Positionally Licensed Extended Lapses

Crosslinguistically, most languages exhibit either binary stress, with stress on every other syllable, or they feature words with just a single stressed syllable. Standard approaches to stress can deal with these types of stress systems; however, languages with ternary stress systems, where stress falls on every third syllable, have long posed a problem for these approaches. Elenbaas and Kager (1999) propose an Optimality Theoretic approach to ternary stress using foot alignment and lapse constraints, all independently motivated. However, there is a dialect of Bangla spoken in the Tripura region of India (henceforth Tripura Bangla, data from Das 2001) with ternary stress, which cannot be described using Elenbaas and Kager's analysis. Specifically, it is necessary to motivate a new constraint, Extended-Lapse-at-End, which assigns a violation mark to each sequence of three unstressed syllables that is not word-final; this constraint is a synthesis of *Extended-Lapse (Nespor and Vogel 1989) and Kager's (2001) family of positionally-licensed lapse constraints: Lapse-at-End, Lapse-at-Peak, and *Lapse. Data from Tripura Bangla is in (1):

(1) Tripura Bangla words with light syllables

3n syllables	
a) ˈa.to.ri	'intestine'
b) ˈo.no.kɔ.ˌro.ni.yɔ	'imitable'
3n+1 syllables	
c) ˈa.ra.sa.li	'trouble making'
d) ˈɔ.no.nu.ˌda.ßo.ni.yɔ	'unintelligible'
3n+2 syllables	
e) ˈba.ri	'home'
f) ˈɔ.nɔ.mo.ˌni.yɔ	'rigid'
g) ˈɔ.no.nu.ˌkɔ.ro.ni.ˌyɔ.ta	'inimitability'

As can be seen in (1), main stress is always on the first syllable in Tripura Bangla, with secondary stress assigned exhaustively on every third syllable, except where the stress would be word-final. Without enriching the constraint set to include Extended-Lapse-at-End, it is impossible to correctly describe the data in (1). All-Ft-L (assign one violation mark for every foot that is not aligned with the left edge of the word) must be dominated by a constraint against extended lapses in order to produce to correct forms in five-syllable words; that is, ('LL)L(,LL) instead of *('LL)LLL. However, using *Extended-Lapse instead of Extended-Lapse-at-End predicts the wrong outcome in words with 3n+1 syllables; specifically, *('LL)(,LL) is predicted instead of ('LL)LL and *('LL)L('LL)('LL) is predicted instead of ('LL)L('LL)LL.

Extended-Lapse-at-End offers an explanation of this data; the extended lapses in the observed outcomes are word-final, while the bad extended lapses are in the middle of the word. This explanation is promising, because it is simply an extension of Kager's positionally licensed lapse constraints to the domain of extended lapses. Additionally, adding Extended-Lapse-at-End to the constraint inventory predicts the existence of languages where long lapses are permitted only at the ends of words; this describes the attested phenomenon generally referred to as foot extrametricality. The term foot extrametricality refers to situations (in languages such as Egyptian Radio Arabic, Palestinian Arabic, Hindi, and Cupeño) where stress can fall up to four syllables away from the edge of the word. The traditional analysis of these languages is to say that the final foot is extrametrical, and that stress can fall anywhere on the last two feet. However, not only can foot extrametricality be easily explained by Extended-Lapse-at-End, but it is exactly the type of system predicted by its inclusion in the constraint set.

Selected References

Das, S. 2001. *Some aspects of the phonology of Tripura Bangla and Tripura Bangla English*. Doctoral dissertation, CIEFL Hyderabad. (ROA-493)

Elenbaas, N. and R. Kager. 1999. Ternary rhythm and the lapse constraint. *Phonology* 16: 273-329.

Kager, R. 2001. Rhythmic directionality by positional licensing. Handout of presentation, Fifth HIL Phonology Conference (HILP 5), University of Potsdam. (ROA-514)

Nespor, M., and I. Vogel. 1989. On clashes and lapses. *Phonology* 6: 69-116.