The Sound Structure of English (McCully)

CHAPTER 7: Website

CHAPTER 7: SYLLABLES (3): STRUCTURE

COMMENT ON IN-CHAPTER EXERCISES

> **7.1, PAGE 92:** Recall that we're embarking on an analysis of what sequencing principles govern the behaviour of 2-X onsets. With that in mind, try to work out why I have just constructed a Class list for English consonant segments. Hint: you might like to revisit the list of 2-segment onsets you've already constructed.

One reason we might like to think of the phonotactics of consonant segments in terms of 'classes' is that we could use the notion of 'class' to set up constraints on what consonant segments might precede/follow other consonant segments in well-formed onsets – and by extension, in well-formed codas. This idea is explored further in pages 92-95 of the book text.

> **7.2, PAGE 95:** You may be tempted to include clusters like <mp> (<imp>) and <lm> (<film>) as possible 2-X coda strings. Is there any good reason to analyse these and similar examples as containing just 1-X codas?

Suppose that there is a group of lexical monosyllables in English all sharing the same structure: (i) the (first slot of the) nucleus contains a short vowel, and (ii) that short vowel is followed by two consonants. Our test examples *imp* and *film* belong to this set. Now in these examples, and according to the analysis we began to sketch, somewhat tentatively, in chapter 6, the consonant immediately following the short vowel may well be aligned with the second slot of the nucleus. If that's the case, then it's only the word-final consonant (the /p/ of *imp*, the /m/ of *film*) which will occupy the coda.

> **7.3, PAGE 97:** If the vowel /i:/ (*heed*, /hi:d/) is distinct from the vowel /ɪ/, how could you express that difference in terms of syllable structure? Essentially, if there is a difference (and there is), then you need to construct a syllable tree different to the one immediately above. But how would you do that?

The answer to this one is given in-text. You'd construct a syllable tree as follows:
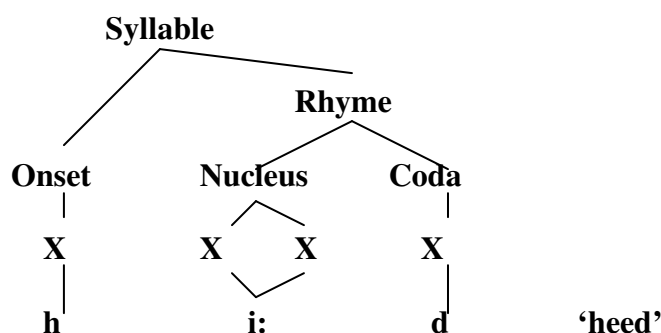
7.4, PAGE 102: Use your intuitions – or the work you've already done - to decide where you would insert the syllable division in a word such as *hamper*. You should use the symbol '.' to indicate the syllable division.

This one is easy (and has already been answered elsewhere): ham.per

7.4, PAGE 103: Below you'll find a list of examples – given here in their normal alphabetic forms - which require syllabification. Using the PMO as the guide, syllabify each example. I've done the first examples for you.
Syllabification

ample (am.ple)   empire (em.pire)   emperor (em.pe.ror)

Note in the following that the syllabification of the word might well be different to the *morphological* divisions in the word. In <handy> for instance, the syllable division, is (according to the principles we've discussed, such as the PMO) <han.dy>, whereas the morphological division would be <hand-y>.

han.dy	**haun.ted**	**un.thin.king**
lau.ghing	**laugh.ter**	**lau.ghing.ly**
li.sting	**list.less**	**lu.stre.less**
com.plete	**shi.mmer**	**sim.pe.ring**

It's perhaps worth pointing out that formulating the interactions between syllabification and morphology is one of the more complex aspects of English phonology. You can read a little bit more about these interactions in chapters 10 and 11 of the present book, and read more still in Heinz Giegerich's 1992 work, *English phonology: an introduction* (particularly chapter 10), and in the same author's 1999 monograph, *Lexical strata in English: morphological causes, phonological effects* (Cambridge University Press).

7.4, PAGE 103: If we return to our example *shimmer* then the observation is that the first syllable is stressed, and therefore the implication is that it has a coda (/m/). On the other hand, the PMO states that the problematic segment, /m/, must be unambiguously an onset. What's the solution?

The answer is discussed rather fully in-text. It is to propose that the intervocalic consonant might well be *ambisyllabic*, ie. belong simultaneously to both syllables.

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CHAPTER 7: SUGGESTED SOLUTIONS TO END-OF-CHAPTER EXERCISES

<u>**Exercise 7.A.**</u> **Re-read 7.4 on ambisyllabification and the PMO. Using '.' to indicate syllable divisions, syllabify the following words (here given in their standard alphabetic forms – you don't have to make phonemic transcriptions, though it would be a good idea to do so). I have done the first example for you.**

  a. pimping   syllabified as pim.ping
  b. itching   i.tching

Notice that this last syllabic division runs according to the PMO BUT there would also be a good case for claiming that /ʧ/ is ambisyllabic. A good way to think about this might be to suppose that although the underlying syllable division is made according to the PMO, /ʧ/ is re-syllabified because of the requirements of ambisyllabicity.

  c. city   ci.ty

Although /t/ is underlyingly syllabified according to the PMO, there are grounds for thinking it is re-syllabified (because of the demands of ambisyllabicity). And see note to *itching*, b. above.

  d. happily   ha.ppi.ly
  e. finishing   fi.ni.shing

<u>**Exercise 7.B.**</u> **In 7.4 you studied generalisations about light and heavy syllables, and how syllables containing codas are stressed. Look at the following list of words (these are again given in their standard alphabetic forms, and you may decide to make a phonemic transcription of them, if you've not already done so, in order to help you with this exercise). Decide whether the underlined syllable in each word is light or heavy. Then decide whether syllables with codas are *always* stressed, and whether light syllables are *always* unstressed. (Note: our generalisation about stress says that 'syllables with codas are always stressed'. It *doesn't* say that light syllables are always unstressed.)**

<u>**imp**</u>   **heavy syllable (stressed)**
<u>**hymn**</u>   **heavy syllable (stressed)**

impish	**although the syllable <u>imp</u> is underlined, the syllable division of the word is <u>im.pish</u>. The initial syllable is heavy (it has a filled coda), and it is stressed.**
hippy	**the /p/ of <u>hippy</u> is a prime candidate for ambisyllabicity. If so, the initial syllable has a filled coda, and it is stressed.**
lit<u>ter</u>	**in many varieties of BrE the final syllable of *litter* is schwa. In these varieties, the nucleus of the syllable is therefore filled with one and only one segment (schwa), and there is no consonant after it. This syllable is instressed. In other varieties – rhotic ones, and see here chapters 10 and 11 – the final syllable has a nucleus containing some form of 'r'. Note that again this syllable is unstressed, and compare the diagram you will find on page 104.**
<u>cit</u>y	**the /t/ of *city* is again a candidate for ambisyllabicity.**
grin<u>ding</u>	**the final syllable of *grinding* is clearly unstressed, and this seems somewhat odd given our work to date, which suggests (but by no means proves) that unstressed syllables should contain only one segment in their rhymes. In fact there seems to be a further principle at work in English stress-assignment, though this principle is not discussed in the present book. Briefly, however: following the work of Bruce Hayes (1982) it seems very much that languages may well make use of one or more of various forms of *extrametricality*. An 'extra-metrical' entity is one that is invisible to the rule(s) or constraint(s) scanning the syllable or word in question. In English, it seems very much the case that ALL word-final consonants should be extrametrical, ie. should not 'count', or should 'be invisible', to those rules and/or constraints scanning the word. If in the example *grinding*, for instance, we apply extrametricality to the final consonant (the velar nasal) prior to assignment of stress, then all the stress-assignment rule will be able to scan is a final syllable which – subsequent to the application of extrametricality - contains *only one segment in its nucleus*.** **A full discussion of extrametricality is beyond our scope here, but the interested reader might care to consult Hayes' 1982 paper, 'Extrametricality and English stress' in *Linguistic Inquiry* 13, 227-76.**
<u>he</u>	**unlike the other words in this box, *he* isn't unambiguously a lexcial word. It's a pronoun. In its stressed form – a form which you hear under conditions of emphasis – notice that the vowel is produced with /i:/ . In casual speech and/or in non-emphatic positions the vowel is produced with /ɪ/. Compare two different renditions of the phrase <he knows the score>. In the first, emphasise 'he' (it's HE, rather than anyone else, who knows the score). You should hear the version pronounced with the long vowel.**

<u>Exercise 7.C.</u> **This exercise begins to analyse what kind of segments may occupy the last position of a maximally-filled coda (ie. a coda filled by two consonants). Look carefully at the list of syllables below. Reassure yourself that the final segment of each word can**

(indeed, must) occupy the second slot of a maximally-filled coda. Now try to work out whether the consonant segments that may occupy the last slot of the coda have anything in common. (NB. You'll find it very useful to make a simple transcription of each word if you haven't already done so in a previous exercise.)

I'm setting this exercise now because it anticipates work we'll be doing in subsequent chapters, particularly chapter 11. Here's the list:

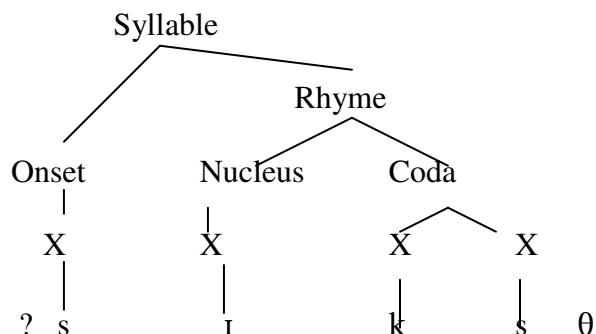|	relevant consonant
imps	/s/
scrimped	/t/
grind	/d/
rinsed	/t/
sixth	/s/ (or arguably /θ/)
seethed	/d/
wisps	probably /s/, though much depends on how the /sp/ cluster is analysed
means	/z/

What do almost all these consonants have in common? With the exception of /θ/, which is labio-dental, they are all alveolar. In chapter 11 we'll be developing a *feature-based* account of English sounds, and will suggest that all the relevant consonants in the above list share the distinctive feature [+coronal].

I've swithered on the analysis of *sixth* for the following reason. Given the work we've done in chapters 5-7, we might want to analyse the syllable *sixth* (/sɪksθ/ as follows:
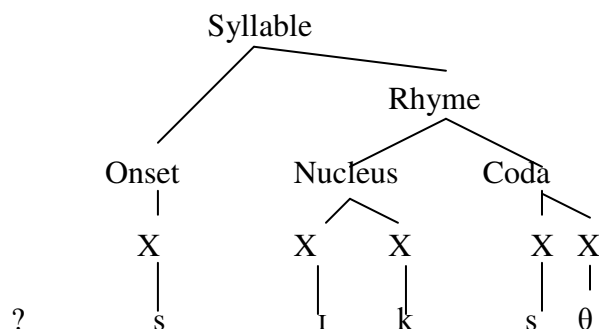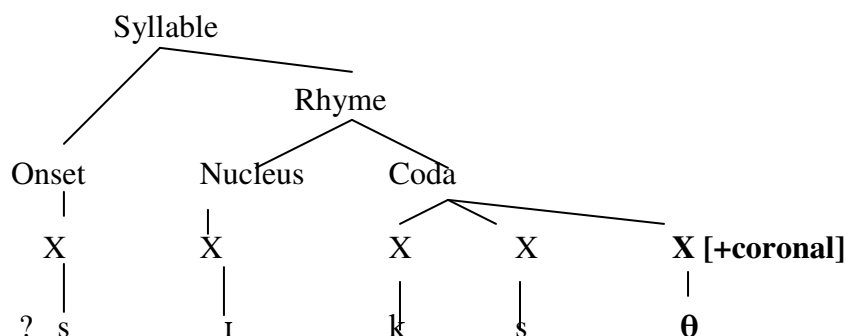

On the other hand, and as we'll see later (chapters 10 and 11), it seems almost perverse

to allow a non-sonorant consonant such as /k/ to occupy the rightmost position of a filled

nucleus, and in fact there's an apparently well-founded constraint in English which says

that the rightmost slot in a filled nucleus must be filled with a [+sonorant] segment. (For

a definition of the distinctive feature [+sonorant], please consult chapter 11 and/or the

Glossary at the back of the book.)

If this last notion is indeed well-founded then there would be good grounds for analysing our problem-word *sixth* as follows:

```
                        Syllable
                       /        \
                                 Rhyme
                                /      \
         Onset        Nucleus          Coda
           |             |            /     \
           X             X           X       X
           |             |           |       |
          ? s            I           k       s   θ
```

We must now try to attach the word-final consonant. We could claim, with Giegerich 1992, that such a segment forms part of the 'appendix' of word. Any segments belonging to such appendices must be non-sonorant, [+coronal] segments:

```
                        Syllable
                       /        \
                                 Rhyme
                                /      \
         Onset        Nucleus          Coda
           |             |           /   |    \
           X             X          X    X     X [+coronal]
           |             |          |    |       |
          ? s            I          k    s       θ
```

See the discussion in Giegerich 1992: 147-150 for further argument and detail.

Links None. If you've got this far, well done. Take a break.