

the story involved an intentional etymological connection between the armor of the Spartoi and Kadmos' name which means "armor". The words *καὶ κρατεῖ Κάδμος* are reiterative, almost redundant, after the earlier *εἶτα κρατοῦσαν*, and are therefore noteworthy in an epitome<sup>4</sup>) which is characterized by economy of phrasing. Following as they do immediately after the statement about the armor, the words can plausibly be regarded as containing a play on the meaning of the word *καδμος*. (Cf. e.g. Konon, *Diegeseis* 48, where there is a punning connection between the name of Rome, the noun *ῥώμη* and the noun *κράτος*). The connection is of course no more than implicit in our text although it may have been more clearly presented in the unepitomized version.

The likelihood of this story containing an etymological *aition* is enhanced when it is realized that such *aitia* for proper nouns occur elsewhere in the *Diegeseis* and that they are often left implicit rather than being fully elaborated. There is in fact another such etymology — for *Σπαρτοί* — in this same passage. Others occur in *Diegeseis* 12 (Aithilla), 19 (Arneios), 26 (Aletes), 33 (Branchos, Philesios), 35 (Gypaieus), 39 (Melanaigis, Apatourios), 46 (Rome), 49 (Anaphe).

## Quaestio Prosodiae

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[This article was written and accepted for publication before the appearance of Professor W. S. Allen's magisterial study, *Accent and Rhythm* (Cambridge, 1973). His book renders much of the detail of this article redundant and persuades me that some of it is erroneous. I venture, however, to persist in my main thesis that there are important features of the practice of ancient poets from Homeric times that can be explained only in terms of the traditional rules for quantity, though it must now be conceded that there is much that can be explained only in terms of Professor Allen's formulations. I conclude, accordingly, that in the one case we are dealing with

<sup>4</sup>) The *Diegeseis* are extant only in epitome in the *Bibliotheca* of Photius (cod. 186).

self-conscious artistic practice and in the other with unconscious intuitive decisions. It is misleading for Professor Allen to dismiss so ubiquitous a problem with the words, "within the line syntactical boundaries tend to be obscured phonologically by artificial 'cohesion'." (p. 205).]

This article is intended to show that the traditional way of defining long and short syllables for Greek and Latin verse (i.e. that two or more following consonants 'make position' but that otherwise syllable length is determined by vowel length) is the only satisfactory way and that a novel method, which was introduced about ninety years ago and seems now to be accepted on nearly every side, is not only inappropriate for metrics but has recently led to some astonishing and erroneous conclusions on the pronunciation of classical verse.

Here are some definitions from four recent handbooks. The first two are from Mr. Raven's *Greek Metre* and *Latin Metre* respectively, the third is from *The Meters of Greek and Latin Poetry* by Professors J. W. Halporn, M. Ostwald and T. G. Rosenmeyer, and the fourth is from Professor Allen's *Vox Latina*.

But any vowel which is short by nature becomes long *by position* when immediately followed by a double consonant, or by two or more consonants together<sup>1</sup>).

But any syllable containing a short vowel becomes long *by position* when that vowel is immediately followed by a double consonant or by two or more consonants together<sup>2</sup>).

A long syllable is a syllable whose vowel is naturally long or a closed syllable, i.e., a syllable terminating in a consonant. All other syllables are short. For example, in *λί-πος* the first syllable is short, in *γῆ-φος* and *ἱπ-πος* it is long; so it is in *πῶ-ξος* = *πῶκ-σος*. A single consonant separating two syllables or two words is felt to introduce the second rather than terminate the first syllable; thus, in the phrase *καλὸν ἄνδρα*, the final syllable of *καλόν* is treated as an open syllable: *κα-λο-ραν-δρα*<sup>3</sup>).

When a syllable contains a long vowel, it is automatically 'heavy', e.g. the first syllables of *pōtus*, *pāctus*. But when it contains a short vowel, its quantity depends on the nature of the syllable ending; if it ends with the vowel, the syllable is 'light', e.g. the first syllable of *pě-cus*; if it ends with a consonant, the syllable is 'heavy', e.g. the first syllable of *pēc-tus*<sup>4</sup>).

<sup>1</sup>) D. S. Raven, *Greek Metre*, p. 23.      <sup>2</sup>) D. S. Raven, *Latin Metre*, p. 24.

<sup>3</sup>) J. W. Halporn, M. Ostwald and T. G. Rosenmeyer, *The Meters of Greek and Latin Poetry*, p. 5. This section is the work of Professor Rosenmeyer; Professor Halporn's discussion of Latin prosody (p. 63) is not materially different.

<sup>4</sup>) W. S. Allen, *Vox Latina*, p. 89. Professor Allen's discussion of Greek prosody (*Vox Graeca*, p. 97) is very similar.

Mr. Raven's earlier view, that short *vowels* are lengthened by two or more succeeding consonants seems, as Professor Allen suggests<sup>5)</sup>, to have originated in the Middle Ages. His revised view, however, that it is the *syllable* that is long in such cases, is essentially that of the ancient grammarians. Dionysius Thrax, (*Ars Gramm.*, pp. 17–20 Uhlig), for instance, writes as follows:

μακρὰ συλλαβὴ γίνεται κατὰ τρόπους ὀκτώ, φύσει μὲν τρεῖς, θέσει δὲ πέντε. καὶ φύσει μὲν <1> ἦτοι ὅτ' ἂν διὰ τῶν μακρῶν στοιχείων ἐκφέρηται, οἷον ἤρωϛ· <2> ἢ ὅτ' ἂν ἔχη ἓν τι τῶν διχρόνων κατ' ἑκτασιν παραλαμβανόμενον, οἷον Ἀρης· <3> ἢ ὅτ' ἂν ἔχη μίαν τῶν διφθόγγων, οἷον Αἴας. θέσει δὲ <1> ἦτοι ὅτ' ἂν εἰς δύο σύμφωνα λήγῃ, οἷον ἄλς· <2> ἢ ὅτ' ἂν βραχεῖ ἢ βραχνομένῳ φωνήεντι ἐπιφέρηται δύο σύμφωνα, οἷον ἀγρός· <3> ἢ ὅτ' ἂν εἰς ἀπλοῦν σύμφωνον λήγῃ καὶ τὴν ἐξῆς ἔχη ἀπὸ συμφώνου ἀρχομένην, οἷον ἔργον· <4> ἢ ὅτ' ἂν διπλοῦν σύμφωνον ἐπιφέρηται, οἷον ἔξω· <5> ἢ ὅτ' ἂν † διπλοῦν σύμφωνον λήγῃ, οἷον Ἄραψ.

Hephaestion (*Enchiridion*, pp. 1, 11 Consbr.) similarly:

μακρὰ ἐστὶ συλλαβὴ ἢ ἔχουσα μακρὸν φωνήεν, ἢ μηχανόμενον, ἢ μίαν τῶν καλουμένων διφθόγγων, οὕτως ὡς ἐξῆς εἶναι σύμφωνον ἦτοι τελικὸν αὐτῆς τῆς συλλαβῆς, ἢ τῆς ἐξῆς ἀρκτικόν, οἷον, θῆς, θῶς, παῖς, ναῦς· εἰ δὲ μή, οὐκ εἰσὶν ἀντικρὺς μακραί, ἀλλὰ κοιναί, ὡς ἐξῆς ῥηθήσεται.

θέσει μακραί γίνονται, ὅταν βραχέος ὄντος ἢ βραχνομένου φωνήεντος σύμφωνα πίπτῃ μεταξὺ αὐτοῦ τε καὶ τοῦ τῆς ἐξῆς συλλαβῆς φωνήεντος πλείονα ἐνὸς ἀπλοῦ, ἢ ἓν διπλοῦν.

I choose these two passages from the many similar sources available in both the *Grammatici Graeci* and the *Grammatici Latini* because they are the sole authorities referred to by Professor Allen in support of his very different formulation quoted above<sup>6)</sup>. But they do not support him.

I have been able to find only one passage from antiquity on the question of syllabic quantity that does not clearly favour the view that 'two or more consonants make position'. Dionysius of Halicarnassus (*de Compositione* 15, p. 57, 11 Us.-R.) writes as follows:

τούτων δὲ εἰσὶ μακραί μὲν ὅσαι συνεστήκασιν ἐκ τῶν φωνηέντων τῶν μακρῶν ἢ τῶν διχρόνων ὅταν μακρῶς ἐκφέρηται, καὶ ὅσαι λήγουσιν εἰς μακρὸν ἢ μακρῶς λεγόμενον γράμμα ἢ εἰς τι τῶν ἡμιφώνων τε καὶ ἀφώνων· βραχεῖαι δὲ ὅσαι συνεστήκασιν ἐκ βραχέος φωνήεντος ἢ βραχέως λαμβανομένου, καὶ ὅσαι λήγουσιν εἰς ταῦτα.

This is the translation of Rhys Roberts:

Of these syllables, those are long which contain long vowels or variable vowels when pronounced long, and those which end in a long letter or a

<sup>5)</sup> *Vox Graeca*, p. 97.

<sup>6)</sup> *ibid.*

letter pronounced long, or in one of the semivowels and one of the mutes. Those are short which contain a short vowel or one taken as short, and those which end in such vowels.

Sturtevant, in an admirable but oddly ignored article on this whole subject<sup>7)</sup>, objects to the rendering 'one of the semi-vowels and one of the mutes' and would substitute 'one of the semi-vowels and mutes', a version which he later interprets to mean 'a semi-vowel or mute'. From this he concludes that Dionysius is the one ancient authority for the view that all closed syllables are long. There are, however, real difficulties with this interpretation of the passage. If *εἰς τι τῶν ἡμιφώνων τε καὶ ἀφώνων* means no more than 'in a semi-vowel or mute', which, as Sturtevant points out, would mean, for Dionysius, 'in a consonant', then *εἰς μακρὸν ἢ μακρῶς λεγόμενον γράμμα* (which I take to refer to ζ, ξ and ψ, and to doubled consonants, as in ἄλλο) is entirely superfluous. It is true that Dionysius ends his definition of short syllables with the remark that they end in vowels; this, however, arises from the fact that he is considering the effect of consonants only within single words. The first syllable of *δόδος*, which Dionysius himself, in the same chapter, identifies as short, is presumably understood to end at δ-, while the undoubtedly long first syllable of *ἄνδρες* can scarcely be said to end at ἄ-. In any case, there is a later chapter in the *de Compositione* (25) which makes it abundantly plain that Dionysius does not suppose that all closed syllables are long (p. 130, 15 Us.-R.):

*τοῖς θεοῖς εὐχομαι πᾶσι καὶ πάσαις.  
οὗ τοιοῦτος μέντοι κάκεινός ἐστιν ὁ ῥυθμός,  
Κρησίοις ἐν ῥυθμοῖς παῖδα μέλπωμεν;  
ἐμοὶ γοῦν δοκεῖ· ἔξω γὰρ τοῦ τελευταίου ποδὸς τά γε ἄλλα παντάπασιν ἴσα.*

The only possible difference between the two last feet is to be found in the two last syllables; if *-σαις* is long, then Dionysius must be taking *-μεν* as short.

Cicero too seems to believe in the possibility of short closed syllables; he feels justified in calling *comprobavit* a ditrochee without explanation, although he has just apologized for calling *persolutas* one with the words *nihil enim ad rem, extrema illa longa sit an*

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<sup>7)</sup> 'Syllabification and Syllabic Quantity in Greek and Latin', *TAPhA* liii (1922), 35–51. Three of Dionysius' manuscripts anticipate Sturtevant here by reading *ἡμιφώνων ἢ ἀφώνων* for *ἡ. τε καὶ ἀ.* but Rhys Roberts rejects them here; rightly, I think, and for the same reasons that I reject Sturtevant's translation here.

*brevis*<sup>8)</sup>). It is, of course, possible that this excuse is intended to cover *comprobavit* too, but the context makes it unlikely.

Quintilian (*Inst. Orat.* 9. 4. 85–86) is another for whom closed syllables are not necessarily long:

*certe in dimensione pedum syllaba, quae est brevis, insequente alia uel breui, quae tamen duas primas consonantes habeat, fit longa, ut 'agrestem tenui musam': nam 'a' brevis, 'ges' brevis, faciet tamen longam priorem: dat igitur illi aliquid ex suo tempore.*

What then is the reason for the belief, both of Professor Rosenmeyer and of Professor Allen, that syllabic quantity in the case of syllables containing short vowels depends entirely on whether or not the syllable is open?

There are, I think, two main reasons of which one is very simple. According to Cicero, any Roman could sense the distinction between long and short syllables<sup>9)</sup>. The great advantage of the 'open and closed syllable' view is that it provides an easy way of understanding how that distinction was felt. And there is a need to understand it since, even without the testimony of Cicero, it is obvious that a metrical system as widespread and as long-lasting as the classical quantitative system must have had some basis in real experience of and feeling for language. And yet, on the traditional view, it seems strange and artificial that, in a line like the following, two identical words should be scanned differently:

*cernere ne quis eos neu quis contingere posset.*

Unlike the traditional explanation of why the first *quis* is short and the second long, the 'open and closed syllable' view seems to offer an immediate rational explanation. If the final -s of the first *quis* is pronounced at the beginning of *eos*, *qui seos*, while the final -s of the second *quis* is left undisturbed, it is possible to notice a real distinction between the two words; it is then possible to suppose that the ancients' ears felt a kinship between closed syllables, such as *quis*, and syllables with long vowels, and that it is partly upon that kinship that the principles of ancient prosody are based. For the reasons already advanced, as well as for other reasons which follow, this is not a satisfactory explanation of the problem presented by the short and long *quis*; nevertheless, this problem, or rather its apparent

<sup>8)</sup> *Or.* 63. 214.

<sup>9)</sup> *Or.* 50. 168; 51. 173. L. P. Wilkinson (*Golden Latin Artistry*, pp. 154–55) discusses the matter more fully.

solution, has surely been one of the reasons for the widespread acceptance of the 'open and closed syllable' view.

The second reason is a little more complex but is, I suspect, the one that has been the more influential. It stems from the fact that the ancient grammarians divided syllables up by attributing any group of consonants that could begin a word to the succeeding vowel<sup>10</sup>). This is, at first sight, a most useful way of seeing the distinction between long and short syllables (when the vowel is short) and has, as we have seen, been seized upon as such by modern philologists. Unhappily, the theory drives us into a number of illogicalities. It involves accepting the ancients' views on syllabification but rejecting the same men's testimony on quantity; it involves extending the ancients' views on syllabification to embrace a theory which largely ignores word division, especially before words beginning with a vowel, a theory for which there is scant, if any, evidence from antiquity; finally, it presents real and frequent problems in the reading of verse. There is a passage in the Scholiast to Dionysius Thrax (p. 156 Hilgard)<sup>11</sup>) that points out the need for a diastole to prevent a careless reader saying *ἐστὶ Νάξιος* instead of *ἐστὶν ἄξιος* which would surely argue against general liaison in such cases. Furthermore, if all closed syllables are long, how is the actor to preserve the metre in a line like this:

*ἄτιμος, οὐδὲν ἄξία* (Aesch. *Cho.* 445)

and at the same time make it clear that the last two words are not *οὐδὲ Νάξία*?

<sup>10</sup>) This is a very complex subject discussed at length by, among others, W. G. Hale (*HSPh* vii [1896] 249–71), W. Dennison (*CPh* i [1906] 47–68) and H. v. Helle (*Gl* xi [1921] 29–50). Dennison tried to use epigraphic evidence to establish the norms of pronunciation on syllabification but his arguments were largely refuted by Helle. The epigraphic evidence does offer some support for liaison in the assimilation of final consonants to the initial consonant of the succeeding word. There are not, however, any examples in the epigraphic evidence of a letter belonging to one word being transferred to the next.

<sup>11</sup>) This passage is quoted by Professor Allen (*Vox Graeca*, p. 148) and discussed by him (pp. 94–5) in connexion with what he calls 'external and internal transition' from a consonant to the following vowel. It is difficult to see what this distinction is if it does not imply that a consonant at the end of a word is pronounced with that word and not with the next. That is clearly the view of Herodian (ii, pp. 407–8, Lentz) if Allen is correct in suggesting that his remarks have a 'phonetic basis'.

There is a further problem when short closed syllables are followed by pause:

καὶ νῦν φυλάσσω λαμπάδος τὸ σύμβολον  
αἰγὴν πυρὸς φέρονσαν ἐκ Τροίας φάτιν  
ἀλώσιμόν τε βάξιν· ὧδε γὰρ κρατεῖ  
γυναικὸς ἀνδρόβουλον ἐλπίζον κέαρ.

(Aesch. Ag. 8–11)

*pastor agens telis liquitque uolatile ferrum  
nescius: illa fuga siluas saltusque peragrat  
Dictaëos.*

(Verg. Aen. 4.71–73)

If the watchman is to pause at *βάξιν*, how can he pronounce its -ν with ὧδε? If Quintilian would pause after *cano* in the first line of the *Aeneid*<sup>12</sup>), he would surely pause after *nescius* in the passage quoted above. And these are, of course, only two examples from countless like them in both Greek and Latin verse. Are we to assume that in every such case the reader is forced to choose between an unmetrical reading and an absurd liaison? I shall discuss below the arguments of those who do indeed believe that there must be liaison in such places and no pause. Professor Rosenmeyer and Professor Allen simply do not address themselves to the problem.

It has also been suggested that the 'open and closed syllable' view affords an explanation for those occasions when Vergil, especially, seems to lengthen a short syllable<sup>13</sup>).

*Pergama cum peteret inconcessosque hymenaeos.*

The suggestion is that the reader is simply to fail to detach the -t from *peteret*, thus leaving a closed and therefore long syllable. Such lengthening, however, is far rarer than pause after short closed syllable so that the solution creates more problems than it solves<sup>14</sup>).

Postgate's *Prosodia Latina* is, without doubt, the most influential work in propagating the view that all closed syllables are long. Postgate offers no ancient evidence for the theory but he does refer to the excellence of Westaway's *Quantity and Accent in the Pronun-*

<sup>12</sup>) *Inst. Orat.* 11. 3. 35–8.

<sup>13</sup>) R. G. Kent, 'A Problem of Latin Prosody', *Mélanges offerts à J. Marouzeau*, pp. 303–8.

<sup>14</sup>) There are, as a matter of fact, some even more fundamental objections to Kent's thesis; cf. J. Marouzeau (*REL* xxxii [1954] 100–02, xxxiii [1955] 344–51).

*ciation of Latin Verse*. At first sight, Westaway has a view very similar to Postgate's but he obviously does perceive some of the difficulties.

A syllable is *long by position* when it ends in a consonant.

The *final* syllable of a final word in a clause may be considered short if it ends in a short vowel, or a short vowel and consonant<sup>15</sup>).

This would dispose of one of the objections to the theory, but only at the cost of introducing a strange irregularity. Not only does it involve assuming that the ἀδιάφορον nature of final syllables regularly includes the notion of *longa in breui*—a notion which is very difficult to maintain—it also assumes that this option extends only to those long syllables which are long because they are closed; it is certainly not normal in verse, for any other type of long syllable to count short because it occurs at the end of a clause. But perhaps the most crippling objection to this way of looking at it is the fact that the overwhelming majority of those closed syllables with short vowels that occur at the end of a clause but in the middle of a line (and are followed by words beginning with a vowel) take advantage of this alleged option that they may 'be considered short'. Would it not be easier to assume that such syllables are truly short and to seek elsewhere for an explanation of those very rare anomalies where they count long?

As a matter of fact, Westaway does get close to that point of view:

The explanation of the lengthening 'by position' lies in the phonetic division of the syllables. A consonantal combination shared between two syllables lengthens the preceding syllable; a consonantal combination not shared between them leaves the preceding syllable short. Strictly, it is not the consonants which add length, but the pause which separates them<sup>16</sup>).

It seems strange that the writer of that paragraph could also have insisted that closed syllables are long and that prosody depends on liaison between one word and the next. And yet, this is his phonetic version of *hominis anima*:

ho-mi-ni-sa-ni-ma.

<sup>15</sup>) F. W. Westaway, *Quantity and Accent in the Pronunciation of Latin Verse*, (Cambridge, 1913), Sections 71(c) and 70.

<sup>16</sup>) Section 71(c). It is perhaps worth noting that Westaway here essentially anticipates P. Verrier (*Rev. de Phon.* iv [1914], 134–40), E. H. Sturtevant (*TAPhA* liii [1922] 35–51) and A. Schmitt (*Gl* xxiii [1934–35] 80–95); cf. R. A. Zirin who, in his book, *The Phonological Basis of Latin Prosody*, The Hague, 1970, pp. 58–59, rebukes Schmitt for ignoring Sturtevant and Sturtevant for ignoring Verrier.



Westaway, like Postgate, does not cite ancient authority for his views on closed syllables. He does, however, refer to Bos's *Petit Traité de Pronunciation Latine*<sup>17</sup>). This work begins with the admirable sentiments:

Personne ne soutient plus aujourd'hui, j'aime à le croire, qu'il est impossible de savoir comment les Romains prononçaient leur langue, et que, par conséquent, chacun peut prononcer le latin comme il lui plaît, les Français à la française, les Anglais à l'anglaise, les Allemands à l'allemande, les Italiens à l'italienne . . .

Unfortunately, Bos proceeds to explain Latin prosody in terms of liaison, which, while ubiquitous in French, is not satisfactory for the problems posed by classical metrics.

Est longue toute syllabe terminée par une voyelle longue ou par une consonne.

Est brève toute syllabe terminée par une voyelle brève<sup>18</sup>).

Bos seems to be claiming originality for this way of putting it—he certainly cites no authority. He is, furthermore, absolutely thorough in the application of his rules, and does not hesitate to carry liaison over heavy punctuation, or even from narrative into direct speech, as may be seen from his phonetic version of Vergil:

temperet a lacrimis? et iam nox humida caelo  
tèm-pèrè ta-la-krimi cèt-yam-nòk çhoumida kaèlô

(*Aen.* 2.8)

et procul: 'o miseri, quae tanta insania ciues  
èt-pròkou lô-miçèri kwaè-tant<sup>a</sup> in-sanìa kiwés.<sup>19</sup>)

(*Aen.* 2.42.)

<sup>17</sup>) Paris, 1893. For similar views published later cf. Zirin, p. 55 n. 1.

<sup>18</sup>) Préface, xiv.

<sup>19</sup>) Pp. 216 and 222. Difficulties have also arisen in connexion with elision.

*Κα. τίνα δὴ τρόπον ποθ' ; Αν. ὥστε τῶν νῦν μηδένα . . .*

Aristoph. *Lysis*. 49

Lines of this kind are sometimes quoted in support of the view that liaison is universal. However, even if we may assume that scribal practice is reliable in such cases, it is obvious that an aspiration of this kind is highly artificial, since there is no way for the former speaker to know that he is to be interrupted by a sentence beginning with an aspirate. It has also been suggested that elision between speakers in drama indicates a very rapid speech pattern which would necessarily suggest liaison in such cases. This does not, however, follow; one speaker can cut into another without obliging us to believe that liaison over sense break is normal.

There is no attempt here to deny that liaison between words does regularly occur in classical Greek and Latin; the point of this article is to suggest that liaison does not play any part in the conscious rationale of classical prosody and, certainly, that liaison is not required over sense pause. I should argue rather that the rules of prosody rely partly on convention as well as on reason.

This article was largely completed before I had an opportunity to study the recent book of Dr. R. A. Zirin, *The Phonological Basis of Latin Prosody*. Dr. Zirin approaches the issues from the point of view of a phonetician; it would be impertinent and pointless to attempt a rehearsal of his arguments here. Suffice it to say that he addresses himself primarily to the problem of why and how quantitative metre developed in Greek and Latin and advances theories based partly on fundamental features of the languages and partly on convention. He points out, for instance, that whereas the accentual pattern of Greek owes nothing to the presence or absence of consonants the stress pattern of Latin does depend, to a degree, upon the consonants, and that, accordingly, insofar as Greek rules for prosody observe the pattern of the consonants they are depending on a criterion which is more artificial for Greek than it is for Latin. In the case of initial clusters such as *qu-*, *su-* and *gu-* which do not 'make position' in Latin, Dr. Zirin believes that he can refute the ancient doctrine that such clusters were essentially one consonant and not two; he may well be right, but from the point of view of a metrician the opinion of the ancients is at least as important as the philological 'truth'. Dr. Zirin, Professor Allen and others<sup>20</sup>) have been able to offer hypotheses to explain why it was that quantity became the determinant for Greek and Latin metrics rather than some other feature of the languages. What they have not shown is that their way of looking at the problem resembles the

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<sup>20</sup>) Professor Allen substitutes the terms 'heavy' and 'light' for 'long' and 'short', partly to accord with Sanskrit practice which he believes to be parallel and partly because long syllables are not, in fact, necessarily longer than short syllables. This proposed change in terminology does, however, distract our attention from what the ancients believed about their languages and may, for that reason, be less useful for metricians than it is for philologists. Furthermore, especially for those whose native tongue has a stress accent, the terms 'heavy' and 'light' do tend to suggest 'stressed' and 'unstressed'. It is true that in Professor Allen's view 'heavy' syllables do enjoy more 'stressability' than do 'light' syllables but the terms are more likely to suggest to the inexperienced that all 'heavy' syllables are stressed and all 'light' syllables are unstressed.

views of ancient poets, for, whatever the truth may be about the basic rationale of the system, it does seem to be clear that, at some very early point, the rules about quantity began to be formalized in terms similar to those outlined by Hephaestion or Dionysius Thrax; the manner of pronunciation, especially in syllables with short vowels, ceased to be the single conscious criterion of quantity, but was complicated by calculations based on the number, nature and position of consonants even when, as at sense pause, these criteria were largely irrelevant to the manner of pronunciation<sup>21</sup>). Such a view permits us to read verse in a reasonable manner and is, at the same time, entirely in accord with the views of ancient scholarship<sup>22</sup>).

There is more to this problem, however, than the correction of hand-books and paedagogical practice. In recent years, a whole edifice has been constructed on the premiss that all closed syllables are long. Professor Soubiran, in four recent articles<sup>23</sup>), has

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<sup>21</sup>) As verse developed, the rules became more and more artificial; Vergil, for instance, consistently follows hypermetric lines with lines beginning with a vowel even when (as at *Aen.* 4. 629–30) there can be no question of one line being elided into the next.

<sup>22</sup>) Dr. M. L. West, in a recent article, (*Gl* xlviii [1970] 185–94) attempts to establish a new notation for Greek prosody, a notation that distinguishes seven types of syllable, differentiated by length. He assumes that syllabic quantity depends on the time taken in pronunciation, and is so far from assuming constant liaison that one of his chief criteria for distinguishing different lengths of syllable is whether or not the syllable occurs at word end. He analyses the Homeric hexameter and the iambic trimeter in the hands of Archilochus, Semonides and Hipponax, showing the limits of tolerance allowed by each author at every point in the line. The chief difficulty with his presentation is that all it reveals is that some poets allow word end where others do not, some permit resolution where others do not—and these facts are obscured rather than clarified by the notational system. It is, furthermore, dangerous to assume that word end either does (Dr. West) or does not (Professor Soubiran) contribute length and, even if it does, there is no reason to suppose (with Dr. West) that the avoidance of word end is ever related to the extra time involved.

Something is also amiss with Dr. West's findings. *Pace* his table (p. 188) 'short final vowel followed by initial continuant consonant ( $F \lambda \mu \nu \varrho \sigma$ )' is allowed as the first short in the dactylic fifth foot of a Homeric hexameter. E.g. *Iliad* 1. 8, 32, 38, 83, 235; 2. 461 and countless more. Dr. West ignores punctuation altogether.

<sup>23</sup>) *Pallas* xiii (1966), 21–52 and xvi (1969), 107–51; *REL* xlvi (1968), 410–24; *GIF* xxi (1969), 329–49. It is important to stress that Professor Soubiran's theories absolutely depend on the assumption that the ancient poets consciously believed in the notion that all closed syllables are long, an assumption which surely cannot be maintained.

demonstrated that most hexameter poets, in both Greek and Latin, show, at punctuation after second, third and, especially, fourth foot dactyl, a marked preference for closing the dactylic foot with a word ending in a consonant and, naturally, starting the fifth foot with a word that opens with a vowel, rather than the other way around. I.e. that

*quaesitor Minos urnam mouet. ille silentum . . .*

is a much more common type of line than

*sanguineam fundo torsit mare. flebile saeui . . .*

Professor Soubiran has counted all those places in selected passages from the major Greek and Latin hexameter poets where the end of a fourth foot dactyl coincides with word end. He has divided these into two categories, those where the dactyl ends in a word with a closed final syllable and the fifth foot starts with a word that begins with a vowel (CV) and those where the dactyl ends in a word with an open final syllable and the fifth foot starts with a word that begins with a consonant (VC). He then shows that, in those places where there is also punctuation between the fourth and fifth feet, CV occurs about three or four times more frequently in relation to VC than one would expect in the light of the relative frequencies of CV and VC where there is no punctuation. For example, in *Iliad* 13 he counts 176 lines with word break after a fourth foot dactyl of the VC type, and 140 of the CV type; in *Iliad* 13, 14 and 15 he counts only 40 examples of punctuation after fourth foot dactyl in VC lines, but 125 examples in CV lines. In *Aeneid* 4–6 he finds a total of 125 CV lines and 174 VC lines; when, however, he takes only those lines with punctuation after the fourth foot dactyl, he finds 113 examples of CV and only 31 of VC, this latter count embracing the whole of the *Aeneid*. His figures for most of the rest of hexameter poetry in Greek and Latin are similar, as are his findings for most poets when he turns his attention to second and third foot dactyls.

At first sight, these figures seem to provide the final refutation of the theory that all closed syllables are long. If hexameter poets prefer to end dactyls at colon end with a word ending in a consonant they cannot possibly feel any embarrassment at that arrangement. And yet, on the current theory, such consonants must be detached from their word over the sense break if the line is to scan. Strangely, Professor Soubiran turns this argument on its head. It never occurs to him to question the view that all closed syllables are long—he

simply assumes that liaison between words is necessary in such places. He therefore concludes that his figures reveal a conscious preference for CV over VC at sense break after second, third or fourth foot dactyl, a preference designed to prevent readers from pausing at sense break after such dactyls. From there, Professor Soubiran goes on to conclude that this distaste for pause after dactylic feet must reflect a general distaste for pause at diaeresis and that classical hexameters were recited with pause at the end but nowhere else, except sometimes, perhaps, at caesurae or after a first foot.

Sturtevant, it is true, has shown that punctuation is relatively uncommon in Greek hexameter verse at the ends of second, third and fifth foot dactyls<sup>24</sup>); on the other hand, he has also shown that in the Greek poets punctuation occurs after a fourth foot dactyl more often than at any other point except the end of the line. If pause at bucolic diaeresis really were repugnant to Greek poets they would surely not make it their second favourite place for colon end. Again, according to Sturtevant's figures, Latin poets show no marked aversion to colon end after a fourth foot dactyl.

Why then is CV so much more common than VC? Further similar evidence from verse will not, of course, be useful. If such evidence confirms a preference for CV at any point in the line it could be used to support Professor Soubiran's theory for that place; if it fails to show a preference for CV at some point in the line it could be used only to modify the theory—to suggest that at that point pause was permitted<sup>25</sup>). Accordingly, I take my evidence from prose. In Plato's *Republic*, from the beginning to 335B, there are 241 words

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<sup>24</sup>) *AJPh* xlii (1921), 289–308. Much more recently, A. W. Bulloch (*CQ* n.s. lxiv [1970] 258–68) has drawn attention to a new 'law' according to which a diaeresis after the third foot of a Callimachean hexameter is always accompanied both by a masculine or feminine third foot caesura and by bucolic diaeresis and that there is always syntactical colon end *either* at the third foot caesura *or* at the bucolic diaeresis *or* at both. His theory to account for this 'law' is that there is, in any case, a tendency among Hellenistic writers to restrict the use of diaeresis after the third foot and that Callimachus, sharing the general distaste for the phenomenon, uses it only in conjunction with colon end nearby so as to draw attention away from it. Mr. Bulloch calls this reasoning 'obvious' and, though I am inclined to agree with him, it ought to be pointed out that a high proportion of his colon ends at bucolic diaeresis are of the sort which must involve no pause at all according to the liaison theory of metrics, and, if they involve no pause, it is hard to see how they can draw attention away from a third foot diaeresis.

<sup>25</sup>) This is precisely the position adopted by Professor Soubiran when he fails to find a preference for CV after first foot dactyl.

of two syllables or more that could metrically end a dactylic foot of a hexameter. Of these, 102 end in a consonant and 139 in a vowel. However, 37 (or 36.3%) of those 102 that end in a consonant are followed by punctuation, whereas only 17 (or 12.2%) of the 139 that end in a vowel are followed by punctuation. Just as striking are the figures for Livy. In the first 21 chapters of the first book, there are 688 words of two or more syllables that could end a dactylic foot of a hexameter. Of these, 414 end in a consonant and 274 in a vowel. 101 (or 24.4%) of those ending in a consonant are followed by punctuation; only 20 (or 7.3%) of those ending in a vowel are followed by punctuation. It is, I suggest, in figures such as these that we should seek the explanation for Professor Soubiran's statistics. It will be noted that both sets of figures will easily account for a 3 : 1 differential. The truth seems to be that there is a general tendency in both Greek and Latin, in prose as well as in verse, to end cola with short closed syllables rather than with short open ones, if the cola end with a dactyl. Professor Soubiran may or may not be right in suggesting that this tendency cannot be accounted for merely by the large number of words like *ἐπί*, *παρά*, *ubi*, *nisi*, that cannot end a colon—he gives no statistics that would really help in making such a judgement. He is, however, surely wrong in suggesting that his figures tell us anything about the pronunciation of hexameter poetry at sense break, and wrong also in the basic premiss that led him to his conclusions<sup>26</sup>).

### Palatized \*l in Umbrian

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The conditions and the paucity of clear evidential data for the change of \*l > ʀ rs in Umbrian have been well set forth by Poultney in his *The Bronze Tables of Iguvium* (1959) 72 § 55 b, and (in admirable

<sup>26</sup>) An earlier version of this article was read to a meeting of the Classical Association of Ontario at Waterloo Lutheran University in November 1968. I am greatly indebted to my wife and to my colleagues and pupils both in Canada and Britain without whose long-suffering ears I could never have developed the ideas presented here.