Intervening Positions in Long-Distance Positional Licensing Effects*

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1 Positional Licensing: Harmony at a Distance

- Positional Licensing (PL; e.g. Walker 2011) requires some feature [F] to coincide with a strong position.

- E.g. Eastern Andalusian (EA; Jiménez & Lloret 2007, Lloret & Jiménez 2009):

  - /s/-aspiration: final /s/ deletes and causes laxing of final vowel
  - This [–ATR] spreads to the stressed syllable

(1) | | | |
|---|---|---|
| *tesis* | tésɪ | 'thesis' |
| *tienes* | tjénɛ | 'you have' |
| *nenes* | nénɛ | 'babies' |
| *monos* | mónɔ | 'monkeys' |
| *lejos* | léhɔ | 'far' |
| *pesos* | pésɔ | 'weights' |
| *bocas* | bókæ | 'mouths' |
| *asas* | a̞sæ̞ | 'handles' |

- Central Veneto (CV; Walker 2005, 2008, 2010, 2011):

  - Post-tonic [+high] spreads to the stressed syllable

(2) a. kals-é̠t-o   'sock (MASC. SG.)'   kals-i̠t-i   'sock (MASC. PL.)'
   b. kant-é̠-se   'sing (1PL.)'   kant-i̠-si-mo 'sing (1PL. IMPF. SUBJ.)'
   c. mó̠v-o   'move (1SG.)'   mú̠v-i   'move (2 SG.)'
   d. kantó̠r   'choir singer (MASC. SG.)' kantú̠r-i   'choir singer (MASC. PL.)'

- If the trigger and target are not adjacent, intervening vowels show three patterns:

  A. Harmony (EA pattern 1 (3); CV /e, o/ (4a))
  B. Transparency (EA pattern 2 (3))
  C. Opacity (CV /a/ (4b))

(3) *Intervening vowels in EA: harmony or transparency*
   a. *treboles*   tréβɔlɛ ∼ tréβolɛ   'clovers'
   b. *cómetelos*   kómɛtɛlɔ ∼ kómetelɔ   'eat them (for you)!'

(4) *Intervening vowels in CV: harmonic /e, o/ & opaque /a/*
   a. órdeno   'order (1SG.)'   úrdɪni   'order (2SG.)'
   b. la(v)ór-a-v-a   'work (1sg impf ind)'   la(v)ór-a-v-i   'work (2sg impf ind)'

- In OT and Harmonic Serialism, these possibilities get a unified treatment.

- OT: PL triggers harmony in the stressed syllable; other constraints determine fate of intervening positions (Walker 2011).

  - *DUPLICATE: no gapped harmony domains.
  - The ranking between *DUPLICATE and IDENT determines whether intervening vowels harmonize or are transparent (5).
  - Opacity: *ɪ, ʊ and *DUPLICATE outrank LICENSE (6).

(5)

/tréβoles/	LICENSE([–ATR], σ́)	*DUPLICATE	IDENT(ATR)
a. tréβolɛ	*!		*
☞ b. tréβolɛ		*(!)	**
☞ c. tréβɔlɛ			***(!)

(6)

/la(v)óravi/	*DUPLICATE	*ɪ, ʊ	LICENSE([+hi], σ́)
☞ a. la(v)óravi			*
b. la(v)úravi	*!		
c. la(v)úrɪvi		*!	

- Harmonic Serialism: *Skip(V) penalizes each vowel skipped over by harmony (Kimper 2012).

  - Each vowel must harmonize on a separate step.
  - *Duplicate isn't satisfied until all vowels harmonize, so it cannot produce gradual harmony.

(7) a. *Step 1*

/kómetelos/	License([–ATR], ó)	*Skip(V)	Ident(ATR)	*Duplicate
a. kómetelɔ	*!			
☞ b. kómetelɔ		**	*	*

b. *Step 2*

/kómetelɔ/	License([–ATR], ó)	*Skip(V)	Ident(ATR)	*Duplicate
a. kómetelɔ		**!		*
☞ b. kómetɛlɔ		*	*	*

c. *Step 3*

/kómetɛlɔ/	License([–ATR], ó)	*Skip(V)	Ident(ATR)	*Duplicate
a. kómetɛlɔ		*!		*
☞ b. kómɛtɛlɔ			*	

- Transparency: Ident ≫ *Skip(V)

- Opacity: *Skip(a) ≫ License (Harmony that skips over [a] is banned.)

- My argument: in Serial Harmonic Grammar, no unified account is possible.

- Both *Duplicate and *Skip(V) fail to produce harmony; PL itself must do so.

- *Skip *for particular kinds of vowels* must produce opacity.

2 PL in SHG

- Kaplan (to appear): standard PL is pathological in HG. It must be a positive, gradient constraint (PG-PL):

(8) License(λ, π): assign +1 for each λ that coincides with some π. For each λ that coincides with some π, assign +1 for each additional position that λ coincides with.

- Kimper (2011): positive constraints must be implemented in a serial framework to avoid runaway derivations.

- One consequence of (8): PG-PL motivates harmony on intervening positions by itself.

- Thus PG-PL gives a sound account of harmony and transparency; *Duplicate and *Skip(V) are unnecessary and pathological.

- But PG-PL cannot produce opacity; versions of *Skip remain important here.

3 Harmony & Transparency

- Harmony: when PG-PL outweighs Ident, intervening vowels harmonize:

(9) a. *Step 1*

/kómetelɔ/	License([–ATR], ó)$_4$	Ident(ATR)$_3$	H
a. kómetelɔ			0
☞ b. kómetelɔ	+2	−1	5
c. kómetɛlɔ		−1	−3

b. *Step 2*

/kómetelɔ/	License([–ATR], ó)$_4$	Ident(ATR)$_3$	H
a. kómetelɔ	+2		8
☞ b. kómetɛlɔ	+3	−1	9

c. *Step 3*

/kómetɛlɔ/	License([–ATR], ó)$_4$	Ident(ATR)$_3$	H
a. kómetɛlɔ	+3		12
☞ b. kómɛtɛlɔ	+4	−1	13

- Transparency: under $2w(\text{License}) > w(\text{Ident}) > w(\text{License})$, the stressed syllable harmonizes:

(10) a. *Step 1*

/kómetelɔ/	License([–ATR], ó)$_2$	Ident(ATR)$_3$	H
a. kómetelɔ			0
☞ b. kómetelɔ	+2	−1	1
c. kómetɛlɔ		−1	−3

b. *Step 2: Convergence*

/kómetelɔ/	License([–ATR], ó)$_2$	Ident(ATR)$_3$	H
☞ a. kómetelɔ	+2		4
b. kómetɛlɔ	+3	−1	3

- *Duplicate doesn't provide an alternative to PG-PL:

(11)   a.   *Step 1*

/kómetelɔ/	License([–ATR], ó) [6]	*Duplicate [3]	Ident(ATR) [2]	H
a. kómetelɔ	−1			−6
☞ b. kómetelɔ		−1	−1	−5
c. kómetɛlɔ	−1		−1	−6

   b.   *Step 2: Failure*

/kómetelɔ/	License([–ATR], ó) [6]	*Duplicate [3]	Ident(ATR) [2]	H
💣 a. kómetelɔ		−1		−3
(☞) b. kómetɛlɔ		−1	−1	−5

- *Skip(V) is pathological. It permits harmony at short distances only:

(12)   a.   *Step 1*

/tréβolɛ/	License([–ATR], ó) [5]	*Skip(V) [3]	Ident(ATR) [1]	H
a. tréβolɛ	−1			−5
☞ b. tréβolɛ		−1	−1	−4
c. tréβɔlɛ	−1		−1	−6

   b.   *Step 1: Failure*

/kómetelɔ/	License([–ATR], ó) [5]	*Skip(V) [3]	Ident(ATR) [1]	H
💣 a. kómetelɔ	−1			−5
(☞) b. kómetelɔ		−2	−1	−7
c. kómetɛlɔ	−1		−1	−6

- No language works this way (Kaplan to appear).

- Summary of alternatives:
  - Separate constraints for harmony intervening vowels does not work.
  - A categorical constraint (*Duplicate) cannot motivate harmony.
  - A gradient constraint (*Skip(V)) is pathological.

- Only with the motivation for harmony coming from PL itself do the correct outcomes emerge.

4   Opacity

- CV: /a/ blocks harmony (4b).

- PG-PL motivates harmony on the stressed syllable regardless of the status of intervening vowels.

- Adding *ɪ, ʊ is inadequate: it can stop harmony on /a/, but it can't block harmony on the stressed syllable:

(13)   *Step 1: Failure*

/la(v)óravi/	*ɪ, ʊ [6]	License([+hi], ó) [4]	Ident(ATR) [3]	H
(☞) a. la(v)óravi				0
💣 b. la(v)úravi		+2	−1	5

- We need a constraint that says "harmony shouldn't skip over [a]."

- This is just *Skip(a)!

(14)   *Step 1: Convergence*

/la(v)óravi/	*Skip(a) [6]	License([+hi], ó) [4]	Ident(ATR) [3]	H
☞ a. la(v)óravi				0
b. la(v)úravi	−1	+2	−1	−1

- As long as $w(\ast\text{Skip}(a)) + w(\text{Ident}) > 2w(\text{License})$, opacity is achieved.

- Potential problem: *Skip(a) blocks harmony across a large number of [a]'s but not a small number:

(15)   a.   *Step 1*

/la(v)óravi/	*Skip(a) [4]	License([+hi], ó) [4]	Ident(ATR) [3]	H
a. la(v)óravi				0
☞ b. la(v)úravi	−1	+2	−1	1

   b.   *Step 1*

/la(v)óratavi/	*Skip(a) [4]	License([+hi], ó) [4]	Ident(ATR) [3]	H
☞ a. la(v)óratavi				0
b. la(v)úratavi	−2	+2	−1	−3

- Counting effects like this don't exist: a vowel's opacity does not depend on how many vowels there are.

- Solution: *Skip(a) assigns −1 no matter how many [a]'s are skipped:

(16) *Skip(a): Assign −1 for any harmony domain for [F] in which [a] appears between two harmonic elements and is not itself [F].

- If *Skip(a) cannot block harmony in one case, it cannot do so in the other either:

(17) a. *Step 1*

/la(v)óravi/	*Skip(a) ₄	License([+hi], ó) ₄	Ident(ATR) ₃	H
a. la(v)óravi				0
☞ b. la(v)úravi	−1	+2	−1	1

b. *Step 1*

/la(v)óratavi/	*Skip(a) ₄	License([+hi], ó) ₄	Ident(ATR) ₃	H
a. la(v)óratavi				0
☞ b. la(v)úratavi	−1	+2	−1	1

5 Summary

- In OT/HS, PL may affect only the licensing position, leaving the behavior of intervening positions to other constraints.

- This does not work in SHG: PL itself must trigger harmony (or not) on intervening positions: PG-PL.

- But PG-PL still requires a separate constraint to deal with opaque vowels—no unified analysis of intervening positions is possible.

- *Skip(V) is pathological, but *Skip(a) is not—why?

  - These constraints serve different purposes.
  - *Skip(V) is meant to motivate harmony on intervening vowels one at a time. It must be gradient.
  - *Skip(a) blocks harmony across particular vowels. It can (and should) be categorical.
  - Only *Skip *for particular vowel categories*—the ones that are opaque in a language— is a well-formed constraint, and it must be categorical.

- In an important sense, the behavior of intervening positions is of secondary importance in PL-driven systems.

- But careful attention to the behavior of these intervening positions reveals differences between analytical frameworks (SHG vs. OT vs. HS), sheds light on the proper formulation of PL-type constraints, and shows that opaque interveners are formally distinct from other kinds of interveners.

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