The role of two codas in English unstressed syllables: two specific consonants

In words such as ˌ*asb**es***ˈ*tosis*, ˌ*de**frau***ˈ*dation*, ˈ*ex**culp**ate*, ˌ*hyper*ˈ*thyr**oid*** or ˈ*real**iz**able*, the vowels in the unstressed syllables in bold type are full, i.e. not reduced to [ə, ɪ, or ʊ]. The presence of full vowels in these syllables, although dealt with in terms of level of stress in some phonological theories, can also be accounted for through various morphological and phonological parameters such as affixation, stress shifts, or vowel length.

The importance of the role of codas, and particularly of consonant clusters, in determining word stress in English has already been established. For instance, in words ending in <-ary/-ory>, the stress is attracted by consonant clusters in penultimate syllables, as in *re*ˈ*fra**ct**ory* vs *de*ˈ*pository* or *comple*ˈ*mentary* v.s. *he*ˈ*reditary*.

The role of codas is a significant factor too in the issue tackled here, i.e. vowel quality in unstressed syllables. Indeed, besides the importance of consonant clusters as in the case of ***fan****tastic*, Fudge (1984) and Burzio (1994, 2007) defend the view that codas, and more specifically the nature of consonants, play an essential role in vowel reduction (or lack of). Fudge suggests that dentals and alveolars as well as [m] are reducing contexts. Burzio, following this hypothesis, adds all sonorants and [s] to the list. They also argue that, contrary to sonorants, the point of articulation of obstruants needs to be taken into consideration to determine their role: coronals allow reduction (*myriad*, *period*, *pilot*) while labials and velars seem to block it (*almanac*, *baobab*, *gollywog*, *ketchup*). They admit, however, that there are some cases of vocalic variation.

The aim of the present research is to check this hypothesis in the data. The study of a corpus extracted from Wells' Longman Pronunciation Dictionary (1990, 2008) and the Cambridge English Pronouncing Dictionary (2006) presented in this paper focuses on the case of two codas. The first coda is the consonant [ŋ]: it should on the one hand induce reduction like other nasals but on the other hand should block it as it is velar. The second one is the fricative consonant represented by the graphic sequence <sh>. The results indicate that reduction is extremely rare in syllables where the coda is [ŋ] (e.g. ˌ*cons**an***ˈ*guinity* [-sæŋ-], ˈ*furuncle* [-ʌŋk-], ˈ*ginseng* [-seŋ]) and can easily be accounted for when it occurs; and that it is nearly impossible when the coda is the digraph <sh> (e.g. ˈ*kibosh* [-bɒʃ], ˈ*potash* [-æʃ], ˈ*cohosh* [-hɒʃ]). I will try to demonstrate that in both cases, the coda should be interpreted to be a consonant cluster, a hypothesis supported by the quality of the vowels found in these contexts. Finally, a statistical comparison with some other codas will show the stability of the constraint these two consonants impose and that the consonantal parameter is enough to account for the full vowels when the coda is [ŋ] or <sh>.

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