Chapter 7: Beyond the segment: Syllable structure in English

7.1. The Syllable: a fundamental phonological unit in any language. A tentative definition

7.2. The structure of the syllable. Phonotactic constraints

7.3 The importance of segmental sonority for the syllable structure

7.4. Constraints on onsets

7.5. Constraints on codas

7.6. Syllabic consonants. Non-vocalic nuclei

7.7. Syllabification in English

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Having examined the structure of the three main components of the syllable, the nucleus, the coda and the rhyme – of which, however, it is only the nucleus that is obligatory, let us have a look at how syllabification or the division of words into syllables works. Trivial as the matter might look, it is a process that has major implications not only on the way in which we write the words when we arrive at the end of the line – this is probably the situation in which most people become aware of the phenomenon and this awareness is cultivated from their first school years – but also on some important phonological processes. Strange as it might seem, we will see that syllabification which is a phonological process, does not always parallel the division of words into syllables in writing, a process whose rules take into account rather the morphological structure of words. If we deal with a monosyllabic word – a syllable that is also a word, our strategy will be rather simple. The vowel or the nucleus is the peak of sonority around which the whole syllable is structured and consequently all consonants or non-vocalic elements preceding it will be parsed to the onset and whatever comes after the nucleus will belong to the coda. What are we going to do, however, if the word has more than one syllable? We will pretty easily identify the syllable nuclei but how are we going to parse the intervocalic or internucleic elements? Shall they be allotted to the codas or the onsets of the syllables that we try to form? In other words, if we have to syllabify rector, shall we divide it by parsing the two consonants to the coda of the first syllable, shall we split them between the two syllables or shall we parse them both to the onset of the second syllable? Here are the three possible configurations:

a)
The last of the three solutions – c) [re-kte] clearly contravenes the phonotactic rules of English that we have just reviewed, since its second syllable has an unacceptable onset in English: kt. We are left with variants a) and b) which are both in accordance with the rules mentioned above. Phonological evidence that the scope of this book will not allow us to present even briefly is in favour of the second variant. Indeed, languages apparently tend to give priority to the formation of onsets over coda formation. Several hypotheses have been formulated, of which one was mentioned before, namely that this is probably in keeping with the template of the universal core syllable CV. The rise in sonority in the onset appears to be more important than the fall in the coda. This is also proved by the fact that there are languages that prohibit the coda – all syllables are open – but there are no languages that prohibit the onset. We will consequently adopt a syllabification algorithm that will give priority to onset formation and we will call the principle that is observed Onset Maximization. This could be translated thus: whenever we have a number of consonants between two syllable nuclei, we will group together the maximum number of consonants that form an acceptable onset according to the phonotactics of the respective language and the remaining number of consonants will be included in the coda of the preceding syllable.

Thus, the syllabification of the word conscript will look like this:
The reason why we split the intervocalic consonant cluster in this way was that \( str \) was the maximal structure accepted by English phonotactics as a valid syllable onset (\( nstr \) is ruled out by these rules). Thus, \( n \) went to the coda of the first syllable, while \( str \) formed the onset of the second.

A word like \textit{venture} is syllabified thus (remember that affricates, because they are considered to be mongrel sounds, are conventionally represented by a stop and a fricative in the IPA transcriptions):

As mentioned above, syllabification doesn’t always mirror the morphological structure of words as the next example – \textit{tainted} – proves:

The word is a complex one, made up of the verb \textit{taint}, to which the past tense morpheme \textit{ed} is added. This is how we divide the word in writing, taking into consideration the two morphemes that make it up. Phonologically, however, when we syllabify the word, the obstruent \( t \) goes to the onset of the second syllable. An even clearer example of the fact that syllabification doesn’t overlap the morphological structure of words is the different behaviour of two morphologically identical words: \textit{helpful} [\texttt{helpful}] and \textit{helpless} [\texttt{helples}]. Here is how the two words syllabify:
The difference lies in the fact that while $pf$ is not a valid syllable onset and, consequently, the two consonants are split between the two syllables, $pl$ is a licensed syllable onset and therefore the two consonants are parsed to the onset of the second syllable. Morphologically, however, we have the same base *help*, to which two suffixes – *ful* and *less* respectively are attached. In writing, both suffixes are separated from the base if we have to divide the word. Romanian is in the same situation as the *gerunziu* form of the verb *a urca*: *urcând* will be divided in writing *urc-ând*, following the morphological structure of the word, while phonologically we will have the following structure: *[ur.kând]*.