On iterative infixation

Introduction: Iterative infixation (1) presents a curious challenge to linguistic theory, particularly in the area of linear precedence, since the sequential relationship between input segments is interrupted in the output by multiple instances of similar-looking infixal materials. Traditional phonological approaches to grammatical infixation, which assume that infixation is the result of the application of phonological operations on morphosyntactically well-formed strings (e.g., segmental metathesis or transformation; Halle 2001) or the consequence of constraint conflict resolution (i.e. affixes are "pushed" away from the edges to avoid phonotactic or morphotactic violations; McCarthy & Prince 1993) offer no insight into the workings of iterative infixation since the phonological operations that induce readjustment in the output are designed to operate at the peripheries; infixation away from the edges is ruled out as a matter of principle. In this paper, I argue for a treatment of iterative infixation from the perspective of Phonological Subcategorization (Yu 2003, Paster 2006). Iterative infixation is fundamentally no different from the treatment of grammatical infixation. All infixes are associated with some phonological subcategorization requirement. Unlike grammatical infixes, the co-phonology of iterative infixation requires its output to conform to certain rhythmic requirements (e.g., a source word syllable must serve as the head of a disyllabic foot in the output). The appearance of multiple infixes in the output is the result of compensatory reduplication as a means to satisfy certain construction-specific rhythmic/prosodic requirements. To illustrate this theory more concretely, I offer the analysis of an iterative infixal ludling in Hausa as a case study.

Case study: In the *hábà?ábà* game in Hausa, -*bV*- is inserted after the nucleus of each non-final syllable in the source word, regardless of whether or not that vowel is followed by a coda (2)a. The vowel of the infix is a copy of the preceding vowel. When the source word is monosyllabic, the infix appears internal to the reduplicated version of the source word (2)b.

Analysis: I propose that the *hábà?ábà* game involves the insertion of -*b*-, which left-subcategorizes for a head mora of a foot in the output (i.e., ALIGN(-*b*-,L,μ_H,R)). *Hábà?ábà* also requires the right edge of the transformed output to uniquely correspond to the right edge of the source word, which explains why the infix is not allowed after the final syllable of the source word. Outputs of *hábà?ábà* must be parsed into disyllabic trochaic tonal feet, which in turn must be headed by materials from the source word. Iterative insertion of -*bV*- is a by-product of the output prosodic requirements (Piñeros, 1998). For example, since FOOTBINARITY is undominated in the co-phonology of this game and since input syllables cannot form feet by themselves, the nucleus of the source syllable is duplicated to supply the weak syllable of a disyllabic foot. The infix -*b*- is in turn duplicated to supply an onset to the nucleus copy (see diagram in (3)).

Conclusion: Why does iterative infixation exist? In this paper, I have argued that iterativity itself is derivative of output rhythmic/prosodic factors. Rhythmicity may be a strategy to reduce the cognitive burden of processing disguised words in infixing ludling. This proposal is motivated by the observation that iterative ludling infixation appears to correlate with a reduction of phonological complexity. That is, outputs of iterative infixing ludling often carry less contrastive information than their source word counterparts. For example, *hábà?ábà* not only requires the insertion of -*bV*- after the nucleus of each non-final syllable in the source word, long monophthongal vowels in the source word are also shortened as a result of infixing ludling. Vowel length contrast in Hausa is, therefore, suspended in the transformed word. Similarly, the tonal pattern of a source word is ignored in favor of an alternating high-low tone pattern such that the high tones always fall on syllables of the source word. Contrastive tonal information in the source words is therefore suspended as well in favor of a predictable alternating tone pattern.

On iterative infixation

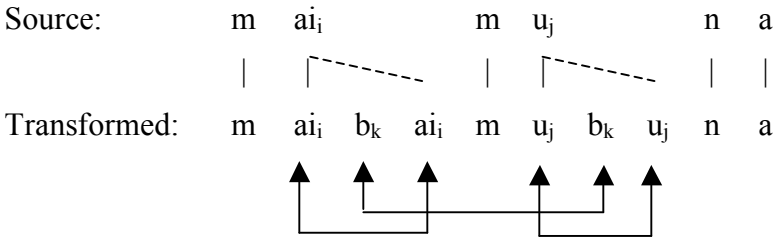
(1)

a.	Cuna *ottukkuar sunmakke*			-ppV-
	merki ‘American’	⇒	me**pp**erki**ppi**
	perkwaple ‘all’	⇒	pe**pp**erkwa**ppa**ple**ppe**
	pia ‘where’	⇒	pi**ppi**a**ppa**
	ua ‘fish’	⇒	u**ppu**a**ppa**
b.	Greek (Cyprus)			-kVkVrdVrVkVkV-
	alékos ‘Alec’	⇒	a**kakárdarakaká**le**kekérderekeké**kos**kokórdoroskokós**
c.	Latvian			-hVlefVC-
	erschlug			er**herlefes**chlug**huglefug**
	Abel			a**halefa**bel**hellefel**

(2) Hausa word game (Alidou, 1997: 34-35)

a.	gidaa	gi**bì**da	‘house’
	màskíi	má**bà**skíi	‘oily’
	màimúnà	mái**bài**mú**bù**ná	‘Maimuna (name)’
	hátsíi	há**bà**tsí	‘millet’
	tàabármáa	tá**bà**bá**bà**rmá	‘mat’
b.	Dáa	Dá**bà**Dá	‘son, child’
	râi	rái**bài**rái	‘life’
	cán	cá**bà**ncán	‘there’

(3)



Selected references

Alidou, O. D. (1997). *A phonological study of language games in six languages of Niger.* Unpublished PhD, Indiana University, Bloomington.

Piñeros, C.-E. (1998). *Prosodic morphology in Spanish: constraint interaction in word-formation.* Unpublished PhD, Ohio State University, Columbus.