

Final Vowel Lowering as final strengthening

John Harris (2009) rejected the traditional approach to final position as a position of strengthening. The two main arguments he provided were (a) the lack of ‘evidence, independent of devoicing, that final position promotes segmental strengthening’ and (b) the absence of ‘a necessary connection between demarcative function and strengthening’. Leaving the discussion of (b) for another time, let us concentrate on (a). Harris concluded that there is no ‘place-strengthening process’ related to final position, whereas there are examples of final debuccalisation, a weakening process. There is, however, an issue with this line of thinking. Phonological strength relations are usually characterised by a feature that is either privative/binary (e.g. voicing) or gradual (e.g. vowel height). In contrast, place features are equipollent by their nature, which is likely the real reason why ‘it is difficult to imagine what a place-strengthening process would look like’.

Nevertheless, Harris proposed that phonological strength is proportional to modulation size, which he defined as the distance between the actual segment and an ‘unmodulated carrier’. Intervocally, this carrier is described as having periodicity as its main acoustic parameter. When an intervocalic stop is voiced, it undergoes weakening because periodicity—characteristic of vowels—is introduced, thereby reducing the modulation size. Conversely, final stops are considered naturally voiceless; thus, devoicing also constitutes weakening, as it similarly reduces the modulation size.

While employing place features does not seem particularly productive in the discussion of strength relations¹, considering a case where a phonological process is naturally aligned along a scale could yield better evidence, independent of devoicing, regarding final position as either strengthening or weakening.

In quite a few languages, belonging to more than 10 language families according to Pbase (Mielke, n.d.), a process by which a vowel is lowered in final position is well attested. Notably, the opposite pattern is extremely rare. For instance, English *vodk[e]* but *vodk[əz]* (Flemming & Johnson, 2007); Russian /'mama/ [a] but /'mama 'doma/ [ə d] (Knyazev & Pozharitskaja, 2012). Another example comes from Shughni, a minority Iranian language, whereby words transcribed at the end of the 19th century with a final *i* are now pronounced with [ɛ] instead, e.g., *divi* [d've] ‘door’ (Sokolova, 1953; Zaleman, 1895).

The sonority-based approach to phonological strength straightforwardly renders Final Vowel Lowering as an instance of strengthening and further supports the treatment of final position as a position of strengthening (a bigger opening means higher sonority). At the same time, Harris’s modulated carrier approach would struggle to characterise this sound change as either weakening or strengthening, as any change of vowel height would be a change from the ‘neutral schwa’. (This is, of course, unless a special fix is introduced.)

To summarise, we argue that final position is indeed a position of strengthening and that there is evidence, independent of devoicing, supporting this traditional view. In addition, we propose that if a vowel changes its height in final position, it is most likely to be an instance of Final Vowel Lowering. The talk will further elaborate on the problems related to final position in different models of phonological strength, as well as Final Vowel Lowering as a typologically common pattern of sound change and its phonetic grounds.

¹ One might assume a sonority scale could serve as the basis for determining strength relations between different place features. Harris, however, does not adopt this when discussing (a), instead taking a formal approach (feature loss versus acquisition).