

## Explaining the Role of Sonority in English Schwa Syncope

English schwa syncope (SS) was originally discussed by Zwicky (1972) and analyzed by Hooper (1978) and Bybee (2001). SS deletes reduced vowel schwa between word-internal consonants. The structural observation made by these researchers is that SS is likely to occur if the resulting consonant cluster has rising sonority and is unlikely if the resulting cluster has falling (or level) sonority. Consider the words in (1) where (SS) is likely to occur versus (2) where it is unlikely. Hooper (1978) emphasizes the structural conditions noting that even high frequency words will disfavor SS if the structural conditions are not right. Thus, we observe that high frequency words like *melody* strongly disfavor SS since the resulting cluster after syncope has falling sonority. As indicated by Bybee (2001), frequency plays a role in SS only when the structural conditions are met (i.e. that the resulting cluster has rising sonority). Thus, with a low frequency word like *homily* SS seems unlikely, but SS might be more likely in *homily* in situations where the word becomes more frequent. On the other hand, syncope in words like *melody* and *pelican* is unlikely regardless of frequency given that the resulting cluster would manifest falling sonority.

From a perspective of syllable-based phonology, the SS pattern is odd. There are languages (e.g. Korean) that only allow falling (or level) sonority over a syllable boundary but those just allowing rising sonority clusters are either rare or non-existent. Some might suggest that SS occurs in (1) because the result is a possible onset. But this is not quite right since some of the resulting rising sonority clusters (such as [ml] in *family*) aren't possible onsets. Hooper maintains that clusters resulting from SS are ambisyllabic. Whether or not this observation is right, the real issue to explain is why SS is disfavored in (2) where the resulting cluster would have preferred syllable contact (i.e. falling sonority over a syllable boundary) if SS were to occur. For example, SS in the word *pelican* (i.e. *pel.can*) results in a clear syllable break between the two consonants of the resulting cluster. This avoidance of SS in words like in (2) has never been explained.

In this talk I develop a conception of English SS as entailing foot structure reduction. SS takes a dactylic foot and reduces it to a preferred trochaic one. That foot reduction is at issue is seen by the fact that SS is unlikely to occur before a stressed syllable as in (3). SS is unlikely in words like *mémorize* and *màrgaríta* because the target schwa is in a trochaic foot. Its deletion would result in a stress clash. However, this does not explain (2). To understand the dispreference for SS in (2), we make reference to the well-known finding in the phonetics literature on English (e.g. Fougeron and Keating 1997) indicating that foot-initial phonemes are enhanced or demarcated (e.g. by aspiration of voiceless stops), which makes the syllable boundary at the beginning of the foot distinct or clear. What has not been recognized is that the uncertainty speakers (and phonologists) have in determining the syllable boundary within a trochaic foot (e.g. the different views on the syllabification of /m/ in *lemon*, see Steriade 1999) can be viewed as helping to demarcate foot-initial position. If the foot-internal syllable boundary is nondistinct then that enhances the distinctness of the foot-initial boundary. Given that SS is optional (and in a sense reflecting the emergence of the unmarked), we contend that the lack of SS in (2) is because the resulting cluster would have a distinct syllable boundary between the consonants resulting in a dispreferred trochee. The deletion in (1) with the ambisyllabicity of the resulting cluster (Hooper 1978) provides evidence that the preferred trochee in English avoids a distinct syllable boundary between the strong and weak syllable. Evidence for this view of SS is in (4) where SS results in three consonants coming together. While SS is less common when the resulting cluster consists of 3 consonants (4a), it readily happens when the middle consonant is ambisyllabic (4b), either forming part of a complex coda or part of a complex onset. We contend that English SS and especially its avoidance in (2) is best explained with reference to foot structure.

1. Examples where schwa syncope is likely (target schwa is underlined):  
*chocololate opera family javelin happening camera Deborah saccharin cabinets*
2. Examples where schwa syncope is unlikely (target schwa is underlined)  
*melody pelican felony parody monitor canopy picketing Melanie fallacy cinema*
3. Examples where schwa syncope is unlikely due to the stress pattern
  - a. *memorize* (SS unlikely) compare with *memory* (SS likely)
  - b. *margarita* (SS unlikely) compare with *Margaret* (SS likely)
  - c. *separate* (verb, SS unlikely) compare with *separet* (adjective, SS likely)
4. In general, schwa syncope is more restrictive if the result of syncope were to be a cluster of three consonants as in (4a), but it is highly favored in the environment in (4b)
  - a. Words where schwa syncope is less likely: carnival, balcony, Baltimore, ultimate
  - b. Words where schwa syncope is most likely: corpora [kɔrpə], Margaret [mɑrgɪt], Mandarin [mændrɪn], chancellor [tʃænslə]; porcelain [pɔrslɪn] Barbara [bɑbrə]

#### References

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