Syllable-counting allomorphy by indexed constraints

Paster (2005) discusses cases of syllable-counting suppletive allomorphy (SCA) which are not driven by phonological optimization, and argues for an account using morphological subcategorization frames. In this talk I show that all relevant cases of non-optimizing SCA can be captured by generalizing indexed constraints (Pater, 2007) to allomorphs. Under this analysis, templatic effects in SCA and truncation are unified and the range of possible SCA effects is substantially restricted. **Problem:** In SCA different allomorphs of an affix are used according to the syllable number of the base. Thus in Tzeltal perfective is marked by **-oh** with monosyllabic, but by **-ɛh** with polysyllabic bases (1). In Dyirbal ergative is expressed by **-ŋgu** with disyllabic nouns, and by **-gu** with nouns having more syllables (2). In contrast to SCA in Estonian (Kager, 1996) the choice of allomorphs in these cases does not lead to phonological optimization and cannot be derived by submitting candidates with different allomorphs to standard OT-evaluation. **Background Assumptions:** Following Stratal OT (Bermúdez-Otero, 2007), I assume that word phonology comprises two strata of constraint evaluation, a first "cycle" at the stem level followed by a second one at the word level. I adopt lexically indexed constraints (Pater, 2007). While for Pater constraints indexed for a morpheme M count constraint violations for strings containing a phonological exponent of M, I propose a minimal modification to this approach where indexing relativizes constraints with respect to (allo-)morphs, not to morphemes. **Analysis:** At the core of the analysis is the idea that a set of constraints C enforcing binary feet is restricted to a morphologically preferred allomorph M_1. If the combination stem+M_1 results in a binary foot, it becomes optimal. If stem+M_1 is bigger than a binary foot, C and high-ranked faithfulness constraints conspire in favor of an allomorph M_2 which allows vacuous satisfaction of C (not indexed for M_2) without faithfulness violations. Thus assuming that in Tzeltal the standard constraints requiring prosodic words (i.e., GrWd=PrWd,Ft-Bin,All-Ft-Left abbreviated here as PrWd=BinFt) indexed for the affix **-oh** are high-ranked, and **-oh** is the allomorph preferred by the constraint perf=oh, the form with **-oh** emerges as optimal with monosyllabic bases since PrWd=BinFt$_{oh}$ is fulfilled anyway, and **sku.tʃɛh** is blocked by perf=oh. With polysyllabic stems affixation of **-oh** leads to violation of PrWd=BinFt$_{oh}$ if relevant faithfulness constraints are crucially undominated and block truncation, hence a form such as **sku.tʃ(la.jɛh)** becomes optimal: It does not violate PrWd=BinFt$_{oh}$ because it does not contain the affix **-oh** (5). For Dyirbal I argue that the ergative suffix is uniformly **-gu** and conditions a stem extension alternating between zero and **-ŋ**. At the stem level **-ŋ/-Ø** induce the same type of alternation as **-oh/ɛh** in Tzeltal: The ranking PrWd=BinFt$_{ŋ}$ ≫ Ext=ŋ ensures that disyllabic forms are affixed by **-ŋ** (**yara-ŋ**) while stems with more syllables are zero-marked (**ya.ma'ni-Ø**) preceding uniform affixation with **-gu** at the word level. By the inherent cyclicity of Stratal OT, the approach also extends to cases where SCA is opaquely restricted to the input of affixation (Aranovich and Orgun, 1998). **Consequences:** This analysis is more restrictive than a subcategorization account and predicts e.g. that there could be no case of SCA as in Tzeltal where the affix corresponding to **-oh** is disyllabic. Fixed-segmentism truncation is minimally different from SCA. Thus German hypocoristic formation where stems are truncated to a disyllabic foot ending in **-i** (3) is captured by high-ranked PrWd=BinFt$_{-i}$ in the absence of an allomorph. Assuming that truncation without fixed segmentism is due to affixation of "invisible" suprasegmental material, SCA and truncation are effectively reduced to the same principles.

(1) **Syllable-counting allomorphy in Tzeltal (Dickey, 1999)**

s-ku'$\widehat{\text{tʃ}}$-óh	"she carried it"	s-ku$\widehat{\text{tʃ}}$-laj-ɛ́h	"she carried it repeatedly"
s-nuts-óh	"he chased sth.."	h-pak'-anta'j-ɛ́h	"I patched it"

(2) **Syllable-counting allomorphy in Dyirbal (Dixon, 1972)**

ˈyara-ŋgu	"Mann"	ˈya.maˈni-gu	"Regenbogen"
ˈyugu-ŋgu	"Stock"	ˈdu.ɲaˈŋunu-gu	"von Blättern im Wasser"

(3) **German Hypocoristic Formation (Féry, 1997)**

Base		**Hypocoristic**	
Student	→	Studi	'student'
Hausaufgabe	→	Hausi	'homework'
Kindergarten	→	Kindi	'child'

(4) **Input:** skutʃ+$\left\{\begin{array}{c}\text{ɛh}\\\text{oh}\end{array}\right\}$

	PrWd=BinFT$_{oh}$	perf=oh
☞ a. (sku.tʃ.oh)		
b. (sku.tʃɛh)		*!

(5) **Input:** skutʃlaj+$\left\{\begin{array}{c}\text{ɛh}\\\text{oh}\end{array}\right\}$

	PrWd=BinFT$_{oh}$	perf=oh
☞ a. sku.tʃ(la-j.oh)	*!	
b. sku.tʃ(la.jɛh)		*

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