

Words into Verse:
The Localization of Some Metrical Word-Types
in the Iambic Trimeter of Sophocles*

HELMA DIK

This paper proposes to lay some necessary groundwork for the study of word order in the tragic trimeter. When at *OT* 122–23 we hear or read Creon's lines,

ληστὰς ἔφασκε συντυχόντας οὐ μιᾶ
ῥώμη κτανεῖν νιν, ἀλλὰ σὺν πλήθει χερῶν,

we may well come to the conclusion—in fact we should—that *ληστὰς* and *μιᾶ* are highly salient words here, reinforced in the next line by *σὺν πλήθει χερῶν*. Nothing controversial so far. But are we also entitled to associate the salience of these two words with their position at the extremes of the trimeter line? In this paper I will propose that, in fact, there is little evidence to support such an association. I will argue elsewhere that there are other good reasons to consider *ληστὰς* and *μιᾶ* formally marked as salient,¹ but here I will begin to investigate whether a position at the beginning or the very end of a line constitutes such formal marking. It is inevitable that the discussion of this issue involves a certain amount of number crunching. But this foundation will, I hope, allow us to come to a better understanding of the spoken verse of classical tragedy.

As a first step in the analysis of word placement in the trimeter, I want to establish here which are the preferred positions of some of the most common words, or rather, word shapes, in Sophocles. Whereas Homeric scholarship (ever since especially O'Neill 1942, from whom, in homage, I

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¹ This article is part of a larger project on word order in the spoken trimeters of classical tragedy. As to *OT* 122, I will here only point out that, on a description of Greek word order as following a basic pattern of Topic–Focus–Verb–remaining elements (see Dik 1995), *ληστὰς* is in the preverbal Focus position. As to *μιᾶ*, it precedes its noun (the marked position in a noun phrase; see Dik 1997), with the entire noun phrase preceding the infinitive *κτανεῖν*.

borrow the title of this essay) has long studied word shapes and their position in the hexameter, only vague indications exist of how words are placed in the iambic trimeter of the tragedians. A study of "localization," as this question is called in Homeric studies, is a necessary preamble to an investigation of word order in poetry. Before one can claim that word *x* "has been postponed in order to allow greater emphasis to" word *y*, one had better make sure that word *x* is of a shape that often, and preferably more often than not, occurs at an earlier position in the line. If this is not the case, one has to concede that its position is at best a fortuitous combination of rhetorical effect and metrical necessity.²

Some of the most precise indications for localization can be found in Seth Schein's *The Iambic Trimeter in Aeschylus and Sophocles* (1979).³ The present paper differs from the approach taken by Schein in some important respects, and this difference in approach brings about some different conclusions as to localization as well. The same holds for another earlier description, that of Joseph Descroix in *Le trimètre iambique* (1931). In what follows I shall start with some general remarks on the method I followed in gathering the data presented here, and then proceed with a discussion organized by word shape. The paper will be restricted to words of two and three syllables.⁴ These are some of the most commonly used words in tragedy,⁵ and generally have more freedom of placement in the verse than longer words. As for monosyllables, since my ultimate interest lies in accounting for the order of *lexical* constituents (nouns and verbs rather than pronouns and particles), only few monosyllables are in fact

² The quotation is from Davies' commentary on *Trach.* 1 (λόγος μὲν ἔστ' ἀρχαῖος ἀνθρώπων φανείς). The shape of ἀνθρώπων, a molossus, virtually decides its position in the line, since 96 percent of all molossi in *Ant.* and *Trach.* are in position 8. While one could conceivably move ἀνθρώπων to position 4 and put ἀρχαῖος in position 8 (which would entail replacing ἔστ' with a different monosyllable in position 7), this transposition would result in two molossi in a single line, a pattern I have not found elsewhere in *Trach.* or *Ant.*

³ Schein discusses localization only in his chapter on the Aeschylean trimeter, and does not claim that his findings are applicable to the other tragedians. In the conclusion of this paper I will briefly compare my findings for *Trach.* and *Ant.* with those for Aesch. *Ag.* and *Septem;* Eur. *Bacch.;* and *PV.*

⁴ More precisely but more technically, words that take up two or three positions in the line: I have not looked at two-syllable words of the shape $\cup\cup$.

⁵ A rough calculation (adding up the totals for the word shapes discussed in this paper, multiplying them by the number of syllables, dividing by the number of lines and by 12 for the number of positions in the line) puts the contribution of these words at 65 percent of the total number of syllables. This means that the average verse has two thirds of the line filled with two- or three-syllable words. But of course average lines are hard to find. In my sample there are lines with exclusively two- and three-syllable words, such as *Ant.* 163 πολλῶ σάλφ σείσαντες ὄρθωσαν πάλιν, or just one, such as *Ant.* 172 πληγέντες αὐτόχειρι σὺν μιάσματι. Lines with no two- or three-syllable words at all are rare. In Marcovich 1984 we find Aesch. *Sept.* 541, *Suppl.* 286, *Choe.* 706, 1049, and no examples in Euripides or Sophocles except for Soph. fr. 537. 2 Radt. Three-word trimeters alone, however, do not exhaust the possibilities for lines without two- or three-syllable words, so that this list is not complete.

relevant. An account of their position in the trimeter can be found in van Raalte 216–25.⁶

First a few words about notation are in order here. With Maas the elements of the trimeter are numbered from 1 to 12. In the abstract a trimeter thus looks as follows:

1	2	3	4	5	6	7	8	9	10	11	12
x	-	∪	-	x	-	∪	-	x	-	∪	x

For diagnostic purposes, I have counted words of two and three syllables in the spoken trimeters of Sophocles' *Trachiniae* and *Antigone*. In anapest positions, syllables of questionable length were treated as short if they were unambiguously short elsewhere (e.g., the first syllables of *τοιαῦτα* and *τέκνον*).⁷ Unlike Schein, where applicable I have differentiated iambic and spondaic words (starting in positions 1, 5, or 9), spondaic and trochaic words, etc. throughout. Also in contrast to Schein, who in his study treats enclitics as part of their preceding words,⁸ I here count only individual words as they appear in the text, not treating enclitics (or postpositives in general) as part of the preceding word. It is my aim here, as it was that of O'Neill for the hexameter, to explore the possible positions of individual words, not of word-groups.

I categorize words by their form and the position of their *first* syllable, an arbitrary decision that has to do with my interest in what happens at the start of lines. A concrete example from the *Trachiniae* should give an idea of how words are counted. Here are the first three lines of the play:

Λόγος μὲν ἐστ' ἀρχαῖος ἀνθρώπων φανείς
 ὡς οὐκ ἂν αἰῶν' ἐκμάθοις βροτῶν, πρὶν ἂν
 θάνῃ τις, οὔτ' εἰ χρηστός οὔτ' εἴ τῳ κακός.

They contain two iambic words in position 1 (λόγος, θάνῃ); two in position 11 (φανείς, κακός); and one in position 9 (βροτῶν). There is one spondaic word in position 4 (αἰῶν') and a trochee in position 6 (χρηστός). The words of three syllables are ἀρχαῖος, a palimbacchius in position 5; ἀνθρώπων, a molossus in position 8; and finally ἐκμάθοις, a cretic in

⁶ I confess to a less than complete understanding of the data in her tables XXI and XXIA (pp. 223–24). I doubt that a “monosyllable at verse-end often involves an effect of emphasis” (218), but I will not address that question here.

⁷ This was done so as not to overestimate the preponderance of verse-final position for iambic words. If anything, the numbers for earlier positions, especially position 1, are now on the high side.

⁸ See Schein's preliminary notes (xi). Although it is certainly interesting to examine the behavior of word-groups as well as of individual words (cf. O'Neill 106), this paper is restricted to the latter. O'Neill (109) supports his decision with the observation that combinations of a word + enclitic occur in positions where single words of the same metrical shape do not (e.g., νηυσί τε – ∪ ∪ does occur in position 5 of the hexameter, but single words of the shape – ∪ ∪ do not). I have not examined this question for the trimeter.

position 6. It will be clear from this sample that, like O'Neill, I determine word shapes "*functionally*, i.e. by the quantitative space they fill in the verses in which they stand, regardless of their 'natural' quantities" (O'Neill 111). As a consequence, a word's metrical shape is often really only one possible realization: Had ἀρχαῖος been followed by another consonant it would have been classified as a molossus. Given the variable quantity of many final syllables and, for some words, even some internal variability (the tragedians can scan the first syllable of τέκνον or πατήρ as short or long, so that these words fit virtually anywhere in the line), I have not made a point of keeping count of the occurrence of *brevis in longo* either.

The rest of this paper presents the results of my counts for all two- and three-syllable words in Sophocles' *Antigone* and *Trachiniae*. Part I treats the two-syllable words, Part II the three-syllable words.

I Two-Syllable Words

1. Iambic Words

Descroix (83) writes:

⊖ – (θανών): mot iambique par excellence, qui peut être mis à tous les pieds, à condition qu'en principe il soit ménagé une coupe penthémimère ou hepthémimère (total: 6).

Descroix's statement implies that as long as there is a caesura in the line, iambic words can indeed be placed in all the positions theoretically allowed by the trimeter, making for six possible positions in total. And in fact iambic words do occur in all these positions (1, 3, 5, 7, 9, and 11). Their distribution, however, is far from random.

Schein states (27; see also his note 33) that localization data can be derived from his word-end tables, and says that iambic words are localized in positions 1 and 11⁹ and, to a lesser degree, at 7 and 9. Tables 1 and 2 present the localization data as derived from Schein's word-end tables.¹⁰ From Table 1 it is clear that position 11 is by far the most frequent location of iambic words. When we add up the numbers, just about 41 percent of the iambic words are in position 11. And Schein had also noted the frequency of position 1, which accounts for 26 percent if we judge matters by the numbers in Table 1.¹¹

⁹ I translate Schein's numbering into mine. Schein names by position of final syllable, rather than first syllable.

¹⁰ The numbers can be found in odd-numbered tables VII through XXVII in Schein. Note that for positions 1, 5, and 9 both spondaic words and iambic words are included in one aggregate number for disyllabic words. This issue will be addressed below.

¹¹ I should hasten to say that Schein does not do so in so many words. I just want to make clear here that word shape data cannot safely be derived from Table 1.

Position	1 (x-)	3 (u-)	5 (x-)	7 (u-)	9 (x-)	11 (u-)	Total
<i>Aj.</i>	428	104	17	121	248	686	1604
<i>Ant.</i>	378	115	14	140	234	572	1453
<i>Trach.</i>	382	98	10	108	216	585	1399
<i>OT</i>	473	130	23	189	317	742	1874
<i>El.</i>	437	117	25	157	282	750	1768
<i>Phil.</i>	410	135	26	171	321	715	1778
<i>OC</i>	522	104	10	175	318	788	1917
Total	3030	803	125	1061	1936	4838	11793
%	26	7	1	9	16	41	

Table 1
Localization data for iambic words (based on Schein)

However, as pointed out above (note 10), these numbers include spondaic shapes in positions 1, 5, and 9. A better approximation of the actual number of iambic words (Table 2) can be given by multiplying the numbers above by the frequency of "light" realization of ancepts in these positions.¹²

Position	1'	3	5'	7	9'	11	Total
<i>Aj.</i>	128	104	6	121	136	686	1181
<i>Ant.</i>	125	115	4	140	129	572	1085
<i>Trach.</i>	122	98	4	108	132	585	1049
<i>OT</i>	151	130	8	189	184	742	1404
<i>El.</i>	140	117	9	157	161	750	1334
<i>Phil.</i>	135	135	8	171	173	715	1337
<i>OC</i>	172	104	3	175	188	788	1430
Total	973	803	42	1061	1103	4838	8820
%	11	9	<1	12	13	55	

Table 2
Localization data for iambic words recalculated (1', 5', 9') on the basis of ancept realization

This calculation changes the picture considerably. Position 11 emerges as even stronger, now accounting for more than half of all iambic words,

¹² These are given by Schein on page 36 n. 4. They are not differentiated by word shape, but individual numbers are given for all ancepts positions in each individual play. For positions 1 and 5, the "light" realizations range between 30 and 35 percent; for position 9, between 54 and 61 percent.

whereas position 1 is outnumbered by positions 7 and 9 and has only 11 percent. But how secure is this recalculation? Are two-syllable words as likely as all other kinds to have an anceps element realized as short? Clearly, we cannot expect this to be the case, especially when it comes to the anceps of position 9, where Porson's Law comes into play.¹³

I will now turn to the data I gathered myself as set out in the introduction. It will become clear from Tables 3 and 4 that for iambic words the approximations on the basis of Schein's data are fairly accurate.¹⁴

Position	1	3	5	7	9	11	Total
# of instances	160	132	11	139	120	572	1134
% of total	14	12	1	12	11	50	

Table 3
Iambic words in *Antigone* (910 lines)

Position	1	3	5	7	9	11	Total
# of instances	137	120	6	111	116	594 ¹⁵	1084
% of total	13	11	1	10	11	55	

Table 4
Iambic words in *Trachiniae* (966 lines)

Tables 3 and 4 make it clear that half of all the iambic words go to verse-final position.¹⁶ Iambic words in position 5 are highly rare. This is

¹³ Porson's Law practically excludes the possibility that the anceps in 9 is heavy if there is word-end in position 9. This means that all two-syllable words in position 8 are expected to be trochaic rather than spondaic (i.e., anceps realization as light is not around 60 percent, but nearly 100 percent). As a consequence, applying the overall percentage of anceps realization to estimate the number of iambic words (as opposed to spondaic words) in position 9, and the number of cretics (as opposed to molossi) in position 8, will result in estimates that are too high. See further below, in the discussion of cretics and molossi.

¹⁴ Deviations from the numbers above are in part due to the use of a different text. Schein used Pearson's OCT; I have worked on the Budé text because it is available in electronic format (TLG #D). When I quote actual text, this has been checked against the current OCT (Lloyd-Jones and Wilson). I am assuming that neither the Budé editors nor the OCT editors have been biased toward different word shapes, so that for the purposes of this project the choice of text is not essential.

¹⁵ The discrepancy between Schein's number and my own count here is probably the result of various differences between Schein's method and mine, most of which I already mentioned above: My numbers are bound to increase with respect to Schein's by the number of two-syllable postpositives, such as ποτε, at the end of the line. They are presumably decreased by pairs of monosyllables at line end, of which the second is postpositive (τὰ δέ, τὸ γάρ). Finally, of course, there is the difference between the texts used.

¹⁶ And a look at the total number of lines shows that about sixty percent of all lines end with an iambic word. So the preference works two ways: iambic words prefer final position; line-end prefers iambic shapes.

understandable, since they obviate the most popular, penthemimeral, caesura and necessitate a monosyllable in position 7 to obtain a hephthemimeral caesura. Of the six instances in *Trachiniae*, most are the first word¹⁷ of a new sentence or clause, and seem accordingly important within the clause or even with a resonance beyond that, such as λέχος, surely a keyword for Deianeira:

Trach. 27

τέλος δ' ἔθηκε Ζεὺς Ἀγώνιος καλῶς,
εἰ δὴ καλῶς· λέχος γὰρ Ἡρακλεῖ κριτὸν
ζυστᾶσ' αἰεὶ τιν' ἐκ φόβου φόβον τρέφω,
κείνου προκηραίνουσα.

Trach. 493,¹⁸ 495

ΔΗ. Ἄλλ' ὧδε καὶ φρονοῦμεν ὥστε ταῦτα δρᾶν,
κοῦτοι νόσον γ' ἐπακτὸν ἐξαρούμεθα
θεοῖσι δυσμαχοῦντες. ἀλλ' εἴσω στέγης
χωρῶμεν, ὡς λόγων τ' ἐπιστολάς φέρης,
ἅ τ' ἀντὶ δῶρων δῶρα χρῆ προσαρμόσαι,
καὶ ταῦτ' ἄγης. κενὸν γὰρ οὐ δίκαιά σε
χωρεῖν προσελθόνθ' ὧδε σὺν πολλῷ στόλῳ.

Trach. 743

ΔΗ. Οἴμοι, τίν' ἐξήνεγκας, ὦ τέκνον, λόγον;
ΥΛ. Ὅν οὐχ οἶόν τε μὴ τελεσθῆναι· τὸ γὰρ
φανθὲν τίς ἂν δύναται· <ἀν> ἀγένητον ποεῖν;

Trach. 920

ὅπως δ' ἐτέλεσε τοῦτ', ἐπενθοροῦσ' ἄνω
καθέζेत' ἐν μέσοισιν εὐνατηρίοις,
καὶ δακρῶν ῥήξασα θερμὰ νάματα
ἔλεξεν· “ὦ λέχη τε καὶ νυμφεῖ' ἐμά,
τὸ λοιπὸν ἤδη χαίρεθ' ὡς ἔμ' οὐποτε
δέξεσθ' ἔτ' ἐν κοίταισι ταῖσδ' εὐνήτριαν.”

Trach. 1146

ΗΡ. Ἴου ἰοῦ δύστηνος, οἴχομαι τάλας·
ὄλωλ' ὄλωλα, φέγγος οὐκέτ' ἔστι μοι.
οἴμοι, φρονῶ δὴ ζυμφορᾶς ἴν' ἔσταμεν.
ἴθ', ὦ τέκνον· πατήρ γὰρ οὐκέτ' ἔστι σοι.

¹⁷ By first word, I understand first “Mobile” in terms of Dover (12). A noun that follows a subordinating conjunction, as λόγων does in 493, is “clause-initial.” *Trach.* 743 is borderline. If one accepts colon-formation (in the sense of Fraenkel 1932) with the repeated ἂν and a new start with δύναται, then it, too, is clause-initial.

¹⁸ *Trach.* 493 λόγων τ' yields the caesura Descroix (255) calls “hephth” (“hephthémimère avant élision faite”), a species of hephthemimeral caesura rather than a true *caesura media*. This restrictive definition of the *caesura media* is that proposed by Schmidt, followed by, among others, Maas, Korzeniewski, Descroix, and West. For a different view, see Goodell and Stephan.

Of the iambic words in position 5 in *Antigone* some are keywords like λέχος above, but it is intriguing that relatively fewer are clause-initial than in *Trachiniae*: *Ant.* 281 ἄνους, 314 ἴδοις, 408 ἐκεῖν', 491 ἔσω, 502 κλέος, 513 μιᾶς are not clause-initial; 323 δοκεῖ, 438 κακόν, 521 κάτω, 997 ἐγώ, and 1278 ἔχων are clause-initial.

I pick out these examples because the iambic words in position 5 are so rare; when one percent or fewer of all iambic words end up in this position, it is tempting to look for explanations. However, at this point we need more corroboration than these ad hoc interpretations before we can claim that λέχος or κλέος are indeed of special importance here, and that their position in the line is in fact associated with this importance. To decide on the importance of individual words, the context of the instances should be carefully examined, and, in order to answer the question of whether there is an association of important words with particular positions in the line, they should be compared with the instances of the same words in other positions.

In order to start addressing this question of what it "means" for an individual word to be placed in a less or more preferred slot for words of its shape, I here look at the distribution of a number of more frequent lexemes (λέχος and κλέος themselves are not frequent enough to yield meaningful quantitative data). Table 5 presents data for iambic (mostly second aorist) forms¹⁹ of πάσχω, θνήσκω, μανθάνω, λαμβάνω, κυρῶ, and τυγχάνω in Sophocles, selected for their frequency and formal similarity.²⁰ First of all, I should point out that, as a group, these verbs are more frequent at the end of the verse than iambic words in general, but what is even more interesting is that the virtual auxiliaries κυρῶ and τυγχάνω are much more frequent at the end of the line than πάσχω, θνήσκω, and μανθάνω. The often bland λαμβάνω²¹ falls in between. Admittedly, the numbers involved are small, but the similarity between κυρῶ and τυγχάνω on the one hand and πάσχω, θνήσκω, and μανθάνω does not seem mere chance. It is attractive to conclude that verse-final position is a "default" position, which does not lend prominence to the words that occupy it.²²

¹⁹ Forms that are only iambic by elision (e.g., θανόντ') or prodelision (e.g., 'παθον) have not been counted since they would not fit all possible positions for iambic words. Including these elided words in the numbers for θνήσκω (i.e., θανόντ' as well as τέθνηκ' and τεθνήασ') gives the following totals: position 1: 14 (17%); 3: 10 (12%); 5: 1 (1%); 7: 5 (6%); 9: 9 (11%); 11: 44 (53%); total 83.

²⁰ Formal similarity: same part of speech, same CVCVC forms (where C = consonant, V = vowel).

²¹ By "bland," I here mean the instances of λαμβάνω best translated with "get," where an object noun carries the brunt of the information.

²² Descroix only much later in his book (334 f.) discusses the preference for final position of iambic-shaped words and has some less than charitable comments on the subject: "La recherche systématique de la clause \cup – a conduit à la fin du vers une floraison de dissyllabes qui se répètent et dont on n'a pas assez souligné l'insupportable monotonie" (335). More specifically, on participles (338): "... quelques-uns feraient chez nous figure de chevilles. Mais la faiblesse de leur sens est masquée par le tintamarre bruyant de leur dernière syllabe. N'empêche qu'une analyse décèle ces termes parasites; et l'on pourrait parfois retourner contre la clause \cup – du trimètre la reproche qu'un critique prévenu et partiel, Fénelon, adressait à la

For the bigger picture of word order, this distribution would suggest that it is unwise to attach much a priori credence to the idea that the verse-final position carries "emphasis." The small number of instances of *πάσχω* makes it risky to base any sweeping generalizations on its distribution over the line, but it is interesting to note that it is not only the verb with the lowest frequency at line-end, it is also the only one in the group to have an instance at position 5 (*Phil.* 1359), which, as we tentatively concluded earlier on the basis of the instances in *Trachiniae* and *Antigone*, appears to be a marked position for iambic words. Both facts point in the same direction: *Πάσχω* is more often given prominence than the other verbs examined.

Lexeme	1 (%)	3 (%)	5 (%)	7 (%)	9 (%)	11 (%)	Total
average iamb	(13)	(11)	(<1)	(11)	(11)	(53)	
<i>πάσχω</i>	2 (9)	6 (26)	1 (4)	3 (13)	3 (13)	8 (35)	23
<i>θνήσκω</i>	10 (13)	10 (13)	—	4 (5)	9 (12)	44 (57)	77
<i>μανθάνω</i>	4 (7)	7 (13)	—	4 (7)	7 (13)	32 (59)	54
<i>λαμβάνω</i>	4 (5)	10 (13)	—	2 (3)	5 (6)	57 (73)	78
<i>κυρῶ</i>	1 (3)	—	—	2 (6)	4 (12)	26 (79)	33
<i>τυγχάνω</i>	—	2 (7)	—	2 (7)	1 (4)	23 (82)	28

Table 5

Localization of iambic forms of *πάσχω*, *θνήσκω*, *μανθάνω*, *λαμβάνω*, *κυρῶ*, and *τυγχάνω* in Sophocles

In conclusion, we have found a basic distribution for iambic words that is more specific than the existing accounts. There is a strong preference for verse-final position, with the remaining instances roughly equally divided among positions 1, 3, 7, and 9. Position 5 is extremely rare. The distribution of the iambic word shape in general can serve as a baseline when we look at the localization of individual words. Returning to our initial example from *OT*, we can now say that *μιᾶ* occupies a default position for iambic words. If it is formally marked as salient, then it is by other means than its position at the end of the line.²³

2. Spondaic Words

Starting again with Descroix, we read:

rime de l'alexandrin français. A cet égard, Sophocle laisse échapper quelques négligences de versification dont Racine lui-même ne s'est pas souvent rendu coupable."

²³ See my suggestion in note 1 above.

-- (εἴη, πολλῶν): au 1^{er} et au 5^e pied; plus rarement au 3^e et sous réserve que la césure hephthémimère soit respectée; à cheval sur le 2^e et le 3^e pied, mais non sur le 4^e et le 5^e à cause de la loi de Porson (total: 4).

This translates to positions 1 and 9; more rarely position 5, necessitating a hephthemimeral caesura; position 4; *not* in position 8, which would violate Porson's Law.

Schein (28) says that spondaic words are usually at positions 1, 4, and 9. Like Descroix, he excludes spondaic words in position 8.²⁴ His data, once corrected for the realization of anceps syllables, appear in Table 6.

Position	1 ²⁵	4'	5'	9'	Total
<i>Aj.</i>	300	223	11	112	646
<i>Ant.</i>	253	180	10	105	548
<i>Trach.</i>	260	191	6	84	541
<i>OT</i>	322	242	15	133	712
<i>El.</i>	297	230	16	121	664
<i>Phil.</i>	275	224	18	148	665
<i>OC</i>	350	309	7	130	796
Total	2057	1599	83	833	4572
%	45	35	2	18	

Table 6

Localization data for spondaic words recalculated on the basis of anceps realization

It appears from Table 6 that spondaic words are much more frequent in the first half of the line. This is in accordance with the general observation

Position	1	4	5	8	9	Total
# of instances	232	190	12	—	119	553
% of total	42	34	2	—	22	

Table 7

Spondaic words in *Antigone*

²⁴ Albeit implicitly. His tables XVIII and XIX for word-end at position 9 list only -- as a possibility, not --.

²⁵ Again, the numbers are based on Schein's tables (VII, XIII, XV, XXIII), recalculated to take into account the realization of anceps, as provided in his table on page 36, note 4 (see above, p. 51 n. 12). Resolutions (of the form --, e.g., *Ant.* 419 πεδίον, *Trach.* 372 ἀγορή) are not taken into account here, so total numbers, especially for position 1, should be slightly lower. My own figures below exclude resolutions. *Ant.* has one resolution in position 4, and none in position 1 (unless one wants to include πόλεως, which I read with synizesis). *Trach.* has nine resolutions of the form -- in position 1.

Position	1	4	5	8	9	Total
# of instances	247	210	5	2	109	573
% of total	43	37	1	<1	19	

Table 8
Spondaic words in *Trachiniae*

that stichic metre tends to be more regular in the second half of the line. Tables 7 and 8 present my data for *Antigone* and *Trachiniae*.

These actual counts confirm the approximations given above. As to the two occurrences in *Trachiniae* of a spondaic word in position 8, both are followed by postpositives:

Trach. 718

ἐκ δὲ τοῦδ' ὄδε
σφαγῶν διελθὼν ἰὸς αἵματος μέλας
πῶς οὐκ ὀλεῖ καὶ τόνδε; δόξη γοῦν ἐμή.

Trach. 932

ἰδὼν δ' ὁ παῖς ᾤωξεν· ἔγνω γὰρ τάλας
τοῦργον κατ' ὀργήν ὡς ἐφάπειεν τόδε,
ᾧψ' ἐκδιδαχθεῖς τῶν κατ' οἶκον οὐνεκα
ἄκουσα πρὸς τοῦ θηρὸς ἔρξειεν τάδε.

The presence of the postpositives explains why these instances do not show up in Schein's statistics—they are counted as three-syllable words—and of course, it shows that Porson's Law is not "actually" violated. I should note, however, that these "almost-violations" appear in contexts with an abundance of enjambment and other marked word order phenomena, such as the late interrogative in line 718 and the startling double prolepsis (τοῦργον κατ' ὀργήν) in line 933. This suggests that we will do better not to gloss over these occurrences.

Looking back at our example from *OT* (above, page 47), we see that the spondaic word ληστὰς is in a position that is occupied by the largest group of spondaic words in our sample, amounting to 40 percent of the total number. As a consequence, we cannot attach much importance to the line-initial position as such.²⁶

As was the case with iambic words, spondaic words in position 5 are very rare. The twelve instances in the *Antigone* are as noteworthy as the iambic words discussed above. In three cases no postpositive follows:²⁷

²⁶ See, however, note 1 above.

²⁷ In all of these cases I again assume a "virtual" hephthemimeral caesura (Descroix's "hepht"; see also Schein 38 n. 10, and above, note 18) because the words end in an elided syllable.

Ant. 77 and 80

ἐκεῖ γὰρ αἰεὶ κείσομαι· σοὶ δ', εἰ δοκεῖ,
τὰ τῶν θεῶν ἐντιμ ἀτιμάσασ' ἔχε.

ΙΣ. Ἐγὼ μὲν οὐκ ἄτιμα ποιούμαι, τὸ δὲ
βία πολιτῶν δρᾶν ἔφυν ἀμήχανος.

ΑΝ. Σὺ μὲν τὰδ' ἂν προὔχοι· ἐγὼ δὲ δὴ τάφον
χώσουσ' ἀδελφῶ φιλτάτω πορεύσομαι.

In 77 the two τιμή-derivatives are juxtaposed. This would seem to strengthen Antigone's point that Ismene does the opposite of what a god-fearing person should do. In line 80 Antigone dismisses Ismene's argument as a mere *pretext*. In other, more technical words, I would analyze τὰδε as Topic (colon-initial, as evidenced by ἂν), and προὔχοιο as Focus. To go on in the same vein, note that τάφον, Focus of the next (participial) clause, is preverbal.

In the third example, line 732, I would again say the spondaic word in position 5 carries a lot of weight: "Isn't *such* the disease she is afflicted with?"

Ant. 732

ΚΡ. Οὐχ ἦδε γὰρ τοιᾶδ' ἐπιίληπται νόσῳ;

Antigone 329 is a borderline case. In traditional terms, after all, σύ is not a postpositive. Pending further work on this, I will just point out that σύ follows the first "Mobile" of the clause and can be seen as just as unemphatic in translation as με: "There's no way y'll see me coming *here* again!"

Ant. 329

ΦΥ. Ἄλλ' εὐρεθείη μὲν μάλιστ'· ἐὰν δέ τοι
ληφθῆ τε καὶ μῆ, τοῦτο γὰρ τύχη κρινεῖ,
οὐκ ἔσθ' ὅπως ὄψει σὺ δεῦρ' ἐλθόντα με.

The remaining examples are followed by postpositives, making for a hephthemimeral caesura (or a 'hepht, as in *Ant.* 44). Most are the first word in their clause:

Ant. 44 (θάπτειν σφε is an embedded, infinitival clause)

ΙΣ. Ἡ γὰρ νοεῖς θάπτειν σφ', ἀπόρητον πόλει;

Ant. 689 (main clause)

σοῦ δ' οὖν πέφυκα πάντα προσκοπεῖν ὅσα
λέγει τις ἢ πράσσει τις ἢ ψέγειν ἔχει.

Ant. 745, 747 (τιμάς opens the participial clause; unless one analyzes ἦσσω κτλ. as an embedded clause, supplying ὄντα, ἦσσω is not clause-initial)

- KP. Ἀμαρτάνω γὰρ τὰς ἐμὰς ἀρχὰς σέβων;
 AI. Οὐ γὰρ σέβεις τιμάς γε τὰς θεῶν πατῶν.
 KP. ὦ μιαρὸν ἦθος καὶ γυναικὸς ὕστερον.
 AI. Οὐ τὰν ἔλοις ἥσσω γε τῶν αἰσχροῶν ἐμέ.

Ant. 884 (repeated ἄν, signalling that παύσαιτ' is clause/colon-initial)

- KP. Ἄρ' ἴστ', ἀοιδὰς καὶ γόους πρὸ τοῦ θανεῖν
 ὡς οὐδ' ἄν εἰς παύσαιτ' ἄν, εἰ χρεῖη λέγειν;

Ant. 1054 (ψευδῆ clause-initial)

- TE. Καὶ μὴν λέγεις, ψευδῆ με θεσπίζειν λέγων.

Ant. 1084 (λυπεῖς clause-initial)

- τοιαῦτά σου, λυπεῖς γάρ, ὥστε τοξότης
 ἀφῆκα θυμῷ, καρδίας τοξεύματα
 βέβαια, τῶν σὺ θάλλπος οὐχ ὑπεκδραμεῖ.

Ant. 1108 (στείχοιμ' follows parenthesis)

- KP. ὦδ' ὡς ἔχω στείχοιμ' ἄν· ἴτ' ἴτ' ὀπάονες,
 οἳ τ' ὄντες οἳ τ' ἀπόντες, ἀξίνας χεροῖν
 ὀρμάσθ' ἔλόντες εἰς ἐπόψιον τόπον.

Table 9 shows the distribution of some frequent spondaic words over the trimeter line (included are only the individual forms indicated, except for πολλ-, which includes all spondaic forms of πολύς). I will pick out a few points at which the selected words deviate from the numbers for spondaic words in general. In line-initial position, εἶναι and ἀνδρῶν are clearly less frequent. This is not surprising; εἶναι does not normally occur in clause-initial position and lines and clauses tend to coincide. The few cases of line-initial εἶναι that we do find are not also clause-initial (*OT* 403, 550; *OC* 261, 935). Ἀνδρῶν, although to a lesser degree, shows the same tendency. This word can be so semantically empty that it can be likened to

Lexeme	1 (%)	4 (%)	5 (%)	9 (%)	Total
average spondee	(43)	(36)	(2)	(20)	
εἶναι	4 (15)	15 (56)	—	8 (30)	27
ἀνδρῶν	7 (27)	13 (50)	—	6 (23)	26
οὐδέεις	9 (45)	7 (35)	—	4 (20)	20
πολλ-	25 (48)	8 (15)	—	19 (37)	52
πάντων	10 (50)	8 (40)	—	2 (10)	20

Table 9
 Location of selected spondaic words in Sophocles

an indefinite article (as in ἀνήρ Ἀθηναῖος, “an Athenian,” and the like), and as such it is as unlikely as εἶναι to fill a prominent position in the clause.²⁸ We find exactly this in *OC* 413, however, answering the question κλύουσα τοῦ in the preceding line:

ΟΙ. Ἄ δ' ἐννέπεις κλύουσα τοῦ λέγεις, τέκνον;
 ΙΣ. Ἀνδρῶν θεωρῶν Δελφικῆς ἀφ' ἐστίας.

OT 33 is the only other example of clause-initial ἀνδρῶν, where there is a clear contrast with θεοῖσι two lines earlier:

θεοῖσι μὲν νυν οὐκ ἰσομένός σ' ἐγὼ
 οὐδ' οἶδε παῖδες ἐζόμεσθ' ἐφέστιοι,
 ἀνδρῶν δὲ πρῶτον ἔν τε συμφοραῖς βίου
 κρίνοντες ἔν τε δαιμόνων ξυναλλαγαῖς.

At the other end of the range, the spondaic words frequent in first position, we find words with a high potential for salience: οὐδεῖς, πάντων and πολλ-. When next we consider position 4, we see a higher concentration of εἶναι and ἀνδρῶν, suggesting that this is not a position where one would prefer to place highly salient words. Position 9, finally, gives a mixed picture. Πάντων and πολλ- are at opposite extremes of frequency; perhaps the difference between how the two words are combined with other words (πάντων frequently with superlatives; πολλ- with nouns) goes some way toward accounting for the higher frequency of πολλ- in position 9.

3. Trochaic Words

Descroix puts it simply: “– ◡ (σῆμα, κέρδος): peut chevaucher sur tous les pieds.” That is, trochaic words can occur in positions 2, 4, 6, 8, and 10. Schein states that they are mostly found at 2, 4, and 6.

The numbers as collected by Schein (and corrected for anceps realization in the case of position 4)²⁹ work out to the approximations in Table 10. It turns out that position 6 is by far the most prominent. My own counts for *Antigone* and *Trachiniae* bear out these conclusions (Tables 11 and 12). It is clear that by far the preferred position for trochaic words is position 6. The rarity of trochaic words in position 10 can largely be attributed to the fact that a monosyllable has to follow these words—and monosyllables are rare at line-end.

²⁸ Indefinite constituents are unlikely to be the Topic of a clause, because Topics tend to be established referents. In *OC* 413 ἀνδρῶν θεωρῶν is Focus.

²⁹ See above (note 25) on the numbers for spondaic words. The adjusted numbers given for trochaic words in position 4 equal the total number given by Schein for disyllabics in position 4, multiplied by the percentage of anceps realization as short. For position 8, the unadjusted number is given; see above (note 13) on Porson's Law.

Position	2	4'	6	8	10	Total
<i>Aj.</i>	151	115	361	79	4	710
<i>Ant.</i>	112	84	241	52	2	491
<i>Trach.</i>	143	103	340	103	10	699
<i>OT</i>	160	124	393	109	19	805
<i>El.</i>	143	124	368	90	8	733
<i>Phil.</i>	156	121	343	86	13	719
<i>OC</i>	202	145	419	90	10	866
Total	1067	816	2465	609	66	5023
%	21	16	49	12	1	

Table 10
Localization data for trochaic words recalculated (4') on the basis
of anceps realization

Position	2	4	6	8	10	Total
# of instances	100	73	234	53	3	463
% of total	22	16	51	11	1	

Table 11
Trochaic words in *Antigone*

Position	2	4	6	8	10	Total
# of instances	130	66	304	96	13	609
% of total	21	11	50	16	2	

Table 12
Trochaic words in *Trachiniae*

Table 13 shows the distribution over the various possible positions of several individual lexemes, selected for their frequency in the Sophoclean corpus. I have ordered the table by descending order of frequency in position 6. There is wide variation, and I see no clear pattern emerging here. The one thing that is clear is the early position of ἔστι(ν) compared to the other words, which can be attributed to its preference for "Wackernagel position"—second word in the clause, with countless instances of τί ἔστιν, οὐκ ἔστιν, ἄρ' ἔστιν, etc.

At this point, therefore, it is unclear to me whether there is a difference in prominence between the various possible positions for trochaic words

Lexeme	2 (%)	4 (%)	6 (%)	8 (%)	10 (%)	Total
average trochee	(21)	(13)	(50)	(14)	(1)	
παντός etc.	11 (16)	6 (9)	46 (68)	4 (6)	1 (1)	68
τοῦτο/ταῦτα	32 (17)	20 (11)	111 (59)	15 (8)	9 (5)	187
ἀνδρός etc.	25 (20)	22 (17)	58 (46)	22 (17)	—	127
ἔργον/-α	11 (25)	9 (20)	18 (41)	5 (11)	1 (2)	44
οὐδέν	16 (19)	18 (21)	34 (40)	16 (19)	1 (1)	85
ἔστι(v)	79 (45)	26 (15)	51 (29)	13 (7)	7 (4)	176

Table 13

Localization of trochaic forms of selected lexemes in Sophocles

along the lines suggested above for iambic and spondaic word shapes. In the literature on the trimeter, however, suggestions have been made: Both Schein (30–31) and van Raalte (175, 177) argue that two-syllable words in position 6, being bounded by word-end at positions 5 and 7, the penthemimeral and hephthemimeral caesuras respectively, receive special emphasis as a result, regardless of whether one places the caesura before or after the word in question: Van Raalte speaks of “focusing” and says that “sometimes the effect is even that of a more or less emphatic continuation or addition” (175, in the case of a penthemimeral caesura); in the case of a hephthemimeral caesura she sees the effect as “one of insisting upon the word in poss. 6 and 7, parallel to and intensified by the rhythmically salient positioning.” However, when I look at the trochaic words and their frequency in position 6, I do not see an immediate correlation with salience. Παντός and οὐδέν do not pattern alike, and ἀνδρ- and ἔργον, two words that are frequent in position 6, do not immediately strike one as salient. This would seem to cast some doubt on the alleged focusing effect of this position.

II. Three-Syllable Words

1. Cretics

Descroix states:

- υ - (εὐτυχῶς, φυγγάνω): aux places 2–4, 6–8, 8–10, moins fréquemment 10–12 parce que les mots de 3 syllabes finissent moins bien le trimètre que

ceux de 2 ou de 4, plus rarement encore 4-6 à cause de la césure (total: 4 [sic]³⁰).

To paraphrase Descroix, he predicts the highest frequency at positions 2, 6, and 8 (not differentiating among those three), a low frequency at 10, and the lowest at 4.

Schein (27) actually starts his discussion of localization with the cretic: "A good example of a localized word-shape is - 0 -. In the trimeter, this sequence of syllables can occur as a word [beginning] at positions [2, 4, 6, 8, or 10]. A study of Tables X, XIV, XVIII, XXII, and XXVI reveals that [4] is almost non-existent, [2] and [10] are rare (the former more so than the latter), and [6] and [8] are comparatively common. The word-shape - 0 - is, therefore, localized at positions [6] and [8]."³¹

Position	2	4 (-x-)	4' (-0-)	6	8 (-x-)	8' (-0-)	10	Total ³²
<i>Aj.</i>	26	9	3	111	250	138	100	378
<i>Ant.</i>	25	4	1	98	190	105	93	322
<i>Trach.</i>	18	6	2	94	220	134	123	371
<i>OT</i>	20	7	2	133	214	124	139	418
<i>El.</i>	26	8	3	83	243	139	117	368
<i>Phil.</i>	25	9	3	114	188	102	109	353
<i>OC</i>	25	7	2	164	250	148	151	490
Total	165	50	16	797	1555	890	832	2700
% ³³	6		.6	30		33	31	

Table 14
Cretic words in Sophocles on the basis of Schein³⁴

Schein, then, departs from Descroix. He gives 6 and 8 the highest frequency, followed by 10, then 2, and finally 4. In order to get a clearer idea, I shall first look, in Table 14, at the data that can be derived from the tables in Schein, again adjusted (4', 8') for anepes realization.³⁵ If the

³⁰ His total number of four possible positions may be because he wants to disregard position 4, but is probably an oversight for the correct number of possible positions, five.

³¹ Square brackets in this quote indicate my translation of Schein's indications to mine, which name word shapes by the position at which they *begin*. I should repeat at this point that Schein discusses localization of word shapes only in his chapter on Aeschylus. In fact cretics in Aeschylus's *Septem* and *Ag.* are indeed most frequent in positions 6 and 8.

³² The total and the percentages are based on the adjusted numbers (columns 2, 4', 6, 8', and 10).

³³ See previous note.

³⁴ From here on, I will give unadjusted and adjusted numbers in the same table.

³⁵ The number given in column 8' will still be on the high side, given that it has been calculated on the basis of anepes realization for the aggregate of *all* words in this position and,

approximations in Table 14 are correct, they contradict Descroix's claim about the rarity of position 10, nor do Schein's conclusions for Aeschylus appear to apply in the Sophoclean trimeter.³⁶ Positions 6, 8, and 10 are of equal frequency; position 2 is five times as rare, and position 4 is ten times rarer again than 2.

But before coming to definite conclusions, I will give my own counts, in Tables 15 and 16, for *Antigone* and *Trachiniae*. It should be borne in mind that Schein's numbers for cretics include two-syllable words followed by an enclitic, and that I have counted only individual words.

Position	2	4	6	8	10	Total
# of instances	24	3	95	70	93	285
% of total	8	1	33	25	33	

Table 15
Cretic words in *Antigone*

Position	2	4	6	8	10	Total
# of instances	21	1	89	91	116	318
% of total	7	<1	28	29	36	

Table 16
Cretic words in *Trachiniae*

Despite the variation between the numbers for *Antigone* and *Trachiniae*, it seems clear that in Sophocles, at least, the importance of verse-final position for cretic words should not be underestimated.³⁷ Position 10 even emerges as the most frequent position for cretics in *Trachiniae*. Obviously, it is true that the percentage of line-ends occupied by cretics is low (a little over 10 percent in our sample) so that one can justifiably state, with Descroix, that two- and four-syllable words are preferred for verse-final position. However, the apparent corollary, that line-end for cretic words is avoided, does *not* follow.

as we saw earlier, spondaic words beginning at 8 are extremely rare (see above, p. 52 n. 13). In all likelihood then, the figures for cretic words here need to be adjusted downward and, for molossus (see below), upward.

³⁶ In fact, more than that of any other word shape, the distribution of cretics may be the feature that best distinguishes among the authors of the plays studied in the appendix. If the plays studied are indeed representative of the entire corpus, Aeschylus, Sophocles, Euripides, and the author of *PV* show clearly distinct preferences.

³⁷ Taking *Ant.* and *Trach.* together, the percentages are as follows: position 2: 45 (7%); 4: 4 (<1%); 6: 184 (31%); 8: 161 (27%); 10: 209 (35%).

As was to be expected,³⁸ the actual numbers for position 8 turn out to be much lower than the figures calculated from Schein's data. As for the first half of the line, we see that position 2 in my actual count of *Antigone* and *Trachiniae* is again rare, apparently more so than Descroix realized. Position 4 is extremely rare, comparable to the numbers we have seen for iambic and spondaic words in position 5, and for the same reason: When there is no word-end in 5, one needs a monosyllable in 7 to achieve a hephthemimeral caesura.

Here are the four instances of cretics in position 4 in the two plays:

Trachiniae 18 is the only instance in that play. 'Υστέρω is followed by a postpositive. As Davies notes in his commentary, ὑστέρω and ἀσμένη ("late but welcome") stand in contrast to each other:

χρόνω δ' ἐν ὑστέρω μὲν, ἀσμένη δέ μοι,
ὁ κλεινὸς ἦλθε Ζηνὸς Ἀλκμήνης τε παῖς,
ὅς εἰς ἀγῶνα τῷδε συμπεσῶν μάχης
ἐκλύεταί με.

Of the three instances in *Antigone*, that in line 322 is also followed by a postpositive. With the guard denying responsibility for τό γ' ἔργον τοῦτο, Creon replies that clearly the guard *is* guilty, because burial rites could only have taken place if the guard had been bribed to turn a blind eye to the proceedings, loosely, "Yes you did, and for *money*."³⁹

KP. Οἴμ', ὡς λάλημα δῆλον ἐκπεφυκὸς εἶ.
ΦΥ. Οὐκ οὖν τό γ' ἔργον τοῦτο ποιήσας ποτέ.
KP. Καὶ ταῦτ' ἐπ' ἀργύρω γε τὴν ψυχὴν προδοῦς.

The remaining two instances are not followed by a postpositive:

In *Ant.* 307, we again have Creon speaking. The verb ἐκφανεῖτε is the most salient of the entire conditional clause. Note that the verb is the only really necessary lexical item in the clause: The gist of the clause is εἰ μὴ ἐκφανεῖτ' αὐτόν.

ἀλλ', εἶπερ ἴσχει Ζεὺς ἔτ' ἐξ ἐμοῦ σέβας,
εὖ τοῦτ' ἐπίστασ', ὄρκιος δέ σοι λέγω,
εἰ μὴ τὸν αὐτόχειρα τοῦδε τοῦ τάφου
εὐρόντες ἐκφανεῖτ' ἐς ὀφθαλμοὺς ἐμούς,
οὐχ ὑμῖν Ἀιδῆς μῶνος ἀρκέσει . . .

In *Antigone* 399, καὶξέλεγγε forms a clause by itself so there is nothing we can say about its salience compared to other words in its clause. But clearly

³⁸ See above (notes 13 and 32) for an explanation.

³⁹ Καὶ ταῦτα elaborating on τό γ' ἔργον τοῦτο ποιήσας *without* οὐκ οὖν: "[You did the deed,] and (you did) that by giving away your life for money." I supplied the "Yes you did" in the paraphrase above. Creon's is a variation on the "no such thing as an innocent bystander" topos.

it is forceful. The prominence of the two present imperatives is formally marked with the two καί-s that precede them. The guard saved his own skin only moments ago, and now exhorts Creon to interrogate the suspect to his heart's content:

καὶ νῦν, ἄναξ, τήνδ' αὐτὸς ὡς θέλεις λαβὼν
καὶ κρίνε κάξέλεγχ'· ἐγὼ δ' ἐλεύθερος
δίκαιός εἰμι τῶνδ' ἀπηλλάχθαι κακῶν.

Now that we have looked at the extremely rare cases of cretics in position 4, I turn in Table 17 to the distribution of individual lexemes over the line. It is hard to find words of this shape that are sufficiently frequent for any kind of quantitative analysis, and the material presented here should therefore be treated with caution.

Lexeme	2 (%)	4 (%)	6 (%)	8 (%)	10 (%)	Total
average cretic	(7)	(<1)	(31)	(27)	(35)	
τυγγάνω	1 (5)	—	8 (36)	5 (23)	8 (36)	22
(ἐκ)μανθάνω	1 (4)	—	10 (40)	3 (12)	11 (44)	25
(θ)ἡμέρα	4 (9)	—	11 (24)	12 (27)	18 (40)	45
ἡδονή	2 (9)	1 (5)	3 (14)	7 (32)	9 (41)	22
σ/Ξυμφορά	2 (8)	—	10 (38)	8 (31)	6 (23)	26
ἐλπίς	1 (4)	—	6 (26)	5 (22)	11 (48)	23
ᾄμμα	2 (11)	—	8 (42)	1 (5)	8 (42)	19
φίλτατος	13 (46)	—	4 (14)	5 (18)	6 (21)	28
δύσμορος	1 (4)	—	11 (48)	1 (4)	10 (43)	23
ἄθλιος	5 (24)	—	4 (19)	9 (43)	3 (14)	21
Οἰδίπους	—	—	19 (54)	10 (29)	6 (17)	35
Λαΐος	2 (8)	—	11 (44)	6 (24)	6 (24)	25
ἄρτιος	—	—	10 (32)	9 (29)	12 (39)	31

Table 17

Localization of cretic forms of selected lexemes in Sophocles

The six words in this group in which position 10, the most frequent position for cretics, is outnumbered by other positions, are συμφορά, φίλτατος, δύσμορος, ἄθλιος, and the proper names Οἰδίπους and Λαΐος. I think these words can legitimately be called more prone to prominence than the other words in the table, but I should point out that this “deviant” group is by no means homogeneous in its distribution. Φίλτατος clearly owes its frequency in position 2 to its use in address. Ἄθλιος is frequently used in combination with an iambic noun to end a line, e.g., ἄθλιον δέμας, which

accounts for the high percentage of instances in position 8.⁴⁰ The remaining words in the “deviant” group are most frequent in position 6, so that if we want to assume that there *is* a position of choice for “emphatic” cretics (other than position 4, discussed above) it would be position 6.⁴¹

2. Molossi

Descroix: “--- (αἰρεῖσθαι): à la position 8–10 (rarement 4–6).” Schein does not mention the molossus in his discussion of localization. The molossus statistics (Table 18) as derived from Schein’s data are, of course, the mirror image of those for cretics in positions 4 and 8, and give numbers that are too low for position 8.⁴²

Position	4 (-x-)	4' (---)	8 (-x-)	8' (---)	Total ⁴³
<i>Aj.</i>	9	6	250	112	118
<i>Ant.</i>	4	3	190	85	88
<i>Trach.</i>	6	4	220	86	90
<i>OT</i>	7	5	214	90	95
<i>El.</i>	8	5	243	104	109
<i>Phil.</i>	9	6	188	86	92
<i>OC</i>	7	5	250	102	107
Total	50	34	1555	665	699
% ⁴⁴		5		95	

Table 18
Molossus-shaped words in Sophocles on the basis of Schein

Faced with such a strong preference for one position, one should first of all refrain from statements about why a particular molossus-shaped word has ended up in position 8.⁴⁵ The numbers so overwhelmingly favor this position that no additional motivation is needed for individual cases. Conversely, we should never let a molossus in 4 go unnoticed, but ask

⁴⁰ Δύσμορος, which would seem semantically very similar, is far less often used attributively.

⁴¹ I am not sure how to treat position 2. One thing that I think speaks against the assumption that cretics in position 2 are emphatic is that in most of these lines there is a hepthemimeral rather than a penthemimeral caesura.

⁴² See above, notes 13 and 32.

⁴³ Totals and percentages are again based on the adjusted numbers (4', 8').

⁴⁴ See previous note.

⁴⁵ See above, note 2.

ourselves how it came to be in that position.⁴⁶ It is difficult with the few examples we have in *Trachiniai* and *Antigone* (Tables 19 and 20) to say anything definite, beyond the observation that the molossus in position 4 is likely to receive prominence not just because of its unexpected position but also because it is likely to be immediately followed by a caesura (the rare *caesura media*, at *Ant.* 1021⁴⁷; Descroix's "hepht" at *Trach.* 667, 691), by a postpositive (yielding a normal hephthemimeral caesura: *Ant.* 556, 1017, 1048, 1194; *Trach.* 543, 731), or both (*Trach.* 63: εἴρηκεν δ', another "hepht").

Position	4	8	Total
# of instances	5	112	117
% of total	4	96	

Table 19
Molossi in *Antigone*

Position	4	8	Total
# of instances	5	127	132
% of total	4	96	

Table 20
Molossi in *Trachiniai*

3. Amphibrachs

Descroix: "⊖ – ⊖ (ἀνακτι, δύσορμος): aux places 1–3, 3–5, 5–7, 7–9, 9–11 (total: 5)." Descroix here lists all five theoretically possible positions but gives no further comments, in effect implying that there is no clear preference for a particular position or positions. Schein states that words of the shape × – ⊖ are most usual at positions 1 and 5, and those shaped ⊖ – × at position 3. While leaving uncertainty as to the relative frequencies of amphibrachs in positions 1, 3, and 5, it is clear that Schein sees the word shape ⊖ – ⊖ as concentrated in the first half of the verse. His numbers for Sophocles, with adjustments, are given in Table 21. The statistics suggest that while it is true that amphibrachs are generally concentrated in the first half of the line, in fact position 3 is the preferred position for amphibrachs, even accounting for a higher proportion (43 percent) than positions 1 and 5

⁴⁶ I am not advancing any hypotheses of my own here but will await publication of work by Nicholas Baechle, who treats the molossus and other intractable word shapes.

⁴⁷ Not discussed by Stephan.

together in the corpus taken as a whole. Tables 22 and 23 give my own results for *Antigone* and *Trachiniai*.

Pos.	1 x-∪	1'	3 ∪-x	3'	5 x-∪	5'	7	9 x-∪	9'	Total
<i>Aj.</i>	177	53	318	108	122	41	28	10	6	236
<i>Ant.</i>	153	50	259	83	142	45	19	13	7	204
<i>Tra.</i>	193	62	278	97	155	54	30	16	10	253
<i>OT</i>	105	34	378	129	138	47	49	16	9	268
<i>El.</i>	222	71	349	122	159	56	44	10	6	299
<i>Phil.</i>	170	56	289	92	125	40	34	12	6	228
<i>OC</i>	217	72	389	117	133	40	33	13	7	269
Total	1237	398	2260	748	974	323	237	90	51	1757
%		23		43		18	13		3	

Table 21
Amphibrach-shaped words in Sophocles on the basis of Schein

Position	1	3	5	7	9	Total
# of instances	74	52	77	19	12	234
% of total	32	22	33	8	5	

Table 22
Amphibrachs in *Antigone*

Position	1	3	5	7	9	Total
# of instances	99	91	82	26	14	312
% of total	32	29	26	8	4	

Table 23
Amphibrachs in *Trachiniai*

These numbers paint yet a different picture. Position 1 is more frequent than position 3 in both plays, and in *Antigone* position 3 is even outnumbered by position 5. I have also looked at the distribution of some individual words of this shape (Table 24), again selected for their frequency in Sophocles.⁴⁸ These numbers are frustratingly opaque. To be sure, it is clear that some words (μάλιστα, τέθνηκα, τοιοῦτος) are relatively more

⁴⁸ The averages here are computed on the basis of my total counts for *Ant.* and *Trach.*: position 1: 173 (32%); 3: 143 (26%); 5: 159 (29%); 7: 45 (8%); 9: 26 (5%); total: 546.

Lexeme	1 (%)	3 (%)	5 (%)	7 (%)	9 (%)	Total
average amphibrach	(32)	(26)	(29)	(8)	(5)	
μάλιστα	13 (48)	6 (22)	4 (15)	3 (11)	1 (4)	27
δίκαιος	8 (28)	6 (21)	8 (28)	2 (7)	5 (17)	29
ἔγειν	2 (12)	6 (35)	5 (29)	3 (18)	1 (6)	17
πάρειμι	12 (23)	15 (28)	10 (19)	8 (15)	8 (15)	53
τέθνηκα	8 (53)	4 (27)	3 (20)	—	—	15
θανεῖν	7 (16)	16 (36)	11 (25)	7 (16)	3 (7)	44
γυναικός etc.	11 (25)	9 (20)	17 (39)	7 (16)	—	44
ἐκεῖνος	2 (7)	12 (41)	6 (21)	8 (28)	1 (3)	29
ἔοικα	5 (17)	8 (28)	11 (38)	5 (17)	—	29
τάλαινα	—	14 (64)	7 (32)	1 (5)	—	22
τοι-/τοσόσδε	7 (28)	6 (24)	8 (32)	3 (12)	1 (4)	25
τοι-/τοσοῦτος	36 (65)	10 (18)	4 (7)	3 (5)	2 (4)	55

Table 24
Localization of amphibrach-shaped forms of selected lexemes in
Sophocles⁴⁹

frequent at position 1 and that this can be explained from their usual prominent place in utterances.⁵⁰ But for most of the words concerned, finding an explanation is not that straightforward. In fact, while the object of this paper is a description of word placement in terms of word shape and position in the line, we should not lose sight of the importance of the position of these words in their *clauses*. Consider δίκαιος. From the table, it looks as if this word can go anywhere in the line, but in fact the word is subject to constraints of a quite different order. It appears predominantly before the verb, and in the examples below we see that while the position in the line varies, the syntax of *Ant.* 400 and 662 on the one hand, and *OC* 825 and 831 on the other hand, is remarkably similar. These examples suggest that when we are dealing with a relatively “tractable” word shape such as the amphibrach, the statistics for position in the line are really a secondary

⁴⁹ For the various lexemes, only the amphibrach forms were collected, so for ἔχω and θανεῖν mainly forms of the participle. I kept τέθνηκα separate from θανεῖν because the numbers were so different. Of course, the usual caution about doing statistics with small numbers applies.

⁵⁰ In Dover’s terms (20) they are “preferential Mobiles”: words prone to early position in the clause (even in Sophocles, line beginnings more often than not coincide with clause beginnings).

phenomenon, showing only the blurred reflexes of other determinants of order.⁵¹

Ant. 400

καὶ κρῖνε κάξέλεγχ'· ἐγὼ δ' ἐλεύθερος
δικαιός εἰμι τῶνδ' ἀπηλλάχθαι κακῶν.

Ant. 662

ἐν τοῖς γὰρ οἰκείοισιν ὅστις ἔστ' ἀνὴρ
χρηστός, φανεῖται κὰν πόλει δικαιος ὢν.

OC 825

ΧΟ. Χώρει, ξέν', ἔξω θάσσον. οὔτε γὰρ τὰ νῦν
δίκαια πράσσεις οὔθ' ἄ πρόσθεν εἴργασαι.

OC 831

ΟΙ. ᾿Ω γῆς ἀνακτες. ΧΟ. ᾿Ω ξέν', οὐ δίκαια δρᾶς.

4. Palimbacchii

Descroix: “--ο (σῶζουσι): aux places 1–3, 5–7, 9–11 (total: 3).” Again, no clarification from Descroix on where this word shape actually ends up most frequently. Schein had collapsed amphibrachs and palimbacchii under $x - \cup$ and stated that this form is most frequent in positions 1 and 5. His statistics, with my adjustments, are found in Table 25. First of all, it is clear

Position	1 $x - \cup$	1'	5 $x - \cup$	5'	9 $x - \cup$	9'	Total
<i>Aj.</i>	177	124	122	81	10	4	209
<i>Ant.</i>	153	103	142	97	13	6	206
<i>Trach.</i>	193	131	155	101	16	6	238
<i>OT</i>	105	71	138	91	16	7	169
<i>El.</i>	222	151	159	103	10	4	258
<i>Phil.</i>	170	114	125	85	12	6	205
<i>OC</i>	217	145	133	93	13	6	244
Total	1237	839	974	651	90	39	1529
%		55		43		3	

Table 25
Palimbacchii in Sophocles on the basis of Schein

⁵¹ Borrowing a phrase from Dover (31), discussing syntactical statistics of word order, which “suggest with increasing force that all patterns of order which are describable in syntactic terms are secondary phenomena.” I will defend elsewhere the claim that the primary phenomenon, in tragedy as in prose, is pragmatics.

that position 9 is very rare. In addition, Table 25 suggests a preference for position 1 over position 5. My numbers confirm the rarity of position 9 but do not bear out the preference for position 1. Instead (Tables 26 and 27), there is an equal distribution between positions 1 and 5.

Position	1	5	9	Total
# of instances	54	54	2	110
% of total	49	49	2	

Table 26
Palimbacchii in *Antigone*

Position	1	5	9	Total
# of instances	73	73	4	150
% of total	49	49	3	

Table 27
Palimbacchii in *Trachiniae*

Unfortunately words of this shape belong to a wide variety of lexemes, hardly any of which occurs more than half a dozen times in the corpus. This word shape seems better defined by the frequency of some endings (feminine singular participles, dative plural of nominal forms, etc.) rather than by a group of frequent lexemes. The meager harvest of lexemes that recur in the corpus with some frequency is presented in Table 28.

Lexeme	1	5	9	Total
average palimbacchius	49%	49%	2%	
δύστηνος	6	24	1	31
ἔχθιστος	4	4	—	8
χωρέω/στείχω	12	8	1	21
ἔλθ-	8	4	1	13
ἔξοιδα	9	2	1	12
ἀκούω	5	7	—	12

Table 28
Localization of palimbacchius-shaped forms of selected lexemes in Sophocles⁵²

⁵² Again, only palimbacchius-shaped words were collected for this table. For most verbs this meant participles.

5. Bacchii

Descroix: “ $\cup - -$ (ἀπείργειν, ὀπλίται): à l’unique place 3–5 dans la tragédie, et aussi 7–9 dans la comédie où l’application de la loi dite de Porson est facultative.” Indeed, this, in O’Neill’s terms, is the one “perfectly localized” word shape in the set of two- and three-syllable words we have examined here. The absence of choice in this matter leaves little to discuss (see Table 29). My actual counts for *Antigone* and *Trachiniae* were 184 and 160, respectively.

Position	3 $\cup - x$	3'
<i>Aj.</i>	318	210
<i>Ant.</i>	259	176
<i>Trach.</i>	278	181
<i>OT</i>	378	249
<i>El.</i>	349	227
<i>Phil.</i>	289	197
<i>OC</i>	389	272
Total	2260	1512

Table 29
Bacchii in Sophocles on the basis of Schein

Conclusion

As I stated in my introduction, the purpose of this paper has been to investigate the placement in the Sophoclean trimeter of some of the most common word shapes. I should reiterate that the paper’s primary function is as a foundation for a larger investigation of word order in the trimeter. But that said, I think that it is clear from the preceding discussion that whereas some long-standing ideas about the importance of particular positions in the trimeter line probably have some truth to them, such as that of two-syllable words in position 5 and three-syllable words in position 4, others, such as the importance of verse-final position, find little basis in the evidence collected here. Since I found that my own expectations that someone, somewhere, would have published a similar study were frustrated, I have thought it worth while to publish these results here.

A number of important questions remain, which can all be subsumed under the larger heading of how word order in the iambic trimeter works. Questions that come to mind include: Are there other metrical constraints

on word order? Is the importance of verse-initial position as overrated as that of verse-final position? Perhaps more annoyingly for readers of this paper, I have skirted around some issues of definition and used notions of "prominence," "salience," "importance" more or less interchangeably. I will return to these questions elsewhere.

In the meantime, I have thought it useful to compare my results for two of Sophocles' plays with four other plays. In an appendix, I give the results of my counts for Aeschylus' *Agamemnon* and *Septem*; Euripides' *Bacchae*; and *Prometheus Bound*. I offer the results to show, first of all, that the technique of trimeter composition shows great resemblance among the various authors. However, divergences can also be observed among authors and between the individual plays of the same authors. A more sophisticated approach than simple counting is needed to decide whether word shape statistics can be useful in the debate about the authorship of *PV*, but I will point to some apparent deviations of *PV* below.

Appendix: A Comparison of Word Shapes in Aeschylus, Sophocles,
Euripides, and *PV*

In reading the tables below, note that in the three rows for each play, the following numbers are given: In the first row, the total number of occurrences for each position in the line is given. E.g., in Aeschylus' *Septem* (Table 30), there are 103 iambic words in position 1, and there are 562 iambic-shaped words in the whole play. The second row indicates that 22 percent of all lines start with an iambic word, and the third row shows that 18 percent of all iambic words in *Septem* can be found in the first position in the line.⁵³ All tragedians share the predilection for final position for iambic words that was observed for Sophocles, and, similarly, in all plays position 5 is extremely rare for iambic words.

	1	3	5	7	9	11	Total
<i>Sept.</i> (#)	103	39	3	73	64	280	562
% of lines	22	8	<1	15	13	58	
% of total	18	7	1	13	11	50	
<i>Ag.</i>	170	69	7	89	117	529	981
	20	8	<1	11	14	63	
	17	7	1	9	12	54	
<i>PV</i>	142	86	8	100	71	444	851
	18	11	<1	13	9	57	
	17	10	1	12	8	52	
<i>Ant.</i>	160	132	11	139	120	572	1134
	18	15	<1	15	13	63	
	14	12	1	12	11	50	
<i>Trach.</i>	137	120	6	111	116	594	1084
	14	12	<1	11	12	61	
	13	11	1	10	11	55	
<i>Bacch.</i>	152	84	7	136	82	552	1013
	17	9	<1	15	9	61	
	15	8	1	13	8	55	

Table 30
Iambic words

⁵³ The total number of lines counted in the plays is as follows: Aesch. *Septem* 479, *Ag.* 841; *PV* 773; Soph. *Ant.* 910, *Trach.* 966; Eur. *Bacch.* 901 (bracketed lines omitted, 756–57 combined).

	2	4	6	8	10	Total
<i>Septem</i>	27	30	130	8	—	195
	6	6	27	2	—	
	14	15	67	4	—	
<i>Ag.</i>	66	62	213	17	—	358
	8	7	25	2	—	
	18	17	59	5	—	
<i>PV</i>	68	64	196	26	4	358
	9	8	25	3	<1	
	19	18	55	7	1	
<i>Ant.</i>	100	73	234	53	3	463
	11	8	26		<1	
	22	16	51	11	1	
<i>Trach.</i>	130	66	304	96	13	609
	13	7	31		<1	
	21	11	50	16	2	
<i>Bacch.</i>	83	70	220	45	4	422
	9	7	24		<1	
	20	17	52	11	1	

Table 31
Trochaic words

PV deviates from the Aeschylean norm in its placement of trochaic words (Table 31) in position 10, which I did not find in *Septem* or *Agamemnon*. Trochaic words in this position necessitate a monosyllable at line-end, on which see Griffith 87–91.

	1	4	5	8	9	Total
<i>Septem</i>	128	131	4	—	34	297
	27	27	<1	—	7	
	43	44	1	—	11	
<i>Ag.</i>	244	161	10	1	62	478
	29	19	<1	<1	7	
	51	34	2	<1	13	
<i>PV</i>	199	166	11	4	98	478
	26	21	<1	<1	13	
	42	35	2	1	21	
<i>Ant.</i>	232	190	12	—	119	553
	25	21	<1	—	13	
	42	34	2	—	22	
<i>Trach.</i>	247	210	5	2	109	573
	26	22	<1	<1	11	
	43	37	1	<1	19	
<i>Bacch.</i>	231	231	5	—	144	611
	26	26	<1	—	16	
	38	38	1	—	24	

Table 32
Spondaic words

The distribution of spondaic words (Table 32) in *PV* shows a greater resemblance to the non-Aeschylean plays, especially in position 9.

	2	4	6	8	10	Total
<i>Septem</i>	9	1	76	53	37	176
	<1	<1	16	11	7	
	5	1	43	30	21	
<i>Ag.</i>	20	3	143	106	57	329
	<1	<1	17	13	7	
	6	1	43	32	17	
<i>PV</i>	16	4	117	65	64	266
	<1	<1	15	8	8	
	6	2	44	24	24	
<i>Ant.</i>	24	3	95	70	93	285
	<1	<1	10	8	10	
	8	1	33	25	33	
<i>Trach.</i>	21	1	89	91	116	318
	<1	<1	9	9	12	
	7	<1	28	29	36	
<i>Bacch.</i>	22	4	123	66	93	308
	<1	<1	14	7	10	
	7	1	40	21	30	

Table 33
Cretic words

In my earlier discussion of cretics I noted that the distribution seemed peculiar to the various tragedians. Note in particular the difference (Table 33) in proportions between positions 6, 8, and 10: roughly, 4:3:2 for Aeschylus, 2:1:1 for *PV*, 1:1:1 for Sophocles, and 4:2:3 for Euripides. Of course, it remains to be seen if this pattern holds for all the plays not taken into account here.

	1	3	5	7	9	Total
<i>Septem</i>	36	26	26	7	2	97
	8	5	5	<1	<1	
	37	27	27	7	2	
<i>Ag.</i>	58	81	66	12	2	219
	7	10	8	<1	<1	
	26	37	30	5	1	
<i>PV</i>	58	55	48	20	12	193
	8	7	6	<1	<1	
	30	28	25	10	6	
<i>Ant.</i>	74	52	77	19	12	234
	8	6	8	<1	<1	
	32	22	33	8	5	
<i>Trach.</i>	99	91	82	26	14	312
	10	9	8	<1	<1	
	32	29	26	8	4	
<i>Bacch.</i>	55	54	35	21	13	178
	6	6	4	<1	<1	
	31	30	20	12	7	

Table 34
Amphibrachs

With regard to the amphibrachs in position 9 (Table 34), *PV* again reflects its author's relative freedom compared to the Aeschylean norm with monosyllables in final position.

	4	8	Total
<i>Septem</i>	—	65	65
	—	14	
	—	100	
<i>Ag.</i>	3	113	116
	<1	13	
	3	97	
<i>PV</i>	3	97	100
	<1	13	
	3	97	
<i>Ant.</i>	5	112	117
	<1	12	
	4	96	
<i>Trach.</i>	5	127	132
	<1	13	
	4	96	
<i>Bacch.</i>	2	89	91
	<1	10	
	2	98	

Table 35
Molossi

As is obvious from Table 35, all tragedians put the overwhelming majority of molossi in position 8.

	1	5	9	Total
<i>Septem</i>	36	24	—	60
	8	5	—	
	60	40	—	
<i>Ag.</i>	46	41	2	89
	5	5	<1	
	52	46	2	
<i>PV</i>	62	38	1	101
	8	5	<1	
	61	38	1	
<i>Ant.</i>	54	54	2	110
	6	6	<1	
	49	49	2	
<i>Trach.</i>	73	73	4	150
	8	8	<1	
	49	49	3	
<i>Bacch.</i>	65	34	5	104
	7	4	<1	
	61	33	5	

Table 36
Palimbacchii

Sophocles is exceptional in that he does not favor position 1 for palimbacchii (Table 36). The other authors show a clear preference for position 1 over position 5. Position 9 is rare in all authors.

<i>Septem</i> (total number)	117
(% of lines)	24
<i>Ag.</i>	205
	24
<i>PV</i>	164
	21
<i>Ant.</i>	184
	20
<i>Trach.</i>	160
	17
<i>Bacch.</i>	141
	16

Table 37
Bacchii

Bacchii occur only in position 3. In Table 37 the total number of occurrences for each play is given, followed by the percentage of the total number of lines. E.g., in Aeschylus, *Agamemnon* there are 205 bacchii, and they occur in 24 percent of all lines.

University of Chicago

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