Peak timing in nuclear H*+L accents revisited: Cois Fharraige Irish

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Past studies of Connaught Irish revealed differences in nuclear peak alignment in two closely related dialects, being strongly influenced by the tail length (number of syllables) in Inis Oírr (IO), Aran Islands, but not in the mainland of Cois Fharraige (CF), where it appeared firmly anchored to the accented vowel onset (Dalton & Ní Chasaide, 2006). Using data from the CF-Irish "The North Wind and the Sun" this paper reconsiders the effects of tail length along with other possible influences on H alignment: preceding accent type, and accented vowel length. In data from four speakers (35 utterances), H alignment was analysed in nuclear accented syllables with a long or short vowel, as a function of tail length (tail of 0, 1 or 2 unstressed syllables = N0, N1 or N2) and the preceding accent type (H* or H*+L).

Figure 1 shows time-normalised f0 traces, obtained using *ProsodyPro* (Xu, 2013), representing f0 (in ST) over the accented vowel (grey box, where vertical dotted line = vowel midpoint) and the 1 or 2 tail syllables (white, unshaded boxes). Values are averaged for each tail length and preceding accent type (dashed lines = preceding H*; solid = preceding H*+L). Under tail expansion, H appears to be less invariantly anchored to the accented vowel onset than previously reported, being located at differing points from vowel onset to its midpoint. However, tail length appears to exert a greater influence on the rate of the f0 fall than on the timing of the peak, with a more precipitous fall in N0 than in N1 and N2. The preceding accent type appears to have a more pronounced effect also on the realisation of the nuclear fall in the N0 condition: here the timing and the rate of the fall may be affected. Note that the effects of the tail length and of the preceding accent type are considerably greater when the nuclear accented vowel is short (a) than when it is long (b). These results are suggestive, and the next step would be to examine these in a more extensive study with strict control over these variables.

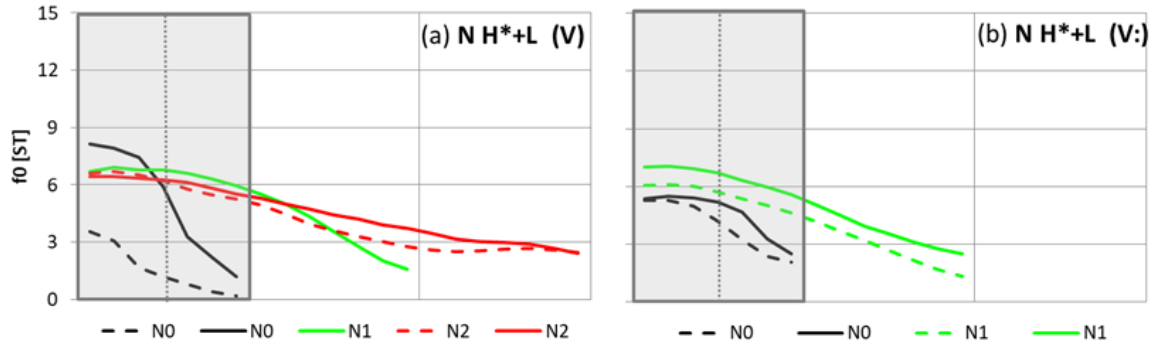

Figure 1. *Nuclear H*+L contours in Cois Fharraige Irish with the nucleus containing a short vowel (a) or a long vowel (b). Tail length: N0 = black, N1 = green; N2 = red. Preceding accent type: H* = dashed; H*+L = solid.*

References

Dalton, M., & Ní Chasaide, A. (2006). Tonal alignment in Irish dialects. *Language and Speech: Special Issue on Intonation in Language Varieties, 48(4)*, 441-464.

Xu, Y. (2013). ProsodyPro. Available at http://www.homepages.ucl.ac.uk/~uclyyix/ProsodyPro/