#### Multiple reduplication in Fungwa

Samuel Akinbo University of British Columbia

This work explores how the domain of a phonological process can be affected by the requirement for an onset. The data presented here is on a pattern of (multiple) partial reduplication in Fungwa (Kainji, Benue-Congo), an endangered language with about 1000 speakers in Niger state, Nigeria.

## **Background: Diminutive and Augmentative**

Diminutives and augmentatives are respectively marked with root-vowel fronting and backing. In (1), the vowels [u, o, a] are respectively realised as  $[i e, \varepsilon]$  in the diminutive and vice versa in the augmentative.

1. Featural affixation: diminutives and augmentatives

STEM	STEM.DIM	STEM.AUG	
télà	télè	tólà	'tailor
vúzè	vízè	vúzò	'pawpaw'

#### **Multiple Reduplication**

The degree of diminutive (2-a) or augmentative (2-b) is marked by a partial reduplication. Structurally, the reduplicant is a CV syllable, where 'C' is a copy of the first consonant of the base and 'V' is either [i] or [u] depending the first root vowel. The vowel of the reduplicant bears a L tone which does not change regardless of the tone of the nominal base. This reduplication can be iterated multiple times. Furthermore, CV prefixes do undergo (multiple) reduplication (3). Since the CV prefixes are toneless, the tones of the prefix and its reduplicant bear the same tone as the initial root vowel. Unlike the CV prefixes, V prefixes do not undergo reduplication (4).

2. Multiple reduplication: Diminutive and augmentative

a.	STEM.DIM	<b>RED</b> <sup>1</sup> STEM.DIM	<b>RED</b> <sup>2</sup> STEM.DIM	<b>RED</b> <sup>3</sup> STEM.DIM	
		'very'	'very <sup>2</sup> '	'very <sup>3</sup> '	
	télè	<b>tì</b> télè	<b>tìtì</b> télè	<b>tìtìtì</b> télè	'small tailor'
	vízè	v <b>ì</b> vízè	vìvìvízè	vìvìvizè	'small pawpaw'
b.	STEM.AUG	<b>RED</b> <sup>1</sup> STEM.AUG	<b>RED</b> <sup>2</sup> STEM.AUG	<b>RED</b> <sup>3</sup> STEM.AUG	
		'very'	'very <sup>2</sup> '	'very <sup>3</sup> '	
	tólà	<b>tù</b> tólà	<b>tùtù</b> tólà	<b>tùtùtù</b> tólà	'big tailor'
	vúzò	<b>vù</b> vúsò	<b>vùvù</b> vú <b>sò</b>	<b>vùvùvù</b> vúsò	'big pawpaw'
3.	CL22*-STEM.AUG CL22*-ST		CL22*-STEM.DIM	[	
	<b>tʃútʃú-</b> gátà	'very <sup>2</sup> big hearts'	<b>tʃítʃí-</b> gétè	'very <sup>2</sup> small hearts'	
	<b>tſútſútſú-</b> gátà	'very <sup>3</sup> big hearts'	<b>tʃĭtʃĭtʃĭ-</b> gétè	'very <sup>3</sup> small hearts	
4.	CL20-ROOT.AUG		CL20.ROOT-DIM		
	<b>í</b> -pálà	'big wind'	<b>í-</b> pélè	'small wind'	
	* <b>íí-</b> pálà	'very big wind'	* <b>íí-</b> pélè	'very small'	

The data above raise questions on (i) the domain of reduplication; (ii) the status of multiple reduplication; (iii) the syllable structure of the reduplicant; (iv) the vowel and tone of the reduplicant. A phonological/prosodic word (PWd) (Selkirk, 1996) is assumed as the domain of the reduplication and an onset condition in Fungwa. Since the multiple reduplication results from reduplicating an already reduplicated form, it is analysed as a recursive partial reduplication (Singh & Wee, 2002). The reduplicant being monosyllabic is considered a byproduct of a templatic requirement on the degree marker (McCarthy and Prince 1999). However, the onsetfulness of the reduplicant is considered the effect of the onset condition on the PWd. The V prefixes not undergoing reduplication like the CV prefixes is considered an effect of the onset condition. In this case, the V prefixes are misaligned with the PWd (Downing, 1998) as a result of the pressure from the onset condition. Considering the unmarked nature of high vowels and low tone crosslinguistically (Pulleyblank, 1988; Howe & Pulleyblank, 2004), the high vowel and low tone of the reduplicant result from a constraint ranking for TETU (cf. Alderete et al., 1999). Since there are few languages with multiple reduplication, the multiple reduplication in Fungwa augments the typology of languages with multiple reduplication (Singh & Wee, 2002; Rai, et al., 2005; Gates, 2017).

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