

## Typological analysis of compensatory consonant lengthening

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Compensatory Lengthening (CL) refers to processes where deletion of a segment leads to lengthening of another segment. The trigger (deleted segment) and the target (lengthened segment) can be either a vowel or a consonant. The **goal** of this paper is to state the differences in directionality, adjacency and phonetic motivation between cases of vowel lengthening and consonant lengthening, and to present an analysis of consonant lengthening through consonant loss based on these typological generalizations. We claim that compensatory consonant lengthening does not always have the same motivation and analysis as vowel lengthening. Furthermore, a single approach cannot be applied to all cases of consonant lengthening since they vary with respect to their motivation. We argue that phonologization, moraic conservation and perceived similarity play a role in different cases and illustrate these three approaches with three languages.

A survey of CL with consonant lengthening shows a preference for left-to-right directionality, i.e., the trigger precedes the target. The only cases with right-to-left CL contain the glide /j/ as trigger, e.g. in Lesbian and Thessalian Greek. Also, the trigger and target are always adjacent to each other. Kavitskaya (2002) presents a study of compensatory vowel lengthening, which is characterized by right-to-left directionality, i.e., the trigger follows the target. This type of CL requires articulatory or perceptual locality of the relevant segments.

Kavitskaya (2002) analyzes compensatory vowel lengthening as the result of phonologization: the phonetic vowel duration is reanalyzed as phonological upon loss of the conditioning environment. We extend the **phonologization** analysis to the outcome of /j/-deletion in the Lesbian and Thessalian (L/T) dialects. Ancient Greek shows a dialectal split with respect to this deletion process. While L/T show consonant lengthening, elsewhere we find vowel lengthening (see (1)). We claim that the acoustic properties of /j/ on the neighboring segments predict that either the preceding consonant or vowel may be reanalyzed as long. This prediction is reflected in the dialectal split.

(1) \*krinjo:      L/T = krinno:      Elsewhere = kri:no:      “judge”      (Ingria 1980)

However, phonologization does not account for all instances of consonant CL since not all triggers affect the duration of their neighboring consonants. The **moraic conservation** approach (Hayes 1989) accounts for consonant lengthening by arguing that the trigger is always a moraic segment. Eastern Andalusian Spanish presents a case of obstruent deletion with lengthening of the following consonant (see (2)). Our implementation of moraic conservation relies on the fact that the trigger surfaces in some other form in the language, i.e., morphological or variant alternations, which influences the form with deletion.

(2) [deʃ#ato]      “I untie”      vs.      [de#nniβel]      “unevenness”      (Gerfen 2001)

But moraic conservation is challenged by segment sequencing considerations (Wilson 2001) since the moraic conservation effects may not be the result of syllable structure but rather an epiphenomenon of sequential restrictions. Thus, finally, we consider an approach to CL based on **perceived similarity** (Steriade 2001). We propose that the result of CL is more similar to the original sequence than the result of only deleting. Hungarian has a type of CL with restrictions like those predicted by the similarity hypothesis. Hungarian /l/ deletes before /r/ or /j/ with lengthening of these segments (see (3)). Our analysis is based on the fact that, given their acoustic features, these segments are relatively similar to each other.

(3) /bɔl-ro:l/ → [bɔrrɔ:l]      “left-DELATIVE”      /tol-juk/ → [tojjuk]      “push-DEF.1PL”

## REFERENCES

- Gerfen, C. 2001. A critical view of licensing by cue: codas and obstruents in Eastern Andalusian Spanish. In L. Lombardi (ed.) *Segmental phonology in Optimality Theory: constraints and representations*. Cambridge University Press, 183-205.
- Hayes, B. 1989. Compensatory lengthening in moraic phonology. *Linguistic Inquiry* 20: 253-306.
- Ingria, R. 1980. Compensatory lengthening in moraic phonology. *Linguistic Inquiry* 20: 253-306
- Kavitskaya, D. 2002. *Compensatory lengthening: phonetics, phonology, diachrony*. New York: Routledge.
- Steriade, D. 2001. The phonology of perceptibility effects: the P-map and its consequences for constraint organization. Ms.
- Wilson, C. 2001. Consonant cluster neutralization and targeted constraints. *Phonology* 18: 147-197.