

Class 18: Phonology-syntax interface, part II

To do

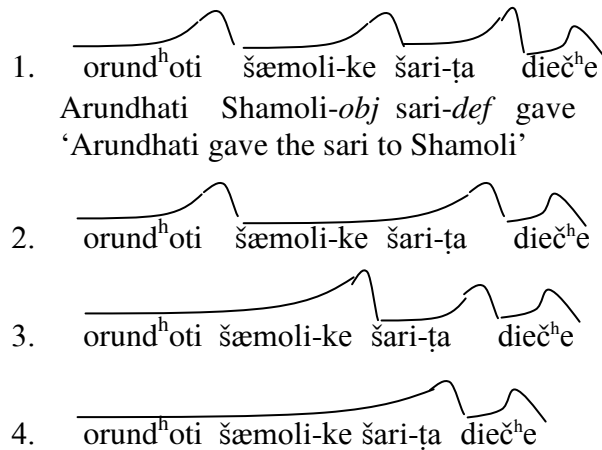
- Malagasy strata assignment due tomorrow—that’ll be the last homework.
- Next reading? None! Work on your project.
- Project: turn in a 1-page abstract by tomorrow.

Overview: Since we got through all the basic stuff last time, this time let’s work through two case studies, in lieu of having a problem set on this week’s material. This handout just gives the data—you guys lead the discussion and I’ll mostly listen.

1 Bengali

Indo-European; Bangladesh & India; 181 million speakers. Hayes & Lahiri 1991. See also Khan 2008

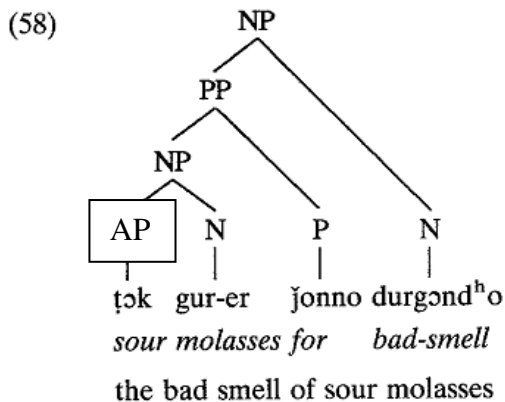
- There are 4 possible intonations for this sentence:



(examples from p. 84, with schematic pitch contours drawn in):

Assuming the intonation reflects phonological phrasing,¹ propose a variable constraint ranking. (You can make a schematic MaxEnt grammar to handle harmonically bounded variants.)

- This sentence also has variable phrasing, but some candidates are missing. I don’t think there’s an easy ALIGN solution, but discuss what we could potentially do.



Instead of drawing the pitch contour these data just show the phrase boundaries.

- (60)a. [ṭək]_P [gur-er]_P [jonno]_P [durgənd^ho]_P
 b. [ṭək gur-er]_P [jonno]_P [durgənd^ho]_P
 c. [ṭək gur-er jonno]_P [durgənd^ho]_P
 d. [ṭək gur-er jonno durgənd^ho]_P (p. 89)

(p. 88; I changed A to AP—this tree has no X-bars)

¹ Or maybe “accentual phrases”—see Khan 2008.

[FYI, here are Hayes & Lahiri’s rules—as you can see, we don’t quite have the tools to capture them all.

- each word can be its own phrase
- a phrase can swallow up a following head that c-commands it
- a verb must form its own phrase
- a focused constituent must be followed by the end of a phrase
- two phrases can be combined in rapid speech if the first c-commands the second, and one of them is non-initial and contains “old information”]

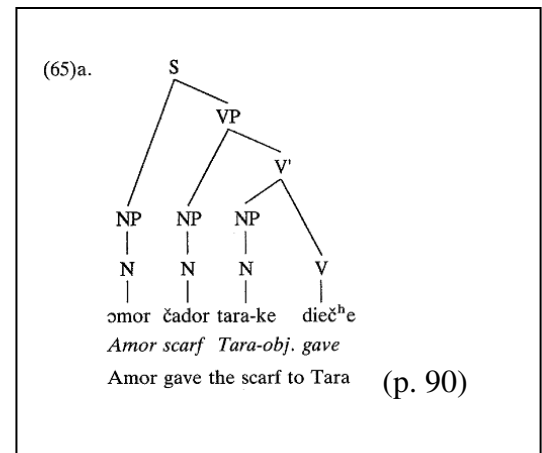
- Here’s a segmental process to account for (p. 81) [it’s optional, but I’m ignoring the faithful option]:

| | | |
|----------------------------------|----------------------------|-------------------|
| 5. /bɔrʃa/ | bɔʃʃa | ‘rainy season’ |
| 6. /bɔrdi/ | bɔddi | ‘elder sister’ |
| 7. /b ^h orti/ | b ^h otti | ‘full’ |
| 8. /kor-č ^h e/ | kočč ^h e | ‘s/he does’ |
| 9. /kor-lo/ | kollo | ‘s/he will do’ |
| 10. /raʃar č ^h obi-r/ | raʃač č ^h obi-r | ‘king’s pictures’ |
| 11. /č ^h obi-r ʃonno/ | č ^h obiʃ ʃonno | ‘for pictures’ |

- Modify the analysis of the *r* process to accommodate these data:

/ɔmor čador tara-ke dieč^he/ ‘Amor gave a scarf to Tara’

- 12. (ɔ**mor**) (čador) (tara-ke) (dieč^he)
- 13. (ɔmo**č** čador) (tara-ke) (dieč^he)
- 14. (ɔ**mor**) (čadot tara-ke) (dieč^he)
- 15. (ɔmo**č** čadot tara-ke) (dieč^he)



- Another segmental process to account for:

| | | |
|------------------------|------------------|------------------------------------|
| 16. /pat-bo/ | pa d -bo | ‘we will lay down’ |
| 17. /rag-tam/ | ra k -tam | ‘we used to be angry’ |
| 18. /ma p -ben/ | ma b -ben | ‘they (<i>hon</i>) will measure’ |

- Update the analysis to handle these:

/onup ba**g^h** kaʃol-ke dieč^he/ ‘Anup gave a tiger to Kajol’

- 19. (on**u**p) (ba**g^h**) (kaʃol-ke) (dieč^he)
- 20. (on**u**b ba**g^h**) (kaʃol-ke) (dieč^he)
- 21. (on**u**p) (ba**k** kaʃol-ke) (dieč^he)
- 22. (on**u**b ba**k** kaʃol-ke) (dieč^he)

2 Ewe

Data originally from Clements 1977, Clements 1978 but I got them from Clements, Michaud, & Patin 2010, Kager & Zonneveld 1999, plus another source I seem to have lost (sorry), so there may be some errors.

- Account for the tone alternations in the left column.
 - The double acute accent means “extra-high”.
 - You’ll need about three rather arbitrary markedness constraints on tones.
- Then consider the middle column, where the change doesn’t happen. Develop an analysis of phrasing that will explain this.
- Finally, the rightmost column shows that adjectives and adverbs are problematic—discuss.

| | | |
|---|--|---|
| 1. /àtyíkē-ó/ [àtyíkē-ó] medicine-plural ‘medicines’ | 2. /àblá kplé kōfí/ [àblá kplé kōfí] Abla and Kofi ‘Abla and Kofi’ | 3. /gā hǒmē gǎ áǒé/ [gā hòmě gǎ áǒé] money sum large <i>indef</i> ‘much money’ |
| 4. /èkpé mēgbé/ [èkpé mēgbé] stone behind ‘behind stone’ | 5. /kpó ānyí/ [kpó ānyí] saw bee ‘saw a bee’ | 6. /kpó m̄ xóxó/ [kpó m̄ xóxó] saw me already ‘saw me already’ |
| 7. /àtyíkē dyí/ [àtyíkē dyí] medicine on ‘on medicine’ | 8. /mè ná àtyí kōfí/ [mē ná àtyí kōfí] I gave stick Kofi ‘I gave a stick to Kofi’ | |
| 9. /m èkpé flē-gé/ [m èkpé flé-gé] I stone buy- <i>future</i> ‘I’ll buy stone’ | 10. /mè xé fē né kòdzó/ [mē xé fē né kòdzó] I paid debt to Kwadzo ‘I paid a debt to Kwadzo’ | |
| 11. /m àtyíkē drzá-gé/ [m àtyíkē drzá-gé] I medicine sell- <i>fut</i> ‘I’ll sell medicine’ | 12. /mè yī dé tō tó / [mē yī dé tō tó] I went to river side ‘I went to the riverside’ | |
| 13. /m ākōdú flē-gé/ [m ākōdú flé-gé] I banana buy- <i>future</i> ‘I’ll buy a banana’ | | |
| 14. /nyónūví á wó vá/ /nyónúví á wó vá/ girl <i>def pl</i> come ‘the girls came’ | | |

To sum up this week (again)

- We saw the classic Selkirkian prosodic hierarchy in action.
- We saw how to translated boundary-projection rules into OT using ALIGN constraints.
- We considered challenges this all poses to last week's simple postlexical stratum.
- We looked at effects prosodic structure has on phonetics and possible effects it has on syntax.

Next week (Week 10!)

Having already looked at “downward” (phonetics) and “upward” (morphology and syntax) interfaces with phonology, we consider “sideways” interfaces

- Phonology vs. the lexicon
- Phonology vs. processing

References

- Clements, George N. 1977. Four tones from three: the extra-high tone in Anlo Ewe.. In Paul F. A Kotey & H Der-Houssikian (eds.), *Language and linguistic problems in Africa*, 168–191. Columbia, SC: Hornbeam Press.
- Clements, George N. 1978. Tone and syntax in Ewe.. In Donna Jo Napoli (ed.), *Elements of Tone, Stress, and Intonation*, 21–99. Washington, DC: Georgetown University Press.
- Clements, George N, Alexis Michaud & Cédric Patin. 2010. *Do we need tone features?* <http://halshs.archives-ouvertes.fr/halshs-00456364/en/>, http://halshs.archives-ouvertes.fr/docs/00/45/63/64/PDF/Do_we_need_tone_features_Submitted_Feb1st2010.pdf (8 March, 2012).
- Hayes, Bruce & Aditi Lahiri. 1991. Bengali intonational phonology. *Natural Language and Linguistic Theory* 9. 47–96.
- Kager, René & Wim Zonneveld. 1999. Phrasal phonology: an introduction.. In René Kager & Wim Zonneveld (eds.), *Phrasal phonology*, 1–34. Nijmegen: Nijmegen University Press.
- Khan, Sameer ud Dowla. 2008. Intonational phonology and focus prosody of Bengali.. University of California, Los Angeles ph.d. dissertation.