

Synchronic typology of metrical systems

Day 5:

Friday – Foot inventory III / Manipulating pitch

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What we did yesterday...

Trochaic and iambic rhythm

- Not of all of the abovementioned foot types are equally common
- QI-rd feet are rare
- QS feet are mostly right dominant
- Hayes 1995 connects these facts with the results of perception experiments: he gives a **functional explanation**.

Perception tests

(as summarized in Hayes 1995)

- Listeners group sequences of even duration in a binary fashion with initial prominence
- Listeners group sequences of uneven duration in a binary fashion with final prominence

From Hyde (2011)

Intensity contrasts: Left-prominent groupings

... [O o][O o][O o][O o][O o][O o][O o][O o] ...

Duration contrasts: Right-prominent groupings

... [- —][- —][- —][- —][- —][- —][- —][- —] ...

Three foot types

a. SYLLABIC TROCHEE:

(x .)

σ σ

(where σ is either l or h)

b. MORAIC TROCHEE:

(x .)

μ μ

(where $\mu\mu$ is either ll or h)

c. IAMB:

(. x)

(x)

μ σ or h

Hixkaryana

a. òw to hó <na>

h l l

(x) (. x)

(x)

IAMB

END RULE FINAL

b. tòh ku r^jé ho <na>

h l l l

(x) (. x)

(x)

c. kha nà níh <no>

l l h

(. x) (x)

(x)

IAMB

END RULE FINAL

d. mì hà na níh <no>

l l l h

(. x) (. x)

(x)

Stress in Fijian

- Basic insights
- Moraic trochee (quantity-sensitive)
- Trochaic shortening
 - Word final sequence H.L becomes (L.L) instead of...
 - (HL): uneven trochee
 - (H): last syllable deleted

Stress in Cahuilla (from Hyde 2011)

('taxmu)(,ʔat)	'song'
('taka)(,litʃem)	'one-eyed ones'
('paʔ)(,li)	'the water (OBJ)'
('qaː)(,nitʃem)	'palo verde (PL)'
('su)(,kaʔ)(,ti)	'the deer (OBJ)'
(,nesun) ('ka)(,viː)(,tʃi-wen)	'I was surprised'

Stress in Cahuilla (Hyde 2011)

('LL)(,L)	('taxmu)(,ʔat)	'song'
('LL)(,LL)	('taka)(,litfem)	'one-eyed ones'
('H)(,L)	('paʔ)(,li)	'the water (OBJ)'
('H)(,LL)	('qa:)(,nitfem)	'palo verde (PL)'
('L)(,H)(,L)	('su)(,kaʔ)(,ti)	'the deer (OBJ)'
('L)(,H)(,LL)	(,nesun) ('ka)(,vi:)(,ʔfi-wen)	'I was surprised'

Hixkaryana again

Iambic lengthening in Hixkaryana

- a. (L'L)('H)L → (L'H)('H)L
(khæ'næ)('nʷh)nɔ → (khæ'næ:)('nʷh)nɔ 'I taught you'
- b. (L'L)(L'H)L → (L'H)(L'H)L
(mʷ'hæ)(næ'nʷh)nɔ → (mʷ'hæ:)(næ'nʷh)nɔ 'you taught him'
- c. ('H)(L'L)L → ('H)(L'H)L
('ɔw)(tɔ'hɔ)næ → ('ɔw)(tɔ'hɔ:næ) 'to the village'
- d. ('H)(L'L)LL → ('H)(L'H)LL
('tɔh)(ku'rʲi)hɔnæ → ('tɔh)(ku'rʲi:)hɔnæ 'to Tohkurye'

Three foot types

a. SYLLABIC TROCHEE:

(x .)

σ σ

(where σ is either l or h)

b. MORaic TROCHEE:

(x .)

μ μ

(where $\mu\mu$ is either ll or h)

c. IAMB:

(. x)

(x)

μ σ or h

Trochees vs. iambs

- As we have seen, the proposed foot types can be reflected in segmental processes, such as vowel shortening (trochees) or vowel lengthening (iambs)
- However: the world is not always that simple

Chimalapa Zoque (from Hyde 2011)

Trochaic lengthening in Chimalapa Zoque

- | | | | | |
|----|---------------------|---|----------------------|--------------------------|
| a. | ('LH) | → | ('HH) | |
| | ('kosaʔ) | → | ('ko:saʔ) | 'scold (IMP)' |
| b. | (,L)('LL) | → | (,H)('HL) | |
| | (,hu)('kuti) | → | (,hu:)('ku:ti) | 'fire' |
| c. | (,LL)L('LL) | → | (,HL)L('HL) | |
| | (,witi) hu('kuti) | → | (,wi:ti) hu('ku:ti) | 'big fire' |
| d. | (,LH)H('HL) | → | (,HH)H('HL) | |
| | (,wituʔ)paj('niksi) | → | (,wi:tuʔ)paj('niksi) | 'he is coming and going' |

Diachronic change

Old Dutch → Middle Dutch

(Stress is always initial)

- [V] katte – [V] katten
 - [V] zonne – [V] zonnen
 - [V] dak – [V] daken
 - [V] dal – [V] dalen
 - [VV] dood
 - [V] zone – [V] zonen
- [V] kat – [V] katten
 - [V] zon – [V] zonnen
 - [V] dak – [VV] daken
 - [V] dal – [VV] dalen
 - [VV] dood
 - [VV] zoon – [VV] zonen

Diachronic change

Old Dutch → Middle Dutch

- Open syllable lengthening
- Looks rather like 'trochaic lengthening'

Trochaic lengthening

- Opposite a of trochaic shortening
- Has been implemented into the theory as a requirement that stressed syllables be heavy
- OT constraint
 - StressToWeight: Stressed syllables must be heavy

Osage (Altshuler 2008)

Feet with heavy-light syllable

- a. ĩ:ˈhõ
- b. ^hpa:ˈstseka
- c. ˈi^hpi:zi
- d. ˈho:sa:ki
- e. xõ:ˈtsoði:brã
- f. ˈoã,ta:sa:ki
- g. ã:ˈwãla:xye

Osage (Altshuler 2008)

Feet with heavy-light syllables

- | | | |
|----|---|--|
| a. | $\tilde{i}:'h\tilde{o}$ | $(\underline{H}'L)$ |
| b. | ${}^hpa:'\widehat{stseka}$ | $(\underline{H}'L)L$ |
| c. | $'i^hpi:{}_1zi$ | $({}^1L)(\underline{H}_1L)$ |
| d. | $'ho:sa:{}_1ki$ | $({}^1H)(\underline{H}_1L)$ |
| e. | $x\tilde{o}:'\widehat{tso\ddot{o}i}{}_1br\tilde{a}$ | $(\underline{H}'L)(\underline{H}_1L)$ |
| f. | $'o\tilde{a}{}_1ta:sa:{}_1ki$ | $({}^1L)(L_1H)(\underline{H}_1L)$ |
| g. | $\tilde{a}:'w\tilde{a}la:{}_1xy\eta e$ | $(\underline{H}'L)(\underline{H}_1L)L$ |

Osage

- Altshuler argues that Osage has a quantity-insensitive iamb
- This would imply that the foot typology would be symmetrical after all, and that the iambic-trochaic law would capture (strong) tendencies but not absolute universals