

The Sesquisyllable as a Disyllabic Word (or Why sesquisyllables aren't as special as we thought)

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Preliminary Definition

In the context of Southeast Asian languages, a sesquisyllable comprises one phonologically reduced (minor) syllable followed by one normal (major) syllable (Matisoff 1973)

[minor syllable + major syllable]_ω

Sesquisyllabic Languages

- Languages that have sesquisyllables also have monosyllabic words but not necessarily disyllabic or polysyllabic words (i.e. words with two or more major syllables).
- Most commonly found in Mon-Khmer (Austro-Asiatic) languages, but other languages from other families (Austronesian, Sino-Tibetan) have them, too.

Violable Properties of Minor Syllables

- Reduced phonological inventory
 - Only central vowels, no laryngeal contrasts
- Reduced syllable shape
 - No codas, no complex onsets
- Do not bear tone
- Example: [tə.'p^hat]

So what are they really?

- No coherent definition
- Some proposals extend idea of minor syllable to account for complex consonant clusters in languages like Polish, Georgian, and even Bella Coola, etc. (Cho and King 2003)

Why do we think they're special?

Prosodic Structure (Hayes 1995)

- All sesquisyllabic words are iambic(ish)
- Major syllable is always aligned to right edge of the word
- Major syllable is always stressed
- Minor syllable is never stressed

Previous Accounts

- Previous proposals try to account for the generalizations by assigning a special structure to the minor syllable
 - Minor syllables do not have moras
(Cho and King 2003)
 - Minor syllables have “special” moras
(Shaw 1993)

Current Proposal

Sesquisyllables are just disyllabic words that share some surface generalizations (highly unmarked minor syllables) across languages but whose defining property is iambicity.

Languages to be Discussed

- Bunong
 - Mon-Khmer, Austro-Asiatic
 - Central Highlands of Vietnam and Cambodia
- Burmese
 - Tibeto-Burman, Sino-Tibetan
 - Burma
 - (Green 2005, 1995)

Cross-linguistic Differences

Underlying differences in the phonological structure of sesquisyllables between Bunong and Burmese likely result from the phonological differences between their respective language families.

Points of Comparison

- Formation of sesquisyllables
- Principles constraining surface forms (via Optimality Theory (Prince and Smolensky 2004))
- Prosodic structure

Bunong

- Epenthesis prevents illicit clusters

C ₁ \ C ₂	p	t	t_	k	h	s	m	n	_	r	l	w
p										pr	pl	
t										tr	tl	
k										kr	kl	
s										sr		
t_										t_r		
m	mp				mh					mr	ml	
n		nt			nh	ns						
_			_t_		_h							
_				_k						_r	_l	
r	rp	rt	rt_	rk	rh	rs	rm	m	r_		rl	rw
l					lh							

/rbɨŋ/

[rə.bɨŋ]

‘empty gourd’

/lhat/

[lə.hat]

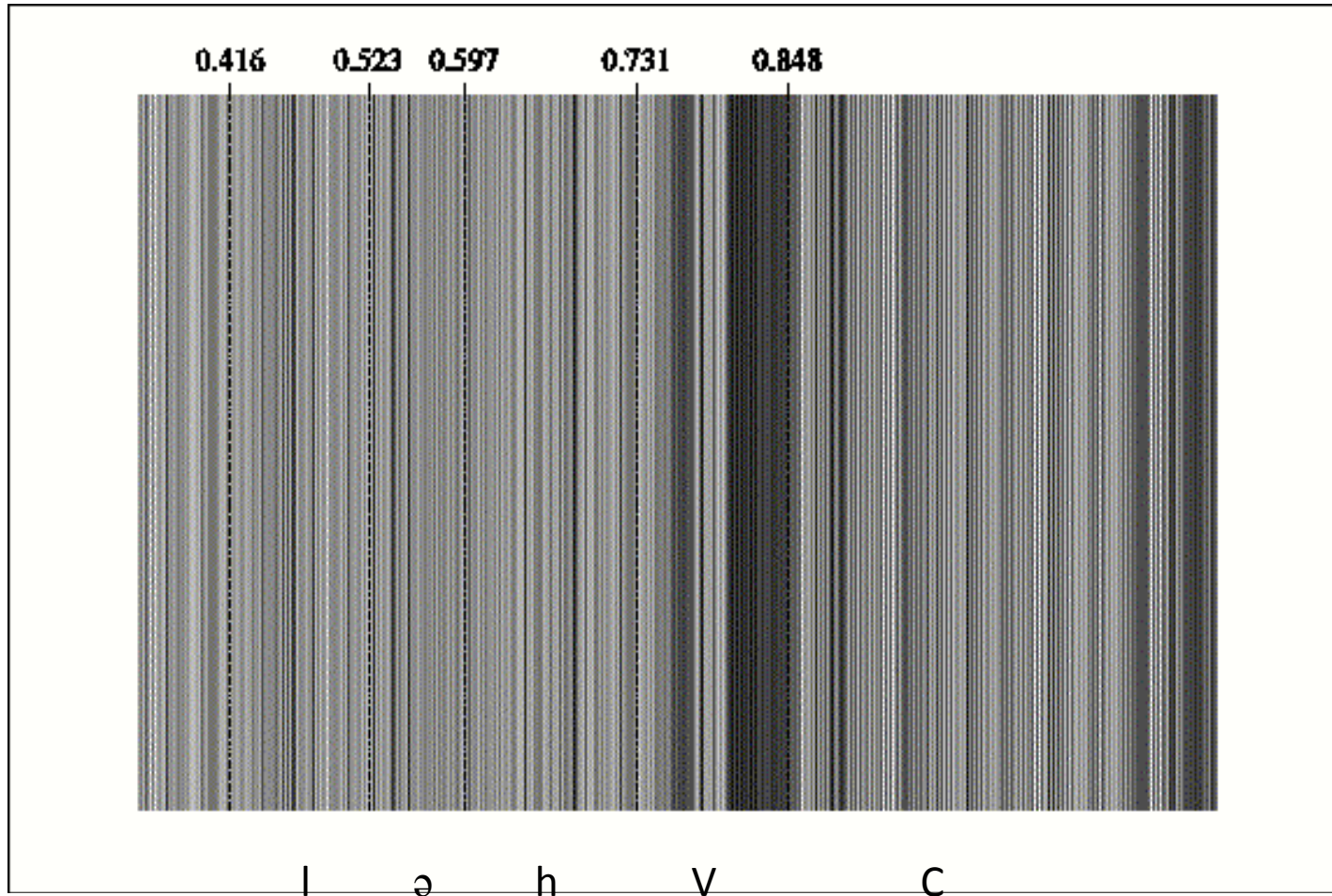
‘fitting tightly’

Bunong Phonetics

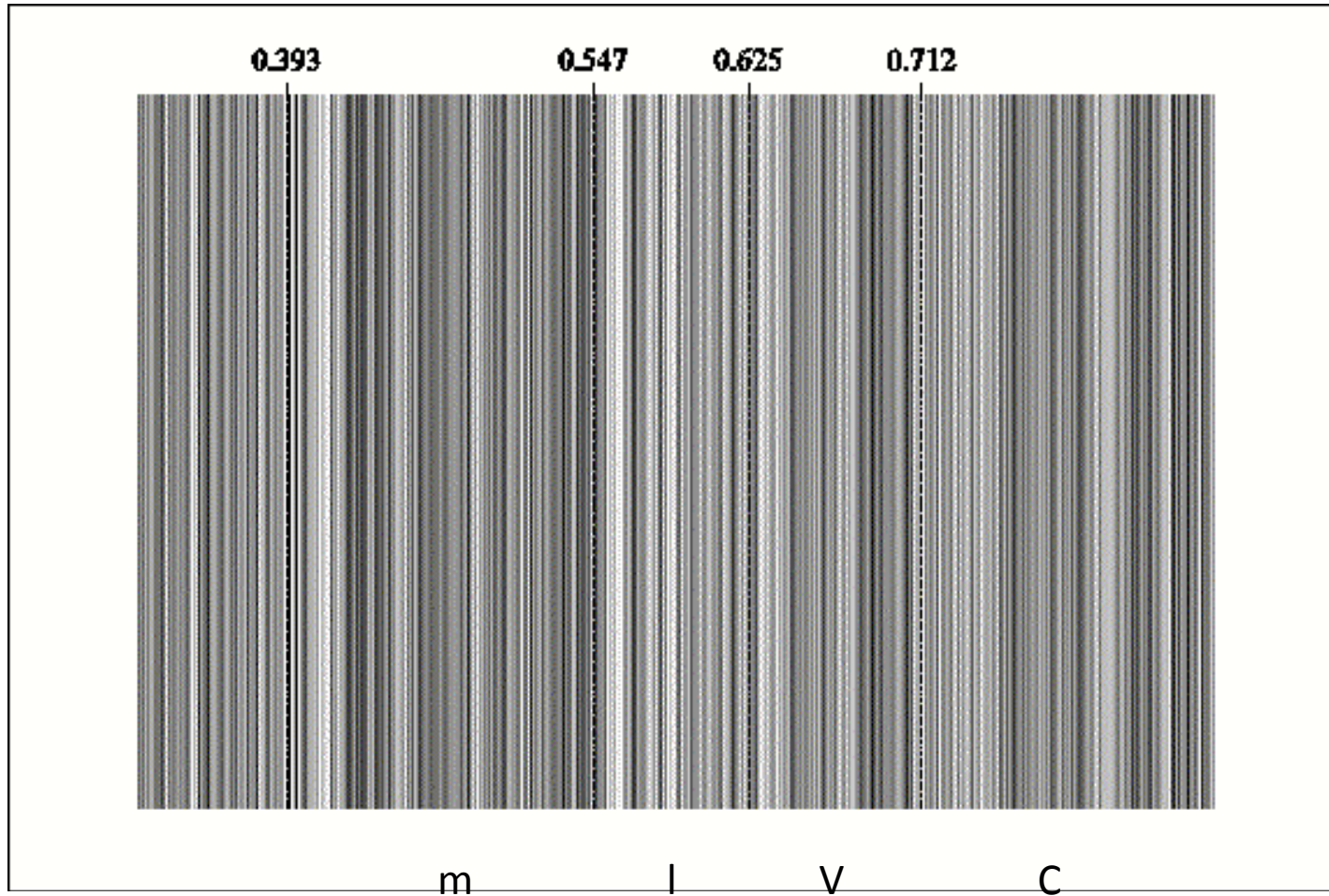
Preliminary studies show

- [r] and [l] initial clusters are heterosyllabic
 - [ə] is epenthesized in [r_C] and [l_C] environments
 - Native speakers confirm these words have two syllables
- Nasal initial clusters are tautosyllabic
 - N + stop clusters are pre-nasalized stops
 - N + sonorant clusters are complex onsets
 - Durations of _C nasals are shorter than the durations of simple onset nasals

Bunong (/lhat/)



Bunong (/mlam/)



Bunong in OT

Markedness constraints:

Penalize tautosyllabic SO and OO clusters

>

Faithfulness constraints

>

Markedness constraints:

Penalize tautosyllabic SS and OS clusters

Bunong in OT cont.

- *SO: No sonorant-obstruent clusters

>

- DEP: Don't epenthesize

>

- *SS: No sonorant-sonorant clusters
- *OS: No obstruent-sonorant clusters

Bunong Tableau

	*SO	DEP	*SS	*OS
/rbɨŋ/				
rbɨŋ	*!			
☞ rə.bɨŋ		*		
/mlam/				
☞ mlam			*	
mə.lam		*!		
/krap/				
☞ krap				*
kə.rap		*!		

Burmese Compounding

/caN/ + /po:/ [cə.bo:]

'floor' + 'insect' 'bug'

Faithfulness constraints targeting prosodically prominent positions (c.f. Beckman 1997)

>

General markedness constraints


>

General faithfulness constraints

Burmese Constraints

- IDENT PROSODIC HEAD (IDENTPRSHD): Stressed (O) segments and their corresponding (I) segments have identical values for all features [F].
>
- *PERIPHERAL VOWEL (*PERIPHV): Vowels should not be specified for place features.
>
- IDENT: (O) segments and their corresponding (I) segments have identical values for all features [F].

Burmese Tableau

/caN/ + /po:/	IDENTPRSHD	*PERIPHV	IDENT
ca.'bo:		*!*	
 cə.'bo:		*	*
cə.'bə:	*!		**

Summary of Sesquisyllable Formation

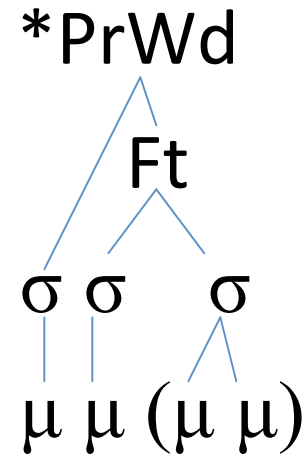
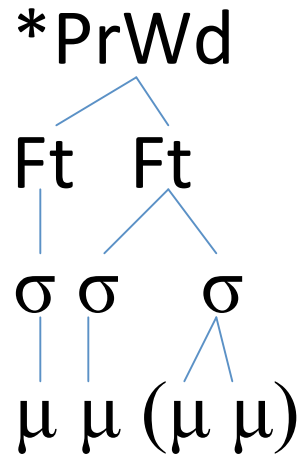
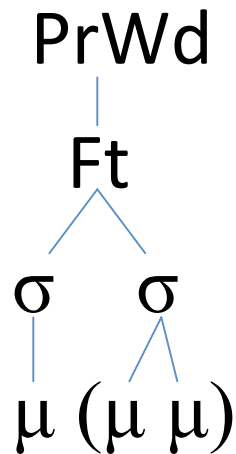
- Bunong
 - Minor syllable result of augmentation
 - Markedness constraints target onset clusters
- Burmese
 - Minor syllable result of reduction
 - Positional faithfulness constraints target prosodically prominent positions

Prosodic Structure

- For all languages having sesquisyllabic words, every prosodic word is maximally one iambic foot, but feet are formed differently across languages
- Bunong
 - Feet are formed by syllables
 - Maximally one minor syllable
 - [rə.bɨŋ] ‘empty gourd’
- Burmese
 - Feet are formed by moras
 - Multiple minor syllables allowed
 - [kə.la:] + [pye:] → [kə.lə.pye:] ‘India’

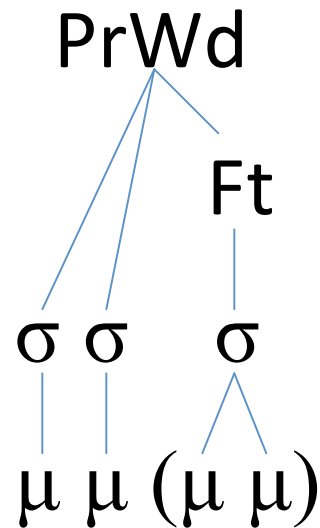
Bunong Prosodic Structure

- A foot comprises two syllables (L H) or one heavy syllable (H)
- Prosodic levels are strictly enforced (no skipping levels)



Burmese Prosodic Structure

- A foot is minimally and maximally one heavy syllable
- Levels are transparent (extrametricality)



Green(1995)

Stress

In both languages, heavy syllables bear stress

- Bunong: Epenthetic vowels are not stressed. Lexical vowels are stressed.
- Burmese: A priori, any word in a compound could be reduced or not. Due to pressure from surrounding languages, Burmese assigns stress to the rightmost syllable, which is necessarily heavy. Therefore, Burmese appears iambic.

Summary

- Sesquisyllables are a subset of disyllabic words whose metrical structure is iambic and whose unstressed syllables are highly unmarked.
- Surface generalizations on phonological shape are created by different types of constraints.
 - Bunong: Markedness constraints cause augmentation of minor syllable.
 - Burmese: Positional faithfulness constraints preserve the major syllable while the minor syllable is phonologically reduced.

Thought for the future...

- Are these language “types” exhaustive (Bunong type vs. Burmese type), or are there still more ways in which sesquisyllables are formed?

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Thank you

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