

Chapter 4

Caesura

The Nature of Caesura

We have inherited the term *caesura* from classical prosody; critics use it as if it were obvious what it refers to. However, like so many notions, caesura has undergone some substantial metamorphoses between classical Greek and Latin quantitative verse and English syllabo-tonic poetry. In our day, various critics use the term in different meanings. Some critics refer by “caesura” to a boundary at the *middle* of a line; Fussel (1965: 27), on the other hand, speaks of initial, medial and terminal caesura. He defines caesura as “a rhetorical or extrametrical pause or phrasal break within the poetic line” (ibid, also in *Encyclopedia of Poetry and Poetics*). In Shipley’s *Dictionary* we find a similar definition: “A perceptible break in the metric line, properly defined as expressional pause”. This conception has been challenged by Chatman (1960) and Levin (1971). Chatman argues (much in harmony with the present study) that in many cases it may be difficult to distinguish between *break* as a feature of the text and as a feature of the performance. It is *the potential* of the break that exists in the verse line, whether realized or not, not the break itself. Although I embrace this conception of caesura, I am not sure that Chatman would agree with some details of the view propounded below (indeed, it contradicts his definition in respect to *terminal juncture*). Chatman amends the Shipley definition of *caesura* to “a perceptible break in the performance of a line, properly described as an interlinear terminal juncture” (161). “This change is necessary because not all junctures contain pauses, and there seem to be several other kinds of phonetic phenomena, like pitch change, change in intensity (fade), and lengthening of final syllables, which operate in differing combinations to signal terminal junctures” (166).

Levin (1971: 184-185) goes one important step further. He regards caesura as a metrical, not a linguistic fact; it is a poetic convention. The line exerts a pressure for completion upon which the caesura obtrudes. “If caesura is regarded as the syntactic pause or break, nothing is left to explain the required sense of metrical impulsion across that break” (185). “The case is clearer in classical metrics, where caesura requires that a word end within the metrical foot.¹ Here, then, it is not only the pressure to end the line that impels a forward movement, but also the pressure to complete the foot” (192 n.).

While Levin insists that for him “caesura”, defined as a metrical convention, “is not a boundary of any sort” (personal communication, January 31, 1973), Lotz

¹ Terry Brogan comments in the “Caesura” entry of the New Princeton Encyclopedia that “it was not so used by the ancients” .

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(1960) says that lines “may have an internal organization into *segments* characterized by certain types of word boundaries called *caesurae*” (139). The two notions are by no means irreconcilable. The present theory regards them as two aspects of the same phenomenon. Caesura *organizes* in one respect and constitutes an *opposing term* in another respect. The line exerts pressure for *completion* but, at one and the same time, for segmentation too. In some lines, the two pressures may strike a precarious balance; when, however, the balance of the line is upset, the two pressures may diverge in direction. Consider:

1. A little Learning is a dangerous Thing.
2. The proper study of Mankind is Man.

A “metrical impulsion” is felt through both lines. In both lines there is no major syntactic boundary; in both, the syntactic boundary dominated by the highest node (between NP *and* VP) is the one preceding *is*. It need not be signaled by any of the phonetic phenomena mentioned by Chatman. In excerpt 1 this boundary occurs after position 5, where it has a double action, it opposes and, by the same token, heightens the line’s pressure for completion. At the same time, it appears to confirm an expectation for an as yet undefined kind of boundary. That this is so, may be apparent from a comparison with excerpt 2, where a similar syntactic boundary occurs after position 8 (Barnet *et al.*, 1960: 92, quote it as an example of caesura). Here the resulting pressure for completion is felt to be higher; at the same time, it is felt that in the mid-area of the line something is, definitely, overridden by syntax. The relationship between propulsion, word boundary and caesura is illuminated by Jakobson (1960: 364-365), in a comparison with the Serbian epic caesura.

Unable to abstract its rules, he [the Serbian peasant reciter of epic poetry] nonetheless notices and repudiates even the slightest infringement of these rules. Any line of Serbian epics contains precisely ten syllables and is followed by a syntactic pause. There is furthermore a compulsory word boundary before the fifth syllable and a compulsory absence of word boundary before the fourth and tenth syllable...

This Serbian epic break, along with many similar examples presented by comparative *metrics*, is a *persuasive warning against the erroneous identification of a break with a syntactic pause*. The obligatory word boundary must not be combined with pause and is not even meant to be perceptible by the ear. The analysis of Serbian epic songs phonographically recorded proves that there are no compulsory audible clues to the break, and yet any attempt to abolish the word boundary before the fifth syllable by an insignificant change in word order is immediately condemned by the narrator. The grammatical fact that the fourth and fifth syllables pertain to different word units is sufficient for the appraisal of the break (My italics).

Now we are in a position to specify what “*a certain type of word boundary*” means in Lotz’s account. We shall adopt from Levin’s argument the idea that caesura is a metrical (rather than a linguistic) fact, which, nevertheless, can be described in linguistic terms. We shall adopt from Chatman the notion that caesura is a potential (rather than an actual) break, which, in performance, may be signaled by a variety of phonetic correlates besides an actual break, or, as Jakobson suggested, by no audible clues at all. Consequently, we have to modify Chatman’s conception of caesura as a terminal juncture, to caesura as a metrical boundary frequently coinciding with a syntactic juncture, ranging from word boundary to major syntactic boundaries. We shall have to include in our procedure, *mutatis mutandis*, the implications of the “compulsory word boundary before the fifth syllable, and a compulsory *absence* of word boundary before the fourth and tenth syllables”. (Although it belongs to a different system of versification, the Serbian epic line as described by Jakobson may be illuminating of certain crucial problems in English syllabo-tonic verse).

Since we have briefly touched upon all the other aspects mentioned, we shall start with a consideration of the last item, that is, compulsory presence or absence of word boundary. First of all caesura, in its classical use, is not a boundary at *any* point of the line, *wherever* the relevant syntactic feature happens to fall. Caesura occurs at a point *prescribed by convention*. According to Lotz, the caesura internally *organizes* the line into *segments*. This aspect is highlighted by the compulsory absence of word boundary at *certain* points of the line in the Serbian epic. We shall have to account, structurally, for this feature too, and to translate it into terms applicable to English verse. It should be noticed that in the Serbian epic the tenth syllable is followed by a syntactic pause and preceded by a compulsory absence of word boundary; the fourth syllable is followed by a compulsory word boundary and preceded by a compulsory *absence* of word boundary. This demonstrates the grouping function of the fourth and tenth syllables. The fourth syllable is to be grouped with the preceding syllables and segregated from the subsequent ones; it *ends* and marks off a perceptual unit and so does the tenth syllable. Incidentally (or, perhaps not incidentally?) we have found (in Chapter 1) that in the iambic pentameter verse of diverse English poets it is precisely the fourth and tenth positions that most frequently carry the burden of metric grouping.

From what we have already seen of English iambic metre, it would appear quite hopeless to look for anything compulsory in this body of verse. Considering the abundance of monosyllabics in English, we should expect, least of all, compulsory *absence* of word boundary in English verse. This, however, does not exempt us from offering a description of caesura that does acknowledge the absence of word boundary if it happens to be there. If English caesura has no predictable structure, it *has* a significant structure describable after the event. What is more, it may have a greater or lesser articulating power, depending on the perceptual forces involved. The

caesura occurs, by definition, at the middle of the line. The articulating power of the caesura depends on:

3. the “caesura-fixing power” inherent in the line,
4. the nature of the linguistic boundary involved,
5. the grouping power of stress-displacement, if any, within the segments.

These factors may act in conjunction or disjunction. Accordingly, caesura may be more or less positively fixed, or overridden by syntax. In what follows, I propose to discuss the dynamism involved.

The line derives its “caesura-fixing power” from three factors:

3.
 - a. simplicity of parts
 - b. length of line
 - c. structure of segment.

(3a) The greater the simplicity (symmetry) of parts, the more clearly they stand out and the clearer the boundaries between them, the more clearly it will be discerned as a caesura. In the iambic metre, lines in which the number of metrical positions is dividable by four have greater inherent caesura fixing power than the iambic pentameter (which cannot be divided into two halves of equal length and metric pattern). (3b) The longer the line, the greater its caesura-fixing power. As it has been argued in Chapter 2, the span of immediate memory is fixed at about seven English syllables [± 2]. Consequently, segments that are longer than five positions require clearer grouping, sharper articulation at the caesura than shorter segments. As for lines shorter than eight positions, their rhythmic pattern can be kept in the immediate memory with no need for segmentation. (3c) Fowler (1966: 88) has observed “that the smaller the grammatical unit concerned, the greater its resistance to being stretched over a metrical boundary” (this principle is extensively discussed in relation to enjambment in Tsur, 1972). When a major syntactic boundary occurs *near* the middle, the midmost syntactic segment tends to override caesura (unless the caesura-fixing power of the line is even greater).

As for the caesura-fixing power of the syntactic boundary, it will be useful to follow Halliday (1961) in distinguishing a hierarchy of syntactic units: sentence, clause, group (/phrase), word, morpheme; each item constituting a lower “rank” than the preceding one. “Abstracting out those of lexis, where the selection is of open sets, we find that the remaining, closed system, patterns are associated with stretches that not only are of differing extent but also appear as it were one inside the other, in a sort of one-dimensional Chinese box arrangement” (250). This scale may be extended at both extremes. Typically, the lower its rank, the shorter the unit. In some cases, however, the exponent of the lowest rank may be, at the same time, the exponent of all the higher units also. In answer to a question, the phoneme “I” con-

stitutes a syllable, that constitutes a morpheme, that constitutes a word, that constitutes a group, that constitutes a clause, that constitutes a sentence, that constitutes a paragraph. It would make little sense to “skip” over all the intervening ranks and to assert that this paragraph consists of a single phoneme. The boundaries of units constitute a scale: the higher the rank of the unit, the greater the weight of its boundary. It is the boundaries of the higher units (usually marked by punctuation) that have the greatest power to confirm or to override caesura (depending on their position). But where these are absent, some *relatively* strong boundary—when coinciding with metrical boundary—may do. Of the possible degrees of relative strength to confirm caesura, though further “delicacy” of description is possible, I should single out the following three degrees (in decreasing order of strength):

6.
 - a. a major syntactic juncture,
 - b. a boundary that is of higher rank than the boundary after the immediately adjoining words,
 - c. a boundary that is not of lower rank than that of the immediately adjoining words.

In (6b) and (6c), a polysyllabic immediately adjoining the caesura (that is, an *absence* of word boundary immediately preceding or following it) tends to enhance it. (6a) and (6b), occurring at the middle, enforce caesura; occurring after any of the immediately adjoining positions, they run counter to it. After the third or fifth position of an iambic tetrameter line they tend to outweigh the caesura-fixing power of the middle. In the iambic hexameter, the caesura-fixing power of the line tends to outweigh (6b) even after the fifth or seventh position, and in some cases it tends to outweigh even (6a). A polysyllabic that overrides the caesura in a tetrameter line may generate tension; a polysyllabic that overrides the caesura of a hexameter line, may generate serious difficulties of grouping and may render the line unrhythmical, chaotic (cf. excerpt 13). In short, the syllables that immediately precede and follow the caesura, syntactically cluster in opposite directions (away from the caesura) or, at least, are not prevented from being grouped in opposite directions, under the caesura-fixing power of the line.

To sum up, then, the majority of verse lines that contain eight positions or more are segmented into roughly two halves by a boundary called “caesura”. Certain incompatible statements of various theoreticians concerning the nature of the caesura can easily be reconciled by suggesting that the conflicting statements refer to two indispensable yet clearly distinct aspects of the same phenomenon. Caesura *organizes* in one respect and constitutes an *opposing term* in another respect. As gestalt psychologists have insisted time and again, segmentation may facilitate the perception of a complex whole. On the other hand, there is a “required sense of metrical impulsion across the break” (Levin, 1971: 185). The opposing term *intrudes*, and elicits a sense of *impulsion across* it. As Miller (1970) has argued in a well-known paper, the span of immediate memory is fixed around the magical number seven,

9. Which was like Cain's or Christ's—oh! that it should be so!
(*ibid.*, 306).
10. The silence of the hart's accepted sacrifice (*ibid.*, 315).
11. While thy cold embers choke the sordid hearth of shame (*ibid.*,
342).
12. The caruer Holme, the Maple seeldom inward sound
(Spenser, *Fairie Qvene*, I. i. 5.9)
13. In profuse strains of unpremeditated art (Shelley, "To a Skylark 5)

Such lines require the observation of the caesura, if they are to be perceived as rhythmical units. In excerpts 8 and 9, syntactic boundaries of various degrees unambiguously confirm caesura. In 10, the caesura occurs in the middle of a possessive phrase, after *hart's*. If one observes a clear-cut break here, syntax becomes seriously distorted. One may, however, perform the line by prolonging *hart's*, not observing a stop after the word. (Remember the click experiment which proves that the boundary of a cognitive unit *can* be perceived, even if there is no acoustic indication of its existence). In this way, a feeling is generated that there is here a caesura as well as a "required sense of impulsion across the [non-existent] break". In 12, the caesura occurs in the middle of the word *Maple*; hence it is more difficult to perform the verse line as a rhythmical unit. Still, a performance of the kind suggested for 10 is conceivable. In the iambic hexameter, then, there are two reasons for the perception of a caesura: the subdivision forced by the simplicity of parts, and the need for the segmentation of a perceptual unit that exceeds the span of immediate memory. The verse line can be perceived as rhythmical only if both the syntactic and prosodic units are established as perceptual wholes. When the boundaries of the two coincide, this is easily done. When, however, the two occur at different points of the verse line, special techniques of mental and vocal performance (see Tsur, 1992 a: Chapters 2 and 6) are required. In the absence of such a performance, the verse line falls apart. When, however, such performance establishes them as perceptual units, each of the latter strives to reassert itself in the reader's perception, and impetuous perceptual forces may arise.

Caesura in the Iambic Pentameter

So far, we have considered verse lines whose number of positions is divisible by four. In iambic verse, such lines are divided by caesurae into segments that have exceptionally strong shapes. The resulting segments are similar in both length and structure, and have the same number of positions (four or six); each one begins with a weak position and ends with a strong position. This is not so in the iambic pentameter: many critics have intuitively observed that it has considerably greater integrity than either the iambic tetrameter or the iambic hexameter. I claim that the present discussion may account for this intuition. On the one hand, as I have sug-

gested, the iambic pentameter is the longest line that can be perceived as a rhythmical unit without some kind of segmentation. On the other hand, it cannot be divided into segments of equal length and equal structure. Consider the following three lines (from sonnets by Milton, Keats and Shakespeare):

14. When I consider // how my light was spent
 15. When I have fears // that I may cease to be
 16. They that have power to hurt // and will do none

A major syntactic boundary divides each one of these lines at or near the middle. In excerpt 14, it divides the line into two segments of equal length: 5 + 5; their structure, however, is unequal: the first segment begins and ends with a weak position, whereas the second segment begins and ends with a strong position. In excerpts 15 and 16, on the other hand, the two segments have similar structures: both begin with a weak position and end with a strong one. Their lengths, however, are unequal: 15 divides into 4 + 6; 16 into 6 + 4.

The foregoing discussion leads to several conclusions. First, there is no single point in the iambic pentameter line which would divide it into two equal halves. If syntactic structure does not require segmentation, the line can be perceived as an unsegmented unit, as in the following line:

17. Oh that this too too solid flesh would melt

Second, rather than being limited to a single point, a caesura *region* occurs in expanding over positions 4, 5, and 6. If a relatively high syntactic boundary occurs after one of these positions, it is perceived as confirming the caesura. That is, precisely, what happens in excerpts 14-16. When more syntactic boundaries than one occur in this region, the highest boundary (or the one that is not lower than the adjacent ones) is perceived as confirming the caesura. Third, the phrase “perceived as confirming the caesura” has been carefully chosen. As I have suggested, a syntactic boundary does not create, only confirms the caesura: it is the verse line’s perceptual structure that determines its place. Indeed, the iambic pentameter line’s perceptual structure determines the fact that in it the caesura may occur after any one of three positions. Whenever the line’s perceptual structure changes, the place of the caesura may shift from one position to another. Consider the following line:

18. Invoke thy aid to my advent’rous song.
 (*Paradise Lost* I, 13).

In this line, the caesura occurs after *aid* in position 4. Suppose however, that we add two more syllables to the verse line, turning it into an iambic hexameter, thus:

19. Invoke thy aid to my advent’rous song of praise.

If one continues to observe a caesura after *aid*, excerpt 19 is liable to fall apart. Here the caesura, in harmony with the perceptual needs of the iambic hexameter, is automatically shifted to after *my* in position 6, even though this happens in mid-phrase. Here, exactly as in 10, a feeling is generated of a caesura as well as a “sense of impulsion across the [non-existent] break”.

Marked and Unmarked Caesura

Notice that in excerpts 15 and 16, the caesura divides the line into two segments of similar structure but unequal length. According to this description, the caesura after position 4 and after position 6 ought to be of a similar nature. They are not, however. It is quite frequently felt that a caesura after position 6 generates greater tension than after position 4. One of the most widely held assumptions in the cognitive research of language is that when two or more co-ordinate items follow one another, the longer member comes last. Paraphrasing Cooper and Ross (1965: 92), members which are easier to process (in this case, which are shorter) tend to occupy the first place(s), enabling the listener to handle the preliminary processing of this member, while new information is still presented to him by the speaker. “There is a general tendency for the weight of syntactic structure to occur late rather than earlier in the sentence, so as to avoid strain on a person’s short-term memory in the course of constructing and interpreting sentences” (Leech, 1974: 197). This would suggest that a caesura after position 4 is more natural, one after position 6 more “marked”. If this is true, we should expect caesurae to occur significantly more frequently after position 4 than after position 6. And if I am right that caesura is a perceptual rather than a linguistic phenomenon, this should be so in a variety of (perhaps, all) languages, both in syllabotonic and non-syllabotonic poetry, as well as, *mutatis mutandis*, in music. Indeed, Cooper and Meyer (1960: 61) have found that this principle of the longest item comes last works outside linguistic communication, in music, too. It would be but reasonable to expect that whenever a pentameter line is divided into segments of four and six, segmentation into 4 + 6 would be more natural than 6 + 4.

I have assigned the caesurae, according to the procedure described above, in the first one hundred lines of Shakespeares sonnets, *Paradise Lost*, “An Essay on Criticism”, and the first one hundred decasyllabic lines in *Faerie Qvene* and “Adonais”. The following table shows the number of lines in which caesurae occur after the fourth, fifth, or sixth position; “double” indicates lines in which two approximately equal major syntactic boundaries occur within the region of balance (which is not the same as indeterminacy). The difference between “total” and 100, in each poet, indicates the number of lines in which either syntax overrides caesura, or the assignment of caesura would have reflected personal inclination rather than an objectively assigned property of the line.

	Shakespeare	Milton	Pope	Spenser	Shelley
after IV	33	25	42	47	39
after V	32	24	32	18	15
after VI	14	23	9	27	18
double	<u>1</u>	<u>1</u>	<u>6</u>	<u>—</u>	<u>1</u>
total	80	73	89	92	73

All the poets examined have more lines in which the caesura occurs after the fourth position than after the sixth. Pope has almost five times as many, Shakespeare and Shelley only somewhat over twice as many, and Spenser somewhat less than twice as many. The exception in this context is Milton; there is no significant difference in the number of caesurae after positions 4, 5 and 6. We have to conclude, then, that the unmarked form is, beyond doubt, the caesura after position 4. In Chapter 1, I have distinguished between convergent and divergent poetry. We have found that in Milton's divergent poetry, contrasts were typically blurred (as, for instance, by stressed syllables in weak positions and unstressed ones in strong positions, and by divergent patterns of alliteration). As I have shown in Chapter 1, the divergent effect of Milton's poetry cannot be accounted for merely by the *number* of deviating stresses, but only by his having recourse to the marked options in a wide range of versification devices, of which stressed syllables in weak positions are only one and marked caesura appears to be another.

Another feature needs explanation. In other respects, Shelley's style is as divergent as Milton's (in some respects even more). In this particular respect of caesura, however, he deliberately prefers the form which we have decided to be the unmarked one. This would suggest, what is quite reasonable to believe, that the aspects in which there is an opposition marked/unmarked, are independent variables (within the range of *solidarity* I have established between them). We seem to categorize, intuitively, a certain passage as divergent or convergent according to whether the marked or unmarked forms outweigh the others. The absence or scarcity of any particular unmarked form in a passage may not be criteria for judgment. High occurrence of unmarked forms is to be taken for granted in divergent style too (by definition, the frequency of a marked form is smaller than, or equal to, the frequency of the corresponding unmarked form). Furthermore, I have shown in my book (Tsur, 1977: 200-203), by comparing the use of Spenserian stanza by Spenser and Shelley, that Shelley, who is one of the most deviant poets in my sample, may become more regular than Spenser at certain points — one of the most regular poets of my sample. This is most conspicuous in the sixth position of the dodecasyllabic lines which, not as in *Faerie Qvene*, in "Adonais" is invariably followed by a caesura and which is the only metrical position in which no deviation occurs throughout this deviant poem. The explanation offered for this remarkable regularity in the sixth position of the dodecasyllabic lines of this poem may probably account for Shelley's preference for the unmarked caesura. Shelley's deviance is anything but chaotic; un-

like Donne, he takes deliberate (though inconspicuous) measures to keep his highly divergent verse cohesive.

By essentially the same procedure, I have assigned the caesurae to a random number of iambic pentameter lines by three Hebrew and two Hungarian poets (ibid., 82):

	Shlonsky	Goldberg	Halkin	József	Tóth
after IV	54	123	13	28	30
after V	—	25	4	51	34
after VI	2	76	11	14	10
double	4	9	1	3	3
other	—	<u>5</u>	<u>3</u>	<u>2</u>	<u>3</u>
total	60	238	32	98	80

The same tendency is visible in some decasyllabic verse outside syllabotonic meter. In French syllabic poetry, decasyllabic lines are relatively rare. I have checked two of Villon's ballades (65 lines), and all the decasyllabic poems in Baudelaire's *Les Fleurs du Mal* (94 lines). The overwhelming majority of caesurae in these poems occurs after position IV (49 in Villon, and 64 in Baudelaire).

Performance of Caesura

In what follows, I shall consider a few examples from Shakespeare: from the Sonnets and from Hamlet's "To be or not to be" soliloquy, as performed by some of the leading British actors on commercially available recordings. I shall scrutinize their performance of a typical instance of caesura and also their solutions in verse lines where caesura is problematic. How are, then, caesurae indicated in actual performances? Performers need not pause at the caesura; they may merely hint at it by some other, less obvious vocal device. Let us consider a school example of such a performance, in Gielgud's reading of the line

20. Or to take arms against a sea of troubles

Here the highest syntactic boundary within the verse line (and certainly within the region of caesura) is after the fourth position ("arms"). There is no measurable pause between "arms" and "against"; in fact, the /s/ is run into the reduced vowel. But there are two features which indicate discontinuity at this point. First, notice the word "arms" between the markers: it is 564 msec long. There is no need to measure the other content words "take, sea, troubles" to see how much longer it is than they are. Such lengthening usually indicates in speech (just as in music) the end of the preceding perceptual unit. Second, this word has been assigned a rising-falling intonation contour, the most elaborate contour in the line. This is a typical terminal

contour, bestowing, by the same token, exceptional stress upon the word (the fact that some of the falling intonation occurs on the /m/ helps to maintain the naturalness of the speech, while still contributing to the terminal quality). The result is that the line is clearly articulated into two segments (4 + 6) without disrupting syntactic continuity.

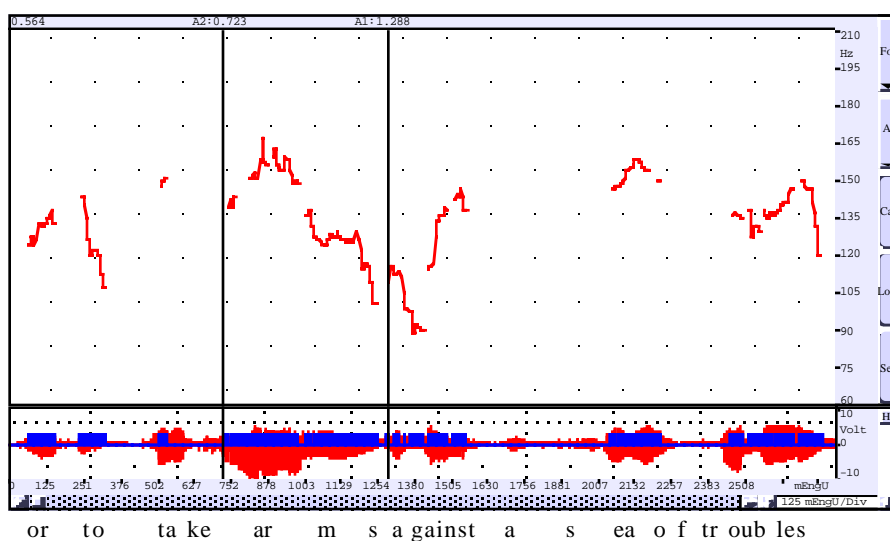


Figure 1 Wave plot and pitch contour of “Or to take arms against a sea of troubles” in Gielgud’s reading

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Simon Russel Beale, though a competent reader, is usually less attentive than Gielgud to the subtleties of poetic rhythm. In the present instance there is a faint feeling that the caesura is “all right”, but it is very evasive. The duration of “arms” in his reading is only 324 msec; a glance at the wave plot shows that the other content words are not so drastically shorter: by comparison, the duration of the syllable “-bles” (in “troubles”) is 367 msec (here the lengthening of this unstressed, vowelless syllable does indicate line ending). There is a falling intonation curve on “arms”, but considerably more moderate than that in Gielgud’s reading. (At any rate, when listening to this reading, this curve is perceived as much more conspicuously falling than that on “sea”; perhaps, because its span of falling is spread over a longer time period). But the most interesting and most evasive cue is what Knowles calls “segmental discontinuity” at the caesura. At first we thought there was a glottal stop before “against”; but the spectrogram shows no sign of this. Finally we discovered an even more evasive source of segmental discontinuity. The final /s/ in “arms” occurs between two voiced phonemes; and normally it should be coarticulated (that is, voiced) with the adjacent speech sounds, as in Gielgud’s reading. Beale, however, carefully articulates it as voiceless; and this gives a mere hint of discontinuity.

As I have suggested, caesura is generated by the perceptual dynamics of the line, and may be “confirmed” or “overridden” by syntax. If there are no cues to the contrary, linguistic knowledge may (very faintly) confirm caesura. So, at the beginning I tended to believe that here the case is similar to what Jakobson said of the performance of caesura in the Serbian epic: “The grammatical fact that the fourth and fifth syllables pertain to different word units is sufficient for the appraisal of the break”. But careful scrutiny still helped to find some effective, but very evasive cues for caesura. As I have pointed out time and again in the present study, the stronger the closure at the line ending, the more salient the perceptual dynamics generated within the line. In the present instance, the prolongation of the final syllable and a short, 64 msec pause after the line and the intonation pattern to some extent do supply a rather effective perceptual closure. The faint cues for discontinuity pointed out here keep Beale’s reading just within what is acceptable. This kind of tightrope walking is quite characteristic of Beale.

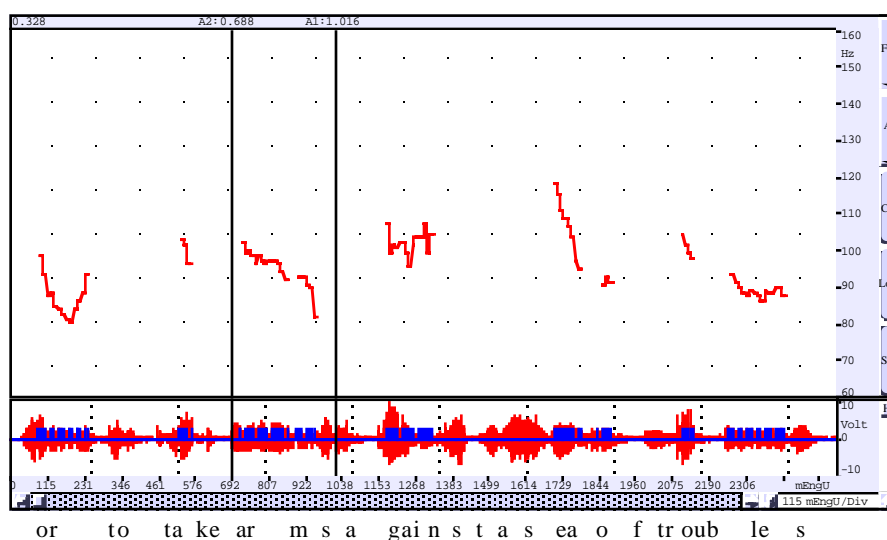


Figure 2 Wave plot and pitch contour of “Or to take arms against a sea of troubles” in Beale’s reading

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The recording of Branagh’s reading is of very poor quality. Fortunately, the pitch contours of “arms against” are complete in this graph. We see on “arms” a pitch contour very similar to that in Gielgud’s reading; and the duration of this word is 300 msec, conspicuously longer than that of any syllable in the other content words. What seems (and also sounds) quite surprising in this reading is the exceptional prominence of the syllable “-gainst” both in duration and in intonation. This over-stressing is reinforced by the minute pause discernible on the wave plot between “a-” and “-gainst”, which is perceived by the listener as the over-articulation of the boundary between the two syllables (see in Chapter 9). The over-stressing of this

preposition has an obvious rhetorical purpose. But nilly-willy it also has some rhythmical effect, and there is some precedent for this, as below, in excerpt 22.

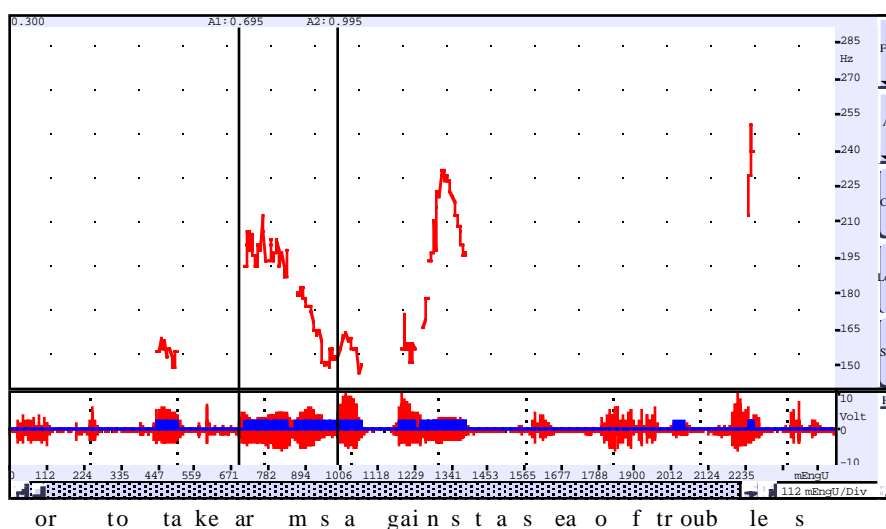


Figure 3 Wave plot and pitch contour of “Or to take arms against a sea of troubles” in Branagh’s reading

Listen to sound file

Syntax Overriding Caesura

Now consider line 14 of Sonnet 4. Most editions indicate in one way or other the following syllabic division for it:

21. Which, usèd, lives th’executor to be.

Such a pronunciation generates a rather regular verse line, in which all stressed syllables (and only one unstressed syllable) occur in a strong position. It also assigns a comfortable caesura after the fourth position (occupied by “lives”), generating a first hemistich segmented into three distinct perceptual units. There are good reasons to suppose that such a reading may have been quite acceptable to Shakespeare and his contemporaries.

This is, indeed, how Simon Callow utters the words (figure 4): “usèd” as disyllabic, and “th’executor” as a single word, leaving little trace of the vowel of “the”. I should make one preliminary observation. In this performance, Callow exceeds even Gielgud in voice dynamics, ranging from about 91 to about 280 Hz. After “usèd” there is a straightforward 267 msec pause. The intonation contour on “used” is elaborate in all three performances; but here it is exceptional indeed. The pitch on /u/ resets from 165.789 to 279.114 Hz, and then falls to 202.294 Hz. The peak comes

rather late in the vowel. Most probably, this unusual intonation serves to clarify meaning (in print, this is done by the commas before and after “usè”). This innocent-looking past participle is embedded here between the relative pronoun “which” and the predicate “lives”, while the meaning of a whole (subordinate) clause is squeezed down in it: “when it is used”. The segregation of the word by pause and intonation serves to clarify this complex structure. By the same token, the late peak generates an impetuous forward drive across the break, preserving the continuity of the syntactic unit, and imputing this forward drive to the whole line. The longish pause after “usè” intrudes upon the integrity of the hemistich which, in turn, strives to reassert itself. The forward drive is perceived as pushing across this pause.

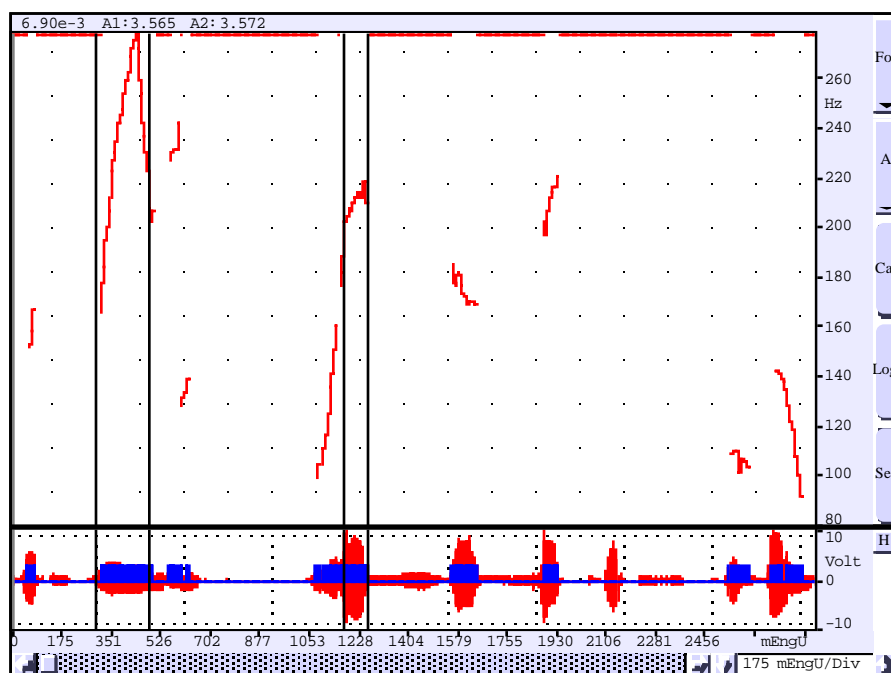


Figure 4 Wave plot and pitch extract of “Which, usè, lives th’executor to be” in Callow’s reading.

Listen to sound file

“Lives”, too, displays an exceptionally long and steep pitch rise, generating, among other things, an additional impetuous forward drive. This drive is most functional here. This time, it is caesura after position IV that demands a discontinuity, while meaning, again, requires continuity. There is no measurable pause here. Discontinuity is indicated, first of all, by the noted pitch discontinuity after “lives”, and second, by a segmental discontinuity between the words, arising from an impression

that the /z/ of “lives” is unduly lengthened.² Such lengthening is usually perceived as suggesting a discontinuity after it. As a result, a distinct break indicating a caesura is perceived, with a forward impulse across it, indicating continuity of meaning.

This highly sophisticated reading is the more “conservative” performance of this complex line. It may suggest some of the problems involved in the rhythmical performance of a line in which caesura is matched with syntactic complexity. However, the “poetic diction” indicated in excerpt 21 would not be very popular with *our* contemporaries. Consequently, both Gielgud and Marlowe Society pronounce the words of the line as follows:

22. Which, us’d, lives the executor to be.

Such a pronunciation involves the performer in two considerable problems. First, it displaces in mid-line a stress from a strong into the weak position on the left; and second, it forces the string of words to override caesura. There is a major syntactic boundary after the first and second positions; the next highest boundary is after the third one (“lives”); in these circumstances, the word boundary of the article “the” in mid-phrase can hardly confirm a caesura; the next word boundary is after the eighth position—thus, caesura is overridden. The combination of the two deviations threatens the perceptual integrity of the verse line.

Gielgud masterfully preserves the perceptual integrity of the verse line—and in a way that is fully consistent with the cognitive conception propounded in the present work. I have argued that in order to preserve the perceptual integrity of a deviant line, the phonetic material must be manipulated in such a way that it is brought within the scope of short-term memory; and that mental processing space is saved such that the regularly alternating weak and strong positions of the metric pattern be perceptible behind the immediately observable sequence of irregularly alternating stressed and unstressed syllables. It has been argued that such saving of mental processing space can be achieved by two kinds of operations: over-articulation and grouping. Over-articulation may occur at the phoneme level, or at the syllable boundary level. Instrumental analysis can provide evidence for phoneme articulation only in exceptional instances; but syllable boundary articulation may be effected by pause or intonation contour. In Gielgud’s performance, “lives” is preceded by a 363-msec-long, and followed by a 639-msec-long pause, making a substantial contribution to articulation. In “us’d” the vowel is followed by an exceptionally prolonged /zd/ which too enhances discontinuity. But most conspicuous is the rising-and-falling intonation contour that articulates it: from 132.467 to 164.848 to 112.967 Hz.

² As has been repeatedly emphasized throughout the present study, there is no objective standard to measure whether a certain phoneme is longer or shorter than ought to be. The only evidence is one’s impression supported, perhaps, by the measurable relative length of the various phonemes in the same word: l: 119 msec; i: 103 msec; v: 109 msec; s: 178 msec.

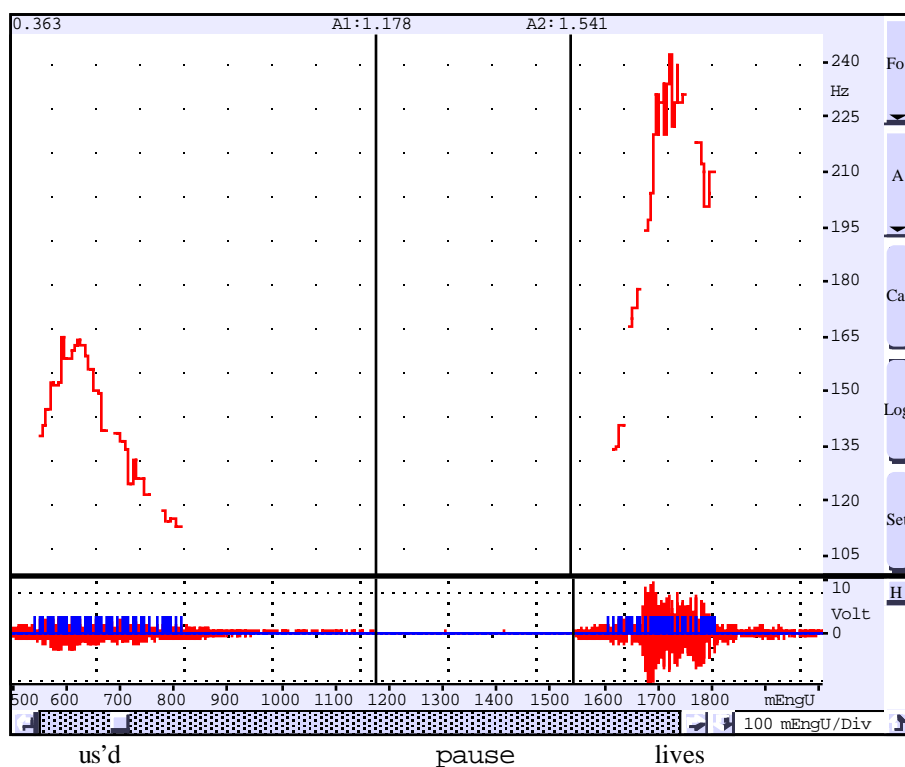


Figure 5 Wave plot and pitch extract of “used, lives”, in Gielgud’s reading.

Listen to sound file

Most important is the dynamics initiated by the displacement of stress (“lives”) from the fourth (strong) to the third (weak) position. This infringement upon metre arouses expectations for confirmation by a stressed syllable in a strong position; when this expectation is fulfilled, relief is experienced, and metre becomes “fresh and new”. For this to happen, the sequence of syllables must be experienced as a perceptual unit. This is effected in Gielgud’s reading by two related devices. As Cooper and Meyer pointed out, a steeply rising pitch sequence or intensity sequence (crescendo) has a marked forward grouping effect (it leads, so to speak, forward). In the present instance, the F_0 contour of “lives” rises from 134.063 to 241.897 Hz (nearly an octave), then falls to 200.491 Hz, rising again to 209.948. The exceptionally strong accent on “lives” is apparently similar in Callow’s and in Gielgud’s reading; but has a very different effect. In musical performance, the placing of some extra accent may affect the grouping of sounds. Since there is a tendency for accents to *begin* a group, the placing of accent on a strong beat tends to articulate the sequence in beginning-stressed groups; an accent on a weak beat, presents the group as end-stressed (Cooper and Meyer, 1960: 8). Thus, in Callow’s reading it enhances the “focal stability” in the last position of the segment; in Gielgud’s reading it arouses an unsatisfied

craving for accent at the end of the group, impelling toward the next stressed syllable in a strong position.

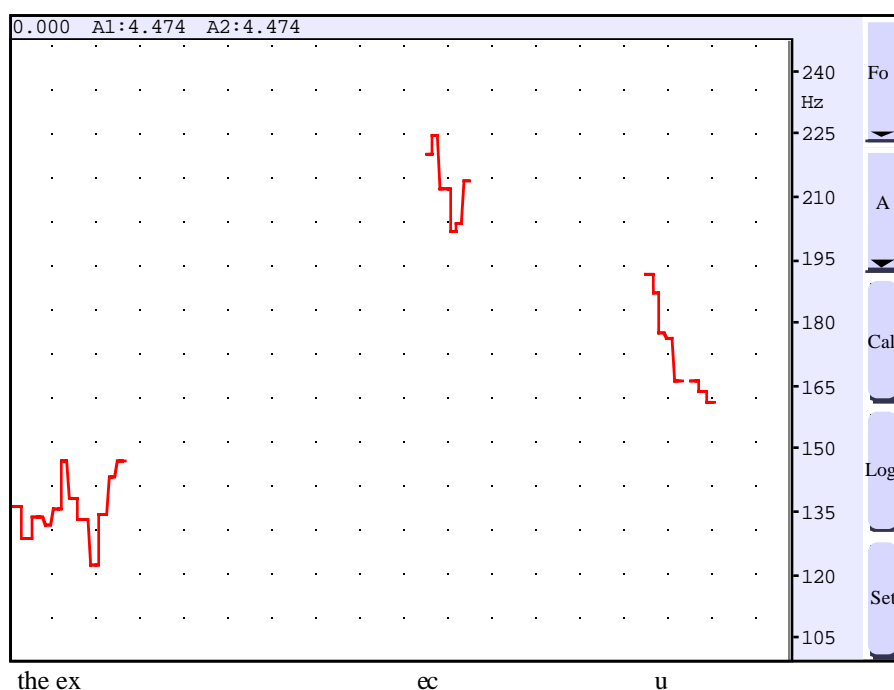


Figure 6 Pitch extract of “the execu-” in Gielgud’s reading.

Figure 6 shows the pitch obtrusion on the stressed syllable of “exécutor”. Though not as prominent as on “lives”, it is prominent enough emphatically to confirm the strong position, reinstating metre. Figure 7 shows the energy plot of the verse line. Very little is known about the integration of loudness in the perceived effect of speech; it is usually less effective than pitch or duration.³ But here Gielgud’s use of loudness is remarkable indeed. The obtrusion of the energy peak on “lives” is beyond all proportion; it is, indeed, more than twice (95.152:41.068) as high as the next highest peak (which, again, occurs on the stressed syllable of “exécutor”). As some of Gielgud’s other readings demonstrate, pitch and loudness are independent variables, even though in the present instance they join forces for a common effect: to generate an impetuous forward drive. Thus they emphatically group “lives” with the subsequent phrase, even across the long pause. Some Gestalt theorists would say that the resulting perceptual unit “lives the exec-” preserves even enhances its perceptual integrity in front of the intruding pause.

³ Thus, for instance, Fry (1958) found that, contrary to laymen’s intuition, loudness is the least effective acoustic cue for stress: it is overridden by duration which, in turn, is overridden by pitch change.

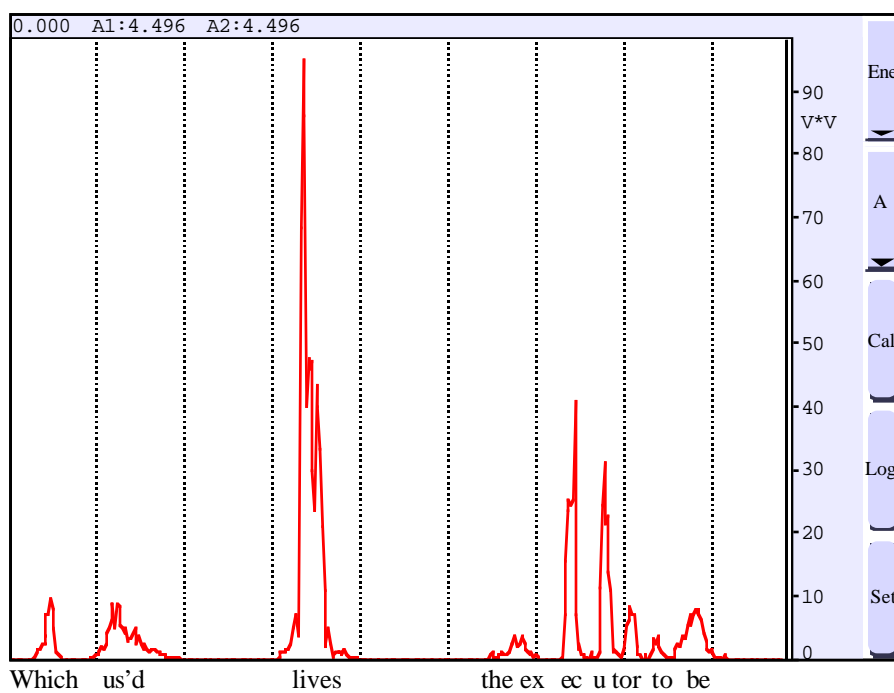


Figure 7 Energy plot of “Which, us’d, lives the executor to be” in Gielgud’s reading.

Listen to sound file

Now let us consider Marlowe Society’s reading of the same line. Their basic conception is identical with Gielgud’s. They also pronounce “used” as a monosyllabic, and “the ex-” as two distinct syllables. However, this is one of the rare instances in which this group of highly professional players displays some carelessness.

One, relatively negligible issue concerns the intonation contour of “lives”. While both Gielgud and Callow are very particular in effecting a late peak on the vowel of this syllable, in this performance peak occurs right in its middle. Forward push is generated only by the steeply rising pitch contour. In listening this is experienced as a much more moderate drive across the caesura.

When listening to this reading, some rhythmic incompleteness is experienced at the syllables “the ex-”. More careful listening suggests that the boundary between the two vowels is underarticulated, that is, they are somehow run one into the other, so to speak. As a result, one has an uneasy feeling that a metrical position is somehow missing here. (The solutions concerning the syllables “the ex-” in the three delivery instances are discussed at great length in the Chapter “Disyllabic Occupancy of Metrical Position”).

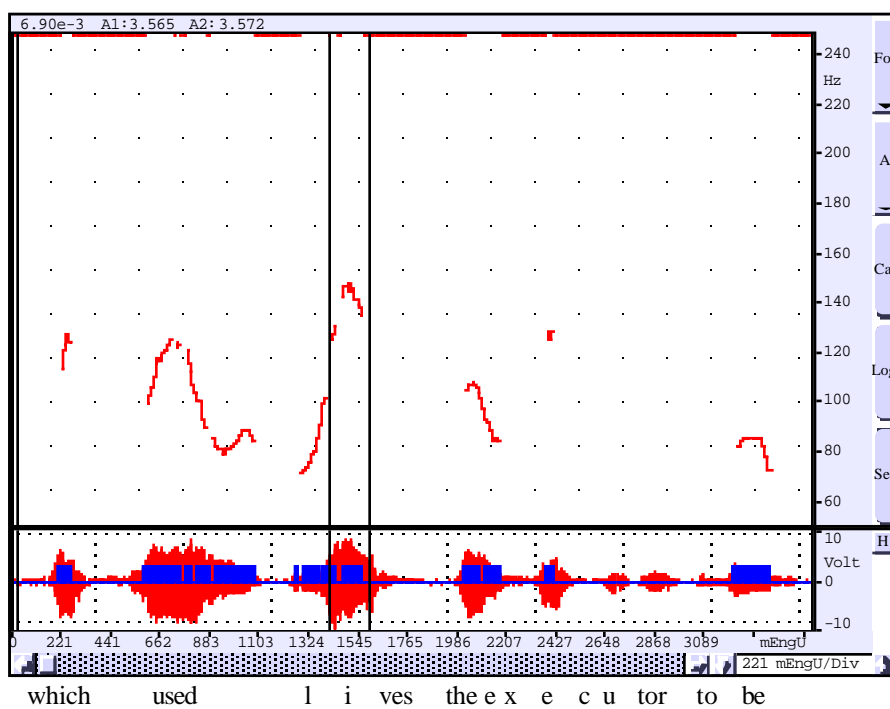


Figure 8 Wave plot and pitch extract of “Which, us’d, lives the executor to be” in Marlowe Society’s reading.

Listen to sound file

Caesura and Preposition

Now consider the following two lines (2: 7-8), the first of which contains some almost insurmountable complexities:

23. To say within thine ówn déep-súnken eyes
Were an áll-éating shame and thriftless praise.

The most conspicuous and most difficult complexity in this line is the compound “deep-sunken”, beginning in a weak position. Furthermore, there is here a rather unusual kind of syntactic complexity: the whole of this line is the subject phrase of the predicate that occurs in the next line; and the subject phrase consists of a reporting phrase (“to say”), and a reported phrase (the rest of the line). But there is another difficulty here too, namely, that the assignment of caesura is quite problematic. We will focus here on the attempts to solve this latter problem (the performance of the compounds will be discussed in Chapter 5, excerpt 44). When transcribing intonation patterns, Gerry Knowles noticed in Marlowe Society’s reading of this line a luxuriant use of singular prosodic patterns. He annotated “say”

with + and =, the former meaning “pitch resets to higher level, probably peaking late in the stressed syllable or even after it”, the latter meaning “marked perceived final lengthening”, followed by |, meaning “prosodic boundary (probably pause)”. At the time we did not know, but now we do know that this combination is one of the most effective means for the reciter to indicate continuity and discontinuity at one and the same time. The second syllable of “within” he marked as + and \wedge . Now we know that this, again, is one of the most powerful means for over-articulation. Indeed, that syllable (being part of a function word) is perceived as unduly stressed. Apparently, metric regularity in the first six syllables “To say within thine own” is straightforward enough, and there would appear to be no perceptual problem here to justify such extravagant devices. But the reciter has a real problem here: there is here no natural point for a caesura. Positions 4 and 5 are occupied by function words (“within thine”), and the content word in position 6 (“own”) must be grouped forward emphatically, for a variety of syntactic and metrical reasons.

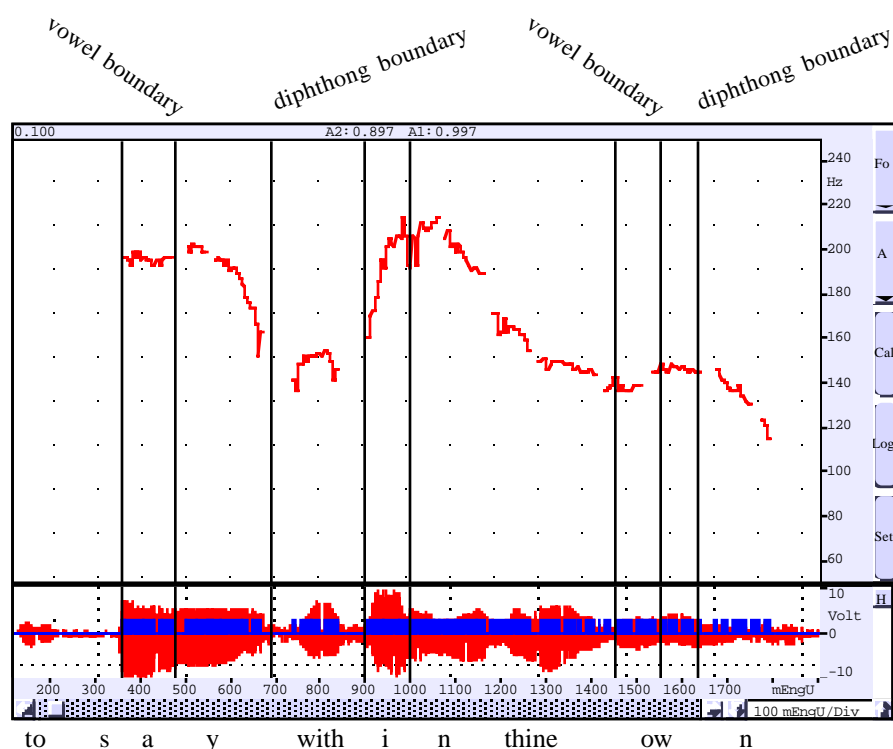


Figure 9 Wave plot and F₀ extract of “to say within thine own” in Marlowe Society’s reading. The markers indicate diphthong and vowel boundaries. Notice the late peaks on *say*, *-thin* and *own*.

Listen to sound file

Thus, the over-articulation of “within”, coupled with an undue stress, without a pause, seems to have here one purpose: to indicate an (unmarked) caesura, without stopping. Listening again to the line confirms that after both words (“within” and “say”) there is an impetuous drive across a discontinuity. In the case of “within”, this may have to do with the caesura. In the case of “say” the reason is very different: here it is the contents that compels the reciter to separate the reporting phrase from the reported speech; but if he wants to preserve the line’s perceptual integrity, he must preserve the first four syllables, up to the (phoney) caesura, as one unit. There is no pause after “say” or after “within”. In both instances, the discontinuity is indicated by a drastic change of the direction of the pitch contour. In “say” there is a late peak on the second phoneme of the diphthong, fluctuating between 192 and 198 Hz; “within” begins with a new start, rising from 146-149 Hz to 203-207 Hz. There is a double peak here, one occurring at the end of /i/, the other on the /n/. This late peak puts an extreme prominence on “within”, emphasizing the *s* position and with it the articulation of the segment, but also has an impetuous forward push. After “say” it is the need to separate the reporting phrase from the reported phrase that requires the break, and the need to preserve the integrity of the verse segment that requires the forward push. After “within” it is the other way around: it is the need to articulate the verse segment that requires the break, and the need to preserve the integrity of the prepositional phrase that requires the forward push. *-thin* is so prominent because it peaks so high and late, and because the direction of the pitch contour changes on it (that is, it is part of two contours at one and the same time), and because it begins a smoothly falling contour, what Gerry Knowles called an “internally defined prosodic pattern”, including “-thin thine own”. A pitch contour that looks like this one is very widespread in English; but usually not assigned to such a sequence of syllables that does not convey in itself some coherent meaning.

A comparison of this performance of the first line to Callow’s is baffling indeed. Admittedly, the pitch movement Marlowe Society assigns to the sequence “to say within” is exceptional: these pitch movements cannot be predicted from spoken English prosody, or from any possible metric deviation; it is, indeed justified solely by the evasive problem of caesura and line integrity. Again, conspicuously, Callow has a very different artistic temperament from Marlowe Society. He is much less inclined toward a controlled solution of finely discriminated problems. Very frequently he prefers some vague pitch movement that directs attention away from problems. Notwithstanding, this time he seems to identify exactly the same kind of problems in the first six syllables of the line; and what is more, he seems to offer exactly the same kind of solution. Information is missing in the F_0 extract of “to say”. But, when isolated on the computer, one may clearly hear a high rising-and-falling pitch on “say”. A glance at the wave plot at the bottom reveals two things: that the diphthong of “say” is unusually long, and that there is an unusual fluctuation of amplitude on it. This may contribute to its strong stress and articulation.

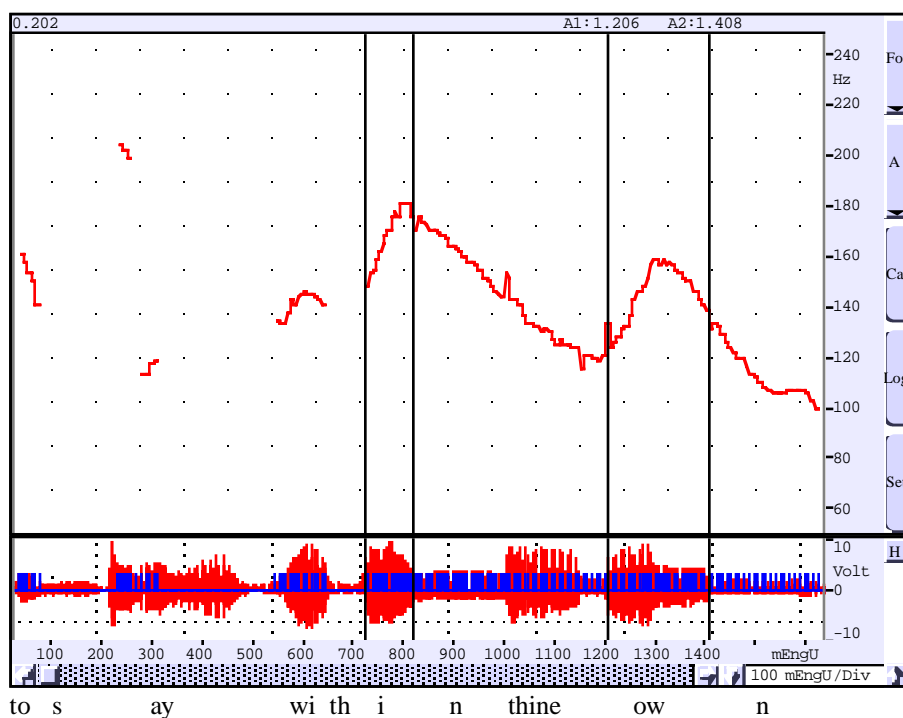


Figure 10 Wave plot and F_0 extract of “to say within thine own” in Callow’s reading. The pairs of markers indicate vowel boundaries. Notice the late peak on *-thin*.

Listen to sound file

Not as in Marlowe Society’s or Callow’s performance, in Gielgud’s performance a gradually falling “internally defined prosodic pattern” is assigned to the whole phrase “within thine own deep-sunken eyes”. Listening to this performance indicates a conception that is rather similar to that of the other two reciters, but with considerably different emphases. Pitch resets very high on “say”, with a late peak, on the /j/ of the diphthong, imposing a forward impetus to the whole line. This drives across an enhanced break indicated both by a pitch discontinuity and a straightforward 100 msec pause.

Gielgud has an exceptionally wide pitch range, reaching up above 240 Hz; at deviance with this suggestion, in the present delivery instance the peak on the /i/ of “within” is rather moderate (154 Hz), though very late, and there is an additional peak on the /n/ (157 Hz). So, there is here no such strikingly protruding contour as in the other two readings. Listening to the delivery instance reveals here a strong, but much better controlled stress. This may have to do with the concurrence of three factors: being the highest point in a gradually-falling contour, late peak, and duration. The two syllables /(\partial)in/ and /(\partial)ajn/ belong to two consecutive function words. They happen to be very similar, and of different duration: /(\partial)in/ is 239 msec long, of which /n/ takes 148 msec; whereas /(\partial)ajn/ is only 155 msec long, of

which /n/ takes 67 msec.⁴ This relatively long duration contributes to the perception of great stress on “within”. This comparison also points up the exceptional length of /n/ in “within”. Apart from its contribution to stress, it also signals a conspicuous discontinuity after it. This combination of cues indicates an (unmarked) caesura after “within” and, at the same time, an impetuous drive across it. A similar story can be told of “own” in the sixth position. It is 536 msec long (by comparison, the immediately following “deep” is 294 msec long). A falling intonation contour and an exceptionally long (287 msec) /n/ indicate here a very clearly articulated word boundary followed by a discontinuity—suggesting a second (marked) caesura. At the same time, the intonation contour and the lack of pause take care of continuity in the phrase “own deep-sunken eyes”.

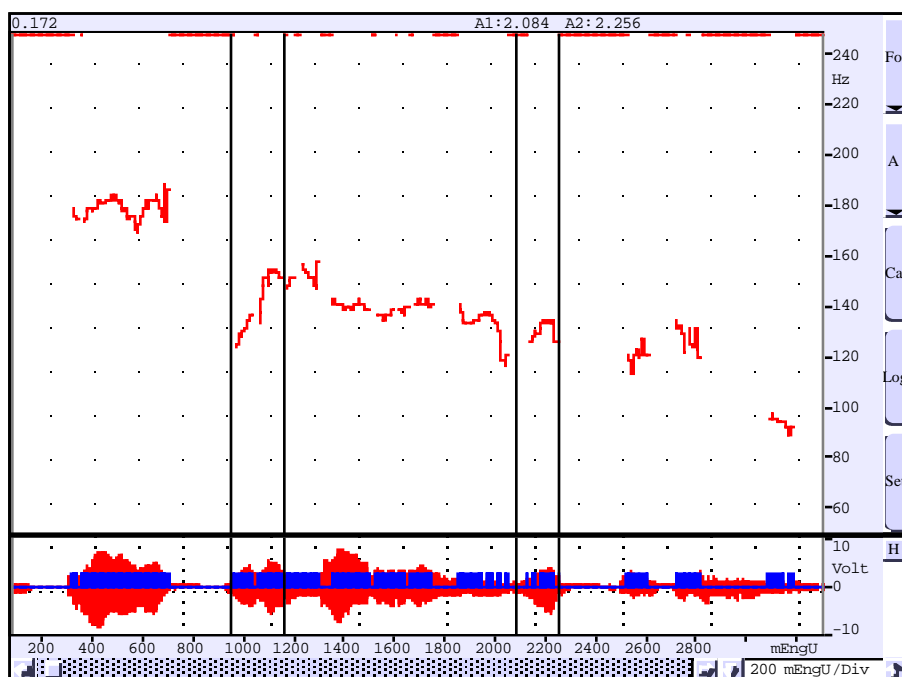


Figure 11 Wave plot and F_0 extract of “to say within thine own deep-sunken eyes” in Gielgud’s reading. The pairs of markers indicate vowel boundaries. Notice the late peaks on *-thin* and *deep*.

Listen to sound file

⁴ There are two good reasons for the two syllables to have reverse proportions. First, the diphthong is inherently much longer than /i/. And second, the same sequence of speech sounds tends to be longer in a monosyllabic than in a polysyllabic; thus, for instance, the sequence “tail” is longer as an independent word than in the word “tailor”.

Compound or Overridden Caesura?

Finally, let us have a look at the compound “heart-ache” in quote 24 from Hamlet’s “To be or not to be” soliloquy, as performed by Gielgud.

24. The heart-ache and the thousand natural shocks

In the present study I have been working within the “limited channel-capacity hypothesis” of human information processing. I propounded a theory according to which deviations and complexities in rhythmic organization can be properly handled if the conflicting patterns are accessible, at one and the same time, to the perceiving consciousness. This requires the manipulation of the vocal material such as to save mental processing space. Over-articulation, over-stressing and grouping are such vocal devices. Consider the compound “heart-ache” in quote 24. According to the Compound Stress Rule both words are stressed, but the first one bears a stronger stress. As we have seen in Chapter 1, in Pope’s poetry, indeed, 100 % of the time, without exception, such compounds begin in a strong position. In Milton’s *Paradise Lost* Book I., on the contrary, 15 out of 20 such compounds begin in a weak position. In Shakespeare’s Sonnets there is a similar proportion. In Keats’s and Shelley’s poetry slightly more than half of such compounds begin in a weak position.

Here I only want to point out one thing. I have an ever-growing corpus of competent performances of compounds with consecutive stresses in which the first, strongest stress occurs in a weak position (see Chapter 5). The most conspicuous thing in these performances is that the two words are usually clearly articulated as two intonational phrases. Word boundaries are usually over-articulated by intonation and/or by the over-articulation of word-final and word-initial phonemes—by pauses, releases and glottal stops where relevant. The two syllables are usually isolated by separate rising-falling or rising-flat-falling or rising-curling-falling intonation contours. The first one of these contours is usually higher, imposing prominence upon the first word; the second one, being lower, attempts to “break even” either by a long-falling coda, or by excessive duration. In this way, the first syllable is perceived as the prominent one; and then, the second one “breaks even”, preventing metre from being violated. In some instances there is a late peak on the vowel or the ensuing sonorant of the first syllable, generating a forward drive, emphatically grouping together the two words separated by intonation or over-articulation. Such a performance allows the reader or listener to perceive the linguistic string and the string of alternating weak and strong positions at one and the same time, in spite of the deviation.

A look at figure 12 suggests that this is precisely the case with “heart-ache”. Checking the durations in this phrase, a few unusual features become conspicuous. There is an unusual pause (297 msec) followed by a release of /k/ (75 msec) in

“ache”.⁵ The only segment that approximates these durations is the diphthong /ej/ in “ache”: 297 msec. Likewise, rather unusually, the /h/ (189 msec) is almost as long as the ensuing long vowel (200 msec). The two words of the compound have rather elaborate intonation curves and, as expected, the first one is higher.

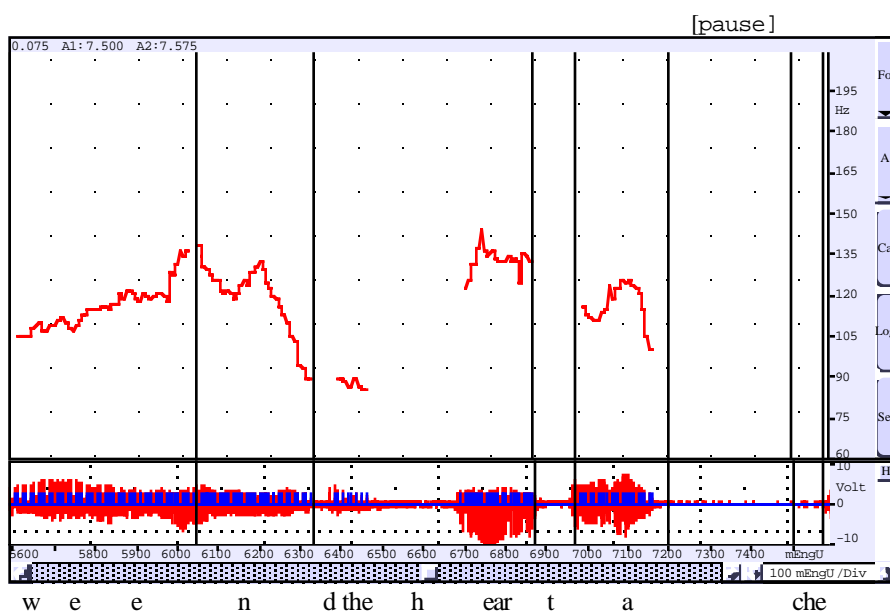


Figure 12 Wave form and pitch extract of “we end the heart ache” in Gielgud’s reading

Listen to sound file

The compound begins with a longish /h/; the intonation contours conform with the foregoing description; the word-final /t/ is surrounded by a considerable unvoiced time period; the sequence ends with a most distinct release of /k/ inseparably run into the ensuing word (“and”), and preceded by an exceptionally long pause. We have noticed this during a survey of the performance of consecutive stressed syllables in Hamlet’s soliloquy. But—alas!—we also noticed that the compound begins in an even-numbered (strong) position, and thus there is little justification for such an elaborate over-articulation of the sequence. My research assistant said that this weakens my overall argument. I answered (and I still believe that this is a correct answer in principle) that performers master certain articulatory devices in order to solve perceptual problems that arise from metrical complexities; and having mastered those devices, one cannot prevent them from deploying those devices to bring out lesser complexities as well. But she insisted that such an exaggerated over-articulation while pronouncing a compound beginning in a strong position weakens my argument. It was only a few days later when I considered the verse line as a perceptual

⁵ I shall have some additional comments on this pause and release in chapter 9.

whole that I discovered that there *was* here a big perceptual problem, and Gielgud had good perceptual reasons to deploy those articulatory devices. In this line there is a problem: syntax overrides caesura. There is a major syntactic boundary after the third position (after “ache”); the fourth and fifth positions are occupied by unstressed function words, while the boundary of the sixth position occurs in the middle of “thousand”. Here syntax overrides the caesura, and performers keen to perform Shakespeare’s lines rhythmically seem to have a problem. The only place where a reasonable break may be observed is after position 3 (“ache”). This sequence of a salient release of /k/ inseparably run into the next word and preceded by an exceptionally long pause fulfills here two opposite functions. On the one hand, the long pause is perceived as the over-articulation of the word-final stop, separating it from the next word; by the same token, the resulting excessive duration of the word also indicates a break. On the other hand, the release follows an exceptionally long pause, and is inseparably run into the vowel beginning the next word. Listening to the line confirms that this starts an impetuous forward movement toward the end of the line. The line ending, in turn, is run on to the next line (“the thousand natural shocks / That flesh is heir to”); but the emphatic over-articulation of the two consonants /ks/ suggests a firm closure and renders the line as a coherent perceptual unit, in which the displacement of the break generates, in fact, a caesura overridden by an impetuous forward drive, in a verse line that reasserts itself in perception.

To Sum Up

Some critics call every punctuation mark within a verse line a “caesura”. According to the present conception caesura is assigned by convention at, or around, the middle of the unit of versification; it is not a syntactic boundary. What is more, in perfect harmony with one of the central tenets of the present work, this convention reflects overwhelming perceptual dynamics. On the one hand, caesura serves for a segmentation that is demanded for the perception of lines that, as a unit, exceed the span of immediate memory.⁶ On the other hand, caesura is perceived as an intrusion, across which there is an impulse for completion. Syntactic boundaries *may* confirm caesura; in rare instances they override it. The readings we have considered do indicate these perceptual dynamics; and we have also seen the ways in which British actors handle those instances in which difficulties arise.

⁶ Even telephone numbers are better perceived and remembered when properly parsed, by blanks on the page, or by intonation in acoustic memory.