

PAUSE AND PERIOD IN THE LYRICS OF GREEK TRAGEDY

It has long been accepted as a principle by editors and writers on Greek metre that brevis in longo and hiatus in tragic lyrics often coincide with some kind of sense-pause.¹ The object of this inquiry is (i) to determine the incidence of pause in such places, and show that it is significantly high; (ii) to show that there is a comparable incidence in the corresponding places in strophic systems; (iii) to show that period-ends determined by criteria other than brevis and hiatus are attended by similar conditions.² It might seem that if all this were true it would have been recognized long ago, particularly as the connection between sense and metrical structure, and symmetry of sense in strophe and antistrophe, has often been pointed out.³ It has been obscured, I think, firstly because a detailed analysis of the notion of pause in this context has been wanting; secondly because the colometry adopted by editors is often misleading; and thirdly because suspect or wrongly emended passages have been treated as trustworthy evidence. In this paper⁴ I propose to indicate the main lines of the method adopted, to give tables based on these methods which I must for the moment ask the reader to take on trust, and draw further conclusions from them which I hope will throw light not only on particular textual problems but on the structure of Greek lyrics and of the Greek language in general.

I. PAUSE

The word 'pause' has been used by phoneticians to denote any gap in the continuity of sound utterance in speech, such as occurs in certain combinations, e.g. 'backchat'. This, which I call 'phonetic pause', is irrelevant to my purpose. Its function is compared by Jespersen⁵ with that of the rest in music, which is as important to the articulation of the sound-pattern as the notes actually played. But the musical rest is more closely analogous to another kind of pause in speech, the pause made, consciously or unconsciously, between phrases or word-groups; i.e. between the units of speech.⁶ The operation of this kind of pause is bound up very closely with that of stress and intonation, and its function, like theirs, is diverse. But though, like them, it has a variety of expressive and affective uses,

¹ Cf. e.g. Dale on E. *Alc.* 232, Denniston-Page, *Agamemnon*, pp. 239 ff. I mean by sense-pause (or 'pause') a positive and significant break in the sense, not merely 'metrical' pause, which means the absence of enjambement, elision or the close syntactical bind given by postpositives and prepositives.

² My use of the terms colon, verse, and period, which departs from the normal conventions, is explained on p. 37 below.

³ e.g. by W. Kranz, *Stasimon* (1933), 22, 118 ff., 151 ff., 177 ff., 230; W. Kraus, *Strophengestaltung in der griechischen Tragödie* (SB Wien, 231.4, 1959), §22.

⁴ Read to the Oxford Philological Society in June 1965. I am indebted to the

late Professor A.M. Dale, to Miss L.P.E. Parker and Dr. D.C. Innes, and to Professors K.J. Dover and H. Lloyd-Jones, for valuable criticism and advice; to Dr. R.P. Martineau for help on statistical method; and above all to the generous and constant help of the late Eduard Fraenkel, my debt to whom throughout will be evident.

⁵ O. Jespersen, *Phonetische Grundfragen* (1904), §122.

⁶ In the closing bars of *The Rake's Progress*, Act II, Sc. i, Stravinsky actually uses commas in the score to mark the phrasing. Professor Dover suggests that 'phrasing' is perhaps a better musical analogy than 'rest'.

its main task is to make the discourse intelligible; not only by splitting it up into lengths which can be readily understood and assimilated by the hearer, but by serving as a pointer to the interpretation of sound which might otherwise be unidentifiable or ambiguous.

From this last point of view, the length of such pauses is quite unimportant, and depends on the rate of utterance. A very slow speaker may intersperse his discourse with perceptible silences, some of which have no semantic significance at all, but simply result from a lack of fluency or from defective speech; I call such pauses 'hesitations'. In a rapid speaker's discourse, on the other hand, even the functional pauses are reduced almost to vanishing-point. Some of them, indeed, disappear altogether, and their function is taken over by intonation; sometimes their function actually disappears with them, and the sense-groups simply become longer.

The true unit of speech is not the word: we do not separate each word from the next, but utter them in groups connected in meaning, which we call sense-groups . . . In most cases there is no doubt as to the division into sense-groups, but some variation is due to the rate at which we read. In quick reading the groups will tend to be longer than in deliberate reading.⁷

This distinction between slow and rapid delivery introduces a new and important point.

Sentences are usually divisible into smaller groups [than breath-groups] between which pauses *may* be made, though they are not essential. The shortest possible of such groups [i.e. groups not capable of being further subdivided by pause] are called sense-groups. Each sense-group consists of a few words in close grammatical connexion, such as would be said together in giving a slow dictation exercise.

That is: some pauses are permissive: they may be made, but need not be. What is it that gives this permission, and what are its limits?

The notion of an atomic sense-group, an indissoluble syntactical unit, seems to give a clear and satisfactory answer to this question. Indeed, so far as modern languages go, perhaps it does. But this is so largely because it is possible to check these unitary determinations by ear: we can tell whether or not pause seems natural. Moreover, it is not only the form of the sentence, but the context, the interpretation to be put upon the words in this particular utterance, which affects their articulation. This means that pause may not be deducible from the syntax. Contrast: 'What did you do?' 'I hit him, in the eye' with 'Where did you hit him?' 'I hit him in the eye' (cf. n.19). Consider an example given by Walter Ripman (loc. cit. n.7): 'To the author of the *Lyrical Ballads* | nature | is a kind of home; and he may be said | to take a personal interest in the universe. There is no image so insignificant | that it has not | in some mood or other | found its way into his heart; no sound | that does not awaken | the memory of other years.' There is no doubt that this analysis of the *possibilities* is correct, and at some points, even in a modern scheme of punctuation, commas would be in place: viz. after 'Ballads', 'has not', 'other'; while in an earlier and more generous age,⁹ commas after 'insignificant', 'no sound' would also be normal. A pause after 'said' would occur only in the most deliberate utterance, as 'said to' is usually taken closely together in this idiom; but it is possible, and has an evident

⁷ Walter Ripman, *English Phonetics* (1933), pp. 162-3.

⁸ Daniel Jones, *An Outline of English Phonetics* (1936), §1005.

⁹ Modern punctuation is so standard-

ized as to be almost useless as a guide to the finer points of delivery. But before the nineteenth century, though sometimes arbitrary, it may be as important as an actual stage direction (cf. n. 82 below).

syntactical ground. But the pause after 'nature', which is doubtless right, has no very obvious syntactical correlate. The normal unit would be 'nature is a kind of home', subject and predicate; and without the ear as a guide, we should not think of dividing it. Ripman adds: 'Note the pause before and after "nature", which makes that word prominent.' It does, of course, have this effect; and the prominence is justified partly by the importance, and strangeness, of what is being said, partly by the context. If the word 'nature' has occurred in the previous sentence, there will simply be a selective contrast between what nature was to Wordsworth and what it was to other men, and 'nature' will receive no special stress. But if the anticipation has been sufficiently distant, or only implied, 'nature' is stressed, and this in itself is ground for pause. Some pauses, then, are given by the form of the sentence; others are not, and have no grounding in the syntactical structure, in the normal sense of syntax.

It is therefore evident that in an ancient language, with neither punctuation nor contemporary usage as guides to delivery, the isolation of atomic sense-groups and the determination of pause becomes exceedingly difficult. It is no wonder that K.J. Dover¹⁰ found such an analysis too subjective to be of much help in the problem of word order. In the face of these difficulties, it might well be thought over-ambitious to try and determine the conditions of pause in the delivery of ancient Greek with anything like the degree of refinement that is possible in modern English; that we should be content to assume pause only at the main syntactical breaks, and acknowledge that we have not the evidence to analyse any further. But there is no need to be so despondent. In the first place, the ancient rhetoricians and grammarians provide a substantial amount of evidence about how they thought their languages were constructed and how they should be read. The question that we must try to answer—what counted in Greek as a minimum sense-group, with the possibility of pause—is not indeed one that exercised them much; but they have enough to say about it indirectly to save us from mere apriorism. Secondly, an objective method—or set of methods—for determining smaller syntactical units has been demonstrated by E. Fraenkel in a series of articles,¹¹ and the categories he establishes for Greek prose can be readily adapted to the more condensed language of lyric poetry.

I shall not in fact review the ancient evidence on this occasion, since the argument can be presented without it, and the briefest summary must suffice. Aristotle has a good deal to say in *Rhet.* 3 about the articulation of a sentence into the cola comprising it, and more to the same effect may be found in later writers on rhetoric, namely Dionysius, Demetrius, Cicero, and Quintilian. All these are primarily concerned with the structure of periodic prose: not with the minimum sense-group as such, but with the arrangement of such groups within the period to give maximum clarity and rhetorical effect. Their criteria are partly rhythmical, but mainly semantic; the smallest unit, the κόμμα (*incisum*), corresponds to the unit of sense, διάνοια (*sensus*), and there are as many pauses as there are different διανοιαί. Particularly interesting for our purpose is an analysis by Dionysius (*Comp.* 26) of an example from Homer (*Od.* 14.1–2):

¹⁰ *Greek Word Order* (1960), p. 19.

¹¹ E. Fraenkel, 'Kolon und Satz', *NGG* (1932), 197–213, *ibid.* (1933), 319–54 = *Kl. Beitr.* i (1964), 73–130; 'Nachträge zu "Kolon und Satz", II', *Kl. Beitr.* i. 131–9;

'Noch einmal Kolon und Satz', *SB München*, 2, 1965. Further material of the same kind may be found in *Leseproben aus Reden Ciceros und Catos* (1968), esp. pp. 201–3, 208–12.

αὐτὰρ ὃ γ' ἐκ λιμένος προσέβη τρηχεῖαν ἀταρπὸν
 χῶρον ἀν' ὕληντα, δι' ἄκριας,

of which he says that the first verse forms one colon, the phrase χῶρον ἀν' ὕληντα a smaller one, and δι' ἄκριας a smaller unit still, the κομμάτιον. He is clearly aware that minimum sense-groups may be quite short, and are not always syntactically independent. He is also aware of the subtle relation between syntactical and metrical structure; though he admits that in lyric verse this is hard to define, since if it is written across the page according to the sense-divisions, κατὰ διαστολὰς, 'the rhythm will escape you and you will not know where to mark strophe, antistrophe, or epode.' Generations of scholars trying to reconstruct the metrical scheme of his example, the Danae poem of Simonides, have had to give him best.

Now ἀναγιγνώσκειν κατὰ διαστολὰς, which in this peculiar case, according to Dionysius, obliterates the rhythm, is in general a prescription for correct delivery as a department of grammar, splitting up the words so as to give the phrases, and hence the sense, which the author intended. Even at the level of avoiding gross errors of interpretation, this already encroaches on the province of rhetoric (it is recognized as a part of rhetoric by Aristotle); and the notion of διαστολή allows for much more subtle distinctions than this.

So far the principles of sentence-division, as they appear in Aristotle, Dionysius and Cicero, have been approached from what may be called the analytical side of rhetoric, under the heading of *compositio* (σύνθεσις). But there is another part of rhetoric indirectly concerned with analysis, namely delivery. ὑπόκρισις in rhetoric includes—or mainly concerns—the physical aspects of delivery, voice-production, and deportment, on which ancient rhetorical training laid such stress. Quintilian's chapter on *pronuntiatio* (*Inst.* 11.3.30–9), in which he explains, with examples, how passages should be read to bring out their articulation and therefore their full meaning, is very much to the point. The categories he uses are not here those of *compositio* (*distinctio* etc.), but the mode of analysis is much the same. Particularly interesting is his punctuation of the opening lines of the *Aeneid*, in which very subtle distinctions are brought out (11.3.30–9), though his theoretical analysis is not equal to his practice.

More extensive evidence of the same kind is provided by the scholia on the *Iliad* which deal with punctuation, mostly no doubt the work of Nicanor.¹² The elaborate system attributed to him by the scholiast on Dionysius Thrax is quite useless and has little bearing on his practice, which is not at all doctrinaire but often quite tentative: e.g. his note on *Il.* 12.243 εἷς οἰωνὸς ἄριστος, ἀμύνεσθαι περὶ πάτρης: 'if one were to put a light stop after ἄριστος, it would perhaps make the sense clearer.' Modern punctuation would endorse this division, but not e.g. ἔχε δ' αἰγίδα θούρῳ, δευήν, ἀμφιδάσειαν, ἀριπρεπέα (*Il.* 15.309). Nicanor's failure to conform with modern practice earns him some hard words from his editor Friedländer, who seems to have thought that the conventions of his own day were laws of nature; but Nicanor's pointing, as in the last example, is often consistent with a perfectly legitimate view of how verse should be read. Nicanor in fact takes a sensible line when he says of *Il.* 2.498 Σκοῖνόν τε Σκῶλόν τε πολὺκνημόν' τ' Ἐτεωνόν 'a very short pause is natural and reasonable after

¹² See Friedländer, *Nicanoris περὶ Ἰλιακῆς στιγμῆς reliquiae emendatiores* (1877), ch. i.

each name . . . there is no compelling reason to indicate this on the written page, but it should be observed in delivery.'

I hope I have said enough to show that the attempt to go beyond the main syntactical divisions in determining the articulation of Greek need not be abandoned for lack of ancient evidence. A quite different point of departure is made available by E. Fraenkel's methods of analysis in his articles 'Kolon und Satz' and its successors.¹³ Fraenkel's main criteria are (i) the position of ἄν, which regularly stands second in its colon when not next the verb; (ii) (in Latin) the pause at the end of the elegiac couplet, and the couplet in Horace's epodes, when this does not coincide with the end of a sentence; (iii) most vocatives. He shows that by this means it is possible to isolate and classify some of the smaller elements within the sentence or clause, which although incomplete were evidently felt to be self-contained. The importance of Fraenkel's results for the study of Greek lyric verse has already been seen by S. Lauer, who applied them to a detailed study of metrical and syntactical structure in Pindar, and in particular to the problem of enjambment at stanza-end.¹⁴ Lauer, however, extends Fraenkel's categories somewhat arbitrarily, and applies them to too small a sample. I shall also extend the categories established by Fraenkel, but I hope less arbitrarily. (I must add that my extensions did not all have the blessing of Professor Fraenkel himself, though my debt to him is very great.)

The categories used are as follows:

(i) Subordinate infinitive. This is obvious enough when it involves a subordinate clause, but a simple prolativ infinitive does not necessarily admit pause, e.g. A. Ag. 242 προσεννέπειν | θέλουσα; though it may do so if the cola are longer, e.g. E. Andr. 120 εἴ τί σοι δυνάμειν | ἄκος τῶν δυσλύτων πόνων τεμεῖν or Alc. 466 ματέρος οὐ θελούσας | πρὸ παιδὸς χθονὶ κρύψαι | δέμας. The longer phrases, each filling a verse, have more rhetorical weight, and thus have an independence which a single word, unless heavily emphasized, will lack. The principle here invoked (established by Fraenkel in 'Kolon und Satz'¹⁵), is important and has many applications, as we shall see.

(ii) Participial clause: genitive absolute and *participium conjunctum*, i.e. a participle functioning as a verb, the focal point of a word-group describing a self-contained action.¹⁶ The simple attributive participle does not have this independent status. Thus in A. Pers. 595 αἵμαχθεῖσα δ' ἄρουρα | Αἴαντος περικλύστα | νᾶσος ἔχει τὰ Περσῶν (the reading of codd.) αἵμαχθεῖσα is attributive, and pause is given after ἄρουρα by the apposition of 'a bloody field, the sea-girt isle of Ajax'. With Porson's conjecture ἄρουραν (which seems to me no improvement), there is no apposition, but there is still pause after ἄρουραν, since it construes with αἵμαχθεῖσα, which is then *participium coniunctum*. Adjectives may also function as participles if they have verbal force, e.g. E. Hel. 1478 δι' ἀέρος εἶθε ποτανοί | γενοίμεθ' | ὅπᾳ Λιβύας | οἰωνοί . . . νίσονται 'would that, flying through the air, we might be where . . .' (cf. S. Aj. 1217 γενοίμαιν | ἔν' ὕλᾳεν ἔπεστι πόντου . . .).

No universal rule determines whether the subject of a sentence with which a *participium coniunctum* agrees belongs to the main clause or the participial clause. In English it normally belongs to the main clause: we say 'Anastasia,

¹³ See n.11 above.

¹⁴ Zur Wortstellung bei Pindar (1959).

¹⁵ Kl. Beitr. i. 78 ff.

¹⁶ Kl. Beitr. i. 78; cf. Agamemnon, p. 512.

having mounted her bicycle, rode off', not 'Anastasia having mounted her bicycle, rode off.' This is most often so in Greek also, e.g. *A. Suppl.* 540 ἔνθεν ἰώ, | οὔτρω ὄρεσσαμένα, | φεύγει ἀμαρτίνοος; but not always, e.g. in *Lys.* 12.73 ἀναστὰς δὲ Θηραμένης ἐκέλευσεν ὑμᾶς the subject *Θηραμένης* is most naturally taken with ἀναστὰς in the first place; cf. *E. Ba.* 871 θωύουσιν δὲ κυναγέτας | συντείνῃ δράμῃ κυνῶν. The *Lysias* example is given by K.J. Dover in his *Greek Word Order*, in which he does in fact treat the subject as invariably belonging to the participle.¹⁷ *A. Suppl.* 540, quoted above, raises a further point: the participial clause interrupts the main clause, giving pause before and after it, although the parts of the main clause it splits up go closely together. The same is true of the English example 'Anastasia, having mounted her bicycle, rode off', and it is not of course confined to participial clauses. For example, in 'Music, when soft voices die, lingers in the memory', there is a pause before and after the temporal clause, though 'music' and 'lingers' go closely together. This is worth stating explicitly since it is sometimes said or implied that two elements of a sentence which are syntactically close cannot be separated by pause. This is not so.

(iii) Apposition: *S. Ant.* 955 ζεύχθῃ δ' ὀξύχολος παῖς ὁ Δρύαντος, | Ἡδωνῶν βασιλεὺς, κερτομίους ὀργαῖς | . . . κατὰφαρκτος ἐν δεσμῷ. In English a pause normally follows the apposition as well as preceding it, and this is indicated by punctuation, as here. In Greek this is not necessarily so; e.g. at *P.O.* 6.4 μελιγάρυες ὕμνοι | ὑστέρων ἀρχὰ λόγων τέλλεται the agreement of the (singular) verb with the appositive suggests that there is pause before the apposition but not after it.¹⁸ It should be emphasized, however, that the same syntactical pattern, indeed the same words, can have more than one correct delivery.¹⁹ Thus to say that pause is or is not admitted in a given place is not to say that the same invariably holds for similar structures. The *Pindar* example is not a warrant for omitting the comma after βασιλεὺς in *Ant.* 956 as an inapplicable convention.

I extend the category of apposition in two ways. In an earlier paper to the *Classical Association*²⁰ I illustrated at some length the thesis that apposition is much commoner in early Greek poetry than is commonly realized, and indeed is essential to its structure. Firstly, cult titles of gods, together with the articles, are often promoted to the status of a name, to which the actual name of the god is appositive: e.g. in *S. O.C.* 1072 τὸν πόντιον γαῖαρχον | Πέας φίλον νιόν pause is admitted after γαῖαρχον; cf. *Trach.* 208–9 τὸν εὐφάρετραν | Ἀπόλλω προστάταν. This pattern may with due caution be extended to kennings or kenning-like periphrases followed by the κύριον ὄνομα, the standard name or noun: e.g. *Phil.* 188 ἀ δ' ἀδυρόστομος | Ἀχὼ τηλεφανῆς πικραῖς | οἰμωγαῖς ὑπακούει (or whatever the right text is): 'the Babbler, distant Echo'. I do not make this extension unless the periphrasis is a plausible kenning (usually a figurative compound) and the noun either a name or capable of personification. Thus at *H.F.* 375 τὰν τε χρυσοκάρανον | δόρκαν ποικιλόνωτον, which is superficially similar, pause is not assumed after χρυσοκάρανον.²¹

¹⁷ *Op. cit.*, p. 20. Professor Dover tells me that he made this decision partly on the analogy of other languages, partly for convenience. He agrees that context could affect the analysis. (Cf. also *Ag.* 1028 f.)

¹⁸ I owe this example to Mr. W.S. Barrett.

¹⁹ e.g. 'I hit him, in the eye' answers the question 'what did you do?'; 'I hit him in the eye' answers the question 'where did

you hit him?'; see p. 28 above.

²⁰ 'The enigmatic style in early Greek poetry', delivered in 1961 (unpublished).

²¹ The second ornamental epithet qualifying the noun (τηλεφανῆς, ποικιλόνωτον) is however typical of apposition. Cf. *Il.* 20.70 f. χρυσηλάκατος κελαδewή, Ἄρτεμις ιoxέαipa.

The other extension of apposition is called by Lauer, after Jespersen, 'extra-position'.²² The appositive takes up a pronoun whose reference is not explicit, or the subject of a verb which in Greek may not be expressed at all, but is made clear by the context, e.g. *Od.* 7.344 ὥς ὁ μὲν ἔνθα καθεύδε πολύτλας δῖος Ὀδυσσεύς, *Il.* 16.185 αὐτίκα δ' εἰς ὑπερῷ' ἀναβάς παρελέξατο λάθρῃ | 'Ερμείας ἀκακήτα, when Ἀργεϊφόντης is the subject of the previous sentence. So at *S. Ant.* 347 κουφονόων τε φύλον ὄρ | νύθων ἀμφιβαλὼν ἀγρεῖ | . . . περιφραδῆς ἀνὴρ all modern editors punctuate before περιφραδῆς, though the subject to which it is appositive must be understood from the verb ἀγρεῖ in 348. This is not difficult, as man is the grammatical subject for most of the preceding sentence, and indeed the whole ode is about him. It must be emphasized that this pattern depends on the clarity of the context, and I invoke it very rarely.

(iv) Co-ordinate series. This covers a wide range of categories; antithesis, conjunction, disjunction, and asyndetic series. Antithesis needs no illustration: there is obviously pause between clauses or even single words contrasted e.g. by μὲν and δέ. Conjunction is less clear. Two factors are relevant: the length of the members (i.e. what I have termed 'rhetorical weight') and their semantic relation to each other. If the members are short and closely connected, there can clearly be no pause between them; e.g. 'bring me a pencil and paper', where 'pencil and paper' form virtually one idea. (We could of course construct situations in which there would be pause, but I am dealing with standard situations.) 'Bring me a pencil and a ream of copying paper' admits pause, without requiring it, before the longer phrase; and so does 'bring me a pencil and coffee', where the two members are distinct ideas and require separate emphasis. In Greek, *A. Ag.* 228 λιτάς τε καὶ κληδόνας πατρώους gives no pause, cf. *S. Phil.* 1111 ἄσκοπα | κρυπτὰ τ' ἔπη; *E. H.F.* 1219 αἰδόμενος τὸ σὸν ὄμμα | καὶ φιλίαν ὁμόφυλον | αἰμά τε παιδόρονον, where each member fills a verse, admits pause without requiring it, and so does *S. Ant.* 947 καίτοι καὶ γενεᾷ τίμιος, ὦ παῖ παῖ, καὶ Ζηρὸς ταμνεύσκε γονὰς χρυσορρύτους, where the members are semantically distinct. For such distinction as ground for semantic pause we may refer to ancient theory, which postulated a separate κόμμα, *incisum* (or in delivery διαστολή, *distinctio*) for each διάνοια, *sensus*, and ancient practice as exhibited in the *Iliad* scholia, e.g. on

καί με πρεσβυτάτην τέκετο Κρόνος ἀγκυλομήτης,
ἀμρότερον, γενεῇ τε, καὶ οὔνεκα σὴ παράκοιτις
κέκλημαι, σὺ δὲ πᾶσι μετ' ἀθανάτοισιν ἀνάσσεις.

'There should be a pause (διασταλτέον) after ἀμρότερον, γενεῇ τε, κέκλημαι; for she says it is for all these things that she is honoured, both for her birth and because she is the wife of Zeus the king of all.' There are two distinct grounds for her claim to the position of highest dignity: the analysis is entirely semantic, though length of phrase may also be relevant. Nicanor, it will be recalled, even thought a slight pause suitable after each name in *Il.* 2.498 Σκοῖλόν τε Σκῶλόν τε πολύκνημόν τ' Ἐτεωνόν; but in a standard situation this is unnecessary. The same applies, *mutatis mutandis*, to disjunction.

When two semantically distinct elements in a sentence have a third element in common, this element is ἀπὸ κοινού. If these two distinct elements are contrasted, and the common element has some rhetorical and semantic weight, there

²² S. Lauer, op. cit. in n.14 above; Jespersen, *Analytical Syntax* (1937), ch.

12. Lauer's use of the term is however slightly different from Jespersen's.

may be pause between the contrasted elements and the common element, as well as, or instead of, between the two contrasted elements. This is occasionally recognized in the *Iliad* scholia, and makes good sense. So in *E. Hel.* 230 τίς ἢ Φρυγῶν | ἢ τίς Ἑλλαντίας ἀπὸ χθονός | ἔτεμε τὰν . . . πεύκαν, the members of the disjunction are contrasted, while the common element has sufficient weight to stand by itself, and cannot readily be anticipated. Contrast *A. Eum.* 527 μήτ' ἄναρκτον βίον μήτε δεσποτούμενον | αἰεότης, where the verb can to some extent be anticipated; cf. *S. O. T.* 489 τί γάρ . . . νεῖκος ἔκειτ' οὔτε πάροιν ποτ' ἔγωγ' οὔτε τανὺν πω | ἔμαθον, *E. Andr.* 299 τὴν οὐκ ἐπῆλθε, ποῖον οὐκ ἐλίσσετο | δαμογερόντων, *Hclld.* 608 οὐτῶα φημι θεῶν ἄτερ ὄλβιον, οὐ βαρύποτμον | ἄνδρα γενέσθαι (despite Murray's comma after βαρύποτμον); and *a fortiori* such cases as *S. O. T.* 89 οὔτε γάρ θρασὺς οὔτ' οὖν προδείσας εἰμί.²³ This again illustrates the important fact that the bare syntactical pattern of conjunction with common element is not enough: a closer semantic analysis is needed for each individual passage. (Whether this analysis is also to be regarded as a part of syntax is a matter of terminology.)

In certain cases there may be pause between the common element and the contrasted elements when the common element comes first, if the contrasted elements are clearly marked off by particles: *A. Ag.* 737 πάραυτα δ' ἐλθεῖν ἐς Ἰλίου πόλιν λέγοιμ' ἂν | φρόνημα μὲν . . . γαλάνας, ἀκασκαῖον δ' ἄγαλμα πλούτου, *E. Med.* 429 μακρὰς δ' αἰὼν ἔχει | πολλὰ μὲν ἀμετέραν ἀνδρῶν τε μοῖραν εἰπεῖν. So even without μὲν: *S. El.* 497 ἀλλ' ἀπερύκοι | καὶ Ζεὺς κακὰν καὶ Φοῖβος Ἀργείων φάτιν, *E. I. A.* 584 ἐν ἀντωποῖς βλεφάροισι(ν) | ἔρωτὰ τ' ἔδωκας, ἔρωτι δ' αὐτὸς ἐπότηθης. Without an anticipatory particle, or without sufficient contrast, pause cannot be assumed: e.g. *S. O. T.* 904 Ζεῦ, πάντ' ἀνάσσω, μὴ λάθοι | σέ τὰν τε σὺν ἀθάνατον αἰὲν ἀρχάν, or *Aj.* 717 Αἴας μεταγεννώσθη | θυμοῦ τ' Ἀτρεΐδαις μεγάλων τε νεκρέων, *E. Ba.* 884 ἀπευθύνει τε βροτῶν | τοὺς τ' ἀγνωμοσύναν τιμῶντας καὶ μὴ τὰ θεῶν αὔξοντας. . .

Asyndetic series admit pause under similar conditions, namely when the members are extended and fill the verse or when they are semantically distinct. This needs no illustration, though as with conjunctions it is not always easy to decide what is to count as 'semantically distinct'. There is however a special dispensation. When a series of adjectives follows a noun, added one by one ('guttatim', to use Fraenkel's phrase) to build up the picture, elaborating an already completed sense, there may be pause between them in virtue of this additive structure; e.g. *Il.* 15.309 ἔχε δ' αἰγίδα θούριν, | δεωήν, ἀμφιδάσειαν, ἀριπρεπέα or 7.346 (ἀγορή) δεωή, τετρηχυῖα, where Nicanor advocates punctuation. *Prima facie* this is not necessarily so when the adjectives precede their noun, since the sense is not yet complete; unless there is a special relation between them, such that the second element expands and elaborates the first (epexegetis). So in *A. Suppl.* 154 εἰ δὲ μή, μελανθές | ἡλιόκτυπον γένος, ἡλιόκτυπον explains μελανθές: they are black because they are sunburnt. Similarly with adverbs, as in *Ag.* 377 φλεόντων δωμάτων ὑπέρφει | ὑπὲρ τὸ βέλτιστον: ὑπὲρ τὸ βέλτιστον explains ὑπέρφει by making it more precise. The older grammarians called this structure too apposition; the terminology does underline a significant similarity to the apposition of nouns, but modern practice is to restrict the term apposition to nouns as a matter of convenience.

I include here a type of epexegetis which is not apposition in any sense,

²³ I owe this example to Mr. W.S. Barrett.

when a new idea, which is not grammatically independent, is added to an already completed sense. So in *Sept.* 755 *κακῶν δ' ὥσπερ θάλασσα κῦμ' ἄγει, | τὸ μὲν πίνον, ἄλλο δ' αἰερεῖ | τρίχalon, ὃ καὶ περὶ πρύμναν πόλεως καχλάζει*, the contrast is completed by *ἄλλο δ' αἰερεῖ*, which is then expanded by *τρίχalon κτλ.* The pattern of this example, in which a new idea, whether or not appositive, leads into a relative clause, is particularly common in early poetry from Homer on.

(v) Phrases. The extended adverb²⁴ is a phrase with some rhetorical weight qualifying the verb but not integral to the sentence. There is no rule of thumb for deciding what is integral and what is not: e.g. in *E. El.* 464 *ἐν δὲ μέσῳ κατέλαμπε σάκει φάεθον | κύκλος ἡελίοιο, | ἵπποις ἄμ πτεροέσσας*, the phrase *ἵπποις ἄμ πτεροέσσας* is clearly separable. In *S. Ant.* 135 *ὃς τότε μαυνομένα ξὺν ὄρμῃ | βακχεύων ἐπέπνει | ῥιταῖς ἐχθίστων ἀνέμων*, the phrase *ῥιταῖς . . . ἀνέμων* is linked closely with *ἐπέπνει* by its sense; *μαυνομένα ξὺν ὄρμῃ* may be taken closely with *βακχεύων*, but need not be: 'who then with maddened onset | breathed on us in frenzy with blasts of malignant wings'. It is often a matter of emphasis. 'Silas lived alone in a small white cottage' may or may not have pause after 'alone', according to whether the emphasis is on his solitude or on where he lived. So in *E. Andr.* 1039 *ἐκ δ' ἔλειπον οἴκους | πρὸς ἄλλον εὐνάτορα*, either the emphasis falls in the first place on the desertion, then on the new partner, making explicit the cause of the desertion (pause after *οἴκους*); or all the emphasis is on the new partner (no pause). This is again analogous to 'I hit him, in the eye' and 'I hit him in the eye' (see above, p. 28). In *S. Ant.* 982 *τηλεπόρους δ' ἐν ἄντροις | τράφη θυέλλησιν ἐν πατρώαις*, there may be pause before or after *τράφη* according to whether the emphasis is on Cleopatra's being brought up far away, or (which is more to the point here) among her father's storm-winds. Length of phrase, i.e. rhetorical weight, is also relevant, as with other categories. In *H.F.* 389 *ἂν τε Πηλιάδ' ἀκτάν | Ἀναύρου παρὰ πηγαῖς | Κύκνον ξενοδαίκταν* the two phrases indicating place each fill the verse, and thereby acquire some independence.

Another type of phrase with semantic independence is a phrase functioning as a clause, often because a noun has verbal force: e.g. *A. Ag.* 748 *πομπῇ Διὸς ξενίου = ὑπὸ Διὸς πεμπόμενος*, or in *S. Ant.* 135 (quoted above) *μαυνομένα ξὺν ὄρμῃ = ξὺν μανίᾳ ὀρμώμενος*. This is not uncommon in early poetry, especially lyric, owing to the density of the language, as Dornseiff has remarked:²⁵ nouns or noun-phrases are often found where the standard prose expression would contain some part of a verb.

Finally, the linking phrase, often prepositional,²⁶ but not necessarily so; e.g. *Ag.* 158 *τοῖς δ' ὁμόφρονον | αἰλῶν αἰλῶν εἰπέ*, 'in tune with this, say "sorrow, sorrow"'. . .

(vi) Selective contrast.²⁷ Contrast, as a form of emphasis, has been an important factor in several of the categories already discussed. Selective contrast means that two contrasted ideas are given contrasted predicates; e.g. in *Hel.* 625 *ὃ μὲν χρόνος |*

²⁴ The phrase is borrowed from Fraenkel's term 'Erweiterung' (*Kl. Beitr.* i. 77 f., 82, 91, 120, 122), but has a slightly different sense. Fraenkel means by the term a further elaboration in epexegetis (which I have included under 'series', e.g. *Ag.* 377–8 *ὑπέρρου, ὑπὲρ τὸ βέλτιστον*) before which there is pause: I mean by it

an (adverbial) phrase having enough rhetorical weight to stand on its own.

²⁵ F. Dornseiff, *Pindars Stil* (1921), p. 86: 'Die Sprache der Chorlyrik ist mehr dem einzelnen Wort als dem Satz zugewandt', usw.

²⁶ Cf. Fraenkel, *Kl. Beitr.* i. 98 ff., 137.

²⁷ *Ibid.*, 103 ff.

παλαιός, ἡ δὲ τέρψις ἀρτίως πάρα, ὁ χρόνος is contrasted with ἡ τέρψις, παλαιός with ἀρτίως πάρα. We should perhaps hesitate to posit pause after χρόνος, since the terms are too short to have rhetorical weight. Contrast *ibid.* 1650

ἐς μὲν γὰρ αἰεὶ τὸν παρόντα νῦν χρόνον
κεύην κατοικεῖν σοῖσιν ἐν δόμοις ἔχρη·
ἐπεὶ δὲ Τροίας ἐξανεστάθη βάθρα,
καὶ τοῖς θεοῖς παρέσχε τοῦνομ', οὐκέτι.

(ἐς μὲν . . . χρόνον might also be regarded as the equivalent of a temporal clause); or in lyric verse A. *Ag.* 433 οὓς μὲν γὰρ τις ἔπεμψεν, | οἶδεν, ἀντὶ δὲ φωτῶν | τεύχη καὶ σποδὸς εἰς ἐκάστου δόμους ἀφικνεῖται, where selective contrast gives pause after ἔπεμψεν, φωτῶν, even though the μὲν and δὲ clauses are not quite symmetrical. A critical case is E. *Ba.* 907 μυρίαὶ δ' ἔτι μυρίους | εἰσὶν ἐλπίδες· αἱ μὲν | τελευτῶσιν ἐν ὄλβῳ | βροτοῖς, αἱ δ' ἀπέβησαν, where the contrast is clear, but αἱ μὲν, αἱ δὲ very short.

(vii) These are too obvious to need illustration, but the criterion must be used with caution: sometimes a vocative goes closely with what precedes (ἀλλ' ὅμεις, ὦ ἄνδρες), sometimes with what follows—it may even be followed by an enclitic. Vocatives often reinforce cola otherwise determined: Thuc. 1.120. 1 τοὺς μὲν γὰρ Λακεδαιμονίους, ὦ ἄνδρες ξύμμαχοι, οὐκ ἂν ἔτι αἰτιασάμεθα . . . ἡμῶν δὲ ὅσοι ξυνηλλάγησαν οὐ διδαχῆς δέονται (selective contrast; the example is from Fraenkel²⁸): S. *Ant.* 948 καίτοι καὶ γενεᾷ τίμιος, ὦ παῖ παῖ, | καὶ . . . (quoted above).

This must suffice as a survey of the main types of pause and their limits. Of the others that remain, some, such as anaphora and interjection, are obvious. Others, such as similes and the complement of comparatives, will depend on sentence-structure and emphasis; but the principles on which they are to be decided have already been fully illustrated.

II. VERSE AND PERIOD

The analyst of Greek lyric metre traditionally has two main tasks: to analyse the metrical scheme into smaller groups, commonly called 'cola', which may be, and often are, in synaphea; and to determine the larger groups ('periods') into which the strophe or stanza is articulated. These tasks are of course to some extent interdependent, but each poses some questions which may be answered, or left open, independently of the other. I am not precisely concerned with either. My aim is to determine those places in the scheme, marked by *brevis in longo*, hiatus, and other features, where metrical pause is invariable and sense-pause normal,²⁹ and so to discover the incidence of sense-pause at these places. I am only incidentally concerned with colometry as such, the analysis into smaller groups, to the extent that any arrangement for a particular stanza must have an acceptable colometry. Nor am I in general concerned with the largest articulations, except where they coincide with the groups I have defined, which are commonly called 'verses'. I can therefore leave open some questions posed by these two kinds of analysis which may be undecidable or pseudo-questions, or to which the answers may be arbitrary or subjective.³⁰

²⁸ *Ibid.* 104.

²⁹ For metrical pause and sense-pause see n. 1 above.

³⁰ By the former I mean the type of problem acutely discussed by L.P.E. Parker

in *BICS* 5 (1958), 13–24; by the latter, the kind of vague and indecisive structural considerations often adduced by Kraus, *op. cit.*, (n.3) e.g. p. 83 on *Ag.* 223; cf. pp. 41 f. below.

I depart from standard terminology in certain ways. The term 'colon' is commonly used both for a metrical and for a syntactical group, and in a study of the relation between metre and syntax this ambiguity is a hazard. I have therefore reserved 'colon' for a syntactical group, and used 'verse' for the metrical group commonly called 'colon' (i.e. successive verses may be in synaphea). What is commonly called 'verse' I term 'minor period'; the larger divisions of the stanza, commonly called 'periods', I term 'major periods'. Since I am mainly concerned with minor periods, I shall normally call minor periods simply 'periods', and distinguish between minor and major periods only where the distinction is relevant.³¹ The resulting terminology may seem inelegant or even confusing, but apart from eliminating an awkward ambiguity it has a further advantage for my purpose: it underlines the distinction, central to my inquiry, between groups closing in brevis, hiatus, etc., where metrical pause is invariable and sense-pause normal, and those groups which may or may not end in metrical pause, i.e. may be in synaphea. If these definitions are borne in mind, I do not think they need be a source of confusion.

I. The safest guide to period-end is brevis in longo and hiatus.³² A syllable is said to be brevis in longo when it is short by prosody, but licensed to count as a metrical long at the end of a verse. (I shall follow Maas's practice in restricting the term *anceps*^{32a} to an indeterminate element within the verse or period, i.e. a metrical place which may be filled by either a short or a long.) Both brevis in longo and hiatus are liable to ambiguity. Not all hiatus marks period-end, since a long syllable in hiatus may be short by correption; but in dramatic lyrics correption is restricted to certain metres, and ambiguity is rare. Again, it may not always be possible to tell, without the control of strophic responsion, whether a short syllable is to be elided or written *plena scriptura*. Otherwise I shall assume that apart from well-known exceptions (e.g. before and after an exclamation) hiatus invariably marks period-end. The assumption is not proof against error, since there are a very few places in Pindar where hiatus (and brevis in longo) apparently occur in mid-verse, and the same might be true of tragic lyrics, as e.g. Kraus and Pohlsander have maintained.³³ I shall revert to this point

³¹ In my use of the terms 'minor period' and 'major period' I follow Dale (*LMGD* 11 ff., 195 ff.). My use of 'period' also corresponds more or less with that of Irigoin, 'Colon, vers et période', *Κωμωδοτραγήματα* (1967), 65 ff. But since I have no use for his distinction between colon and verse as separate functional categories (on which see L.P.E. Parker in *Lustrum* 15 (1970), 52–3) —cola being in 'verbal synaphea' (i.e. having elision or word-overlap), verses in 'prosodic synaphea' (i.e. with metrical pause but no proven period-end)—I need only one term for the smaller divisions, and as 'colon' is disqualified, 'verse' seems the obvious candidate. (Dale in *LMGD* uses 'colon' but not 'verse' as a functional category.) For places in the metrical scheme with neither synaphea nor proven period-end, I use Maas's term 'contact' (*GM*, §66); a contact is a potential period-end, not a separate

category like Irigoin's 'vers'.

³² This is the criterion by which A. Boeckh first determined the verses in Pindar ('minor periods' in my terminology), and it was presently extended to lyric verse in general by G. Hermann in his *Elementa Doctrinae Metricae* (1816), pp. 715–16 (III.xviii.7). Despite W.J. Koster, *Mnemos.* 3 (1950), 30–2, this guide is not infallible, but it is sound enough for my purpose. For its real and supposed limitations, see below, n.33 and pp. 41, 52.

^{32a} The traditional term *syllaba anceps* is however a misnomer: see L.E. Rossi, 'Anceps, vocale, sillaba, elemento', *RFIC* 91 (1963), 52–71.

³³ Kraus, op. cit., p. 146 n.2 (hiatus); Pohlsander, *Metrical Studies in the Lyrics of Sophocles* (1964), p. 157 (hiatus), p. 162 (brevis), where he lists some supposed cases. (Cf. Snell, *Pindar*,³ ii.173). See below, p. 41.

later. But the evidence of Pindar suggests that if such cases do occur in tragedy, they will be very few, and will not much affect the argument.

Nor is brevis in longo always a sure guide, partly because the colometry is sometimes uncertain, so that the brevis may be short within the verse; partly because it is often difficult, even when the colometry is clear, to decide whether a given syllable is in brevis in longo or link anceps. Thus in *O. T.* 900

οὐδ' ἐς τὸν Ἀβαΐσι ναόν, | οὐδὲ τὰν Ὀλυμπίαν

simple inspection will not reveal whether we have two short periods, the first ending in brevis in longo, or one longer period with link anceps. The status of a brevis may sometimes be determined quite easily. An element cannot be anceps if it is preceded or followed by a short (other than in biceps) or anceps within the period.³⁴ So in *Ant.* 585 ἄτας | οὐδὲν ἐλλείπει γενεᾶς ἐπὶ πλῆθος ἔρπον · | ὁμοιον ὥστε πόντιον | οἶδμα the second syllable of ἔρπον (i) cannot be a short element, since the corresponding syllable in the antistrophe is long; (ii) cannot be anceps, since it is followed by a short; so (iii) must be brevis in longo.³⁵ Again, since metrical period is the same for strophe and antistrophe (and any further repetition, as in Pindar), a given ambiguity in the strophe may be resolved in the antistrophe. So *S. Trach.* 112 πολλά γὰρ ὥστ' ἀκάμαντος | ἡ νότου ἡ βορέα τις, is shown by the corresponding ὦν ἐπιμεμφομένης ἀδεία μὲν, ἀντία δ' οἷσω to be link anceps, not brevis in longo. Contrariwise in *E. Med.* 426 ἐπεὶ ἀντάχῃσ' ἂν ὕμνον | ἀρσένων γέννα, ὕμνον is shown by the hiatus in 418 . . . φᾶμαι · | ἔρχεται to be the end of a period. In Pindar, where the same metrical structure is repeated many times, it is often possible to determine all the periods unambiguously, as Boeckh demonstrated in his edition. But in the lyrics of tragedy the pattern is repeated only once, and only some of the periods can be so determined. There remain a number of places where period-end is neither excluded (by word-break or elision) nor established (by hiatus or unambiguous brevis in longo); these places Maas terms 'contacts'. Whether such contacts constitute period-end can sometimes be determined, though in general less securely, by other means.

II. Catalexis. This is an awkward term to use in the analysis of lyric metres, since as Dale well says (*LMGD* 20) it implies a degree of analysis κατὰ μέτρον which is often impossible or inappropriate, and is best restricted to describing the relation of a given verse to its context. Thus in anapaests a paroemiac is undoubtedly catalectic, and always marks period-end.³⁶ But in lyric metres a 'paroemiac' (or enoplian) is often the first member of a longer compound, linked by its final anceps. A pherecratean is catalectic in relation to a preceding glyconic, and the resulting priapeum is always followed by period-end (or nearly always). But it is also a verse in its own right, as in the refrains of Aeschylus' *Agamemnon* and *Supplices* or Euripides' *Heracles*; and at *Alc.* 962

ἐγὼ καὶ διὰ Μούσας
καὶ μετάρσιος ἤξα, καὶ
πλείεστων ἀψάμενος λόγων

³⁴ *GM*, § 35; *LMGD* 94, 179; W. Theiler, *Mus. Helv.* 12 (1955), 183 f.; Pohlsander, 163.

³⁵ Possibly ἔρπων should be read, but the example will serve.

³⁶ As observed by G. Hermann, op. cit. (n.32 above), pp. 378–9. This is true only of marching anapaests, not of lyric anapp., where the paroemiac is a verse in its own right, e.g. *S. El.* 193, 233–5.

κρείσσον οὐδὲν Ἀνάγκας
 ἡὔρον, οὐδέ τι φάρμακον, κτλ.

the grouping is most likely pher. + 2 glyc., pher. + glyc. Again, the analogous aristophanean is found repeated in a continuous chain as at *Ba.* 73:

ὦ μάκαρ ὅστις εὐδαί-
 μων τελετάς θεῶν εἰ-
 δῶς βιοτᾶν ἀγιστεύει.

(the metrical pattern is then repeated); cf. *A. Cho.* 387–9. In iambics the bacchius, though it may be in the usual sense ‘catalectic’, is not a safe guide to period-end unless it is followed by short or anceps, since a following long may be in synaphea, as in *Ag.* 197 *τρίβω κατέξαυον ἄνθος Ἀργεῖ | ων· ἐπεὶ δὲ καὶ πικρῶν* . . .³⁷ Outside iambics the sequence is not always recognizable as the end of a verse when it is followed by a short syllable. *Alc.* 1002

Αὐτα ποτὲ προὔθαν' ἀνδρός,
 νῦν δ' ἔστι μάκαιρα δαίμων

could be read either as two enoplia, or as telesilleion + hipponacteum; there is little to choose on purely metrical grounds, and word-division and syntax are not decisive. But in the strophe 991

φίλα μὲν ὅτ' ἦν μεθ' ἡμῶν,
 φίλα δὲ υ-υ-υ-³⁸

the anaphora favours the former interpretation, and in that case (as Dale ad loc. observes) there will be period-end at *ἡμῶν*.³⁹ This is in fact an application of the rule stated above, that anceps is never preceded or followed by short or anceps. For in some lyric metres the pendant close (to use Dale's terminology), if it does not make a period, has final anceps, unlike the bacchius in iambics, which must have final long (but see also pp. 64–6 below). So if the enoplian at *Alc.* 991/1002 is not followed by period-end, the final element is anceps, though in fact there is a long syllable in both places. But in that case anceps would be followed by a short syllable (anceps element), *ἡμῶν φίλα*, which is impossible; therefore there is a period-end at *ἡμῶν*.

‘Catalexis is always a mark of period-end’ can in fact be restated in a more restricted form without the term catalexis: ‘pendant close is always a mark of period-end, if it is followed by a short or anceps’.⁴⁰ This rule is reliable enough; the difficulty is in applying it, since pendant close cannot be confidently identified

³⁷ L.P.E. Parker has now given a more precise definition to the concept of ‘catalexis’, which makes it usable even in metres which are not analysable *κατὰ μέτρον*; she also shows that catalexis is nearly always attended by metrical pause, and that cases like *Ag.* 197 are very rare (*CQ* N.S. 26 (1976), 14–28, esp. 20 n.17). Cf. the postscript of this paper, pp. 64–6.

³⁸ The reading is immaterial to the structure.

³⁹ For anaphora at the beginning of a period, cf. *A. Pers.* 950–1, *Sept.* 166–7;

S. Ant. 791; *E. Alc.* 460, *Suppl.* 73–4.

⁴⁰ But not if it is followed by double-short, or by a long which cannot be anceps. Thus in ionics elision and word-overlap is not uncommon (cf. also *A. P. V.* 183, *S. O.C.* 135). There are however certain metres, such as repeated bacchii, where υ-υ- is regularly followed by short; see *BICS* 20 (1975), 84. (N.B. In applying this rule, I treat the first element of an aeolic base as long unless there is a short syllable there in one or both places. If the base is resolved, I treat the first element as biceps wherever possible.)

without a well-established colometry, and this is often not possible.

The rule I have just formulated means that pendant close followed by short or anceps can never coincide with word-overlap or elision. This is by no means generally accepted; thus Elmsley's (τ') at Ag. 229 αἰῶνα παρθένειόν τ' | ἔθεντο is preferred by Page to Müller's αἰῶ τε παρθένειον, and his supplement (δ') at ibid. 251 τὸ μέλλον δ' | ἐπεὶ γένοιτ' ἂν κλύους is favoured by both Page and Fraenkel. The rule is not however my invention; Wilamowitz observes it rigorously in his colometry, and occasionally implies it in his comments. So Hermann's reading, followed by Murray, at E. Hcl. 751 ἀγγελίαν μοι ἐνέγκαιτ' | λαήσατε δ' οὐρανῷ (ἐνέγκατ' codd.), impossibly breaks the rule, and Wilamowitz reads ἐνεγκεῖν (or ἐνέγκαι).⁴¹ Two possible objections must be met. First, it might be argued that we can never be sure, in iambs, that a bacchius ends a verse, rather than beginning the next one. This is met by the observation that the sequence - - - - within the verse in iambs is extremely rare in Aeschylus, Sophocles, and the earlier plays of Euripides;⁴² so the presumption is that in this sequence - - - is clausular. The second objection is more serious. Granted that the sequence - - - - is not normally admitted within the verse, it might be said that I have not shown it to be inadmissible *within the period*. To show this I must anticipate my conclusion, though I think without *petitio principii*. The incidence of pause after pendant close is comparable with the incidence of pause at period-end marked by brevis and hiatus, a criterion universally accepted. We may safely conclude that pendant close followed by short or anceps also marks period-end, since otherwise we should expect no significantly high incidence of pause there. It follows, then, that elision or word-overlap is inadmissible at such places, and readings such as αἰῶνα παρθένειόν τ' | ἔθεντο at Ag. 229 or τὸ μέλλον δ' | ἐπεὶ . . . at ibid. 251 may be rejected out of hand.

III. Limit to the length of period. Maas observed (*GM*, §65) that the longest period in Pindar was eight metra, and that periods in tragedy were rarely longer. If we take eight metra as the limit in tragedy,⁴³ we find that the incidence of pause at period-ends so determined is closely comparable with the incidence of pause at period-ends otherwise determined (viz. by criteria I and II). This criterion is clearly not so reliable, since longer periods may occasionally be admitted (the deliberately long period or *pnigos* is cultivated in some metres); the measure is sometimes hard to apply, when the metre is not strictly *κατὰ μέτρον*; and though it indicates that at least one contact in a given passage must end a period, it cannot help us to distinguish which of several possibilities is the right one—there may indeed be more than one. But it is useful as a check, since it may sometimes warn us against adopting an impossible colometry. For instance, it strongly supports the ionic interpretation of *P. V.* 397 ff. against the choriambic division favoured by Wilamowitz and Page, which gives either a long period or no contact with pause in either place. This confirms the arguments from word-division adduced by Fraenkel.⁴⁴

⁴¹ *GV* 451 n.2: 'Elision ist hier undenkbar.'

⁴² See *BICS* 22 (1975), 88–95, esp. 93–4.

⁴³ Cf. *GM*, §65. In practice I have admitted periods of eight metra + - -, since this is very common. By the count of *ictus* suggested by A. Dain, *Traité de métrique grecque* (1965), pp 160 ff., this is

equivalent to seventeen or eighteen *ictus*. (Dain of course allows longer periods than this, since his 'period' is my 'major period'.)

⁴⁴ *Annali della Scuola Normale Superiore di Pisa*, Serie II, 23 (1954), 275 ff. (= *Kl. Beitr.* i.396 ff.). The argument from word-division is persuasive, but not in itself sufficient.

IV. Structure. Under this heading may be grouped a number of more or less vague indications of period-end, listed as marks of period-end by, e.g. Kraus and Pohlsander.⁴⁵ They are seldom reliable unless they coincide with the determinations given by one of the rules already stated, and I may safely omit them without affecting my argument. If treated with caution, they may indeed be useful; for example, catalexis, in the normal sense, can be a factor in the choice between possible contacts given by criterion III, the limit of eight metra. But they are often the basis for highly subjective colometry. In particular, it is sometimes said that period-end which is not determined by these means has no significance for the metrical structure of the stanza and may be ignored: e.g. in *S. O. T.* 1196 ff. the periods given by structural indications (also by I and III) are at 1198 ὄλβον (= 1188 ἐναριθμῶ) and 1201 ἀνέστας (= 1192 ἀποκλῖναι). But there is also hiatus at 1201 καλῇ | ἐμός. This is regarded by Kraus as hiatus within the period. So *Phil.* 184 στικτῶν ἢ λασιῶν μετὰ | θηρῶν is regarded by Pohlsander as brevis within the period.⁴⁶ Kraus remarks (loc. cit. n.30 above): 'when the periods are unmistakable on other grounds the poet is indifferent to such matters.' How does he know? It is of course just possible that in a very few places in tragedy there is hiatus within the period, just as there seems to be in Pindar. But to assume that this is so whenever there is no structural indication is to jettison the best evidence for period-end that we have. After all, there are very many period-ends in Pindar where there is no structural indication. If we wish to distinguish between those period-ends which are clearly marked by structure and those which are not, we should rather (to borrow Dale's terminology) speak of 'major' and 'minor' periods: so here the first verse of the third major period is marked by hiatus as a minor period. Incidentally, the minor period may be as short as the metron: e.g. *A. Eum.* 511 ὦ Δίκα, with hiatus before and after it, is a very short minor period. In *E. Hcld.* 608–9 οὐτῶά φημι θεῶν ἄτερ ὄλβιον, οὐ βαρύποτμον | ἄνδρα γενέσθαι, Miss Dale concluded in *LMGD*¹ (27) that there could not be period-end at βαρύποτμον as well as at γενέσθαι, since the adonean is too short to form a period. This view is incorrect, and Miss Dale told me that she ceased to hold it.

Of the four means of determining period-end I have listed—I, brevis in longo and hiatus; II, pendant close followed by short or anceps (which I shall call catalexis); III, limit of eight metra; IV, structure—the first two are the most important for my argument, and I shall now say a little more about a characteristic ambiguity of each. I said that we cannot tell from simple inspection whether in *S. O. T.* 885 οὐδ' ἐς τὸν Ἀβαῖσι ναόν, οὐδέ τὰν Ὀλυμπίαν the second syllable of ναόν is brevis in longo or (short) anceps within the period. (p. 38 above). If we compare the strophe (885) Δίκας ἀφόβητος, οὐδέ δαμόνων ἔδη σέβων two factors appear which favour link anceps: the short syllable in both places, and the enjambment after οὐδέ which though not strictly a prepositive is closely linked with what follows.⁴⁷ Moreover this is a standard enoplian compound, similar to the archilochian; cf. *O. T.* 1096 ἰήε Φοῖβε, σοὶ δέ | ταῦτ' ἄρεστ' εἴη = 1108 Νυμφᾶν Ἑλικωνίδων, αἷς πλείστα συμπαῖζει, with enjambment in both places, or *El.* 486 ἄ νυ κατέπεφνεν αἰσχί | σταις ἐν αἰκείαις = 501 εἰ μὴ τόδε φάσμα νυκτὸς | εὐ κατασχῆσαι, with word-overlap in the long anceps syllable in accordance with Maas's law (Pearson's division as teles. + - - - - is surely

⁴⁵ Kraus, op. cit., §§ 10–25; Pohlsander, op. cit., ch. x. adjectives on the preposition see p. 60 below, with n.76.

⁴⁶ Cf. n.33 above. For the effect of the

⁴⁷ See *JHS* 96 (1976).

wrong, despite 479 υ-υ- - -). There is in fact little point in marking division here; we should rather recognize a single compound verse. Now consider *H.F.* 1199–1201:

αἰδόμενος τὸ σὸν ὄμμα
καὶ φιλίαν ὁμόφυλον
αἰμά τε παιδόφονον.

Are these three periods, or one period with anceps linking each hemiepes? There is no antistrophe to help. The compound would be regular and the link syllables are short, but this time each verse forms a syntactical colon admitting pause. It would be a tempting dishonesty to treat the Sophocles cases, where there is no pause, as anceps, and the Euripides case, where there is, as brevis in longo. It is a temptation I have resisted, though perhaps not with complete success. Here Dale is probably right to treat the syllable as anceps,⁴⁸ though we cannot be sure. In general I have followed Dale's practice in *LMGD* of treating syllables as anceps wherever it is plausible. I have also followed her in regarding anceps as plausible in some places which earlier writers have assumed to be brevis in longo. (But in her article 'Observations on Dactylic'⁴⁹ she takes this interpretation too far.) A syllable must not however be treated as link anceps unless the elements which it links are recognizable as standard verses in themselves and are commonly found in standard compounds, or in the synartete periods of dactylo-epitrite. For example, with Murray's division at *E. Hipp.* 563 δεινὰ γὰρ παντὰ ποτιπνέι, μέλισσα δ' | οἷα τις πεπόταται, the last syllable of μέλισσα cannot be brevis in longo, since it is followed by elision; it must therefore be link anceps. But what does it link? The pherecratean is normal, but the first element comes out as - - - - υ-υ-υ- -, which is not found (nearest is the blunt dragged verse at *E. El.* 174/97 - - - - υ-υ- - - -, which is clausular). Hence some other colometry is preferable, viz.

δεινὰ γὰρ τὰ πάντ' ἐπιπνέι, μέλισσα δ' οἷ-|
α τις πεπόταται,

as Barrett divides.

This touches a theoretical problem which is sometimes raised. How is long anceps to be distinguished from long in pendant close? In iambics the last syllable of pendant close is unambiguously long; but in e.g. an aristophanean - υ υ -υ-x regarded in isolation as a metrical schema, the last syllable may be anceps. Suppose in a given passage the last syllable in both strophe and antistrophe is in fact long. Is the metrical place long or long anceps? The answer is, I think, that in the absence of any indication from the four criteria I have listed, we cannot tell, though the question seems significant. We can only apply the negative test I have just mentioned: the syllable must not be treated as link anceps unless the elements it links are standard verses in their own right, and regularly enter into standard compounds.

The characteristic ambiguity which besets catalexis is in the division of verse, between pendant close with word-break and blunt close with word-overlap. This raises the second main question in metrical analysis, how verses within the period should be divided. Verse-end most often coincides with word-end (diaeresis); but as synaphea prevails within the period, word-overlap (caesura) and elision at

⁴⁸ *LMGD* 175 f.

⁴⁹ *WS* 77 (1964), 19–20 = *Collected Papers* (1969), p. 190.

verse-end are not uncommon, and in some metres are actually cultivated. We can, in fact, make a broad comparison between the observable tendencies in certain metres; e.g. word-overlap is comparatively rare in iambo-trochaic metres, comparatively frequent (though not so frequent as diaeresis) in choriambics and kindred metres.⁵⁰ But such generalizations are not much help in deciding about a particular place. The safest guides are: (i) the analogy of other verse-forms or sequences of verse-forms elsewhere; (ii) a repeated metrical pattern—though this is often not available. Suppose the following division were suggested for *S. Ant.* 100–2:

ἀκτὶς ἀελίου,	dodrans A
τὸ κάλλιστον ἐπταπύλῳ	chor. dim.
φανέν Θήβα τῶν προτέρων φάος.	chor. dim. + υ –

We might argue (i) that the last verse is otherwise unknown (see above on *Hipp.* 563); (ii) that the normal analysis into three glyconics gives a repeated metrical pattern which is (a) a normal feature in Greek lyric, (b) common in this metre, (c) coheres with the rest of the strophe to make a readily intelligible structure. If *Hec.* 447 ff. is divided according to word-end, we get:

ποῖ με τὰν μελέαν πορεύσεις;	hipp.
τῷ δουλοσύνας πρὸς οἶκον	enopl.
κτηθεῖσ' ἀφίξομαι;	– – – – –
ἢ Δωρίδος ὄρμον αἶας;	enopl.

The first two and the last are normal verse-forms and suitable in this context, but the third is out of place except in a trochaic sequence. The accepted division is:

ποῖ με τὰν μελέαν πορεύ-
σεις τῷ δουλόσυνος πρὸς οἶ-
κον κτηθεῖσ' ἀφίξομαι; ἢ
Δωρίδος ὄρμον αἶας;

This gives 3 glyc. + aristophanean, a repeated pattern with catalectic clausula, characteristic in Greek as in other poetry. This particular sequence is also a favourite of Euripides, particularly with word-overlap.⁵¹ This overlapping by one syllable, which Maas calls 'dovetailing',⁵² is characteristic of aeolic-choriambic metres. So at *S. O.C.* 668

εὐῖππου, ξένε. τᾶσδ' ἡρώ-
ρας ἰκοῦ κράτιστα γᾶς ἔπαυλα,

this division, giving glyc. + glyc. + ba. (phalaec.) is preferable, apart from the glyconic context, to:

εὐῖππου, ξένε, τᾶσδε χώρας	hipp.
ἰκοῦ τὰ κράτιστα γᾶς ἔπαυλα.	enopl. + – – ⁵³

The principle of the 'repeated pattern' must not however be pushed too far. At *E. Med.* 441 ff. Murray divides:

⁵⁰ *LMGD* 134, 145 f.

⁵¹ *LMGD* 145 f.

⁵² *GM*, § 59.

⁵³ Cf. Bacchylides 18, on which see Snell⁷ p. 35, *GV* 263. Wilamowitz remarks that the

practice of dovetailing exhibits the conflict of two tendencies, one towards the simpler asynartete structures (e.g. of Archilochus), the other towards more complex structures which desiderate caesura.

σοὶ δ' οὔτε πατρός δόμοι,
 δύστανε, μεθορμίσασθαι,
 μόχθων πάρα, τῶν τε λέκτρων
 ἄλλα βασιλεία κρείσσων
 δόμοισιν ἐπέστα.

This gives teles., 3 enopl., reiz. The repetition of the enoplions is superficially attractive, but it is no more likely to be right than the alternative:

σοὶ δ' οὔτε πατρός δόμοι,
 δύστανε, μεθορμίσα-
 σθαι μόχθων πάρα, τῶν τε λέκ-
 τρων ἄλλα βασιλεία κρεῖσ-
 σων δόμοισιν ἐπέστα,

2 teles., 2 glyc. + pher. In fact the first division makes four period-ends without pause (in strophe and antistrophe), the second only one. In the absence of any good metrical reason for choosing the first, the second should certainly be adopted.⁵⁴

There is no question that in these examples the correct division gives word-overlap. Less obvious is *E. El.* 699 ff., where Wilamowitz divides:

ἀταλᾶς ὑπὸ ματέρος Ἀργεί-
 ων ὀρέων ποτὲ κληδῶν
 ἐν πολιαῖσι μένει φάμαις·
 = 713 ff. θύμελαι δ' ἐπὶ τναιτο χρυσήλα-
 τοι, σελαγεῖτο δ' ἄν' ἄστν
 πῦρ ἐπιβῶμιον Ἀργείων.

Enopl. (υυD-), hemiepes (D-), hemiepes with spondaic close (D-). That this colometry is right is shown both by the internal structure, giving the pattern a, a, a+b, which is very common in Greek metre (as in the popular poetry of other European languages), and by the closely analogous passages at *Tro.* 256 ff.:

ῥίπτε, τέκνον, ζαθέους κλη-
 δας καὶ ἀπὸ χροός ἐνδυ-
 τῶν στεφάνων ἱερὸς στολμούς.

and *Ba.* 73 ff. (see above, p. 39). But Denniston says, 'This seems to me most artificial.' The suppressed premiss is clearly that at verse-end diaeresis is natural, word-overlap artificial. The same prejudice can I think be seen at work in a more controversial case, *Hipp.* 127 ff. Wilamowitz, Méridier, and Barrett divide:

τέγγουσα, θερμᾶς δ' ἐπὶ νῶτα πέτρας
 εὐαλίου κατέβαλλ'· ὄθεν μοι
 πρῶτα φάτις ἦλθε δεσποίνας.

The alternative colometry is given by Murray:

⁵⁴ Cf. *Hcl.* 914–16 = 923–5, where Murray's division (three enoplions) gives an impossible word-break at 924–5:

ἔσχεν δ' ὕβρις ἀνδρός ῥ' θυ-
 μος ἦν πρὸ δίκας βλάβος,

where we can divide tel. + hipp. Again, to

divide *Hec.* 910–12 = 919–21 as three enoplions (as no modern editor in fact does) would give an impossible word-division in 911–12 = 920–1. (Divide tel. + glyc., hipp.; hipp.)

τέγγουσα θερ-
 μᾶς δ' ἐπὶ νῶτα πέτρας εὐ-
 αλίου κατέβαλλ' ὄθεν
 μοι πρῶτα φάτις ἦλθε δεσποίνας.

Wilamowitz explains: 'ich habe gelernt, auf die gleichmässige Wortabteilung in Strophe und Antistrophe zu achten', etc.; but word-break is not necessarily an effective guide in this type of ambiguity. Barrett tells us that 'unity is given [to the stanza] by three cola ending in -υυ-υ-υ-', i.e. 128, 129, and 124 above (παγὰν προιεῖσα κρημνῶν). But such 'echoes', though heavily relied on by Kraus, are of little value in determining colometry. The first division gives the rare verse -υ-υυ-υ-υ- (unparalleled in this form, though it is implied by the blunt version at 525 below, 'Ἐρως, Ἐρως, ὁ κατ' ὁμμάτων, cf. *Or.* 816/285-5-υυ-υ-υ-). The blunt interpretation favoured by Murray gives: ia. + chor. dim. (dragged) + glyc. + glyc. - -. For this form of dragged dimeter cf. *El.* 116 καὶ μ' ἔτεκεν Κλυταμῆστρα, corresponding with dragged glyconic, which is common enough and occurs just below at *Hipp.* 141, 143 (cf. -υυ-υ-υ-υ- at 70 above); for glyc. - - cf. *Med.* 184, *Ion* 1060, *Cycl.* 510, and probably *S. Phil.* 218, all clausular; and *I.T.* 1093. Murray's division gives a regular pattern of normal verses, and is therefore to be preferred. These examples could be multiplied, but the moral is that diaeresis (word-end) is not a safe guide to colometry in aeolic metres. This is important for my inquiry because an interpretation giving pendant close and diaeresis sometimes introduces unnecessary period-end without pause by catalexis.

Are there any purely *metrical* conditions which are alone enough to license period-end without pause? There are two types of verse in which period-end without pause is significantly frequent. (i) The refrains of Aeschylus in *Supplikes* and *Agamemnon*, and two passages assimilated to them by Wilamowitz: the repeated hemiepe at *Pers.* 584 ff. and the repeated pherecrateans at *Sept.* 295 ff. (we may add the refrains in the first stasimon of Euripides' *Heracles*). In these eighty lines of Aeschylus there are thirteen cases of period-end without pause: this cannot be accident. Why this is so is a matter of speculation; I believe I have a plausible answer, but I will not pursue it here.⁵⁵

(ii) Dochmiacs. Dochmiacs in tragedy are *sui generis*: they are often not arranged in stanzas, and it may be that the notion of 'period' does not apply to them in the same way as it does to other metres. Certainly the normal conditions do not obtain at 'period-ends' in dochmiacs or hypodochmiacs determined by criterion I (brevis or hiatus); the incidence of places without pause is markedly higher than in other metres (see Tables XI and XII). (Criterion II is not applicable, since all dochmiacs are blunt; and criterion III, limit of eight metra, should probably not be applied either.) I have therefore omitted dochmiacs from the general count, and listed them separately. Table XI also lists separately non-dochmiac verses followed by dochmiacs, where there is a similarly high incidence of places without pause. This may seem to involve a circular argument. But if dochmiacs are in fact significantly different from other metres, the procedure is justified, and if they are not, it does not assist my general argument.

⁵⁵ I shall treat this matter elsewhere. The low incidence of sense-pause in these refrains may have some connection with the intermediate category of 'verse' postulated by Irigoin (cf. n.31 above). It is worth noting

that the refrain-pattern has much in common with the stanza-patterns of monodic lyric, in which pause seems to be treated in rather the same way.

The general picture of a high incidence of verse-end without pause in dochmiacs is modified if we consider only the incidence of pause at brevis in longo or hiatus and exclude the corresponding places in strophic systems (Table XI, col. 3). The proportion of places without pause in Aeschylus and Euripides (25.8 per cent, 19.4 per cent) is again far higher than the norm (10.8 per cent, 10.7 per cent: Table I). It is somewhat higher for Sophocles also (14.6 per cent as against 12.6 per cent), but the difference is less; at the same time, there is a marked discrepancy between the proportion of places without pause at brevis or hiatus, and the proportion at corresponding places (35.3 per cent). Moreover, the four places without pause at brevis or hiatus in Sophocles are all hypodochmiacs in the remarkable series of hypodochmiacs at *Aj.* 401 ff. = 418 ff. and at *O.T.* 1208 ff. = 1217 ff. The oddity of these passages has often been noted, and they should probably be omitted from the count.

N.C. Conomis, in his careful survey 'The Dochmiacs of Greek Drama',⁵⁶ has reached a quite different conclusion: there are *no* cases of brevis or hiatus in dochmiacs without change of speaker, change of metre or pause, except those involving exclamations, which are disqualified. That change of speaker always licenses brevis and hiatus is true: I have omitted such places from the count, in dochmiacs as in other metres. It is also true that a special licence is given by exclamations, or following exclamations.⁵⁷ I have not taken change of metre into account, since this does not seem to be a relevant factor in other metres (see below).⁵⁸ Conomis does not count hypodochmiacs as dochmiacs for this purpose, as I do; but this is immaterial, since they are important only in the passages of Sophocles which I have suggested should be eliminated anyway. He seems to have reached his extreme conclusion (1) by interpreting 'change of metre' very strictly;⁵⁹ (2) by emending some places on purely metrical grounds, thus begging the question;⁶⁰ (3) by omitting others;⁶¹ and (4) through not

⁵⁶ *Hermes* 92 (1964), 23–50.

⁵⁷ Cf. p. 37 above. I do not however regard a simple vocative as an exclamation, as he does, *op. cit.* 43 (iii) (a): e.g. *Sept.* 150 κλύω·ὦ πότνι· Ἥρα.

⁵⁸ Change of metre to dochmiac, on the other hand, does seem to be a significant factor; see above, and on Table XII.

⁵⁹ At *Alc.* 120–*υ υ υ υ υ*, an indubitable dochmaic, is followed by *υ υ υ υ υ*. (Dale's analysis as choriambic dodrans with resolution can be ruled out in early Euripides.) This is a regular clausula to dochmiacs, and is clearly related in rhythm (cf. *LMGD* 104; L.P.E. Parker, *op. cit.* (p. 39 n. 37)). It is unreasonable to insist that there is a change of metre here. At *A. Suppl.* 843–*υ υ υ υ υ* is followed by *υ υ υ υ υ*, then by *υ υ υ υ υ*. The intermediate verse links the dochmiac with the hemiepes: it is itself either, or both (cf. *LMGD*, loc. cit.). Conomis himself allows *υ υ υ υ υ* as a form of dochmiac at *S. Aj.* 881, 884, and notes that *υ υ υ υ υ* at *A. Sept.* 891, 892 is shown to be dochmiac by the antistrophe at 904, 905 *υ υ υ υ υ* (*op. cit.* 35).

⁶⁰ *A. Cho.* 958 (his suggestion τὸ μὴ

(θ') is perhaps a slip for (μ'), read by Page; but the pronoun impairs the universality of the prescription); *Eum.* 783; *E. Andr.* 833 (the following καλύπτειν πέπλοις is undoubtedly a dochmiac, whatever the correct text at 838: fort. τόλμας δαΐας | ἄν' ἐρεξ', as I shall argue elsewhere). He presumably emends ὄδοι to ὄδοις in *A. Suppl.* 854, and δαΐα to διαΐα in *Ag.* 1133; rightly, since the one is required by the sense, and the other is hardly a change. He need not however have emended *Eum.* 840 πνέω τοι μένος ἅπαντά τε κότον, since pause is given by the phrase in conjunction (series). (But no reasonable restoration of *Ag.* 1090–1 will give pause at πολλὰ συνίστορα, despite Murray's comma.) *E. Ba.* 1002 is undoubtedly corrupt; I am less convinced that the brevis is due to corruption in *Pbo.* 177.

⁶¹ *A. Suppl.* 649 (he presumably accepts Weil's conjecture); *E. H.F.* 1060 (the exclamatory force of ναί, which he rightly invokes to explain the internal hiatus, does not extend to the terminal hiatus). He should not treat *S. Trach.* 1024 τῶδέ με τῶδέ με πρόσλαβε κουρίσας as lengthening before mute and liquid (*op. cit.* 39), since

reckoning that the number of places *with* pause at brevis and hiatus in dochmiacs is quite small, so that a very small number of exceptions may be a significant proportion of the whole. Conomis is I believe right about Sophocles.⁶² But even if we grant all his conditions, and count only those very few places he has omitted or emended away *metri gratia*,⁶³ the proportion of places without pause is still higher for Aeschylus and Euripides in dochmiacs (Aeschylus, 16.5 per cent; Euripides, 7.2 per cent; combined, 11.6 per cent) than in other metres (Aeschylus, 10.8 per cent; Euripides, 10.7 per cent; combined 10.7 per cent: see Table I). It may be noted that the proportion of brevis and hiatus at verse-end in dochmiacs to all contacts in dochmiacs is no lower than in other metres, when dochmiacs account for less than 10 per cent of the lyrics in tragedy (compare the relevant figures in Table XI with those in Tables I and II).

Conomis's conclusions are evidently endorsed by D.L. Page, who applies them in his Oxford Text of Aeschylus. Page emends on metrical grounds in three relevant places, and suspects the text in two others, noting in his apparatus that certain features are especially rare in dochmiacs, or even illegitimate.⁶⁴ His notes imply two principles besides those of Conomis: (1) that brevis in longo is suspect in dochmiacs even with pause in both places, which is plainly false;⁶⁵ (2) that two dochmiacs forming a dimeter can never be split by brevis or hiatus, with or without pause.⁶⁶ But two successive dochmiacs do not always form a dimeter. If they are in synaphea, we know that they do; if they are split by brevis or hiatus, we know that they do not. Page's principle is mere *petitio principii*.

I come now to two metrical conditions which are commonly held to license period-end without pause, but which I find do not do so. The first is that period-end without pause (or rather *brevis* and *hiatus* without pause, since this is the only form of period-end for which syntactical conditions are commonly recognized as relevant) is licensed by change of metre. If this were so, we should expect to find a significantly higher incidence of period-end without pause at change of metre than at other places. We do not find this. Period-end does of course occur at change of metre more often than not, and so there are more cases of period-end without pause here than at other places. This may be how the popular belief originated. There is one exception, which I have already mentioned: viz. when the change is to *dochmiac*. This might be because the *dochmiac* rhythm is so clearly defined.

It is also widely held that catelexis in itself licenses period-end without pause; or, to the put the same view in a milder form, that brevis in longo (or hiatus) in pendant close is less surprising than in blunt close. So Fraenkel (on *Ag.* 229) says of the blunt brevis in longo at *Suppl.* 135, and the corresponding hiatus at 145:

besides the rarity of this feature, which he himself stresses, it implies synaphea, which is here ruled out by the strophe 1004, given any reasonable arrangement and text (cf. Barrett, *Hippolytus*, p. 407). If this is a dochmiac, as he asserts, there is brevis without pause in both places. But it could be — — — — — ⏏ a type of prosodiac (see JHS 96 (1976), 144 n.87).

⁶² The one certain exception is *O.T.* 1350 λυσε μ' ἀπό τε φόνου | ἔρυστο, where φόνου at least is sound and corruption is ruled out by the strophe. In Table XII

count hypodochmiacs as dochmiacs, which Conomis does not.

⁶³ A. *Suppl.* 649, *Cho.* 958, *Eum.* 783, 840; E. *Andr.* 833, *H.F.* 1060.

⁶⁴ *Suppl.* 649, *Cho.* 958, *Eum.* 783; *Sept.* 109, *Eum.* 149.

⁶⁵ See his apparatus at *Sept.* 109 (pause at 128 is given by the vocative).

⁶⁶ See his apparatus at *Eum.* 149 (cf. at *ibid.* 783). (Platt's conjecture at *Eum.* 149, which he recommends, is refuted by the evidence he himself gives.)

'this is still more suprising than when it accompanies catalexis.' But it is only more surprising if we assume that some licence is given by the purely *metrical* circumstance of catalexis or pendant close. If this were so, we should expect to find a higher incidence of period-ends without pause in pendant close than in blunt; but in fact, where comparison is possible, we do not in general find this. For period-end marked by brevis and hiatus, the proportion without pause in all tragedy is higher in blunt close than in pendant (by about 20 per cent), which makes if anything the other way. (In Aeschylus the opposite tendency appears: there may be a special reason for this, but the figures are probably too small for it to be significant; see Table III). The proportion without pause at period-end marked by catalexis is also rather higher in Aeschylus and Sophocles than at period-end marked by brevis and hiatus at blunt close. Again, this indication is not positive enough to warrant a special metrical licence. So apart from dochmiacs and Aeschylean refrains, no special metrical conditions appear to affect the incidence of pause at period-end.

III. TABLES AND CONCLUSIONS

The incidence of pause at brevis and hiatus, blunt and pendant close, and places corresponding to brevis or hiatus in strophic systems, is set out in Tables I—IV. I infer from these that the conditions for all period-ends determined by brevis and hiatus may be regarded as more or less the same; these are set out in Table V. Some general conclusions are then drawn, set out in tabular form in Table VI. An analysis of pause at verse-end in an ode of Pindar (*O. 1*) is given as a control (Tables VII, VIII). The incidence of pause at period-ends determined by criterion II ('catalexis') and III (limit of eight metra) is then set out beside that determined by I (brevis and hiatus) in Table IX. Figures in accordance with Table IX are given for the individual plays of Euripides, showing some sort of chronological pattern (Table X). Dochmiacs, excluded from the other tables, are given in Tables XI and XII. Stanza-end is excluded from the count throughout.

Figures for individual plays are not given, apart from Table X. These, and the full table of period-ends in tragedy on which they are based, will appear in a fuller treatment of the subject. For the sake of brevity I list here only those period-ends where in my judgement there is no pause.

Places without pause. The following are the places which, according to my text, colometry, and analysis, are period-ends without pause. They are listed for each play under I, brevis or hiatus and corresponding place; II, 'catalexis'; III, limit of 8 metra; DI, brevis or hiatus and corresponding place in dochmiacs; DII, brevis or hiatus in verses not themselves dochmiacs which are followed by dochmiacs. In strophic systems both places are given. An asterisk indicates pause. B (b) = blunt (pendant) brevis in longo; H (h) = blunt (pendant) hiatus; BH (bh) = blunt (pendant) brevis in hiatu.

A. Pers. I 572b*/580, 585h/592*, 635h*/642h*, 637*/644H. II—. III 70/78*.
DI —. DII —.

Sept. I 298b*/315*, 299*/316b*, 899H/908*, 940/953b*. II 288/305*, 295/312*, 297*/314. III 293*/310, 737/745*, DI —. DII 769H*/775.

Suppl. I 154b/168*, 159/173B*, 664*/675h, 663b*/674*, 664*/675h, 781*/790B. II 526/533*, 698*/704. III 42*/52, 99/106*, 543*/552, 1066/1092*. DI 635/649H*, 843B*/854*(?). DII —.

Ag. I 219/229b*, 416*/433b, 417bh/434*, 688*/706b, 985B*/999, 1116*/1127. II 196/209*, 218/228*, 224*/234. III 372/391*, 441*/460, 978*/991. DI 1090BH*/1095, 1114H/1125*. DII 1143B*/1153.

- Cho.* 178b*, 436/441H*. II 350*/368, 351*/369*, 625/633*. III 76*, 590/599*, 607*/618, 784/795*. DI 958H*/969*(?). DII —.
- Eum.* I 374h*/378, 527b*/539, 555*/563*. II —. III 322*/335. DI 783 = 813H*, 840^a = 873aB*. DII —.
- P.V.* I —. II 130*/146, III 536*/540. DII —. DII 584*/604B, 690b*.
- S. Aj.* I 221B*/225, 407/405BH*, 629B/639*, 704B/717*. II 232*/255, 1207/1219*. III 631*/642*. DI 401B*/418*, 402B*/419BH, 404/422B*, 405*/423BH, 406/424^aB*, DII 885*/930*, 887B*/932, 889H/934*(?).
- El.* I 1062b/1074h*, II 164/185*, 1086/1094*. III 123/139*, 481/497*, 1058*/1071.
- O.T.* I 172b*/183, 492h*/507, 890H/904*, 1193/1202H*. II 152/159*, 975/986*. III —. DI 1350H*/1360. DII 1338B/1358*.
- Ant.* I 105b/122*, 585b/596*, 812b*/829, 944*/955b, 948/959H*, 1119b*/1130, 1122*/1133H. II 336*/346, 975*/986. III 338/349*, 361*/371, 786/796*, 1117/1128*, DI 1320H/1344*. DII —.
- Trach.* I 115H/125*, 139b*, 498*/509h, 500H/511BH*, 844*/855H, 884B*. II 223*, 648*/656. III 118*/128. DI 846H/857*. DII 845*/856B.
- Phil.* I 173/184B*, 392B/508*, 862B*, 1083/1103B*, 1090*/1111B*, 1127B/1150*, II 683/699*, 1125*/1148. III 1143*/1166. DI —. DII 398H/514*.
- O.C.* I 132B*/163, 669b/682*, 675*/688BH, 679/692h*, 1215H/1229. II 513/525*, 515*/527, 1243*. III 127/159*, 677*/690, 704*/715*, 1051*/1066, 1076*/1087, 1219*/1235. DI 1449H/1464*. DII 1454B/1469*, 1560B/1572*.
- E. Alc.* I 400h/412*, 593*/601H. II 117*/127, 234*, 455*/466, 461*/471. III 462*/472, 574/584*, 582*/598, 906*/929*, 966*/977. DI 120B*/130H. DII —.
- Med.* I 418h/426b*, 850/860b*. II 853*/863. III 434*/441, 992/997*. DI —. DII —.
- Hcl.* I 608b*/619*, 773*/780h, 774*/781h. II —. III 357/366*, 612/623*, 897/906*, 913*/922. DI —. DII —.
- Hipp.* I 141H/151*, 734H/744*. II 738*/749, 1124*/1135, 1129/1140*. III —. DI 818H/837*, 827H/845*. DII —.
- Andr.* I 278B/288*, 298B*/307B, 790B*(?); 796B*. II 120/129*, 1017/1025*. III —. DI —. DII —.
- Hec.* I 467aH*/476^a, 632/642H*, II 471/480*, 927/937*, 946*. III —. DI —. DII —.
- Suppl.* I 44B/50, 72B/80*, 365B/369*, 1003b/1027*, II 996*/1019. III 56*/64, 59/67*, 61*/69*. DI —. DII —.
- H.F.* I 359b*/375*, 673*/687B*, 1036b*. II 382*/397, 389/403*. III 415/432*, 652*/670, 682/696*, 783/800*. DI 1060H*. DII 1069BH*.
- Ion* I 860h*. II 217*/236, 1075/1091*, 1083/1112*, III 1052*/1065. DI —. DII 685b/704*, 690H/706*(?).
- Tro.* I 517b/537*, 826H*/846, 830H/849*, 1086h*/1104. II 323/340*. III 800/810*. DI 309B/327*. DII —.
- El.* I 143B/160*, 145/162b*, 1177B*/1190. II —. III 707/720*, 710*/723, 862/876*. DI —. DII —.
- I.T.* I 394B*/409B, 426b/443*, 1234B/1259*, 1239b*/1264. II —. III 1091/1108*. DI —. DII —.

- Hel.* I 368B*, 1112b/1128*, 1479B*/1496. II 516*, 630*. III 1307/1325*, 1484*/1500. DI —. DII —.
- Pho.* I 239/250B*, 244H*/255, 1028b/1052b*, 1037B/1061*. II 204*/216. III 209*/221, 642*/661. DI 177B*. DII —.
- Or.* I 989B*, 1411h*, 1467B*. II —. III 809/882*. DI 176*/199B, 322*/339H, 1357*/1537H. DII —.
- Ba.* I 107*/122h. II 908*, 909*. III 116*/131, 508*, 863*/884*, 871/891*, 873*/893, 902*. DI 987^a/1007^aH*(?). DII 994 = 1014*.
- I.A.* I 1293H*. II —. III 733/764*, 758/769*. DI —. DII —.
- Rhes.* I 249*/259b*, 461H*/827*. II 225/233*, 877*/908*. III 246*/257, 528/548*. DI 700B/718*. DII —.

N.B. Lengthening before mute and liquid has not been assumed except in close word-groups, e.g. *O.C.* 684 (cf. p. 60 below), *E. Or.* 839 (for the scansion see *GV* 211 f.). On the rarity of such lengthening otherwise, see Barrett, *Hippolytus*, pp. 309 f., 435.

TABLE I
Brevis and hiatus with and without pause

	1 B. or H., pause	2 B. or H., no pause	3 Percentage without pause
Aeschylus	116	14	10·8
Sophocles	118	17	12·6
Euripides:			
early	46	8	14·9
middle	69	10	12·7
late	94	8	7·8
frags.	10		
all Euripides	217	26	10·7
All A., S., E.	451	57	11·2
<i>Rhesus</i>	10	2	(16·7)
All Tragedy	461	59	11·3

N.B. Col. 3 is col. 2 as a percentage of col. 1 + col. 2.

Cyclops is excluded and *Rhesus* given separately throughout.

Supplices is counted as an early play of Euripides, otherwise the plays are grouped as in the volumes of Murray's *O. C. T.*

TABLE II
Brevis and hiatus, with and without pause (detail)

	1	2	3	4	5	6	7	8	9
	Brevis			Hiatus			Brevis in hiatus		
	pause	no pause	%	pause	no pause	%	pause	no pause	%
Aeschylus	59	10	14·4	47	4	7·8	9	—	54·0
Sophocles	58	9	13·4	50	6	10·7	10	2	80·0
Euripides	117	18	13·4	88	10	10·2	4	—	76·0
All tragedy	234	37	13·7	185	20	9·7	23	1	70·0

N.B. Fragments and *Rhesus* are excluded. Col. 3 is col. 2 as a percentage of col. 1 + col. 2;

col. 6 is col. 5 as a percentage of col. 4 + col. 3; col. 9 is col. 6 as a percentage of col. 3.

Col. 9 thus measures the proportion of hiatus without pause against the proportion of brevis without pause, taking no account of brevis in hiatus. If this is included as hiatus, the figure for Sophocles becomes higher (88 per cent), for all tragedy slightly lower (67 per cent).

TABLE III

Brevis or hiatus with and without pause in blunt and pendant close

	1	2	3	4	5	6
	Blunt			Pendant		
	pause	n.p.	%	pause	n.p.	%
Aeschylus	50	4	7.4	68	10	12.8
Sophocles	48	11	18.7	60	7	10.4
Euripides:						
early	21	5		25	3	
middle	30	4		39	6	
late	45	5		49	1	
all Euripides	96	14	12.7	113	10	8.1
All tragedy	193	28	12.7	242	28	10.4

N.B. Fragments and *Rhesus* are excluded. Individual figures for Euripides are too small for percentages to be significant.

TABLE IV

Incidence of pause at places corresponding in strophic systems to brevis or hiatus, with and without pause

	1	2	3	4	5	6	7	8
			%					%
Aeschylus	94	12	11.4	6	5	100	17	14.5
Sophocles	89	16	15.2	10	—	99	16	13.9
Euripides:								
early	33	11	25.0	1	2	34	13	27.6
middle	38	5	11.6	2	1	40	7	14.9
late	36	4	10.0	2	—	38	4	9.5
all Euripides	107	20	15.7	5	4	112	24	17.7
All A., S., E.	290	48	14.1	21	9	311	57	15.5
<i>Rhesus</i>	8	—	—	—	2	8	2	(20.0)
All tragedy	298	48	13.9	21	11	319	59	15.6

Col. 1 = Pause in places corresponding to brevis or hiatus with pause.

2 = No pause in places corresponding to brevis or hiatus with pause.

3 = Col. 2 as a percentage of col. 1 + col. 2.

4 = Pause in places corresponding to brevis or hiatus without pause.

5 = No pause in places corresponding to brevis or hiatus without pause.

6 = Col. 1 + col. 4 (pause in places corresponding to all brevis or hiatus).

7 = Col. 2 + col. 5 (no pause in places corresponding to all brevis or hiatus).

8 = Col. 7 as percentage of 6 + 7 (proportion of corresponding places without pause).

N.B. Fragments are excluded. Figures for *Rhesus* are too small to be significant.

The comparison of Tables I and IV shows higher incidence of pause at brevis and hiatus and in the corresponding places in strophic systems, especially for early Euripides, without which the figure for all A., S., E. in col. 8 becomes 13.8. At first sight this seems to imply that, as Kraus and Pohlsander have maintained, brevis and hiatus do not always mark period-end. But a closer scrutiny shows that this is not the most likely reason for the difference. Table II shows a marked difference between the treatment of brevis in longo and of hiatus by all three tragedians, especially in Aeschylus, the incidence of period-end without pause in

hiatus being about 70 per cent of the incidence of period-end without pause at brevis. Again, at first sight this might suggest that hiatus does not mark period-end, since the incidence of pause is higher in hiatus than in the corresponding places in a strophic system. We may however note that the incidence of period-end without pause is not very different for corresponding place to brevis in longo (17.0 per cent) and corresponding place to hiatus (15.1 per cent); this difference is probably not significant. The figure for brevis in longo is 13.7 per cent, for hiatus 9.7 per cent: it is clearly hiatus that is out of line. Now if the reason for the difference between the incidence at hiatus and at the corresponding place to hiatus were that hiatus did not always mark period-end, we should expect a *lower* incidence of pause at hiatus than at brevis, whereas in fact we get a markedly higher one; and we should expect a markedly lower incidence of pause at places corresponding to hiatus than at places corresponding to brevis, whereas in fact it is not significantly different. The figure out of line is the high incidence of pause at hiatus, and the obvious explanation is that this reflects not only the normal avoidance of pause at period-end, but a special prejudice against hiatus without pause as such. This conforms to the observed avoidance of hiatus without pause in tragic trimeters, though there is no significant difference between the dramatists in their treatment of hiatus in lyrics, as there seems to be in trimeters, where Aeschylus is markedly more tolerant of hiatus than Sophocles and Euripides (except in his later plays).⁶⁷

Table III shows in general a lower incidence of pause in blunt than in pendant close, though markedly higher in Aeschylus. The reason for this is not clear. It might again be that blunt brevis or hiatus does not always indicate period-end, as Kraus and Pohlsander maintain. But the analogy with Pindar, who admits brevis or hiatus in mid-verse very rarely indeed, is against this (see p. 37 above). There is also another possible analogy with Pindar, as I shall presently show (Table VII). For in Pindar there seems to be a higher incidence of pause at what, on structural grounds, is likely to be the close of major periods, than at the close of minor periods. (The point has already been made in a general way by Maas, who notes that the main metrical groups in the Pindaric stanza tend to coincide with a fairly strong stop.⁶⁸) Now in most metres of tragic lyrics major periods will tend to have pendant close, so that blunt period-end will be correspondingly more frequent in minor periods; though in the iambo-trochaic metres of Aeschylus the converse will be true. It might be, then, that the difference in the treatment of blunt and pendant close in Sophocles and Euripides is due to a difference in the treatment of major and minor periods. I have no firm data to support this hypothesis, and indeed the distinction between major and minor periods, whether for Pindar or for tragedy, is too subjective to make firm data readily available. But the hypothesis makes sense, even though in practice it may be very difficult to test (I have made no attempt to test it). There is in any case no warrant for supposing that pendant close in itself licenses brevis or hiatus without pause (see pp. 47 f. above).

We may therefore expect the incidence of pause to be much the same for all period-ends determined by brevis and hiatus; bearing in mind that the special prejudice against hiatus will tend to reduce the over-all figure. From Tables I–V the following rules or tendencies may be inferred:

- (i) Brevis in longo and hiatus at verse-end coincide with pause: exceptions,

⁶⁷ See pp. 70–2 of this issue.

⁶⁸ *GM*, §49.

TABLE V

Period-ends marked by brevis or hiatus (including corresponding places in strophic systems), with and without pause

	1 Period-ends with pause	2 Period-ends without pause	3 Percentage without pause
Aeschylus	195	29	12.9
Sophocles	177	30	14.5
Euripides:			
early	75	20	21.0
middle	103	17	14.2
late	124	12	8.8
fragments	10	—	
all Euripides	312	49	13.6
All A., S., E.	684	108	13.6
<i>Rhesus</i>	10	4	(22.6)
All tragedy	694	112	13.9

N.B. Table V, cols. 1 and 2 are the sum of Table I, cols. 1 and 2 and Table IV, cols. 6 and 7 less those places with brevis or hiatus in both strophe and antistrophe, since these are counted in both Table I and Table IV.

11.3 per cent (Table I). Exceptions at brevis (13.7 per cent) are markedly higher than at hiatus (9.7 per cent); this special prejudice against hiatus is common to all three tragedians (Table II), though most marked in Aeschylus.

(ii) Places corresponding to brevis in longo and hiatus in strophic systems coincide with pause; exceptions, 15.6 per cent (Table IV). It may be remarked that the incidence of pause in places corresponding to brevis and hiatus *with pause* (exceptions, 13.9 per cent) is markedly higher than in places corresponding to brevis and hiatus *without pause* (exceptions, 34 per cent). This last percentage depends on small figures (21/11); of the eleven exceptions two are in *Rhesus*, two in the metrically odd invocation to Darius in the *Persae*, and four in the refrain-type passages in the *Septem*, *Supplices*, and Euripides' *Heracles*. A small error makes a big difference, and if these passages (say) were omitted, the figure would become 12.5 per cent.

(iii) Where period-end is indicated by brevis or hiatus, it coincides with pause; exceptions, 13.9 per cent (Table V).

(iv) In strophic verse, where period-end is indicated by brevis or hiatus, there is pause in both strophe and antistrophe; exceptions, 34 per cent. (The total out of which this proportion is calculated is the number of period-ends so determined *in the metrical system*, not the total number of places at period-end, which in strophic systems will be twice as many.)

(v) In strophic verse, where period-end in the metrical system is indicated by brevis or hiatus, there is pause in either strophe or antistrophe; exceptions, 4.0 (3.4) per cent.

The practice of the tragedians in the observance of these rules may be seen from Table VI.

The effect of rules (iii), (iv), and (v) of Table VI may be stated in this way:

(1) Sophocles is less strict in his observance of the rules than Aeschylus; Aeschylus comes between the middle and later plays of Euripides, who becomes progressively more strict. The early plays of Euripides, and the *Rhesus*, are eccentric.

TABLE VI
Percentage of exceptions in the observance of rules (i)–(v)

	(i)	(ii)	(iii)	(iv)	(v)
Aeschylus	10·8	15·9	12·7	21·2	3·9
Sophocles	12·6	13·6	14·5	45·0	0
Euripides:					
early	14·9	27·5	21·0	41·0	4·5
middle	12·7	14·9	14·3	34·0	4·5
late	7·8	9·8	8·8	33·3	0
all Euripides	10·7	17·4	13·6	36·1	3·1
<i>Rhesus</i>	(16·7)	(20·0)	(22·1)	(15·4)	(15·4) [†]
All tragedy	11·2	15·6	13·9	34·0	4·0 [†]

[†] Less *Rhesus*, 3·4.

(2) All three tragedians are markedly less strict in the observance of rule (ii) than (i). It was suggested (p. 52 above) that this may be due to the following fact:

(3) All three tragedians are markedly more strict about hiatus than brevis in rule (i). This is most probably due to the special prejudice against hiatus to be seen also at verse-end in trimeters (see above, p. 52).

It might be argued that the notion of pause has been so far extended that the incidence of pause at period-end in tragedy is not significantly high; that any division of verses which did not actually cultivate word-overlap would give a like result. That this is not so is best seen from the practice of Pindar. Here each period-end can be determined by brevis and hiatus, since the metrical system is repeated many times. In *Olympian* 1, chosen at random, the strophe is repeated eight times. Table VII shows, for each period, how often period-end coincides with pause.

TABLE VII
Incidence of pause at period-end in Pindar, O. 1, out of a possible 8 for strophe, 4 for epode

Strophe (8)	1.	5	Epode (4)	1.	4
	2.	7		2.	4
	3.	3		3.	3
	4.	4		4.	1
	5.	3		5.	3
	6.	4		6.	2
	7.	4		7.	1
	8.	7		(8.)	4
	9.	5			
	10.	6			
	(11.)	7			

As the incidence of pause at stanza-end is naturally very high, this position has been omitted from the count, as it has been for tragedy. This gives a total of 48 out of 80 for the strophe, 18 out of 28 for the epode; in all 66 out of 108, or 61·1 per cent. The corresponding figure for tragedy is 86·1 per cent. The expectation of pause at both places in the strophic system of tragedy is 66 per cent. No corresponding figure is directly available for Pindar; but a comparable figure can be found in the expectation that any two corresponding places will coincide with

pause, viz. approximately (61 per cent)², say 36 per cent. The practice of Pindar is thus markedly different from that of the tragedians; a fact which is doubtless to be explained by the manifold repetition of the stanza, which would make pause at each period-end technically difficult, and perhaps artistically undesirable. Table VII also serves to give definition to the insight of Maas, that the main metrical divisions in Pindar tend to coincide with a more or less strong sense-pause (see p. 52 above, with n.68). In *O.1* the main divisions are marked by the high incidence of pause at str. 2, 8, and ep. 2, 5.

A larger sample gives a similar result. The figures for *O.1* are given in Table VIII together with those for four odes from various times in Pindar's poetical life.

TABLE VIII

Incidence of pause at period-end in Pindar, O.1, P.10, N.10, P.1, P.8 (summary)

	1 pause	2 no pause	3 cols. 1 + 2	4 1 as percentage of 3
<i>O.1</i>	66	42	108	61.1
<i>P.10</i>	35	25	60	58.3
<i>N.10</i>	55	30	85	64.7
<i>P.1</i>	55	30	85	64.7
<i>P.8</i>	47	38	85	55.3
	258	165	423	61.0

The results given in Tables I–VIII for period-end determined by brevis and hiatus, the safest criterion, show that there is a significantly high coincidence of pause and period, less so in Sophocles and early Euripides, more so in late Euripides. It would be reasonable to expect a similar incidence of pause at all period-ends, however determined. This may be tested by comparing the results given by other criteria discussed above (pp. 38–40): II, 'catalexis', i.e. pendant close followed by brevis or anceps, and III, limit of eight metra. These between them cover most of the remaining period-ends. The former is reliable in so far as it is possible to determine verse-end unambiguously. The latter is not always easy to apply in metres which do not move strictly *κατὰ μέτρον*, and requires two assumptions: (i) that the limit established for Pindar also applies in tragedy (in practice eight metra + - -, which is very common, has been counted as one period, though nine metra, which is also fairly common, has not); (ii) that where there is a choice of contacts which by this method are candidates for period-end, and there is no structural ground for preference, that contact is assumed to be period-end which gives pause in both places or at least one place. These assumptions may not always be true, and the method must be treated with caution, being useful mainly as a check on colometry. Table IX shows the results given by criteria II and III compared with those given by I.

Criteria I and II are closely correlated in Aeschylus and Sophocles, less so in Euripides. This does not tend to show that Criterion II does not indicate period-end in Euripides, but it may reflect my treatment of aeolic metres: preference for blunt close with word-overlap when plausible, and assumption of anceps where others might prefer brevis in longo. A different approach on the lines suggested by Miss Parker (see p. 39 n.37 above) might give a different answer and redress the balance. Criterion III gives a markedly lower percentage without pause except in Sophocles. This is probably due to the reason already given for

TABLE IX

Incidence of pause at period-ends given by criteria I, II, and III. Col. 1 = Table V, col. 3; p = pause, np = no pause

	1	2	3	4	5	6	7	8	9	10
	I	II		3 as	III		6 as	Total,		9 as
	B., H.	'Catalexis'		percentage	Limit of 8		percentage	cols. 1-8		percentage
	percentage of	p	np	of 2 + 3	p	np	of 5 + 6	p	np	of 8 + 9
Aeschylus	12.7	96	13	11.9	148	16	9.8	467	61	11.5
Sophocles	14.5	85	16	15.8	102	18	15.0	362	64	15.0
Euripides:										
early	21.0	74	14	15.7	138	16	10.4	282	52	15.6
middle	14.3	69	6	8.0	132	10	7.0	301	33	10.0
late	8.8	52	5	8.8	212	14	6.2	380	31	7.6
All Euripides	13.6	195	25	11.4	482	40	7.7	973	116	10.6
All A., S., E.	13.7	376	53	12.3	732	72	9.2	1792	240	11.8
Rhesus	(28.6)	9	3	(25.0)	18	2	(10.0)	37	9	(19.6)
All tragedy	10.3	382	49	11.4	750	74	9.2	1843	251	12.0

treating this category as a check on colometry rather than as an independent criterion: preference for contacts giving fewest places without pause. If structure is taken into account, the correlation might well be closer; again, Miss Parker's findings are relevant. Since Criterion III in general shows a similar relation between the dramatists and the three periods of Euripides as the other two, it may tentatively be regarded as an independent criterion, and is so used in Table X; though III must clearly be less reliable than II, and II than I. The combination of I and II, which must be regarded as the substantive criteria, gives the following percentage for period-ends without pause: Aeschylus, 12·6, Sophocles, 14·9. Euripides; early, 18·6; middle, 11·8; late, 8·8. All Euripides, 13·3. All A., S., E., 13·2. *Rhesus* (27·0). All tragedy, 13·3.

The figures for individual plays, not given here, show no significant correlation with the known order of composition for Aeschylus and Sophocles. But for Euripides the correlation with the known order, and with the order suggested by earlier analyses of trimeters, is relatively high. Table X sets col. 10 for individual plays of Euripides against the comparative figures for Zielinski and Ceadel^{68a} based on resolution in trimeters.

TABLE X

	Date	Zielinski	Ceadel	Table VIII, col. 10
<i>Alcestis</i>	438	5·1	6·2	19·0
<i>Medea</i>	431	6·5	6·6	11·6
<i>Heraclidae</i>	?430 (Zuntz)	5·9	5·7	21·6
<i>Hippolytus</i>	428	5·6	4·3	11·9
<i>(Rhesus)</i>	?	8·4	8·1	18·0)
<i>Andromache</i>	? (421 Page)	12·0	11·3	10·7
<i>Hecuba</i>	?	14·7	12·7	16·2
<i>Supplices</i>	?424	14·2	13·6	18·2
<i>Troades</i>	415	21·4	21·2	10·0
<i>Heracles</i>	? (before <i>Tro.</i> , Wil.)	29·6	21·5	15·7
<i>Electra</i>	?	17·0	16·9	9·1
<i>I.T.</i>	?	22·5	23·4	7·9
<i>Ion</i>	?	24·4	25·8	7·9
<i>Helena</i>	412	29·4	27·5	7·9
<i>Phoenissae</i>	?	29·4	27·5	7·9
<i>Orestes</i>	408	38·6	39·4	6·9
<i>Bacchae</i>	? (after 408)	35·9	37·6	14·5
<i>I.A.</i>	? (after 408)	38·1	34·7	2·8

Several plays are widely deviant: *Heraclidae*, *Hecuba*, *Supplices*, *Heracles*, *Bacchae*. There may be special reasons for some of these. In the *Supplices* the 'limit of eight metra' may not apply to the ionics of the parodos (cf. Dale, *LMGD* 124; Collard, ed. p. 117): modified figure 11·9; refrain-pattern in the *Heracles* (see above, p. 45): 10·6; archaism in the lyrics of the *Bacchae*. But there is nothing to account for the deviation of the *Heraclidae* and *Hecuba*. The *Rhesus* comes out as a very early play. If it is genuine, this is more likely to be right than the place assigned to it by Zielinski and Ceadel. It must however be borne in mind that the figures on which my percentages are based are very small, much smaller than those used by Zielinski and Ceadel, so that the margin of error is large: one place more or less without pause may make a difference of 2–3 per

^{68a} T. Zielinski, *Tragodumenon Libri* (1941), 70. Cf. A.M. Dale, *Euripides, Helen Tres* (1925), pp. 140–1; E.B. Ceadel, *CQ* 35 (1967), pp. xxiv–xxviii.

cent. Obviously this cannot be used as an independent dating criterion. But the correlation with the known or likely order of the plays is perhaps more impressive than the deviations from it, and does something to confirm the validity of the method.

Table IX, embodying criteria II and III, in general confirms the rules and tendencies established for criterion I (pp. 52 f.). The observations made on the practice of the different tragedians (pp. 53 f.) also hold: the rules are less strictly observed in Sophocles and the earlier plays of Euripides, most strictly in the later plays of Euripides. But the difference to be seen in Table III between Aeschylus and the other two dramatists in their treatment of blunt and pendant close is to some extent ironed out, though details are not given here: all three are more strict in pendant close than in blunt. There is therefore no ground for supposing that pendant close in itself licenses period-end without pause (see p. 52 above).

TABLE XI

Incidence of pause at brevis and hiatus and corresponding places in dochmiacs

	1 2		3	4 5		6	7 8		9
	B. or H.		2 as	corr.		5 as	Total		8 as
			percentage			percentage			percentage
	p	np	of 1 + 2	p	np	of 4 + 5	p	np	of 7 + 8
Aeschylus	20	7	25·8	12	2	14·3	32	9	22·0
Sophocles	30	5	14·6	11	6	35·3	41	11	21·2
Euripides	25	6	19·4	18	3	14·3	43	9	17·3
All A., S., E.	76	19	20·0	41	11	21·2	116	29	20·0

Cyclops and *Rhesus* are excluded. Corresponding figures for other metres are given in Tables I and II. Hypodochmiacs are counted as dochmiacs for this purpose. Hypodochmiacs without pause occur only in the successive hypodochmiacs at *S. Aj.* 401 ff. = 418 ff. and at *O. T.* 1208 ff. = 1217 ff.; these passages are notoriously odd and should probably be omitted (see above p. 46). If they are, the figures for Sophocles become: cols. 1 and 2: 19/1; cols. 4 and 5: 7/1. The total percentage for all A., S., E. (col. 9) then becomes: col. 3, 18·3; col. 6 14·0; col. 9, 17·2; but with such discrepancy between the dramatists, the figures are of doubtful value. The view of N.C. Conomis, that if places followed by change of metre are excluded there are no cases of brevis or hiatus without pause in tragedy, is evidently not borne out for Aeschylus and Euripides, though if hypodochmiacs are excluded it is true, with one exception, of Sophocles.

TABLE XII

Incidence of pause in verses followed by dochmiac

	1	2 3		4	5 6		7	8	9
	(Table XI, col. 9)	B. or H. (δ follows)		3 as percentage of 2 + 3	corr. (δ follows)		2 + 5	3 + 6	8 as percentage of 7 + 8
		p	np		p	np			
Aeschylus	22·0	14	4	22·2	7	2	21	6	22·3
Sophocles	21·2	18	3	14·3	5	8	23	11	32·6
Euripides	18·4	18	3	14·3	6	4	24	7	22·4
All A., S., E.	20·6	50	10	16·7	18	12	68	24	26·1

All places are determined by criterion I (brevis or hiatus). Table V gives the corresponding figures for other metres. Hypodochmiacs are counted as dochmiacs. 'δ follows' means a non-dochmiac verse followed by a dochmiac. The high proportion of places without pause in this category, comparable with those in dochmiacs, seems to justify separate treatment, though change of metre does not otherwise appear to be a significant factor (see p. 47 above).

IV. COROLLARIES

Tables I—XII are enough to show that in the lyrics of tragedy there is a strong tendency for period-end to coincide with pause. This tendency is of course far from being an absolute rule; it has not the rigour of, say, Porson's law, and it is not in itself a sufficient ground for emendation. It may none the less be of some use in arriving at the best colometry, in diagnosing corruption, in choosing between possible readings or interpretations, and in suggesting—or excluding—lines of emendation in corrupt passages. Thus *P. V.* 397 ff. is better taken as ionics than as choriambics (p. 40), and at *Med.* 441 ff. it is better to divide so as to give blunt verses with word-overlap than pendant verses with word-break (p. 44). In *O. T.* 892/902 the corruption centres on ἔρξεται and παλαιά, and conjectures which do not cure the hiatus and the brevis (such as εὔξεται and παλαιάφατα) should be rejected. In *Ag.* 233 παντὶ θυμῷ is best taken with περιπετῇ,⁶⁹ and in *Eum.* 966 ὁμιλίας with ἐπιβριθεῖς. In *A. Suppl.* 527 πείθου τε καὶ γενέσθω, the corruption is not to be cured by γένει σῶ | (ἀλευσον . . . ὕβρω) (Schütz, followed by Page), giving no pause;⁷⁰ in *E. H. F.* 698 there are reasons other than linguistic for preferring Wilamowitz's [τὸν] ἀκῦμον' ἔθηκεν⁷¹ to Triclinius' τὸν ἄκῡμον. In *Pers.* 595 ἄρουρα need not be changed to ἄρουραν (p. 31), and if *S. Trach.* 650 τάλαωα, | δυστάλαωα is emended (τάλαιναν Dindorf), it must be on stylistic not metrical grounds. These examples could be many times multiplied.

A rule of comparable rigour to Porson's can however be given: pause is almost always found in at least one place (strophe or antistrophe) at period-end. This holds 96 times out of 100, and lack of pause in both places is highly suspect. Thus at *Eum.* 547 δωμάτων ἐπιστροφάς Heath's transposition ἐπιστροφάς δωμάτων can be confidently ruled out and corruption must be sought in the strophe, though there is no simple remedy; in *E. Tro.* 818 Murray's πατήρ for †περὶ is surely wrong. Though not in itself a sufficient ground for emendation, exceptions are suspect if they can be readily emended, e.g. *Hec.* 642 τῷ Σιμωννίδι γὰ (τ');⁷² *H.F.* 687 Δηλιάδες (γ'), where the *remedium* *Heathianum* assists the sense.

The tables should also be enough to show that criterion II ('catalexis') also marks period-end, and that criterion III (limit of eight metra) helps to do so. The implications of II for the text at e.g. *Ag.* 229, *ibid.* 251, *Hcl.* 751 have already been noted (p. 40). III is less certain in its operation, since we cannot be sure which contact ends a period, but this criterion may also have implications for the text. In *H.F.* 655 ff. pause is given by II at 656, 662; there must therefore (by III) be pause in between, and IV (structure) indicates that the most likely place is 660. Musgrave's *καὶ θανόντες* is therefore to be preferred to Dobree's *καθ'ανόντες τ'*, adopted by Murray, which gives elision at period-end.

Apart from any practical use these observations may have as an aid to textual criticism, they may perhaps also help us to analyse the language: to see how far it is articulated into its constituent cola, and to assess the strength and weakness of the links which bind the various parts of the sentence together. The categories of pause assumed in the survey were of course discussed earlier (pp. 31 ff.). But there the argument was mainly directed to answering the question: 'Is there pause

⁶⁹ 'Falling suppliant about his robes with all her heart'. cf. Lloyd-Jones, *CR* 66 (1952), 135, and see also *CQ* N.S. 25 (1975), 11–12.

Wilamowitz's note *ad loc.*

⁷² This would imply *συμφορᾶ τ' ἐπ' ἄλλων* (for *συμφορὰ τ' ἀπ' ἄλλων*) in 643; see *Euripides and the Judgement of Paris*.

⁷⁰ See *JHS* 96 (1976), 121-2.

⁷¹ This gives $-\frac{1}{2} - \frac{1}{2} - \frac{1}{2} - \frac{1}{2} + \frac{1}{2} - \frac{1}{2} - \frac{1}{2} - \frac{1}{2}$; see

JHS Suppl. 11 (1965), 74.

or not?', for any given place; and the more general considerations about the nature of pause and its gradations in ancient and modern theory were subordinated to this end. But the analysis of borderline cases (esp. pp. 34 ff.) has shown that there is not always a simple answer to this question. The gradations of pause are in fact continuous, from close enjambment to full stop; a continuum which may now be briefly illustrated.

The closest link follows prepositives, or precedes postpositives.⁷³ Prepositives at period-end are very rare and strongly suspect: E. *Alc.* 218 $\theta\epsilon\omega\acute{\nu}$ | $\gamma\acute{\alpha}\rho$ = 233 $\acute{\epsilon}\nu$ | $\acute{\alpha}\mu\alpha\tau\iota$ (where see Dale), is certainly corrupt; in O.C. 684 $\delta\tau\bar{\epsilon}$ | $\chi\rho\upsilon\sigma\alpha\upsilon\gamma\acute{\eta}\varsigma$ $\kappa\rho\acute{o}\kappa\omicron\varsigma$ lengthening before mute and liquid (in close word-group) is the more likely licence, perhaps assisted by Pindar O.1.1 $\delta\delta\epsilon$ $\chi\rho\upsilon\sigma\acute{o}\varsigma$; E. *Suppl.* 56 $\mu\epsilon\tau\acute{\alpha}$ $\nu\upsilon\nu$ | $\delta\acute{o}\varsigma$ ⁷⁴ may fall within a *pnigos*. It is possible that some prepositives give a closer link than others; an enclitic joined to a prepositive may weaken the link (cf. *Rhes.* 461 $\pi\acute{\omega}\varsigma$ $\mu\omicron\iota$ | $\text{'}\chi\iota\lambda\epsilon\upsilon\varsigma$ = 867 $\mu\acute{\eta}$ $\mu\omicron\iota$ | $\kappa\acute{o}\tau\omicron\nu$. . . $\theta\acute{\eta}\varsigma$), and it may be significant that in Pindar prepositions at period-end are followed by verbs but never by nouns. Pindar's practice is however clearly different,⁷⁵ and no such gradations can be inferred for tragic lyrics. Dissyllabic conjunctions, which are not normally counted as prepositives, are equally rare at period-end; *Trach.* 107 $\acute{\alpha}\lambda\lambda\acute{\alpha}$ | $\epsilon\acute{\upsilon}\mu\nu\alpha\sigma\tau\omicron\nu$ and O.C. 692 = $\omicron\delta\acute{\epsilon}$ | $\acute{\alpha}$ $\chi\rho\upsilon\sigma\acute{\alpha}\nu\iota\omicron\varsigma$. . . (A: $\omicron\delta\delta'$ $\alpha\upsilon$ LR. leg. $\omicron\delta\delta'$ $\alpha\upsilon$ | $\acute{\alpha}$) are the only instances of brevis in hiatu not demonstrably corrupt on other grounds (on *Trach.* 510 see below), and are pretty certainly wrong. In S. *Phil.* 184 $\sigma\iota\kappa\tau\acute{\omega}\nu$ η $\lambda\alpha\sigma\iota\omega\acute{\nu}$ $\mu\epsilon\tau\acute{\alpha}$ | $\theta\eta\rho\acute{\omega}\nu$ the link is weaker, since 'a prepositive placed between adjective and substantive loses something of its prepositional character'; cf. also A. *Suppl.* 781–2 $\acute{\alpha}\iota\sigma\tau\omicron\varsigma$ $\acute{\omega}\varsigma$ | $\kappa\acute{o}\nu\iota\varsigma$, E. *Tro.* 537–8 $\nu\alpha\acute{o}\varsigma$ $\acute{\omega}\sigma\epsilon\iota$ | $\sigma\acute{\alpha}\phi\omicron\varsigma$.⁷⁶

Noun and dependent genitive are fairly closely linked, the link being closer in some cases than others. In E. *Hclid.* 913 $\pi\upsilon\rho\acute{o}\varsigma$ | $\delta\epsilon\omega\acute{\alpha}$ $\phi\lambda\omicron\gamma\acute{\iota}$, *Phoen.* 250 $\nu\acute{\epsilon}\phi\omicron\varsigma$ | $\acute{\alpha}\sigma\pi\acute{\iota}\delta\omega\acute{\nu}$, A. *Cho.* 793 $\acute{\alpha}\rho\mu\alpha\sigma\omega$ $\pi\eta\mu\acute{\alpha}\tau\omega\acute{\nu}$, the words combine to form a single phrase; in *Eum.* 959 $\nu\epsilon\alpha\nu\acute{\iota}\delta\omega\acute{\nu}$ τ' $\acute{\epsilon}\pi\eta\rho\acute{\alpha}\tau\omega\acute{\nu}$ | $\acute{\alpha}\nu\delta\rho\sigma\tau\upsilon\chi\epsilon\acute{\iota}\varsigma$ $\beta\acute{\iota}\omicron\tau\omicron\upsilon\varsigma$ the genitive is almost anticipatory. The link may be weakened by an intervening word, as in E. *Tro.* 809 $\delta\theta'$ $\text{'}\epsilon\lambda\lambda\acute{\alpha}\delta\omicron\varsigma$ $\acute{\alpha}\gamma\alpha\gamma\epsilon$ $\pi\rho\acute{\omega}\tau\omicron\nu$ $\acute{\alpha}\nu\theta\omicron\varsigma$ $\acute{\alpha}\nu\tau\acute{\iota}\zeta\omicron\mu\epsilon\omicron\varsigma$ | $\pi\acute{\omega}\lambda\omega\acute{\nu}$. The link between subject and verb accounts for a rather higher percentage of period-end without pause, but since subject + verb is obviously a commoner construction than noun + dependent genitive, we cannot infer that the link is weaker. Again, the effect may be modified by an intervening word.

It is noteworthy, however, that the subject separated from its verb by period-end is nearly always a phrase of two or more words, often filling a whole verse, as in *Pho.* 244 $\epsilon\acute{\iota}'\tau\iota$ $\pi\epsilon\acute{\iota}\sigma\epsilon\tau\alpha\iota$ | $\acute{\epsilon}\pi\tau\acute{\alpha}\pi\upsilon\rho\gamma\omicron\varsigma$ $\acute{\alpha}\delta\epsilon$ $\gamma\acute{\alpha}$; sometimes the verbal complement occupies a whole verse as well: A. *Suppl.* 698 $\phi\upsilon\lambda\acute{\alpha}\sigma\sigma\omicron\iota\tau'$ $\acute{\alpha}\sigma\phi\alpha\lambda\epsilon\acute{\iota}\varsigma$ $\delta\acute{\epsilon}$ $\tau\iota\mu\acute{\alpha}\varsigma$ | $\tau\acute{o}$ $\delta\acute{\alpha}\mu\iota\omicron\nu$, $\tau\acute{o}$ $\pi\tau\acute{o}\lambda\omega$ $\kappa\rho\alpha\tau\acute{\upsilon}\nu\epsilon\iota$. Now Fraenkel cites just such an example of a link at couplet-end from Martial (9.16, 1–4), where the whole of the first couplet has

⁷³ GM, §135.

⁷⁴ It has been suggested that the breaks in such long-winded ionic stanzas should be treated in a special way, and termed 'hold' rather than 'period-end'; cf. LMGD 124; C. Collard, *Euripides' Supplices*, p. 117.

⁷⁵ Examples of pre- and postpositive links across period-end in Pindar are as follows: O. 6. 17 $\kappa\alpha\acute{\iota}$ ('not a copula', GV 305 n); O. 6. 53 $\acute{\alpha}\lambda\lambda'$ $\acute{\epsilon}\nu$ | $\kappa\epsilon\kappa\rho\acute{\upsilon}\pi\tau\omicron$ (? leg.

$\epsilon\acute{\upsilon}$); O. 9. 65 $\mu\omicron\rho\phi\acute{\alpha}$ $\tau\epsilon$ $\kappa\alpha\acute{\iota}$ | $\epsilon\rho\gamma\omicron\iota\sigma\iota\nu$; O. 10. 18 $\acute{\omega}\varsigma$ (comparative); O. 14. 5 $\tau\acute{\alpha}$ $\tau\epsilon$ $\tau\epsilon\rho\pi\acute{\nu}\alpha$ $\kappa\alpha\acute{\iota}$ | $\tau\acute{\alpha}$ $\gamma\lambda\upsilon\kappa\acute{\epsilon}\alpha$; P. 9. 99 $\pi\acute{o}\sigma\omega$ η | $\nu\acute{\iota}\omicron\nu$; I. 3. 18 $\acute{\epsilon}\xi$ | $\acute{\alpha}\lambda\lambda\alpha\acute{\epsilon}\nu$; I. 8. 23 δ $\kappa\alpha\acute{\iota}$ | $\delta\alpha\mu\acute{o}\nu\epsilon\sigma\sigma\iota$ (cf. GV loc. cit.); *Paeon* 2.25 $\acute{\alpha}\mu\pi\epsilon\lambda\acute{o}\epsilon\sigma\sigma\acute{\alpha}\nu$ $\tau\epsilon$ $\kappa\alpha\acute{\iota}$ | $\epsilon\acute{\upsilon}\kappa\alpha\rho\omicron\nu$. Cf. B. 5. 74 $\acute{\epsilon}\xi$ | $\epsilon\acute{\iota}\lambda\epsilon\tau\omicron$. For possible cases in tragedy see JHS 96 (1976), 126 f.

⁷⁶ GM, §135.

as its subject the whole of the second: the length of each part, he concludes, gives it enough syntactical weight to make it independent.⁷⁷ The same principle might be extended to period-end in Greek lyrics. I have not counted such places as having pause because the verses of tragic lyrics are usually much shorter than an elegiac couplet: a typical case is *S. Ant.* 823 ἤκουσα δὴ λυγροτάταν ὀλέσθαι | τὰν Φρυγίαν ξέναν. But it is clear that the link is weakened as the separated elements approach rhetorical independence. Overlap of a single word in fact occurs in very few places.⁷⁸

The verb is separated from a direct object by period-end about twice as often as subject from verb. Since verb + direct object is less common than subject + verb, it follows that the link is considerably weaker. The effect of a direct object is to limit the scope of the verb, and it is less closely linked with the verb than its subject even when it is necessary to complete the sense. Sometimes, indeed, the sense may be complete without it, as in *Ion* 1091 ὁρᾷθ' ὅσοι δυσκελάδοισιν κατὰ Μοῦσαν ἰόντες αἰεῖδεθ' ὕμνοις | ἀμέτερα λέχεα καὶ γάμους. The break falls short of full syntactical pause because the object is emphatic and not merely an afterthought; but the link is very weak. In this category should be included other types of verbal complement, whether in the accusative, genitive, or dative. The strength of the link between the verb and its complement will again vary, depending on the rhetorical weight of the two elements and on how nearly complete the sense is before the break. Thus the link is closer in *E. Med.* 860 πῶς δ' ὄμματα προσβαλοῦσα | τέκνοις than in *ibid.* 426 ἐπεὶ ἀντάχῃσ' ἂν ὕμνον | ἀρσένων γέννα, and in *A. Ag.* 986 εὐθ' ὑπ' Ἴλιον | ὥρτο ναυβάτας στράτος than in *E. H.F.* 792 ἤξετ' εὐγαθεὶ κελαδῶ | ἐμὴν πόλιν, ἐμὰ τεῖχη, where it is arguable that there is actually pause.

There is thus a continuous gradation from the closest possible syntactical link to what may reasonably count as pause or break; and again from the lightest pause to full close. Some types of syntactical link are in general closer than others, but a gradation may be seen within each category also. Hence the decision in any given case, whether or not it is to count as pause, may sometimes seem arbitrary. Within certain limits, it does not matter at what point in the continuum the cut is made, provided it is made consistently. We might, for example, count as pause such cases as *Pho.* 244 εἴ τι πείσεται | ἐπτάπυργος ἄδε γὰρ, where the subject is an extended phrase; which would carry with it analogous cases in other categories, e.g. *Med.* 426 ἐπεὶ ἀντάχῃσ' ἂν ὕμνον | ἀρσένων γέννα. The result is to increase slightly the coincidence between pause and period; but the relation between the dramatists, and even between the individual plays of Euripides, remains effectively unchanged. Conversely some of the cases I have counted as pause might be disallowed, without any substantial difference in the whole picture.

A factor for which no general rule can be given, since it depends on the significance of the words in their context and not on any standard syntactical pattern, is emphasis or 'semantic weight'. A special case of emphasis was listed above under the heading of 'selective contrast' as ground for pause, given some 'rhetorical weight' in its terms (pp. 35 f.). Another example in lyrics is *Ag.* 251–3 τὸ μέλλον | ἐπεὶ γένοιτ' ἂν κλύοις· πρὸ χαιρέτω. τὸ μέλλον admits pause partly through the selective contrast with πρὸ, partly through its anticipatory function:

⁷⁷ 'Kolon u. Satz, I', 206 = *Kl. Beitr.* i.
83.

no clear ground for pause, such as would be given by e.g. apposition or selective contrast.

⁷⁸ I am speaking of places where there is

'as for the future, you will hear about it when it happens; beforehand, dismiss it from your thought' (Page; for the interpretation see his note). A simpler type of contrast is *S. Ant.* 986 ἀλλὰ κἀν' ἐκεῖνα | Μοῖραι μακραίωνες ἔσχον, ὦ παῖ. This gives a double emphasis, both on ἐκεῖνα and on Μοῖραι, picking up 951–2: the power of fate is a central theme of the ode. Cf. *E. Alc.* 461–3 σὺ τὸν αὐτὰς | ἔτλας πόσῳ ἀντὶ σᾶς ἀμείψαι | ψυχᾶς. Both αὐτὰς and ἔτλας are emphatic: it is *her own husband* for whom she has *steeled herself* to die. *S. Phil.* 863 τὸ δ' ἀλώσιμον | ἐμᾶ φροντίδι, 'as far as *my* thought can grasp', illustrates simple emphasis on the word after period-end.

It is significant that not a few period-ends without pause are marked by emphasis of some kind. Emphasis is, as it were, an alternative to pause as a condition of period end, although of course the notions often overlap. This ambivalence can be seen at its simplest in a familiar pattern of Greek poetry, a verse beginning with a name. Often the name has already been anticipated; it stands in apposition to a demonstrative or a description, and is then preceded by pause: *Med.* 6–7 δέσπω' ἐμῇ | Μῆδεια. But sometimes it is emphatic, with no pause, and its position underlines its emphasis: *A. Ag.* 1435 ἕως ἂν αἰθῇ πῦρ ἐφ' ἐστίας ἐμῆς | Αἴγισθος; *S. El.* 1074 πρόδοτος δὲ μόνα σαλεύει | Ἥλέκτρα. The same applies to stanza-end in Pindar. If the sense continues into the next stanza, there is normally pause, as defined for tragedy; but when there is enjambment and no pause, the word or phrase beginning the next stanza is nearly always emphatic. For example, *O.* 9.48 αἶνε δὲ πάλαιον μὲν οἶνον, ἄνθεα δ' ὕμνων | νεωτέρων (selective contrast); *O.* 6.50 Φοῖβον γὰρ αὐτὸν φᾶ γεγάκευ | πατρός (simple contrast with emphasis: 'he inquired about the child Evadne bore; for he declared that the child's father was *Phoebus*'); *O.* 2.94 τεκεῖν μὴ τω' ἐκετόν γ' ἐτέων πόλιν φίλοις ἄνδρα μᾶλλον | εὐεργέταν πραπίσω ἀφθονέστερόν τε χέρα | Θήρωνος; *O.* 3.25 δὴ τότ' ἐς γαίαν πόρρευεν θυμὸς ὥρμει Ἰστρίαν νῶ (simple emphasis).⁷⁹ The position of words in the metrical pattern, be it stanza, verse, or period, is used by Greek poets as a means of expression as we might use punctuation or italics.

Emphasis has so far been understood in the modern sense; but the sense given to the word by the ancient commentators may also be relevant. This is not so much 'emphasis' in our sense as 'clarification'. Nicanor's punctuation for ἔμφοσις is meant to assist delivery by making clear the connection between words and ruling out possible ambiguities. Such punctuation need not of course imply pause: in *Il.* 16. 13 ἡ ἐ τω' ἀγγελίην Φθίης ἐξ ἔκλυον οἴος, the 'very slight distinction' after ἐξ merely warns the reader that the preposition is not compounded with the following word. It is hard to tell how far, in a highly inflected language in which hyperbaton is a normal device, the connection between distant words—or lack of connection between contiguous words—may have been indicated by delivery. But we may suppose that in *Il.* 13.315 οἱ μὲν ἄδην ἐλόωσι καὶ ἐσσύμενον πολέμοιο will not be delivered in quite the same way when πολέμοιο is taken with ἐλόωσι as when it is taken with ἐσσύμενον—a difference

⁷⁹ Possibly emphatic is θυγατρός at *O.* 1. 81: it is odd behaviour for a man to kill the suitors and put off the marriage of his own daughter. Cf. *A. Ag.* 224 ἔτλα δ' οὖν θυτὴρ γενέσθαι | θυγατρός, where the emphasis is clear (for the colometry, see *BICS* 22 (1975), 86). λοιπὸν γένει at *O.* 2. 15 is also emphatic, but introduces a new, limiting idea, which leads by way of contrast to the veiled allusion that follows: '... for future

generations; as to the past . . .'. A similar limiting afterthought in a new stanza leading to contrast is *O.* 1. 99 ἀέθλων γ' ἔνεκεν. But at *P.* 11. 22 νηλὴς γυνὰ is probably in extra-position, since Clytemnestra has just been mentioned; and in *O.* 10. 55 χρόνος is in apposition to ὅτ' ἐξελέγχων μόνος ἀλάθειαν ἐτήτυμον. Neither emphatic nor syntactically independent, however, is *O.* 9. 29 ἐγένοντο.

Nicanor marks by *διαστολή*. There is an appreciable ambiguity, though the general sense is the same. But the ambiguity may be more subtle than this. Consider the complex structure of *S. Trach.* 507 ff.:

ὁ μὲν ἦν ποταμοῦ σθένος, ὑψίκερω τετραόρου
 φάσμα ταύρου,
 Ἀχελῷος ἀπ' Οἰνιαδᾶν, ὁ δὲ Βακχίας ἀπο
 ἦλθε παλύντονα Θήβας
 τόξα καὶ λόγχας ῥόπαλόν τε τινάσσων,
 παῖς Διός.

Jebb translates: 'one was a mighty river-god . . . Achelous, from Oeniadae; the other came from Thebe, dear to Bacchus, with curved-bow . . .', and remarks: 'Heracles was born at Thebes'. That is the point: Thebes is mentioned because it is where Heracles 'comes from', just as Oeniadae is where Achelous 'comes from'; the chorus give the name and city of the contestants, just as the herald normally does.⁸⁰ But this does not mean that Heracles has (just) come from Thebes, *Βακχίας ἀπο ἦλθε* . . . *Θήβας*. 'Came from' in English is ambiguous; *ἦλθε* in Greek is not, since a permanent relationship with a place of origin is not expressed by an aorist verb of motion.⁸¹ There is therefore a clear pause before *ἦλθε*, which on Nicanor's principles is actually necessary, since otherwise *ἦλθε* will be taken (wrongly) with *Βακχίας ἀπο*: ' . . . the other, from Bacchic Thebes, came brandishing a bow.' The hiatus actually helps us to point the sentence correctly. There is another example in the epode:

S. Trach. 523–5 ἃ δ' εὐώπιδι ἀβρὰ
 τηλαυγεί παρ' ὄχθῳ
 ἦστο τὸν ὄν προσμένονσ' ἀκοίταν.

Prima facie *ἦστο* goes closely with *τηλαυγεί παρ' ὄχθῳ*, as editors usually punctuate. But it would also be possible to take *ἦστο* closely with what follows. This puts the emphasis on her waiting, the place where she waited being added as an additional detail (described in a phrase filling the verse): 'but the tender fair, on the distant bank, sat waiting for her bridegroom.' It might often be that the poets deliberately relied on hiatus or brevis, or on period-end in general, as a kind of punctuation, to point the right delivery where this is not clear. This would have an analogy in an occasional feature of Jacobean punctuation:⁸² though punctuation was normally liberal, it was sometimes omitted altogether at verse-end, as the structure of the verse itself was thought to give sufficient indication of pause in delivery.

The great gulf between modern languages and ancient Greek sets a limit to this kind of analysis; and though we may guess at the subtleties which lie beyond this limit, we must be content to observe it, else we shall merely imagine articulations of language which never existed. It is all the more important, therefore, that we should use to the full the instruments available, and such an instrument, I have suggested, is the correlation between pause and period in tragic lyrics. Of course, since this correlation is not so high as to give anything like an absolute rule, it must be used with the greatest caution. Even so, it is I think remarkable, and

⁸⁰ Cf. *S. El.* 693–4.

⁸¹ Cf. *τίς πόθεν εἰς ἀνδρῶν*; or *M Gr.*
ἀπὸ ποῦ εἴστε;

⁸² Cf. A.C. Partridge, *Orthography in*

Shakespearean and Elizabethan drama
 (1964), chs. 14–15; Percy Simpson,
Shakespearean punctuation (1911), p. 16 al.

points to a more intimate relationship between language and metre than is generally allowed. Remarkable also is the relative uniformity in the practice of the dramatists. Though they were masters of their own forms, and no more trammelled by rules than Walther von Stolzing by the *tabulatur*, yet they paid a strict regard to details which to the modern ear—and perhaps even to an ancient audience—are barely noticeable. How much this regard owed to tradition, and how much to a conscious common aim, is a matter of speculation. We can only trace as best we may the patterns visible in the texts we have; at least the outline is clear, even though the finer points may escape us.

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Postscript. In her recent article 'Catalexis' (*CQ* N.S. 26 (1976), 14–28), which she kindly allowed me to see in typescript, Miss L. P. E. Parker reaches important conclusions which are relevant to this paper in several ways. Parker gives the concept of catalexis a new precision, so that it can be meaningfully applied in a variety of metres. She observes that catalexis, so defined, is nearly always attended by metrical pause. Dale had stated that this was nearly always true in tragedy of – – – – and – – – – in iambics (*LMGD* 72); Parker reviews the evidence and shows that it is true with very few exceptions (listed on p. 20 n.17). (Dr. Mark Griffith has also briefly reviewed the principal evidence and made a similar observation in a dissertation on 'The Authenticity of the *Prometheus Bound*', to be published shortly.) She finds moreover that the same is true of catalexis in other metres to which the concept can be applied, again with very few exceptions. She concludes that if a passage can be divided in more than one way, her principle should override less solid considerations of structure: the colometry which conforms to her rule should be chosen, even though an alternative would give a superficially more attractive pattern of familiar or repeated cola. She goes on to argue that the concept of link anceps should be restricted to dactylo-epitrite and related metres, which favour elaborate synartete structures. It should not be extended to cover the final element in e.g. A. Ag. 154 *παλῖνορος*, as Dale suggests (see n.49 above), nor to aeolic cola such as – – – – x or – x – – – x. If there is metrical pause, the final element should be interpreted as long *in fine versus* (if not, the colometry is presumably at fault). This raises the theoretical question of how such final elements should be designated.

Miss Parker's findings are not in general at odds with mine; for the most part they complement and support each other in an interesting way, since in some places where our inquiries overlap we reach the same conclusions from quite different starting-points. She does indeed show that catalexis is more useful for determining period-end than I allowed. I regarded it as an unreliable guide (1) because of such cases in iambics as A. Ag. 197–8 (cf. p. 39 above); (2) because of the difficulty of distinguishing between link anceps and pendant final element in any particular place. Parker shows that cases such as Ag. 197 are so few that in iambics her principle gives a strong indication if not a certain one. A brief review of Aeschylus and Sophocles shows that most of those places marked as period-ends in iambics by her rule are actually given by other criteria; but for some, the tentative determination given by the limit of eight metra is confirmed by the criterion of catalexis. In other metres, however (principally aeolic), there are some places where I have assumed a link anceps which she would disallow, and here we disagree (see below).

More important, however, is the agreement between Parker's rule that catalexis nearly always has metrical pause, and my rule that pendant close followed by short or anceps always has metrical pause. It might be said that the cases covered by my rule form a sub-class of those covered by hers, so that agreement is inevitable. This is not strictly so, since (v)v-- is not always identifiable as catalexis (e.g. it is not so in ionics, nor, as Parker rightly maintains, in dactyls). It is certainly true that Parker's rule has wider scope and greater metrical significance, enabling her to draw far-reaching theoretical conclusions. There is, however, a significant difference. The exceptions to her principle, though few, cannot be eliminated, at least in iambs; I should claim that there were *no* exceptions in tragedy to the rule that pendant close followed by short or anceps marks period-end. (I would not wholly agree with her exceptions. *Ag.* 245, *Cho.* 386 should surely be included along with *Ag.* 197, and *E. Ba.* 73 ff. along with *ibid.* 120 ff.; *Pers.* 589, which is as much pherecratean as dactylic, along with *ibid.* 906, and certainly *A. fr.* 474M (*Diktyoulkoi*), where the metre is unambiguous; and *P. V.* 183, *O. C.* 134 along with *Rhes.* 911. On the other hand, *Tro.* 1295 λέλαμπεν Ἴλιος Περ-|γάμων τε πυρί... can be eliminated by reading λέλαμπ'... ,v--v--v--v-- , see *BICS* 22 (1975), 93). If this is correct, it means that my rule, though narrower in scope, can be more strongly asserted: a colometry which is made unlikely by her principle may be actually impossible according to mine; e.g. in *E. Hcl.* 914-16 = 923-5, where we agree in rejecting the more 'regular' colometry, as at *Hec.* 910-12. Similarly we should agree about the text at *Ag.* 229 and *ibid.* 251 (cf. pp. 40, 59 above): by her principle the elision is rejected as unlikely, by mine as impossible. On the other hand, the rule or tendency I have sought to establish about the incidence of sense-pause at period-end, though in a way it has a wider scope than Parker's rule about metrical pause at catalexis, has far more exceptions than hers and cannot be so strongly asserted. But the argument still has the same pattern; e.g. in *Med.* 441 ff. (quoted on p. 44 above), where I suggest that the less 'regular' colometry should perhaps be preferred for analogous reasons. It would be interesting to see how the incidence of sense-pause at period-ends given by Parker's principle compared with the norm. I have been deterred from such an inquiry by the difficulty mentioned above, of distinguishing between link anceps and period-end. But if Parker's views about link anceps were accepted, this problem might be soluble.

It is on this particular point, however, that I take issue with her. I agree that Dale goes too far in taking *Ag.* 154 παλινόροτος to be anceps not brevis in longo (see above, p. 42), and in interpreting *all* such elements as link anceps in aeolo-choriambics. But Miss Parker seems to me to go too far herself when she says that link anceps is wholly foreign to aeolo-choriambic metres. Her argument is that if link anceps occurred in this metre, there would be more certain instances of pendant close in synaphea which cannot be eliminated. 'Because of the fluidity of colometry, any metrician who is so disposed can produce examples of pendant cola in synartesis, but the hard evidence has been discussed above, and shows, I believe, that such synartesis is in fact very rare' (p. 27). She concludes that Dale's distinction between pendant close in iambs (true long) and in aeolo-choriambics (link anceps) is unwarranted.

By the same token, a metrician so disposed could eliminate *all* examples of pendant close in synartesis in aeolo-choriambic metres by manipulating the colometry, since, except at stanza-end, for any division giving pendant close in this metre, there is an alternative division giving blunt close, which may not be

in synaphea. Of course, other considerations, such as the desirability of repeated or familiar cola, may have to be overridden; but according to Parker, so they should be (which seems to involve some *petitio principii*, though possibly legitimate). In practice she does indeed allow some exceptions for just such reasons; but in theory they could all be eliminated. This means that if her view is taken to extremes, it becomes vacuous, since there could in principle be no counter-example. The result would be that any link anceps in pendant close would be replaced by initial anceps following blunt close in synartesis; and this clearly does not eliminate link anceps. There can in effect be no 'hard facts' about verse-end in aeolo-choriambics, as there can in iambics, where there is no such ambiguity. But the significant question is: how many cases of pendant close in synartesis in this metre would be given by the colometry of a metrician who was not predisposed either way? More, I suspect, than Miss Parker allows, though perhaps not so many as to invalidate her contention, provided it is less strongly asserted.

The positive argument for supposing that link anceps occurs in aeolo-choriambics is that choriambic cola such as -υυ-υ-x enter as elements into dactylo-epitrite and related metres. At least, they do so in Pindar, though Pindar's practice is not always a safe guide to that of tragedy. But in tragedy too choriambic cola are often combined in the same stanza with prosodiac-enoplian cola and even with complex synartete compounds of the dactylo-epitrite type; and the initial enoplian of an archilochian type compound such as *O. T.* 1096 *ἰήμε Φοῖβε, σοὶ δὲ ταῦτ' ἄρεσθ' εἶη* or *El.* 501 *εἰ μὴ τόδε φάσμα νυκτὸς εὖ κατασχήσει* cannot be sharply distinguished from the aeolo-choriambic -υυ-υ-x. (Cf. such passages as *Cho.* 387 ff, where the colometry is hardly in doubt; see also pp. 39, 44 above.) We should then expect to find link anceps occasionally in aeolo-choriambics, since the final element in pendant close is unlikely to be treated quite differently in metres that are not so very different and are often found together. It might be said in reply that syncopated iambics are found together with aeolo-choriambic cola even more frequently, and that the same argument would then favour the view that link anceps does *not* occur in aeolo-choriambics. It might even be that when aeolo-choriambic cola are mixed with iambics, link anceps is eschewed, and when they are mixed with metres related to dactylo-epitrite, link anceps is favoured. This question would be hard to decide without the help of other criteria, such as the incidence of sense-pause at such places. So too the general question, when does a colon such as -υυ-υ-x end in final long and when in link anceps, is hard or indeed impossible to decide without some such criterion. But still the question seems significant. Miss Parker's conclusion seems to me to prejudge the answer on insufficient grounds.

It must however be said that Miss Parker is most cautious in her approach to the problem, more so than these comments perhaps suggest. For my part, I have in fact admitted anceps in aeolo-choriambic metres less freely than these comments suggest, partly in response to her criticism. I may still have admitted too many, and this factor, together with a deliberate preference for blunt close with word-overlap in some places, may account for the discrepancies between my criteria I and II in Euripides (see p. 55). The right balance is hard to find. If I have not found it, I can only hope that my results may still contribute something towards solving the problem.