

Class 5, 4/13/15: Effects of Phonological Breaks

1. Current readings — on website

- Iambic pentameter: the role of phrasing (Bruce)
 - Bruce Hayes (1989) The Prosodic Hierarchy in meter. In Paul Kiparsky and Gilbert Youmans, eds., *Rhythm and Meter*, Academic Press, Orlando, FL, pp. 201-260 (1989).
- The *kaamil*, *waafir*, and *ramal* meters of Hausa — exercise (Russ)
 - Russ Schuh (1989) “The Meter of Imfiraji”

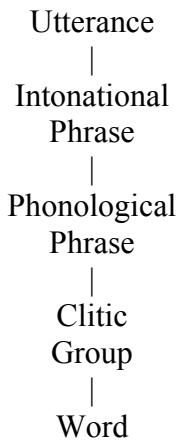
2. Where we are in the course so far

- A framework for analysis of metrics: GEN cum maxent-assigned probabilities
 - the math of maxent
 - simple worked-out examples with the Excel Solver
 - the Likelihood Ratio Test as a way of detecting analytic wishful thinking
- English iambic pentameter
 - basic patterning
 - the role of lexical stresses
- Hausa quantitative verse
 - background on this verse tradition
 - the relevant phonology of Hausa
 - a simple meter, the mutadaarik
 - exploring further with you-scan exercises

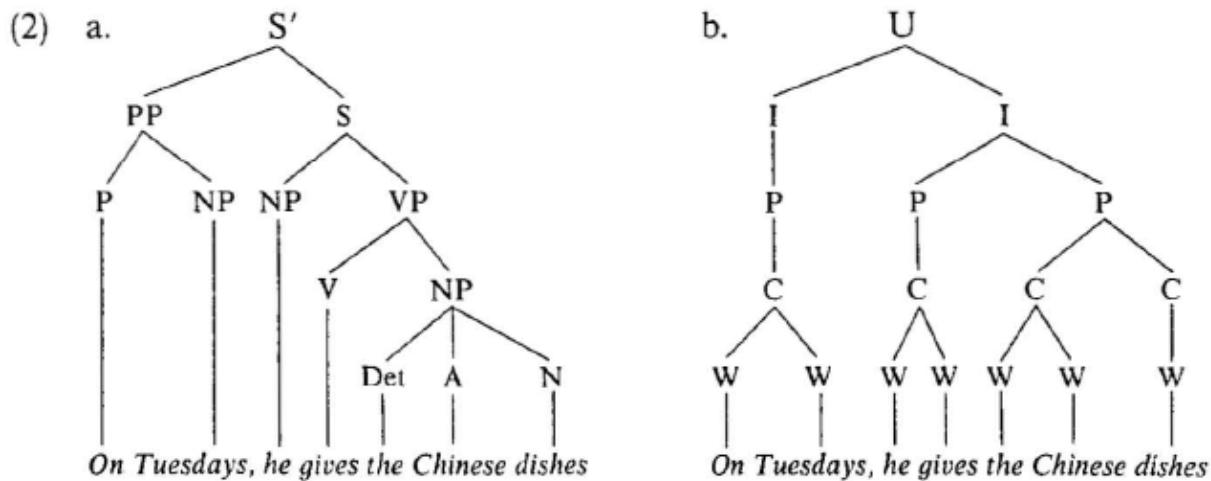
3. Phrasing and breaks

- Assuming that words are grouped into phonological units of various ranks, these entities are called **phrases**.
- The abstract locations *between* phrases are sometimes called **junctures** or **breaks**.
- Phonological theorists used to (American structuralism, *SPE*) work with juncture symbols — still used as a convenience.
- Most phonologists and sympathetic phoneticians seem to work with phrases today.
 - restrictiveness (Selkirk 1980, Hayes 1989)
 - category-like behavior of phrases (length matters, syntactic effects)

4. A particular version of the phrasal hierarchy (Hayes 1989, following Nespor and Vogel 1986)



5. A sample of phrasing (Hayes 1989)



- Hayes, following work of Selkirk (1980), Nespor and Vogel (1982), and others, gives a set of rules that can derive (b) from (a).

6. Why would a phonologist/phonetician believe in this?

- By now, there's a pretty big literature in both fields
- bounding of rules
- edge-based rules
- tonal docking sites
- phonetic phenomena:
 - final lengthening (Wightman et al., *JASA* 1990)
 - initial strengthening (C. Fougeron and P. A. Keating: "Articulatory strengthening at edges of prosodic domains", *J. Acoust. Soc. Am.* 101, 3728-3740, 1997)

7. The consistency criterion

- You figure out one particular system of phrasing structure, and then multiple phonological and phonetic phenomena respect it — even at the level of free variation.
- Two UCLA faculty have worked out such “consistency cases” in detail:
 - Jun, Sun-Ah (1996) *The Phonetics and Phonology of Korean Prosody: intonational phonology and prosodic structure*, Garland Publishing Inc., New York.
 - Bruce Hayes and Aditi Lahiri (1991) Bengali intonational phonology. *Natural Language and Linguistic Theory* 9: 47-96.

8. Where does phrasing matter in metrics? Cases from last time.

- **Bounding principles**
 - Stress contrasts matter more within words than across words.
 - Whether this holds for looser phonological domains remains uncertain.
- **Inversion**
 - the bigger the break, the more likely it will permit inversion after it.
- **Line-internal extrametricals**
 - They demand a big break.

9. Where does phrasing matter in metrics? New cases for today

- **Phrase-final constraints** (Kiparsky 1977, Hayes 1983, 1986)
 - Mismatched “ta¹da” at end of phrase is bad; more below.
- **Lines: phrasing marks separation and cohesion**
- **Division into sub-line units:** caesuras

10. Phrase-final stress-matching constraints: history

- Discovered, I think, by Kiparsky (1977, *LI*)
- Reformulated somewhat more accurately by Hayes (1983 *LI*); Kiparsky's system didn't have a simple way to describe the notion "stressed syllable".

11. As tested out in maxent (Hayes, Wilson, and Shisko 2012)

24a. *RISE FROM S(IP-final) Do not mismatch rising stress IP-finally.

Proposed by Kiparsky as valid for Milton

Do not mismatch *stressless* + *stress* IP-finally.

Proposed by Kiparsky as valid for Shakespeare

Resemb/ling strong / youth // in / his mid/die age
And see / the brave / day // sunk / in hi/deous night

Violation of **(Error! Reference source not found.d)**: For good is the life, ending faithfully
(Thomas Wyatt) (Thomas Wyatt)
Back I shrink — what is this I see and hear (Robert Browning)

12. Exercise

Find the violations in the following passage from Robert Frost's *Birches*,

One by one he subdued his father's trees
By riding them down over and over again
Until he took the stiffness out of them,
And not one but hung limp, not one was left
For him to conquer. He learned all there was
To learn about not launching out too soon

13. More on line breaks

- Bland line division is found at major breaks; this would be found, e.g. in Alexander Pope's verse.

More interesting line division:

- Exotic line division: Milton-style (examples from Kiparsky 1975)
 - (76) a. But all that fair and good in thy divine
Semblance, and in thy beauty's heavenly ray (PL 9.606-7)
 - b. ... These, these and many more
Causes import your need of this fair fruit (PL 9.730-31)
 - c. Great joy he promis'd to this thought, and new
Solace in her return, so long delay'd (PL 9.846-7)
 - d. To judgment he proceeded on the accursed
Serpent, though brute ... (PL 10.164-5)
- Exotic line-division: late-Shakespeare style (examples from Kiparsky 1975)
 - (62) a. Thy mother was a piece of virtue, and
She said thou wast my daughter
 - b. A freckled whelp hag-born-not honored with (Tmp. 1.2.56-7)

¹ In (Error! Reference source not found.) and henceforth, for brevity we express only the highest-ranking edge of the Prosodic Hierarchy; due to Strict Layering, all lower edges are always simultaneously present and trigger additional constraint violations.

c. A human shape ... (Tmp. 1.2.283-4)

Some food we had, and some fresh water, that
A noble Neapolitan, Gon'zalo ... (Tmp. 1.2.160-61)

- Genius/nutcase style: Gerard Manley Hopkins

The Windhover

To Christ our Lord

I CAUGHT this morning morning's minion, king-
dom of daylight's dauphin, dapple-dawn-drawn Falcon, in his riding
Of the rolling level underneath him steady air, and striding
High there, how he rung upon the rein of a wimpling wing

...

14. Line cohesion

- “Central pauses” (traditional terminology for line-medial prosodic breaks) are bad
- This sequence from Milton has not just a run-on but also a central pause:

Likeliest she seemd, Pomona when she fled]_W]_{CG}
[_{CG}[_W Vertumnus,]_{CG}]_P]_{IP} or to Ceres in her Prime,

PL 8.394-395

15. Analytic mechanism for line breaks/cohesion adopted in Hayes/Wilson/Shisko

- Use ALIGN constraints (McCarthy and Prince 1993).
- “For every Line break, there must be at least an IP break.”
- “For every IP break, there must at least a Line break.”

16. Various of these constraint test out as significant in maxent

		Shakespeare			Milton		
		Viols	Wght	p	Viols	Wght	p
(Error!	d. ALIGN(Foot, W)	8,380	ns		9,146	0.15	<.001
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	e. ALIGN(Line, IP)	302	2.52	<.001	1,279	0.36	<.001
	g. ALIGN(Line, CG)	7	3.09	<.001	50	2.53	<.001
	h. ALIGN(Line, W)	0	11.40	0.002	0	14.12	<.001
(Error!	a. ALIGN(IP, Foot)	195	0.48	<.001	678	ns	
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not found.)						
b. ALIGN(P, Foot)	1,146	0.41	<.001	1,469	0.28	<.001
e. ALIGN(IP, Line)	826	0.85	<.001	2,008	<i>ns</i>	
f. ALIGN(P, Line)	3,175	0.19	<.001	3,943	0.29	<.001
g. ALIGN(CG, Line)	6,624	<i>ns</i>		7,209	0.13	<.001

- Amazingly, these include a couple referring to the foot!
- This is important because not all scholars even admit that the foot is a metrical reality; they just say, “It’s WSWSWSWSWS and d___ the coincidence that it looks like five things”
- See Prince (1989)² for discussion.

17. A crying need

- We think there is some default mapping from syntax to breaks
- ... that that this governs normal line division
- For metrics, we ought to proceed empirically:
 - Examine all sorts of syntactic junctures (verb-object, subject-verb, etc. etc.) in verse.
 - Calculate their propensity to occur at line breaks vs. not

18. There are more metrical boundaries than just line boundaries

Particularly in highly symmetrical meters, one can detect half-lines, quarter-lines, etc.
[Inspect the following folk song text and locate phrasing-correlates.]

- Source: Sharp and Karpeles (1932), Vol. 2, p. 192; and ultimately Mr. Chester Lewis, of Harrogate, Tennessee (1917).

One morning, one morning, one morning in May,
I saw a young couple a-making their way;
The one was a lady, so bright and so fair,
And the other was a soldier, a brave volunteer.

Good morning, good morning, good morning to thee,
Now where are you going, my pretty lady?
I'm a-going a walking to the banks of the sea
See the waters a-gliding, hear the nightingales sing.

They hadn't been standing but an hour or two
When out of his knapsack his fiddle he drew,
And the tune that he played made the valleys to ring.
See the waters a-gliding and hear the nightingales sing.

² In Kiparsky and Youmans's book *Rhythm and Meter*.

Pretty lady, pretty lady, 'tis time to give o'er.
 O no, pretty soldier, please play one tune more.
 I'd rather hear your fiddle by the touch of one string
 Than see the waters a-gliding and hear the nightingales sing.

Pretty soldier, pretty soldier, will you marry me?
 O no, pretty lady, that never can be;
 I have a wife in London and children twice three.
 Two wives in the army is too many for me.

I'll go back to London and stay there one year
 And drink all my living in whisky and beer;
 And if ever I return it will be in the Spring.
 See the waters a-gliding and hear the nightingales sing.

19. Definition

- **Caesura** = a location within the meter that requires alignment with a phonological phrasing break (of some specified degree of strength)
- Caution: the terminology of metrics admits of a huge amount of regional and tribal variation; this is how I will use the term.
- [Socrates: find the caesura in this poem by George Gascoigne ("The Steel Glass", 1576)

The Nightingale, (whose happy noble hart,
 No dole can daunt, nor feareful force affright,
 Whose cherefule voice, doth comfort saddest wights,
 When she hir self, hath little cause to sing.
 Whom lovers loue, bicause she plaines their greues,
 She wraies their woes, and yet relieues their Payne,
 Whom worthy mindes, alwayes esteemed much,
 And grauest yeares, haue not disdainde hir notes:
 (Only that king proud Tereus by his name
 With murdring knife, did carue hir pleasant tong,
 To couer so, his owne foule filthy fault)
 This worthy bird, hath taught my weary Muze,
 To sing a song, in spight of their despight,

20. English caesuras

- Simple verse: Gascoigne's caesura. 2 + 3 foot division
 - cf. Serbo-Croatian folk meter
- More complex: 3 + 2, notable as a free variant that became more frequent in both Shakespeare and Milton's careers

- For insightful discussion of 2+3, 3+2, see Carlos Piera's 1980 UCLA dissertation, *Spanish Verse and the Theory of Meter*, at <http://www.linguistics.ucla.edu/research/55-ucla-phd-dissertations.html>