Templates as affixation of segment-sized units: the case of Southern Sierra Miwok

Main Claim: I argue that certain templatic effects in Southern Sierra Miwok (SSM) follow from affixation of moras and underspecified segmental root nodes. The analysis avoids the assumptions of CV positions or X-Slots previous analyses of SSM argue for (Sloan, 1991) and predicts the templatic restrictions over whole strings of segments through the affixation of segment-sized phonological elements.

Background: In SSM (Broadbent, 1964; Sloan, 1991), suffixes can require the preceding stem to conform to a certain shape (=template-requiring affixes). I focus on three interesting classes of affixes discussed in Sloan (1991) that all require a preceding bisyllabic LH stem but vary in the shape of the final syllable. Whereas affixes of class I require a closed final syllable (e.g. *–kuH* 'evidential passive predicative'(1)-a+b), affixes of class II require a long final vowel CVː (e.g. *–t* 'to do what is characteristic of'(1)-c+d). Stems preceding affixes of class III are either CVC or CVː-final. The choice for one or the other syllable shape depends on the number of stem consonants: biconsonantal stems surface as CV.CVː (1)-e and three-consonantal stems as CV.CVC (1)-f. The phonological strategies that may apply to ensure that the stem conforms to these form requirements are *i.* CV-metathesis (as in a.), *ii.* /y/- and /ʔ/-epenthesis, *iii.* vowel shortening (all in b.), *iv.* consonant deletion, *v.* vowel lengthening (all in c.) and *vi.* degemination (as in d.). The three classes of affixes result in the surface sequences CV.CVC and CV.CVː, distributed differently for bi- and three-consonantal stems, cf. (2). Sloan (1991) argues that the need to distinguish final CVC and CVː-syllables shows that assuming CV skeletal positions (McCarthy, 1979; Marantz, 1982) or X-Slots (Levin, 1985) alone is insufficient as representation for the templates in SSM. She proposes an analysis where the three templates in (2) are represented as (partially) syllabified X-slots.

Analysis: In contrast, I argue that the three LH templates in SSM are the simple result of affixing segment-sized defective phonological structure (μ and underspecified segmental nodes) that is independently argued for in numerous analyses for non-conconcatenative morphology (for an overview cf. Bermúdez-Otero (2011)). Crucial for the analysis of the three LH templates is the stress system of the language. SSM distinguishes light and heavy (CVC, CVː) syllables and only the latter can be stressed. Main stress is always on the first heavy syllable but must be on the first or second syllable (Callaghan, 1987; Hayes, 1995). Given this, I argue that all three LH templates follow from the demand that the first syllable is light, a requirement that is predicted from mora affixation and moraic overwriting. A moraic prefix must be integrated into the structure, i.e. must dominate the first vowel of the stem (MAX-μ_{AF}) and due to the demand that morpheme boundaries coincide with prosodic boundaries (=TAUTOMORPHEMICITY, cf. Crowhurst (1994); Bickel (1998)), a morpheme boundary on the moraic tier is dispreferred inside a syllable of the main foot. The prefixed mora is therefore the only possible mora inside the first syllable: it is light. From high-ranked STRESS-TO-WEIGHT (Prince, 1990), ALLFTL and RHT:I (Kager, 1999), the SSM effect of iambic lengthening is now predicted: if the first syllable is light, stress must be on a heavy second syllable. In (3), it can be seen how this simple μ-affixation predicts the affix template III for the stem *halki* that undergoes metathesis to form a LH sequence. The specifications of affix classes I and II for final CVC or CVː respectively is predicted from affixation of a defective segment (Bermúdez-Otero, 2011; Bye and Svenonius, to appear) that is specified as vowel or consonant. If [+son,–cons] dominate a V-pl node (McCarthy, 1988; Clements and Hume, 1995), a radically underspecified vowel results whereas [+cons] minimally specifies a consonant. These defective segments cannot be interpreted on their own and minimally need a place feature due to HAVEPLACE (Ito and Mester, 1993; Padgett, 1994). Epenthesis ((1)-b.) or fusion with a segment ((1)-d.) applies to ensure this. Whereas SSM prefers to fill the defective segment with underlying material even if this implies that the segment that undergoes fusion metathesizes as well ((1)-a.). The ranking of standard correspondence-theoretic faithfulness constraint –DEP, INTEGRITY, LINEARITY (McCarthy and Prince, 1995) – predicts this preference. The underspecified segments are assumed to be part of the specification of a template-requiring affix (e.g. $–\bullet^{C}kuH$). O-CONTIG (Landman, 2002) then ensures that this segmental root node is realized in a position directly preceding the suffix.

Discussion: I argue that some defective phonological elements (μ, root nodes) predicting template-effects are morphemes on their own whereas others are part of the representation of segmental affixes (cf. the μ-prefix as morpheme on its own vs. the underspecified segmental root node as part of the representation of certain suffixes). Such an account unifies the 'templates' in SSM with other length-manipulating phenomena as e.g. pre-lengthening suffixes triggering gemination or vowel-lengthening (Brown, 2003).

(1) *Template-requiring affixes*

	stem		(+other suffix)	+template-requiring suffix	
a.	ʔamla	'to wound fatally'	ʔamla-NHe	**ʔamal-kuH**	'crippled'
b.	wy:n	'to walk'	wyn-si	**wynyʔ-kuH**	'someone is evidently going . . . '
c.	paTyH	'to carry in one's arms'	paTy-ksY	**paTy:-t**	'to take, carry'
d.	mol:i	'shade'	moli-mh	**moli:-t**	'to get dusk'
e.	ho:ja	'to go first'	hojaʔ-peH	**hoja:-na**	'to start for'
f.	ʔenh	'to make'	ʔenhy-paH	**ʔenyh-na**	'to make for'

(2) *LH-requiring suffixes*

	biconsonantal stem	three-consonantal stem
class I requires	CV.CVC	CV.CVC
class II requires	CV.CV:	CV.CV:
class III requires	CV.CV:	CV.CVC

(3) *Class III affixes*

(μ) μ μ μ / h a l k i	MAX-μ $_{AF}$	TAUT	SWP	DEP-S	LIN	MAX-C
a. μ μ μ / h a l k i	*!					
b. (μ)μ μ μ / h a l k i		*!				
c. (μ) μ / h a l i			*!			*
d. (μ) μ μ / h a l i ʔ				*!		
☞ e. (μ) μ μ / h a l i k					*	

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