

Opportunistic Centralization in Tudanca Montañés

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Centralization

- Centralization in Tudanca Montañés (Romance; Spain) involves a derived environment effect, but traditional approaches to DEEs fail.
- Instead, DEP-[F] constraints offer a simple analysis.

- **Centralization Harmony:** final high vowels centralize (=[-ATR], shown with capitalization) and trigger harmony up to and including the stressed vowel (Hualde 1989, Penny 1978):

- (1) pÍntU ‘male calf’ orÉgAnU ‘oregano’
sekÁIU ‘to dry him’ antigwÍsmU ‘very old’
kÁrAbU ‘tawny owl’

- A Positional Licensing effect (e.g. Walker 2011):

- (2) a. LICENSE([-ATR]_{post-tonic}, ó): assign one violation mark for each post-tonic [-ATR] that does not coincide with the stressed syllable.
b. *[+hi, +ATR]#: assign one violation mark for each word-final [+hi, +ATR] vowel.

(3)

/oréganu/	*[+hi, +ATR]#	LICENSE([-ATR] _{post-tonic} , ó)	IDENT(ATR)
a. oréganu	*!		
b. oréganU		*!	*
☞ c. orÉgAnU			***
d. OrÉgAnU			****!

- **Pretonic Centralization:** mid vowels centralize if they are labial-adjacent (4a), but other vowels normally do not (4b):

- (4) a. mEñka ‘pinky’ b. piyíhkos ‘pinches’
gwEbéra ‘egg-basket’ pintáa ‘painted’ (fem)
bOnúka ‘weasel’ buhános ‘worms’
mOrθíya ‘blood-sausage’ pasár ‘to pass’

- (5) a. *LAB-[+ATR]: assign one violation mark for each [+ATR] segment adjacent to a labial.
b. *LAB-[+ATR]_{mid}: assign one violation mark for each [+ATR, -high, -low] segment adjacent to a labial.

(6) a.

/bonúka/	*LAB-[+ATR] _{mid}	IDENT(ATR)	*LAB-[+ATR]
☞ a. bOnúka		*	
b. bonúka	*!		

b.

/piyíhkos/	*LAB-[+ATR] _{mid}	IDENT(ATR)	*LAB-[+ATR]
☞ a. piyíhkos			*
b. plyíhkos		*!	

A Derived Environment Effect

- Labial-adjacent non-mid vowels *do* centralize when the word also contains Centralization Harmony:

- (7) pÍyÍhkU ‘pinch’
ehpInÁθU ‘spinal cord’
mUřÍyU ‘stone’
bUhÁnU ‘worm’
mArÁnU ‘pig’
tAmbÚhU ‘short and fat person’

- This is a DEE: “one process [Centralization Harmony]... creates the conditions for another process [labial-induced centralization of non-mid vowels]” (McCarthy 2003:19).

- But standard approaches to DEEs do not work here.

⇒ Only *LAB-[+ATR] favors the pretonic centralization in (7), and it is impotent (6b).

Approaches to DEEs

- **Local Conjunction** (Lubowicz 2002): *LAB-[+ATR] triggers non-mid centralization only when IDENT(ATR) is violated:

(8)

/piyíhku/	*[+hi, +ATR]#	LIC	*LAB-[+ATR]&IDENT(ATR)	IDENT
a. piyíhku	*!			
b. piyÍhkU			*!	**
☞ c. plyÍhkU				***

- But the conjuncts must share a locus of violation. Abandoning this principle predicts unattested DEEs (Lubowicz 2002, McCarthy 2003).

- This condition is not met:

- *LAB-[+ATR]: violated by pretonic labial-adjacent vowels
- IDENT(ATR): violated by post-tonic vowels

⇒ *LAB-[+ATR]&IDENT(ATR) is illicit.

- **Comparative Markedness** (McCarthy 2003): _NMARKEDNESS penalizes only configurations not inherited from the input: derived configurations.

- _N*LAB-[+ATR] penalizes only derived labial/[+ATR] sequences.
- But the derived environment that triggers Tudanca’s DEE—centralization harmony—doesn’t introduce new violations of *LAB-[+ATR].

(9)

/piyíhku/	*[+hi, +ATR]#	LIC	_N *LAB-[+ATR]	IDENT
a. piyíhku	*!			
☞ b. piyÍhkU				**
☞ c. plyÍhkU				***!

DEP(-ATR)

- Replace IDENT(ATR) with DEP(-ATR): LAB-[+ATR] can exploit existing [-ATR] features, but it can’t introduce new ones.

(10)

/piyíhku/	*[+hi, +ATR]#	LIC	DEP(-ATR)	*LAB-[+ATR]
a. piyíhku	*!			*
b. piyÍhkU			*	*!
☞ c. plyÍhkU			*	

- Labial-induced centralization is opportunistic: it cannot introduce its own [-ATR], but it can capitalize on [-ATR] provided by another process.

Summary

- Why is Tudanca’s DEE different?
– The DEE’s locus does not overlap with the operation that triggers it.
- Why does DEP(-ATR) work?
– Because of *[+hi, +ATR]# ≫ DEP(-ATR), final vowels can centralize.
– Once *[+hi, +ATR]# introduces [-ATR], it can be manipulated to satisfy other constraints ranked below DEP(-ATR).
– Spreading violates IDENT(ATR) but not DEP(-ATR).

DEP-[F] provides an account of DEEs that are not confined to a single locus. It permits DEEs to manipulate features introduced by another processes, thereby confining DEEs to contexts in which the other process occurs.

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