The interaction of phonological and morphological conditions on affix order in Huave

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Huave, a language isolate spoken in four villages of Oaxaca State, Mexico, has the unusual phenomenon of mobile affixes, which surface as prefixes in some morphological contexts but as suffixes in others. In this paper I show that mobile affixes are suffixes by default, but prefixal realizations result when *phonological* conditions cause the underlying morphological preference to be overridden. Nevertheless, the actual hierarchical order in which affixes are attached is morphologically fixed. An affix's distance from the root relative to other affixes never varies; the only thing that can vary is which side of the root it surfaces on, so there is no evidence for global phonological optimization of the word as a whole. In fact, this latter type of phenomenon appears to be unattested in the world's languages as documented to date. I therefore propose a restrictive model of the phonology-morphology interface that can account for Huave and other cases of phonologically conditioned affix order, while predicting that certain currently unattested phenomena will never be found.

All data in the paper are from the author's fieldwork on the severely endangered and previously unanalyzed Huave dialect of San Francisco del Mar. I motivate four layers (L) of affixes, moving outward from the stem as schematized in (1). Mobile affixes are found in Layers 1 and 3; Layer 2 consists of non-mobile prefixes and suffixes that occur outside of L1 but inside L3, while Layer 4 comprises those prefixes and suffixes occurring outside the L3 mobile affixes. In (1ace), the L3 first-person affix $-s^{(j)}$ - attaches as a prefix to a base which is vowel-initial subsequent to L2 affixation; otherwise it suffixes (1bd), epenthesizing a vowel if necessary (1d). Similarly, the L1 subordinate and completive affixes attach as prefixes to a vowel-initial stem (1ad), but as suffixes (with epenthetic vowel if necessary) otherwise (1bc). Notice that affixes never occur outside of their layer-order, even when affixes from intervening layers are not present, and even though in linear terms they appear to jump around among different positions in the word. The layer-order must be morphologically specified; it is not derivable from semantics or scope relations, as some inflection-like affixes occur inside some derivation-like affixes, among other things.

Following Stump (1992) and Noyer (1997), I distinguish between two domains of affix ordering that need to be analyzed separately. One is "affix layering", a purely morphological specification of constituent structure and hierarchical relations between morphemes, but with no information about their linear relationships with each other. This is left to the other domain, "affix placement", which is responsible for positioning each affix, as it is introduced, within the linear string. The model is formalized in terms of OT constraint interaction. Affix placement is accomplished using affix-specific subcategorization frames (in OT terms, Alignment constraints). Universally, there are two possible loci of phonological influence on the location of an affix. On one hand, phonologically conditioned affix placement results from phonological information within the subcategorization frames, shown to be independently necessary for prefixes in Chintang (Bickel et al. 2007) and for infixes in general (Yu 2007). On the other hand, phonologically conditioned variability in affix placement – as found in Huave – results when Alignment constraints are overridden by other phonological constraints in the language. Huave, along with similar examples from Hamer (Lydall 1976) and Athabaskan (Hargus and Tuttle 1997), is therefore problematic for architectures where Phonology >> Morphology constraint rankings are impossible (Paster 2006, Yu 2007). In the present model, cyclicity and bracket erasure prevent overgeneration by predicting that global phonological optimization never occurs, but much of the burden of typological explanation is placed in the diachronic realm.

Examples

(1)	L4	L3	L2	L1	Stem	L1	L2	L3	L4
a.	'We (s^j- 1st excl.) w	i- FUT vill mee	n- 1SUB t each o	a-s ^j um meet ther'		-ey RFL		-an PL
b.	'We (excl.) tı	arned ou	ır heads	ndil turn	-it CPL	-e RFL	-s 1st	-an PL
c.	'We (s^j- 1st excl.) w	i- FUT vill sit'		chut sit	-un 1sub			-un PL
d.	'We (excl.) fi	lled it u	t- CPL p'	a-chup fill		-i ^h ch CAUS	-is 1st	-an PL
e.	'I hide	s - 1 st e mysel	f'		a-xut hide		e RFL		

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