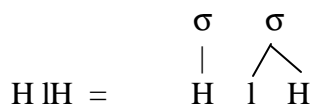


Lama Hints

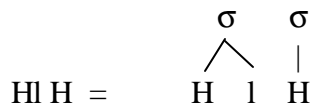
1. Start File

I've posted a start file (**LamaStart.xls**), whose representations make some very particular assumptions.

- 1) l and h stand for L and H tones that exist in the phonological representation, but don't receive a tonal target in the phonetic representation. They are detectible because the constraints that affect pitch registers can "see" them.
- 2) <L> and <H> are not really part of the surface representation, but simply designate that in this particular representation, a L or a H in the relevant location has been *deleted*.
- 3) You may assume that Lama lowers the pitch registers between any Low and any following High. Thus:



and



both mean "high, followed by downstepped high".

However,

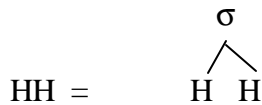


and



are pronounced the same as LL: you need actual *alternation* between H and L to lower the registers.

3) I found it was crucial to assume that at least some constraint refer to the *pitch targets themselves*, rather than to the purely phonological representation. In particular,



all of which have phonetically-flat pitch, must *not* be counted as contour tones for purposes of the constraints.

2. Hints

- a) Look at what tonal contours can occur, and where. Formulate constraints to ban the illegal contours.
- b) A bit of typology: final position is often a good hosting site for contours. It is conjectured that this is because languages phonetically lengthen final syllables.
- c) Languages often require contours to be extreme: a big pitch transition, not a small one. Thus Yoruba, with High, Mid and Low, bans HM, MH, LM, ML.
- d) Lama has opacity: falling tones are realized as H, but don't undergo the spreading undergone by H tones. My own recipe used Kirchnerian conjunction of Faithfulness constraints ("Don't do both this and this."). I found that for one half of the conjunction, I needed a somewhat ad hoc constraint, IDENT(fall): "do nothing whatsoever to HL."
- e) Pressure for tonal spreading is commonly attributed to rightward alignment: penalize a tone for every syllable to the (right/left) that it isn't linked to.
- f) The theory of phonetic realization, assuming it is also Optimality-theoretic, would include constraints that ban uninterpreted phonological entities, like *l and *h.
- g) There is a constraint *FAILED CANDIDATE, with violations for every nonwinner. I strongly suggest you remove the violations of this constraint one form at a time, as you gradually expand the scope of your analysis. Else it's very hard to diagnose problems.
- h) Lastly, don't feel enslaved by the Start file! For instance, if you want to take a totally different approach, feel free; and even if not, feel free to consider other candidates.