

## The initial CV has done its work, the initial CV may go

Tobias Scheer, University of Nice & Noam Faust, the Hebrew University

In Israeli Hebrew (IH), initial clusters are allowed if they are of rising sonority or obstruent-obstruent (**k**rica ‘winking’ **k**tiša ‘crushing’). If  $C_1$  is a sonorant, the cluster is broken by an epenthetic [e] regardless of the identity of  $C_2$  (netiša ‘abandoning’, lemida ‘learning’). This epenthetic vowel is further subjected to optional external sandhi: it may be deleted if the preceding word ends in a vowel (ha-ntiša ~ ha-netiša ‘the abandonment’). Epenthesis subsists if the preceding word ends in a consonant (\*tox ntiša ‘while abandoning’).

This talk investigates the motivation for this state of affairs. It begins with an account of initial clusters in isolation, within a strict CV approach. We follow the claim in Lowenstamm (1999) and Scheer (2004) that languages which restrict initial clusters are endowed with extra syllabic space (an empty CV unit) that marks the beginning of the word and occurs in this location. The empty V-slot of this initial CV needs to be governed, and with illicit initial clusters this can only be achieved by realizing the nucleus between the two C’s of the initial cluster (/Cø-CøCV.../ → Cø-CeCV...).

But the sandhi effect mentioned interferes with this account: the fact that the vocalization of sonorant-initial clusters may be (optionally) undone in case the preceding word ends in a vowel means that there is no empty nucleus to the left of the cluster anymore that provokes epenthesis (/...V - CøCV.../ → ...V - CCV...). Hence the initial CV must be present when the word is computed in isolation (it triggers epenthesis), but absent when the input to computation are several words. We submit that the presence / absence of the CV unit marking the beginning of the word is a function of phases (cycles): the initial CV is phase-initial (rather than word-initial). That is, it is the phonological exponent of the (left edge of) phases (Scheer 2012). It follows that it is present upon the computation of the phase it is the exponent of, and absent otherwise. If the word phase in IH is headed by an initial CV, then the phase structure [B[A]] spells out as /CV-A/ in the inner phase, and as /CV-BA/ in the outer phase: the initial CV is only present to the left of B in the latter (because it heads the [BA] phase). In absence of the initial CV to the left of A upon the computation of external sandhi [BA], then, the epenthetic vowel has no governing duties if the preceding word is vowel-final. The vowel following the cluster (the i in netiša) can govern it and it may therefore drop. By contrast, when the preceding word ends in a consonant, the epenthetic vowel is called to govern the final empty nucleus of the preceding word and therefore needs to be realized (/...Cø - CøCV.../ → C - CeCV...).

Any analysis of such facts will need to appeal to the presence of the left word boundary in order to account for epenthesis, but this boundary then must be present (or visible) when external sandhi is computed. The traditional means to do that is to either allow rules/constraints to individually make reference to morpho-syntactic information (rule X “sees” the boundary, but rule Y does not), or to devise distinct computational systems according to chunk size (rule X is part of word-internal phonology, but absent in cross-word, i.e. post-lexical phonology). The former option is not workable in the IH pattern because the vowel-zero alternation has identical conditioning within a word and in external sandhi (preceding clusters), hence hinting at a single phonological process. The latter option will produce the correct result, but we wish to show that there is an alternative where only one computational system is responsible for phonological patterns within and across words. We argue that this more restrictive system allows us to better understand the interaction between representational (initial CV) and derivational (phases, cycles) means of carrying morpho-syntactic information into phonology: the former hooks on the latter.

Time permitting, we discuss clusters with historical gutturals in  $C_2$ . These also trigger epenthesis (še(?)ila ‘loan’), but one which cannot drop in external sandhi (\*ha-š(?)ila ‘the loan’). We show that gutturals in IH branch onto preceding non-high vowels, preventing their deletion.