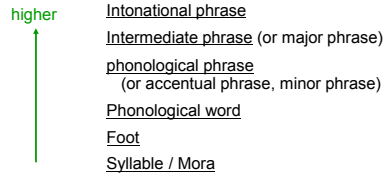


Exploring the prosody-syntax-focus interface in Yanbian Korean

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Introduction: Prosodic Phrasing

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



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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

(e.g. Selkirk 1984, 1986, 2000, 2007, 2011; Nesport & Vogel 1986/2007; Pierrehumbert & Beckman 1988; Hayes 1989; Hayes & Lahiri 1991; Jun 1993, 1998, 2003; Shattuck-Hufnagel & Turk 1996, Truckenbrodt 1999)

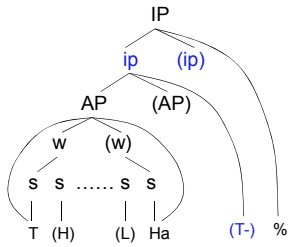
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syntax-marking vs. prominence-marking

- 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

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Intonation of Seoul Korean (revised model: Jun 2006, 2007, 2011)



IP: Intonational Phrase
 ip: Intermediate phrase
 AP: Accentual Phrase
 w: phonological word
 s: syllable
 T= H, when the AP-initial segment is aspirated or tense C or /h, s/;
 Otherwise, T= L
 Ha: AP-final boundary tone
 T-: H- or L- ip-final boundary tone
 %: IP-final boundary tone

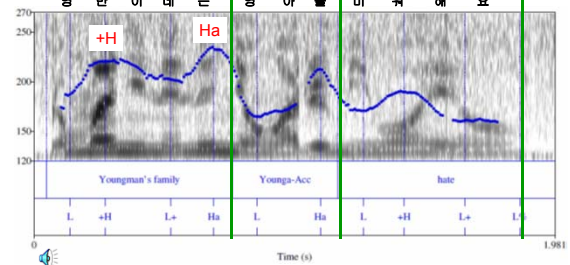
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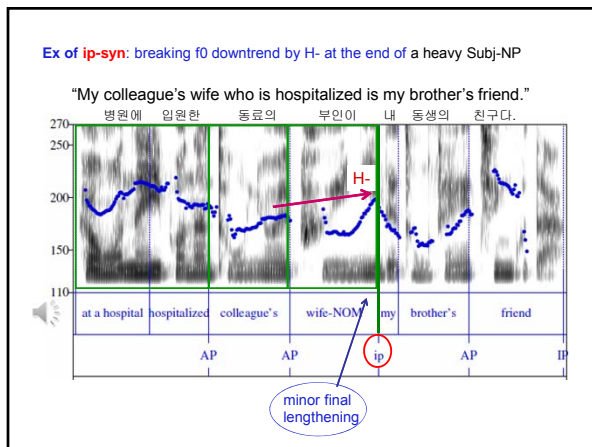
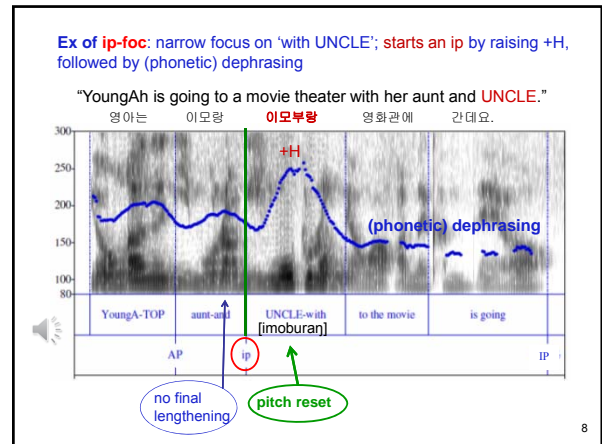
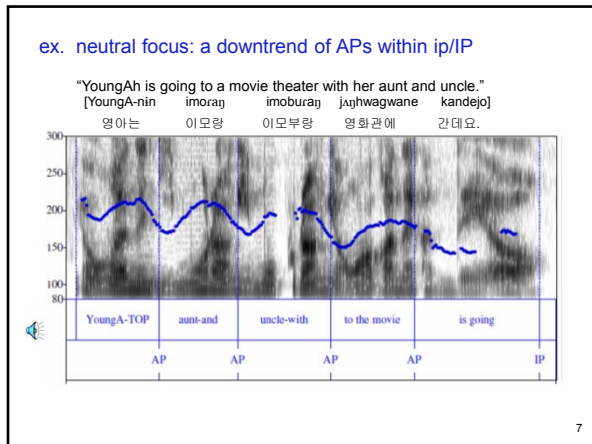
Ex. Korean AP realizations in one ip/IP

“Youngman’s family hates YoungA”

[jʌŋ] man i ne nin [jʌŋ] a ril mi wʌ he jo]

영 만 이 네 는 영 아 를 미 워 해 요]





- ### 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
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Prosodic phrasing in Yanbian Korean

-- in collaboration with --
 Xiannu Jiang, Yanbian Univ.

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- ### 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 (3 male) in their 20s~30s
-
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Lexical prosody of Yanbian Korean

(Jung 1995, H. Jun 1998, C. Ito 2014)

- 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.

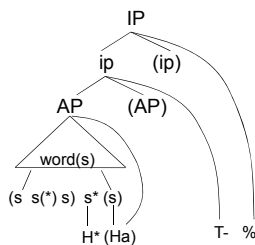
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Intonation of Yanbian Korean

- 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**

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Intonation of Yanbian Korean

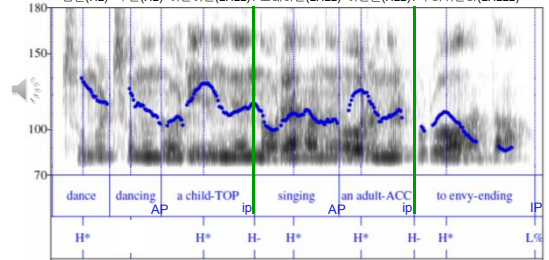


IP: Intonational Phrase
 ip: Intermediate phrase
 AP: Accentual Phrase
 w: phonological word
 s: syllable
 s*: lexically marked
 H*: lexical pitch accent
 (lexically unmarked syll: L)
 Ha: AP-final boundary tone
 T-: H- or L- ip boundary tone
 %: IP-final boundary tone

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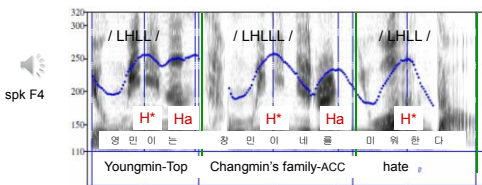
Neutral focus: each wd can form one AP, marked by one lexical H (H*).
 Ex. of prosodic phrasing (((AP)(AP)(AP))ip ((AP)(AP))ip ((AP))ip)IP

"A child who is dancing envies an adult who is singing"
 춤을(HL) 추는(HL) 어린이는(LHLL) / 노래하는(LHLL) 어른을(HLL) / 부러워한다(LHLLL)



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

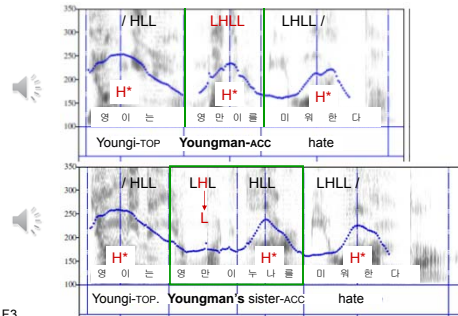
Youngmin hates Changmin's family.



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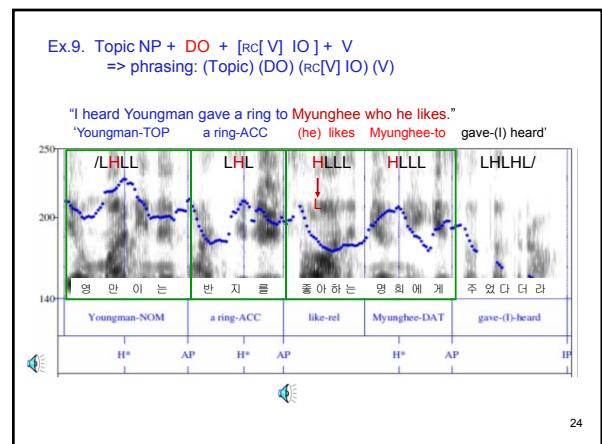
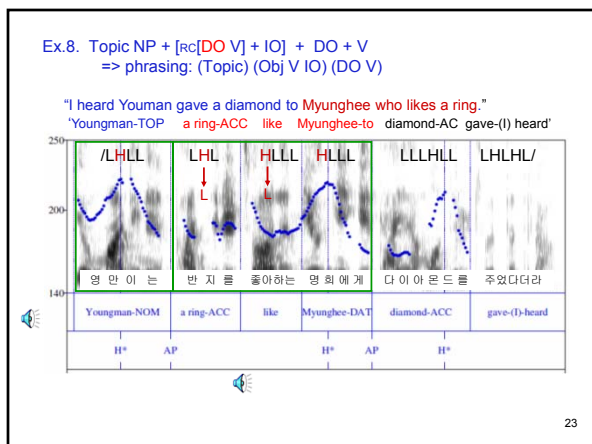
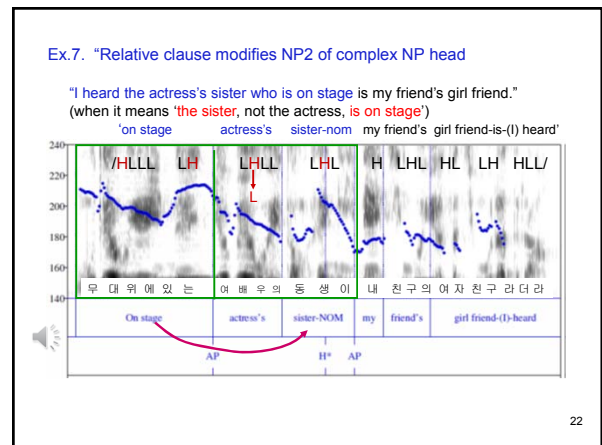
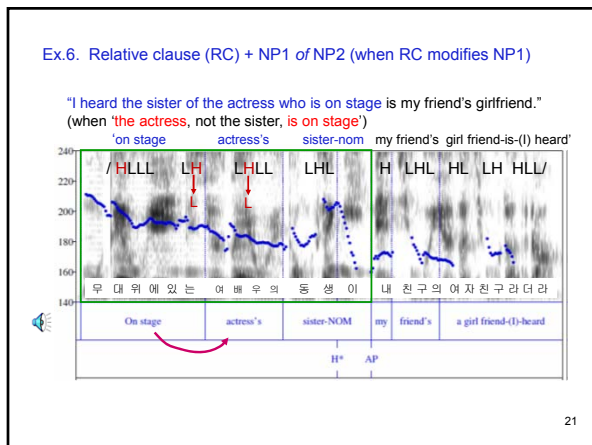
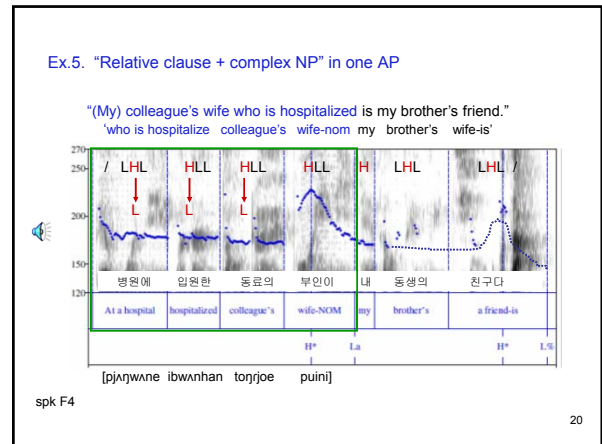
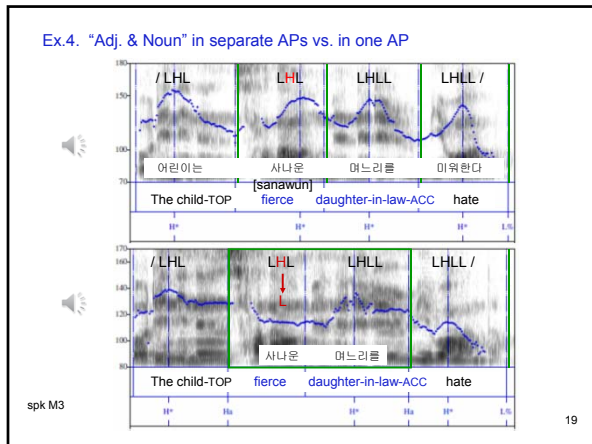
Ex.3. "PossN + N" forming one AP by deleting Possessive N's lexical H

'Youngi hates Youngman' vs. 'Youngi hates Youngman's sister.'



spk F3

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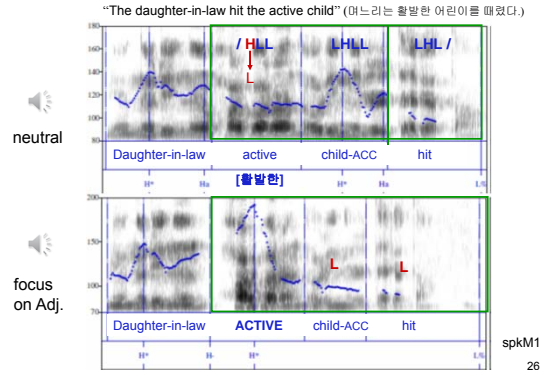


Focus intonation in Yanbian Korean

- 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.

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

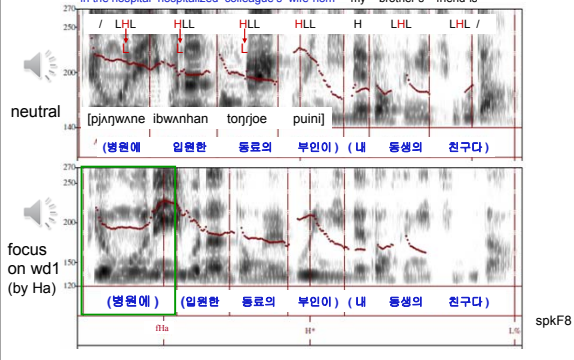


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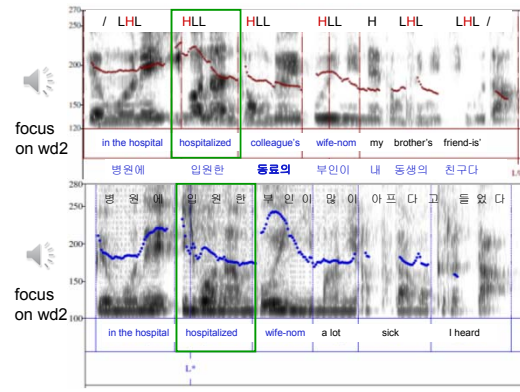
Ex.11. focus by raising Ha

"(My) colleague's wife who is hospitalized is my brother's friend."

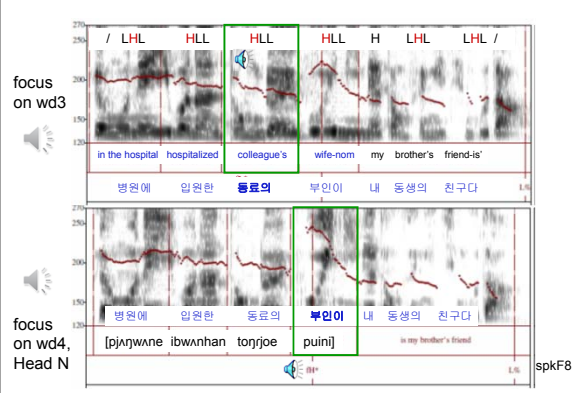
in the hospital hospitalized colleague's wife-nom my brother's friend-is



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



Ex.12'. focus by 'stress' (emphasizing word-initial syll)

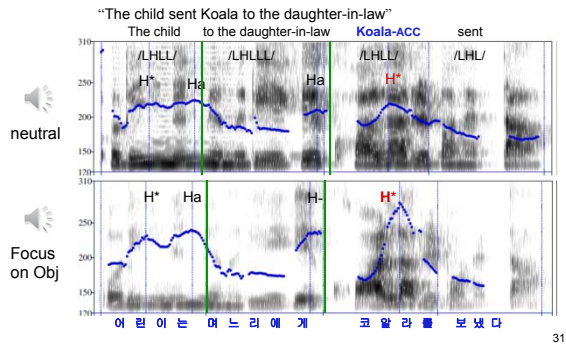


AP formation including a Verb

- 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).

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Ex.13. Object N + Verb in one AP: neutral vs. focus on Obj.



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 ip 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**.

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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

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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)

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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

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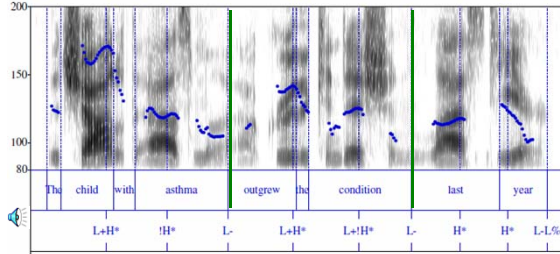
Syntax vs. prominence marking in head- & edge-prom lgs

- 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.

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Syntactic structure influences prosodic phrasing in English (head-prominence language)

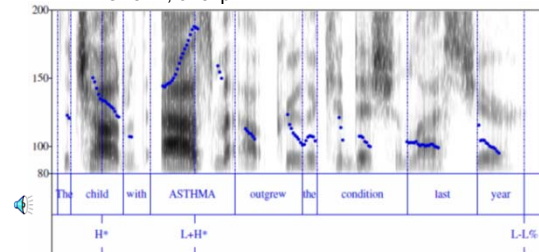
Ex. *The child with asthma // outgrew the condition // last year.*
One IP (L%), three ip's (L-)



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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



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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*+fH for corrective/wh-answer focus and fH* for surprise focus
 - fHa AP boundary tone for enciticized 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

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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.

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Thank you!

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