Intervening Positions in Long-Distance Positional Licensing Effects
Aaron Kaplan, University of Utah (a.kaplan@utah.edu)

Positional Licensing (PL; e.g. Walker 2011) describes phenomena in which some element must at least partially overlap with a designated licensing position. Because the restricted element need not originate near the licensor, PL is a rich source of long-distance interactions. For example, in Eastern Andalusian (EA), word-final /s/ deletes, causing the preceding vowel to become lax, and this laxness spreads to the stressed vowel over potentially long distances (e.g. Lloret & Jiménez 2009). Vowels that intervene between the final and stressed vowels optionally harmonize: /trəboləs/ → [trəbolə]~[trəbolə] treboles ‘closers’; /kóməteləs/ → [kómətelə]~[kómətelə] cómetelos ‘eat them (for you)!’.

This paper probes these intervening vowels. Such vowels show three patterns crosslinguistically: they may be transparent or participate in harmony (EA shows both), or they may block harmony: in Central Veneto’s metaphony (Walker 2011), a post-tonic high vowel causes raising of the stressed vowel and intervening /ε, ə, a/ (e.g. /ˈlɔrde/ → [ˈuɾdə] ‘order (2sg.)’), but intervening /ɛ, ə, a/ block all harmony: *[la(v)ˈur-a-v-i] ‘worked, was working (2sg. impf. ind.),’ *[la(v)ˈuɾ-u-v-i]. Accounts of these patterns exist for parallel (Walker 2011) and serial (Kimper 2012) OT, and for Harmonic Grammar (Kaplan to appear), but not for serial Harmonic Grammar (SHG). I argue that (i) SHG requires an account of the first two kinds of intervening vowels that is very different from analyses available to other frameworks, and (ii) an SHG account of the third kind cannot be unified with the account of the first two.

Walker’s (2011) OT-based formalism rests on a division of labor: PL constraints trigger harmony on the licensor (e.g. for EA LICENSE([-ATR], ˈσ) penalizes [-ATR] that does not coincide with the stressed syllable), and *DUPLICATE (which assigns one violation for a discontiguous harmony domain) is called on when the intervening positions must harmonize. Kimper (2012) uses a similar two-pronged approach, replacing *DUPLICATE with *SKIP (which penalizes each unharmonized intervening vowel separately) for serial versions of OT.

But in SHG, this division of labor fails. Because harmony on the intervening vowels serves only to avoid discontiguous harmony, the first step in a serial derivation is harmony on the licensor (Kimper 2012): /kóməteləs/ → [kómətelə] (assuming prior steps for /s/-deletion and final-vowel laxing). Each intervening vowel subsequently harmonizes on its own step. *SKIP fails on the first step. Harmony on the stressed vowel eliminates PL’s violation but introduces potentially many *SKIP violations, creating an unbounded trade-off (Pater 2009): the *SKIP violations gang up on PL to block harmony at long distances. With the weights in (1), harmony across two or more intervening positions is blocked; were there just one, candidate (b) would violate *SKIP just once and therefore win. By changing the weights, the maximum distance for harmony can be set arbitrarily, but no PL system works this way (Kaplan to appear).

<table>
<thead>
<tr>
<th>/kóməteləs/</th>
<th>LICENSE([-ATR], ˈσ)</th>
<th>*SKIP</th>
<th>IDENT</th>
<th>H</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. kómətelə</td>
<td>−1</td>
<td>3</td>
<td>1</td>
<td>−5</td>
</tr>
<tr>
<td>(a) b. kómətelə</td>
<td>−2</td>
<td>1</td>
<td>−1</td>
<td>−7</td>
</tr>
</tbody>
</table>

*DUPLICATE fails on the second step (Kimper 2012): because *DUPLICATE penalizes the entire discontiguous domain, harmonizing just one of many intervening vowels does not improve the candidate’s performance, and the derivation cannot proceed.

I argue that Kaplan’s (to appear) PL formalism for parallel HG provides a solution. To deal with unbounded asymmetries much like the one shown above, Kaplan’s PL is positive and
gradient: it assigns +1 to licensed features instead of penalizing unlicensed ones, and another +1 for each additional position the feature is associated with. As a consequence, PL itself motivates harmony on the intervening positions; *DUPLICATE and *SKIP are superfluous, and the problems they cause do not arise (2). When the licensor harmonizes, there is no constraint to penalize discontinuous harmony, and this step cannot be blocked. The motivation to avoid discontinuity comes on subsequent steps, where LICENSE’s reward increases as harmony extends to intervening vowels. (2) produces the fully harmonic EA forms; the alternatives are derived by increasing IDENT’s weight: as inspection of (2) shows, with a weight of 6, IDENT cannot stop the first harmony step (which earns +2 from LICENSE) but does block harmony on an intervening vowel (which only earns +1).

(2) a. /kómetelɔ/ LICENSE([-ATR], σ) IDENT H
   a. kómetelɔ 0
   b. kómetelɔ +2 −1 9

b. /kómetelɔ/ LICENSE([-ATR], σ) IDENT H
   a. kómetelɔ +2 10
   b. kómetelɔ +3 −1 14

c. etc.

The success of this approach shows that unlike other frameworks, SHG requires the impetus for harmony outside the licensor to be built into PL itself. Furthermore, depending on the particular relationship between PL and IDENT, this more comprehensive PL produces both full and discontinuous long-distance harmony.

However, *SKIP is central to an account of Central Veneto’s opaque vowels. It is not enough to prevent /ɛ, ə, a/ from harmonizing: because intervening vowels harmonize after the licensor, this would merely halt the derivation after that first step (*[lava(ŋ)ur-a-v-i]). Instead, we must block harmony that skips these opaque vowels in the first place. This is precisely what *SKIP-[a] does: with sufficient weight, its penalty for skipping over [a] counters LICENSE’s reward for harmony on the licensor. Thus the interaction that was problematic above—*SKIP’s ability to block harmony on the licensor—is essential here.

Together these results show that PL-driven long-distance harmony is more intricate than it first seems. The behavior of intervening positions, which is largely of secondary importance in ranked-constraint frameworks, takes on a central role in weighted-constraint systems like SHG. Moreover, these intervening positions do not submit to a single approach: when they are opaque, *SKIP is needed, but despite the fact that this constraint can potentially motivate harmony on intervening positions, using it for that purpose in SHG is problematic. Instead, PL itself must trigger this harmony.