Classical Quarterly 57.2 668–686 (2007) Printed in Great Britain
doi:10.1017/S0009838807000626

FALSE QUANTITIES IN VEGETIUS AND OTHERS

In a recent study of the *Epitoma rei militaris*, I found that Vegetius' clausulae almost all belong to a small group of metrical forms and are also very restricted in the permissible caesurae and accentuation.[1] Without doubt Vegetius had a concern for quantity and the ability to write prose with metrically correct clausulae (correct, that is, by the scansion of Statius' or Juvenal's time). But the article leaves untouched the question of false quantities. It would not be surprising if even a writer like Vegetius made occasional errors; but these may be hard to identify. When we meet one of the few sentence endings that do not belong to Vegetius' regular clausulae, what should we think of it? If we were reading a classical author, Cicero for example, we might think that he had not sought a typical clausula, but had used the freedom, or preferred the variety, of an untypical ending. This may often be the explanation for Vegetius too, although like many late Latin writers, he has less interest in (or tolerance of) variety than classical writers. This does not mean that there are no instances of unclassical prosody in Vegetius; but the alternative possibility, that no typical clausula was intended, should make us cautious. We can, though, reasonably claim that Vegetius is diverging from classical prosody in some cases: if we ask in what ways the untypical clausulae differ from the typical, certain regularities emerge, which are best explained as arising from systematic errors or particular licences.

The question of false quantities in late Latin prose has not had much systematic discussion. The most important study is probably an article by L. D. Stephens,[2] which makes a number of interesting suggestions. Stephens gathers the quantity deviations from standard clausulae in a number of authors, to find at what position in a word they occur. For instance, *fĕră sūggēssit* and *mōrtī dāmnātus* (each of them one syllable away from a cretic-trochee like *nūmĕn āccēpit*) would provide instances of in the first case a pyrrhic word (⏑⏑), in the second a spondee (– –) replacing a trochee (– ⏑). He shows that some deviations are more common, occurring in all or almost all authors, some less so; and the patterns that emerge seem to fit well with linguistic expectations. Since the accent has a tendency to lengthen a syllable, deviations such as *hābet* or *cōleret* (the *false* quantities are marked) are found in all (or almost all) authors. Lengthening of unaccented syllables is not linguistically motivated and therefore rarer, so that deviations like *numinē* are rare. Still rarer are deviations like *lāpidibus* or *fērentibus*, since these go against the tendency to shorten pre-tonic syllables. Where these occur, we also find the easier shortening of final, post-tonic syllables, such as *ferrŏ*. These are interesting results (and often relevant to questions discussed below); but there are two large problems of method. First, Stephens distinguishes only whether a deviation does or does not occur in a particular author; a single instance is enough to mark the author as capable of this false quantity. But in a text of any length, some non-metrical sentence endings are sure to occur, either from the indiffer-

[1] N. Holmes, 'Metrical notes on Vegetius' *Epitoma rei militaris*', *CQ* 52 (2002), 358–73.

[2] L. D. Stephens, 'Syllable quantity in late Latin clausulae', *Phoenix* 40 (1986), 72–91. A second article, 'Remarks on accentual prose rhythm', *Helios* 15 (1988), 41–54, revisits the same arguments in combination with a discussion of Greek accentual prose rhythm.

https://doi.org/10.1017/S0009838807000626 Published online by Cambridge University Press

ence of the author or from the errors of copyists and misguided conjectures of editors;[3] and when the samples are of different sizes, longer texts are more likely to show errors. Second, Stephens acknowledges as legitimate only a few clausulae (the 'cursus' forms of unresolved cretic-trochee, double cretic and double trochee, along with one resolved form, the cretic-tribrach) and regards as deviations sentence endings with the same accentual rhythm, but different quantities. But of course even in late antiquity prose rhythm was never limited to such a small range of clausulae. Obviously not every metrical form at sentence end is intended as such (anything can be given a metrical description); and even classical clausulae such as the molossus-cretic or cretic-iamb may be the product of false scansion in later authors. Allowing for this possibility, one should also allow for the other, that unorthodox clausulae (whether found in classical authors or not) may not be deviations from more favoured forms. This can sometimes be decided by considering general usage. Stephens shows Minucius Felix with the *cursus velox* form ´××.˘˘ – × (e.g. *oracula tetigerunt*), which he regards as a deviation from either the double trochee or the cretic-trochee.[4] In fact eleven of the twelve instances are of the same form, ˘˘˘.˘˘–×, evidently a cretic-trochee with two resolutions,[5] while the twelfth, 26.7 *oracula tetigerunt,* has been plausibly emended to *orāclă tĕtĭgērunt.*[6] More seriously he treats the cretic-iamb *effici potest* as a deviation for the cretic-trochee *effici debet*, although the deviation he detects (˘× for – ×) fails to occur in the same authors' far more frequent clausulae such as *ēssĕ dēbēre* or *pōssĭt ēxērcĭtus*. I am not sure how much these problems affect Stephens' conclusions; but a new study which takes account of the actual practice of late Latin writers and bases its arguments on the frequency both of deviations and of actual clausulae would give more confidence.

This article is less ambitious; it will look at the variations that occur in one work, Vegetius' *Epitoma rei militaris*, noticing certain regular patterns that emerge. In this, I shall take account of sentence endings which differ from a favoured clausula only in the quantity of one syllable. More than one unclassical quantity may occasionally be found in a single clausula; but the analysis of such examples faces too many uncertainties. Also excluded from consideration are scansions in which the supposed false quantity should have been evident to Vegetius from the word's accentuation. Such errors must have been rare, for obvious reasons;[7] but we know from examples in verse that they can occur. The explanation is presumably either that the poets had never heard the word spoken or possibly that while writing in the artificial system of quantitative verse their ear was less sensitive to the spoken language. This would be especially likely if they heard or spoke quantitative verses with an artificial emphasis at regular intervals.

[3] It is puzzling that Stephens (n. 2), 74, offers *privatione doloris* as his example of the hexameter ending found (in his authors) only in Lactantius. I find this phrase as a sentence ending at Lact. *Inst.* 3.7.7 in the Migne edition; but here it arises from a repunctuation which in turn demands a change in wording to the transmitted text. Brandt's critical edition, *CSEL* 19 (1890), does not even mention this evidently mistaken conjecture.

[4] Stephens (n. 2), 80 and 83.

[5] The single resolutions ˘˘˘.– – × and – ˘.˘˘ – × are also common in Minucius, with twenty-eight and thirty-six instances respectively.

[6] A. Ausserer, *De clausulis Minucianis* (Innsbruck, 1906), 13, n. 2. K. Müller, 'Rhythmische Bemerkungen zu Minucius Felix', *MH* 49 (1992), 57–73 (here 65) mistakenly thinks that *velox* clausulae of the form *forsĭtăn ădōrātis* provide a parallel; cf. Holmes (n. 1), 367.

[7] Indeed in late antiquity grammarians recommend using accentuation to decide the quantity of doubtful syllables; see J. Leonhardt, *Dimensio syllabarum* (Göttingen, 1989), 27 and 34.

https://doi.org/10.1017/S0009838807000626 Published online by Cambridge University Press

To understand the problems facing late Latin writers such as Vegetius, we cannot limit ourselves to one writer, even though comparisons must be taken with the warning that any apparent difference in usage may be due to some other factor, such as the more or less heavy-handed punctuation of a text's editors. The following discussion will refer to a selection of writers: the *De Platone* and *De mundo* (700 sentence endings) belong to the late second century, if their attribution to Apuleius is correct (we shall discuss this question below); Minucius Felix (665 sentence endings) wrote most probably in the first half of the third century; Cyprian (*Demetr., Don., Eleem., Mortal., Zel.,* 694 sentence endings) and very probably Gargilius Martialis (*Med.,* 654 sentence endings) belong to the mid-third century; *Panegyrici Latini* 8–11 (456 sentence endings) belong to the last years of the third century;[8] Firmicus Maternus (*math.* 1 and *err.*, 1023 sentence endings) wrote in the second quarter of the fourth century; *Panegyrici Latini* 2 and 3 (800 sentence endings) were written in A.D. 389 and 362; Vegetius' *Epitoma* has 1261 sentence endings; Paulinus of Nola (*Epist.* 1–17, 667 sentence endings) belongs to the last years of the fourth century; Petrus Chrysologus (*Serm.* 1–12, 649 sentence endings) belongs to the second quarter of the fifth century; Ennodius (*Epist.* 2, 1–4, 15, with 761 sentence endings) belongs to the end of the fifth century; Cassiodorus (*Var*. prol.–2, 27, with 958 sentence endings) belongs to the early sixth century. In these, as in Vegetius, all endings before punctuation higher than a comma (that is, before : ; . ? !) are included, except when a colon is followed by a direct quotation.[9] Occasionally I also give figures for the anonymous *De machinis bellicis*, like Vegetius attributed to the late fourth or early fifth century. Its thematic similarity to Vegetius makes the text interesting; but it provides too few clausulae (159) to be useful for many questions. Note that in this article, discussions of the various writers only refer to the works mentioned here. For Vegetius, the text used is that of Önnerfors' edition.[10] In several cases, the more recent edition of Reeve[11] chooses readings which would give different figures; as far as is practical I have noted such differences.

I. *SCHEINPROSODIE*

Axelson, in a study of the *De Platone* and *De mundo* attributed to Apuleius, found that these showed a tendency to allow the final syllable of the penultimate word to count as short, providing that the syllable was only long by nature, not by position.[12] So in the clausulae of the *De Platone* (including internal clausulae) a final word of molossus form is preceded by a word ending in either a spondee (*meatu censetur*) or an anapaest (*iudicio cognosci*) nineteen times, of which only one includes a penultimate word that is also long by position (*Plat.* 1.14 p. 209 *possunt sentire*). This

[8] The *Panegyrici Latini* are the work of various authors. While it is convenient to gather them in groups, to illustrate the usage of a particular time and place, it should not be supposed that they all have the same metrical practice.

[9] In such cases some writers have a metrical clausula at this point, while others sometimes make a rhythmically marked break shortly before the introduction of the quotation. See e.g. A. G. Elg, *In Faustum Reiensem Studia* (Uppsala, 1937), 59, n. 2. The direct quotations themselves are obviously excluded from the figures.

[10] A. Önnerfors (ed.), *Vegetius, Epitoma rei militaris* (Stuttgart–Leipzig, 1995).

[11] M. D. Reeve (ed.), *Vegetius, Epitoma rei militaris* (Oxford, 2004).

[12] B. Axelson, 'Akzentuierender Klauselrhythmus bei Apuleius. Bemerkungen zu den Schriften "De Platone" und "De mundo" ', *Vetenskaps-Societeten i Lund, Årsbok 1952,* 3–20, reprinted in A. Önnerfors and C. Schaar (edd.), *Kleine Schriften* (Lund, 1987), 232–45; see esp. 237–9.

https://doi.org/10.1017/S0009838807000626 Published online by Cambridge University Press

differentiation between syllables which are long by nature (and can treated as short) and syllables which are long by position (and must be treated as long) had been called by W. Meyer 'Scheinprosodie'[13]. Meyer found it in Vegetius and Sedulius, Ziegler in Firmicus, Harmon in Ammianus.[14] For Axelson, this *Scheinprosodie* in the *De Platone* and the *De mundo* strongly suggested that like these 'Spätlingen' they belonged to a much later period, since he believed that it could not be found (or at least played no significant role) in the *cursus mixtus* of the third century. Axelson was not convinced by his own arguments, but considered it a problem that needed answering before the authenticity of the works could be accepted.[15]

In what follows we shall look at the same phenomenon in Vegetius; the opposite pattern, in which the natural quantity of syllables is respected but length by position is ignored, can be found in the grammarians Sacerdos and Diomedes. Diomedes explicitly states this as a principle in prose rhythm (Diom. *Gramm.* 1.468. 30ff.) and frequently, but not consistently, chooses his examples as though position did not count.[16] Sacerdos likewise has numerous examples of clausulae described with deliberate neglect of position.[17] I have found no evidence of this tendency to neglect the effects of position in the writers studied for this article or elsewhere. Possibly it is a prejudice of grammarians: as the teaching of quantity was part of their expertise, some may have tended to devalue an element of the system that needed no teaching.

(a). Long becomes short

The following table gives instances of clausulae which differ from the clausulae that Vegetius favoured only in having the last syllable of the penultimate word long instead of short (e.g. *victos accepit* instead of *parte tractetur*). The figures are divided according to whether this syllable is long by nature (e.g. *dextro confligere*) or by position (e.g. *exhibebant industriam*). I have left out clausulae where a syllable long by position could not easily have occurred.[18] Even so almost always the syllable in question is long by nature.

The predominance of syllables long by nature makes it clear that something like Meyer's *Scheinprosodie* was an influence on Vegetius' clausulae; but its importance

[13] W. Meyer, 'Die Rythmische Lateinische Prosa' (review of Havet) in *Göttingische gelehrte Anzeigen* 1893 no. 1, repr. in W. Meyer, *Abhandlungen zur mittellateinischen Rythmik*, vol. 2 (1905), 264–5.

[14] K. Ziegler (ed.), *Iuli Firmici Materni v. c. de errore profanarum religionum* (Leipzig, 1907), 25–6; A. M. Harmon, 'The clausula in Ammianus', *Transactions of the Connecticut Academy of Arts and Sciences* 16 (1910), 119–245, here 187–97.

[15] See Axelson, *Kleine Schriften* (n. 12), 244, 'Wenigstens bis auf weiteres neige ich allerdings . . . entschieden der Auffassung zu, dass die Schriften De Platone und De mundo wirklich aus der Feder des Apuleius stammen, ganz klar liegen die Dinge aber nicht.'

[16] So for example at Diom. *Gramm.* 1.469, 16f. *archipirata* and *parricidarum* are given as examples of anapaest + trochee. On Diomedes' inconsistency, see R. Dammer, *Diomedes Grammaticus* (Trier, 2001), 295 (and cf. 63ff. on Diomedes' own use of clausulae).

[17] E.g. *Gramm.* 6.494, 23f. *antispastus et molossus 'coheredem detraxit'*, 494, 28f. *dactylus et ditrochaeus 'hostibus temperare'*; again there is no consistency, as position is allowed at e.g. 494, 26 *choriambus et hippius primus 'condidimus sepultura'*, 495, 1 *hippius tertius et hippius secundus 'dilexerant Caepiones'*. Neglect of position is a particularly common feature of Sacerdos' verse examples, although he also has many prosody errors of other kinds; see Keil's introduction, *Gramm.* 6.423.

[18] They are 1.16.4 *fundisque pellendi sint*; 1.20.4 *saepe deleti sunt*; 1.24.1 *levati sunt caespites*; 2.7.3 *ordinariis iuncti sunt*; 3.6.21 *formidandae sunt copiae;* 3.9.18 *ducendi sunt pugnam*; 4.44.3 *muniti sint milites.*

https://doi.org/10.1017/S0009838807000626 Published online by Cambridge University Press

TABLE 1. Final syllables in *Scheinprosodie* clausulae

		Length of final syllable of penultimate word	
		Nature	Position
⏑⏑–.– – ×	*fieri consuevit*[a]	7	1
– –.– – ×	*victos accepit*	7	0
– – .⏑⏑–×	*campo voluerunt*	4	0
– –.–⏑⏑×	*sagittae pervenient*	2	0
– –.– – ⏑×	*dextro confligere*	6	3
total		26	4

[a]It should be noted that three of the eight instances of this scansion involve exactly these words (3.19.4, 3.20.28, 3.22.13). On the scansion of *consuevit* cf. n. 20.

should not be exaggerated. First, there are very few instances of the unclassical scansion. In total 'Scheinprosodie' clausulae are very rare in comparison to their classical counterparts (see below, Section c). Even these twenty-six are not all certain, since for some there are manuscript variants, which would give favoured clausulae with orthodox scansion and should perhaps be preferred.[19] Second, the phenomenon of a syllable long by nature standing in for a short syllable seems to belong particularly to the end of words. Admittedly few of the clausulae that Vegetius favours include a short syllable at other positions, where a long syllable would not either produce a different, equally acceptable clausula or change the accentuation and so be an easily avoidable error (cf. n. 7). The only two such clausulae are *nŭmĕrŭs ādscrībi* (fourteen instances) and *Romānă vălūisset* (thirty-nine instances). For the first there are five instances of clausulae which differ by having a long first syllable. In only one of these is the relevant syllable long by nature alone (3.1.3 *quaeritur armorum*); but it should be noted that some at least of the remaining four may be questioned.[20] There are no instances of clausulae like *esse cōgitamus* taking the place of *esse videatur*.[21] Önnerfors does have two instances of the scansion *atque recēdendi* (1.3.1 and 3.14.7), in both of which the relevant syllable is long by nature alone; but the first of these is a variant, *sit tiro requiramus* (*tiro sit* var. l.) which for stemmatic reasons alone should

[19] See particularly Holmes (n. 1), 368, n. 58.

[20] At 3.11.7 *marcidus adventat* in Önnerfors' text should be regarded as a manuscript conjecture; the reading *anhelus adventat* is defended by M. D. Reeve, 'Editorial opportunities and obligations', *RFIC* 123 (1995), 477–99, here 492–3. The remaining three instances all have a form of *consuesco* as final word: 2.25.1 *vincere consuevit*; 3.12.6 *agnoscere consuescant*; 4.29.4 *inrumpere consuerunt* (*consueverunt* var. l.). It is probable that Vegetius would have scanned *–sue–* as one syllable, since this is the typical scansion for *suesco* and its compounds in Augustan and post-Augustan poets, and since it gives a far better clausula for the frequent sentence and clause endings in which the word follows a trochee, e.g. 1.11.1 *habere consuevit*, 2.2.3 *militare consuerunt*, 2.24.1 *augere consuevit*.

[21] Vegetius avoids sequences of three trochees; Önnerfors has nine instances in his edition, none of which should be attributed to Vegetius: see Holmes (n. 1), 370–1.

[22] See Reeve (n. 20), 493.

[23] The special status of final quantities is confirmed by the different way that Vegetius treats final and initial long syllables in cretic–trochees like *praeparēt bellum* and *esse nūdatos* (see Section b).

[24] Leonhardt (n. 7), 30–1 argues that grammarians' special discussions of final syllables were motivated partly by the ease of systematic treatment of the scansion of this part of the word, partly by the strong tendency to shortening of final syllables.

https://doi.org/10.1017/S0009838807000626 Published online by Cambridge University Press

not have been preferred.[22] The rarity of *Scheinprosodie* and its restriction to final syllables[23] make it unlikely that this is a licence that Vegetius allowed himself; more probably his ear for quantity occasionally failed him. This kind of error may seem strange to us. The typical twenty-first-century Latin scholar has in general a far weaker grasp of scansion than Vegetius; but we all know whether the final syllable of a word should be short or long. Our errors are more likely to come earlier in the word, where the quantities belong to the particular word, not to the declension or conjugation, and need to be learnt individually. Of course Vegetius must have known the length of final syllables very well (otherwise these errors would have been more frequent); but they were not, it seems, a linguistic reality.[24]

(b). Long stays long

If Vegetius' ear for quantity was liable to fail him with final syllables, the same may have been true for his readers. This would cause problems with clausulae which demand a long syllable at word end (e.g. cretic-trochee *militi restat*, double cretic *milites audiunt,* double trochee *hosti refertur*). Vegetius avoids this danger by only allowing syllables long by position at word end in such clausulae, the exact reverse of his practice in the 'Scheinprosodie' clausulae discussed above.[25] The figures for favoured clausulae which make use of a penultimate word ending in a long syllable are given in table 2. We might in any case expect length by position to be more frequent, since the group also includes syllables long by both nature and position; but Vegetius' almost complete avoidance of final syllables long by nature alone can hardly be coincidence. I give figures from a sample of Seneca's and Florus' clausulae, where uncertainties of scansion should not play a role, for comparison.[26]

Table 2. Final syllables in classical clausulae

		Length of final syllable of penultimate word					
		in Vegetius		in Seneca		in Florus	
		p	n	p	n	p	n
–⏑–.–×	*praeparet bellum*	75	2	45	18	12	6
–⏑–.⏑⏑×	*impetum faciunt*	26	1	12	6	6	8
–⏑–.–⏑×	*postmodum corrigi*	24	1	22	6	4	3
– –.⏑–×	*inceptum revertor*	10	2	11	14	13	10
⏑⏑–.⏑–×	*homines regebat*	2	1	7	3	4	0
–⏑–.⏑×	*plurimum valet*	31	1	18	9	6	1
total		168	8	115	54	45	23

[25] Harmon (n. 14), 193–5, found the same tendency to use syllables long by position rather than by nature alone in Ammianus.

[26] The Senecan clausulae come from Sen. *Dial.* 1–2 and 8–10, those of Florus from the beginning of the *Epitome* (up to the end of Book 1, ch. 35). Only complete penultimate words are included; metrical words such as *nōn ĕrūnt* or *nōtă sūnt* are excluded, the latter because they are almost guaranteed to be long by position and because the monosyllable is a special case (see Section II below), the former because such metrical words are rare in Vegetius, making it difficult to compare like with like. This restriction accounts for most of the differences between the figures

https://doi.org/10.1017/S0009838807000626 Published online by Cambridge University Press

The table above shows that for Vegetius (or for his readers) a long vowel was not sufficient to decide the quantity of a final syllable. Does this also apply to words with *–que* attached? The evidence is less clear for this. There are twenty-four instances of clausulae where the last syllable of the word before *–que* is long by position (e.g. 4.26.2 *murosque conscendunt*) against six where the syllable is long by nature alone (e.g. 1.1.2 *usuque militiae*).[27] Again length by position predominates, but less strongly, even though *–que* necessarily limits the range of syllables that can be long by nature alone. It may be that the tendency of *–que* to lengthen the previous syllable in late Latin makes syllables long by nature more acceptable;[28] but the evidence from Vegetius alone is perhaps too weak for any confident conclusion here.

So far we have not considered clausulae such as *desides vindicare* (cretic + double trochee). The reason for this omission is that all clausulae of this accentual form (*cursus velox*) are legitimate in Vegetius, so that any proparoxytone word is acceptable, whether the final syllable is long or short.[29] We should not then expect the same strong preference for syllables long by position that clausulae such as those in table 2 show.[30] The following table (which includes clausulae from Books 1 and 2 only) seems to fit this expectation.

TABLE 3. Final syllable in *cursus velox* clausulae

	final word			
	–⏑–×	⏑– – ×	– – – ×	⏑⏑–×
penultimate word	p: n	p: n	p: n	p: n
–⏑–	18: 8	3: 3	5: 1	5: 1
⏑⏑–	7: 5	4:3	2:1	2:1

given here and in Holmes (n. 1), 365–6; but there are also some errors in the earlier figures. Most seriously, by an addition error the cretic-iamb is shown as occurring 42 times instead of the correct 32. The figure 76 for cretic–trochees of the form *strenuos nasci* should be 79, the figure 27 for the resolved form *impares fuimus* should be 29 (I had missed four sentence endings). There are other errors, which do not affect this table. I had missed the sentence ending 1.6.5 *magnopere desideres* (resolved double cretic). I had made at least two errors of scansion. At 3.9.11 *temere pugnantes,* I scanned *temere* as an anapaest (an error shared with some dictionaries): it is a tribrach, as E. Wölfflin showed, 'Temere', *ALL* 4 (1887), 51; id. 'Die alten und die neuen Aufgaben des Thesaurus', *ALL* 9 (1896), 3–16 (on this point p. 8); id. 'Temere ein Tribrachys', *ALL* 10 (1898), 138. At 1.14.2 *dirigat missile,* I scanned *missile* as if the middle *i* were long; it is short, so that the clausula is a typical double cretic.

[27] The others are 1.15.3 *exercitioque servari*; 3.3.1 *frumentique dicatur* (but *frumentisque* is a well-attested and plausible variant); 3.4.1 *delicateque vixerunt*; 4.26.4 *latratuque testentur*; 4.42.1 *motuque vegetatur*. I leave aside as ambiguous 4.24.1 *ibīquĕ* (or *ĭbīquĕ*?) *conduntur*.

[28] Holmes (n. 1), 364–5.

[29] See Holmes (n. 1), 367.

[30] For this reason, when O. Zwierlein, 'Augustins quantitierender Klauselrhythmus', *ZPE* 138 (2002), 43–70, at 51–2 (repr. in R. Jakobi, R. Junge and C. Schmitz [edd.], *Lucubrationes Philologae* [Berlin, 2004], 2.467–508, at 480–1), investigated whether Augustine distinguished length by position and by nature, the particular clausulae that he chose, cretic-trochees with word division after the first long syllable, such as *valeant refutare*, were not likely to give significant results. His findings, that Augustine handles 'in gleicher Weise naturlange und positionslange Silben' and that therefore he did not write *cursus mixtus,* are both not justified.

https://doi.org/10.1017/S0009838807000626 Published online by Cambridge University Press

Since Vegetius does not seem prone to the error of treating long syllables other than the final syllable as short (see above, Section a), we may expect that his concern to use position to give length to a syllable that he intended to be long would also be restricted to the final syllable. Looking at the first syllable of the final word in book one we find for the cretic-trochee (*vidēntŭr ēxpōnit*) 46 position: 14 nature, for the resolved cretic-trochee (*defendūntŭr ēnŭmĕrat*) 9 position: 5 nature, for the double cretic (*pōssĭt ēxērcĭtus*) 22 position: 4 nature, giving a total of 77 position to 23 nature, far less imbalanced than the proportions for final syllables in table two.[31]

TABLE 4. *Scheinprosodie* and classical clausulae.

	Apul.	Firm.	Veg.	Anon. *De mach. bell.*	Ennod.	Cassiod.
classical *Scheinprosodie*						
–⏑.– – ×	66	255	340	24	212	253
– –.– – ×	*9*	*6*	*7*	*7*	*11*	*1*
–⏑.–⏑⏑×	13	115	76	8	123	79
– –.–⏑⏑×	*7*	*11*	*4*	*3*	*5*	*7*
–⏑.⏑⏑–×	24	39	35	10	34	44
– –.⏑⏑–×	*15*	*3*	*2*	*1*	*0*	*0*
⏑⏑⏑. – – ×	15	15	12	0	0	0
⏑⏑–.– – ×	*10*	*7*	*7*	*0*	*0*	*0*
⏑⏑⏑.–⏑⏑×	0	3	0	0	2	0
⏑⏑–.–⏑⏑×	*0*	*2*	*0*	*0*	*0*	*0*
⏑⏑⏑.⏑⏑–×[a]	1	0	4	1	0	10
⏑⏑–.⏑⏑–×	*0*	*0*	*0*	*0*	*0*	*0*
–⏑.– –⏑×	27	120	150	17	114	114
– –.– –⏑×	*9*	*7*	*6*	*3*	*3*	*9*
⏑⏑⏑. – –⏑×	7	6	2	0	0	0
⏑⏑–.– –⏑×	*7*	*1*	*0*	*0*	*0*	*0*
total classical	153	553	619	60	485	500
total Scheinprosodie	*57*	*37*	*26*	*14*	*19*	*17*

[a]This clausula might in later writers (Vegetius, the anonymous and Cassiodorus) be simply an example of the *cursus velox* clausula, in which the quantities of the final syllable of the penultimate word would be indifferent.

[31] Harmon (n. 14), 193–4 does find a strong preference for length by position in these syllables in Ammianus.

https://doi.org/10.1017/S0009838807000626 Published online by Cambridge University Press

(c). Other writers

As mentioned above, the same use of naturally long syllables has been found in other authors. Two questions are worth asking here. It would be interesting to know just how great a role 'Scheinprosodie' plays, and secondly whether this use brought with it the Vegetian tendency to rely, where the clausula demanded a word with a long final syllable, on syllables long by position, avoiding those long by nature alone. In my sample, the following writers resembled Vegetius in showing a predominance of naturally long syllables at the end of the penultimate word where the clausula expects a short syllable: Apul. *Plat.* and *mund.* 58 nature: 16 position; Firmicus Maternus 37: 6; Anon. *De mach. bell.* 14: 1;[32] Ennodius 19.1; Cassiodorus 17.1. The figures for Apuleius show a less striking predominance of naturally long syllables than those for the other authors, less striking too than one might expect from Axelson's investigation of – –.– – × clausulae (see Section a); this is in part due to the unresolved molossus-cretic, where the proportion is of nine nature to five position, so that one may suspect that this was at least a tolerated clausula for Apuleius.[33] Table 4 compares the frequency of clausulae correct by classical scansion with that of their *Scheinprosodie* counterparts.

Two points emerge from this table. First, even among those writers who unquestionably did sometimes treat as short a naturally long final syllable, some do so more than others: Vegetius has a relatively strict scansion, with about twenty-four classical to one *Scheinprosodie* clausula; Ennodius (26: 1) and Cassiodorus (29: 1) are even stricter; Firmicus Maternus slightly less so (15: 1); the *de mundo* and *de Platone* (3: 1) and the *De mach. bell.* (4: 1) seem almost indifferent to the natural quantity of the final syllable. Second, it seems that some clausulae are more susceptible to false quantities than others. In Apuleius, Firmicus and Vegetius, the only writers in our table to make use of clausulae like *nŭmĕrŭs ādscrībi* (with resolution of the first long), we can see that such clausulae seem particularly liable to false quantities; that is, a word ending in an anapaest can apparently stand in for a tribrach more easily than a spondee can stand in for a trochee. In Apuleius, Firmicus, Vegetius and Cassiodorus, the cretic-trochee clausula *vidēntŭr ēxpōnit* is the least susceptible. This is stranger than the first difference, since the metrical and accentual shape of the penultimate word is the same as in other clausulae with a higher frequency of false quantities. If this is not due to coincidence, it might be that writers were particularly on their guard with this clausula; but its frequency would have made this difficult. Alternatively, the greater rhythmic complexity of the other clausulae might have distracted the ear. Whatever the reason, these differences have consequences for the degree of suspicion with which we should regard various *Scheinprosodie* clausulae.

[32] The single instance where the relevant syllable is long by position may be corrupt; at 5.8 *non deerunt matura et parata in primis subsidia*, Thompson deleted *in primis* (the first words of the following sentence), giving a typical resolved cretic-trochee.

[33] Three clausulae with a syllable long by position are due to editorial decisions. At *Plat.* 1.3 p. 186 (Plato) *ad Indos . . . intendisset animum, nisi tunc eum bella vetuissent Asiatica. quapropter inventa Parmenidae . . . exsecutus* eqs., *Asiatica* is a conjecture for *caletica.* Those who punctuate after *vetuissent* and emend to *dialectica* or *eleatica* improve the rhythm and give a more typical position to *quapropter;* see J. Redfors, *Echtheitskritische Untersuchung der apuleischen Schriften De Platone und De mundo* (Lund, 1960), 42, n. 27. At *Mund.* 6 p. 299 *Aegaeum et Myrtoum sunt maria,* most manuscripts have *regea myrtoa* or *regeti myrtoa.* Moreschini's choice is found in one non-authoritative manuscript, as is the reading preferred by other editors, *Aegea et Myrtoa*; but the latter is closer to the paradosis. At *Mund.* 18 p. 331 *itineribus progreditur,* only one manuscript has *progreditur* and some editors regard this as a conjectural supplement for a lacuna.

https://doi.org/10.1017/S0009838807000626 Published online by Cambridge University Press

TABLE 5. Length by position and nature in classical clausulae

Authors	Apul.		Min.		Cypr.		Firm.		Anon.		Ennod.[a]		Cassiod.	
	p	n	p	n	p	n	p	n	p	n	p	n	p	n
–⏑–.–×	40	2	14	3	18	1	57	0	6	0	2	0	4	0
–⏑–.⏑⏑×	11	1	5	1	9	2	17	1	1	0	0	0	0	0
–⏑–.–⏑×	11	4	26	2	13	6	35	0	0	0	0	0	1	0
– –.⏑–×	26	2	10	0	9	0	6	1	2	0	1	0	6	0
⏑⏑–.⏑–×	0	0	1	0	0	0	0	0	0	0	0	0	2	0
–⏑–.⏑×	1	1	1	0	1	2	4	0	2	0	3	0	11	0
total	89	10	57	6	50	11	119	2	11	0	6	0	24	0

[a]Since the sample for Ennodius (761 clausulae) is considerably larger than that for the anonymous *de machinis bellicis* (155 clausulae), the rarity of Ennodian clausulae that demand a penultimate word ending in a long syllable (whether by position or nature) is likely to be significant. Such clausulae, except for the hypodochmiac, are likewise rare in Cassiodorus. Possible reasons for this are discussed in Section IV.

If we now look at those final syllables which were meant to be long, we find that, as with Vegetius, those writers with a tendency to allow naturally long syllables to count as short also rely on position to guarantee the length of a final syllable, where the clausula demands. So do at least some of those who show no evident tendency to allow false quantities in the final syllable;[34] this is what we should expect if the tendency was due to writers' distrust of what readers might make of a clausula.

Since some prose authors rely on length by position in final syllables and avoid using final syllables that are long by nature alone, we might expect to find the same phenomenon in poetry. But the effect of lengthening at the beginning of the foot, which is very prominent in late Latin dactylic hexameters, is likely to obscure any such tendency: since even naturally short syllables are occasionally lengthened in this part of the foot, we should not be surprised if naturally long syllables can preserve their quantity here. Significant differences, if they exist, are more likely to be visible in the second part of the foot. Unfortunately words of more than one syllable[35] almost always end in the first part of the foot in dactylic hexameters; but occasionally such words do end in the second part of the fourth, and more rarely the first foot. The following table gives figures for the frequency of words of more than one syllable ending in a long syllable at the end of the fourth foot, by nature (e.g. *unus erat toto naturae vultus in orbe*) or position (e.g. *nullus adhuc mundo praebebat lumina Titan*). The figures come in each case from the first five hundred lines of the various poems.

It seems clear that at least some late Latin poets were uncomfortable with length established only by nature. For most the tendency is not especially strong and might be due to other factors, such as the preference for particular arrangements of syntax

[34] Table 5 includes only those authors in which the difference from the proportion of position and nature found in classical clausulae is clear (compare table 2); writers with only slightly more frequent position clausulae than in classical prose are excluded, e.g. Gargilius Martialis with a total of 85 position to 35 nature. The *Panegyrici*, which I had grouped chronologically, do not on the whole show any aversion to allowing naturally long syllables to count as long; but *Paneg.* 3 has for the relevant clausulae 34 position to 4 nature, and would have been included in the table, if I had not been counting it within a group with *Paneg.* 2.

[35] Monosyllables have no difficulty keeping their quantity (cf. Section II below).

https://doi.org/10.1017/S0009838807000626 Published online by Cambridge University Press

TABLE 6. Final syllables at the end of the fourth foot of the hexameter

Work	position	nature	n/(n+p)
Verg. *Aen.* 1	39	27	41.0%
Ov. *Met.* 1	39	22	36.0%
Lucan. 1	57	38	40.0%
Sil. 1	66	35	34.7%
Iuvenc. 1	64	16	20.0%
Prud. *Ham.*	59	19	24.4%
Cypr. Gall. *Gen.*	134	6	4.5%
Sidon. *Carm.* 2	66	15	18.5%

within a line. Cyprianus Gallus however does seem to show a strong dislike (a point which, if confirmed, might be of relevance for textual criticism).[36]

The shortening of syllables seems to be restricted to the final syllable in Vegetius (see Section a); but by the end of the fifth century, and probably earlier, this limitation has disappeared. Petrus Chrysologus, Ennodius and Cassiodorus all have several instances of triple trochees with word division after the first trochee, such as *erūmpĭt āmŏvēri*.[37] Triple trochees are avoided by most, if not all, authors; and the relatively high frequency here raises the suspicion that we are dealing with attempts at a resolved cretic-trochee of the form *ēssĕ vĭdĕātur*. This suspicion seems confirmed when we look at the first syllable of the double-trochaic final word; in Petrus Chrysologus six out of eight, in Ennodius fourteen out of fifteen, [38] in Cassiodorus all thirteen instances are long by nature alone. This gives far more syllables long by nature than we should expect by coincidence; if we look at the first syllable of the double trochee in the normal form, where it follows a proparoxytone word (e.g. *exercitiis imbuendi*), we find that of the first twenty-five such clausulae in Vegetius, sixteen are long by position and nine by nature.[39] In Cassiodorus I also found nine

[36] The figures in table six include Cypr. Gall. *Gen.* 420 *sit laeto grandior actu,* a text which Peiper in his edition and J. E .B. Mayor, *The Latin Heptateuch* (London, 1889), 19, conjectured for *sit* (or *poscit* or *fit*) *laetus* (or *laetos*) *et g.* of the manuscripts; one could for instance write [*sit*] *laeto sit grandior actu,* without showing less respect for the transmitted readings. Several of Mayor's conjectures introduce word endings with naturally long syllables in this position, e.g. (p. 19) *gen.* 423 *sacratas excitat aras* (*suscitat* codd.), (p. 24) *gen.* 487 *bis nonos auctius addens* (*novies bis a. a.* codd.), (p. 31) *gen.* 602 *frigenti* [*ut*] *perluat unda.*

[37] In my samples, 8/640 in Petr. Chrys. (1.2%), 15/750 in Ennodius (2%), 13/931 in Cassiodorus (1.4 %); in my sample final words of double trochee form in Ennodius and Cassiodorus always follow either a proparoxytone (the normal *velox* form) or a trochee.

[38] The exception is Ennod. *Epist.* 2.23.2, p. 66, 1f. (pupillus) *universas matris eius facultatulas a Torisa vel aliis adserit fuisse cōnpetitas.* One might consider deleting *fuisse.*

[39] I offer Vegetius for comparison, because the distinction of length by position and by nature seems unimportant to him except in the final syllable of the word. The more direct comparison with Petr. Chrys. (10 position: 15 nature), Ennodius (22 position: 3 nature) and Cassiodorus (23 position: 2 nature) seems strangely to show a desire in the last two to avoid clausulae like *tempora prōtŭlērunt* where the first syllable of the double trochee is long by nature alone. This implies at the least that both writers regarded ´××.⏑⏑–× as preferable to ´××.⏑⏑–×. The latter is part of the metrical system in both authors (where final ⏑⏑–× does not follow a trochee, it follows a proparoxytone word); but it is relatively infrequent: 23/932 in Cassiodorus (including ten of the form ⏑⏑⏑.⏑⏑–×, which could be regarded as resolved cretic trochees); 6/760 in Ennodius (including four in which the first syllable of the final metrical word is a short monosyllable, e.g. *quod amavi*, which possibly scan as double trochees, see Section II).

https://doi.org/10.1017/S0009838807000626 Published online by Cambridge University Press

instances where a penultimate trochee was followed by a word of the form *vĭdērētur.* Here the difference from *ēssĕ vĭdĕātur* lies in the second syllable of the word; and again in each instance this syllable is long by nature alone. The two instances where a word of double spondee form followed the penultimate trochee (Cassiod. *Var.* 1.14.1 *largitate detrimentum* and 2.12.1 *sentire detrimenta*) had both relevant syllables long by nature alone.

(d). Short becomes long

The clausulae favoured by Vegetius only allow us to notice the replacement of a long syllable by a short in two positions, the beginning and end of the first cretic in the cretic-trochee, double cretic and cretic-iamb; elsewhere a short syllable can replace a long one and still leave a legitimate clausula. For instance, sentence endings like *dăre victoriam* or *legionibŭs additi* look like an unsuccessful attempt to write a double cretic, but if the same were true of *defenduntur enŭmerant,* we would not know, since the resolved cretic-trochee is also a favoured clausula. Unfortunately, we cannot expect a consistent pattern such as we found in long syllables, where length by nature and position are handled differently. That difference showed us that clausulae like *victos accepit* were probably attempts at the cretic-trochee; the absence of such a pattern here leaves open the possibility that clausulae like *lăpides iaciunt* are merely metrically indifferent and that Vegetius was not under the illusion that he was writing a clausula *lāpĭdēs ĭăcĭunt.*

There is only one instance of a pyrrhic word where we should expect a trochee, 3.26.16 *dare victoriam*; whether *dare* is a special case is discussed below in Section III. There are eleven instances of an anapaestic word where we should expect a cretic.[40] Since clausulae in which the first word provides a trochee greatly outnumber those in which the first word provides a cretic, it is surprising that clausulae with a false initial anapaest should be more common than clausulae with a false initial pyrrhic.

There are ten sentence endings in which a dactylic word is found where a cretic might be expected.[41] One might expect that, since in his 'correct' clausulae Vegetius relies almost exclusively on position for the length of the final syllables of penultimate words, any aberrant clausulae would at least have a closed syllable; but in fact no preference is evident. This seems to me to strengthen the likelihood that some at least of these sentence endings are simply unmetrical and that their similarity to classical clausulae is only coincidence.

[40] Three of the form *ăquŭlām pōrtant* (but 2.1.2 *pedites classem* is in a list, where clausulae are not expected), six of the form *pĕdĭtēs gĕrat* (but at 2.22.2 and 2.22.4 *cornicines canunt* there is a variant *cornices,* discussed by Reeve [n. 11], 164, and for 4.37.1 *remigio gradus*, there is a plausible variant, *remigum*), two of the form *lăpĭdēs ĭăcĭunt*.

[41] For –˘–.˘× only 1.8.9 *tactica vocant* (but this is in a naming clause, where metrical endings are often missing). For –˘–.–× 3.5.3 *semivocalia muta* (but this is in a list). For –˘–.˘˘× 2.19.7 *munera faciunt*; 4.17.3 *altitudine superent*; 4.26.1 *longius abeunt*. For –˘–.–˘× 1.20.22 *vehementior ictus est*; 3.8.4 *longitudinis additur*; 3.20.15 *depugnatio talis est*; 3.20.21 *incipe proelium*; 4.26.5 *clamoribus indicant*; one might add 3.22.4 *et statim inruunt.* The referee for *Classical Quarterly* raises the question whether the *-o* in *depugnatio* at 3.20.15 should not be long. Although short final *-o* for nominatives is well established in first century poetry, many students of late prose rhythm have thought that the *-o* in words ending in *-io* remained long. I have explained at Holmes (n. 1), 363, why this view seems mistaken to me. A further argument for *-iŏ* in the first century is the appearance in dactylic poetry of *oblivio* (first at Lucan 10.403); this is not a shortening forced by the need to get the word into hexameters, as a poetic alternative had already been provided with the still current *oblivia* (neuter plural).

https://doi.org/10.1017/S0009838807000626 Published online by Cambridge University Press

Looking at the final word, there are eight instances of the form *frāngăt ĭnŏpĭa*[42] and nine of the form *ātquĕ pĕrīcŭli*.[43] Of these seventeen instances, eleven have words which might be regarded as special cases (see Section II on subordinate monosyllables and Section III on *remedium*) and one (4.38.11) occurs in a passage giving the names of winds which has many unmetrical closes.[44] It is hard to tell whether the remainder should be regarded as failed attempts to write orthodox clausulae or merely as metrically indifferent sentence endings which just happen to differ by the quantity of one syllable from a standard clausula; in one case (2 prol. 5 *atque periculi*) the presence of *atque* before a consonant suggests an attempted clausula.[45] It is striking that there are no sentence endings that could count as false scansions for the most common clausula –˘.– – ×; this is doubtless because the hexameter ending –˘.˘–× was strictly avoided.[46]

II. SUBORDINATE MONOSYLLABLES

Vegetius' clausulae are made up of two metrical words, each at least two syllables long. A metrical word here is either a word or a word group that is closely bound together, with one dominant word (which usually takes the word accent and contains at least two syllables) and one subordinate word. The subordinate word is usually a monosyllable, which is always long in the clausulae that Vegetius favours.[47] This preference is surely related to another apparent quantity error. Among the few clausulae in Vegetius where a short syllable appears instead of an expected long syllable at the beginning of the final metrical word, a surprisingly high proportion has a short subordinate monosyllable in this position.[48] This particular oddity of scansion does not seem to be common in other authors. Most that I have looked at have either no instances or only one or two, which might reasonably be attributed to coincidence; Ennodius, certainly, seems to have the same tendency, if less strongly than Vegetius.[49]

I cannot see the explanation for this phenomenon. One might suppose that Vegetius' restriction of the subordinate monosyllable to words that scan as long accustomed him to expect a long syllable in such subordinate words, so that he

[42] 1.3.3 *accedat et animis*; 2.20.2 *habere potuerint*; 3.3.3 *frangat inopia*; 3.5.3 *referuntur ad oculos*; 3.11.3 *fatigarentur inedia*; 3.15.8 *esse remedium*; 4.20.2 *tale remedium*; 4.23.1 *plura remedia.*

[43] 1.12.2 *defendantur et ossibus*; 2 prol. 5 *atque periculi*; 2.20.3 *castrense peculium*; 3.7.9 *opprimantur ab hostibus*; 3.18.8 *circumveniatur ab hostibus*; 3.20.23 *recedit ab hostibus*; 3.22.1 *recedatur ab hostibus*; 4.10.3 *defendatur ab hostibus*; 4.38.11 *sive favonius*. If one sets aside doubts over the scansion of clausulae with vowel contact, one could add 3.4.6 *optare quam otium*.

[44] Cf. Holmes (n. 1), 369.

[45] See Holmes (n. 1), 372–3.

[46] See Holmes (n. 1), 370.

[47] See Holmes (n. 1), 360–1. The footnote 360, n. 11 is wrong: short monosyllables do occur, rarely, at the end of Vegetius' sentences; what they do not do is form part of any of the clausulae that are frequent in Vegetius' prose rhythm (that is, he does not allow clausulae like *maior in honore est* or *iaciunt in armatos*).

[48] Six of the nine instances of clausulae of the form – ˘.˘–˘× (e.g. *atque periculi*) at sentence end contain a short monosyllable (e.g. *opprimantur ab hostibus*); see above n. 43. Less strikingly two of the eight instances of – ˘.˘˘˘× contain a short monosyllable (1.3.3 *accedat et animis* and 3.5.3 *referuntur ad oculos*); see above n. 42. This figure is confused by the several instances of *remedium* at sentence end; see section 3 below.

[49] In my sample (epistulae 2–4, 15) four of the nine instances of – ˘.˘–˘× contain a short monosyllable: *providere quod adiuvet*, *odisse quod adiuvat*, *amare quod exigis*, *placere quam inspici*. The three instances of – ˘.˘˘˘× do not contain this form.

https://doi.org/10.1017/S0009838807000626 Published online by Cambridge University Press

sometimes mistakenly treated a short syllable as long. This leaves the restriction itself unexplained. Alternatively one might think that the restriction to long monosyllables was due to recognition of a danger that readers would register short monosyllables as long (as Vegetius himself seems to have done). This leaves the reason for this tendency to lengthen short monosyllables unexplained.

III. THE SCANSION OF SINGLE WORDS

Some instances of non-classical scansion may relate only to a particular word; in such cases, it can be hard to tell whether a particular clausula is unorthodox because of general tendencies such as those discussed in Sections I and II, or is due to one word's special scansion. Two examples from my earlier article should be reconsidered in the light of this problem

The *Epitoma* has only one example of a clausula where *dăre* appears in a position reserved for the trochee (3.26.16 *dare victoriam*); and this led me to reject the possibility that Vegetius scanned the *a* as long in forms of *dare*.[50] I should have compared the practice of the *Mulomedicina*, which has numerous examples.[51] This apparent difference between the two works need not surprise us, since the *Mulomedicina* is evidently less metrically polished; but even if Vegetius was more careful to avoid such errors in the *Epitoma*, the examples in the *Mulomedicina* support *Mil.* 3.26.16 against possible conjecture. If we want to know whether this is simply the false scansion of a pyrrhic word or a special case in which a false analogy from the normal scansion of first declension verbs plays a role, we can compare other clausulae which make use of a pyrrhic word. In the first book of the *Mulomedicina* there are eight sentence endings in which a pyrrhic word replaces a trochee; all but two of these (1.10.1 *semel ad cornu* and 1.46.2 *ibi invenies*) have either *dabis* or *datur*. There are fifteen cretic-iamb clausulae with a final pyrrhic word not ending in *–m*; six of these instances have *dabis,* nine have other words (once each: *iuvat, dedit, valet, cutis, facit, vehit, bibat*; twice: *dolor*). The lower frequency of *dabis* and *datur* in the legitimate clausula suggests that the false scansion is at least partly tied to the word and not just to its metrical form; otherwise we should not expect clausulae in which a pyrrhic word replaces an initial trochee, such as *dăbĭs ād cōrnu,* to make use almost exclusively of *dabis, datur* and *dare.*

That the scansion of *rēmĕdĭum* is tied to the word still seems likely from its high frequency. Three of the eight instances of –⏑.⏑⏑–× feature *remedium* (see above n. 45); and of the five other instances, two are the special case of subordinate monosyllables (see Section II). As noted in the earlier article, this scansion may be related to a general tendency to scan as long some *re-* compounds which would have been short in classical writers.[52]

[50] Holmes (n. 1), 363–4.

[51] See the concordance of D. R. Blackman and G. G. Betts (Hildesheim, 1989), 169–71. Examples are: 1.10.7 *dabis ad cornu* (1.11.10 etc.); 1.10.8 *dabis in potu* (1.34.3 etc.); 1.17.14 *datur animali*; 2.28.6 *pro cibo dabis et potu* (notice the word order); 2.132.9 *dare per fauces.*

[52] See Holmes (n. 1), 364, n. 39; on Vegetius add now Reeve (n. 11), 169.

https://doi.org/10.1017/S0009838807000626 Published online by Cambridge University Press

IV. DID DIFFICULTIES OF SCANSION INFLUENCE CHOICE OF CLAUSULAE?

We have seen that the final syllable of a word was likely to be heard as short in late antiquity, and that this demanded care in the treatment of clausulae in which the penultimate word needed a long final syllable. It may be worth considering whether the same difficulties ever led writers to avoid such clausulae. When one considers the favoured clausulae that demand a long final syllable, it is striking that several of these are among the less frequent sentence endings in late Latin prose.[53] The clausulae in question are: double trochees with word division – –.˘–× (*sertis coronant*) and ˘˘–.˘–× (*hominum probantur*); cretic-trochees with word division after the first cretic –˘–.–× (*strenuos nasci*) and –˘–.˘˘× (*impares fuimus*); double cretics –˘–.–˘× (*tradidit sanguinem*); hypodochmiacs –˘–.˘× (*plurimum valet*). Double trochees of the form described are part of the system in most or all quantitative-accentual prose, in the sense that a final metrical word of form ˘–× is almost always preceded by a word that ends in a spondee (or more rarely an anapaest); but they are still among the least frequent of the favoured clausulae, found in around 1 per cent of sentence endings in most writers.[54] Much the same is true of the hypodochmiac (cretic + iamb). If the final metrical word is an iamb, then we can expect the preceding word to be a cretic; but the clausula occurs even less frequently.[55] The distribution of the cretic plus trochee with word division after the cretic is slightly more complicated. While it is reasonably frequent in some writers (particularly the earliest), others (particularly later writers) avoid it more or less completely.[56] The same pattern is found for the

[53] It will seem strange to describe clausulae that occur relatively rarely as 'favoured' or 'preferred'; 'part of the system' might be a better term. In prose where the vast majority of sentence endings belong to a tiny number of metrical forms, a clausula can be rarer even than one would expect from a writer indifferent to prose rhythm and yet still have been deliberately chosen when it occurs. To illustrate, imagine that a child is given a large supply of beads, evenly divided between ten different colours. Asked to chose 100, the child takes eighty red, fifteen blue and five green. The child may well have deliberately chosen the five green beads, even though we should expect to get more by random selection. The strong preference for red makes the expected number for other colours uncertain.

[54] In my samples: Apul. *Plat.* and *Mund.* 28/700 (4.0%); Min. Fel. 10/665 (1.5%); Cypr. 9/694 (1.3%); Garg. Mart. *Med.* 38/654 (5.8%); *Paneg.* 8–11 7/456 (1.5%); Firm. 8/1023 (0.8%); *Paneg.* 2–3 44/800 (5.5%); Veg. 15/1261 (1.2%); Paul. Nol. 25/667 (3.7%); Petr. Chrys. 5/649 (0.8%); Ennod. 1/761 (0.1 %); Cassiod. *Var.* 8/958 (0.8 %). The referee remarks here that desire for coincidence of ictus and accent could explain rejection of *sértis corónant*. It is often thought that the *cursus mixtus* arose from attempts to combine ictus and accent. I am slightly sceptical of this theory: clausulae like *sértis corónant* are far more common in late Latin than those of the form *voluptátis ádfert*, where ictus and accent agree in both positions (cf. Holmes [n. 1], 367); early writers of late Latin prose allow more forms without coincidence of ictus and accent than later writers; many agreements are to be expected, since a long syllable is more likely to be accented than a short syllable.

[55] In my samples: Apul. 2/700 (0.3%); Min. Fel. 1/665 (0.2%); Cypr. 3/694 (0.4%); Garg. Mart. 3/654 (0.5%); *Paneg.* 8–11 5/456 (1.1%); Firm. 4/1023 (0.4%); *Paneg.* 2–3 7/800 (0.9%); Veg. 32/1261 (2.5%); Paul. Nol. 9/667 (1.3%); Petr. Chrys. 7/649 (1.1%); Ennod. 3/761 (0.4%); Cassiod. 11/958 (1.1%).

[56] For unresolved –˘–.–× Apul. 52/700 (7.4%); Min. Fel. 24/665 (3.6%); Cypr. 25/694 (3.6%), Garg. Mart. 58/654 (8.9%); Paneg. 8–11 9/456 (2.0%, but five of these nine instances come from *Paneg.* 11); Firm. 63/1023 (6.2%); Paneg. 2–3 16/800 (2.0%); Veg. 79/1261 (6.1%); Paul.Nol. 18/667 (2.7%); Petr. Chrys. 19/649 (2.9%); Ennod. 2/760 (0.3%); Cassiod. 4/932 (0.4%). For resolved –˘–.˘˘× Apul. 18/700 (2.5%); Min. Fel. 7/665 (1.1%); Cypr. 12/694 (1.2%); Garg. Mart. 4/654 (0.6%); Paneg. 8–11 4/456 (0.9%); Firm. 12/1023 (1.2%); Paneg. 2–3 9/800 (0.9%); Veg. 29/1261 (2.3%); Paul. Nol. 4/667 (0.6%); Petr. Chrys. 3/641 (0.5%); Ennod. 1/761 (0.1%); Cassiod. 0.

https://doi.org/10.1017/S0009838807000626 Published online by Cambridge University Press

double cretic.[57] All clausulae, then, that have a long syllable at the end of the penultimate word are either rare in all writers or rare in many; and those that are not rare in all tend to become more rare with time.

A similar explanation might be offered for changes in the preferences for resolutions of the cretic-trochee and double cretic. The greatest change from the mid-third century to the late fourth century is that resolution of the first long syllable of such clausulae becomes increasingly rare. Clausulae of this type (for instance *nūmĕrŭs ādscrībi* or *aspĕrŭs īngĕnĭum*) are much more frequent in Cyprian and Minucius Felix than in Vegetius. The following table shows the frequency of such cretic-trochee or double cretic clausulae. Two totals are given, with and without the form ⏑⏑⏑.⏑⏑–×, since the increasingly indiscriminate use of the *cursus velox* ′××.××′× favours this clausula in later writers, who may be choosing it without regard for its metrical form. (Another difference in usage that may affect the total for such clausulae is that there is a growing tendency to avoid clausulae with more than one resolution; but even the forms ⏑⏑⏑.– – × and ⏑⏑⏑.– –⏑×, with only one resolution, become rarer in later writers.) The percentages given show what fraction of the total sentence endings in each author is made up of the clausula in question.

TABLE 7. Cretic-trochees and double cretics in which the penultimate word supplies a tribrach

	final word						
	– – ×	–⏑⏑×	⏑⏑–×	– – ⏑×	⏑⏑–⏑×	total	total less velox
Apul.	2.2%	–	0.1%	1.0%	–	3.3%	3.1%
Min. Fel.	4.4%	0.6%	1.7%	2.7%	0.6%	9.9%	8.3%
Garg.	3.7%	0.2%	0.5%	1.1%	0.2%	5.5%	5.3%
Cypr.	3.2%	–	–	1.2%	–	4.3%	4.3%
Paneg. 8–11	3.5%	0.2%	0.2%	1.1%	0.2%	5.3%	5.0%
Firm.	1.5%	0.3%	–	0.6%	–	2.3%	2.3%
Paneg. 2–3	2.6%	0.1%	–	1.0%	–	4.0%	4.0%
Veg.	1.0%	–	0.3%	0.2%	–	1.4%	1.1%
Paul. Nol.	2.2%	0.3%	0.4%	0.6%	–	3.6%	3.1%
Petr. Chrys.	0.8%	–	0.5%	–	–	1.2%	0.8%
Ennod.	–	0.3%	–	–	–	0.3%	0.3%
Cassiod.	–	–	1.0%	–	–	1.0%	0.0%

This development is a major factor in the increasing proportion of *cursus* forms; and some may regard it as evidence for a striving towards a system with only these accent sequences. Such an explanation is perhaps too teleological for a development that takes place over centuries; and it leaves the question of why the *cursus* accent sequences should have been favoured. A different explanation could lie in the accented short syllable of the first word of the clausula. If there was a tendency for

[57] Double cretics with the relevant word division (–⏑–.–⏑×): Apul. 20/700 (2.9%); Min. Fel. 89/665 (13.4%); Cypr. 35/694 (5.0%); Garg. Mart. 33/654 (5.0%); *Paneg.* 8–11 7/456 (1.5%); Firm. 39/1023 (3.8%); *Paneg.* 2–3 9/800 (1.1%); Veg. 32/1261 (2.5%); Paul. Nol. 16/667 (2.4%); Petr. Chrys. 2/649 (0.3%); Ennod. 1/761 (0.1%); Cassiod. 2/958 (0.2%).

https://doi.org/10.1017/S0009838807000626 Published online by Cambridge University Press

accented syllables to be heard as long, then *nŭmĕrŭs ādscrībi*, for instance, could be misheard as *nūmĕrŭs ādscrībi*, which is not a favoured clausula.[58] Two of the clausulae in which accent falls on the first short syllable of a resolution did flourish, at the expense of the others, *īmpărēs fŭĭmus* and *defendūntŭr ēnŭmĕrant*; but here a mishearing would give the (also acceptable) double cretic *īmpărēs fūĭmus* and *defendūntŭr ēnūmĕrant*.

The same fear that an accented short syllable could be heard as long would also explain other changes. Many third- and early fourth-century writers show greater tolerance than later writers for cretic-trochees or double cretics in which the first cretic is made up of (i) the long final syllable of a longer word and (ii) an iambic word, for example, *dicendī făcīt mēcum*, *iustitiām dēī quaērunt*.[59] Again the explanation for the rarity of such clausulae in later writers might be that they could be misheard as, for example, *dicendī fācīt mēcum*.[60] This is far more speculative, since (i) such clausulae are rare in all authors and could have been eliminated simply by concentration on the more favoured forms and (ii) there is a general tendency, which increases with time, for late Latin clausulae to be made up of exactly two metrical words, and this alone might account for the disappearance of clausulae like these.

The arguments in this section are suggestions only. More evidence from other writers would be needed before we could be confident of understanding general preferences and developments in late Latin prose rhythm.

Thesaurus Linguae Latinae NIGEL HOLMES
nigel.holmes@thesaurus.badw.de

APPENDIX ON THE AUTHENTICITY OF THE *DE MUNDO* AND *DE PLATONE*

If the *De mundo* and *De Platone* were really written by Apuleius, they would be the first examples of Latin prose rhythm with a strong accentual element. The question of their authenticity, then, is not just of interest for students of Apuleius. Axelson's suggestion that the metrical practice of the works suited a much later date was investigated in more detail by Redfors. In a few points the results of this article affect their arguments, although the issue remains undecided. A brief discussion may give a better understanding of the probabilities.

The first point of suspicion is that the clausulae of these works have the caesurae and accentuation of quantitative-accentual prose, which first appears in the third century. This need not worry defenders of authenticity too much, despite the contrast with other works of Apuleius and with his near contemporaries Fronto, Florus and Gellius, since, as Redfors notes, we have too little literature from the early third century to be confident that quantitative-accentual prose did not arise much earlier

[58] More doubtfully, the slight decrease in frequency of the type *ēssĕ vĭdēātur* might be explained by a slight influence of 'secondary accent'.

[59] The proportion of such clausulae in the total of sentence endings for the writers in my sample was: Apul. *Plat.* and *Mund.* 30/700 (4.3%); Min. Fel. 25/665 (3.8%); Garg. Mart. 14/654 (2.1%); Cypr. 24/694 (3.5%); *Paneg.* 8–11 10/456 (2.2%); Firm. 21/1023 (2.1%); *Paneg.*2–3 18/800 (2.3%); Veg. 1/1261 (0.1%); Paul. Nol. 9/667 (1.3%); Petr. Chrys. 7/649 (1.1%); Ennod. 0/761 (0.0%); Cassiod.1/959 (0.1%).

[60] If so, the tendency must have applied less strongly to metrical words made up of a monosyllable and an iamb. On Vegetius, see Holmes (n. 1), 360–1 and 369. For the accentuation of such word groups in late and medieval Latin verse, cf. D. Norberg, *Introduction à l'étude de la versification latine médievale* (Stockholm, 1958), 25–7.

https://doi.org/10.1017/S0009838807000626 Published online by Cambridge University Press

than its earliest surviving representative;[61] only Tertullian and the editor of the *Passio Perpetuae* (both African) offer examples of purely quantitative, non-accentual prose rhythm between Apuleius and the first certain example of quantitative-accentual rhythm, Minucius Felix.[62] Redfors also saw that the prose rhythm of the *De Platone* and *De mundo* most resembled the earliest examples of quantitative-accentual prose.[63]

One argument for authenticity should be countered here, as it reflects a common misconception: Harrison suggests that the quantitative-accentual system arose in Africa, making it less surprising that an African writer like Apuleius should provide our first instance of it.[64] This view of an African origin to quantitative-accentual clausulae is often connected with Africans' supposed poor ear for quantity.[65] It is true that many of the writers of early quantitative-accentual prose are or may very well be African (Minucius Felix, Gargilius Martialis, Cyprian, Pontius, Arnobius); but this is to be expected, since almost all the surviving rhythmic literary prose from the third century came from African authors. Europe simply has fewer rhythmical writers than Africa at this time; but all that have survived likewise prove to have written quantitative-accentual prose. The earliest, Novatian from Italy, is a (mid-century) contemporary of Cyprian; by A.D. 289 at the latest the system was being used in imperial panegyric in Gaul; and by A.D. 295 at the latest it had become part of the style of imperial edicts.[66] The panegyric and edict are our earliest examples of the prose of European 'elites' from the third century; it is surely unlikely that a system arising from provincial pronunciation would have become a stylistic necessity in these circles in so short a time.

The most worrying point for defenders of authenticity should be the acceptance of false quantities. Again this need not point to a much later date, as Axelson thought. Redfors found evidence of *Scheinprosodie* in Cyprian.[67] In those texts of Cyprian that I used this was not evident; but both Cyprian and the earlier Minucius Felix seemed to be concerned to avoid the possibility that naturally long final syllables could be heard as short (see table 5). It is still a serious problem that in this respect the *De mundo* and *De Platone* differ so fundamentally from the certainly authentic works.[68] It should

[61] Redfors (n. 33), 112.

[62] My view of Tertullian here is based only on my impressions from reading, not on any exact statistical comparison (still less so in the case of the editor's portions of the *Passio Perpetuae*, where the number of sentence endings available is too small for confidence). S. M. Oberhelman and R. G. Hall, 'A new statistical analysis of accentual prose rhythms in imperial Latin authors', *CPh* 79 (1984), 114–30, here 123, find that the frequency of *cursus* forms in Tertullian is not higher than can be attributed to coincidence. Admittedly this does not establish that there may not be a quantitative-accentual element to Tertullian's prose.

[63] Redfors (n. 33), 111–12. Compare the developments in Section IV above.

[64] S. J. Harrison, *Apuleius, A Latin Sophist* (Oxford, 2000), 178–9.

[65] See for example S. M. Oberhelman and R. G. Hall, 'Meter in accentual clausulae of late imperial Latin prose', *CPh* 80 (1985), 214–27, here 226.

[66] Edict. imp. Diocl. coll. Mos. 6.4.1–8. Quantitative prose rhythm appears already in an edict of Nerva (Plin. *Epist.* 10.58.7–9); but later developments cannot easily be followed. For most of the third century, our only examples for imperial law-making are the short and interpolated texts in the *Codex Justinianus*, which do not lend themselves to rhythmic analysis.

[67] Redfors (n. 33), 109–10.

[68] See Axelson, *Kleine Schriften* (n. 12), 238–9. We should reject one argument that Axelson uses to show that the undoubtedly genuine Apuleian works have different rules of prosody. He compares length by position and nature in clausulae like *flūctūm scrūtāris* and *prĕtĭō quaēsīsse* and finds that more than half of the relevant cases are long by position, in contrast to the doubtful works, where almost all are long by nature. But the *Scheinprosodie* of the doubtful works is here only evident because they are stricter than the genuine works in their choice of

https://doi.org/10.1017/S0009838807000626 Published online by Cambridge University Press

now be clear that the shortening of naturally long final syllables is not a 'licence' of the writer. Since naturally long final syllables are avoided in clausulae where long final syllables are required (see table 5),[69] we cannot say that the author is allowing himself the choice of treating naturally long final syllables as either long or short. Rather he is reacting to linguistic reality, in which such syllables were short and could not be treated as long. This might indicate a later writer than Apuleius or a late point in Apuleius' writing career.[70]

permissible clausulae, avoiding these double spondees where they are evident. Axelson's other argument is better: clausulae like *cāmpō vŏlŭĕrunt* are very rare in the certainly genuine works, common in *Plat.* and *Mund.,* as *Scheinprosodie* equivalents of *ēssĕ vĭdĕātur.*

[69] For comparison, I looked at the first forty-five chapters of the *apologia.* These have the following proportions: –⏑–.–× position 2: nature 0; –⏑–.⏑⏑× 5: 3; –⏑–.–⏑× 3: 2; – –.⏑–× 13: 11; ⏑⏑–.⏑–× 6: 3; total p. 29: total n. 19. Especially significant is the double trochee – –.⏑–×. If there were a possibility of mishearing the final syllable of the penultimate word as short, this would be avoided as dangerously similar to the hexameter ending –⏑.⏑–×.

[70] I owe thanks to *CQ*'s anonymous referee for helpful criticisms and suggestions.

https://doi.org/10.1017/S0009838807000626 Published online by Cambridge University Press