

Structural Prosody

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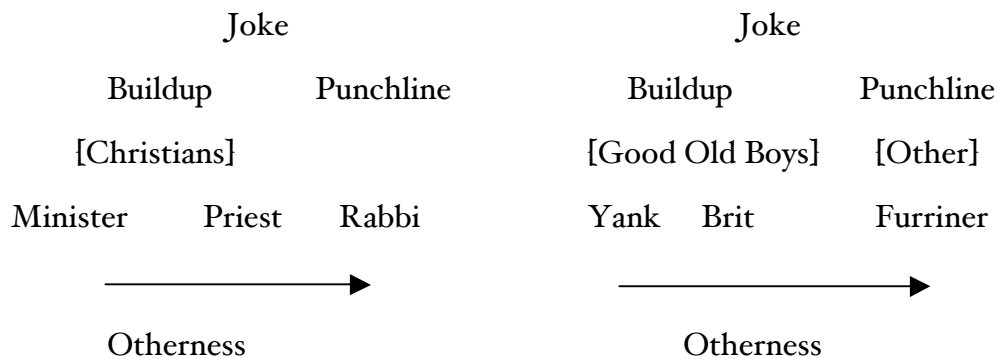
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The familiar fact that jokes have punch lines turns out to be a fact about poems too. Reading a poem is ideally a bit like acting in a play. As plays do, poems too have drama. Master poets once also had to be master story-tellers – think of Homer, or Chaucer, or Shakespeare. Poetry has grown shorter of late – modern poets seldom write epics, in which a series of events is chronicled. Thus we must look, in modern poetry, for something akin to plot – the unfolding of causally coherent sequences of events – but where the sequences are not of elements tied to time and causality, but rather of a more abstract character.

When we think of peerless joke-tellers, we realize that they know how to build a punch line. How is this "building" done? By monotonically proceeding along a semantic dimension. Think of the countless minister-priest-rabbi jokes, or the Yank-Briton-Other Foreigner jokes, always with the three sections in this order, never, say priest-minister-rabbi. The reason is that WASP culture prevails in the US, WASP humor prevails, the dimension traversed is otherness, either religious or cultural, and the journey starts at home, with a Protestant Yankee. (We would expect to find the priest-minister-rabbi sequence in a Catholic culture, where Protestant are the next most populous, and Jews are the smallest group, and in Israel, perhaps a rabbi-priest-minister sequence, depending on whether Protestants or Catholics are viewed as being furthest away from the cultural "home.")

The monotonicity of the building to a climax is easiest to see in the simplest stories: like *Goldilocks*. Countless times in this story we dance the sequence large-medium-small: three bears, three voice registers, three bowls of porridge, three chairs, three beds – and then there are more abstract threeings in addition. The tale itself has a three-part sonata-

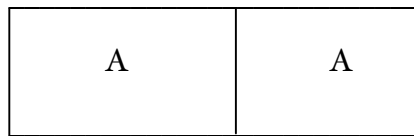
like A-B-A structure: bears at home (stage is set); bears leave, Goldilocks arrives (posing of the problem); bears return home (climax and dénouement). We ask why, the answer is clear, and well-known: *Thrice is nice*. In a set of three, the first two elements set up an abstract rhythm, then the third breaks it. Thus, in a sense, both the prototypical joke and the prototypical story admit a kind of *discourse parsing*, e.g.,



But what of poetry? What is the dimension along which elements are arrayed which sets up an abstract rhythm, against which a sudden change can produce a moment of drama, of heightened perception? My hypothesis is that this rhythm is a result of two simultaneous poetic processes:

Sectioning: A system of poetic devices which segment a poem into various *sections*, which may occupy roughly equal temporal intervals, but need not do so. There is a hierarchy of such sections: the largest are stanzas (or groups of stanzas), the next smaller are lines (or groups of lines, which may or may not be separated by blank lines), and the smallest are feet (or sequences of feet). The sections of a poem are thus reminiscent of the measures into which a melody is divided in musical notation, with the caveat that just as measures in music need not be isochronic, because a piece of music may change its time signature any number of times, so poetics sections need not be of the same size or duration.

Arraying: Elements of linguistic form, on all levels of representation (phonetic, morphological, syntactic, semantic, pragmatic ...) that are deployed within the framework established by the sectioning. There are extremely restricted ways of arraying. For instance, in a two-section structure, there is only one possible deployment:



(A variant is $A / -A$, where $-A$ is in some sense the "negative" or the "opposite" of A, and thus, because *les extrêmes se touchent*, $-A = A$, paradoxical as this may seem, so $A / -A$ structures are really a special case of A / A .)

For three-part sectionings, there are only two possibilities: repetition, and the sonata-like home-away-(return) home:

A A A
A B A

For four-part structures, there are three main types. In French theories of verse, these have three traditional names.

Repeated Repetition:	A A B B	'rime platte'
Onionskin (an expanded sonata):	A B B A	'rime embrassée'
Alternating:	A B A B	'rime croisée'

I only know of one kind of five-part sectioning, which is again an extension of the sonata form:

Onionskin: A B C B A

And for six-part sectioning I have seen only two: an extended alternating, and an extended sonata.

A	B	C	A	B	C
A	B	C	C	B	A

While even higher-order sectionings are theoretically possible, I have not encountered any, and I tend to doubt that they can exist productively. After all, we are getting close to George Miller's famous Magic Number Seven \pm 2.

The collaboration of sectioning devices and array types sets up an underlying periodicity of a poem, a kind of structural "beat" which corresponds to the linear time of drama (or narrative structures in general). I will refer to the combination of elements arrayed in sectionings as a *structural prosody*. While prosody is typically thought of as pertaining only to acoustically perceptible parameters, usually only melody and stress, I would like to extend its meaning to cover more abstract types of linguistic elements.

With the rhythmic background of a structural prosody in place, we have the possibility of constructing an abstract poetic "drama" – of giving a poem a punch line.

It is easy to see how this is to be done. For example, if we examine the last-mentioned six-cell prosody, we can see that after a listener has heard the first five elements, there will have arisen a strong expectation that the sixth will be an 'A,' to complete the

pattern. Therefore, we have drama, surprise, frustration, an unfinished gestalt, etc., when we hear instead:

A B C C B ⊕

for the essence of plot (and of the causation on which it depends) is irreversibility. And structural prosodies are characterized by repetition, in various abstract ways.

(1) Simplest repetition	A A	↓	
(2) Sonata	A B A		greater complexity
(3) Onionskin	A B B A	▼	

We see that alternation, as in A-B-A-B, is really a kind of higher-order (1), where A-B is a unit, say X.

A B	A B
X	X

Similarly with A-B-C-A-B-C.

Thus poetic drama arises from the interpenetration of repeating structures – structural prosodies – and non-repeating ones, whether these are monotonic along some dimension, as was found to be the case in jokes and stories, or whether their irreversibility is of a different stripe.

Lest this discussion become too abstract, I will discuss the punch line of one poem in detail, showing how the rest of the poem establishes a number of prosodies, of the most various types, against which the punch line of the poem stands out in the sharpest relief.

Before I turn to the text, let me make one final observation. There are many types of linguistic elements to be arrayed in a poem, and nothing I have said about prosodies precludes that the poet will use the distribution of one type of linguistic element – say nouns – to support one prosody, while the distribution of another element – say bilabials – supports a second prosody, and the distribution of some semantic type – say predicates of emotion – a third prosody, and so on. A helpful way of visualizing prosodies is as transparencies, overlays, where the experience of reading is like walking the length of the poem, peering down through the various overlays (a way of seeing which I owe to John Lawler). Where a number of prosodies intersect, there will be a significant poetic boundary, a kind of "cusp" in the abstract shape/rhythm of the poem, an opportunity for the poet to locate a salient feature of the poem's unfolding drama. In a real sense, "learning to read" poetry is to be characterized precisely as acquiring an intuitive awareness of these poetic cusps, and of the congruencies in the overlaid prosodies which make them up.

With these preliminaries in mind, let us read, as respectfully and savoringly as possible, William Carlos Williams' indelible "To Waken an Old Lady."

To Waken an Old Lady

1 Old age is
 2 a flight of small
 3 cheeping birds
 4 skimming
 5 bare trees
 6 above a snow glaze.
 7 Gaining and failing
 8 they are buffeted
 9 by a dark wind—
 10 But what?
 11 On harsh weedstalks
 12 the flock has rested,
 13 the snow
 14 is covered with broken
 15 seedhusks
 16 and the wind tempered
 17 by a shrill
 18 piping of plenty.

Typographically, this poem is one eighteen-line stanza: there are no line breaks. What I would like to demonstrate, however, is that there are clear reasons to view it as simultaneously having two nine-line halves, three six-line thirds, and six three-line triplets.

I will start by pointing out that there are heavy punctuations in the middle of the poem – the dash at the end of line 9, and the question mark at the end of line 10. This boundary is an important conceptual one as well. In I, the poem's first half (ll. 1-9), the birds are seen as being at the mercy of their environment: the snow and cold of approaching death have covered everything with a seamless glaze, and the power of death, here a dark wind, is the agent of the verb *buffet*, whose object is the birds. But in II, the second half (ll. 10-18), the glaze has been punctured, food found, and now the wind is an object – of the verb *temper*.

In I, the birds' cheeping – to me, this verb connotes a higher, more random and disorganized twittering – has given way in II to a piping – a lower, calmer, more musical call. We note also that *snow* and *wind*, the poem's only two repeated content words, have both changed their thematic roles: just as the wind has gone from being a conceptual agent in I to being a patient in II, so the snow, which in I is notionally the subject of the predicate underlying the noun *glaze*, has in II become the notional object of the verb *cover*.

Further support for this conceptual halving of the poem is provided by its verbs of motion, all of which are in I: *fly* (and *flee*) [both underlying *flight*], *skim*, *gain*, *fall*, and *buffet*. We note too that the sectioning into halves is supported by the location of the two one-word lines: *skimming* and *seedbushes* are each four lines away from the ends of the poem. And in I, there is only one line-final adjective, *small*, in the second line; while in II, we also find but one line-final adjective, *sbrill*, correspondingly placed with respect to the end of the poem.

The poem is also halved by balancings of both nouns and verbs. Each half has seven lexical nouns, with four appearing line-finally: in I, *birds*, *trees*, *glaze*, *wind*; in II, *weedstalks*, *snow*, *seedbushes*, *plenty*. Note that each half has two singulars and two plurals. Each half has two tensed verbs *is*, *are*; *has*, *is*.

When we turn to the non-finite verb-related forms, we find the most interesting pattern: each half has five such forms, with the first half manifesting four present participles

in *-ing* and one past participle (*buffeted*), while the second half exhibits the antisymmetric pattern of one *-ing*-form and four past participles. In I, three of the present participles are line-initial (namely ₃*cheeping*, ₄*skimming*, and ₇*gaining*), with the lone past participle appearing line-finally; in II, three of the past participles are line-final (namely _{I2}*rested*, _{I4}*broken*, _{I6}*tempered*), with the sole *ing*-form being line-initial. The location of the majority of the present, more active, participles in I is thematically consistent with the above-mentioned splitting of the poem's motion verbs. For the awakening that the poem invites an old lady to is concerned with the riches, the calm music (cf. *piping*) that can be found at life's end through a letting go of frantic rushing around, and with the transition to rest, to the wisdom of accepting. Importantly, the call to that awakening comes just at the beginning of II, in the two-word rhyming expostulation *But what?*

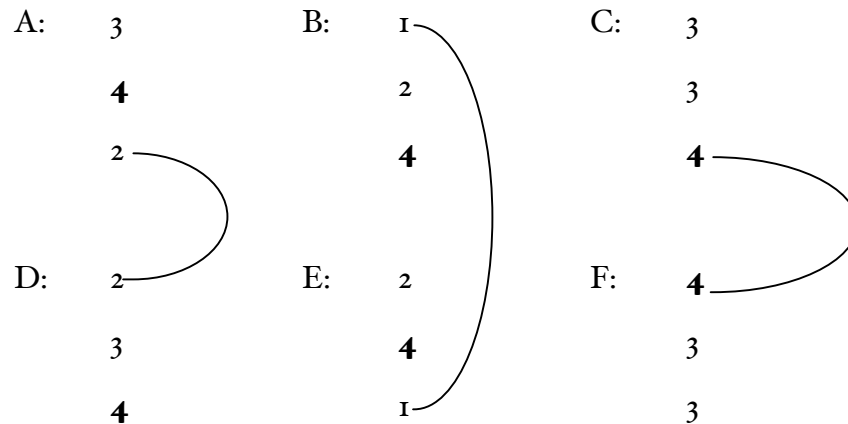
I will not discuss at great length the evidence that the poem is also to be seen as being divided into three six-line thirds – one primary basis is the punctuation. Aside from the central punctuation around the boundary dividing the halves, the only other internal marks of punctuation end lines 6 and 12. The first sections off the poem's first sentence, and the second splits off the last tensed clause of the poem's final sentence. Note also, however, that the two outer thirds have the same verb – *is* – and that this verb, beginning a line in I, ending one in II, comes as the third syllable of each of the thirds.

Let us instead consider in some detail the reasons for seeing the poem as sectioned into six three-line triplets, A-F.

- A ₁Old age is
 ₂a flight of small
 ₃cheeping birds
- B ₄skimming
 ₅bare trees
 ₆above a snow glaze.
- C ₇Gaining and failing
 ₈they are buffeted
 ₉by a dark wind—
- D ₁₀But what?
 ₁₁On harsh weedstalks
 ₁₂the flock has rested,
- E ₁₃the snow
 ₁₄is covered with broken
 ₁₅seedhusks
- F ₁₆and the wind tempered
 ₁₇by a shrill
 ₁₈piping of plenty.

First, we note that such a partitioning accords well with the poem's syntax: except for D, each three-line group is clearly a constituent. Moreover, we find conceptual parallels between A and D – both mention birds (note also the phonetic similarity of *flight* and *flock*); between B and E – both mention snow; and between C and F, which both concern wind.

In I, each triplet has exactly one line beginning with a present participle, and in II, each triplet has exactly one line ending with a past participle. Finally, when we study the distribution of the number of words per line in each of the triplets, the following parallels emerge:



First, note that each triplet contains exactly one four-word line. More importantly, the conceptual parallels linking A / D, B / E, and C / F are underscored by the arrangements of the word counts in the lines of these triplet-pairs. The order of the number of words per line in A and C can be transformed to that in D and F by moving their last lines to their first, while to get from B to E, the first line (namely *skimming*) must become the last (*seedbushes*). This last transformation makes the poem's two one-word lines the boundaries of the periphery of the poem – the two outer triplets, in which we find the contrast in sound I noted above. Note also that it is only in this periphery that we hear the segment [p], which functions so prominently in the alliterative last line.

The various prosodies I have cited above provide a complex structure of overlays, but one whose dramatic element I have not yet localized. For now, let us concentrate on the punch line itself.

Before I do this, however, may I suggest that you review briefly the structural prosodies I have discussed above, and then reread the poem slowly out loud. See if any of the eighteen lines seems to rise above the rest – if there is in you a mild feeling akin to shock, to being stunned, to awakening, in fact. For the phenomenon I am attempting to provide a structural basis for is one that I take to be psychologically real. I would not be surprised to find subtle physiological changes (electro-galvanic skin response? pupil dilation? blood pressure? heart rate?) correlating, in readers who have learned to hear poetry deeply, with the experience of a punch line.

For me, this experience is the strongest in the last line of the poem. I do not know whether punch lines are always final, or whether they can be followed by poetic material under some circumstances. My investigation of their properties has at presently only begun.

The factors which I have found to contribute to the impact of line 18 are all perturbed prosodies. I list some of them in what follows.

1. First of all, this line contains the poem's only selectional oddity: the relation between *pipe* and *plenty*. Presumably, *plenty* must be a noun, and since it follows the action nominal *piping*, it can only be the object, or far less plausibly, the subject of *pipe*. But neither putative sentence escapes deviance: *The birds pipe [plenty]* direct object. Here the word *plenty* is not to be heard as an instance of the adverb of degree or of frequency, which would be roughly synonymous with *a lot*, or *very much*. Rather, think of *plenty* as being replaced with *abundance*. This will produce a clear deviance. And if *plenty* is the subject of *pipe*, the following (even stranger) sentence would result: **?Plenty pipes*.

2. Secondly, one of the strongest sectioning devices for the halving of the poem, in my opinion, is the antisymmetric dance of present and past participles, intersecting with the beginnings and ends of lines. In this richly articulated structure, it is significant that of all the ten participles, only one is a noun: *piping*. There is a symmetric distribution of word

types: in I, there are three verbal *ing*-forms and one prenominal, adjectival form: *cheeping birds*. Correspondingly, in II, there are three verbal past participles, and one prenominal one: *broken seedbushes*. The lone participle in I, *buffeted*, agrees with the verbal majority of past participles in II. Thus, an expectation is set up that the lone *ing*-form in II should also be a verb. Its nounhood contributes to the punch.

When we examine the ten participles phonetically, we see yet another thwarted expectation. the stressed vowels of the participles in I and II are displayed in (4).

<p>I: [ɪy] [ɪ] [ēy] [ēy] [ʌ]</p>	<p>II: [ɛ] [ʌ] [ōw] [ɛ] [āy]</p>																			
<p>(4)</p>																				
<p>I</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 150px;"><i>cheeping</i></td> <td>[ɪy]</td> </tr> <tr> <td><i>skimming</i></td> <td>[ɪ]</td> </tr> <tr> <td><i>gaining</i></td> <td rowspan="2">} 2 [ēy]'s</td> </tr> <tr> <td><i>failing</i></td> </tr> <tr> <td> <i>buffeted</i></td> <td> [ʌ]</td> </tr> </table>	<i>cheeping</i>	[ɪy]	<i>skimming</i>	[ɪ]	<i>gaining</i>	} 2 [ēy]'s	<i>failing</i>	 <i>buffeted</i>	 [ʌ]	<p>II</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 150px;"><i>rested</i></td> <td>[ɛ]</td> </tr> <tr> <td><i>covered</i></td> <td>[ʌ]</td> </tr> <tr> <td><i>broken</i></td> <td>[ōw]</td> </tr> <tr> <td><i>tempered</i></td> <td>[ɛ]</td> </tr> <tr> <td> <i>piping</i></td> <td> [āy]</td> </tr> </table>	<i>rested</i>	[ɛ]	<i>covered</i>	[ʌ]	<i>broken</i>	[ōw]	<i>tempered</i>	[ɛ]	 <i>piping</i>	 [āy]
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<i>covered</i>	[ʌ]																			
<i>broken</i>	[ōw]																			
<i>tempered</i>	[ɛ]																			
 <i>piping</i>	 [āy]																			

Three long vowels, two of which are identical: one short vowel.

The short vowel [ɪ] is a lax variant of the unpaired long vowel [ɪy].

One long vowel; three short vowels, two of which are identical. The long vowel [ōw] is the tense variant (more or less) of the unpaired short vowel [ʌ].

When we look at the vowel of the sole past participle in I, *buffet*, we find that it is identical to the vowel of the unpaired past participle in II, *covered*. Thus we generate the expectation that the vowel of the sole *ing*-form in II should be the same as that of the unpaired long vowel – *cheeping*. Not only is the vowel of *piping* not a high front vowel, in fact it is the only low vowel in the set of participles.

Lastly, when we note that the four pasts of II are disyllables, as are the four presents of I, and that the sole past in I is a trisyllable, we expect the sole *ing*-form of II to be trisyllabic.

In short, *piping* sticks out like a sore thumb because of its word-class, its stressed vowel, and its syllable count.

3. The last line is boldly alliterative. The three *p*'s there make it especially salient, because no other line has even two syllables which start with the same consonant.

There is only one line which is similar to line 18 – line 1, whose three words all begin with vowels. For now, let us only note in passing the connection between the first and last lines. But we shall find a further reason to link these two.

4. The triplets exhibit exactly one preposition each – on lines 2, 6, 9, 11, and 14. Only F has two, the last one occurring in the punch line.

5. As pointed out above, the poem is halved by the 4/4 distribution of line-final nouns, with two singulars and two plurals in each half. While the two pairs of nouns in I come in the order two plurals, then two singulars, there is an alternating rhyme in II:

weedstalks,

snow,

seedbusks

plenty

Finding that the plurals are so similar phonetically, and also morphologically, and are both disyllabic plurals, an expectation is generated that the last singular in II will also be monosyllabic (as well as being phonetically similar to *snow*). Both expectations are thwarted.

6. Except for the three compound nouns, *snow glaze*, *weedstalks*, and *seedbushes*, no other line exhibits two noun roots in one line but the punch line.

7. If we examine the roots of the words in the poem that start with a consonant cluster, we find these:

Monosyllabic: *flight, small, skim, tree, snow, glaze,*
 what (if pronounced with [hw]), *stalk,*
 flock, break, shrill.

Disyllabic: *plenty*

8. Without the unstressed [iy] of *plenty*, there is a balanced distribution of roots in [iy]

I	II
<i>cheep, tree</i>	<i>weed, seed</i>

The extra [iy] of *plenty* disturbs this balance. In addition, it is the poem's only unstressed open syllable (apart from the articles *the* and *a*).

9. Finally, let us examine the distribution of indefinite noun phrases that have no article. There are six of them:

(5)	I.	A.	<i>old age</i>	singular
		B.	<i>small /</i> <u><i>cheeping birds /</i></u>	line-final plural
	C.	<i>bare trees /</i>	line-final plural	
	II.	C.	<i>harsh weedstalks /</i>	line-final plural
		B.	<i>broken /</i> <u><i>seedbusks /</i></u>	line-final plural
		A.	<i>plenty</i>	singular

There are many onionskin periodicities set up in (5). Note also that the two NPs that span line-endings (the forward slash ‘/’ follows words that are line-final) are the ones that contain the only prenominal occurrences of participles (here underlined), as pointed out above.

The phonetic parallels between the two plurals of II, *weedstalks* and *seedbusks* are too striking to be overlooked. In fact, the six NPs of (5) contain all the occurrences of the poem's [iy]'s. I think that the further connection between the line-initial position of the [iy]-word in the B-cells of (5), contrasting with the line-final location of the [iy]-word in the C-cells, is significant, too.

From all of the above, it follows that there is a powerful set of prosodies connecting the A-cells, *old age* and *plenty*, the first and last words of the poem. And of course, it is precisely this equation, this connection, which is the poem's message of hope, the reperception of old age which the second half's opening question in line 10 is supposed to awaken the old lady to: *old age is (a piping of) plenty*.

We note, though, that there is one last sore-thumbing in this equation: the first five of the articleless NPs in (5) are modified prenominally – only *plenty* is not.

To sum up, then, in this section, I have assembled evidence from perturbations in structural prosodies of elements running the gamut from semantics to phonetics, perturbations which all occur in the last five syllables of the poem, some (the disyllabicity of *plenty*, the lone unstressed high vowel) being saved until the very last segment of the poem, to try to construct a structural prosodic basis for the experience of poetic impact that the last line of Williams' poem has on me, and I assume on other readers.

Before leaving this poem, I would like to highlight again a collection of arrayings, over the three sectioning I have argued for, which are unique in my experience of the analysis of poetry. I want, therefore, to focus on them as visibly as possible, so that other students of poetics can either find additional parallel uses of similar devices, or can instead help me to see that I have perceived an only apparent similarity.

The arrayings in question all have to do with parallel distributions of corresponding elements at the beginnings and ends of sections. I will order them according to my estimation of how solidly established they are in the fabric of the poem.

(6) a. The change from three line-**initial** *present* participles with a lone line-final past participle in I, to an antisymmetric arraying of three line-**final** *past* participles and one line-initial *ing*-form in II. This pattern is particularly strongly established, in my opinion, because of the additional parallel phonetic antisymmetry pointed out in (4).

b. The establishing of the linkings between the triplet pairs A/D, B/E, and C/F by the line-moving transformations, taking bottom (i.e., section-final) lines to top (section-initial) lines in the first and third of these pairings, and in the opposite direction in the second pairing.

c. Note that this oppositeness is part of the halving prosody. For if B's sequence of lines of one, two, and four words were converted to the sequence four, one, and two to form E, then the two-word lines would not combine to articulate any otherwise significant

sectioning. As Williams has written the poem, however, the two one-word lines, occurring four lines down from the beginning of the poem, and four lines up from the end of the poem, slap us in the eye, if I may be forgiven a synaesthetic mixed metaphor.

d. The words *snow* and *wind* end triplets in I, and are notional subjects of their associated predicates; in II, they begin triplets and are both Patients.

e. The two occurrences of *is* are line-final in I, line-initial in II. Recall that these two verbs each appear in the third syllable of the outer 6-line thirds of the poem.

f. The location of the stressed [ɪy]'s in the cluster of prosodies in (5).

The final point to make in this connection, it seems to me, is the fact, supported by the prosodies of (5), that the first two syllables of the poem are to be seen as connected to the last two. Does this poetic "equation"

old age – plenty

drive the other "equation" of the form

section beginning – section ending

that I have presented in (6)? I have no answer at present, but I think that this type of question, which resonates with an old suggestion of Jimmy Thorne's that the particularities of any given poem establish a grammar for that poem (cf. Thorne 1965), must be looked at seriously.

In conclusion, I would like to say that the major claims of this paper – that sectionings and arrayings interweave to establish a basic structural prosodic rhythm, analogous to the flow of linear time in narration, and that poetic drama (in particular, punch-lining) is to be seen as articulating certain cusps of poetic "time" by establishing and

thwarting expectations – these claims seem relatively solidly confirmed from the detailed study of the poems I have investigated in the past several years. Indeed, I do not intend these claims to be controversial. What is new in the framework I have presented above is only the degree of precision I wish to impose on myself in establishing the types of devices that can be used to section with, and the types of arrayings that can fill sectionings. It is my hope that such precision will be a useful tool in arriving at partial understanding of the mystery surrounding what I regard as some of the most crucial questions of language that can be posed today.

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