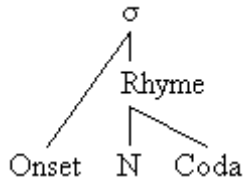


Fonetyka i fonologia
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Syllable Structure Algorithm (SSA)- simplified

Syllable structure (Kuryłowicz 1947 and Pike & Pike 1947). Three representations are simplified by omitting reference to the X-skeleton.



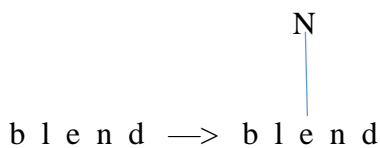
Examples from Polish:

pot [pɔt] = Onset, Nucleus, Rhyme and Coda
po [pɔ] = Onset and Nucleus (no Rhyme)
ot [ɔt] = Nucleus, Rhyme and Coda
o [ɔ] = Nucleus (no Rhyme)

The constituents Onset and Coda need not be marked formally because they can always be identified from the syllable structure: the Onset is a consonant or consonants that stand before the Nucleus; the Coda is a consonant or consonants that are under the Rhyme. Note: the term “consonant” is used here to mean either a true consonant or a glide.

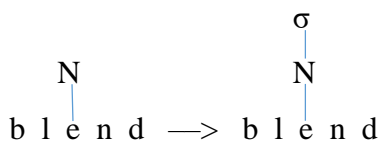
Rules of the SSA and their application exemplified by the syllabification of the English word *blend* [blend]:

a. N-Placement: Erect the Nucleus node over the vowel.

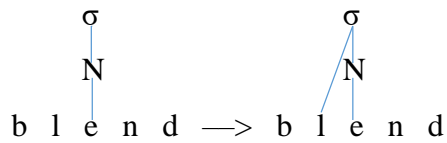


b. CV Rule: Action (i) Erect the sigma node (i.e. the syllable node) over the Nucleus node.
 Action (ii) If there is a consonant before the Nucleus, adjoin that consonant to the sigma node to derive a CV syllable.

Action (i):

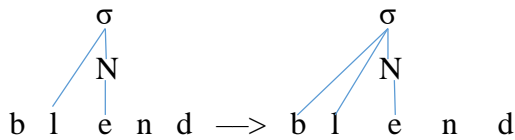


Action (ii):



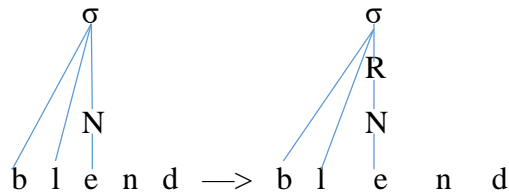
Note: the word *end* [end] has an empty onset, i.e. it has no onset, so only Action (i) is applicable.

(c) **Complex Onset:** Adjoin a consonant to the syllable node sigma to form a CCV structure.

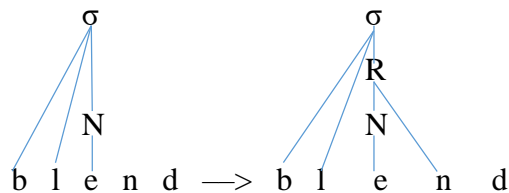


(d) **Coda Rule:** Action (i) If there is a consonant after the Nucleus, erect the Rhyme node between the Nucleus node and the sigma node.
Action (ii) Adjoin that consonant to the Rhyme node to derive a VC structure.

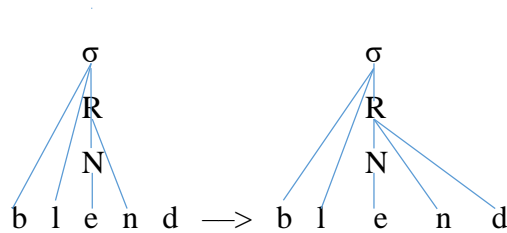
Action (i)



Action (ii)



- (e) **Complex Coda Rule:** Adjoin the second consonant after the Nucleus to the Rhyme node to derive a VCC structure.



Parameters to be set individually in each language:

1. Designation whether a given rule of the SSA is active or inactive. Note: N-Placement and the CV Rule are active in all languages because all languages have syllables.
2. The ordering of the Complex Onset Rule and the Coda Rule. If the Complex Onset Rule is before the Coda Rule, then a language maximizes onsets: VCCV \rightarrow V-CCV, for instance Polish *obraz* //ɔbraz// \rightarrow [ɔ-bras]. If the Coda Rule is before the Complex Onset Rule, then a language does not maximize onsets: VCCV \rightarrow VC-CV, for example, Bulgarian *obraz* //ɔbraz// \rightarrow [ɔb-ras].
3. Iterativeness. The Complex Onset Rule and/or the Complex Coda Rule may be designated as iterative or not. “Iterative” means that a rule keeps reapplying.

Iterative Complex Onset: the onset may contain more than two consonants, for instance, VCCCCV \rightarrow V-CCCCV. Example: Polish *pstry* ‘gaudy’ has an onset made up of 4 consonants, so the Complex Onset Rule must apply more than once (three times)

Iterative Complex Coda: the coda may contain more than two consonants, for instance, VCCCCV \rightarrow VCCC-CV. Note: the CV Rule is obligatory, so the structure VCCCC-V is not possible.

Example: Polish (or English) *tekst* – three consonants in the coda, so the Complex Coda Rule must apply twice.

Polish may have 5 consonants in the coda: *przestępstw* (gen.pl.) ‘crime’: [pʂɛ-stɛmpstf].