Huave Mobile Affixation and the Mirror Alignment Principle

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1. INTRODUCTION

- San Francisco del Mar Huave (isolate, Mexico; Kim 2008) has **mobile affixes**: affixes that surface in different locations in the word depending primarily on *phonological* conditions.
  - ↪ In Huave, these conditions are: **avoidance of clusters** and **avoidance of epenthesis**.
- Kim (2008, 2010) [abbrev. K08, K10] shows that this can be analyzed as the interaction between alignment constraints and the phonological constraints *CC and DEP in a cyclic cophonology approach.
- ★ **Today's goal:** Show that an equivalent analysis can be implemented fully in parallel.
- I will also point out two emergent differences between the two analyses:
  - (i) A latent ordering distinction between Completive/Stative and Subordinate [§§3–4].
  - (ii) A principled distinction between mobile and immobile affixes [§5], which can be related to syntactic structure via the "Mirror Alignment Principle" (Zukoff 2020b) and BD-faithfulness [§6].

2. BASICS OF MOBILE AFFIXATION

- Completive (CP) /t/, Stative (ST) /n/, Subordinate (SB) /m∼n/ are mobile affixes ["Aspect" (ASP)].
- ★ Their behavior can be modeled by ranking **[(1)]**: (1) ***CC ≫ DEP(-IO) ≫ ALN-ASP-R**
  - → *prefixation* to **V**(...)**C** stems (avoids right-edge cluster) **[(3)]**
  - → *suffixation* to all other stem types (prefixation wouldn't improve w.r.t. clusters) **[(2),(4),(5)]**

(2) **V**(...)**V** roots: *uju-m* (no gloss) [K10:149]

/uju, m$_{SB}$/	*CC	DEP	ALN-ASP-R
a. ☞ uju-m			
b. m-uju			*!**

(4) **C**(...)**V** roots: *mo^{h}ko-t* 's/he lay face down' [K10:140]

/mo^{h}ko, t$_{CP}$/	*CC	DEP	ALN-ASP-R
a. ☞ mo^{h}ko-t			
b. t(o)-mo^{h}ko	(*!)	(*!)	****

(3) **V**(...)**C** roots: *t-uc* 's/he ate' (intr.) [K10:140]

/uc, t$_{CP}$/	*CC	DEP	ALN-ASP-R
a. uc-t	*!		
b. uc-*i*t		*!	
c. ☞ t-uc			**
d. *t*u-uc		*!	***

(5) **C**(...)**C** roots: *hypothetical* [CVC-*i***t**]

/CVC, t$_{CP}$/	*CC	DEP	ALN-ASP-R
a. CVC-t	*!		
b. ☞ CVC-*i*t		*	
c. t-CVC	*!		***
d. t*i*-CVC		*	*!***

3. 1ST PERSON /s/ AND COMPLETIVE/STATIVE

- Completives and Statives can be marked for 1st person with the mobile affix /s/. [e.g. **(6–8)**]
- Relative order of 1 and CP/ST follows from the ranking: **ALN-1-R ≫ ALN-ASP-R** **[(9)]**

(6) [**n**-uk^{w}al-*as*] (*ɲukʷalas*)
ST-child-1
'I am pregnant'

(7) [**t**-a^{h}ʧ-*is*] (*ta^{h}ʧjus*)
CP-give-1
'I gave (it)'

(8) [ʧutu-**t**-u-s] (*ʧututus*)
sit-CP-INTR-1
'I sat down' (intrans.)

Exx. from [K10:141]

(8) **1st person stative (V**(...)**C root)** [ex. (6)]

/ukʷal, n$_{ST}$, s$_1$/	*CC	DEP	ALN-1-R	ALN-ASP-R
a. ukʷal-an-*as*		**!		** [2]
b. n-ukʷal-s	*!			***** [5]
c. ☞ n-ukʷal-*as*		*		****** [6]
d. s-ukʷal-*an*		*	*!***** [6]	

- ST /n/ & 1 /s/ both want to be suffixes (8a); this would violate DEP (or *CC) twice.
- This forces [n] to flop to left.
- Epenthesis fixes unavoidable right-edge cluster (8c).

4. 1ST PERSON /s/ AND SUBORDINATE

- **Cyclic analysis:** CP/ST attaches *first*, and *then* 1 /s/ attaches (both per (1)). *Same for* SB, *but...*
- Subordinates too can be marked with 1 /s/ **[(10)]**. This requires **ALN-SB-R ≫ ALN-1-R** **[(11)]**.

(10) [**s**-i-ʧutu-**n**] (*ʧiʧutun*)
1-FUT-sit-SB1
'(that) I will sit'

Cand (11c) ≻ *[i-ʧutu-s-*un*]
↪ DEP ≫ ALN-FUT-L

(11) **1st person future subordinate (C**(...)**V root)** [ex. (10)]

/ʧutu, n$_{SB1}$, i$_{FUT}$, s$_1$/	ALN-FUT-L	ALN-SB-R	ALN-1-R
a. ʧutu-s-i-n	**!*** [5]		** [2]
b. ʧutu-n-i-s	**!*** [5]	** [2]	
c. ☞ s-i-ʧutu-n	* [1]		****** [6]
d. n-i-ʧutu-s	* [1]	*!**** [5]	

- ★ **Parallel analysis:** SB doesn't pattern w/ CP & ST. **Cyclic analysis:** all 3 pattern together (K08,K10).
  - ↪ The morphosemantics and morphosyntax of these affixes recommends this division.

5. PLURAL /n/ AND NON-PHONOTACTIC EPENTHESIS

- The rankings, summarized in (12) (see Zukoff 2020a), make the prediction in (13):

(12) *CC ≫ DEP ≫ ALN-FUT-L ≫ ALN-2-L ≫ ALN-2I-R ≫ ALN-SB-R ≫ ALN-1-R ≫ ALN-ASP-R

(13) **PREDICTION:** *No vowel-initial verb-word has cluster-breaking epenthesis.*

- ★ This prediction fails when we look at the **plural morphemes**, e.g. default PLURAL /n/. **[(14)]**
  - → always rightmost suffix, *even if this leads to unnecessary epenthesis* ⇒ **ALN-PL-R ≫ DEP**
- Analysis requires Base-Derivative faithfulness (SG→PL) to prevent 2 /e/ from migrating rightward.
  - ○ Independently necessary to generate overapplication of diphthongization in plural (*i^n**d**iman).

(14) i^n**dj**o*man*
[e-^{n}dim-*an*]
2-want-PL
'you (pl.) want'
[K08:249]

(15) i^n**dj**o*m*
[e-^{n}dim]
2-want
'you (sg.) want'
[K08:249]

(16) **2nd pers. plural** [ex. (14)] (base = 2nd pers. sg. [ex. (15)])

/(a)^{n}dim, e$_2$, n$_{PL}$/	BD-FAITH	ALN-PL-R	DEP	ALN-2-L
a. ☞ e-^{n}dim-*an*				*
b. n-e-^{n}dim		*!*** [4]	*	[1]
c. ^{n}dim-e-n	*!			*** [3]

- ★ **Parallel analysis:** direct correlation between (im)mobility and position:
  - → PL's rightmost-ness and epenthesis-tolerance are both driven by the high ranking of ALN-PL-R.
- **Cyclic analysis:** no inherent correlation; coincidence is accidental.

6. PERSON, NUMBER, AND THE MAP

- Zukoff's (2020b) "Mirror Alignment Principle" [The MAP] (17) allows us to "reverse engineer" the (morpho)syntax from alignment rankings, generating the tree in (18).

(17) **THE MAP: If α asymm. c-commands β → ALN-α ≫ ALN-β.**

- A (near-)universal from the literature (e.g. Trommer 2001, Harbour 2016):
  - → NUMBER is structurally higher than PERSON
- ★ The MAP yields *phonological* evidence that Huave conforms to this.
  - ↪ Supported also by BD-faithfulness configuration.

(18)

REFERENCES

⋈ Harbour, Daniel. 2016. *Impossible Persons.* Cambridge, MA: MIT Press ● Kim, Yuni. 2008. Topics in the Phonology and Morphology of San Francisco del Mar Huave. PhD Diss, UC Berkeley ● Kim, Yuni. 2010. Phonological and Morphological Conditions on Affix Order in Huave. *Morphology* 20(1):133–163 ● Trommer, Jochen. 2001. Distributed Optimality. PhD Diss, Uni Potsdam ● Zukoff, Sam. 2020a. Another Look at Huave Mobile Affixation. Talk Presented at Zoom Phonology, UC Berkeley, *online*, 9/10/2020., https://www.samzukoff.com/berkeley2020handout ● Zukoff, Sam. 2020b. The Mirror Alignment Principle: Morpheme Ordering at the Morphosyntax-Phonology Interface. Ms., Leipzig University, 8/24/2020. https://ling.auf.net/lingbuzz/005374 ⋈