Grammaticalisation of Iconic Tone Polarity

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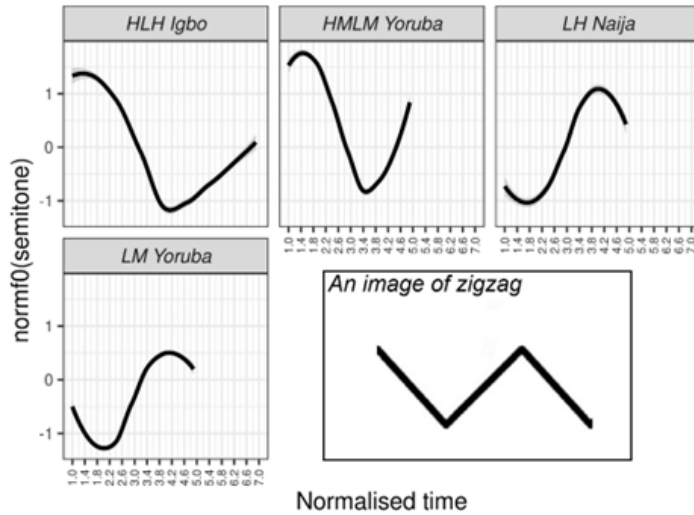[1]University Of Toronto, [2]Nnamdi Azikiwe University

We investigate how tone languages, specifically Igbo, Yorùbá, and Naijá (aka Nigerian Pidgin), grammaticalise the iconic association of phonological disharmony with the notion of irregularity (Fordyce 1983, Dingemanse 2011). In tone languages, ideophones expressing irregularity tend to have internal reduplication or triplication and tone polarity (e.g., Igbo **HLH** [vávàvá] "zigzag", Naijá **LH** [kàtà-kátá] "chaos", Yorùbá **HMLM** [wɔ́gowɔ̀gɔ] "zigzag"). Additionally, irregularity can be morphologically marked with an overwriting polar-tone melody intertwined with reduplication. For example, Yorùbá can express iteration by repeating an ideophone (1b). To express that the iterated events or entities have an irregular structure, the tone of the ideophone and its repetition are overwritten with either HMLM or LM melody (1c). The HMLM melody applies only to bimoraic ideophones, while the latter applies to all ideophones. Similar patterns are found in Igbo and Naijá.

(1) Deriving irregular words from other ideophones in Yorùbá

	"slimmy"	"to be flat"		
	jɔ̀bɔ̀	kpɛlɛbɛ		"X"
a.	jɔ̀bɔ̀	kpɛlɛbɛ		"X"
b.	jɔ̀bɔ̀-jɔ̀bɔ̀	kpɛlɛbɛ- kpɛlɛbɛ		"very X" || "distributive plural of X"
c.	jɔ́bɔ-jɔ̀bɔ	*not applicable*	**HMLM**	"irregularly X"
	jɔ̀bɔ̀-jɔbɔ	kpɛ̀lɛ̀bɛ̀-kpɛlɛbɛ	**LM**	"irregularly X"

We consider the tonal overwrites in the derivation of irregularity as affixes with only polar-tone melodies as their exponents, i.e., HLH in Igbo, LH in Naijá, and HMLM and LM in Yorùbá. The words derived from morphological doubling are considered the morphological base of the irregular markers. However, the tones that constitute the grammatical tunes of the irregular makers in the three languages refer to the root morpheme in their phonological realisation, given that no tones of the grammatical tunes cross the boundary of a root morpheme. We formally account for the phonological realisation of the grammatical tones within the framework of the recently proposed Emergent Phonology (Archangeli and Pulleyblank 2022).

Fig. 1: Zigzag vs tone melody of irregular markers

The irregular ideophones are considered the origin of the irregular markers in the respective languages, as their tone melodies and morpho-syntax are similar to the properties of the ideophones. Thus, ideophones can contribute to the emergence of affixes (Heine and Kouteva 2002). In Fig. 1, we establish the basis of the iconic tone melody, by comparing the f0 trajectory of the irregular marker to an image of a zigzag, the prototypical referent of irregular ideophones. The phonological depiction of irregularity suggests that the motivation for tone polarity is not limited to linguistic conditions

(Boersma 1999) but also includes the intention to create perceptuo-motor analogy of non-linguistic events with linguistic elements (Dingemanse et al. 2015). Other implications of the grammaticalisation are discussed in this work.

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