

SOME PROBLEMS OF PUNCTUATION IN THE LATIN HEXAMETER

IN a discussion of the reading in Lucan 1. 231, Richard Bentley¹ dismissed Grotius's suggestion *Ariminon: ignes* on the correct grounds that, like Virgil, Lucan avoids starting a new sentence or clause at the beginning of the sixth foot of the hexameter, except with a pair of monosyllables (as in 6. 700, *per quam*) or with a word emphasized either by repetition (as in 7. 350, *ipsi . . . ipsi*) or by a strong contrast (as in Cicero, *Arat.* 266, *hic totus medius circo disiungitur: ille . . .*—the only example of this sort of break in Cicero's poetical fragments). Other scholars have commented on the rarity of this break,² but have often failed to draw significant conclusions. Without collecting full statistics, it seems worth while to make some observations which may throw light on the practice especially of Lucretius and Virgil. I hope to demonstrate that the ways in which each poet allows the rhythm of the hexameter to be interrupted before the final spondee can be so classified as to provide clear guidance concerning the punctuation of some debatable lines. Ancient and modern editors alike have often proposed interpretations which can be shown to be arbitrary and fallacious: in Lucretius, indeed, the actual reading of the text has sometimes been distorted by a failure to observe how the poet treats the close of the verse.

The particular phenomenon with which I am here concerned is a type of enjambement (not, unfortunately, discussed as a distinct category by Büchner³ in his treatment of enjambement in Lucretius): that is to say, where a sense-break occurs at the end of the fifth foot of the hexameter (or, rarely, after the first short syllable of the fifth foot) and the following word (or words) runs on directly to the next line. Normally such a break is indicated in our printed texts by punctuation; but some are worth considering where not even a comma is usually printed. I exclude places where a vocative or a parenthetic imperative interrupts the sense at this point.⁴

If such breaks are easy enough to observe in modern editions, it is far from certain that they were ever indicated in ancient manuscripts. Actual palaeographical evidence for the late Republic and early Empire is extremely limited. R. P. Oliver, indeed, claims⁵ that down to the end of the first century A.D. (that is, approximately until the introduction of the codex in place of the scroll) all Latin books, unlike Greek, contained distinct marks for period, semicolon, and comma; but that 'by one of the most astonishing regressions of ancient history' the practice was completely abandoned. In fact, his evidence for this remarkable theory seems to be derived from three texts: the fragment *de Bellis Macedonicis*,⁶ which contains two examples of 'to indicate a period; the

¹ In his edition of the *Pharsalia* (1816), pp. 22-4; cf. E. Norden, *Aeneis Buch VI*³ (1934), p. 389.

² e.g. J. Marouzeau, *Traité de stylistique latine*, pp. 274 ff.

³ *Beobachtungen über Vers- und Gedankengang bei Lucrez* (1936), pp. 47-103.

⁴ Apart from the fact that these words

disturb any true enjambement, it is clear from Quintilian 11. 3. 108, quoting *pro Lig.* 1, and from Cicero himself, quoting from *pro Corn.* in *Orator* 225, that such words form an integral part with other words of *incisa* or phrases.

⁵ *T.A.P.A.* lxxxii (1951), pp. 241-2.

⁶ *Pap. Ox.* 30, dated by Mallon (*Emerita* xvii (1949), pp. 1-8) to about A.D. 100.

fragment of the second *Verrine* of Cicero,¹ perhaps written within a generation of the orator's death, and containing a clear example of the symbol K for a period² and several of / or □ used interchangeably³ for a comma; and, most significant for our purpose, the series of fragments of the *Carmen Actiacum* from Herculaneum,⁴ firmly dated before A.D. 80. A full account of the marking of this text is difficult to obtain; but there are two clear paragraph-marks, one at the beginning and one at the end of a line, and several examples of /, to indicate a comma or semicolon, all occurring, it appears, at the end of lines. It is noticeable that the lines which run, *pars inlita parva venenis ocus interemit laqueis* *pars cogitur artis*, have no such mark to indicate that *laqueis* belongs with what follows. Even in these manuscripts there is certainly no evidence for an established system of punctuation, such as must be expected if the majority of texts were so marked; and in the two 'oratorical' fragments from Herculaneum⁵ and the 'Servius Tullius' fragment from Oxyrhynchus⁶ there is no evidence for punctuation. Rather than accept Oliver's theory (the further implications of which will be considered shortly) on such thin evidence, it is preferable to regard his three marked texts as examples of the *codex distinctus* or *emendatus* mentioned by the grammarians,⁷ which Marrou⁸ believes to have been marked by *rhetoires* and *grammatici* for teaching purposes and never to have passed into general use.

This conclusion tallies in every way with the indications of our main literary tradition. It is admittedly difficult to be certain what early scholars mean when they use such terms as *distinctio*, which may signify either punctuation or the division between words. Thus when Cicero refers to *interpunctio* as one of the pedantic concerns of the lawyer,⁹ he appears to be referring to such

¹ *Pap. Iand.* 90, published by J. Sprey (1931); also Lowe, *C.L.A.* viii. 1201, and Cavenaile, *Corp. Pap. Lat.* (1958), pp. 70-1.

² By what might be a remarkable coincidence, a similar example of K is reported as standing at the end of a paragraph at the beginning of Cic. *Verr.* ii. 4. 32 in the ninth-century *Cod. Reg. Par.* 7774A (so Orelli-Baiter-Halm, ad loc.). This suggests that the *Verrines*, as a favourite text for rhetorical study, were so marked throughout (or in some selected passages?) by a teacher whose copy has uniquely affected the MSS. tradition. Two other uses of K are reported: in *Pap. Soc. It.* ii. 142 (Lowe, *C.L.A.* iii. 289 dates it third/fourth century), a Virgilian cento based on *Aen.* i. 477 ff., where a K with extended tail straddled by a pair of dots is used at the end of every verse in the first of two columns (regardless of sense, if any) and apparently at the end of the last verse in the second column; and, according to R. Weber, in *Scriptorium* ix (1955), pp. 57-63, in various eighth-century (and perhaps earlier) English MSS. of the Vulgate to indicate mistakes in colometry, and also general errors of division. Whether K in these contexts signifies *kaput* (presumably for the beginning of a new sentence rather than the end of the previous one) or *kolon/komma* (Weber) or

even *klausula*, there is clearly no regularity of practice. For material in this note, and for other palaeographical assistance, I am indebted to Dr. J. D. Thomas and Mr. J. E. Fagg.

³ This is clear in the clause given as *cuius in Sicilia virtutem hostes* □ *miseriordiam victi* | *fidem ceteri Siculi perspexerunt*.

⁴ *Pap. Herc.* 817 (*C.L.A.* iii. 385). Zange-meister-Wattenbach, p. 1, pl. 3, has an indecipherable photograph; most transcripts (e.g. H. Degering, *Lettering*, pl. 7) do not show diacritical marks. E. M. Thompson, *Introduction to Greek and Latin Palaeography* (1912), p. 276, and F. Steffens, *Lateinische Paläographie* (1964), pl. 3, give complete transcriptions of part of the poem.

⁵ *Pap. Herc.* 1067 and 1475 (*C.L.A.* iii. 386-7).

⁶ *Pap. Ox.* 2088, dated by Mallon, *Pap. Rom.* p. 177-8, as late first century A.D.

⁷ *C.G.L.* iv. 484. 26-7K, v. 132. 1K, the former discussing the same sort of punctuation that is found in the Medicean of Virgil.

⁸ *Hist. de l'éducation dans l'antiquité* (1948), p. 553 n. 30.

⁹ *pro Mur.* 25. Certainly the insertion of *puncta* at this period appears to have served only to separate words.

problems as the instructions recorded by Quintilian¹ for burying a body *in culto* or *inculto loco*. Seneca has often been supposed to refer to punctuation-marks when he says² *nos etiam cum scribimus interpungere assuevimus*; but the context yields if anything better sense when this is taken of word-division. Quintilian certainly appears to refer simply to a break between words in utterance, when he says '*circum litora*' *tantum unum enuntio dissimulata distinctio* and *volubilitate nimia vocis distinctio perit*.³ More relevantly, in xi. 3. 35, discussing the question *quo loco sustinendus et quasi suspendendus sermo sit . . . quo deponendus*, he gives an analysis of the phrasing of *Aen.* 1. 1-7, using the term *distinctio* for a break between phrases; but the way he approaches the problem makes it clear that such breaks were not indicated in his texts by any sort of punctuation, and that only the beginner would be expected to need such assistance for purposes of correct reading. Indeed, in 9. 4. 51 he tells us clearly that some people (presumably teachers) *intervals signant quibusdam notis atque aestimant quot breves illud spatium habeat*—exactly as Alexandrian scholars marked texts, without making any noticeable impression on the tradition of manuscripts.

It is certainly remarkable how little impact was made on our texts by the important editorial work of such men as Valerius Probus, who, as Suetonius tells us,⁴ *multa exemplaria contracta emendare et distinguere et annotare curavit*. It is clear from the fragment of Suetonius' work *de Notis*, preserved in *Cod. Par.* 7530,⁵ that Probus inserted in texts of Virgil, Horace, and Lucretius Alexandrian *adnotationes* or critical marks; as Servius specifically records that he did at *Aen.* 1. 21-2, 4. 418, 10. 444. On the other hand, the *adnotatio* quoted by Servius on 12. 605 was simply an explanatory *scholium*, as most of his work appears to have been. He appears seldom to have altered the actual text (perhaps only at *Aen.* 7. 773, 8. 406, *Geor.* 1. 277); and the only hint in Servius that Probus was concerned with punctuation is at *Aen.* 10. 173, where it is stated *Probus 'trecentos' subdistingui vult*. Even here it is evident that Probus does not insert punctuation (*subdistinguit*), but that he indicates in an *adnotatio* the desirability of making a minor pause at the end of the line—a singularly insignificant contribution to the sense. Likewise Servius quotes Donatus only as recommending punctuation, at *Ecl.* 2. 17, *Geor.* 4. 345. Only Asper (late second century) is stated actually to have punctuated the text (*distinxit*), at *Aen.* 9. 31, 11. 358. It is interesting, and surely significant, that Aulus Gellius, although he is often concerned with the accurate reading of what Virgil and others actually wrote, never deals with problems of punctuation.

I believe that Marrou is correct in his claim that only individual teachers' texts were ever marked with signs of punctuation, and that no standard practice was ever established until a relatively late date.⁶ In our earliest complete

¹ vii. 9. 5.

² *Epp.* 40. 11. For a survey of interpretations, see J. Andrieu, *Rev. ét. lat.* xxiv (1946), pp. 296-8, with his own conclusion that the reference is to the division between words in writing.

³ 1. 5. 27, 11. 3. 52.

⁴ *Gram.* 24. 3.

⁵ See S. F. Bonner, *Hermes* lxxxviii (1960), pp. 354-60.

⁶ This conclusion tallies with the normal assumption of the handbooks: e.g. Thompson, *op. cit.*, p. 61; F. G. Kenyon, *Books*

and Readers in Greece and Rome (1932), p. 67. It is unfortunate that Norden, in his important note on the nature of ancient punctuation (*op. cit.*, p. 386), does not really consider the problem of its continuity in the tradition of MSS.; and T. E. V. Pearce, in *C.Q.*, n.s. xvi (1966), p. 145, quoting M as evidence for ancient punctuation, does not ask whether this represents Virgil's own practice. For a typical editorial view see O. A. W. Dilke's *Horace, Epistles I* (1966), p. 35 n. 2: 'Editors can use their own judgment in punctuation.'

manuscripts of the Latin authors, particularly the Virgil codices from about the fourth century,¹ the insertion of stops always appears to be the work of later hands, and not to be based on the scribal tradition. Thus at the end of the fifth century Turcius Rufius Apronianus Asterius (*cos.* 494) claims, in his *subscriptio* at the end of the *Eclogues* in M, already about a century old,² *distincxi emendans*. For Servius, at the end of the fourth century, texts appear to have resembled our extant M or P, with no satisfactory tradition of punctuation. Accordingly he is able to consider, as entirely open questions, alternative punctuations of *Aen.* 1. 608, *lustrabunt convexa polus dum sidera pascet* (with point before or after *convexa*); 2. 48, *aut aliquis latet error equo ne credite* (before or after *equo*); 2. 294–5, *his moenia quaere magna pererrato* (before or after *magna*); 5. 262, *donat habere viro decus et tutamen in armis* (before or after *viro*); 6. 358, *adnabam terrae iam tuta tenebam* (before or after *terrae*); 8. 533–4, *ego poscor Olympo hoc signum cecinit* (before or after *Olympo*); 11. 358–9, *veniamque oremus ab ipso cedat ius proprium regi patriaeque remittat* (before or after *cedat*).³ It is not surprising that Turcius felt it necessary to clarify M with punctuation.

It is evident, then, that the actual punctuation of Latin texts during the whole period of the Empire was exceptional, and has left virtually no trace in our manuscript tradition. We should find this situation highly puzzling, as Servius did. For Virgil's contemporaries and their descendants for several generations this cannot have been the case. Nor is it likely that the correct phrasing of the poet's words was simply handed down by aural memory (although this seems to have been far stronger in antiquity than we are used to today) of *recitationes* given by the poet himself, however much these may have contributed to the interpretation of the poems in the schools of some *grammatici* for a generation or so. If readers generally relied on such memories as authoritative guides to punctuation, we should expect Gellius to refer to accounts of Virgil's own reading, as he does to his own copies of the poems. Quintilian (1. 8. 1) explains how the problem affected the young student when he tackled *lectio* or *poetarum enarratio*. He needs to know *ubi suspendere spiritum debeat, quo loco verum distinguere, ubi claudatur sensus, unde incipiat*—and this *demonstrari, nisi in opere ipso, non potest . . . unum est igitur, quod in hac parte praecipiam, ut omnia ista facere possit: intellegat*. Correct phrasing, that is to say, follows from understanding the sense; and the sense emerges from the words. I believe that readers of the first few generations after the poet's own time were able to understand the structure of the sentences simply from their knowledge of the run of the language. Somehow misunderstandings of the writer's meaning must have been avoided, or major controversies concerning punctuation would have left their mark on our authorities long before the middle of the second century, with its strong predilection for republican poetry and prose.

We may safely regard the dark period of the third century as somehow having broken the train of continuous understanding; so that texts which were adequate for Probus, Quintilian, and Gellius needed the attentions of men

¹ I shall refer mainly to Mediceus (M), reproduced by Rostagni (1931); Palatinus (P), by Sabbadini (1924); and the Schedae Vaticanae (F), by Ehrle (1899, 1930). For other authors see E. A. Lowe's list in *C.Q.* xix (1925), showing very few indications of punctuation, or even word-division.

² So Rostagni, *op. cit.*, pp. 8–10.

³ Yet he never contemplates the improbable break in 2. 433, *vitavisse vices, Danaum et si fata fuissent*, recommended by Peerkamp, Nettleship, and others; nor does he consider any variants at 7. 298, *fessa iacent, odiis aut exsaturata quievi*, as MP and modern editors have it.

like Servius and Turcius before contemporaries could satisfactorily understand them. To a certain extent we are today probably in a better position to interpret problems of this sort than these late scholars were. At all events, we can often come to fairly reliable decisions by systematic analysis of the practice of individual writers. Occasionally our decisions must be based almost entirely on subjective criteria:¹ I suspect that they should never be made arbitrarily and in total disregard of the obvious way in which the Latin words would be read in early texts devoid of punctuation.²

In illustration of this principle, it would be interesting to conduct a detailed survey of all our classical Latin texts and to question the validity of a great deal of punctuation which has been passed down with little doubt since the Renaissance, or even from the Carolingian period. For the purposes of this paper it must be sufficient to consider the ways in which Lucretius first and then Virgil admit sense-breaks at the end, or just before the end, of the fifth foot of the hexameter.

In the great majority of examples in Lucretius, misunderstanding is impossible. Sometimes the new element begins with a relative pronoun, such as *quorum* (1. 242, 456, 684, 4. 116), or a correlative, as *quantum* (1. 360, 2. 1070), or conjunctions, such as *verum* (2. 696), *utqui* (1. 755, 2. 428), *quare* (2. 308), *postquam* (3. 843), *quamquam* (2. 204)—it does not matter whether some of these are classed as disyllables or not. Alternatively, the closing word of the line clearly marks resumption after a subordinate clause, as the demonstrative *tanta* after the clause beginning *quantula* in 3. 378–9, or *quicquam* after the relative clause *nec quod sub magno scrutentur corpore* in 3. 985–6, or the verb of the apodosis in *praesertim cum, quae possimus cernere, celent* in 2. 315. In all of these, the mere run of the words makes the division of the sentence unmistakable. Slightly less obvious, but still more or less in the same category as the three last examples, is 6. 462–4:

propterea quia, cum consistunt nubila primum,
ante videre oculi quam possint tenvia, venti
portantes cogunt ad summa cacumina montis.

At least no possible sense can be extracted, even momentarily, by reading *venti* as part of the *ante . . . quam* clause; and the role of *venti* as subject is promptly established by *portantes* at the opening of the next line.

But there are passages where a break at this point in the line can lead to confusion, and has indeed done so. It is noticeable that more often than not the break is the result of emendation by modern scholars.

Perhaps the simplest example is 5. 457–8:

ideo per rara foramina terrae
partibus erumpens primus se sustulit aether.

¹ M. P. Cunningham, in *Proc. Am. Philos. Soc.* ci (1957), p. 504, enunciates a general rule for determining phrasing in Latin prose: '*Distinctio* of some sort occurs at points where what follows does not go closely in grammar with what precedes'; and conversely: '*Continuatio* is normal between words when the second goes closely in grammar with what follows'. It will be found that our major dilemmas concern adverbs, whose relation to what precedes is precisely the question at issue.

² I am thinking of such follies as the punctuation attributed by Servius to the Vergiliomastix (in jest?) at *Ecl.* 2. 22, *lac mihi non aestate novum, non frigore, defit*, or his own perverse preference at *Ecl.* 3. 108, *non. nostrum inter vos tantas distinguere lites*. Little more legitimate appear such readings as the commonly accepted *sera, tamen pietas* in *Prop.* 3. 15. 35, found in most texts since Müller (1885).

Bailey, following Lachmann, Munro, and others, objects to *partibus* unsupported and asserts that *terrae partibus* must be taken together; others actually insert a comma before *terrae*, as Bailey did in his original O.C.T. in 1898. In the absence of punctuation it is hard to see how the ancient reader could have phrased the words in this way—unless he had heard Lucretius himself read the lines accordingly. Then as now, the reader would recognize *foramina terrae* as a natural phrase, as it is in line 811 of the same book, and as it appears with a similar adjective in 6. 582, *per crebra foramina terrae*. The insertion of a sense-break between the words, at this point of the line, outrages the flow of the sentence, and is intolerably arbitrary. If *partibus* is felt to be uncomfortably isolated, Giussani's solution is surely right: that once *terrae* has been established in the preceding phrase, it is easy enough to understand it as partitive with *partibus*.

Likewise at 6. 623–6, Bailey's Oxford text presents:

tum porro venti quoque magnam tollere partem
umoris possunt verrentes aequora, ventis
una nocte vias quoniam persaepe videmus
siccari mollisque luti conrescere crustas.

624 aequora venti *OQ*; aequora ponti *L*

L's *ponti* is probably an ingenious emendation, but may be from a sensible reading by Poggio of a blurred archetype which the scribes of O and Q had misread. Of course it forms a familiar enough poetic phrase, and it is appropriate here, since it is precisely the surface of the sea which is affected by evaporation. The printed text, with the ominous break after the fifth foot, is due to Lachmann, who prided himself on having produced good sense by the insertion of a single letter. Unfortunately the insertion of the comma proves a more drastic step than Lachmann supposed. With *quoniam* already postponed to fourth place in its line and clause, it requires a singularly improbable phrasing to take *ventis* as part of the following causal clause. Incidentally, *ventis* does not even suit the sense of the *quoniam*-clause: we do not see that the *winds* have dried up the mud overnight, merely that it is dried up. It is reassuring to find that better sense is preserved by jettisoning Lachmann's wayward punctuation and by accepting some such reading as L's *ponti*—if it is not rather the earlier *venti* that should be replaced, as by Merrill's *validi*, involving an uncomfortable wait for the subject.

Again at 2. 927–9 the O.C.T. has:

quatenus in pullos animalis vertier ova
cernimus alituum vermisque effervere, terram
intempestivos cum putor cepit ob imbris.

928 offervere *O*; offerruere *QV*; effervere *L*

929 quam *OQV*; cum *Marullus*

The Renaissance corrections are not difficult in themselves, especially if *cum* appeared as *qum*, or even *quum*. It is not certain that *offervere* should not be retained, as a further Lucretian *hapax* (it might carry the additional idea of 'bubble up at us', which would not be inappropriate); but this hardly affects the issue. The real trouble with Marullus's suggestion is the arbitrary insertion of the comma, once more obliging the closing word of the line to be taken as belonging inside a clause introduced by the postponed conjunction in the next

line. The Roman reader would surely have tended to read the last three words together and to assume that *effervere* was somehow transitive,¹ with *vermis* as object and *terram* as subject. This might be more acceptable still if *effervere* were retained. If emendation is required, that of Martin respects the natural run of the words far better: *effervere terra . . . quam*—a single letter expunged from the manuscript reading, with no obtrusive punctuation. This is of course supported by Virgil's reminiscence of this passage in *Geor.* 4. 556, *ruptis effervere costis* (again of the spontaneous generation of life from inanimate matter).

Three other emendations which have achieved some success may be shown to be extremely improbable, on account of the break which they introduce after the last word. First the corrupt passage 6. 804–5 is read in Bailey's 1947 text as:

at cum membra hominis percepit fervida febris
tum fit odor vini plagae mactabilis instar.

804 domnus *OQU*; domus *A*; hominis *Lambinus* fervida servis *O*; fervida fervis *QU*;
fervida febris *Lambinus*

Here Munro wished to read *fervidu'*, *nervis*, with an unlikely enjambement of the last word, pushing *tum* into second place in the apodosis.² *Lambinus*'s version is preferable on every account, and does not upset the natural feel of the words.

Again, Munro wished to cure the corrupt *propter odores* at the end of 5. 1442 by reading *puppibus: urbes*, thus providing the following sentence with a specific subject, which it does not need. In fact, Lucretius never starts a new sentence at this point in the line, and Munro should have noticed this. Nor does he ever begin an apodosis at the same point and link it to further words with an *et*, as is implied by the old emendation of one of the Italian manuscripts at 1. 657–9:

sed quia multa sibi cernunt contraria, mussant
et fugitant in rebus inane relinquere purum.
ardua dum metuunt, amittunt vera viai.

muse *O*; mu *QG*; mussant *l* 31

It has been well enough established by editors that the sense is better served by keeping *fugitant* as parallel to *cernunt* and leaving *amittunt* as apodosis to the whole; but in itself the complete lack of parallel to the break required before *mussant* is sufficient to reject this emendation. For once, Munro is far more convincing with *nasci*, which at least plays the right part in the sentence.

In these examples, observation of Lucretius' normal practice, and of the way in which his words were bound to be read by the contemporary reader, helps to avoid misunderstandings of the text and mistaken attempts at emendation. Certain passages remain obscure, although the actual text is not in doubt.

In 4. 265–6:

praeterea lapidem digito cum tundimus ipsum
tangimus extremum saxi summumque colorem,

¹ This would also have the advantage of making the inanimate (*ova . . . terram*) subject of the infinitive in either half of the sentence.

² Elsewhere *tum* resuming after a *cum*-

clause stands first in the apodosis, except thrice (2. 44, 6. 281, 6. 1151), where it is preceded by an emphatic word, always in the same line.

the editors assert that *ipsum* goes with *extremum* in the next line, not with *lapidem*. This involves another somewhat arbitrary comma, although the sentence would still resemble those listed above, where the apodosis after a subordinate clause begins at this point in the line (e.g. 2. 315, 3. 985); but here ambiguity is possible, and indeed inevitable, until the comma is firmly inserted in 265. It is difficult to be confident that the sense really establishes the reference of *ipsum*, to mean 'the very limit of the stone' rather than 'when we tap on actual stone'—Lucretius' use of *ipse* tends to be irrational at the best of times.¹ I suspect that we should read these lines as the words encourage us to, without introducing punctuation.²

Three problems of punctuation at this point concern adverbs. At 6. 528 Bailey, following Lachmann and Munro, reads *omnia, prorsum | omnia*, quoting as parallel 2. 955–6, *vincere saepe, | vincere*, and referring to p. 156 of his own Prolegomena for such further examples as 2. 12–13, *aurea dicta, | aurea*, none of them containing the sort of break before the sixth foot which he recommends here. As in these parallels, the break must come at the end of the line. It is patently wrong before *prorsum*, for this adverb in Lucretius regularly belongs with what precedes, as in 3. 273, *penitus prorsum*, and especially in 2. 340, *omnibus omnia prorsum*, which Bailey correctly takes together, following Ernout and rejecting Merrill's idea, that *prorsum* goes with *pari* in 341.

Again, in 5. 572–3 Bailey's O.C.T. and his 1947 translation assume a comma before *vere* in

forma quoque hinc solis debet filumque videri,
nil adeo ut possis plus aut minus addere vere,

so as to separate it from the immediately preceding words. In his 1947 text and commentary he rejects 'editors', including himself, arguing rightly that *vere* is much too far removed from *videri* to modify it. It is manifest that no adverb could be isolated in this way, especially when it reads naturally, and makes perfect sense, with *addere*.

There is a considerably graver problem in 3. 1005–6:

quod faciunt nobis annorum tempora circum
cum redeunt fetusque ferunt variosque lepores.

Traditionally, *circum* belongs within the *cum*-clause—not so difficult as when the conjunction is already postponed, as in 6. 625 and 2. 929, considered above—with a comma required before it to separate what would otherwise be read together. Certainly *circum* can only with difficulty be understood with *faciunt*; but it is not so easy with *redeunt* as editors have assumed.³ I suspect that the awkwardness of the sense-break after *tempora* demands the less easy interpretation,

¹ Cf. 5. 1010, and Bailey's Prolegomena V.B. § 8, p. 96.

² For the form of the phrase thus given cf. 2. 886, *animum quod percussit ipsum*; though no enjambement is there involved.

³ The *T.L.L.* (C. 1114) records the phrase as unique. Lachmann was so suspicious of it as to read *victum* for *circum*, with *quod* causal. Heinze explains it as a conflation of the familiar ideas seen in 5. 931, *solis volventia lustra*, and in 1. 311, *solis redeuntibus annis*;

but it is not clear that Lucretius mixes ideas in this way. A closer parallel, given by Heinze, is Manilius 3. 524, *sideris . . . redeuntis in orbem*. Heinze's verdict, 'bold, but not liable to misunderstanding', takes no account of the position of *circum* in the verse. In *Lucr.* 2. 1107–8, *addita circum | semina*, the adverb belongs with the preceding participle; but the whole phrase in enjambement is bound closely together.

with *circum* to be taken almost as implying *circumeuntia*. At the same time, it would be wrong to exclude the possibility that the adverb belongs both to what precedes and to what follows ἀπὸ κοινοῦ. But the problems of adverbs in this position will be discussed further below.

There is some uncertainty about two adverbs which occupy the three final syllables of the line. In 1014, *tollunt clamorem quasi si iugulentur ibidem* (with a stop at the end of the line, so that enjambement is not here in question), Bailey prints a comma before *ibidem* and translates the adverb as 'all without moving', criticizing Giussani for 'removing the comma'—which is not in Lachmann's or Munro's text and not observed in Ernout's translation, although he prints it in his text. Since it makes excellent sense with *iugulentur*, the insertion of the comma seems inordinately arbitrary. Likewise in iv. 802–3:

et quia tenvia sunt, nisi quae contendit acute
cernere non potis est

editors punctuate after *contendit*, although admitting that *cernere* is to be understood with that verb as well as with *potis est*. In fact, according to Lucretius' own theory, the mind does not perceive *simulacra* unless it concentrates on them; and this concentration is best described by the phrase *contendit acute cernere*, with *cernere* taken a second time, or taken ἀπὸ κοινοῦ with *potis est*. There is no justification for the break in the fifth foot; for in 810, *ut cernamus acute*, the argument has switched to vision, where circumstances are different.

Three prepositional phrases fall into the same adverbial category. In 5. 465–6 Bailey's O.C.T. reads

omnia quae sursum cum conciliantur, in alto
corpore concreto subtexunt nubila caelo.

In 1947 he abandoned this punctuation and recognized, with Merrill, that the sense was better with no break at this point. The comma he now inserted at the end of the line, however, is little less confusing, for 4. 136, *nubes . . . concrescere in alto*, suggests that *in alto* is here to be taken ἀπὸ κοινοῦ. Likewise in 6. 257–8, *demissum flumen in undas / sic cadit*, and 3. 288, *quem sumit in ira / cum fervescit*, the prepositional phrases are best taken with what precedes no less than with what follows.¹

In short, it may be claimed with some confidence that, except where the run of the sentence is absolutely clear,² a sense-break before the last word can never be assumed. I should go further and assert that nowhere in Lucretius is there a sentence whose meaning is determined by the presence of a comma. There is clearly a tendency, as in Lucretius' contemporary Catullus, for some sort of pause to be expected at the end of the hexameter; otherwise the words are so arranged as to present their own phrasing to the observant reader. Where editors propose an interpretation or a reading which contravenes his normal practice, their suggestions should confidently be rejected.³

¹ Virgil appears to have no examples of a break before a phrase of this sort.

² As in 3. 79–80, *mortis formidine vitae / percipit humanos odium lucisque videndae*. Bailey unnecessarily separates off *mortis formidine* with commas.

³ Nevertheless, it should be observed how often a single passage in Lucretius does in-

fringe the poet's normal metrical or prosodical practice: e.g. 5. 949–50, *omnia deber' / ut* (his one hypermetric line); 6. 755, *natura loci opus efficit* (his one hiatus); 3. 198, *coniectum spicarumque* (plausibly accepted by Bailey, who observes that everywhere else a spondaic fifth foot is preceded by a dactylic fourth); 3. 493, *anima spumas* (Tohte's

Yet it is evident that different poets have very different habits in their treatment of the fifth foot. Virgil, as Bentley observed,¹ has a marked preference for two monosyllables following a break at this point² (there are hardly any examples of this in Lucretius, apart from *cum Pan* in 4. 586 and *quot sunt* in 3. 317). On the other hand, he develops the use of emphatic words here, as *ille* to begin a new sentence (*Aen.* 9. 221, 10. 195) or to resume after a parenthesis (*Geor.* 3. 272), and of such repetitions as *longae . . . longae* (*Aen.* 1. 342) and *circum litora, circum* (4. 254). The latter category also includes such examples as *Aen.* 5. 633-4, *nullane iam Troiae dicentur nomine? nusquam | Hectoreos amnis . . . videbo?* and ib. 624-5, *o miserae . . . o gens | infelix*. It is interesting to note that this somewhat rhetorical type occurs in Cicero (as quoted in my first paragraph), but nowhere in Lucretius. Highly emphatic, though in a different way, is *nunc nunc* beginning a new sentence at the end of 12. 525. The close of 10. 153, *haud fit mora, Tarchon | iungit opes*, suggests rather a variant for *ille*, to introduce a new subject: it is absolutely unambiguous.

But in Virgil as in Lucretius there are a few passages where punctuation may appear necessary to obtain the proper sense. Most straightforward is *Aen.* 7. 37-8:

nunc age, qui reges, Erato, quae tempora rerum,
quis Latio antiquo fuerit status.

Servius, with the punctuators of M, P, and F, assumed that the break came at the end of the line. Peerlkamp inserted a comma after *tempora*, to admit the phrase *rerum status*, for which Henry also argues hotly, with parallels from Livy and Tacitus. Useful though the historians often are for illustrations of epic usage, they are not decisive here, especially when *rerum* may be taken secondarily with *status*. More important, Peerlkamp's punctuation (which has found favour in few places, apart from Hirtzel's O.C.T.) spoils a good tricolon; and it is impossible to imagine any ancient reader phrasing an unpunctuated text so as to separate *tempora rerum*.

A close parallel occurs in *Aen.* 6. 122-3:

quid Thesea magnum
quid memorem Alciden?

Here controversy goes back to late antiquity. M and F punctuate at the end of the line, P after *Thesea*, while Servius prefers the latter (*melius sic*). Henry quotes abundant evidence for the use of *magnus* with Hercules' name in Latin poetry; but again the familiar phrase is not bound to be Virgil's. Norden (p. 390), following Wagner, points out the difficulty of separating *Thesea magnum*; and Fletcher shows how *magnum* and *memorem* both belong with both halves of the sentence,³ but are distributed symmetrically.

emendation, followed by Bailey, giving Lucretius' sole example of a final short vowel making a long syllable before initial *sp-*, etc.). A unique transgression of his observed practice can never automatically be dismissed as impossible.

¹ In his note on Lucan 1. 231 (see p. 330 n. 1 above).

² Always including a conjunction or relative (as *qui se*, *at tu*, *si quem*), so that the run

of the sense is unmistakable. The only exceptions are quoted below.

³ For a similar example of ἀπό κοινοῦ see Norden's note on *Aen.* 6. 358, *paulatim adnabam terrae iam tuta tenebam*, where Servius knew of punctuations before and after *terrae*. Norden rightly sees that *terrae* (as dative) cannot be separated from *adnabam*; but it is also essential (as genitive) with *tuta*, as the alliteration emphasizes.

The *Georgics* contain one passage where punctuation has a vital role at the end of the fifth foot:

demissae aures, incertus ibidem
sudor et ille quidem moriturus frigidus; aret
pellis et ad tactum tractanti dura resistit. (3. 500-2)

Commentators appear always to have understood that *pellis* was subject to *aret*. M already indicates a stop (P has no punctuation in the *Georgics*), and Servius has no comment at all. A stop at the end of the line is not quite intolerable, though *et ille quidem* may seem less likely with a following verb. More conclusive, the cold sweat can hardly be dry, and the skin surely is; though this is a consideration which could hardly strike the reader in full swing. This is a line where, if anywhere, Virgil must have indicated his intention by some mark of punctuation, if his readers were to phrase the words correctly.¹

But, as in Lucretius, uncertainty occurs most often in connection with adverbs at the end of the line; although, as Norden points out,² such words are less common here in Virgil. Markland attempted to insert a break before *circum* in *Aen.* 4. 416-17:

Anna, vides toto properari litore circum
undique convenere.

M and Servius both punctuate at the end of the line, and Priscian quotes it as a whole. Henry has one of his most convincing notes in support of the old tradition, although he does not remark on the improbability of starting a new sentence at this point. At 5. 389, on the other hand, the tradition of Servius and Tib. Donatus, supported by M and P, gave

Entelle, heroum quondam fortissime, frustra
tantane tam patiens nullo certamine tolli
dona sines?

R. D. Williams reasonably claims that the ancient scholars 'miss the point entirely' when they punctuate before instead of after *frustra*. He does not indicate how the run of the words in fact determines the sense—presumably *tantane* in itself announces the beginning of the question³—nor how difficult it is to attach *frustra* to any of the following words.⁴

For the most part it is true to say⁵ that an adverb at the end of the line will normally carry on its force to the following line; but frequently, as in the last two examples discussed, a distinct pause at the end of the line makes the force

¹ R. G. Austin (whom I wish to thank for many hints and corrections in this paper) points out that *aret* introduces the third member of a tricolon, the preceding members of which each begin likewise with emphatic words constituting the predicate.

² Op. cit., pp. 400 ff.

³ Elsewhere in Virgil *-ne* is attached over 90 times to the first word of a sentence or clause (cf. especially *Aen.* 1. 132, 10. 845, both beginning with *tantane*); only once to the second word, in 2. 597, *superet coniunxne*

Creusa / *Ascaniusque puer?* (on which see Austin's note). There is no question there of enjambement, and *coniunx* carries considerable weight.

⁴ Contrast 2. 348, *fortissima frustra* / *pectora*, where the adverb is sandwiched in the manner described in the next paragraph.

⁵ So Austin on *Aen.* 2. 18: 'Such "indifferent" words belong usually to the following line and do not find their full force till then.'

of the adverb retrospective. Even working with a totally unpunctuated text, such as our oldest Virgil manuscripts appear to have been originally, such pauses are generally made clear by the words themselves: whether by conjunctions or introductory particles opening the following line (as in *Aen.* 1. 328-9, *o dea certe— | an Phoebi soror?*; 3. 686-7, *certum est dare lintea retro. | ecce autem Boreas*; 4. 307-8, *nec te data dextera quondam | nec moritura tenet*), or by repetitions (as 2. 792-3, *ter conatus ibi collo dare brachia circum, | ter frustra . . .*; 2. 405-6, *ardentia lumina frustra, | lumina, nam . . .*); or the form of the words indicates without doubt that a new sentence begins in the new line (as 2. 145-6, *misere-scimus ultro. | ipse viro primus*). Whether Virgil himself used punctuation or not, such passages can never have been ambiguous. In a few lines which are not clearly end-stopped in this way, a final adverb may still refer back to a preceding verb; but it will always be found to be firmly sandwiched between a closely related pair of words, to which its force also extends in part, as in 3. 703-4, *ostentat maxima longe | moenia*, or 5. 125-6, *tumidis summersum tunditur olim | fluctibus*. This last stylistic device, permitting fine shades of meaning and ensuring complete clarity of phrasing, hardly occurs in Lucretius.¹ In general, enjambement is so much less common in Lucretius than in Virgil that the reader becomes used to expecting a pause at the end of the verse and to interpreting adverbs accordingly.

But where in Virgil there is no definable indication of a pause at the end of the line, the adverb will normally carry its force forward. Thus in 4. 688, *illa gravis oculos conata attollere rursus | deficit*, the assumption has normally been,² from the time of M, P, and F at least, that *rursus* refers forward to *deficit*; although it is still arguable that the participial phrase continues to the end of the line, leaving *deficit* in effective isolation to suggest Dido's instantaneous collapse after the protracted agony of raising her eyes. The precise sense of *rursus*, as 'back again', is slightly against this.³ But this example illustrates the real difficulty of determining whether a pause can really be felt at the end of the line or not. Virgil may here be held to have allowed himself to be entirely ambiguous.

In 11. 496 a very small point is at issue:

emicat arrectisque fremit cervicibus alte
luxurians luduntque iubae per colla per amos.

Servius admits possible doubt: '*alte arrectis*' . . . *non 'alte fremit' aut 'alte luxurians'*. Yet in the absence of a clear pause after *alte*, the adverb should be expected to refer to *luxurians*, despite Servius, who is never concerned with rhythms. It is utterly arbitrary to claim that there is a pause at the end of the line; equally so that there is one after *cervicibus*. The example is so odd that I suspect

¹ Perhaps only in 2. 1107-8 *addita corpora sunt extrinsecus, addita circum | semina*, where the relation of *extrinsecus* to the first *addita* determines that of *addita circum*; and in 1. 66-7, *mortalis tollere contra | est oculos ausus primusque obsistere contra*, where the sandwiching is not close, and there is certainly no ambiguity.

² About half the texts I have inspected print a comma after *attollere*; most translators follow suit, as Stanyhurst, 'Feeble

agayne weixing she droups'; Mackail, 'Swoons back'; Rhoades, 'Sinks back swooning'; and the Budé, 'Et de nouveau s'évanouit'. No text appears to print a comma at the end of the line; but Austin prefers to break the sense there, translating '*rursus*' as 'in turn' or 'to meet her', while Paratore likewise has 'tenta risollevarsi'.

³ But the strict sense of *rursus* cannot be pressed in *Aen.* 3. 31, 4. 557, 11. 621, 12. 571.

the adverb is to be referred forward as well as back: in its usual sense with *arrectis*, rather more interestingly with *luxurians*. Tib. Donatus may have chosen the latter in his paraphrase: *dum arrectis cervicibus se in altum erigit*.

More important is the issue in 3. 546-7:

praeceptisque Heleni, dederat quae maxima, rite
Iunoni Argivae iussos adolemus honores.

Here the adverb *rite* makes much more effective sense with the following line, and M is punctuated accordingly (P is mutilated at this point). If this is right, the reader must somehow be expected to know that the relative clause stops at the end of the fifth foot, not at the end of the line. The similarly inverted relative clause in 7. 532-3, *natorum Tyrrhi fuerat qui maximus, Almo, sternitur*, is significantly different, since *Almo* is to some extent separated from both the preceding and following words. Lucr. 1. 495-6, *quando utrumque manu retinentes pocula rite / sensimus*, where *rite* clearly belongs with *retinentes*, may simply illustrate the greater expectation of end-stopping in Lucretius. Here the probability is that the adverb refers forward, since there is no indication of a pause at the end of the line, and *rite* is not in any way sandwiched between related words. For the purpose of reading, one may suppose the reader's eye to be caught by the cult-title of Juno, if not by the ritual word *adolemus*, and to recognize the connection of *rite* with what follows.

A similar problem occurs in *Geor.* 4. 264-6:

hic iam galbaneos suadebo incendere odores
mellaque harundineis inferre canalibus ultro
hortantem et fessos ad pabula nota vocantem.

Editors agree that *ultro* makes better sense with *hortantem*, which, after all, it immediately precedes. Yet it is not impossible with *inferre*:¹ 'bringing them honey over and above what they might have provided for themselves'; and the rhythm would then be paralleled by *Geor.* 3. 420-2, *cape robora, pastor, / tollentemque minas et sibila colla tumentem / deice*, with two present participles sandwiching a self-contained line.² Elsewhere Virgil has *ultro* eight times at the end of a line before a distinct pause; twice referring to a following verb (as *Aen.* 7. 236-7, *quod ultro / praeferimus manibus vittas*) and once to a verb two lines further on, after a parenthesis (2. 59-61, *qui se ignotum venientibus ultro— / hoc ipsum ut strueret Troiamque aperiret Achivis— / obtulerat*). There are two further examples which fit into no clear category, and indicate the peculiar problems over the use of this word. In 10. 830-1, *inrepat ultro / cunctantis socios*, the adverb must refer back to *inrepat*, as if the line were end-stopped; and the anomaly can only be explained by the occurrence of the phrase *inrepat ultro* as a unified phrase before a stop leading to *oratio recta* at 6. 387, 9. 127 (and possibly 10. 278, in this same book). And in 11. 471-2, *qui non acceperit ultro /*

¹ The suggestion that interlinear hiatus (as here *ultro / hortantem*) might be an argument against linking the two words too closely proves to have nothing in it: cf. *Aen.* 1. 13-14, *Tiberinaque longe / ostia*.

² For a similar self-contained line sandwiched between present participles, cf. *Aen.*

2. 380-1, (*anguem*) *repente refugit / attollentem iras et caerulea colla tumentem*, based on *Geor.* 3. 421, quoted here. In neither, however, is the first participle entirely on its own, as *hortantem* will be here if *ultro* is taken exclusively with *inferre*.

Dardanium Aenean, the adverb refers back to the preceding verb although the line is not end-stopped. However, the words all belong to the same clause, and there is no possibility of ambiguity. In the passage under discussion from *Georgic* 4, none of the possible parallels provides decisive guidance. Where the ambiguity is so pronounced, it is better to admit that the adverb is to be taken ἀπὸ κοινοῦ, with a general sense of 'going out of our way to help them'.

One fact emerges clearly from this discussion of Virgil's practice at the end of the hexameter: the frequency with which he allows a word in the sixth foot to be taken more or less equally with the preceding words and with the opening of the next line—a practice for which a certain anticipation is to be seen in *Lucr.* 5. 457–8, *rara foramina terrae* / *partibus*, discussed above, but which accords well with what we know of Virgil's subtle treatment of words in other respects. Where this sort of ambiguity was not relevant, Virgil seems, like Lucretius, to have allowed his words to speak for themselves, without the need for diacritical marks in the text,¹ once the reader recognized certain conventions (not necessarily Virgil's own), which indicated how words should normally be understood in combination. There were evidently other factors involved, which might explain why Virgil exhibits such a strong preference for two monosyllables after the fifth-foot pause, where Lucretius prefers a disyllable. The later heroic poets appear to have followed Virgil closely enough in this respect, so that Bentley was justified in rejecting a reading in *Lucan* which would have involved the violation of Virgilian rules. *Statius* appears to adopt similar standards; although *Theb.* 3. 36, *cunctis sedit sententia, fratris* / *pertemptare fidem*, involves a difficult sense-break, helped only by the double alliteration;² and, like Lucretius, *Statius* does not object to *verum* to introduce a new sentence at this point (*Theb.* 3. 136). Also his use of emphatic words after a fifth-foot pause includes some which are to be repeated in the following line—an interesting extension of the rhetorical Virgilian type (e.g. 2. 548, 3. 62). On the other hand, *Silius Italicus* and *Valerius Flaccus* seem much freer in the manner in which they break the sense at this point, here following the practice of such works as *Culex* and *Aetna* (*Ciris* is completely Virgilian in this respect). The standard of these works approaches that of the satirists, who have a marked tendency to start a new sentence at this point (e.g. *Hor. Sat.* 1. 1. 7, 17, 18). Again, it is remarkable that in his *Epistles* *Horace* approximates closely to the Virgilian standard, with a marked preference for the double monosyllable, accounting for 14 out of 15 examples in *Epp.* 1. 1–5 (counting *atqui* as two words). This change presumably corresponds to the virtual abandonment of the representation of dialogue, so prominent in the *Satires*; which it is difficult to imagine ever being comprehensible without some mark to show the change of speaker.

A full study of the issues raised by the question of early punctuation would involve other forms of verse, including elegy and lyric, and might extend to

¹ *Geor.* 3. 501 remains the one place where punctuation seems essential, if only to explain the complete lack of misunderstanding in antiquity. Despite *Oliver's* theory, our evidence is totally inadequate to indicate what sign Virgil would have used at this point if he wanted to mark a break.

² I am unaware of any work on the effect

of alliteration, in Virgil and elsewhere, on rhythm and phrasing in verse. It struck me some years ago, when considering a problem of the rhythm of the fourth foot of the hexameter (*A.J.P.* lxxi (1950), p. 374), that an isolated spondaic word in this foot was often related alliteratively to the word occupying the fifth foot.

prose. Some readers may be interested to consider how the problem affects their own fields of study. In general, I think we must recognize to what an extent our own dependence upon punctuation in our texts is a measure of our failure to listen to our author's actual words.

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