Tone in Ambel (Raja Ampat)

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Tone in Ambel

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2. Ambel
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Word prosody—theoretical background

Some terminology

Term	**Refers to**
Fundamental frequency	Production
Pitch	Perception
Tone	Phonology

Hyman (2006)

- **Stress accent**

  "A language with stress accent is one in which there is an indication of word-level metrical structure meeting the following two central criteria:

  1. Obligatoriness: every lexical word has **at least** one syllable marked for the highest degree of metrical prominence (primary stress);
  2. Culminativity: every lexical word has **at most** one syllable marked for the highest degree of metrical prominence." (p.231)

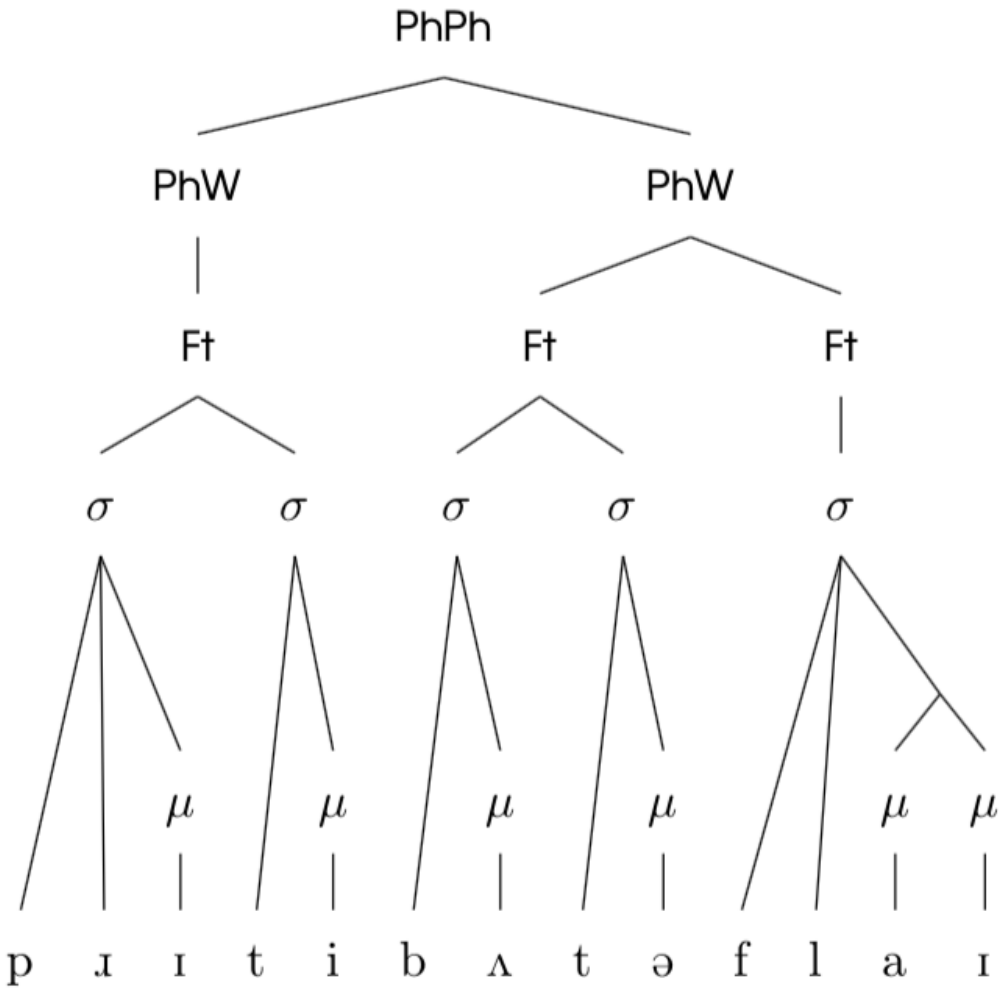
- **Tone**

  "A language with tone is one in which an indication of pitch enters into the lexical realisation of at least some morphemes." (p.229)

Stress

- Relative prominence of syllables
- Potential phonetic correlates:
  - Longer duration
  - Increased intensity
  - Higher pitch
- Potential phonological correlates:
  - Phonological processes (e.g. vowel reduction)
  - Smaller vowel inventories in unstressed syllables

An example of stress: English



An example of tone: Standard (Bangkok) Thai

IPA		Tone	Gloss
kʰáː	🔊	High	‘to trade’
kʰāː	🔊	Mid	‘to get stuck’
kʰàː	🔊	Low	‘galangal’
kʰâː	🔊	Falling	‘(polite particle)’
kʰǎː	🔊	Rising	‘leg’

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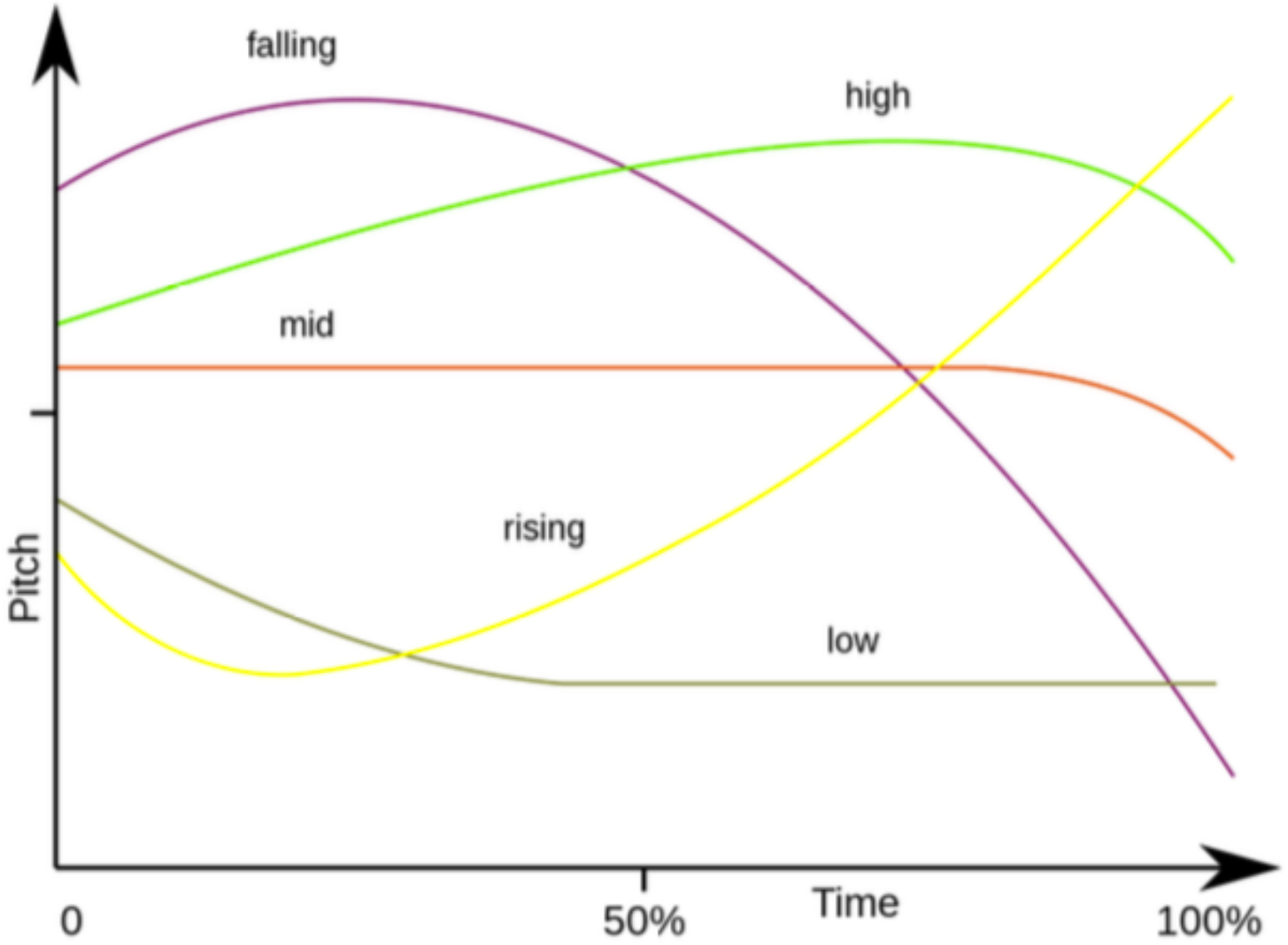

Figure: Thai tone curves

Tone vs. stress

- Tone = paradigmatic

$$[\ \sigma \quad \sigma \quad \sigma\ ] \quad [\ \sigma \quad \sigma \quad \sigma\ ]$$

- Stress = syntagmatic

$$[\ \sigma \quad \sigma \quad \sigma\ ] \quad [\ \sigma \quad \sigma \quad \sigma\ ]$$

Tone vs. stress

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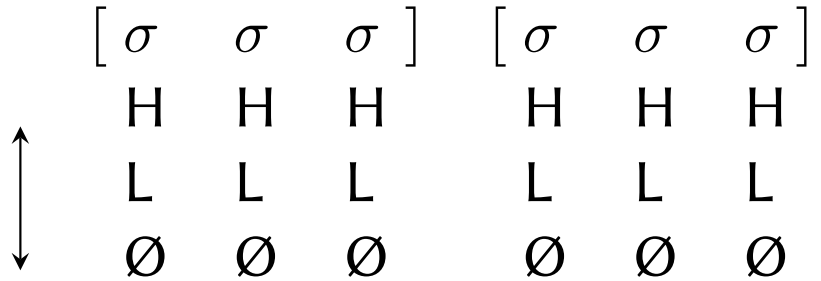

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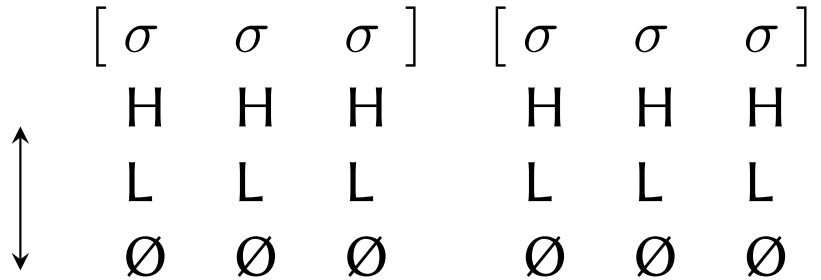
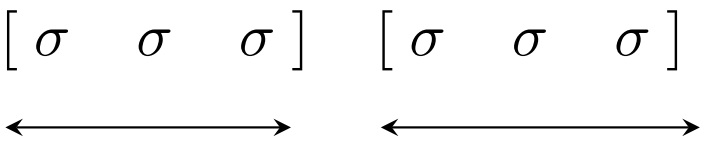
- Tone = paradigmatic



- Stress = syntagmatic



Hyman (2006)

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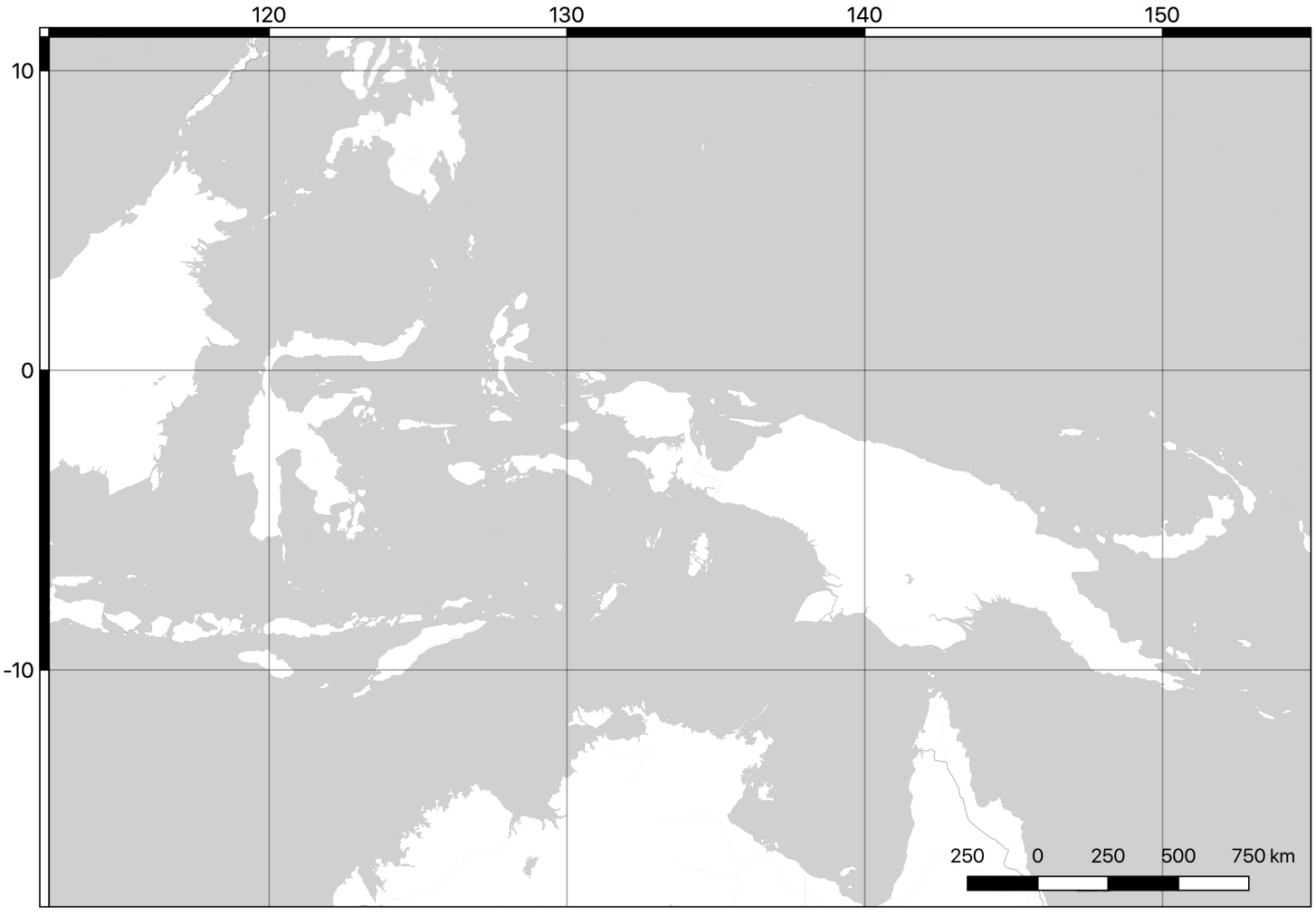
Ambel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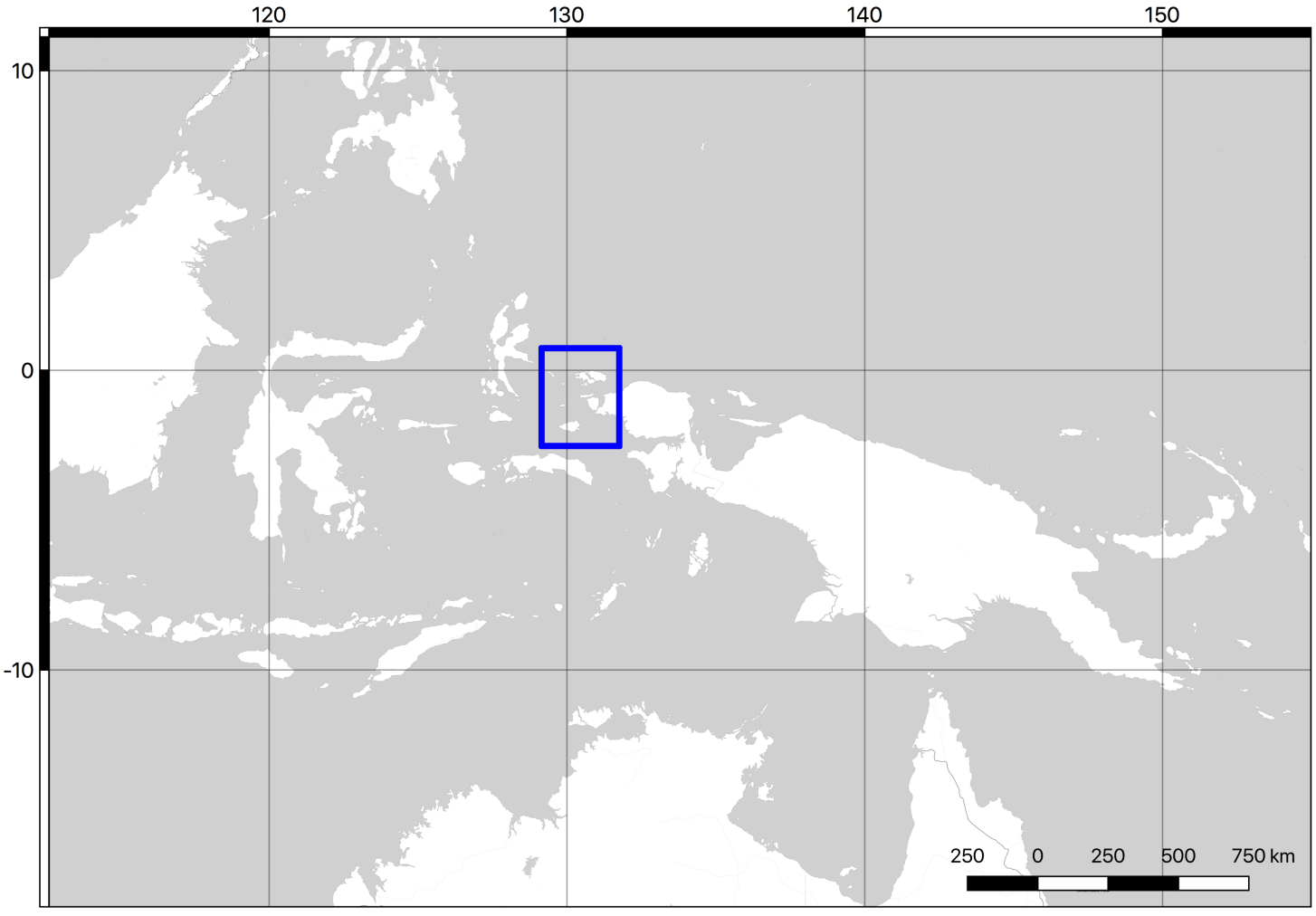
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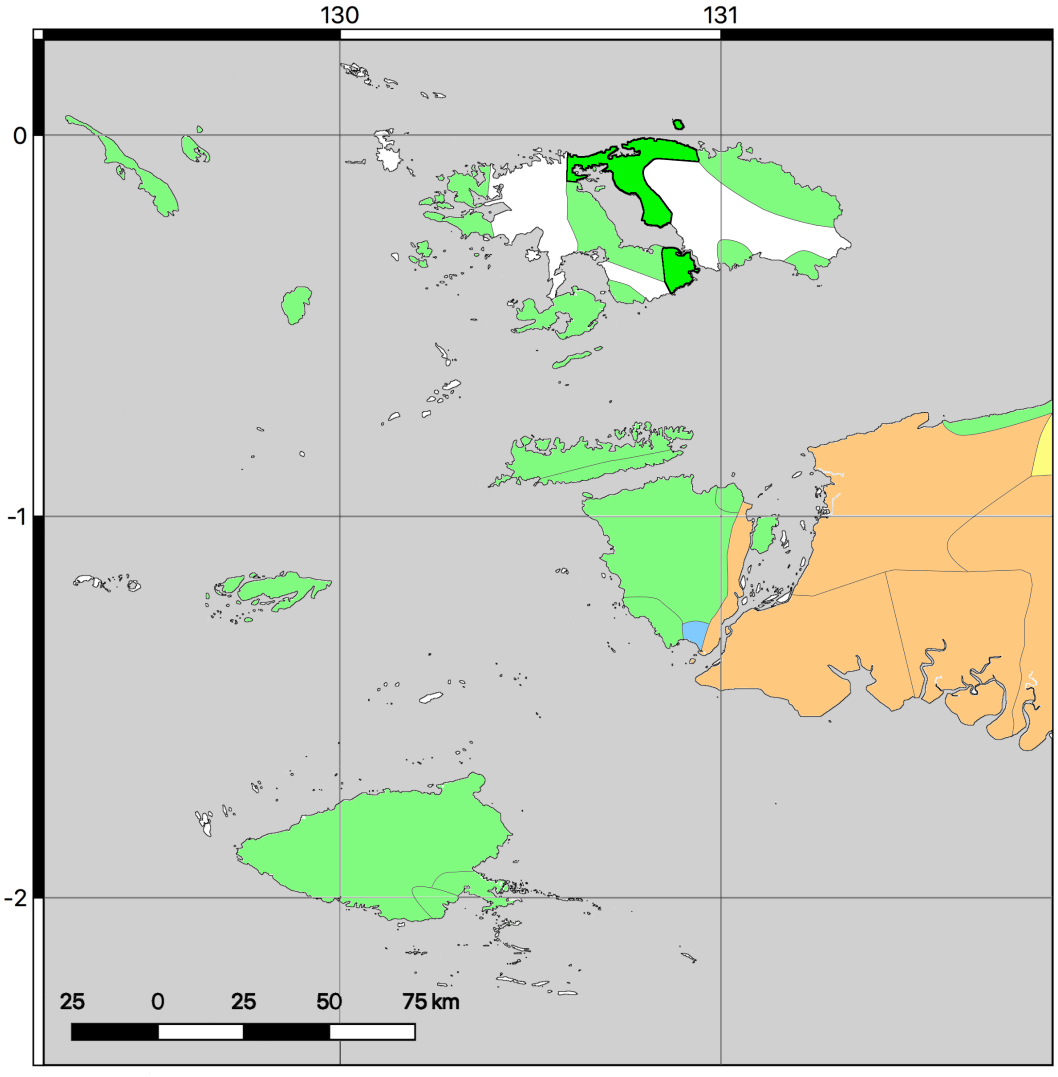
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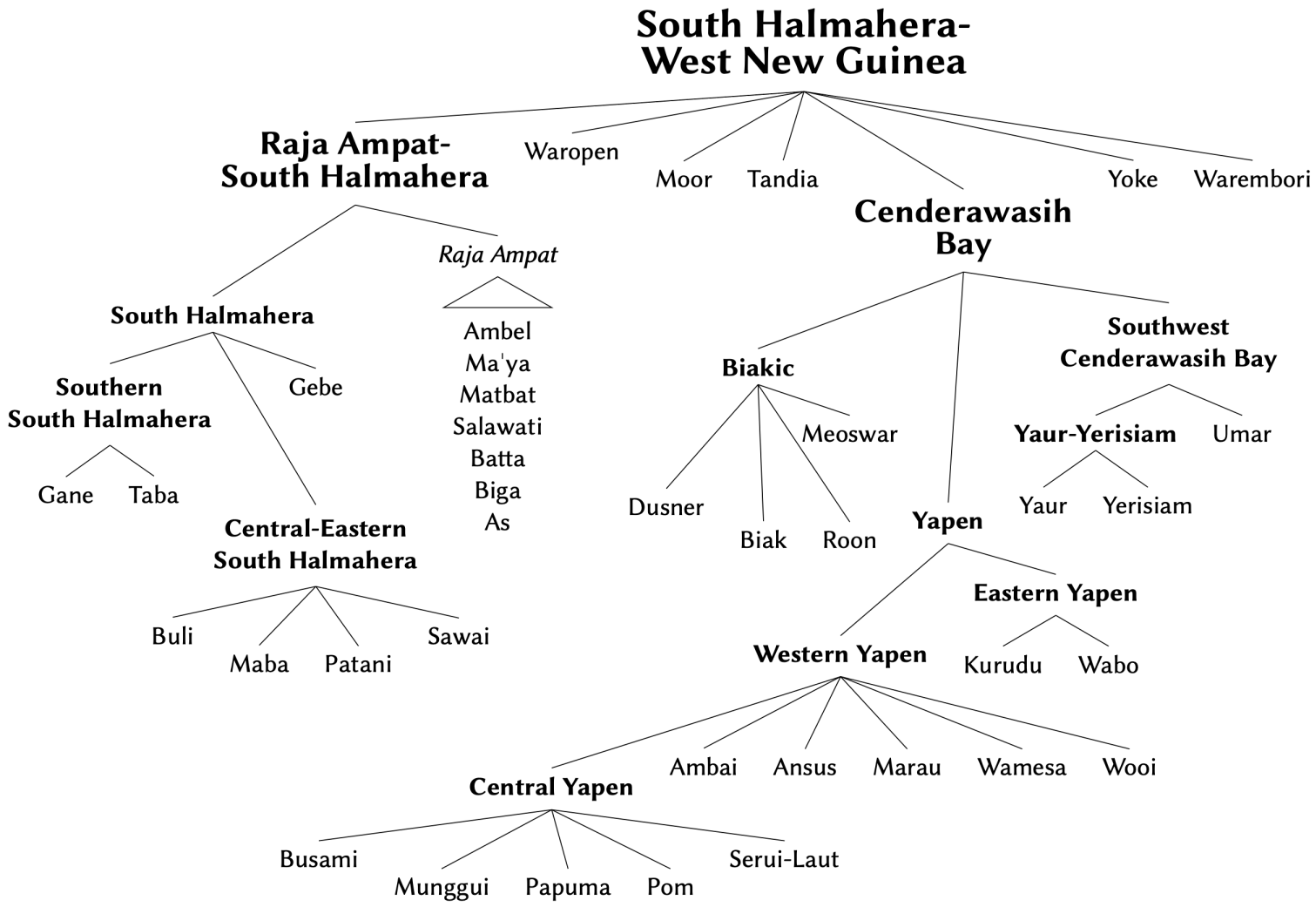
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Yoke
Warembori
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Ambel
Ma'ya
Matbat
Salawati
Batta
Biga
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Gebe
Gane
Taba
Central-Eastern
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Buli
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Patani
Sawai
Biakic
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Biak
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Umar
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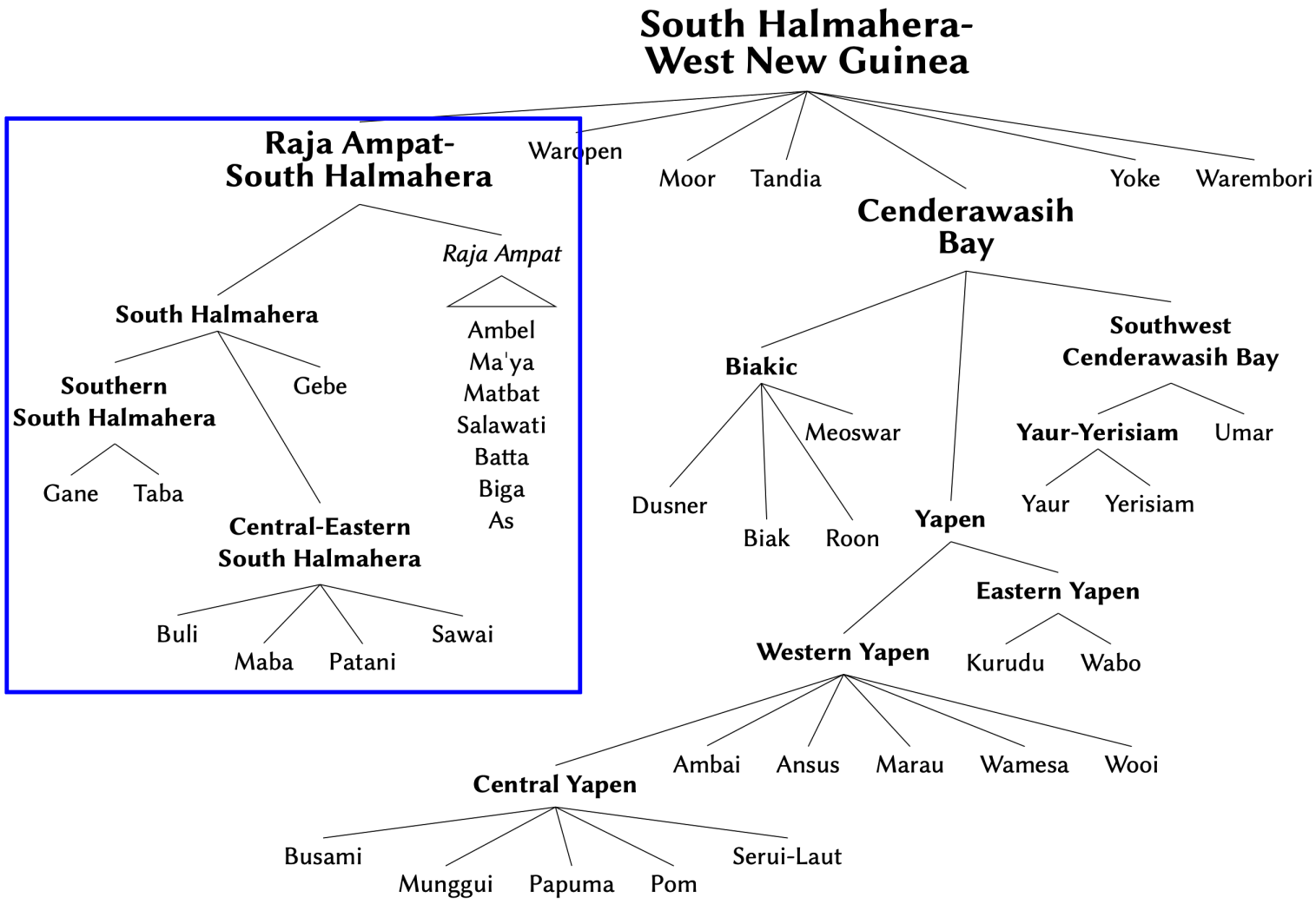
Pom
Serui-Laut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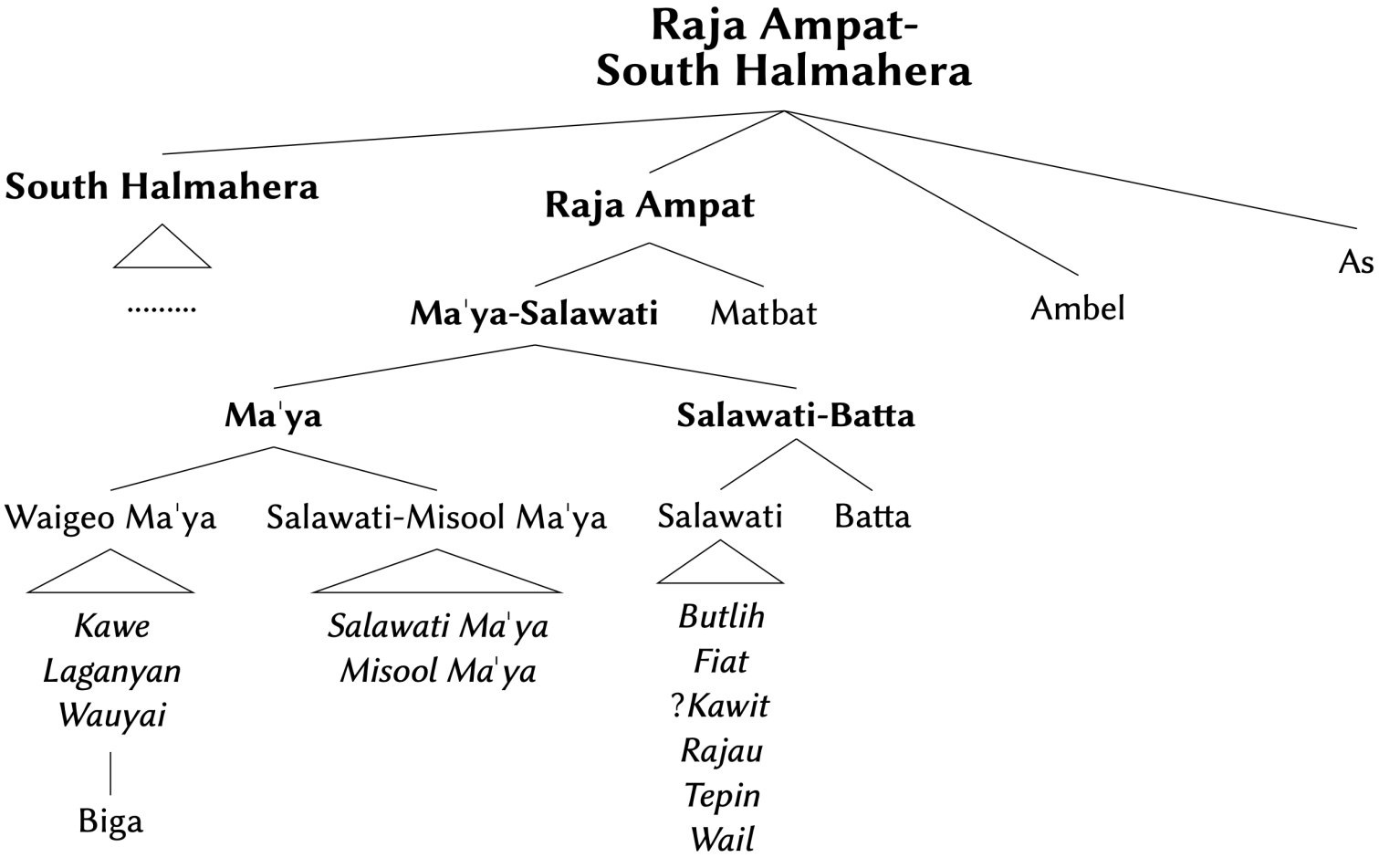
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Matbat
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Waigeo Ma'ya
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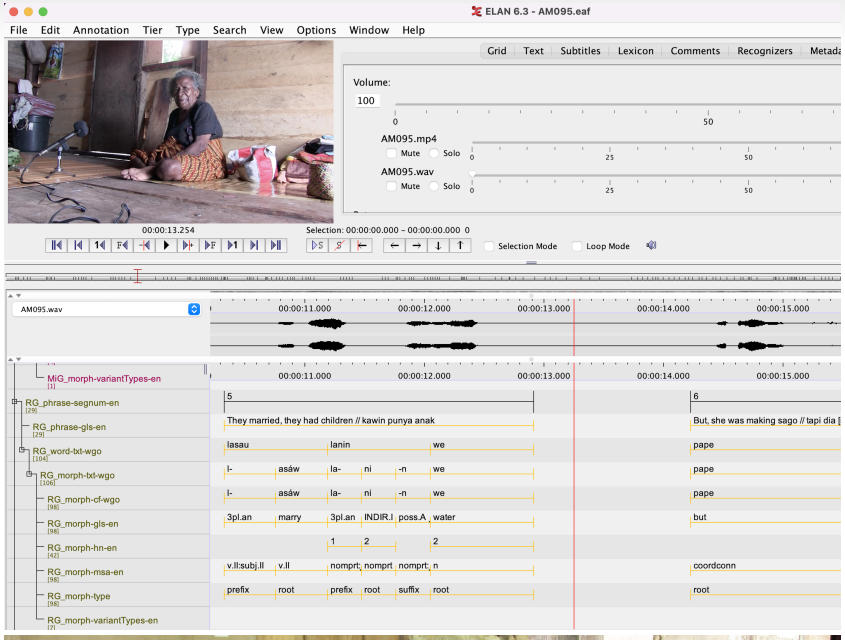
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They married, they had children // kawin punya anak
But, she was making sago // tapi dia
lasau lanin we pape
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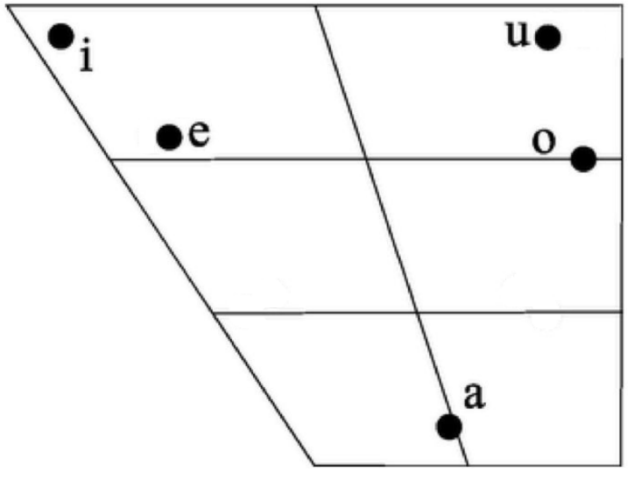
Segmental phonology



	labial	alveolar	velar
stops	p b	t d	k g
fricatives	f (> h)	s	
nasals	m	n	
liquids		l r	
semivowels		y	w

Phonotactics

- Syllable structure:
  - Most frequent: CV(C)
  - Other permitted structures: V, VC, C(S)V(G)C
- Possible codas:
  - voiceless stops, nasals, liquids, semivowels

Word prosody

The Ambel language is clearly different from Ma'ya in terms of its lexicon (see appendix A) and morphology (appendix B). According to native speakers of both Ambel and Ma'ya, these languages are not mutually intelligible. Ambel is certainly not a tone language. Likewise, it also bears little lexical resemblance to the Biak dialects of east Waigeo, although Amber has loaned a number of lexical items, such as /abris/ 'grass' (< Biak). Like Matbat, a large proportion of the Ambel lexicon is not derived from Austronesian roots.

Remijsen (2001: 26)

Tone: Monosyllables

Monosyllables: Utterance-final

a. *Rising pitch*

sŭ	‘breast’
kăk	‘uncle’
gŏp	‘jambu’
kĭt	‘octopus’

b. *High pitch*

súp	‘bathe’
kút	‘coconut’
ná	‘spear’
búk	‘rights’

c. *Rise-fall pitch*

tŭ̂n	‘thorn’
bĕ̂y	‘sago’
hŭ̂l	‘honey’
nyĭ̂w	‘high tide’

d. *Falling pitch*

tûn	‘moon’
mâl	‘loincloth’
ây	‘tree’
kôwk	‘butcherbird’

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Go to menti.com and use code 1409 0816 to start analysing this data!

Monosyllables: Utterance-final

Menti results...

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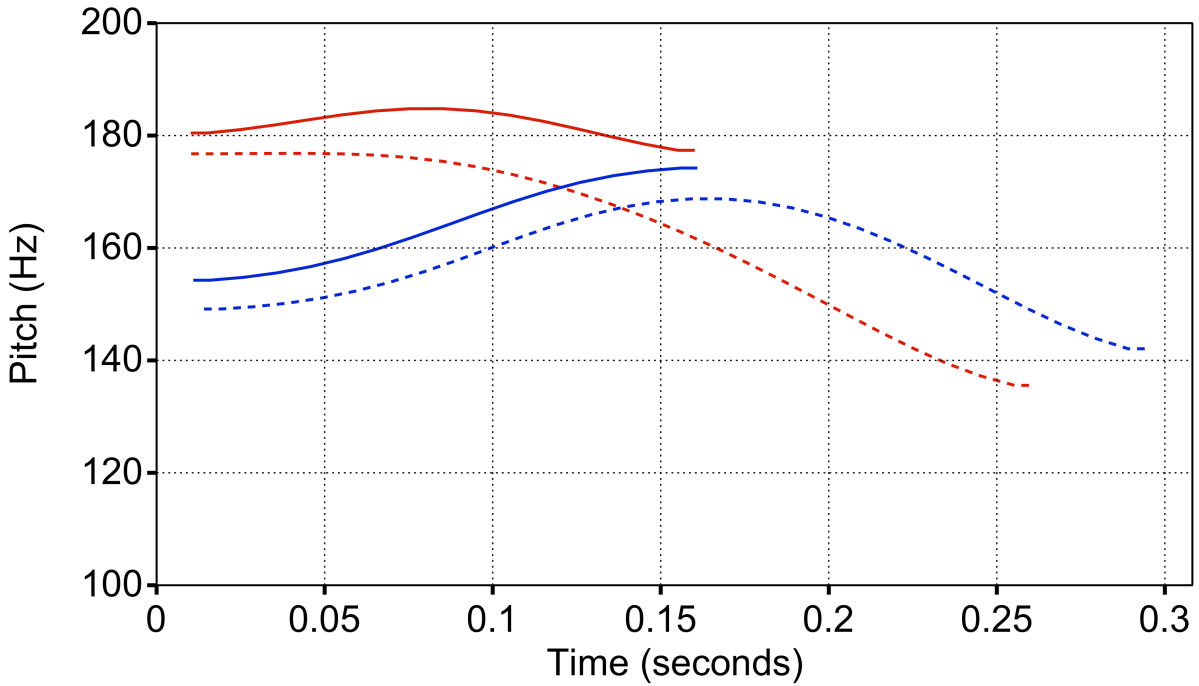
Monosyllables: Utterance-final—Summary



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ây	‘tree’
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Monosyllables: Utterance-medial

a. *Low pitch*

sù	‘breast’
kàk	‘uncle’
gòp	‘jambu’
kìt	‘octopus’

b. *High pitch*

súp	‘bathe’
kút	‘coconut’
ná	‘spear’
búk	‘rights’

c. *Low pitch*

tùn	‘thorn’
bèy	‘sago’
hùl	‘honey’
nyìw	‘high tide’

d. *High pitch*

tún	‘moon’
mál	‘loincloth’
áy	‘tree’
kówk	‘butcherbird’

Tone: Polysyllables

Polysyllables: Utterance-medial

‘k.o. manta ray’	kásyāwà
‘bone’	kàbóm
‘cape (of land)’	kàtà
‘fruit bat’	mànkwáy
‘butterfly’	kàbábāt
‘widow’	kábōm
‘papaya’	kàpàyà
‘black-capped lory’	sàpùrér
‘kidney’	málkābyàlàt
‘goanna’	kàlàbét
‘k.o. tarantula’	kàsàbábāt

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Polysyllables: Utterance-medial

Menti results...

Summary

Ambel tone: Summary

- **Monosyllables**:
  - Monosyllabic minimal pairs based on pitch = underlying specification of tone
  - Four pitches in phrase-final position, conditioned by syllable structure
  - Two pitches in phrase-medial position, no conditioning
- **Polysyllables**:
  - Syllables following High-toned syllables have predictable mid-level pitch
  - Maximum of **one** High-toned syllable per word (= *culminative*)
  - Words with **no** High-toned syllables possible (= *not obligatory*)

Q & A

References I

Arnold, Laura. 2018. Lexical tone in Metnyo Ambel. *Oceanic Linguistics* 57(1). 199–220.
Hyman, Larry M. 2006. Word-prosodic typology. *Phonology* 23(2). 225–257.
Remijsen, Bert. 2001. *Word-prosodic systems of Raja Ampat languages*. Utrecht: LOT.