

Separating intonation from tone.

Intonation in Kammu

Anastasia M Karlsson
University of Lund

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Current project: Separating intonation from tone (SIFT)

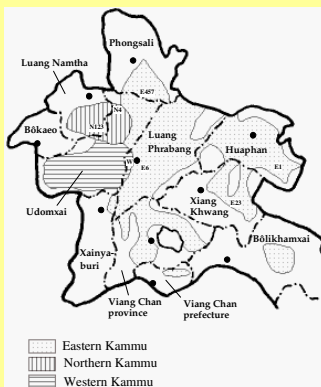
- Phrasing
- Focusing
- Questions
- Vocative chant

In elicited and spontaneous Kammu speech

<http://www.sol.lu.se/forskning/projekt.html?projectid=81>

Lund: Anastasia Karlsson, Jan-Olof Svantesson, Damrong Tayarin
KTH, Stockholm: David House
Funding from The Bank of Sweden Tercentenary Foundation (RJ)

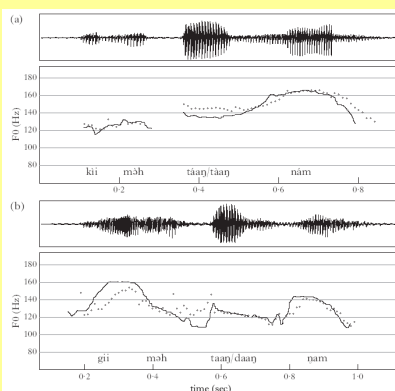
Kammu in northern Laos



Eastern Kammu has no lexical tones. Northern and Western Kammu have lexical tones (low and high). The three dialects have no other phonological differences.

Words illustrating Kammu tonogenesis

<i>E Kammu</i>	<i>N Kammu</i>	<i>W Kammu</i>	
taaŋ	táaŋ	táaŋ	'pack'
daaŋ	tàaŋ	thàaŋ	'lizard'
thaaŋ	tháaŋ	tháaŋ	'to clear'
raaŋ	ráaŋ	ráaŋ	'tooth'
raaŋ	ràaŋ	ràaŋ	'flower'



Northern Kammu

..... taaŋ 🗣️
— taaŋ 🗣️

Eastern Kammu

..... taaŋ 🗣️
— daaŋ 🗣️

Svantesson, Jan-Olof & David House (2006).
Tone production, tone perception and Kammu tonogenesis. *Phonology* 23, 309-333.

Phonological features of Kammu

- Short and long vowels
- Words are monosyllabic
- Sesquisyllabic words: one minor + one major syllable

Sound example of tonal dialect spoken in Thailand (female speaker, semi-spontaneous speech):



Theoretical issues

Can we find evidence that the tonal and non-tonal dialects have the same underlying intonation system?

If so, how do tones affect and constrain the intonation system?

Step 1: Spontaneous narrative

Recordings (made by Kristina Lindell in the 1970's) of three male speakers of:

- *Uu* (the non-tonal dialect of Eastern Kammu)
- *Cwaa*, *Kwεen* (tonal dialects of Northern Kammu)

Story telling style: Folktale *Àay Cét Réey* "Mr Seven Rice-cookers"

Pauses used as the main cue of phrasing

Prosodic units identified: prosodic word and prosodic phrase

<http://luur.lub.lu.se/luur?func=downloadFile&fileOld=701750>

Phrasing

Standpoint: the end of a prosodic group is a domain for realisation of boundary tones as well as focus

Do we find differences in signalling phrasing in tonal vs. non-tonal dialects?

Prosodic phrasing in the two types of dialects

Similarities:

- use of marked and unmarked boundaries
- marked boundaries signal extra pragmatic meanings
- final position generally coincides with focus

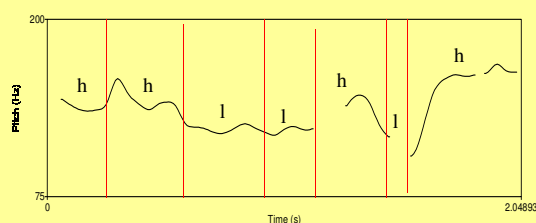
Differences: functional loading (focussing):

- falling pitch in the non-tonal dialect
- high pitch in the tonal dialects

Number and type of phrase boundaries in the three dialects *Uu* (non-tonal dialect), *Cwaa* and *Kwεen* (tonal dialects).
One speaker per dialect.

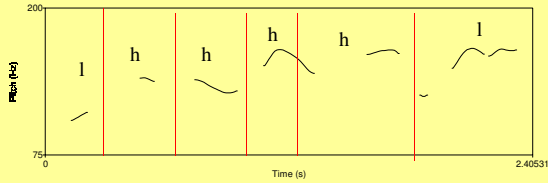
Dialect	<i>Uu</i>	<i>Cwaa</i>	<i>Kwεen</i>
Total number of boundaries	61	53	55
Unmarked low boundary	24	30	32
Unmarked high boundary	-	12	12
Marked low boundary	23	1	3
Marked high boundary	14	10	8

"unmarked high boundary" – high lexical tone is realised with high pitch



hntáar khóon krúa kii sʔóon ò klám
dry thing cloth this tree I carry

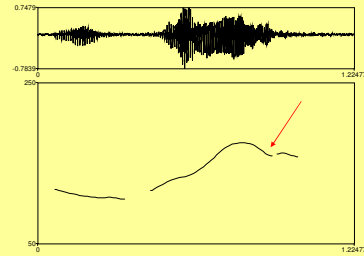
"marked high boundary" – low lexical tone is realised with high pitch



màh cét réey prí thée cét hn?òh
rice seven rice-steamer pepper more seven rise-steamer

Non-tonal dialect *Uu*

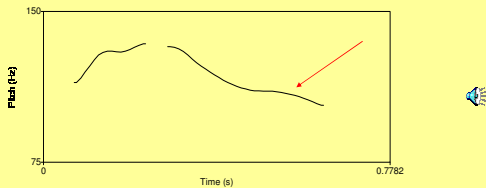
High pitch as a focal accent (marked high boundary)



gəə law: "yɔŋ həəy"
He says: "father heey"

Unmarked low phrase boundaries in *Uu*: flat low pitch.

Default focus.



yɔŋ o yɔh məh
Father I go what?

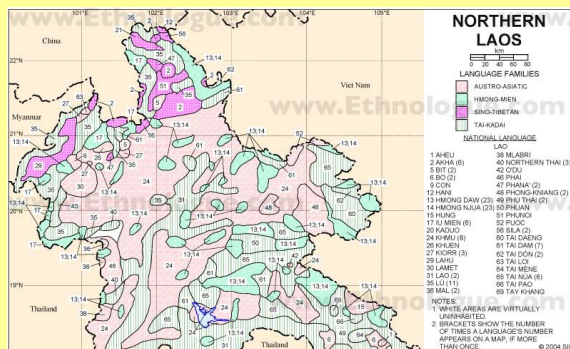
Data collection

Laos, November 2007:

13 speakers, 10 non-tonal and 3 tonal

Thailand, Vietnam, February-March 2008

11 speakers, all tonal.



Speech material

- 47 read sentences (translated from Lao script by each speaker)
 - Focus and phrasing
- 8 responses to questions about pictures (focus)
 - e.g. "Is this a red eagle?"
- Spontaneous account of growing and preparing rice (elicited by photographs)
- Spontaneous account of three series of drawings depicting
 - A cooking fire which spreads to and burns down a house
 - Hunting a deer
 - Fishing
- Calling "brother" (high tone) and "father" (low tone)

Recording equipment

- Edirol R-09 24-bit WAVE/MP3 Recorder
 - Lapel microphone
 - Laptop computer for file backup
 - Batteries and battery charger



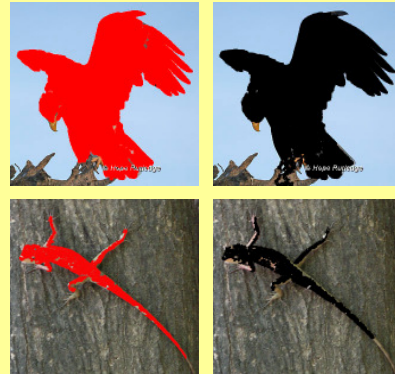
Speech material (text)

1) kii mah klāng nām	this is a big eagle
2) kii mah tǎng nām	this is a big lizard
3) kii mah ʔaŋ nām	this is a big wasp
4) nāa wēt hmrāŋ	she bought a horse
5) nāa wēt hmrāŋ yim	she bought a red horse
6) ǝ nǝŋ nāa wēt hmrāŋ yim	I know that she bought a red horse
7) téek phán tráak	Teek killed a buffalo
8) téek phán tráak yíng	Teek killed a black buffalo
9) ǝcǝn hmpǝ téek phán tráak yíng	ǝcǝn dreamt that Teek killed a black buffalo
11) ǝ ah tráak, ah siǝŋ, ah hyǝr	I have a buffalo, a pig and a chicken
12) ǝ ah hmrāŋ, ah mǝw, ah prǝul	I have a horse a cat and a badger
13) nāa plin-plin	She is very beautiful
14) nāa thǝw-thǝw	She is very old

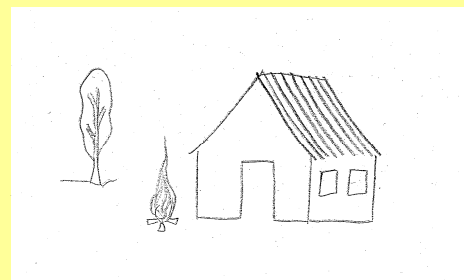
Example of Lao text used by speakers

- 1) ນີ້ແມ່ນນົກແຫວນໃຫຍ່
- 2) ນີ້ແມ່ນໂຕຂີ້ໂກະໃຫຍ່
- 3) ນີ້ແມ່ນໂຕຕີ່ໃຫຍ່
- 4) ລາວ (ແມ່ຍິງ) ຊື້ມ້າ
- 5) ລາວ (ແມ່ຍິງ) ຊື້ມ້າແດງ
- 6) ຂ້ອຍຮູ້ລາວ (ແມ່ຍິງ) ຊື້ມ້າແດງ

Focus pictures



Pictures (series)





Village head (34), Kon Keo village, Laos



Sisters Nut (20) and Noi (17)



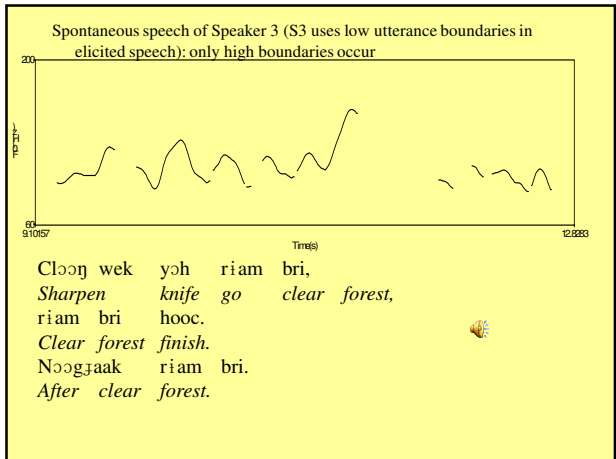
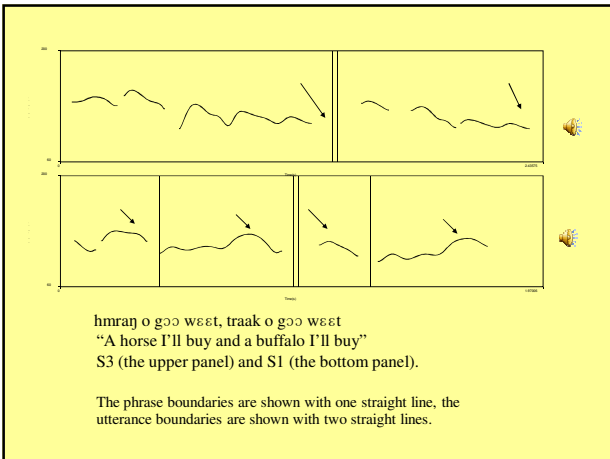
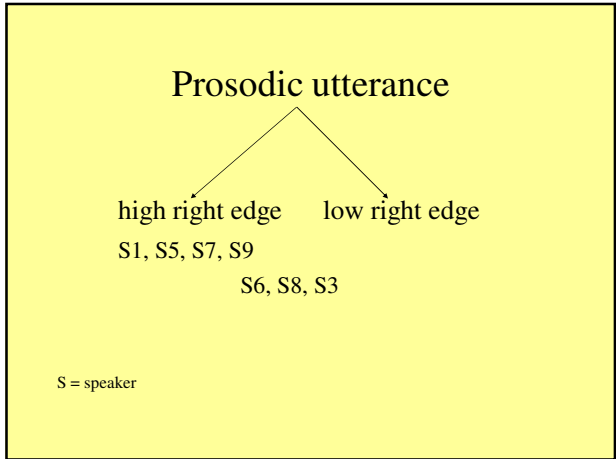
Ban Tapaen village head (57)

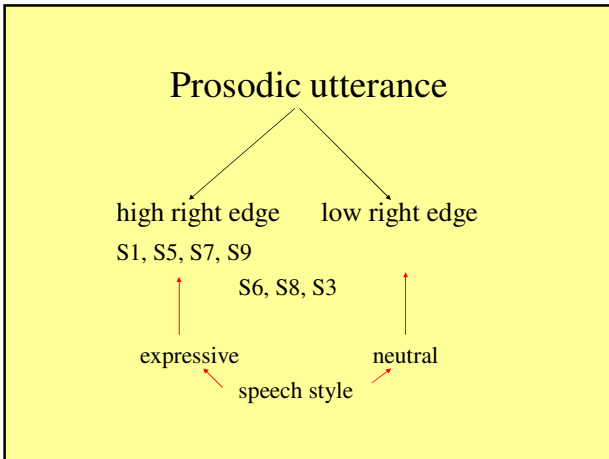


Step 2:

Recognising phrase and utterance as prosodic unit in non-tonal dialects of Kammu (Fonetik 2008, University of Gothenburg)

<http://luur.lub.lu.se/luur?func=downloadFile&fileOId=1155846>



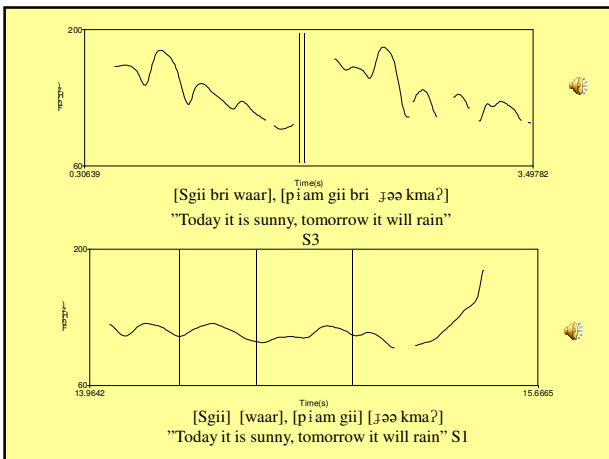
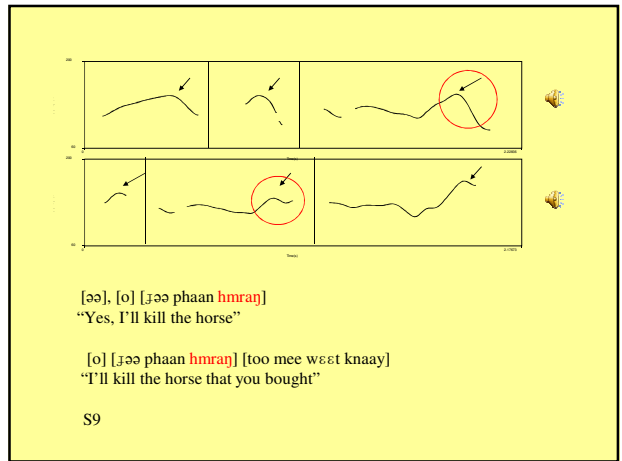
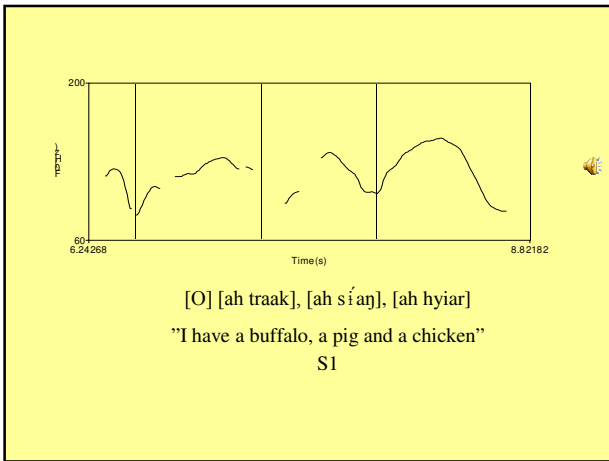


Prosodic phrase

Default pattern:

low high
word + word

Overlaps with syntactic grouping



Prosodic phrase

Default pattern:

low high
[word + word]

Modifications:

high
[word]

low + low + high
[word + word + word]

Utterances: low terminals

high + low

as neutral utterance pattern

Phrases: high terminals

low + high

as phrase pattern/expressive utterance
pattern



Thank you!