμάτων* is not derived from B, C's copy of the *Περὶ τῆς τῶν τόνων εὐρέσεως* is almost certainly not derived from B either.

II. Critical edition and translation¹¹

Περὶⁱ τῆς τῶν τόνων εὐρέσεως, καὶ τῶν
σημμάτων αὐτῶν, καὶ περὶ χρόνων
καὶ πνευμάτων

Signs for the accents, quantities and breathings, and their names:

(a) Οἱ χρόνοι καὶ οἱ τόνοι καὶ τὰ πνεύματα, Ἀριστοφάνους ἐκτυπώσαντος, γέγονε πρὸς τε διάκρισιν τῆς ἀμφιβόλου λέξεως, καὶ πρὸς τὸ μέλοςⁱⁱ τῆς φωνῆς συμπάσης καὶ τὴν ἁρμονίαν, ὡς ἐὰν ἐπάδοιμενⁱⁱⁱ φθεγγόμενοι. σκέψαι δ', ὡς ἕκαστον αὐτῶν φυσικῶς ἅμα καὶ οἰκείως, καθάπερ τὰ ὄργανα, ἐσηματίσται καὶ ὠνόμασται,^{iv} ἐπειδὴ καὶ ταῦτα ἔμελλε τῷ λόγῳ ὡσπερ ὄργανα ἔσεσθαι.

ⁱ Περὶ – πνευμάτων om. **B**

ⁱⁱ μέλος dubitanter Villoison (1783) 116: μέλλον **BC**; μελωδικὸν Jacobi apud Lentz (1867) xxxviii

ⁱⁱⁱ ἐπάδοιμεν Villoison (1783) 116: ἐπάδοιμεν **BC**

^{iv} ὠνόμασται **C**: ὠνόμακεν **B**

(b) ἐώρακε γὰρ καὶ τὴν μουσικὴν οὐτῶⁱ τὸ μέλος καὶ τοὺς ἀριθμοὺςⁱⁱ σημαιομένην, καὶ πῆ μὲν ἀνιῆσαν, πῆ δ' ἐπιτείνουσαν, καὶ τὸ μὲν βαρὺ, τὸ δὲ ὀξὺ ὀνομάζουσαν. εἰ δὲ ποτε ἐπάδοιμεν,ⁱⁱⁱ ἢ τέλειον ἐπιτείνοντες^{iv} ἢ πάλιν ἀνιέντες, τοῦτο σκληρὸν καὶ^v μαλακὸν ἐκάλει. οὐτῶ^{vi} καὶ ὁ Ἀριστοφάνης σημεῖα ἔθετο τῷ λόγῳ πρῶτα ταῦτα, ἴν' ἅμα συλλαβῆς καὶ λέξεως γενομένης κανὼν τις ἔποιτο καὶ σημεῖον ὀρθότητος· ἔπειτα τρίχα τεμῶν τὴν κίνησιν τῆς φωνῆς, τὸ μὲν εἰς χρόνους,^{vii} τὸ δὲ εἰς τόνους, τὸ δὲ εἰς αὐτὸ τὸ πνεῦμα, καὶ τοὺς μὲν χρόνους τοῖς ῥυθμοῖς ἤκασε,^{viii} τοὺς δὲ τόνους τοῖς τόνοις τῆς μουσικῆς,

ⁱ οὐτῶ **C**: οὐτως **B**

ⁱⁱ ἀριθμοὺς σημαιομένην **C**: ἀριθμοὺς σημαιομένων **B**; ῥυθμοὺς σημαίνουσαν Nauck (1848) 14

ⁱⁱⁱ ἐπάδοιμεν Villoison (1783) 116: ἐπάδοιμεν **BC**

^{iv} ἐπιτείνοντες Nauck (1848) 12: ἀποτείνοντες **BC**

^v καὶ **B**: τὸ δὲ **C**

^{vi} οὐτῶ **B**: κατὰ τοῦτο **C**

^{vii} χρόνους **B^{p.c.}C**: τόνους **B^{a.c.}**

^{viii} ἤκασε Schmidt, M. (1860) 212: εἴκασε **BC**

¹¹ The punctuation given in this edition is editorial, and we do not record variants pertaining only to accents, breathings or iota subscripts, except where these are significant for the sense. Prauscello (2006) 34–35, 37 also offers translations for two portions of the text – the first comprising our section a and most of b, and the

On the invention of the accents, and their shapes, and on quantities and breathings

(a) The (signs for) quantities, accents and breathings, which Aristophanes (of Byzantium) created, were devised for the purposes of disambiguating an ambiguous word, and for the singing of the whole voice and the melody, as if we were to sing along to our speaking. Now consider how each of them has naturally and suitably been shaped and named, like musical instruments, since these were in fact to be like musical instruments for speech.

(b) For he saw that music too indicates the melody and the rhythms like this, and that it slackens here and tightens there, and that it calls the first of these 'grave' and the second 'acute'. And if ever we sang by either tightening (the voice) completely or relaxing it again, it¹² called this harsh and soft. In this way Aristophanes too first established these signs for speech, so that whenever there is a syllable or word a rule and sign of correctness would follow. Then dividing the movement of the voice in three ways – into lengths, pitches and the breath itself – he both likened the lengths to the rhythms and the pitches to the pitches of music,

second comprising most of our section f.

¹² That is, music. Alternatively, Aristophanes has been understood as the subject of the verb ἐκάλει (so Prauscello (2006) 35), but cf. the active participles ἐπιτείνουσαν and ὀνομάζουσαν just above, with (feminine) μουσικήν as subject.

(c) καὶ σημεῖα ἔθετο ἐφ' ἑκάστῳ καὶ ὀνόματα, τοῖς μὲν χρόνοις τὸ βραχὺ καὶ τὸ μακρὸν ἐπονομάσας, καὶ σχήματα οἰκεῖα ποιησάμενος (τῷ μὲν μακρῷ τὴν εὐθείαν γραμμὴν καὶ ἀποτεταμένηνⁱ –, τῷⁱⁱ δὲ βραχεῖ τὴν συνεστραμμένην καὶ συνέχουσιν ὥσπερ ἐκατέρωθεν τὴν φωνήνⁱⁱⁱ ∪), τῶν δὲ τόνων τὴν μὲν ἄνω τείνουσαν καὶ εὐθείαν, καὶ εἰς ὄξυ ἀπολήγουσαν, εὐκυῖαν^{iv} τοῖς βέλεσι τοῖς ἐφιεμένοις,^v ὄξειαν ἐπονομάσας^{vi} ', τὴν δὲ^{vii} ἐναντίαν ταύτην βαρεῖαν [κάτω^{viii} φερομένην ὥσπερ ὑπὸ τινος ὀργάνου] `.

ⁱ ἀποτεταμένην **C**: ἀποτεταμμένην **B**

ⁱⁱ τῷ ... βραχεῖ **C**: τῷ ... βραχὺ **B**

ⁱⁱⁱ φωνήν **B**: φωνήν, (sic) ἐσημειώσατο **C**

^{iv} εὐκυῖαν Braune (1849) 357: οἰκεῖαν **BC**; ὁμοίαν dubitanter Nauck (1848) 15

^v ἐφιεμένοις **BC**; ἀφιεμένοις Jannaris (1897) 516

^{vi} ἐπονομάσας **B**: ἐπωνόμασε **C**

^{vii} δὲ ἐναντίαν **C**: δ' ἐναντίαν **B^{p.c.} (m.1)**: δὲ βαρ **B^{a.c.}**

^{viii} κάτω φερομένην ὥσπερ ὑπὸ τινος ὀργάνου (ὀργάνου **B^{p.c.} (m.2)**: ὀργάνον **B^{a.c.}**) del. Barker (1820) 187: om. **C**

(d) ἐπεὶ δὲ ἑώρα τὴν ἔξω τοῦ μέλους λέξιν οὐ κατὰ τὸ βαρὺ μόνον, οὐδ' ⁱⁱ ἐν τῷ ὄξει καταμένουσιν, ἀλλὰ καὶ τρίτου τινὸς δεομένην τόνου, τούτου δὴ τοῦ περισπωμένου,ⁱⁱⁱ πρότερον ταύτης^{iv} τῆς φωνῆς τὴν δύναμιν ἐσκοπεῖτο. καὶ ἐπεὶ συνέβαινε ταῖς περισπωμέναις λέξεσιν εὐθὺς ὑπ' ^v ἄρχομένην τὴν φωνήν ὄξυ τι ὑπηχεῖν, καταρρέπειν^{vi} δὲ ὡς εἰς τὸ βαρὺ, οὐδὲν ἄλλο^{vii} ἢ μίξιν καὶ κρᾶσιν ἐξ ἀμφοῖν, τοῦ τε ὄξεος^{viii} καὶ τοῦ βαρέος, ἡγησάμενος εἶναι τὸ περισπώμενον, οὕτως αὐτῷ καὶ τὸ σχῆμα ἐποίησατο <^>.^{ix} ἐφαρμοσάμενος^x γὰρ ἀλλήλαις τὰς εὐθείας ἐκατέρας, τὴν τε τοῦ ὄξεος καὶ τὴν τοῦ βαρέος, ταύτην εἶναι τὴν περισπωμένην ἔλεγεν, ὃ δὲ πῶς αὐτὴν ἐξ ἀμφοῖν τοῖν τόνοις ἐξ ὧν ἐγένετο [^]^{xi} 'ὄξυβαρεῖαν' ὀνομάζων.

ⁱ ἐπεὶ δὲ Nauck (1848) 13, 15; cf. Barker (1820) 187: ἐπειδὴ **BC**

ⁱⁱ οὐδ' ἐν τῷ ὄξει Nauck (1848) 13, 15; cf. Barker (1820) 187: οὐδ' ἐν τῷ ὄξυ **BC**; οὐδὲ τὸ ὄξυ Jannaris (1897) 516

ⁱⁱⁱ περισπωμένου **C**: περισπομένου **B**

^{iv} ταύτης scripsimus: ἑαυτῆς **BC**; αὐτῆς Nauck (1848) 13, 15

^v ὑπ' ἄρχομένην **BC**; ἄρχομένην Nauck (1848) 13, 15, sed cf. Braune (1849) 357; ἀπαρχομένην Jannaris (1897) 516

(c) and he established signs and names for each one, applying 'short' and 'long' as names for the lengths, and making suitable shapes (for the long the straight and extended line –, for the short the one that is curled up and (as it were) holds the voice in from each side ∪), and among the accents, calling the (line?) that tends upwards and is straight, and ends in a point, and resembles launched missiles, 'acute' ', and the opposite of this one [carried downwards as if by some instrument] 'grave' `.

(d) And since he saw that speech independent of song does not just stay on the low pitch, nor on the high pitch, but needs a third pitch as well, namely the circumflex, he first considered the force of this sound. And since it turned out that for perispomenon words something sounds high right at the beginning of the (vowel) sound, and then inclines downwards as towards the low pitch, considering the circumflex to be nothing other than a mixture and mingling of both accents, the acute and the grave, this is also how he made its shape: ^. For after fitting together the two straight lines, the one of the acute accent and the one of the grave, he said this was the circumflex, thus calling it *oxubareia* from the two accents it was made out of.

- ^{vi} καταρρέπειν scripsimus: κατατρέπειν **BC**
^{vii} ἄλλο Nauck (1848) 13, 15: ἄλλ' **BC**
^{viii} ὄξεος ... βαρέος **C**: ὄξεως ... βαρέως **B**
^{ix} ^ addidimus
^x ἐφορμωσάμενος Nauck (1848) 13, 15:
ἐφορμησάμενος **C**: ἐφορμωσάμενος **B**
^{xi} ^ delevimus: ^ **C**: ~ **B**

(e) ἐπεὶ δὲ ὁμοιότητα αὐτὸⁱ τὸ σχῆμα τοῦ τόνου πρὸς τῶνⁱⁱ γραμμάτων ἔμελλεν ἔξειν τὸⁱⁱⁱ Λ, δεδουκῶς μὴ τι ἄρα ἐν τῇ παραθέσει τῶν γραμμάτων παραμινύηται^{iv} τὴν^v ἀνάγνωσιν, βραχὺ τι τῶν^{vi} εὐθειῶν τὴν γωνίαν κλάσας, καὶ περιτείνας αὐτάς εἰς^{vii} ἡμικύκλιον, ἅμα τῷ σχήματι τῆς περισπωμένης καὶ τὸ^{viii} ὄνομα ἐπὶ τὸ οἰκειότερον τε καὶ εὐφωνότερον μετέβαλεν^{ix}

ⁱ αὐτὸ **C**: αὐτῷ **B**; αὐτὸ delere proposuit Nauck (1848) 15; αὐτὸ pro αὐτὸ τὸ dubitanter Schmidt, K.E.A. (1859) 596

ⁱⁱ ἐν ante τῶν γραμμάτων excidisse suspicatus est Jannaris (1897) 516; ἐν τι ante τῶν γραμμάτων excidisse suspicatus est Schmidt, K.E.A. (1859) 596

ⁱⁱⁱ τὸ **BC**; τῷ Nauck (1848) 13, 15, sed cf. Braune (1849) 357, Schmidt, K.E.A. (1859) 596 et Lentz (1867) xxxix

^{iv} παραμινύηται **BC**; παραμινύη dubitanter Nauck (1848) 15

^v τὴν ἀνάγνωσιν **BC**; ἡ ἀνάγνωσις Lentz (1867) xxxix

^{vi} τῶν εὐθειῶν τὴν γωνίαν Lentz (1867) xxxix: τὴν εὐθειῶν τῶν γωνιῶν **BC**; τὴν γωνίαν τῶν εὐθειῶν Braune (1849) 357

^{vii} εἰς dubitanter Nauck (1848) 15: ἐν **BC**

^{viii} τὸ ὄνομα Braune (1849) 357: τῷ νοήματι **BC**

^{ix} μετέβαλεν Nauck (1848) 13, 15: μετέβαλλεν **B**: μετέβαλλεν ὁ **C**

(f) ἄλλ'ⁱ ἐκάστῳ πνεύματι οὐκ ἀτέχνως οὐδ' ἀμούσως τὰ σημεῖαⁱⁱ ἐπέθετο· καθάπερ οἱ τοῖς αὐλοῖς τὰ τρήματα εὐράμενοι, ἐπιφράττειν αὐτὰ καὶ ὑπανοίγειν ὅποτε βούλοιντο κέρασι τισιν ἢ βόμβυξιν ὑφολμίοιςⁱⁱⁱ ἐπετεχνάσαντο, ἄνω τε καὶ κάτω καὶ ἔνδόν τε καὶ ἔξω στρέφοντες^{iv} ταῦτα,^v οὕτως ἰκάκεινος^{vi} ὥσπερ κέρατα τὰ σημεῖα ἐποίησατο τῷ πνεύματι, ἐν τῷ σχήματι ἐκατέρῳ σημηνάμενος [τοῦτο^{vii} δὴ τὸ ἐν ὥσπερ^{viii} αὐλῷ εὐικός], ὅπερ ἔνδόν^{ix} τε καὶ ἔξω στρέφον ἐπιφράττειν τε καὶ ὑπανοίγειν^x τὸ πνεῦμα διέταξεν.^{xi} ἐπιφράττει^{xii} μὲν γὰρ αὐτὸ καὶ ἐπέχει, ὅποτε ψιλοῦν ἐπιτάττοι,^{xiii} ἀφήσει δὲ καὶ ὑπανοίγει, ἡνίκα ἀποπνέοντες^{xiv} ἡμεῖς δασέως λέγειν ἀναγκαζόμεθα.

(e) And since this shape for the accent was likely to bear a similarity to Λ among the letters, fearing lest anything in the placing of letters side by side should mix up the reading, by bending the corner of the sides a little and stretching them round into a semicircle, along with the shape of the circumflex he also changed its name to a more suitable and better-sounding one.

(f) And he not unskilfully or unartfully assigned signs to each breathing. Just as those who invented the holes for *auloi* contrived to obstruct and open them whenever they wanted with some *kerata* or *bombūkes hypholmioi*, by turning these up and down and inwards and outwards, in this way Aristophanes too made the signs for the breath like *kerata*, providing a single shape for each [this one as if resembling an *aulos*], and by turning this inwards and outwards he set it up to obstruct and open the breath. For it obstructs and checks the breath whenever it commands us to pronounce an unaspirated sound, but it lets it out and opens its tap whenever we are made to breathe hard and speak with aspiration.

ⁱ ἄλλ' ἐκάστῳ **BC**; aut ἄλλα καὶ ἐκάστῳ legendum esse aut verba nonnulla post μετέβαλεν excidisse suspicatus est Schmidt, M. (1860) 213

ⁱⁱ σημεῖα **C**: σημεῖα ὅλα **B**; σημεῖα ὁ αὐτὸς dubitanter Nauck (1848) 15

ⁱⁱⁱ ὑφορμίοις Nauck (1848) 13, 15: ὑφορκίοις **C**: ὑφορκίοις **B**

^{iv} στρέφοντες **C**: στρέφοντας **B**

^v ταῦτα **BC**: αὐτά proposuit Nauck (1848) 15

^{vi} κάκεινος Nauck (1848) 13, 15: κάκεινοις **BC**

^{vii} τοῦτο δὴ τὸ ἐν ὡσπερ ἀλλῶ εὐικός del. Schmidt, M. (1860) 213; τοῦτο δὴ τὸ ἐν ὡσπερ αὐλοῦ ὄλω εὐικός Lentz (1867) xxxix

^{viii} ὡσπερ ἀλλῶ **BC**; ὡς κερατίῳ vel ὡσπερ ράβδῳ Schmidt, M. (1860) 213 in apparatu critico

^{ix} ἔνδον τε **B**: ἔνδον **C**

^x ὑπανοίγειν Villosion (1783) 116: ὑπανάγειν **BC**

^{xi} διέταξεν dubitanter Nauck (1848) 15: ἐδίδαξεν **BC**

^{xii} ἐπιφράττει ... ἐπέχει Nauck (1848) 13, 15: ἐπιφράττειν ... ἐπέχειν **BC**

^{xiii} ἐπιτάττοι **C**: ἐπιτάτοι **B^{p.c.}**: ἐπιττάττοι **B^{a.c.}**

^{xiv} ἀποπνέοντες scripsimus: ἐπιπνέοντες **BC**

Signs for páθη and for punctuation:

(g) ἐποιήσατο δὲ καὶ τῇ πεπονθυῖα λέξει σημεῖα, τὰ τε συναληλιμμέναⁱ ἡμῖν διακρίνοντα καὶ τὰ συγκείμενα καὶ τὰ λελυμένα, οἷον τὴν τε ἀπόστροφον νῦν καλουμένην ἐπὶ τοῖς συναληλιμμένοιςⁱⁱ τάξας, καὶ τὴν ὑποδιαστολὴν ἐπὶ τοῖς ἀπ'ⁱⁱⁱ ἀλλήλων λυομένοις, καὶ αὐτὴν^{iv} ὑποτείνουσιν εὐθεῖαν^v τὰ συγκείμενα, ἣν ὑφέν οὕτως ὀνομάζομεν, ἐπὶ τοῖς συμπεπλεγμένοις. τὰ δὲ σχήματα τούτων εἰδόσιν^{vi} οὐ γράφω.

ⁱ συναληλιμμένα **C^{p.c.}**: συναληλιμμένα **C^{a.c.}**: συναληλιμμένα **B**

ⁱⁱ συναληλιμμένοις **C**: συναληλιμμένοις **B**

ⁱⁱⁱ ἀπ' Nauck (1848) 14: ἐπ' **BC**

^{iv} αὐτὴν **BC**; αὐτὴν Lobeck (1853) 544n; τὴν dubitanter Nauck (1848) 15

^v τὴν συνάπτουσιν post εὐθεῖαν excidisse suspicatus est Lobeck (1853) 544n

^{vi} εἰδόσιν οὐ γράφω **B**: σὺν τοῖς ἄλλοις μετ' ὀλίγα γραφθήσονται **C**

(h) ἄλλα καὶ τὰς στιγμὰς σημεῖα εἶναι οὐ μόνον τῇ λέξει ἀλλὰ δὴ καὶ τῷⁱ λόγῳ διέταξεν, ἀνέσεις καὶ ἐποχὰς τῷ πνεύματι καὶ τῇ φωνῇ παρεχόμενος. καὶ χώρας αὐταῖς καὶ δυνάμεις ὀρισμένους διένειμεν,

ⁱ τῷ λόγῳ **C**: τοῦ λόγου **B**

(g) And he made signs for a word that has undergone a modification, and these distinguish for us elided words, and compounded and separate ones, for example setting up what is now called the apostrophe for elided words, and the hypodiatole for those separated from one another, and the straight line that extends under members of a compound, which we thus call the 'hyphen', for words joined together. But I refrain from drawing the shapes of these for people familiar with them.

(h) And he also set up the punctuation marks as signs not only for the word but also for the utterance, providing pauses and stopping points for the breath and the voice. And he assigned distinct places and functions to them,

(i) [Τρεῖςⁱ μὲν τὰς πρώτας καὶ κυριωτάτας μόνον νῦν λέξομεν ἐπιτομῆς χάριν· τὰ δὲ αὐτῶν μέρη ἐν τῷ περὶ περιόδων καὶ κώλων διείληπται, καὶ Νικάνοριⁱⁱ τῷ Ἑρμείου ἐν τῷ περὶ καθόλου στιγμῆς γέγραπται.]

ⁱ Τρεῖς – γέγραπται del. Nauck (1848) 14: om. **B**

ⁱⁱ Νικάνορι Villoison (1783) 116: Νικάνωρι **C**

(j) τὴνⁱ μὲν ἀπαρτίζειν ἀεὶ τὴν διάνοιαν ὑποθέμενος, τὴν στιγμὴν ἦν καὶ τίθησιν ἄνω κατὰ τὴν κεφαλὴν τοῦ στοιχείου, τὸ κῦρος ὡσπερ ἔχουσιν τοῦ λόγου, καὶ βαρύνουσιν τὴν φωνήν. τὴν δὲ ὑπὸⁱⁱ τῇ βάσει, ταύτηνⁱⁱⁱ ἦν καὶ ὑποστιγμὴν καλοῦμεν, οὐκ ἀπαρτίζειν μὲν τὴν διάνοιαν ὠρισεν, † πρόσθεν^{iv} δὲ τοῦ μέλλοντος εἰρησθαι^v ὑφιέναι μὲν^{vi} ἡρέμα τοῦ πνεύματός <τι>^{vii, viii} εἰς ὅξυ τὸ λείπον ὡσπερ^{ix} τοῦ λόγου τηροίη^x †. τὴν δὲ^{xi} μέσην καλουμένην^{xii} ἀμφοτέρων, οὐδὲ αὐτὴν^{xiii} μὲν ἀπαρτίζειν τὴν διάνοιαν ἔταξεν, ἀναπαύειν δὲ ἐν καιρῷ τὸ πνεῦμα ἐπίσης τῇ φωνῇ χρωμένων, ἐπειδὴν ἦ^{xiv} πολὺς^{xv} ὁ λόγος καὶ μακρὸς.

ⁱ τὴν μὲν ἀπαρτίζειν ἀεὶ τὴν διάνοιαν ὑποθέμενος, τὴν στιγμὴν **B**: τὴν μὲν ἀπαρτίζουσιν ἀεὶ τὴν διάνοιαν τελείαν στιγμὴν ὑπέθετο **C**

ⁱⁱ ὑπὸ **C**: ὑπὸ ὑπὸ **B**

ⁱⁱⁱ ταύτην ἦν **B**: ἦν **C**

^{iv} πρόσθεν dubitanter in apparatu critico Schmidt, M. (1860) 215: πόθεν **BC**; πρὸ vel πρότερον suspicatus est Jacobi apud Lentz (1867) xxx; pro πρόσθεν ... τηροίη Lentz (1867) xxx scripsit πρὸ δὲ τοῦ μέλλοντος εἰρησσεσθαι ὑφιέναι μὲν ἡρέμα τοῦ πνεύματός τι, ἐπιτεῖναι δ' αὐτὸ εἰς ὅξυ, τὸ λείπον ὅπως τοῦ λόγου πληροίη, consultis Sch. D. Thr. (Σ^d) 27. 32–28. 8 et (Σ^v) 178. 8–11

^v εἰρησσεσθαι ὑφιέναι **BC**; εἰρησσεσθαι, ὑφιέντος suspicatus est Jacobi

^{vi} μὲν **C**: μὲν μὲν **B**

^{vii} τι add. Lentz (1867) xxx

^{viii} nonnulla verba ante εἰς ὅξυ excidisse suspicatus est Schmidt, M. (1860) 215

^{ix} ὡσπερ **BC**; ὅπως suspicatus est Jacobi

^x τηροίη **BC**; περαίνη suspicatus est Jacobi

^{xi} δὲ om. **B**

^{xii} καλουμένην Nauck (1848) 14, 15: καλοῦμεν **BC**

^{xiii} αὐτὴν **C^{p.c.}**: αὐτῆς **C^{a.c.}**: αὐτοῖς **B**

^{xiv} ἦ Barker (1820) 190: ἦ **C**: ἦ **B**

^{xv} πολὺς ὁ λόγος **B**: ὁ λόγος πολὺς **C**

(i) [For the sake of brevity we shall mention only the three first and most important ones now. Their sub-parts have been treated in the *On periods and cola*, and have been recorded by Nicanor son of Hermeias in *On Punctuation in General*.]

(j) positing that the first one always finishes off the thought – the στιγμή which he puts at the top of the letter –, as if it has power over the utterance and brings the voice down. And he defined the one at the base, this one which we also call the ὑποστιγμή, as not finishing off the thought, † but as relaxing some of the breath gently before what is about to be said, as if it were to reserve what remains of the utterance for a high pitch †. As for the one called the middle of both, this too he did not set up to finish off the thought, but to give a rest to the breath at the critical moment for those using the voice in equal measures (i.e. for those pausing between phrases of equal length), when the utterance is copious and long.

Places in the word where the various signs can go:

(k) ὄρισε καὶ τοῖς τόνοις καὶ τοῖς πνεύμασι τεταγμένως περιπολεῖν τὴν λέξιν, τὸν μὲν ὀξὺν τόνον ἐν ἅπαντι μέρει καθαροῦ τόνου ἅπαξ ἐμφαίνεσθαι δοκιμάσας, καὶ μεμετρημένως ἐπὶ τοῦ πέρατος τῆς λέξεως,ⁱ ὁπότεⁱⁱ καὶ κυριεῦοι τοῦ ὀνόματος, ἢⁱⁱⁱ παρὰ τὸ πέρας,^{iv} ἢ τρίτον ἀπὸ τοῦ πέρατος· πόρρω γὰρ τοῦδε οὐ πρόεισιν, οὐδ' ἂν ἐπιμήκιστον εἶη τὸ ὄνομα.

ⁱ ἢ πρὸ τοῦ πέρατος post λέξεως inseruit Lentz (1867) xxx

ⁱⁱ ὁπότε – τρίτον **BC**: ἔσθ' ὅτε καὶ κυριεῦει – ἢ ἢ τρίτη dubitanter in apparatu critico Schmidt, M. (1860) 215

ⁱⁱⁱ ἢ Jannaris (1897) 516: ἢ **BC**

^{iv} post πέρας verba ἢ ἀπαρὰ deleta leguntur in **C**

(l) ὁπότε δὲ αὐτὸς ἐκσταίῃⁱ τῆς λέξεως ὁ τόνος, τηνικαῦτα περισπώμενος γίνεται. ἄμφω γὰρ ἅμα ἀδύνατον, ὅτι ἐκ τοῦ ὀξέος καὶ τοῦ βαρέος ὁ περισπώμενος, ὡσπερ εἴρηται, γέγονεν. φαίνεται δὲ καὶ οὗτος τὰ πολλὰ ἐπὶ τοῦ πέρατος,ⁱⁱ ἢⁱⁱⁱ <παρὰ^{iv} τὸ πέρας>· ἐπιπόρρω^v δ'^{vi} εὐρεῖν ἀδύνατον.

ⁱ ἐκσταίῃ τῆς λέξεως **B^{a.c.}**: ἐκσταίῃ τὴν λέξιν **B^{b.c.}** (m.1): ἐνσταίῃ τὴν λέξιν **C**

ⁱⁱ πέρατος **BC**; πέρατος ἢ πρὸ μιᾶς τοῦ τέλους Schmidt, M. (1860) 215 in apparatu critico, coll. Sch. D. Thr. (Σ') 127.28

ⁱⁱⁱ ἢ om. **C**

^{iv} παρὰ τὸ πέρας scripsimus; possis etiam πρὸ μιᾶς τοῦ πέρατος; πρὸ μιᾶς τοῦ τέλους Jannaris (1897) 516

^v ἐπιπόρρω **BC**; ἐπει πόρρω Jannaris (1897) 516

^{vi} δ' om. **B**

(m) ὁⁱ δὲ βαρὺς τόνος, ἅτε καὶ ἀπλοῦς τις ὢν καὶ μικροτέραν ἔχων δύναμιν, ἀτάκτως καὶ ἀμέτρως περίεισι τὴν λέξιν ἀπανταχῇ, καὶ πολλακί καὶ ὅπη τύχοιⁱⁱ φαινόμενος.

ⁱ ὁ om. **C**

ⁱⁱ τύχοι **C**: τύχη **B**

(n) οὕτω καὶ ἐπὶ τῶν πνευμάτων τὸ μὲν δασὺ κατὰ τὴν ἀρχὴν ἀεὶ φαίνεται, καὶ μέσον ὀλιγάκις, εἰ συγκεῖοιτο τὸ ὄνομα· τὸⁱ δὲ ψιλόν, οἷά τε ἀέριονⁱⁱ καὶ κεχυμένον ἀπεριόριστον ὄν,ⁱⁱⁱ ἀπανταχῇ. καὶ οἱ χρόνοι δὲ καὶ τὰ σημεῖα τῶν παθῶν τέτακταί πως φυσικῶς.

ⁱ τὸ om. **B**

ⁱⁱ ἀέριον Schmidt, M. (1860) 215: ἀέρεον **BC**; ἀραιόν dubitanter Schmidt, K.E.A. (1859) 597

ⁱⁱⁱ ὄν **C**: ὄν **B**

(k) And he decreed that accents and breathings should go about speech in an orderly fashion, and sanctioned the appearance of the acute accent once on every word that was intact with respect to its accent, and in a controlled manner on the final syllable of the word – whenever that was indeed the dominant syllable of the word – or next to last, or third from the end. For it will not proceed (i.e. go back) further than this, not even if the word is very long.

(l) When this accent stands aside from the word, then the accent becomes a circumflex. For both accents together is impossible, because the circumflex is made up of the acute and the grave, as has been said. And this too mostly appears on the final syllable or <the penultimate>; and it is impossible to find it further away (see section III.v).

(m) And the grave accent, insofar as it is simple and has less power, will spread itself all over the word in a disorderly and uncontrolled manner, appearing many times and wherever it happens to occur.

(n) So in the case of the breathings too the rough one always appears at the beginning, and occasionally in the middle if the word is a compound. But the smooth breathing, intangible and all over the place as it is, being unbounded, (appears) everywhere. And the lengths and the signs for modifications have been arranged more or less as is natural.

III. Circumstances of composition

For clues to the circumstances under which the *Περὶ τῆς τῶν τόνων εὐρέσεως* was composed we might consider its syntax, technical terminology and affinities with other known texts; in sections III.i–iii we take these in turn. On the basis of our text’s affinities with other known texts, in particular, we shall suggest that our author consulted a source that was in Latin. In sections III.iv and III.v we consider two further features of our text which would be well explained on the basis of a Latin source that dealt at least in part with the Latin accent: the use of *ἐπάδω* for ‘sing along to’ towards the beginning of the text and (more tentatively) a confusing point in the presentation of possible positions for the circumflex accent towards the end.

i. Syntax

The language of the *Περὶ τῆς τῶν τόνων εὐρέσεως* is reminiscent of high-register Byzantine texts. Sentences are convoluted and full of conspicuously elegant features such as: optatives,¹³ not all of them used as would be expected in Classical Greek;¹⁴ an ostentatious application of the rule that a neuter plural subject takes a singular verb (the subject consists of three co-ordinated nouns, and only the last is a neuter plural);¹⁵ a noun phrase in the dual;¹⁶ and copious instances of *μὲν ... δέ*.¹⁷ In addition, we find the following distinctly non-Classical features with parallels in Byzantine texts.

(1) The ‘learned’ use of middle forms where one would expect actives (see Böhlig (1956) 94–95; Browning (1978) 117, 120, 121):

- *ἑώρακε γὰρ καὶ τὴν μουσικὴν οὕτω τὸ μέλος καὶ τοὺς ἀριθμοὺς σημαينوμένην* (‘For he saw that music too indicates the melody and the rhythms like this’; section b);
- *καὶ σημεῖα ἔθετο ἐφ’ ἐκάστῳ καὶ ὀνόματα, τοῖς μὲν χρόνοις τὸ βραχὺ καὶ τὸ μακρὸν ἐπονομάσας, καὶ σχήματα οἰκεῖα ποιησάμενος* (‘And he established signs and names for each one, applying “short” and “long” as names for the lengths, and making suitable shapes’; section c);
- *οὕτως αὐτῷ καὶ τὸ σχῆμα ἐποιήσατο* (‘this is also how he made its shape’; section d);
- *δεδοικῶς μὴ τι ἄρα ἐν τῇ παραθέσει τῶν γραμμάτων παραμιγνύηται τὴν ἀνάγνωσιν* (‘fearing lest anything in the placing of letters side by side should mix up the reading’; section e);
- *οὕτωςι κάκεῖνος ὥσπερ κέρατα τὰ σημεῖα ἐποιήσατο τῷ πνεύματι, ἕν τι σχῆμα ἑκατέρῳ σημηνάμενος* (‘in this way he too made the signs for the breath like *kerata*, providing a single shape for each’; section f);
- *ἐποιήσατο δὲ καὶ τῇ πεπονθυῖα λέξει σημεῖα* (‘And he made signs for a word that has undergone a modification’; section g).

(2) Forms of *αὐτός* where one might expect forms of *οὗτος* (see Horrocks (2010) 128–29, 148–49, 247, 250, 295):

- *αὐτὸ τὸ σχῆμα τοῦ τόνου* (‘this shape for the accent’; section e);
- *τὴν δὲ μέσην καλουμένην ἀμφοτέρων, οὐδὲ αὐτὴν μὲν ἀπαρτίζειν τὴν διάνοιαν ἔταξεν* (‘As for the one called the middle of both, this too he did not set up to finish off the thought’; section j);

¹³ *ἐπάδοιμεν* (sections a, b); *ἔποιτο* (section b); *βούλοιντο* (section f); *ἐπιτάττοι* (section f); *τηροῖη*, but in a corrupt context (section j); *κυριεῖοι* (section k); *εἶη* (section k); *ἔκσταίη* (section l); *τύχοι* (section m); *συγκέοιτο* (section n).

¹⁴ Note *ὅποτε ψιλοῦν ἐπιτάττοι* for *ὅποταν ψιλοῦν ἐπιτάττη*, if our readings and interpretation are correct at this point (section f); *ἄν ... εἶη* for *ἄν ἦ* (section k); *ὅποτε ... ἐκσταίη* for *ὅποταν ... ἐκστῆ* (section l); *ὅπη τύχοι* for *ὅπη ἄν τύχη* (section m); *εἰ συγκέοιτο* for *ἐὰν συγκέηται* (section n).

¹⁵ *οἱ χρόνοι καὶ οἱ τόνοι καὶ τὰ πνεύματα ... γέγονε* (section a).

¹⁶ *ἀμφοῖν τοῖν τόνων* (section d).

¹⁷ See section b (four times), section c (three times), section f (once), section j (three times, as well as an apparent stand-alone *μὲν* in a corrupt context), section n (once). There is perhaps another instance spanning sections k–m, if *τὸν μὲν ὀξὺν τόνον* in section k is intended to make a pair with *ὁ δὲ βαρὺς τόνος* in section m. Section i, which we follow Nauck in deleting, also has one occurrence.

- ὁπότε δὲ αὐτός ἐκσταίῃ τῆς λέξεως ὁ τόνος (‘When this accent stands aside from the word’; section l).

(3) A form of αὐτός where one might expect a form of ὀ/ή/τό (see Sophocles (1887), *s.v.* αὐτός):

- καὶ αὐτήν ὑποτείνουσιν εὐθεῖαν (‘and the straight line that extends under’; section g).

Some instances of these features have been emended away in the past, as our critical apparatus shows, and it is impossible to be sure that all instances go back to the author of the text. Even if we could be confident that they did, none of these features could be used to pinpoint the date of the text very precisely. Nevertheless, when taken together with the author’s highly convoluted style, they are more suggestive of a highly educated Byzantine writer than of errors introduced in transmission.

ii. Technical terminology

The *Περὶ τῆς τῶν τόνων εὐρέσεως* is striking in its use of some non-standard grammatical terms, even where the concept denoted is found in other Greek grammatical texts too.

In section k, we are told that Aristophanes of Byzantium decreed that an acute accent should appear once on every word that was καθαρός τόνου. The point being made here is a standard one and can be explained as follows. Every word has exactly one κύριος τόνος, ἴδιος τόνος or κατὰ φύσιν τόνος: an ‘accent of its own’ or ‘natural accent’.¹⁸ This accent is either an acute or a circumflex,¹⁹ but, since the circumflex is considered to be made up of an acute and a grave on a single syllable,²⁰ every word can be treated as having an acute accent as its κύριος τόνος or as part of its κύριος τόνος.²¹ The κύριος τόνος is not necessarily the accent with which a word appears in an actual phrase, however, since the κύριος τόνος is subject to rules that may remove an accent or ‘put it to sleep’, shift the accent or add another one. (Thus an enclitic is considered to throw its κύριος τόνος off under some circumstances; an oxytone word normally ‘puts its accent to sleep’ before another non-enclitic word; and under some circumstances a word acquires an extra accent from a following enclitic.) If no such rule has applied, a word has its unmodified natural accent: in the words of our text it is καθαρός τόνου (‘intact with respect to its accent’). The concept of an unmodified accent is a standard one, and is often expressed using the verb ὀρθοτονεῖσθαι.²² To our knowledge, however, the word καθαρός is nowhere else used for an unmodified accent.

In section k, the accented syllable of a word is designated as the one that κυριεύει τοῦ ὀνόματος ‘dominates the word’. This phrase is reminiscent of the standard idea that every Greek word has a κύριος τόνος ‘accent of its own’, but we have been able to find no other instance of the verb κυριεύω being used in this connection.

In section l, we are told that, when the acute accent ἐκσταίῃ τῆς λέξεως (‘stands aside from the word’), the accent becomes a circumflex. The point that every word has either an acute accent or a circumflex is a standard one,²³ but the use of an expression for ‘stand aside from the word’ appears to be unique. We shall return in section III.iii.iv to the idea that an acute accent can ‘stand aside from’ or vacate a word.

¹⁸ For the terms κύριος τόνος, ἴδιος τόνος and κατὰ φύσιν τόνος, see for example (Ps.)-Dionysius Thrax, supplement *Περὶ προσφωδῶν* 110.6; Ap. Dysc. *Pron.* 35.8, 39.25.

¹⁹ See, for example, the passages cited at n. 23.

²⁰ See, for example, John Philoponus *Praecepta tonica* 21 Xenis; Sch. D. Thr. (Σ^v) (*Πορφυρίου περὶ προσφωδίας*) 136.22–23, 138.26–28.

²¹ So, for example, Sch. D. Thr. (Σ^v) (*Πορφυρίου*

περὶ προσφωδίας) 139.14–20.

²² For ‘to have its natural accent’ as a definition of ὀρθοτονεῖσθαι, see Ap. Dysc. *Pron.* 35.7–8: συμβέβηκε τῶν ἀνωνομιῶν ἃς μὲν ὀρθοτονεῖσθαι, τουτέστι τὸν κατὰ φύσιν τόνον ἔχειν ... (‘It is characteristic of the pronouns that some are orthotonic, that is to say they have their natural accent ...’).

²³ For example, Ap. Dysc. *Pron.* 60.13–14; John Philoponus *Praecepta tonica* 20 Xenis.

In sections k and l we find a rare use of the expression τὸ πέρασ to denote the final syllable of a word. In section k, the acute accent is said to fall ἐπὶ τοῦ πέρατος τῆς λέξεως ('on the end of the word'; i.e. on the final syllable) or παρὰ τὸ πέρασ ('next to the end'; i.e. on the penultimate syllable) or τρίτον ἀπὸ τοῦ πέρατος ('third from the end'; i.e. on the antepenultimate syllable). In section l, the information given on possible positions for the circumflex accent (to which we shall return in section III.v) is corrupt and confusing, but it is likely from the three-fold distinction between final, penultimate and antepenultimate syllable in section k that τὸ πέρασ denotes the final syllable of the word in section l too. In Greek grammatical texts, the usual terms for 'word-final syllable' are (τὸ) τέλος,²⁴ ἡ τελευταία (συλλαβή)²⁵ and ἡ λήγουσα (συλλαβή).²⁶ The usual terms for 'penultimate syllable' are ἡ πρὸ τέλους (συλλαβή)²⁷ and ἡ παραλήγουσα (συλλαβή),²⁸ and the usual terms for 'antepenultimate syllable' are ἡ τρίτη ἀπὸ τέλους (συλλαβή)²⁹ and ἡ προπαραλήγουσα (συλλαβή).³⁰ Occasional parallels or near parallels for our text's use of τὸ πέρασ can be found in Byzantine authors:³¹ Eustathius suggests that one of the factors allowing metrical lengthening is that the syllable is τὸ πέρασ ... λέξεως, i.e. the last one in the word (passage 1, below), and there are occasional instances of similar expressions as glosses for πτώσις in its broad Aristotelian use for any inflectional or derivational ending (for example, passage 2):³²

- (1) ἡ δὲ ἐφεξῆς PE συλλαβὴ ὁμοίως ἐκτεινομένη τριχῆ λόγῳ κοινῆς συλλαβῆς διὰ τὸ ὀξεῶς τονοῦσθαι καὶ διὰ τὸ πέρασ εἶναι λέξεως καὶ διὰ τὸ προκεῖσθαι τοῦ δέλτα ... σπονδεῖον ἀποτελεῖ.

And the next syllable PE (of φίλε ἐκυρέ, δεινός τε at Homer *Iliad* 3.172), being likewise lengthened on the principle of an anceps syllable in three ways, because it is oxytone and because it is the end of the word and because it precedes delta, ... creates a spondee. (Eustathius *In Iliadem* 399.45–400.2 = 1.629.17–20 Van der Valk)

- (2) πτώσις δὲ παρὰ Ἀριστοτέλει τὸ πέρασ τῆς λέξεως

πτώσις in Aristotle means the end of the word (Elias *In Porphyrii Isagogen et Aristotelis Categoriae commentaria* 143.19–20 Busse)

Eustathius' use may be motivated by the relevance to him of the boundary between one word and the next, and the use of πέρασ as a gloss for πτώσις is apparently motivated by a perceived similarity between the meaning of πέρασ and the literal meaning of πτώσις.³³ Yet although occasional parallels or near parallels can be found, the usage of τὸ πέρασ found in our text does not appear to have been widespread at any date.

²⁴ For example, Ps.-Arcadius 126.14 Roussou; John Philoponus *Praecepta tonica* 11 Xenis.

²⁵ For example, Ps.-Arcadius 297.7, 300.4 Roussou; John Philoponus *Praecepta tonica* 6 Xenis.

²⁶ For example, Herodian Περὶ μονήρους λέξεως 909.13–14; Ps.-Arcadius 300.3 Roussou.

²⁷ For example, Ap. Dysc. *Adv.* 203.27; Ps.-Arcadius 115.14, 124.1 Roussou. Also ἡ πρὸ μιᾶς συλλαβῆς τοῦ τέλους: Sch. D. Thr. (Σ^v) 137.8.

²⁸ For example, Ap. Dysc. *Pron.* 55.4; Ps.-Arcadius 139.20 Roussou; *Ep. Hom. alph.* ε 180.5–6. Also ἡ παρατέλευτος (συλλαβή): for example, Sch. D. Thr. (Σ^v) 137.6.

²⁹ For example, Ps.-Arcadius 156.12 Roussou; *Ep. Hom. alph.* α 271.18–19.

³⁰ For example, Ps.-Arcadius 206.1–2 Roussou; *Ep. Hom. alph.* κ 14.9. Also ἡ πρὸ δύο συλλαβῶν: Sch. D. Thr. (Σ^v) 137.6.

³¹ We are indebted to one of the journal's anonymous referees for drawing our attention to these parallels.

³² Cf. Michael Psellus *Oratoria minora* 37.154–55 Littlewood (τὰς δὲ πτώσεις ..., ἄσπερ δὴ πέρατα λέξεων ἢ συλλαβῶν ἀναλόγως ὀνομάζουσιν οἱ φιλόσοφοι, 'and the πτώσεις ..., which is what the philosophers fittingly call the ends of words or syllables'); Ps.-Michael Psellus *Philosophica minora* 1.51.156–57 Duffy (πτώσις γὰρ λέγεται τὸ πέρασ τῆς τελευταίας συλλαβῆς, 'and the end consisting(?) of the final syllable is called the πτώσις').

³³ This appears to be the thrust of Michael Psellus' ἀναλόγως ('fittingly' or 'logically') at *Oratoria minora* 37.154–55 Littlewood, quoted in n. 32.

iii. *Affinities with other known texts*

Our text has been said to derive from the tradition of commentaries on the Τέχνη γραμματική attributed to Dionysius Thrax, along with the supplement Περὶ προσφιδῶν.³⁴ For the level of interest in the history of the prosodic signs, however, a Latin text has been compared: the *De accentibus* section of a commentary on Donatus' *Ars maior* whose author goes under the name of 'Ps.-Sergius'.³⁵ Certain points of contact between our text and Ps.-Sergius could indeed be explained on the basis of a similar source. In particular, the term ὀξυβαρεῖα (or ὀξυβαρῦς) for 'circumflex' occurs only in these two texts, and Ps.-Sergius provides the best parallel for our text's point that the grave accent is naturally capable of spreading itself out over more of the word than the acute or circumflex.³⁶ However, further features of content and terminology suggest that the author of our text himself consulted a Latin source. In sections III.iii.i–v we discuss points that do not appear in Ps.-Sergius' section *De accentibus*, just mentioned, but whose best parallels again come from Latin rather than Greek sources.

i. οὐδ' ἂν ἐπιμήκιστον εἴη τὸ ὄνομα ('even if the word is very long')

In section k, our text has it that the accent cannot fall further from the end of a word than the antepenultimate syllable, 'even if the word is very long'. While this point may seem unremarkable, it is in Latin grammatical texts on the Latin accent that we otherwise find allusions to possible word length used to emphasize the limits on where the word accent can fall:

- (3) circumflexus autem, quotlibet syllabarum sit dictio, non tenebit nisi paenultimum locum.

And the circumflex – no matter how many syllables a word consists of – will only occupy the penultimate position. (Donatus *Ars maior* 609.8–9 Holtz = *GL* iv.371.5–6)

- (4) in Graecis itaque dictionibus cum acutus tria loca teneat, ultimum paenultimum antepaenultimum, ultra numquam (neque enim refert plurium syllabarum esse partem orationis), apud Latinos duo tantum loca tenet, paenultimum et antepaenultimum; circumflexus autem, quotlibet syllabarum sit dictio, non tenebit nisi paenultimum locum.

Whereas the acute occupies three places in Greek words – the final syllable, the penultimate and the antepenultimate, but never beyond that (nor does it matter if the word consists of more syllables) – for Latin speakers it occupies two places only, the penultimate and antepenultimate. And the circumflex will not occupy any place but the penultimate, no matter how many syllables the word consists of. (Diomedes *Ars*, *GL* i.431.10–14)

- (5) nam si quantarumuis sermo sit syllabarum, circumflexus non tenebit ultra nisi paeneultimum locum.

For if a word consists of any number of syllables, the circumflex will not occupy any place further back apart from the penultimate. (Ps.-Sergius *De littera, de syllaba, de pedibus, de accentibus, de distinctione*, *GL* iv.482.20–21)

- (6) circumflexus accentus in disyllabis uel in trisyllabis uel in quantouis numero syllabarum paeneultimum sibi tantum uindicat locum ...

³⁴ Schmidt, M. (1860) 211; cf. Villoison (1783) 117; Pfeiffer (1968) 179.

³⁵ For the *De accentibus* section, see Ps.-Sergius *In Donati Artem maiorem*, *GL* iv.524–33. For the comparison with our text, see Lentz (1867) xxxviii.

³⁶ Ps.-Sergius *In Donati Artem maiorem*, *GL* iv.532.12–14 Keil.

In disyllabic or trisyllabic words, or in any number of syllables, the circumflex claims for itself only the penultimate place. (Ps.-Sergius *De littera, de syllaba, de pedibus, de accentibus, de distinctione*, *GL* iv.483.11–12)

Occasional comments on possible word length are found in Greek discussions of the Greek accent, but the contexts are quite different. In passage 7 (below), Dionysius of Halicarnassus is not discussing possible positions for the accent but noting that no matter how long a word is, only one of its syllables has an acute accent.³⁷ In passage 8, and in similar discussions in Choeroboscus,³⁸ the author is not emphasizing the limits to where the word accent can fall but offering an explanation for the existence of these limits in the first place.

- (7) καὶ ταῖς μὲν δισυλλάβοις οὐδὲν τὸ διὰ μέσου χωρίον βαρύτητός τε καὶ ὀξύτητος. ταῖς δὲ πολυσυλλάβοις, ἢλίκαι ποτ' ἂν ὄσιν, ἢ τὸν ὄξυν τόνον ἔχουσα μία ἐν πολλαῖς βαρεῖαις ἔνεστιν.

Now in words of two syllables (i.e. of which one has an acute and one a grave) there is no space between the high pitch and the low pitch. But in polysyllables, however many syllables there are, the one with the high pitch is among many low-pitched ones. (Dionysius of Halicarnassus *De compositione verborum* 11.17)

- (8) ἀπορήσειε δ' ἂν τις, διὰ τί μὴ ἔστι τάσις πρὸ τριῶν συλλαβῶν. λέγομεν οὖν πρῶτον μὲν, ὅτι ἀδύνατόν ἐστιν ἑκταθῆναι τὴν φωνὴν πέραν τοῦ τοιοῦτου μέτρου, ἦτοι πρὸ τριῶν συλλαβῶν ὀξυνθῆναι· ἔπειτα οὐδὲ λέξις Ἑλληνικὴ θεματικὴ ἀπλῆ πρωτότυπος ὑπερβαίνει ποτε τὴν τρισυλλαβίαν.

And someone might ask why there is no accent more than three syllables back. We say firstly that it is impossible for the voice to be stretched out beyond this measure, that is to say to be made acute more than three syllables back. Secondly, no simplex Greek word that is a base form and underived ever exceeds the compass of three syllables. (Sch. D. Thr. (Σ^v) 137.25–29)

ii. πόρρω γὰρ τοῦδε οὐ πρόεισιν ('for it will not proceed further than this')

The sentence of section k that ends with οὐδ' ἂν ἐπιμήκιστον εἶη τὸ ὄνομα ('even if the word is very long') also begins with a striking expression, πόρρω γὰρ τοῦδε οὐ πρόεισιν ('for it will not proceed (i.e. go back) further than this'). The point that an accent cannot fall further from the end of the word than the antepenultimate syllable is widespread in Greek grammatical texts, but the best parallels for the wording πόρρω ... τοῦδε οὐ πρόεισιν, with a verb of motion and an adverb meaning 'further' or 'as far as', come from Latin grammatical texts:

- (9) et hoc plus non ascendit accentus, sed aut in finali est aut in paenultima aut in tertia a fine.

And the accent does not go up further than this, but is either on the final syllable or on the penultimate or on the third from the end. (Pompeius *Commentum artis Donati*, *GL* v.127.21)³⁹

- (10) accentus autem computantur non a prioribus syllabis, sed ab ultimis, id est retrorsum, nec possunt ascendere nisi usque ad tertiam syllabam a fine.

³⁷ In context, the notion of a syllable with an acute accent includes that of a syllable with a circumflex accent, with the circumflex considered to consist of an acute and a grave on a single vowel (*cf.* the passages cited in n. 20).

³⁸ Passage 15, below, and the passages cited in n. 40.

³⁹ This passage also contains several further instances of the verb *ascendere*. Compare also Donatus Ortigraphus, paraphrasing Pompeius in medieval Ireland (*Ars grammatica*, §*De accentu* 70–71 Chittenden): plus non ascendit accentus nec apud Grecos nec apud Latinos ('The accent does not go up further, neither for Greeks nor for Latin speakers').

And accents are calculated not from initial syllables but from final ones, that is to say backwards, nor can they go up except as far as the third syllable from the end. (Servius *Comm. in Donatum*, *GL* iv.426.20–22)

- (11) ... necesse est ut trisyllaborum rationem omnia posasyllaba sequantur, eo quod usque ad tres syllabas a fine ascendit accentus ...

It is necessary for all words of however many syllables to follow the principles of trisyllabic words, because the accent goes up as far as three syllables from the end. (Servius *Comm. in Donatum*, *GL* iv.426.38–427.1)

- (12) ab ea enim quae est a fine tertia ulterius non potest acutus ascendere.

For the acute cannot go up further beyond the syllable that is third from the end. (Audax *De Scauri et Palladii libris excerpta*, *GL* vii.359.21–22)

In Greek texts we occasionally find a different adverb meaning ‘further’, *περαιτέρω*, used without a verb of motion to convey that the accent cannot fall further from the end of the word than the antepenultimate syllable (passages 13 and 14, below). When explaining why there are limits to the distance from the end of the word where the Greek accent can fall, Choeroboscus (for example, passage 15) uses the verb *ὑπερβαίνω* in its widespread metaphorical sense ‘exceed’, both for words exceeding a certain compass and for accents exceeding or going beyond the same limits.⁴⁰

- (13) τῆς ὀξειάς μεμαθήκαμεν τρεῖς εἶναι τόπους, τόν τε ἐπὶ τῆς τελευταίας συλλαβῆς καὶ τὸν παρατέλευτον καὶ τὸν πρὸ δύο συλλαβῶν τοῦ τέλους· καὶ περαιτέρω τούτων οὐ δέδωκεν ἡμῖν ἢ φύσις, οὐδ’ ἐὰν θελήσωμεν ἐπαρκεῖ τὸ πνεῦμα.

We have learnt that there are three places for the acute accent: the one on the final syllable, the penultimate one and the one two syllables before the end. And nature has not granted to us (the placement of an accent) further (back) than these (places). (Sch. D. Thr. (Σ^d) 39.8–11)

- (14) ὥσπερ γὰρ τόνος οὐ τίθεται περαιτέρω τῶν τριῶν συλλαβῶν, οὔτε πούς μετρικὸς ὑπερβαίνει τὰς τρεῖς συλλαβάς, οὕτω οὔτε λέξις σύνθετος θέλει εἶναι περαιτέρω τῶν τριῶν λέξεων.

For just as the accent is not placed further (back) than three syllables, nor does a metrical foot go beyond three syllables, so a compound word does not tend to be beyond three words (i.e. a compound word is not usually composed of more than three simplex words). (*Etymologicum magnum* 459.9–12)

- (15) καὶ ἄξιόν ἐστι ζητῆσαι, διὰ ποίαν αἰτίαν πρὸ τριῶν συλλαβῶν οὐ τίθεται τόνος, καὶ ἔστιν εἰπεῖν τὴν αἰτίαν ταύτην· οὐδέποτε ἀπλῆ λέξις πρωτότυπος ἀκίνητος ὑπερβαίνει τὴν τρισυλλαβίαν· τούτου χάριν οὐδὲ τόνος ὑπερβαίνει τὰς τρεῖς συλλαβάς.

And it is worth investigating the reason why an accent is not placed more than three syllables back. And it is possible to give the following reason: a simplex word that is underived and uninflected never exceeds the compass of three syllables. For this reason the accent too does not go beyond three syllables. (Choeroboscus, *Th.* i.363.20–23)

⁴⁰ So also Choeroboscus *Th.* 1.363.33, 37; 386.2, 3.

The Latin texts quoted above provide the closest parallels we have found for the more striking metaphor *πρόρω ... οὐ πρόρισιν*, used when laying out basic information on possible positions of the accent.

iii. κυριεύοι τοῦ ὀνόματος ('dominates the word')

We noted in section III.ii that the phrase *κυριεύοι τοῦ ὀνόματος* (section k) appears to be a unique way of designating the accented syllable in Greek. In Latin grammatical texts, however, we find the idea that the accent 'rules the word' and the idea that the accented syllable 'has more power' than other syllables:⁴¹

- (16) Accentus est acutus uel grauis uel inflexa elatio orationis uocisue intentio uel inclinatio acuto aut inflexo sono regens uerba.

Accent is an acute, grave or circumflex elevation of speech or tension or inclination of the voice, ruling words with an acute or circumflex sound. (Diomedes *Ars*, *GL* i.430.29–30)

- (17) et quem ad modum anima nostra in toto corpore ipsa plus potest, sic etiam illa syllaba plus sonat in toto uerbo, quae accentum habet. ergo illa syllaba, quae accentum habet, plus sonat, quasi ipsa habet maiorem potestatem.

And in the way that our soul has the most power in the whole body, so too the syllable that has the accent gives the most sound in the whole word. Thus the syllable that has the accent gives more sound, as if it has greater power. (Pompeius *Commentum artis Donati*, *GL* v.126.30–33)

iv. αὐτὸς ἐκσταίη τῆς λέξεως ὁ τόνος ('this accent stands aside from the word')

In section III.ii we saw that the idea of a word that does not have an acute accent (and therefore has a circumflex) is expressed with the help of a unique use of one of the intransitive forms of ἐξίστημι: ὁπότε δὲ αὐτὸς ἐκσταίη τῆς λέξεως ὁ τόνος ('whenever this accent stands aside from the word'; section l). The idea that an accent vacates a syllable, allowing another accent to take possession, is found in the Latin tradition in Cledonius' commentary on Donatus:

- (18) ... loca quae circumflexus aut acutus dimiserit, grauis possidet ... non sibi uindicat locum, sed dimissum ab aliis possidet.

... the grave occupies the places that the circumflex or acute has abandoned... (the grave) does not claim a place for itself, but occupies the one abandoned by others. (Cledonius 37.12–13, 14–15 Bernetti = *GL* v.32.8–9, 10)

While this is the only close parallel we are aware of up to late antiquity, in the Latin tradition we find further late antique instances of the metaphor that an acute or circumflex 'occupies' or

⁴¹ Compare also the following expressions, from Sedulius Scottus in medieval Ireland: *ipsa syllaba quae accentu regitur* ('the syllable that is ruled by the accent'; *In Donati Artem maiorem* 40.5–6 Löfstedt); *in quacumque syllaba uel acutus uel circumflexus regnat* ('in whatever syllable the acute or circumflex reigns'; 41.66–67 Löfstedt); *in eadem dictione in quacumque syllaba nec acutus nec circumflexus regnat grauis ponatur* ('(that) a grave is placed on any syllable of the same word in which neither an acute nor a circumflex reigns'; 42.82–84 Löfstedt); *non solum grauis ultimam et paenultimam, sed et acutus antepaenultimam regit*

('not only does the grave rule the final and penultimate syllables (of the word *anima*), but the acute also (rules) the antepenultimate'; 42.96–98 Löfstedt); *nam in paenultima huius nominis syllaba circumflexus accentus regnat* ('For in the penultimate syllable of this word (i.e. *malesānus*) the circumflex accent reigns'; 46.25–27 Löfstedt). Compare also, with a verb of a different meaning, *interealoci*, *cuius antepaenultimam syllabam acutus fastigiatur accentus* '(the word) *interealoci*, whose antepenultimate syllable the acute accent tops' (46.31–32 Löfstedt).

‘lays claim to’ a word or syllable⁴² – a metaphor that does not appear explicitly in our Greek text but is implicit in the idea that one accent ‘stands aside’ for another. The idea that an accent may ‘abandon’ a particular syllable appears again in medieval Ireland, in Donatus Ortigraphus (passage 19, below), and was perhaps available in principle wherever the metaphor of accents ‘occupying’ syllables was familiar.

- (19) DISCIPULUS: cur accentus ascendit aliquando usque ad antepenultimam, deserens⁴³ penultimam, cum secundum regulam utramque syllabam potest habere?

PUPIL: Why does the accent sometimes go up as far as the antepenultimate syllable, abandoning the penultimate, when according to the rule either syllable can have it? (Donatus Ortigraphus *Ars grammatica*, §*De accentu* 72–74 Chittenden)

Passage 20, below, shows the closest type of parallel we have been able to find in Greek, but the context here is quite different. In a discussion of the relationship between ἄφνω, ‘unawares, suddenly’, and ἀφανῶς, ‘obscurely’, Apollonius Dyscolus has said that an adverb in -ς keeps the accent of the genitive plural of the word from which it is considered derived: hence ἀφανῶς beside ἀφανῶν, genitive plural of ἀφανής (‘obscure’). But we learn that the adverb may come to differ from the genitive plural through a change such as the loss of a vowel, and such a change prompts both the accent and the -ς to ‘depart’:

- (20) ἀποστάντος δὲ τοῦ τόνου ἦν ἔνδεκτον συναποστῆναι καὶ τὸ ς.

For with the accent departing, it was admissible for the ς to depart as well. (Ap. Dysc. *Constr.* 495.11; cf. *Constr.* 373.11–12)

In this context the use of one of the intransitive forms of ἀφίστημι (ἀποστάντος; ‘departing’) appears to be prompted by the parallel being drawn between the ‘departure’ of the accent of the base word and the departure of the final -ς. What we do not have here is the idea that an acute, circumflex or grave accent claims a word or syllable for itself, or leaves a word or syllable free for a different accent (acute, circumflex or grave) to occupy.

v. στιγμή, ὑποστιγμή, μέση

Our text operates with a system of three punctuation marks called στιγμή, ὑποστιγμή and μέση (section j). This system is the one laid out in the Τέχνη γραμματική attributed to Dionysius Thrax, but there the three marks are presented in the order στιγμή (or τελεία στιγμή), μέση, ὑποστιγμή.⁴⁴ Commentaries on the Τέχνη γραμματική provide the main further discussions of this system in the Greek tradition, and they too use the order στιγμή (or τελεία στιγμή), μέση, ὑποστιγμή.⁴⁵

⁴² *Omnis sermo necesse est ut aut acutum habeat aut circumflexum: nullus est sermo, qui sine istis sit: si non habet acutum, circumflexum habet; si non habet circumflexum, acutum habet. et grauis ubi erit, si uel ille uel ille sibi sermonem uindicat?* (‘It is necessary for every word to have either an acute or a circumflex. There is no word without these. If it does not have an acute, it has a circumflex; if it does not have a circumflex, it has an acute. And where will the grave be, if either that accent or that one claims the word for itself?’; Pompeius *Commentum artis Donati*, GL v.126.13–16); ... *non sibi specialem uindicat partem, non habet propriam* (‘(the grave accent) does not claim a special part (of the word) for itself, it does not have its own’; Pompeius

Commentum artis Donati, GL v.126.25–26); *circumflexus accentus in disyllabis uel in trisyllabis uel in quantous numero syllabarum paeneultimum sibi tantum uindicat locum*... (‘In disyllabic or trisyllabic words, or in any number of syllables, the circumflex claims for itself only the penultimate place’; Ps.-Sergius *De littera, de syllaba, de pedibus, de accentibus, de distinctione*, GL iv.483.11–12).

⁴³ Chittenden prints *deferens*, but the correction to *deserens* is incorporated into the electronic version of the *Brepols Library of Latin Texts* (<http://www.brepols.net>).

⁴⁴ (Ps.)-Dionysius Thrax Τέχνη γραμματική 7.3–7.
⁴⁵ Sch. D. Thr. (Σ^d) 24.8–25.22; (Σ^v) 176.16–177.18; (Σ^m) 312.5–32, 314.13–14; (Σ^l) 479.19–480.2.

In the Latin grammatical tradition, on the other hand, the same three punctuation marks are often presented in the order *distinctio*, *subdistinctio*, *media distinctio* (or *mora*), the Latin equivalent of the sequence στιγμαί, ὑποστιγμαί, μέση found in our text.⁴⁶ In Latin texts we also find the order *distinctio*, *media distinctio*, *subdistinctio* (corresponding to the standard Greek order),⁴⁷ and Isidore of Seville even has the reverse order *subdistinctio*, *media distinctio*, *distinctio*.⁴⁸ As far as we can discover, however, only Latin texts provide parallels for our text's στιγμαί, ὑποστιγμαί, μέση.

iv. 'Singing along to our speech'

Our text begins with a statement of the purposes for which Aristophanes of Byzantium created the signs for quantities, accents and breathings: to resolve ambiguities and convey the melody of the voice, ὡς ἐὰν ἐπάδοιμεν φθεγγόμενοι ('as if we were to sing along to our speaking').

The idea that quantities, accents and breathings are sung along to syllables is implicit in the Greek word προσωδία ('prosody'), an abstract noun derived from προσάδω ('sing to'). Occasional discussions of the connection between προσωδία and προσάδω (or ἔδω πρός) are found in Greek, in Byzantine commentaries on Aristotle's *Sophistici elenchi* and in commentaries on Dionysius Thrax.⁴⁹ But our text is unique in using the verb ἐπάδω in a discussion of prosody rather than προσάδω, although the noun προσωδία would make προσάδω the more obvious verb.

If we are right to suggest that the author of our text consulted a source that was in Latin, his use of ἐπάδω may be a further reflection of this history. Discussion of the origins and meaning of the word *accentus* plays a much more central role in the Latin grammatical tradition than discussions of the word προσωδία do in the Greek grammatical tradition. In several texts we are told that *ad-* is the equivalent of Greek προσ- and that *-centus* (from *cano*, 'sing') is the equivalent of -ωδία (from ἔδω, 'sing'),⁵⁰ a point that already focusses the attention on the component parts of each word and their meanings. Passages 21–23, below, go further in bringing out the idea that *accentus* is a melody to which syllables or speech are sung.

⁴⁶ See Diomedes *Ars*, *GL* i.437.9–439.9; Donatus *Ars maior* 612.1–7 Holtz = *GL* iv.372.14–22; Servius *Comm. in Donatum*, *GL* iv.427.36–428.4; Ps.-Sergius *De littera, de syllaba, de pedibus, de accentibus, de distinctione*, *GL* iv.484.22–30 (but the first mention of the three signs here follows the order *distinctio*, *media distinctio*, *subdistinctio*); and, from the Middle Ages, see the *Excerpta Vaticana de positura, de chria, de poemate, de versu, de accentibus*, *GL* vi.273.1–6; Julian of Toledo *Ars grammatica* II.13.1–4; Sedulius Scottus *In Donati Artem maiorem* 51.16–52.49 Löfstedt; Murethach *In Donati Artem maiorem* I.43.1–45.38 Holtz. For explicit comments on Donatus' order, see Cassiodorus *De orthographia*, *GL* vii.145.30–146.16; Sedulius Scottus *In Donati Artem maiorem* 52.50–59 Löfstedt; Murethach *In Donati Artem maiorem* I.44.12–19 Holtz.

⁴⁷ See Ps.-Sergius *In Donati Artem maiorem*, *GL* iv.533.28–534.4; Pompeius *Commentum artis Donati*, *GL* v.133.3–11; Audax *De Scauri et Palladii libris excerpta*, *GL* vii.324.12–18; Dositheus *Grammatica* 5 Bonnet = *GL* vii.380.6/7–13/17; Ps.-Victorinus *De arte grammatica*, *GL* vi.192.7–13. Cf. also Diomedes *Ars*, *GL* i.437.15–19 (where the order *distinctio*, *media distinctio*, *subdistinctio* appears briefly within a discussion that otherwise follows the order *distinctio*, *subdistinctio*, *media distinctio*).

⁴⁸ Isidore of Seville *Etymologiae* 1.20.1.

⁴⁹ See *Paraphrasis in Sophisticos elenchos* 8.16 Hayduck; [*Alexandri*] in *Sophisticos elenchos commen-*

tarium 32.22–23 Wallies; *Scholia ex Commentario I in Sophisticos elenchos extracta* 18.5–8 Ebbesen; Sch. D. Thr. (Σ¹) 454.12–13; Sch. D. Thr. (Σ^v) 136.3–4, 8–11. (Cf. also Sch. D. Thr. (Σ^v) 150.33–34, 151.8, where ὄδῆ is interpreted as 'word'.) In the partial Greek translation of his grammar of Latin, Dositheus (*Grammatica* 2 Bonnet = *GL* vii.377.7/6–7) translates *accentus quasi accentus* with προσωδία παρὰ τὸ προσάδεσθαι, but this example belongs with the Latin texts cited in n. 50.

⁵⁰ See Servius *Comm. in Donatum*, *GL* iv.426.7–9: '*accentus*' dictus est quasi *adcantus* secundum Graecos, qui προσωδίας uocant. nam apud Graecos πρός dicitur 'ad', *cantus* uero ὄδῆ uocatur ('*accentus* is called (as it were) *adcantus* following the Greeks, who call it προσωδία. For among the Greeks *ad* is πρός, and *cantus* is called ὄδῆ'); Ps.-Sergius *De littera, de syllaba, de pedibus, de accentibus, de distinctione*, *GL* iv.482.7–9: dictus autem '*accentus*' est quasi '*adcantus*' iuxta Graeci nominis interpretationem, quod '*prosodia*' dicitur Latine '*adcantus*' ('And *accentus* is called (as it were) *adcantus*, according to the meaning of the Greek word, because προσωδία is *adcantus* in Latin'); Pompeius *Commentum artis Donati*, *GL* v.125.35–126.2: *Graeci 'prosodias' dicunt accentus hac ratione: 'pros' dicunt 'ad', 'cantum' dicunt 'oden'. uerbum de uerbo Latini expresserunt, ut dicerent 'prosodias' 'accentus'* ('The Greeks call accents προσωδία on the following basis: they say πρός for *ad*, and they call *cantus* ὄδῆ. Latin speakers have rendered it literally, to that they call προσωδία *accentus*').

- (21) ‘accentus’ est dictus ab ‘accinendo’, quod sit quasi quidam cuiusque syllabae cantus. apud Graecos quoque ideo προσφῶδια dicitur, quia προσάδεται ταῖς συλλαβαῖς.

accentus comes from *accino*, which is (as it were) a certain melody for each syllable. Among the Greeks too it is called προσφῶδια because it προσάδεται ταῖς συλλαβαῖς (is sung along to the syllables). (Diomedes *Ars*, *GL* i.431.1–3)

- (22) ‘accentus’ autem est quasi ‘adcantus’ dictus, quod ad cantilenam uocis nos facit agnoscere syllabas. (Servius *De finalibus*, *GL* iv.451.10–12)

And *accentus* is called (as it were) *adcantus*, because it makes us recognize syllables to the song of the voice.

- (23) et est accentus, ut quidam putauerunt, anima uocis et seminarium musices, quod omnis modulatio ex fastigiis grauitateque componitur, ideoque accentus quasi adcantus dictus est.

And accent, as some have thought, is the soul of speech and the nursery of music, because every melody is composed of high points and low, and hence accent is called (as it were) *adcantus*. (Martianus Capella *De nuptiis* iii.268)

With the appearance of ἐπάδω in our text, the notion of ‘singing along to our speaking’ has been decoupled from the noun προσφῶδια, which does not make an appearance in this text. If we are right to suggest that the author of our text consulted a source that was in Latin, this decoupling may have happened under the influence of Latin discussions that focus on the Latin word *accentus*, from *ad-cantus*, derived from *ad-cano* or *accino*, which the author of our text rendered in Greek as ἐπάδω.

v. The circumflex ‘mostly’ occurs on the final syllable

For the last sentence of section I, on the circumflex accent, manuscript C reads φαίνεται δὲ καὶ οὗτος τὰ πολλὰ ἐπὶ τοῦ πέρατος, ἐπιτόρρω δ’ εὐρεῖν ἀδύνατον, while B has φαίνεται δὲ καὶ οὗτος τὰ πολλὰ ἐπὶ τοῦ πέρατος ἢ ἐπιτόρρω εὐρεῖν ἀδύνατον. Manuscript C’s text is the more comprehensible, but it makes a surprising statement: ‘And this too (i.e. the circumflex) mostly appears on the final syllable, and it is impossible to find it further away’. We seem to be missing the possibility that the circumflex can appear on the penultimate syllable, and some corruption has evidently occurred where the texts of the two manuscripts differ. We tentatively read φαίνεται δὲ καὶ οὗτος τὰ πολλὰ ἐπὶ τοῦ πέρατος, ἢ <παρὰ τὸ πέρας>· ἐπιτόρρω δ’ εὐρεῖν ἀδύνατον (‘And this too mostly appears on the final syllable or <the penultimate>; and it is impossible to find it further away’).⁵¹ While this statement is less surprising, τὰ πολλὰ (‘mostly’) remains peculiar. Is τὰ πολλὰ meant to modify ἐπὶ τοῦ πέρατος alone or the whole phrase ἐπὶ τοῦ πέρατος ἢ <παρὰ τὸ πέρας>? Is the idea that the circumflex ‘mostly’ falls on the final syllable (and occasionally on the penultimate) or that the circumflex mostly falls on the final or penultimate syllable (and occasionally somewhere else)? The second possibility can probably be ruled out, since the Greek circumflex only ever appears on the final or penultimate syllable: τὰ πολλὰ would be an odd way to say ‘always’. In favour of the first possibility, it can be said that the Greek circumflex does indeed appear more often on the final syllable than the penultimate, not least owing to forms of the definite article like τῆς or τῶν (in our text itself there are 103 circumflexes on final syllables and 45 on penultimate syllables) – but φαίνεται δὲ καὶ οὗτος τὰ πολλὰ ἐπὶ τοῦ πέρατος should imply that the circumflex is rather rare on penultimate syllables, which is hardly the case.

⁵¹ Our insertion is along the lines of M. Schmidt’s (1860) conjecture ἢ πρὸ μιᾶς τοῦ τέλους, but ἢ παρὰ τὸ πέρας would be in keeping with the way we take the

expression ἢ παρὰ τὸ πέρας to be used in section k (reading A.N. Jannaris’ (1897) ἢ for the manuscripts’ ἢ).

One response would be to bracket τὰ πολλά as spurious, but given the other indications of a Latin source that we have seen, another possibility may be worth contemplating. Does the expression τὰ πολλά reflect a comment in a Latin source to the effect that in Greek, unlike in Latin, the circumflex can often be found on the final syllable? Accents do not usually occur on final syllables in Latin, and Latin authors show themselves aware that Greek is different in this respect:

- (24) Graeca nomina si isdem litteris proferuntur, Graecos accentus habebunt. nam et cum dicimus ‘Thyias’, ‘Nais’, acutum habebit posterior accentum, et cum ‘Themisto’, ‘Callisto’, ultima circumflectitur; quod utrumque Latinus sermo non patitur, nisi raro ...

Greek words, if they are produced with the same letters, will have Greek accents. For example, when we say *Thyiās, Nais*, the last syllable will have an acute accent, and when (we say) *Themistō, Callistō*, the last syllable gets a circumflex – each of which is something that Latin speech does not allow, except rarely ... (Ps.-Sergius *In Donati Artem Maiorem*, *GL* iv.525.8–11)⁵²

In the *Ars Laureshamensis* from medieval Ireland, the point that accents (in this instance the acute) can fall on the final syllable in Greek is made more emphatically with the word *frequenter*: in Greek, unlike Latin, the accent ‘often’ falls on the final syllable. The author is commenting here on Donatus’ point that among Latin speakers (*apud Latinos*) the acute accent can fall on the penultimate or antepenultimate syllable but never on the final syllable:⁵³

- (25) ideo addidit ‘apud Latinos’, quia apud Graecos frequenter acutus accentus ultimum locum tenet in dictione.

He (i.e. Donatus) added ‘among Latin speakers’ because among the Greeks the acute accent often occupies the last place in the word. (*Ars Laureshamensis* 178.25–26 Löfstedt)

From some such comment, it would be a small step to our text’s claim that the Greek circumflex ‘mostly’ appears on the final syllable. This explanation of τὰ πολλά must remain tentative, but an explanation along these lines would fit well with the other evidence that the author of our text consulted a Latin source.

vi. Conclusion and further questions

The case that the author of our text consulted a Latin source rests mainly on the points laid out in sections III.iii.i–v, for which the best parallels come from Latin rather than Greek grammatical texts. But a Latin source would also help to explain the use of unusual grammatical terminology, even where there is nothing obviously latinate about the terminology itself. If our author knew the standard Greek grammatical terms relating to prosody, they were not the Greek terms he reached for to render ideas he found in a Latin text, and the process of transferring Latin terms into Greek can be envisaged particularly clearly in relation to the use of ἐπάδω for ‘sing along to’ (section III.iv). We have also suggested, albeit tentatively, that a confusing point in the presentation of possible accent positions found towards the end of our text may be due to the slightly clumsy adaptation of material from a text that dealt mainly with the Latin accent and offered some side comments about Greek.

⁵² For closely related parallel passages, see Dositheus *Grammatica* 3 Bonnet = *GL* vii.379.1/1–4/5; Ps.-Victorinus *De arte grammatica*, *GL* vi.193.14–18; Audax *De Scauri et Palladii libris excerpta*, *GL* vii.330.13–17. On the point that *Themistō* and *Callistō*

are considered to have a circumflex on the final syllable when pronounced in Latin ‘with Greek accents’, not the acute that one would expect from Greek Θεμιστώ and Καλλιστώ, see Probert (2019) 212–21, 240–42.

⁵³ Donatus *Ars maior* 609.7 Holtz = *GL* iv.371.4.

It remains to ask who consulted a Latin text in order to write about Greek prosodic signs, and when, and why. Both of the manuscripts containing our text date to the 16th century AD, which therefore provides a secure *terminus ante quem*, but this does not narrow the possibilities down very much. As we saw in section III.i, the language of our text is reminiscent of high-register Byzantine texts, and we have found no linguistic features suggestive of someone whose first language was Latin or a Romance language rather than Greek. Our text is likely then to have been produced by a Greek speaker, at a time when it was not too unusual for Greek speakers to know Latin. From this point of view, the most likely periods are either fairly early or fairly late in the Byzantine period – or after the Fall of Constantinople in 1453, when the text could have been produced by a Greek speaker who had made his way to the West.⁵⁴ This last possibility is attractive because it would help to explain why a Greek speaker resorted to a Latin text as his model for a Greek text on Greek prosodic signs.

It may be somewhat relevant that not only the copies of our text in manuscripts B and C, but their common (and presumably at least slightly earlier) source too appears to have been found in the West. In her recent study of Diassorinus, Carmen García Bueno concludes that he copied manuscript C (folios 88^r–244^r) in the Paris area around 1549–1550, while he was employed as a scriptor at the library at Fontainebleau.⁵⁵ In other words, the common source of B and C appears to have been in the Paris area around this date, even if it need not have been produced in this area. Be this as it may, the style of our text suggests to us a late rather than early date for its composition.

This conclusion does not necessarily entail that the unique information to be found in our text, on the subject of Aristophanes of Byzantium and his activities, can be dismissed out of hand as very late. Our author's Latin source must have been composed at least slightly earlier than our text itself, and could have been composed much earlier. As noted in section III.iii, our text contains some information that is otherwise found only in a late antique text known as Ps.-Sergius' commentary on Donatus' *Ars maior*. Our author may have drawn other information too from the long tradition of commentaries on Donatus, and the ultimate source of the information remains obscure.

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⁵⁴ On the Byzantine world's extensive (although never complete) loss of contact with western culture from the seventh century AD onwards, and on the gradual re-establishment of contact from the 11th century onwards, see Ciccolella (2008) 229–36.

⁵⁵ García Bueno (2017) 184, 316. For Diassorinus' activities in the Paris area, see also Cohn (1888) 140–43; Vogel and Gardthausen (1909) 152 n. 4; García Bueno (2017) 11, 125.

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⁵⁶ Keil presents *GL* iv.486–565 as a single work divided into two books ('*Explanationum in Artem Donati Liber I*' and '*Explanationum in Artem Donati Liber II*'), with the second beginning at *GL* iv.534, line 13. For the

point that two distinct works are involved, with the second beginning at *GL* iv.518, line 30, see De Paolis (2000) 191–99; Zetzl (2018) 321–22.

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