



- Function words pronounced with phrasal stress (particle verbs, focus, isolation) are prosodically treated like content words.

1 3 4  
It gave o'er.

1 1 4  
'Tis for thee.

1 1 1 4 1 1 4 1  
Not for myself, but for thee will.

4  
When?

## 5. Phrasal Stress

- Assume the Nuclear Stress Rule, overridden by focus stressing.
- Strongest stress of each intonational phrase receives [4stress].
- Deploy [2stress], [3stress] and [4stress] as needed to depict local ups and downs.
  - The default for stresses that are not the strongest of their intonational phrase, is [3stress].
  - Use [2stress] only where needed to depict a “stress valley,” below.

## 6. Nuclear Stress Constraint

In phrases, the element on the right wins.

1 3 4 3 1 4 1 3 1 1 1 4 1 1  
a big bîrd, gròw tomátoes, wònderfully magnificent

## 7. Recursive Application

- Build sufficient metrical structure so that the Nuclear Stress Constraint is satisfied everywhere.

2 3 1 4  
[ Ten turtles ] sang.

- Note that when phrasing is tight, and the syllables are close, the Nuclear Stress Constraint is overridden by the Rhythm Rule.

## 8. Rhythm Rule

|       |     |       |                          |
|-------|-----|-------|--------------------------|
| x     | --> | x     | e.g. <i>thirteen men</i> |
| x x   |     | x x   |                          |
| x x x |     | x x x |                          |

condition: the "landing site" must bear stress

2     3     1

in folk verse: **milk-white** steed

3 1    2 4

And two and two are **lily-white** babes

in pentameter:

1 4

And who she finds *forlorn* she doth lament (Ven. 1500)

3 1 4

And from the *forlorn* world his visage hide (Son. 33)

a nonlocal application, metrically crucial in this context because the verse is dipodic:

1 1 4 1 2 1 4 1 1 1 3 1 2 1 4

Oh Galuppi, Baldassaro, this is **very sad to find!**

## 9. Beat Addition

- In a right branching structure, particularly with three adjacent syllables, an alternating pattern tends to be established, with the first non-nuclear stress stronger than the second (e.g. Selkirk 1980).

|       |     |       |
|-------|-----|-------|
| x     | --> | x     |
| x x x |     | x x   |
|       |     | x x x |

3 2 4    3 1 2 1 4

e.g. *big bad wolf, twenty little cats*

From Shakespeare's Sonnets:

3     2     4

Which steals men's eyes and women's souls amazeth.

3     2     4

May make seem bare, in wanting words to show it,

- Note that this requires the use of a [2stress] on a content word; probably worth it, since it makes clear that it's a "stress valley" in W (cf. Jespersen 1900<sup>1</sup>)
- The cost is that we can't always use [2stress] vs. [3stress] to distinguish content word from function word stress.

## 10. Phrasal Bounding of the Rhythm Rule and Beat Addition

- Beat Addition and the Rhythm Rule apply more readily in close phrasal conjunction:

2 3 2 4                      3 2 2 4  
*Three cats ate birds* -/> \**Three cats ate birds*

## 11. Beat Addition and Verbs

Verbs are reluctant to be promoted by Beat Addition:

*ate two birds* → 224, 234, less likely 324

## JUNCTURE/PHRASING

## 12. A Particular Version of the Phrasal Hierarchy (Hayes (1989))

- The digit shown is affiliated with the *last* syllable of the group.
- Where two groups at different levels end at the same place, assign the higher digit.

|                        |   |
|------------------------|---|
| Utterance              | 5 |
|                        |   |
| Intonational<br>Phrase | 5 |
|                        |   |
| Phonological<br>Phrase | 4 |
|                        |   |
| Clitic<br>Group        | 3 |
|                        |   |
| Word                   | 2 |
| (word non-final:       | 1 |

<sup>1</sup> Jespersen, Otto. 1933. Notes on metre. In his *Linguistica*, 249-74. Copenhagen: Levin & Munksgaard.

### 13. Tightest juncture: simplex words

- Use [1 juncture] to indicate a syllable that is in the same simplex word with the following syllable.

### 14. Compounds

- Use “2” to separate syllables that belong to different compound members.
- Do not treat a form as a compound if part of it is phonologically reduced, e.g. *cupboard*, *forehead*, where [ˈfɔrəd]

2 5
vs.
1 5  
doughboy                helmsman  
[ə]

### 15. Clitics

- A very broad assumption is that any non-content word is a clitic, and is phrased more tightly to its host than an equivalent content word would be.
- A partial list:

Monosyllabic (146):

*shall, a, to, thee, I, more, and, art, thou, of, the, do, too, all, hath, his, is, from, or, by, not, thy, but, that, nor, in, when, can, as, so, this, we, might, should, own, thine, with, where, be, on, will, then, an, were, much, how, mine, couldst, if, my, it, whose, some, dost, she, for, he, who, her, shalt, through, why, doth, are, those, canst, yet, what, must, th', which, did, there, him, quite, was, no, they, though, their, ere, that's, one, than, shouldst, could, each, up, like, wilt, hast, may, toward, such, most, 'gainst, O, at, me, mayst, would, whom, o'er, since, you, your, here, had, have, them, wouldst, out, less, wert, till, am, 'tis, whilst, once, thus, these, while, I'll, didst, both, our, lest, who's, is't, us, hadst, mightst, ye, whence, towards, gainst, been, he's, few, twixt, for't, what's, you've, were't, there's*

Disyllabic, rising stress: (33):

*within, despite, upon, thyself, unless, behind, without, among, themselves, against, yourself's, whereon, before, yourself, whate'er, beside, wherein, where-through, therein, because, although, until, betwixt, whereof, wherewith, thereof, above, cannot, about, whereto, beyond, herself, withal*

Disyllabic, falling stress (17):

*every, being, having, under, many, any, after, wherefore, almost, whether, into, cannot, unto, either, neither, over, only*

## 16. Unreduced Auxes

These are not common but occur in Gapping constructions. We are treating them as 3, being not really clitic.

Not more the mother's soul that infant warms

3

Than thou hast [e] mine ...

## 17. Direction of attachment

- For English, a reasonable guess is that clitics attach to the adjacent host which they c-command.<sup>2</sup>

Then how when nature calls thee to be gone,

Sonnet 4

- Following English syntax, this means that the great majority of function words will be proclitic (attach rightward); only the object pronouns can c-command leftward.

2 2 2 5

Thou dost love her (two proclitics and an enclitic)

4 2 3 1 5

Will doth love Henry. (*doth*, an Aux, is proclitic)

## 18. Postverbal subject pronouns

These are assumed not to be cliticized.

3

Grievst thou for me ...

## 19. Intonational Phrases

- This is more or less detectable through punctuation, particularly when the punctuation is the work of a modern editor rather than the original poet.
- If you really feel that poet *should* have put in a comma, go ahead and put in a 5.
- Intonational Phrase breaks tend to come at moments of “syntactic disconnectivity”:
  - parentheticals
  - nonrestrictive relative clauses

5

Some word there was, worser than Tybalt's death

5

RJ 3.2.108

<sup>2</sup> Start with your clitic, go uphill in the tree by one node then go downhill.

- after syntactically dislocated phrases

5

At seventeen years many their fortunes seek AYL 2.3.72

- long left branches (English is in general a right-branching language)
- vocatives

5                      5                      5

Welcome, gentlemen! I have seen the day RJ 1.5.23

5              5              5              5

Romeo, Romeo, Romeo, I drink to thee RJ 4.3.58

- lists

5    5                                      5

Unwieldy, slow, heavy and pale as lead RJ 2.5.17

## 20. Overriding horrendous punctuation

Go ahead.

2

Grievst thou for me, or for, my martial band?

## 21. [3 juncture] vs. [4 juncture] based on XP structure

- All others: place 4 at the end of an XP, 3 otherwise.
- Hence 3 goes on the last syllable of lexical heads that have some phrase following them in their XP, 4 otherwise.
- This is not sophisticated enough, really (cf. branching vs. non-branching complements), but will have to suffice; five levels of juncture is already a lot to deal with.

## 22. German-style Subject Inversion

So warred both armies on the ensanguined shore

This may be assumed to be a V in situ with an unfronted subject, so there is no XP boundary after *warred*

## 23. Preposed Adverbs

4

Meantime Patroclus to Achilles flies

We're calling this one a 4—not a comma, but definitely a sort of break here.

3

Perhaps yon relics of the Grecian name

This one seems less weighty, as if it didn't project an AdvP. This is going to be rather delicate and we are going to use some intuition.

## 24. Restrictive Relative clauses

are treated as postnominal modifiers like any other

3

No girl, no infant whom the mother keeps

(Nonrestrictive relative clauses are classical Selkirkian cases of 5's.)

## 25. Modifiers that precede the lexical head

Assume that unless they have modifiers themselves, that they do not project a phrase; i.e. they are "bare adjectives" and "bare adverbs".

3 5

tall trees

3 4 5

very tall trees

2 1 1 3 1 3 5

She carefully planted trees

She very carefully planted trees

## 26. Possessives

4

Not more the mother's soul, that infant warms

We'll treat these as 4's like any other DP ending.

## 27. Stress-juncture consistency

And hoary Peleus yet extends his days

If *yet* is taken to be a full-fledged Adverb, it needs a 3 for stress and a 3 for juncture. If *yet* is taken to be proclitic, it must have 1 (perhaps 2) for stress and 2 for juncture.

Ditto in the treatment of compounds like *thereby*, which can be



stress 23 juncture 2x

or

stress 13 juncture 1x

**28. Light PP**

i.e. preposition plus pronoun

Somewhat ambivalently, we are treating these like any other PP, getting 4 at the end.

4

What friend, what man from thee shall hope redress?

**29. Postverbal not**

at least for content verbs, we're assuming is not an enclitic

3 4

Be sure thou spring'st not from a soft embrace

However, it does exhaust the postverbal "slot", and needs a 4 after it.

**30. Verbs with enclitics count as verbs**

i.e. the clitic can take a 3, if appropriate, and need not have a 4

2 3

Nor ever tender goddess brought thee forth

**BH PROSODICALLY ANNOTATES**

- This will illustrate the systems, but also the indeterminacy and ambivalence that seems to be unavoidable in such annotation.

*Farewell! thou art too dear for my possessing,*

|   |       |       |      |     |     |      |     |    |     |     |       |
|---|-------|-------|------|-----|-----|------|-----|----|-----|-----|-------|
|   | Fare- | well! | thou | art | too | dear | for | my | pos | ses | sing, |
| s | 2     | 4     | 1    | 1   | 1   | 3    | 1   | 1  | 1   | 4   | 1     |
| j | 2     | 5     | 2    | 2   | 2   | 3    | 2   | 2  | 1   | 1   | 5     |

➤ Dear is not final in its AP.

*And like enough thou know'st thy estimate,*

|   |     |      |   |       |      |         |     |    |    |       |
|---|-----|------|---|-------|------|---------|-----|----|----|-------|
|   | And | like | e | nough | thou | know'st | thy | es | ti | mate, |
| s | 1   | 1    | 1 | 3     | 1    | 3       | 1   | 4  | 1  | 1     |
| j | 2   | 2    | 1 | 4     | 2    | 3       | 2   | 1  | 1  | 5     |

*The charter of thy worth gives thee releasing;*

|   |     |      |     |    |     |       |       |      |    |     |       |
|---|-----|------|-----|----|-----|-------|-------|------|----|-----|-------|
|   | The | char | ter | of | thy | worth | gives | thee | re | lea | sing; |
| s | 1   | 3    | 1   | 1  | 1   | 4     | 3     | 1    | 1  | 4   | 1     |
| j | 2   | 1    | 3   | 2  | 2   | 4     | 2     | 3    | 1  | 1   | 5     |

*My bonds in thee are all determinate.*

|   |    |       |    |      |     |     |    |     |    |       |
|---|----|-------|----|------|-----|-----|----|-----|----|-------|
|   | My | bonds | in | thee | are | all | de | ter | mi | nate. |
| s | 1  | 3     | 1  | 2    | 1   | 1   | 1  | 4   | 1  | 1     |
| j | 2  | 3     | 2  | 4    | 2   | 2   | 1  | 1   | 1  | 5     |

*For how do I hold thee but by thy granting?*

|   |     |     |    |   |      |      |     |    |     |      |       |
|---|-----|-----|----|---|------|------|-----|----|-----|------|-------|
|   | For | how | do | I | hold | thee | but | by | thy | gran | ting? |
| s | 1   | 1   | 1  | 1 | 3    | 1    | 1   | 1  | 1   | 4    | 1     |
| j | 2   | 2   | 2  | 2 | 1    | 4    | 2   | 2  | 2   | 1    | 5     |

*And for that riches where is my deserving?*

|   |     |     |      |      |    |       |    |    |    |     |       |
|---|-----|-----|------|------|----|-------|----|----|----|-----|-------|
|   | And | for | that | rich | es | where | is | my | de | ser | ving? |
| s | 1   | 1   | 1    | 3    | 1  | 3     | 1  | 1  | 1  | 4   | 1     |
| j | 2   | 2   | 2    | 1    | 4  | 2     | 2  | 2  | 1  | 1   | 5     |

*The cause of this fair gift in me is wanting,*

|   |     |       |    |      |      |      |    |    |    |     |       |
|---|-----|-------|----|------|------|------|----|----|----|-----|-------|
|   | The | cause | of | this | fair | gift | in | me | is | wan | ting, |
| s | 1   | 3     | 1  | 1    | 3    | 4    | 1  | 2  | 1  | 4   | 1     |
| j | 2   | 3     | 2  | 2    | 3    | 4    | 2  | 4  | 2  | 1   | 5     |

*And so my patent back again is swerving.*

|   |     |    |    |    |      |      |   |      |    |      |       |
|---|-----|----|----|----|------|------|---|------|----|------|-------|
|   | And | so | my | pa | tent | back | a | gain | is | swer | ving. |
| s | 1   | 2  | 1  | 4  | 1    | 3    | 1 | 2    | 1  | 4    | 1     |
| j | 2   | 2  | 2  | 1  | 4    | 3    | 1 | 4    | 2  | 1    | 5     |

*Thy self thou gav'st, thy own worth then not knowing,*

|   |     |      |      |         |     |     |       |      |     |     |       |
|---|-----|------|------|---------|-----|-----|-------|------|-----|-----|-------|
|   | Thy | self | thou | gav'st, | thy | own | worth | then | not | kno | wing, |
| s | 1   | 3    | 1    | 4       | 1   | 2   | 3     | 1    | 1   | 4   | 1     |
| j | 2   | 4    | 2    | 5       | 2   | 2   | 3     | 2    | 2   | 1   | 5     |

*Or me to whom thou gav'st it, else mistaking;*

|   |    |    |    |      |      |        |     |      |     |    |       |
|---|----|----|----|------|------|--------|-----|------|-----|----|-------|
|   | Or | me | to | whom | thou | gav'st | it, | else | mis | ta | king; |
| s | 1  | 4  | 1  | 1    | 1    | 4      | 1   | 3    | 1   | 4  | 1     |
| j | 2  | 5  | 2  | 2    | 2    | 2      | 5   | 3    | 1   | 1  | 5     |

*So thy great gift, upon misprision growing,*

|   |    |     |       |       |   |     |     |     |      |     |       |
|---|----|-----|-------|-------|---|-----|-----|-----|------|-----|-------|
|   | So | thy | great | gift, | u | pon | mis | pri | sion | gro | wing, |
| s | 1  | 1   | 3     | 4     | 1 | 2   | 1   | 3   | 1    | 4   | 1     |
| j | 2  | 2   | 3     | 5     | 1 | 2   | 1   | 1   | 4    | 1   | 5     |

*Comes home again, on better judgement making.*

|   |       |      |   |       |    |     |     |       |      |    |       |
|---|-------|------|---|-------|----|-----|-----|-------|------|----|-------|
|   | Comes | home | a | gain, | on | bet | ter | judge | ment | ma | king. |
| s | 3     | 4    | 1 | 2     | 1  | 3   | 1   | 4     | 1    | 3  | 1     |
| j | 3     | 4    | 1 | 5     | 2  | 1   | 3   | 1     | 4    | 1  | 5     |

*Thus have I had thee, as a dream doth flatter,*

|   |      |      |   |     |       |    |   |       |      |      |      |
|---|------|------|---|-----|-------|----|---|-------|------|------|------|
|   | Thus | have | I | had | thee, | as | a | dream | doth | flat | ter, |
| s | 3    | 1    | 1 | 4   | 1     | 1  | 1 | 3     | 1    | 4    | 1    |
| j | 4    | 2    | 2 | 2   | 5     | 2  | 2 | 4     | 2    | 1    | 5    |

*In sleep a king, but waking no such matter.*

|   |    |       |   |       |     |    |      |    |      |     |      |
|---|----|-------|---|-------|-----|----|------|----|------|-----|------|
|   | In | sleep | a | king, | but | wa | king | no | such | mat | ter. |
| s | 1  | 3     | 1 | 4     | 1   | 3  | 1    | 1  | 1    | 4   | 1    |
| j | 2  | 4     | 2 | 5     | 2   | 1  | 4    | 2  | 2    | 1   | 5    |