

CATALEXIS

1. DEFINITION AND FUNCTION

As described by the ancient metricians, catalexis is a matter of arithmetic rather than rhythm. They develop the idea in their usual way, mechanically and mathematically, adding and subtracting elements, so as to produce 'brachycatalexis' and 'hypercatalexis'. These are now mere metrical-glossary terms, but in catalexis modern metricians have seen a genuine relationship between cola and a rhythmic effect more or less comprehensible even to us. Wilamowitz, T.D. Goodell, and A.M. Dale explore the concept to some extent, but current handbooks and general treatises give it only perfunctory and superficial treatment,¹ while casual appearances of the term offer the reader glimpses of a theoretical substructure which has not been explicitly and coherently explained.

The clearest evidence that there is a real rhythmic phenomenon in Greek metre which can most conveniently be called 'catalexis' is provided by the various types of 'catalectic' tetrameter:

iambic: x - U - x - U - x - U - U - -

trochaic: - U - x - U - x - U - x - U -

anapaestic: UU UU UU UU UU UU UU (UU) UU UU UU - UU - -

ionic (galliambic):
$$\left. \begin{array}{l} UU-U-U-- \\ --UUUU-- \end{array} \right\} \left\{ \begin{array}{l} UU-UUUU- \\ UU-UUUU- \end{array} \right.$$

priapean: x x - UU - U - x x - UU - -

Each of these tetrameters is a compound of two cola, usually with diaeresis between, in which the second, which functions as clausula, is one element shorter than the first, and ends in a contrasting rhythm.² Thus, the first cola of the iambic and anapaestic tetrameters and of the priapean end blunt (. . . U - l), the second cola pendant (. . . U - - i); in the trochaic tetrameter and galliambic the contrast is reversed. Modern Greek 'political' verse has the same compound structure of octosyllable and heptasyllable, with contrast, in terms of stress, between blunt caesura and pendant end:

x x x x x x x x x x x x x x x

From these verses it is possible to deduce the catalectic forms of the basic rhythmic phrases of the five types of metre that they present:

¹ The fullest and most consistent treatment of catalexis that I have found in any current handbook is that of A. Dain (*Traité de métrique grecque*, Paris 1965, 34-5). He, however, uses the term 'syllable' for 'element', and does not explore the rhythmic function of the phenomenon. And here,

as elsewhere, he becomes over-systematic and theoretical.

² Cf. A. M. Dale, *The Lyric Metres of Greek Drama*² (Cambridge 1968), 19: 'The ear is conscious not merely of the curtailment but even more of the contrasted close.'

CATALEXIS

<i>Metre</i>	<i>Full form</i>	<i>Catalectic form</i>
iambic	x - U -	U - -
trochaic	- U - x	- U -
anapaestic	<u>UU</u> <u>UU</u> <u>UU</u> <u>UU</u>	(<u>UU</u>), - -
ionic	U U - -	U U -
aeolo-choriambic	- U U - U -	- U U - -

First, it will be observed that the catalectic forms of iamb and anapaest are more limited in internal variation than the full forms. Theoretically, one might suppose that the molossus (- - -) would be alternative to the bacchiac, but in practice it is always rare, and never, I believe, found as a clausula. The prescribed form of the catalectic anapaest is more clearly significant. Unlike other repeating metra, anapaests do not move regularly in the same direction, either rising or falling, for metra may take, for example, the forms - U U - \overline{UU} or U U - - U U. Nevertheless, the predominant movement is U U - U U - . . . Hence, the catalectic form must be pendant, and it is regularized to ensure that it shall be: the penultimate element cannot be resolved into two shorts.

At this point a new definition may be attempted:

In catalexis the last two elements of a colon are either fused into or replaced by a single element, so as to produce a cadence contrasting with the normal movement of the type of metre in question: a pendant cadence to a blunt metre and vice versa.

This definition is designed to leave open the question of the length of the one element produced by catalexis. If we think of the two elements as fused, it is at least a natural conjecture that the resulting single element acquired the joint time-value of the pair, so that in catalectic anapaests and ionics the final element would have had the value of four *morae* (- - = \sqcup), in iambic and aeolo-choriambic of three (U - = \sqcup), and in trochaic of something intermediate (- x = ?). The musical evidence is exiguous, and too late to be of much value, but it is at least interesting that the Sicilus fragment does, in fact, give a value of three *morae* to the final elements of both the catalectic iambic dimeter and the aeolo-choriambic colon - U U - U - - .

For pedagogic purposes, the effect of catalexis can, of course, be roughly illustrated from English or German verse. T.D. Goodell³ uses the two settings of *Heidenröslein* for such an illustration, but 'Here we go round the mulberry bush . . .' will serve as well, indeed, possibly, better, because of its lack of musical sophistication. Both feature a three-stress line as clausula to a four-stress line, regularly in the German poem:

' U ' U ' U '
' U ' U ' U

less so in the English rhyme:

' U U ' U ' U (U) '
U U ' U ' U ' U

There is the contrast of blunt and pendant characteristic of catalexis in Greek, and, because both verses are known primarily as songs, there is no difficulty in recognizing the rhythmic compulsion to lengthen the penultimate syllable of the

³ *Chapters on Greek Metric* (New Haven 1901), 22-3.

the second line ('mo-orning'). The point is also made that, while catalexis exists in spoken verse, it comes into its own, so to speak, in song. It must, however, be borne in mind that we have here only a suggestive illustration, not a true parallel which could throw light for us on the real workings of catalexis in Greek. In the first place, we do not *know* how or where the extra *mora* or *morae* were accommodated in a catalectic colon: we lack the instinctive feeling for the rhythm which obliges us to lengthen the first syllable of 'morning'. Maas (*Greek Metre*, §51) suggests that the penultimate element of the catalectic anapaestic dimeter may be unresolvable because it was the prolonged element, corresponding with two marching steps instead of one. I have suggested another explanation (above, p. 15) which conforms to a pattern observable in other catalectic forms. My explanation does not, of course, exclude Maas's. Secondly, the catalectic effect in English or German is a function of the particular stanza-form. There is no clearly defined system of distinct types of metre with their own proper catalectic forms, as there seems to have been in Greek.

In Greek, because the catalectic effect belongs to the type of metre, not to the stanza-form, the catalectic colon may be longer than the full colon it follows; the effect is the same. To Hephaestion, the pherecratean is catalectic to the glyconic, but the hipponactean 'hypercatalectic'. Wilamowitz saw that both the longer and the shorter pendant colon stand in essentially the same relationship to the glyconic.⁴ Metrical theorizing must always be tested against observation, and it should be added that, while the sequence glyconic+pherecratean is very common indeed, glyconic+hipponactean is rare. The two make up a dicolon in synartesis at *Ant.* 604–5 = 615–16;

τεάν, Ζεῦ, δύνασιν τίς ἀν-
δρῶν ὑπερβασία κατάσχοι;

Cf. *Hipp.* 68–9 and (with 'dragged' glyconic) *Ant.* 104–5 = 121–2. At *Hec.* 910–13 = 919–22 the colometry is not beyond dispute, but the least difficult solution is:

UU–UU–U–
 ---UU–U–
---UU–U--
U--UU–U--

That is: aeolo-choriambic dicolon, of which the second member is glyconic, followed by a double clausula of two hipponacteans. *Held.* 914–18 = 923–7 is also problematic, but most plausibly arranged as telesilleian and glyconic in synartesis+hipponactean; –UU–U–+hipponactean:

--UU–U–
 ---UU–U–
 –U–UU–U--
–UU–U–
 ---UU–U--

The second verse here shows a much more striking imbalance between a short full colon and a longer, catalectic clausula. A variety of examples to illustrate the same principle can be adduced from other types of metre. One of the simplest is

⁴ *Griechische Verskunst*, 249: '... die Bildung einer Klausel durch Zusatz ebenso

nahe lag wie durch Abstrich; beides ergab den erwünschten klingenden Schluss.'

iambic dimeter followed by catalectic trimeter, as at *Ant.* 952–4 = 963–5:

οὐτ' ἄν νιν ὀλβος οὐτ' Ἄρης,	--U-- U--U--
οὐ πύργος, οὐχ ἀλίκτυποι	--U-- U--U--
κελαιναὶ νᾶες ἐκφύγοιεν.	U-- --U-- U--

A sort of catalectic relationship is also possible between cola of completely different metrical types. Iambic and aeolo-choriambic cola, in particular, two of the staple metres of dramatic lyric, both naturally blunt and, consequently, pendant in catalexis, interchange freely in all sorts of combinations. Dochmiacs have no catalectic form of their own, and many dochmiac stanzas simply stop, without any special clausular rhythm. But pendant cola from other metres are occasionally found as clausulae to dochmiacs, which naturally end blunt (x --U-) or dragged (x ----). Maas observed --UU-U-- serving in this capacity. Actual examples are: *Sept.* 567 = 630, 688 = 694, 701 = 708, *A. Supp.* 752 = 759, *Eum.* 792, *Alc.* 403 = 415. In fact, --UU-U-- is a popular, all-purpose clausula with all the dramatists, but with Aeschylus above all, and its association with dochmiacs is almost exclusive to him. Significantly, --UU-U-- is a favourite form of dochmiac with Aeschylus. There are, of course, other possibilities. Cretic + bacchiac (UUU- U--), following two iambs, appears as clausula to an otherwise dochmiac stanza at *Sept.* 417 ff. = 452 ff. With first long resolved, as here, this colon is identical with the most common form of dochmiac (UUU-U-) plus one long, just as --UU-U-- is with --UU-U-. *A. Supp.* 678–83 = 689–93 is clearly divided into two periods which neatly exemplify possible uses of alien, pendant cola to articulate dochmiacs:

μηδέ τις ἀνδροκμήης λοιγὸς ἐπελθέτω	--UU-U-- --UU-U--
τάνδε πόλιν δαΐζων,	--UU-U--
ἄχορον ἀκίθαριν δακρυσγόνον Ἄρη	UUUUUU- UUUUUU-
βίαν τ' ἔνδημον ἐξοπλίζων.	U-- --U-- U--

The rhythm of the first period here is thematic to the Danaids' prayer of gratitude: the preceding stanza opens identically, and the first of the stasimon with a variation. The prayer of the chorus at *O.C.* 1556 ff. opens with the same verse:

εἰ θεμῖς ἐστὶ μοι τὰν ἀφανῆ θεὸν	--UU-U-- --UU-U--
καὶ σέ λιταῖς σεβίζειν	--UU-U--

One can hardly doubt an Aeschylean reminiscence: the form of dochmiac is comparatively rare in Sophocles (37 times, by my count, as against 129 in Aeschylus) and the association with --UU-U-- unique.⁵

Another important type of metre with no catalectic forms of its own is dactylo-epitrite. I have suggested elsewhere⁶ that the contrast between pendant and blunt plays some part in dactylo-epitrite rhythm, but this contrast is produced without catalexis, since any dactylo-epitrite verse may end pendant or blunt, according to whether or not it ends with an anceps element. There is no basic phrase shortened by catalexis and no 'normal' movement to be reversed. Nevertheless, the Attic dramatists tend to attach alien cola with pendant catalexis as

⁵ *Aj.* 348 ff. is not comparable. There, --UU-U-- appears as clausula to a stanza which includes dochmiacs, but it does not follow directly on them, and the dochmiacs themselves are of the forms U--U--,

UUU-U-, and, once, UUUUUU-. This is merely an example of the colon acting as an all-purpose clausula.

⁶ *BICS* 5 (1958), 13–24.

clausulae. This is particularly striking in certain almost pure dactylo-epitrite stanzas in Euripides: *Med.* 410–20 = 421–30, for example, ends with a solitary bacchiac simply stuck on to the end of a dactylo-epitrite verse:

οὐκέτι δυσκέλαδος | φάμα γυναῖκας ἔξει
 = πολλά μὲν ἀμετέραν | ἀνδρῶν τε μοῖραν εἰπεῖν
 – U U – U U – | – – U – U – –

The contrast of blunt quasi-caesura and pendant colon- or verse-end is common in dactylo-epitrite, and the orthodox way to produce it is exemplified by the first colon of the stanza:

ἄνω ποταμῶν ἱερῶν | χωροῦσι παγαί
 = μούσαι δὲ παλαιγενέων | λήξουσ' αἰοιδῶν
 U – U U – U U – | – – U – –

For the introduction of bacchiac clausulae into pure, or almost pure, dactylo-epitrites, compare *P. V.* 535 = 544, *Med.* 634 = 642, *Rhes.* 232 = 241, *Pax* 775 = 798.

So far, no mention has been made of one major Greek metre: dactylic. According to ancient theory, all dactylic cola or verses ending in a spondee were 'catalectic'.⁷ The final short of the final metron was imagined as, in a sense, amputated, leaving the penultimate short to become 'final anceps'. A necessary corollary of this theory would be the existence of 'acatalectic' dactyls ending in – U x, that is, potentially, – U –, with final 'longa in brevi'. This problem has been thoroughly examined by A.M. Dale in her paper 'Observations on dactylic',⁸ and there would scarcely be need to mention it here, but for a piece of new evidence. The case for the ancient theory has hitherto rested, in the last resort, on the archilochian dicolon consisting of dactylic tetrameter and ithyphallic. Hephaestion,⁹ having quoted a line of the pattern familiar to us from Horace, *Odes* 1. 4:

– U U – U U – U U – U U | – U – U – –

actually goes to the trouble of quoting another (West 190) to demonstrate that the final metron of the dactylic colon can become a cretic by 'final anceps':

καὶ βήσας ὀρέων δυσπαιπάλους οἶος ἦν ἐφ' ἥβης
 – – – U U – – – U – | – U – U – –

Ancient metricians demonstrably did not understand the distinction between cola in synaphea and verses followed by metrical pause; for them, as Dale says, 'a "line" . . . is a line'. Further, Hephaestion's method of exposition powerfully suggests a long and already fossilized pedagogic tradition which worked by the handing down of examples in the form of short quotations out of context. It is not very difficult, therefore, to imagine a theorist earlier in the tradition picking out a corrupt verse to illustrate 'final anceps' in acatalectic dactyls and his suc-

⁷ Snell (*Griechische Metrik*, 1962) still calls the dactylic hexameter 'catalectic', although he does not appear to subscribe to the ancient doctrine which would make it so. This is a notable (and surprising) example of the confused treatment of catalexis in current metrical handbooks.

⁸ *WS* 77 (1964), 15 ff. and *Collected Papers*, 185 ff. As there is a confusing misprint on p. 18 of the original publication in *WS*, references to this article will be given with the pagination of the reprint in *Collected Papers*.

⁹ 15. 8, Consbruch, p. 50.

cessors passing it on without caring whether there were in fact any others.¹⁰ In any case, it could hitherto be argued that the verse is anomalous by any standard, for metrical pause has no business in the middle of an archilochian dicolon. Hermann,¹¹ however, maintained, on the basis of this one verse and Theocritus, *Epig.* 20. 2, that ἀσυνάρτητα do indeed have metrical pause between the cola, and, by an irony of scholarship, he turns out to have been, at least in some measure, right. A substantial new fragment of Archilochus has appeared¹² in the metre hitherto known to us from Horace's eleventh *Epode*: an iambic trimeter paired with an ἀσυνάρτητον compounded of hemiepes and iambic dimeter (cf. Archilochus, West 196). The ἀσυνάρτητον shows both hiatus and *brevis in longo* at the end of the hemiepes, so that we are in fact dealing with a three-line stanza:

$$\begin{array}{r} x - \cup - \quad x - \cup - \quad x - \cup - || \\ - \cup \cup - \cup \cup - || \\ x - \cup - \quad x - \cup - || \end{array}$$

Evidently, we shall have to use caution for the future in our generalizations about the nature of Archilochus' compounds of single-short and double-short rhythm and be prepared for quite radical revisions of metrical history and even theory. On the evidence now available, however, the simplest explanation of the final spondee in dactylic verse is still that it is a regularized cadence, which was, like that of the anapaestic paroemiac, rhythmically necessary: to produce a satisfactory verse-end, the last biceps is precluded from taking double-short form.¹³ It would seem, then, that catalexis is not an original feature of dactylic rhythm. Our earliest dactyls are stichic, and stichic metres derive rhythmic definition and clarity from the repetition of a fixed length and regularized cadence (cf. the iambic trimeter). They do not need catalexis. The mysterious elegiac couplet does, however, introduce an effect which is, at least, analogous, and the Attic dramatists seem occasionally to have introduced cola ending . . . - $\cup \cup -$ | , a blunt close contrasting with the ordinary - $\cup \cup - -$ |.¹⁴

¹⁰ Tarditi's suggestion (ad loc.) that the corruption was introduced in the process of abridging Hephaestion is ingenious, but, as I have argued in *Lustrum* (15, 1970, 50), hard to account for. It is easier to assume corruption in the text of Archilochus, although, in the absence of the context, impossible to emend with any degree of confidence. See West's apparatus for possibilities.

¹¹ *De metris poetarum graecorum et romanorum*, I. 13. 41–2.

¹² Pap. Colon. inv. 7511. See R. Merkelbach and M.L. West, 'Ein Archilochos-Papyrus', *ZPE* 14 (1974), 97–113. The presence of three-verse stanzas in Archilochus is also interesting in that it brings him a little closer technically to the Lesbian poets.

¹³ I do not see the force of Dale's objection ('Observations', 187) that the last element cannot be 'contracted long' (i.e. single-long biceps) because that 'by definition may resume its two shorts, so that the sixth metron is unlike the remaining five'. This is altogether too abstract. It is perfectly normal for rules of internal responson to be modified at verse-end. Thus, in the iambic trimeter the

final long is not resolvable. We discussed this point soon after the publication of her article. As I remember, she was prepared to allow that the idea of a regularized cadence was plausible, but maintained that her objection was valid.

The few dactylic cola in tragic lyric ending in double-short biceps and hiatus are listed by Korzeniewski, *Griechische Metrik*, 74. His treatment of verse-end in dactyls, however, differs considerably from mine, because he includes as dactylic 'prosodiac' and 'enoplian' cola which I should regard as essentially aeolo-choriambic.

¹⁴ Dain and Raven regard . . . - $\cup \cup -$ | as the catalectic form for dactyls. Raven's list of 'catalectic' dactylic cola (*G.M.* 2 49) is interesting, but not all the examples are beyond dispute. *Pers.* 882 (= 891): - - - $\cup \cup - \cup \cup - \cup \cup -$ is probably not a separate colon, since the passage continues $\cup \cup - \cup \cup . . .$, so that the proposed division is actually in the middle of a dactylic metron (- $\cup \cup \cup$). Dale (*L.M.* 2, 40) while making the point that the dactylic sequence is uninterrupted, prefers Murray's layout on the page, following word-

II. CATALEXIS AND METRICAL PAUSE

Catalexis is commonly taken as an indication of verse-end, but not, like hiatus and *brevis in longo*, as near-certain proof. It is, therefore, worthwhile to try to answer, by examination of the data, the question of whether it demonstrably occurs in synaphea. Here, it is necessary to start by distinguishing between types of metre. In anapaests, that exceptionally strict and strongly-marked rhythm, catalectic cola are always followed, I think, by word-end, even in true lyric. The weakest break is *Tro.* 129, the first of a pair of lyric paroemiacs, which ends with elision.¹⁵

In iambs, bacchiacs are sometimes found in sequence, but elsewhere a bacchiac metron is either preceded or followed by word-end; marks, that is, the beginning or end of a minor period. Dale,¹⁶ taking issue with Wilamowitz on the colometry of *O.C.* 1725 = 1739, finds only one exception, *Thesm.* 1034–5:

γαμηλίῳ μὲν οὐ ξὺν U – U – U – –
 παιῶνι, δεσμίῳ δέ – – U – U – –

on which she remarks: 'The pairing of the twin cola legitimizes the unusual effect.' I find rather more examples: six in Aeschylus, one in Sophocles, and three in Euripides, with, in addition, one passage in Aeschylus and four in Euripides where a bacchiac ends in elision.¹⁷ Rather than supposing that a bacchiac in mid-verse was for some technical reason impossible, we should perhaps deduce that it is essentially a syncopated metron which tends to be confined to the beginning or end of the verse because it produces the proper final cadence for a naturally blunt rhythm, which would, in mid-verse, be disruptive. The tendency would probably have been reinforced by the general preference in Greek choral lyric for pendant clausulae.¹⁸

The question then arises of whether metres with blunt catalectic forms behave differently. Unfortunately, ionic and lyric trochaic are both comparatively rare, so do not provide clear evidence of whether U U – and – U – are as disruptive in mid-verse as U – –. One ionic stanza in the *Persae*, 102–7 = 108–13, features

end in preference to metron-end. But that is not, strictly speaking, a colometry. *Eum.* 1042 (= 1046), however, is a genuine example, for it coincides with verse-end, shown by *brevis in longo* in the strophe and hiatus in the antistrophe. *Eum.* 533 = 545, not one of Raven's examples, is also unambiguous, since the next colon begins – U U . . .

¹⁵ Cf. Dale, *L.M.*², 51.

¹⁶ *L.M.*², 72.

¹⁷ *Ag.* 197–8 = 210–11, *Eum.* 919–20 = 941–2 (accepted by Dale, *L.M.*², 95), *Pers.* 136 (there is word-end after the bacchiac in the strophe, 131), *Sept.* 735 = 744, *Supp.* 95 (or 90, if Westphal's transposition is accepted, as by Page. The corresponding verse has word-end after the bacchiac), *Supp.* 136 (where the text of the antistrophe at 146 is in doubt), *Soph. El.* 482–5 = 498–500 (a singular passage. There is a bacchiac at 485, while in the other three repetitions of the verse the syncopated metron is a molossus), *Hec.* 946–7, *Phoen.* 686, *Tro.* 1295–6 (all three

Euripidean passages are astrophic). The examples with elision are: *P.V.* 183 (word-end without elision in the strophe, 165), *Hel.* 637 (astrophic), *Med.* 646 (word-end without elision in the antistrophe, 656), *Phoen.* 1027 (word-end without elision in the antistrophe, 1051), *Tro.* 1322 (word-end without elision in the antistrophe, 1307).

¹⁸ The comparative figures for clausulae to stanzas in tragedy are: Aeschylus: 111 pendant, 60 blunt; Sophocles: 74 pendant, 10 blunt; Euripides 153 pendant, 66 blunt. Most of the blunt clausulae are dochmiac. There are, in addition, a few 'dragged' clausulae (. . . U – –). Pindar's preference is not so strong: he has 48 pendant clausulae in the epinicians to 33 blunt. In the dactylo-epitrite poems alone, however, the proportion is higher: 29 to 15. Dactylo-epitrite has no catalectic form, so the preference for pendant clausulae manifests itself independently of catalexis.

catalectic cola in synartesis so persistently that it is worth quoting in full. The pattern is clearer in the antistrophe:

ἔμαθον δ' εὐροπόροι-	UU-- UU-
ο θαλάσσας πολίαι-	UU-- UU-
νομένας πνεύματι λάβρω	UU-- UU--
ἔσορᾶν πόντιον ἄλσος,	UU-- UU--
πίσυννοι λεπτοτόνοις πείσμασι λα-	UU-- UU-- UU-
οπόρος τε μηχαναῖς ¹⁹	UU-U-U-

In the same play, 650 = 655 runs UU-- UU-^UU-- UU--. The only (approximate) parallel to these passages that I have found elsewhere is *E. Supp.* 51, where the catalectic colon ends with a prepositive (ἄ). In the strophe, 45, there is word-end. Elsewhere, UU- is, like the bacchiac, either preceded or followed by word-end. One is tempted to hazard that syncopation in mid-verse in ionics was a rhythmic exoticism which Aeschylus deliberately attributed to his 'Persian' chorus. But it must be observed that most of the examples of mid-verse bacchiac are likewise in Aeschylus. He may merely have been less strict than the later dramatists in his use of potentially catalectic syncopation within the verse.

Trochaic is more problematic still, because of ambiguity with iambic. If, for example, one takes seriously the classification of the lecythia of *Ag.* 160-4 = 167-73 as trochaic, then catalectic cola appear in synartesis at 160-1:

Ζεὺς ὅστις ποτ' ἐστίν, εἰ τόδ' αὖ-	-- -U-U -U-
τῷ φίλον κεκλημένω	-U-U -U-

and 171-2:

ὅς δ' ἔπειτ' ἔφν, τρια-	-U-U -U-
κτῆρος οἴχεται τυχών.	-U-U -U-

But here we are surely dealing with genuinely ambiguous rhythm. The junction ... UU-U ... must have produced a sense of interruption in the flow of the rhythm, but there is nothing to establish in the hearer the expectation of either a blunt or a pendant clausula, apart from the pattern of the individual stanza. In fact, Aeschylus here adopts the simple but effective device of introducing an alien, sharply contrasting, pendant colon, a dactylic pentameter, before his final lecythion:

-UU-UUU-UU-UU--
-U-U-U-

The clearest example I can find of -U- in mid-verse in unambiguous trochees is *Hel.* 245-6, where the second and third of a sequence of three catalectic trochaic trimeters are in synartesis:

¹⁹ Page's colometry follows word-end more closely in the first half of the stanza, producing two trimeters:

UU-- UU- UU--
UU- UU-- UU--

which, formally, has the effect of bringing one UU- to the beginning of a colon. The other two, however, remain embedded in mid-verse. To place all the syncopated metra at colon-end, as in my colometry,

probably makes the verse easier to read rhythmically. The problem of layout here is a modern one. In performance, one supposes, the passage must have run:



Or, avoiding any implication about musical realization, one can notate the rhythmic pattern a b a b a.

ὅς με χλοερά δρεπομέναν ἔσω πέπλων
 ῥόδεα πέταλα χαλκίοικον ὥς Ἀθά-
 ναν μόλοιμ', ἀναρπάσας δι' αἰθέρος

- U U U U U U U - U - U -
 U U U U U U - U - U - U -
 - U - U - U - U - U -

From 244 to the end of the song the metre is clear, unsyncopated trochaic, articulated by - U -. The following lines run:

- U - U - U - U
 U U U - U - U U U
 U U U - U - U -
 U U U U U U U - U - U - U -
 - U U U U - U -

The whole *kommos* at *Hel.* 167 ff. provides, of course, a most interesting and, at the same time, comprehensible, demonstration of modulation between iambic and trochaic. The correct conclusion is, perhaps, that - U - only has catalectic function in unambiguous, unsyncopated trochees, where the hearer is sufficiently conditioned to pendant rhythm to make syncopation in blunt rhythm stand out sharply. There, of course, - U - is excluded from mid-verse by definition.

Aeolo-choriambic presents real difficulties, because of the fluidity of colometry. For example, *Ant.* 788-90 = 800-1:

οὐθ' ἀμερίων σέ γ' ἀνθρώπων, | ὁ δ' ἔχων μέμνηεν
 = θεσμών· ἄμαχος γὰρ ἐμπαίξει | θεὸς Ἀφροδίτα

can be arranged as a pair of pendant (therefore, in effect, catalectic) cola in synartesis:

-- U U - U --
 - | U U - U --

or as two cola with single initial anceps (half aeolic base), one blunt, the second pendant:

-- U U - U -
 -- | U U - U --

Partisans of the first colometry will point out that it produces overlap of only one syllable into the second colon, which is generally thought to be common in aeolo-choriambic sequences. But the second arrangement gives a typical dicolon with full first limb and catalectic second limb, like the various 'tetrameters' listed on p. 14, except that the catalectic limb is, in *morae*, longer than the full one: acephalous glyconic+acephalous hipponactean, in fact. Only if there were a considerable number of passages which positively resisted rearrangement, should we conclude that pendant aeolo-choriambic cola are used freely in synartesis. In fact, except in one particular category, there are hardly any. In two passages in Euripides a pendant colon ends with a prepositive:

Alc. 967 Θρήσσαις ἐν σανίσιν, τὰς --- U U --
 (= 978) Ὀρφεία κατέγραψεν --- U U --
I.T. 440 παῖς ἐλθοῦσα τύχοι τὰν --- U U --
 (= 423) Τρωάδα λιπούσα πόλιν ἔν' ἀμφὶ - U U U - U U U - U --
 [χαίτα]

In both there is word-end after the corresponding colon. There are another two passages in tragedy and one in Aristophanes where a pendant aeolo-choriambic colon ends with elision:

Aj. 632 θρηνηήσει χερόπλακτοι δ' --- UU ---
 (= 643) ἐν στέρνοισι πεσοῦνται --- UU ---

Rhes. 911 Φρυγῶν λεχέων ἔπλευσε πλαθεῖς· ὕ-ὑ-ὑ-ὑ-ὑ-ὑ-
 (= 900) †ὕπ' Ἰλῖω† ὤλεσε μὲν σ' ἑκατι (ὕ-ὑ)-ὑ-ὑ-ὑ-ὑ-ὑ-
 [Τροίης]

In all these passages the corresponding cola coincide with word-end. The passage from Aristophanes, *Vesp.* 318–19, is astrophic:

ἀλλὰ γὰρ οὐχ οἴος τ' εἶμ' - UU-U--
 ἄδειν, τί ποιήσω;²⁰ --UU--

(In view of what the singer is saying, there is a temptation to suspect a metrical joke.) It is remarkable that there is no example here where the enjambment is produced by a 'word' in the strictest sense, as distinct from a 'word-group'. Moreover, the examples show that the absence of undoubted pendant cola in synartesis can hardly be coincidental: there is nothing metrically peculiar about the passages otherwise, and any of us could make up many such combinations from the known components of choral lyric.

The right conclusion seems to be that, where there is a choice, as in *Ant.* 787 = 800 discussed above, we should adopt a colometry which does not produce a pendant colon in synartesis, although this may sometimes involve preferring unusual cola to familiar ones. Thus, at *S. El.* 472–4 = 488–91 we should prefer

---UU---UU---
--- -UU-U-

to

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---UU-
-UU--
---UU-U-

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although the latter gives us cola to which we can put names: 'dodrans B', 'adonean', and 'glyconic'. With less certainty, perhaps, but following the same principle, we might divide *Pers.* 906–7, following word-end, as:

δμαθέντες μεγάλως --- UU-
πλαγαῖσι ποντίαισιν -- U- U--

rather than as pherecratean, ithyphallic:

$$\begin{array}{ccccc} - & - & - & U & U & - & - \\ & & & U & - & U & - \end{array}$$

Here, however, the rest of the stanza is in pure dactyls, and the possibility must be reckoned with that --- ∪ ∪ --- may be, exceptionally, a dactylic trimeter. Odd numbers of metra are perfectly possible in dactyls: pentameters, in par-

²⁰ 'Complex' ἄλλα γάρ (where γάρ applies to the subordinate clause and ἄλλα to the main clause, as here) is, according to Denniston (*Particles*, 98–9), 'exceedingly rare'. Bentley's transposition οὐ γάρ elimin-

ates the rarity and produces a pair of identical cola of the form -- U U -- (cf. *Thesm.* 1034-5, with Dale's comment, quoted above, p. 20).

ticular, are quite common in Aeschylus. The preceding stanza ends with a run of 11 dactyls in synartesis with ithyphallic.

There is one pendant aeolo-choriambic colon which appears in synartesis several times in Aeschylus and once in Euripides: $- \cup \cup - \cup -$. Aeschylus' use of this colon as clausula to dochmiacs has already been noted (p. 17 above). A pair appear in synartesis in a dochmiac context at *Supp.* 630–2 = 643–5:

νῦν ἴτε καί, θεοὶ	$- \cup \cup - \cup -$
Διογενεῖς, κλύοιτ' εὐ-	$- \cup \cup - \cup -$
κταία γένει χεούσας	$- \cup \cup - \cup -$

The stanza ends with the same colon as clausula (638 = 650). There may be another pair of such cola at *Supp.* 813–16 = 822–3:

ὄμμασιν ἐνδίκους· σεβί-	$- \cup \cup - \cup - \cup -$
ζου δ' ἰκέτας σέθεν, γαι-	$- \cup \cup - \cup -$
ἀοχε παγκρατὲς Ζεῦ	$- \cup \cup - \cup -$

It is not by any means unreasonable to divide following word-end, as does Page:

$- \cup \cup - \cup -$
$\cup - - \cup \cup - \cup -$
$- - \cup \cup - \cup - -$

The pattern of enjambed cola looks incomparably neater to our eyes, but that is a criterion to be treated with caution.²¹ However, the number of occurrences of $- \cup \cup - \cup -$ in sequence tells in its favour. At *Cho.* 386–9 = 410–14 there is a sequence of no less than four following in synartesis on an iambic trimeter (although between the first and second cola of the sequence there is word-end in strophe and antistrophe):

ἐφθυμῆσαι γένοιτό μοι πυκά-	$\cup - - - \cup - \cup - \cup -$
εντ' ὀλολυγμόν ἀνδρός	$- \cup \cup - \cup - -$
θεινομένου, γυναικός τ'	$- \cup \cup - \cup - -$
ὀλλυμένας· τί γάρ κεύ-	$- \cup \cup - \cup - -$
θω φρενός οἶον ἔμπας	$- \cup \cup - \cup - -$

The last two cola of *Pers.* 584 ff. = 591 ff. may be added to the list, although the synartesis depends solely on the postpositive γάρ in the strophe, and the first colon is a pherecratean:

ἄξονται, βασιλεία	$- - - \cup \cup - -$
γὰρ διόλωλεν ἰσχύς	$- \cup \cup - \cup - -$

In this stanza, repeated $- \cup \cup - \cup \cup - -$ modulates into $- - - \cup \cup - -$ before the final dicolon. The Euripidean example is *Bacch.* 105–6 = 120–1:

ὦ Σεμέλας τροφοὶ Θῆ-	$- \cup \cup - \cup - -$
βαι, στεφανούσθε κισσῶ	$- \cup \cup - \cup - -$

It will be seen that a pattern, if not a rule, governing the occurrence of catalectic

²¹ The traditional colometry of Pindar includes a number of demonstrable blunders produced in the pursuit of neat patterns of uniform cola. At the opening of *Pyth.* 5 any of us might be seduced by:

$\cup - \cup - - \cup -$
$\cup - \cup \cup \cup - \cup -$

$\cup - \cup \cup - \cup - \cup \cup \cup -$
 $\cup - \cup \cup - \cup - \cup \cup \cup -$
 had not Boeckh's method of locating verse-ends shown that the true division is:

$\cup - \cup -$	$- \cup - \parallel$
$\cup - \cup \cup \cup$	$- \cup - \cup - \cup \cup - \parallel$
$\cup - \cup \cup \cup$	$- \cup - \cup \cup - \cup - \cup \cup \cup - \parallel$

cola in synartesis has emerged. Firstly, the phenomenon is more common in Aeschylus than elsewhere. Secondly, several examples involve pairs or series of identical cola. Of passages mentioned in this paper, in addition to those with $-\cup\cup-\cup--$, *Thesm.* 1034–5, *Pers.* 102 = 108, the lecythia of *Ag.* 160 ff. and *Hel.* 245–6 are pairs or series.²² Dale's remark on the *Thesm.* passage (p. 20 above) proves very much to the point. The clausular effect of a catalectic rhythm is to a great extent a matter of contrast: if the rhythm is repeated at short and regular intervals, the effect must be somewhat blurred.

III. THE NOTATION OF VERSE-END

Our standard metrical notation is a haphazard compromise between showing the length of the elements in the abstract metrical scheme (the 'tune', as it were) and the actual prosodic length of the syllables in the particular passage. With long and short elements, the abstract scheme predominates: we do not there indicate when a long syllable is so 'by position' or a short by epic corpeption. But with the anceps element, which is a comparatively new metrical concept, we mark only the prosodic length of the syllable. Recently, metricians, in particular Snell and Dale, have sought to introduce refinements. Thus, Dale shows the nature of the anceps element by the symbol \times under the prosodic quantity: $\bar{\times}$ or $\breve{\times}$. But the difficulty of refining notation is that the metrician may force himself into making distinctions for which his knowledge is not, in all contexts, adequate: trying to tell the reader what he does not know himself.

Verse-end probably presents the most vexed problem of metrical notation at the moment. Marking the actual prosodic length of the final syllable is comparatively harmless in stichic metres, but can make lyric cola very hard to recognize, even in conjunction with the verse-end symbol \parallel . A glyconic, for example, is liable to appear as $---\cup\cup-\cup\cup\parallel$. Moreover, this practice invites confusion with the concept of internal anceps. If the final element of a colon is undoubtedly long by internal responson, that fact should be made clear to the reader. A second solution is to use the same symbol for all finals. Maas (*Greek Metre*, §34) originally proposed the ordinary long mark, because 'internal responson very often requires a longum, and hardly ever a breve, at this place, and since we have to reckon with the possibility that even a short final syllable may have been made prosodically long by the presence of a pause after it'.²³ Here, Maas ignores the types of metre, dactylo-epitirite and trochaic, in which verses can end with a true anceps element. In practice, it seems hardly satisfactory to use $-$ for a prosodically short syllable occupying a position which is, by internal responson, anceps. In later editions Maas suggested instead the symbol \odot for all final elements, and that solution has recently been endorsed by L.E. Rossi.²⁴ This is simple and workable, but, arguably, does not help the reader enough: it conceals distinctions which can be made and which may be significant.

A.M. Dale, in her later metrical work, moved towards a much more complicated system, which is put into practice in her analyses of tragic lyric, now appearing posthumously.²⁵ The clearest statement of her theory is to be found in

²² Also, possibly, *Vesp.* 318–19. See above, add up to the time-value of a long, as crotchet n. 20.

²³ This is awkwardly put, for a syllable can hardly be made 'prosodically long' by a following pause. Short syllable+pause could

note+crotchet rest add up to a minim.

²⁴ 'Anceps: vocale, sillaba, elemento', *RFIC* 91 (1963), 52 ff.

²⁵ *BICS* Suppl. 21. 1 (1971), in progress.

the article, 'Observations on dactylic', referred to above. Essentially, she rejects Maas's view that most final elements are long by internal resposion and all may have, in effect, been made so by pause incidental to verse-end. Instead, she states that in all pendant cola and verses, except ionics and the bacchiacs of syncopated iambics, 'the final syllable is anceps'. There is some terminological confusion here: Dale must, I think, mean 'element', rather than 'syllable', for, as Maas points out, all final *syllables* may be prosodically long or short, so that, in that sense, all final *elements* are anceps. But that is not what Dale means, as she says explicitly that the final element of verses ending blunt (. . . $\cup - \parallel$) is long, and that a short syllable in that position is strictly *brevis in longo*. The important practical consequence of the theory, as she goes on to explain, is that pendant aeolic and dactylic cola and paroemiacs need not break synaphea. Where the final syllable of such a colon is prosodically long, Dale regards a break in synaphea as likely, where it is short as still possible. That is to say that she would treat all these cola, in the matter of pause, like unsyncopated trochees or pendant dactylo-epitrites. In general, where a colon ends . . . $\cup - \times \mid$, hiatus, or an anceps or short element at the beginning of the next colon indicate metrical pause. Where the final syllable of such a colon is actually long, $\cup - \mid$, word-end alone strongly suggests pause. But the possibility of synaphea after such cola remains, if other indications of verse-end are absent.

Dale acknowledges that the effect of her theory is 'to add to the uncertainties', but she finds compensation in the 'extra fluidity'. It opens the way to metrical interpretations of certain passages which attract her on aesthetic grounds. Ag. 154–5, for example, can be treated as a single verse:

μίμνει γὰρ φοβερὰ παλίνορτος
οἰκονόμος δολία μνάμων μῆνις τεκνόποιος
--- $\cup \cup - \cup \cup - \cup$
- $\cup \cup - \cup \cup$ ----- $\cup \cup$ ---

'παλίνορτος with its short anceps, though obligatory colon-end, is not *brevis in longo*, and the advantage of keeping synaphea instead of pause in this ominous roll of epithets need not be laboured.' But aesthetic observations of this kind do not constitute arguments. There is a danger of throwing objective criteria overboard in order to give freer play to the subjective.²⁶

Synaphea implies, as far as we know, the possibility of synartesis.²⁷ To prove objectively the possibility of synaphea after the pendant cola in question, it would be sufficient to find a number of at least highly plausible examples of synartesis. In dactyls, composed of repeating metra, without syncopation, or, for

²⁶ It is, I think, possible to make out an aesthetic case for pause after παλίνορτος: unlike the other epithets, its function here is to complete the meaning of the verb ('abides re-aring'). That it should be rhythmically marked out in some way is not inappropriate. In any case, Dale is subscribing to the highly dubious interpretation of οἰκονόμος as adjectival. Fraenkel (ad loc.) puts with overwhelming force the case for the view shared by most modern editors (Wilamowitz, Verrall, Denniston and Page) that it is substantival in apposition to μῆνις: 'There abides,

terrible, re-aring, a treacherous housekeeper: Wrath . . .'

²⁷ J. Irigoin (in W.J.W. Koster, *Κωμωδο-τραγῆματα*, 1967, 65–73) suggests an intermediate situation: obligatory word-end without metrical pause. A similar concept seems to underlie Dale's 'obligatory colon-end'. I do not see how this hypothesis can be either proved or disproved (cf. *Lustrum* 15, 1970, 52). The practice of Pindar, at least, suggests straight alternatives; either the possibility of synartesis, or metrical pause.

the most part, catalexis, coincidence between word-end and metron-end (especially with spondaic metra)²⁸ is the only indication of division into cola. There is no evidence that the concept of synartesis between metrically distinct cola applies. The twenty-six dactyls of *O.C.* 228–35 are traditionally laid out in six 'tetrameters' and a 'dimeter', but that is merely because no page is wide enough to accommodate the metrical sequence unbroken. It has already been remarked (p. 20 above) that anapaestic paroemiacs, otherwise catalectic dimeters, do not occur in synartesis. Aeolo-choriambics, however, provide the most telling evidence. 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. It occurs, indeed, no more frequently and under much the same conditions as with pendant iambic cola. Dale's hypothesis of an essential difference between catalectic iambic cola on the one hand and most other pendant cola on the other finds no support here.

Two important criteria for determining the nature of final elements are, as with other elements, the general rules of juxtaposition in Greek metre (in particular, no anceps beside anceps or short) and internal responsion. Dale uses both criteria, but not with perfect consistency. It is in accordance with the general rules of juxtaposition that she accepts that all final elements in blunt cola must be long by nature (the preceding element being short, or, in dochmiacs, anceps). For sequences of bacchiacs and ionics and, more doubtfully, for final bacchiac in syncopated iambics, she uses the criterion of internal responsion; the last metron in a sequence is assumed to be of the same form as its predecessors: if initial bacchiac is produced by syncopation, so must final bacchiac be. She abandons it, however, in positing final anceps in paroemiacs and dactyls, for there is no internal anceps in dactyls or anapaests. She abandons it also for aeolo-choriambic, where anceps is confined to the base, the part of the colon which precedes $-\cup\cup-\cup-$ or $-\cup\cup-$.²⁹ In sum, the evidence seems to me to weigh against adopting Dale's theory, and, with it, her notation of verse-end, which is both complicated in itself and difficult to apply in individual passages.

A system which seems to me to combine the advantages of clarity and simplicity with fulness of information within the limits of our knowledge is to mark prosodically long final syllables with the ordinary long mark, and prosodically short ones with the 'long short' (\smile), both followed by \parallel . The 'long short' would not be used with any preconception of the time-value of the element: it would mark, not *brevis in longo*, but simply *brevis in fine versus*. This is substantially the system used by K.J. Dover in his commentary on the *Clouds*,³⁰ except that he uses an inverted short (\cap) instead of \smile . My preference for the long short may be based on nothing more than habit, but it seems to me to leave metrical entities

²⁸ Parker, *CQ* 16 (1966), 20–4.

²⁹ The formulation proposed by W.S. Barrett in his edition of the *Hippolytus* (Appendix 1, p. 422) does introduce anceps into the post-choriambic part of the colon, but in fact the 'dragged' close ($-\cup\cup- --$) is so exceptional that it seems to me misleading to notate $-\cup\cup- \times -$. See also Dale, *L.M.*² 153.

³⁰ 'Notes on metrical analysis', 89. Professor Dover introduces some other refine-

ments which it is not relevant to discuss here. He in fact uses \smile to mark vowel-sounds shortened by epic correption. He also uses Maas's finale mark, \cap , for final elements in abstract metrical schemes, as distinct from scansion. This is particularly useful for the description of stichic metres and ready-made stanzas, such as the sapphic and alcaic, to show points where synaphea is generally broken.

more recognizable: $- \cup \cup - \cup \smile$ is a closer visual approximation to $- \cup \cup - \cup -$ than is $- \cup \cup - \cup \cap$. Its familiar identification with the concept of *brevis in longo* may, however, be thought to tell against it. At first sight, it might seem less cumbersome to adopt some distinctive symbol for long syllable at verse-end, and dispense with \parallel . That symbol, however, has independent value, in that it corresponds with the single vertical stroke used to mark recurrent word-end without metrical pause, or diaeresis without other evidence of verse-end.

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