

Why parameters should be encoded in the software, rather than in the hardware

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This talk is a reply to recent voices that have cast doubt on the universality of final empty Nuclei (FEN). Beyond this issue, I argue more generally that parameters in phonology should not be encoded by restrictions on syllable structure. Rather, variation should be expressed by the computational component of the grammar, which operates on universally invariable syllable structure. This approach develops key concepts of Government Phonology (GP): 1) syllable structure is anchored in the lexicon (rather than a function of a syllabification algorithm); 2) Structure Preservation (i.e. no resyllabification); 3) lateral relations among segments are the true vectors of "on line" phonological activity.

Since Kaye (1990) has proposed that word-final consonants are the Onset of an empty Nucleus, this idea has gained ground. Dell (1995) and Oostendorp (2002) are examples of its implementation outside of GP. Within this particular theory, Kaye (1990) has installed Coda Licensing as a universal principle that rules over all languages: Codas may exist only if they are followed by an Onset. Since word-final consonants are followed by no other segment, they can never be Codas.

Interestingly, the non-existence of word-final Codas is something for which GP is known. By contrast, another genuine tradition that roots in Kaye's proposal and continuously developed in GP ever since has not really found its way into larger circles. That is, Kaye (1990) does not address cross-linguistic variation in terms of a contrasting syllabic inventory (e.g. presence vs. absence of word-final Codas in order to capture the (non-)existence of C-final words). Rather, he invokes a parameter on a lateral relation (FEN are licensed or not).

Further work along these lines by Charette (1992,1998,2003), Harris (1994), Scheer (1998,2001,ms,forth), Rizzolo (2002) and Cyran (2001,2003) has identified (at least) four different nuclear categories: full vowels, schwas (i.e. vowels that alternate with zero), FEN and internal empty Nuclei. I propose that the lateral actorship (i.e. the ability to govern and license) of full vowels is unchallenged, while internal empty Nuclei are laterally disabled in all languages. The lateral activity of the two intermediate categories, schwas and FEN, is subject to language-specific parameterisation.

While accepting the existence of FEN in principle, Piggott (1991,1999,2003) and Rice (2003) argue that there are also languages where words end in a Coda. That is, Coda Licensing is a parameter, rather than a principle. They show that in various languages and for different purposes, word-final consonants do not behave like Onsets. There can be no doubt that this is a true statement. The conclusion that is drawn, however, is only compelling when codahood is equated with "belonging to the constituent 'Coda' ". In CVCV (Lowenstamm 1996, Scheer 1999,ms), constituent structure does not vary at all: segments belong to a monotonous sequence of non-branching Onsets and non-branching Nuclei. As all other syllable-based generalisations, codahood is defined in lateral terms: a consonant "belongs to a Coda" iff it occurs before a governed empty Nucleus. Hence, the Coda-status of a consonant depends on whether the following Nucleus is governed or not. And the various Coda-effects are due to a specific reason: the following Nucleus is unable to support (i.e. license) its Onset. Now recall that the lateral actorship of FEN is parameterised. Therefore, the behaviour of a word-final consonant as a Coda or a non-Coda depends on whether its is licensed or not. This means that Piggott's and Rice's arguments do not bite: there is no problem in accounting for the contrasting behaviour of word-final consonants while maintaining Kaye's Coda Licensing as a universal principle. The only thing that needs to be done is to follow the idea that cross-linguistic variation is due to the parameterisation of lateral forces.

In the talk I review and reanalyse Piggott's and Rice's data accordingly. I also show that nothing needs to be extrasyllabic: so-called (right-margin) extrasyllabic consonants do not

behave like true Codas because FEN in the languages at stake are able to license. Finally, I show how a parameterised lateral ability of schwa can account for the two patterns of vowel-zero alternations that are found in natural language.

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