Exploring the prosody-syntax-focus interface in Yanbian Korean

Sun-Ah Jun
UCLA
jun@humnet.ucla.edu

Workshop on Prosody and Prosodic Interfaces in Japanese and Korean
Univ. of Hawai‘i, Oct. 11, 2017

Introduction: Prosodic Phrasing

• Grouping of words marked by (supra)segmentals
• Different sizes of phrasing: prosodic units
• Prosodic units are hierarchically organized

Factors affecting prosodic phrasing

• Factors affecting prosodic phrasing
  – syntactic structure
  – information structure: focus
  – phonological weight (length of the phrase)
  – pragmatic and discourse information: old vs. new info
  – speech rate

Factors affecting prosodic phrasing

• Prosodic phrasing provides information on
  – Syntactic structure
  – Prominence relations among words

• So far, more attention given on the presence/absence of a prosodic boundary, and not much on the nature of prosodic phrasing
• Do the syntax-marking vs. focus-marking prosodic phrases have the same phonological properties?
• See the Intermediate Phrase (ip) in Seoul Korean

Intonation of Seoul Korean

No pitch accent!

Ex. Korean AP realizations in one ip/IP

“Youngman’s family hates YoungA”

Intermediate Phrase (ip) in Seoul Korean

- Two types of ip (Jun 2011)
  - ip-foc: marks focus
    - A focused word starts a new ip by pitch reset (raising +H; if no +H, by raising Ha, or both)
    - In general, no phrase-final lengthening on the preceding ip-final syllable
  - ip-syn: marks a syntactic group
    - The right edge of the group is marked by H- boundary, which is higher than the preceding Ha
    - L- is also possible but less frequent
    - The last syllable of ip is often slightly lengthened

Prosodic phrasing in Yanbian Korean

- in collaboration with
  Xiannu Jiang, Yanbian Univ.

Yanbian Korean: Background (Jung 1995, Kim, Y. 2011)

- Yanbian Korean Autonomous Prefecture in Mainland China (since 1955).
  - red-color area on the map (eastern Jilin Province (orange color); north of Hamgyung Province of North Korea)
  - ~2.7 million as of 2010 (37.7% ethnic Koreans)
- Official languages: Korean (Yanbian dialect) & Mandarin
- Data collected in Yanji, the capital city of Yanbian
  - 12 speakers (7 male) in their 20s–30s
Lexical prosody of Yanbian Korean

- a variety of Hamgyung dialect, a tonal (lexical pitch accent) dialect
- Tonal patterns of lexical words
  - monosyllabic words: H or L
  - disyllabic words: HL, LH, L(H)
  - trisyllabic words: HLL, LHL, LLH, LL(H)
  - 4 syll or longer nouns: H on wd-final or penultimate syllable
- Phonological word (lexical item + case marker/postposition) is realized with one lexical H tone
  - all content words are lexically accented
  - some case marker/postpositions are also lexically accented
  - when multiple morphemes form one phonological word, only the last morpheme’s H tone survives for nouns, but for verbs, the initial morpheme’s H tone tends to survive.

Intonation of Yanbian Korean

- Each word can form one Accentual Phrase (AP) in careful speech but an AP often has more than one word.
- An AP can have one lexical H (H*) or an AP-final H boundary tone (Ha) or both, but cannot have two lexical H’s
  - H* tends to be higher than Ha
  - Ha is sometimes realized as mid H
- AP formation when a noun is a syntactic head:
  - In casual speech, prenominal modifiers (e.g., adjective, possessive N, relative clause) can form one AP with the following head noun
  - In these cases, only the head noun’s lexical H survives => rightmost H dominant

Neutral focus: each wd can form one AP, marked by one lexical H (H*). Ex. of prosodic phrasing (((AP)(AP)(AP))ip ((AP)(AP))ip ((AP))ip)IP

“A child who is dancing envies an adult who is singing”

Ex.2. SOV – all new; H* (lexical H) and Ha (AP-final H boundary)

Youngmin hates Changmin’s family.

Ex.3. “PossN + N” forming one AP by deleting Possessive N’s lexical H

Youngi hates Youngman’s sister.

---

Spk F3

Spk F4
Ex. 4. “Adj. & Noun” in separate APs vs. in one AP

**spk M3**

The child-TOP fierce daughter-in-law-ACC hate

Ex. 5. “Relative clause + complex NP” in one AP

“My colleague’s wife who is hospitalized is my brother’s friend.”

Ex. 6. Relative clause (RC) + NP1 of NP2 (when RC modifies NP1)

“I heard the sister of the actress who is on stage is my friend’s girlfriend.”

Ex. 7. “Relative clause modifies NP2 of complex NP head

“I heard the actress’s sister who is on stage is my friend’s girlfriend.”

Ex. 8. Topic NP + [RC[DO V] + IO] + DO + V

“I heard Youman gave a diamond to Myunghee who likes a ring.”


“I heard Youman gave a ring to Myunghee who he likes.”
Focus intonation in Yanbian Korean

- Three ways to mark narrow focus by prosody
  - Focused word shows pitch range expansion by its lexH or Ha and post-focus word(s) lose their H or reduce the pitch range
  - Focused word starts a new phrase; leftmost H dominant
  1. using lexH (H*) of the focused word is the most common
  2. using Ha of the focused word is 2nd most common
  3. No pitch range expansion; the least common
     - put 'stress' on the initial syllable of the focused word without realizing lexical H or Ha. More likely when the focused word’s lexical H is from the case marker (e.g., genitive case). In this case, the lexical H of the head noun is realized.

Ex.10. focus on Adj.: raise Adj’s ‘lex H’ and delete post-focus H’s.

(‘The daughter-in-law hit the active child’ (며느리가 활발한 어린이를 때렸다))

Ex.11. focus by raising Ha

(‘(My) colleague’s wife who is hospitalized is my brother’s friend.’)

Ex.12. focus by lexH, but by ‘stress’ before a head Noun

- AP formation when a verb is a syntactic head
  - Object Noun and Verb tend to form one AP.
  - In that case, only the object noun’s lexical H survives = the leftmost H dominant
    - same as the focus phrasing, suggesting the preverbal object receives prominence in Yanbian Korean, supporting the literature on syntactic typology (e.g., Greenberg 1966, Dezso 1974, 1982, Kim 1988, Choi 1996)
  - Adverb + Verb => the directionality of the dominance depends on the type of adverb (e.g., degree adverb or time adverb).
Ex.13. Object N + Verb in one AP: neutral vs. focus on Obj.

Focus on Obj

Neutral

Summary of Yanbian Korean prosodic phrasing

In neutral focus condition,
- a ‘modifier + head noun’ structure, noun’s lexical H survives if they form one AP => right-dominant in AP
- an ‘object N + verb’ structure, object N’s lexical H survives if the two form one AP => left-dominant in AP

In narrow focus condition,
- Regardless of syntactic structure, a focused word begins an AP or it and ‘lexH’ or ‘Ha’ of the focused word is realized and the following word(s) lose/weaken their H => left-dominant
  (when focusing by ‘stress’, the post-focus word does not lose its H)
- The default prosodic phrasing of ‘object N + V’ being left-dominant suggests the preverbal object is a prominent position.

Discussion

- Common between Seoul Korean and Yanbian Korean
  - Both syntax and focus affect prosodic phrasing
  - Focus-marking prosodic phrase differs from syntax-marking prosodic phrase phonologically
  - In both dialects, focus-marking phrasing is cued by raising the H tone on the focused word even though the phonological status of the H tone is different between these two varieties

syntax-marking vs. focus-marking prosodic phrase in other languages

- The effect of syntax on prosodic phrasing seems to be similar across languages: match boundaries of major syntactic units with the boundaries of prosodic units (e.g., Nespor & Vogel 1986/2007; Selkirk 2000, 2011; Truckenbrodt 1999)
- But, languages differ in ways to mark prominence prosodically
  - Head prominence vs. edge-prominence in prosodic typology (Jun 2005, 2014)

Typology in types of prominence marking (Jun 2005, 2014)

- Head-prominence language
  - e.g., English, German, Greek, Spanish
  - Word-prominence is cued by pitch accent on the ‘head’ (stress or lexical pitch)
  - a focused word receives nuclear pitch accent, the most prominent word (“head”) in a phrase.

- Edge-prominence language
  - e.g., Korean, Mongolian, W. Greenlandic
  - has no lexical prosody. Word-prominence is cued by phrasal tones, marking the edge(s) of a word.
  - a focused word comes at the beginning/end of a larger phrase.

- Head/edge-prominence language: combination of head- and edge-prominence e.g., French, Bengali, Turkish, Georgian

Syntax vs. prominence marking in head- & edge-prom lgs

- In (Seoul) Korean-type edge-prominence languages, both syntax and prominence are marked by prosodic phrasing.
- In English-type head-prominence languages, prominence is marked by pitch accent while syntactic structure is marked by boundary tone.
  - Focus removes a phrase boundary after a focused word but in general does not create a new prosodic phrase boundary at the edge of a focused word.
  - Therefore, less interaction in prosodic phrasing due to its function (syntax vs. focus-marking)
- In head/edge-prominence languages (e.g., Bengali, Yanbian Korean), the interaction seems to vary depending on how simple the inventory of ‘head’ is.
Syntactic structure influences prosodic phrasing in English (head-prominence language)

Ex. The child with asthma // outgrew the condition // last year.
One IP (L%), three ip’s (L-)

Focus in English by putting a Nuclear pitch accent on the focused word, i.e., by deleting pitch accent and prosodic boundary after focus

Ex. The child with ASTHMA outgrew the condition last year.
One IP, one ip

Syntax vs. prominence marking in head/edge-prom language

ex. Bangladesh Bengali (Khan 2008, 2014)
  • syntactic grouping is marked by a phrase-final boundary tone
  • word prominence is marked by pitch accent (typically L*)
  • focus is marked in three ways depending on the type of focus
    – L*+H for corrective/wh-answer focus and RH for surprise focus
    – *** boundary tone for end-centered focus
    – Dephrasing & deaccenting after focused word
  • Thus, focus is marked by pitch accent and affects phrasing, but a focused word does not start or end a big phrase as in English.

ex. Kolkata Bengali (Hayes & Lahiri 1991)
  • word prominence by pitch accent L* (typically)
  • focus is marked by inserting a Hp boundary tone after the focus domain

Conclusion

• Like Seoul Korean, prosodic phrasing in Yanbian Korean marks syntactic grouping and focus, and intonational marking of prosodic phrase differs due to its function and syntactic head type.
  • Syntactic grouping: which lexH survives at a phrasal level depends on the syntactic head of the phrase
  • Focus-marking: the H tone of a focused word become a phrase-initial H, regardless of the type of syntactic head.
  Furthermore, focus-marking prosodic phrase shows pitch range expansion phrase-initially, followed by pitch range compression
  • Interaction in prosodic phrasing due to its function (syntax vs. focus) is expected to occur in languages where prominence is marked by edge, but not by head
  • More research needed to confirm this prediction across languages.

Thank you!

References

• Jung, P. (정판룡) 1995. 언어사 (History of Yanbian Korean), 중국 북경시.
• Kim, Y. (김영만) 2011. 연변조선족사 (History of Yanbian Korean), 중국 길림성 연길시.