Lecture 4

Strong and weak syllables

phonetics 2nd year

One of the most noticeable features of English pronunciation is that some of its syllables are strong while many others are weak; this is also true of many other languages, but it is necessary to study how these weak syllables are pronounced and where they occur in English. The distribution of strong and weak syllables is a subject that will be met in several later chapters. For example, we will look later at **stress**, which is very important in deciding whether a syllable is strong or weak. Elision is a closely related subject, and in considering intonation the difference between strong and weak syllables is also important. Finally, words with "strong forms" and "weak forms" are clearly a related matter. When we compare weak syllables with strong syllables, we find the vowel in a weak syllable tends to be shorter, of lower intensity (loudness) and different in guality. For example, in the word 'data' deita the second syllable, which is weak, is shorter than the first, is less loud and has a vowel that cannot occur in strong syllables. In a word like 'bottle' b**3**ti | the weak second syllable contains no vowel at all, but consists entirely of the consonant I. We call this a syllabic consonant. There are other ways of characterising strong and weak syllables. We could describe them partly in terms of stress (by saying, for example, that strong syllables are stressed and weak syllables unstressed) but, until we describe what "stress" means, such a description would not be very useful. The most important thing to note at present is that any strong syllable will have as its peak one of the vowel phonemes (or possibly a triphthong), but not ∂ , i, u. If the vowel is one of i, e, α , Λ , J, σ , then the strong syllable will always have a coda as well. Weak syllables, on the other hand, as they are defined here, can only have one of a very small number of possible peaks. At the end of a word, we may have a weak syllable ending with a vowel (i.e. with no coda):

- i) the vowel **Ə** ("schwa");
- ii) a close front unrounded vowel in the general area of i:,i , symbolised i;
- iii) a close back rounded vowel in the general area of u:, u, symbolised **u**.
 - Examples would be: i) 'better' betə, ii) 'happy' hæpi, iii) 'thank you' Oæŋk ju

We also find weak syllables in word-final position with a coda if the vowel is $\boldsymbol{\Theta}$. For example:

i) 'open' Əʊpən, ii) 'sharpen' ʃa:pən

Inside a word, we can find the above vowels acting as peaks without codas in weak syllables; for example, look at the second syllable in each of these words:

i) 'photograph' fðʊtðgra:f ii) 'radio' reidiðʊ iii) 'influence' influðns

In addition, the vowel i can act as a peak without a coda if the following syllable begins with a consonant:

'architect' a:kitekt

The vowel ("schwa") : The most frequently occurring vowel in English is $\mathbf{\partial}$, which is **always** associated with **weak** syllables. In quality it is mid (i.e. halfway between close and open) and central (i.e. halfway between front and back). It is generally described as **lax** - that is, not articulated with much energy. Of course, the quality of this vowel is not always the same, but the variation is not important. Not all weak syllables contain $\mathbf{\partial}$, though many do. Learners of English need to learn where $\mathbf{\partial}$ is appropriate and where it is not. Let us look at some examples:

i) Spelt with 'a'; strong pronunciation would have æ 'attend' atend, 'character' kærakta, 'barracks' bæraks

ii) Spelt with 'ar'; strong pronunciation would have a: 'particular' pƏtikjƏlƏ, 'molar' mƏulƏ, 'monarchy' mOnƏki

ii) Adjectival endings spelt 'ate'; strong pronunciation would have ei 'intimate' intim@t , 'accurate'ækj@r@t 'desolate' des@l@t (although there are exceptions to this: 'private' is usually praivit) iv) Spelt with 'o'; strong pronunciation would have **J** or **Əu** 'tomorrow' t**Ə**mor**Əu**, 'potato' p**Ə**teit**Əu**, 'carrot' kær**Ə**t

- v) Spelt with 'or'; strong pronunciation would have**3**: 'forget' f∂get, 'ambassador' æmbæs∂d∂, 'opportunity'
 3p∂t∫u:n∂ti
- vi) Spelt with 'e'; strong pronunciation would have e 'settlement' setlmont, 'violet' vaiolot, 'postmen' poustmon
- vii) Spelt with 'er'; strong pronunciation would have 3: 'perhaps' pəhæps, 'stronger* strongə, 'superman' su:pəmæn
- viii) Spelt with **'u'**; strong pronunciation would have **Λ** 'autumn' **J**:t**Ə**m, 's**u**pport' s**Ə**p**J**:t, 'halib**u**t' hælib**Ə**t
- ix) Spelt with **'ough'** (there are many pronunciations for the letter-sequence 'ough') 'thor**ough**' $\Theta \wedge r \partial$ 'bor**ough**' b $\wedge r \partial$
- x) Spelt with 'ou'; strong pronunciation might have au 'gracious' greif@s, 'callous' kæl@s

Close front and close back vowels:

Two other vowels are commonly found in weak syllables, one close front (in the general region of **i**:, **I**) and the other close back rounded (in the general region of **u**:, **u**). In strong syllables it is comparatively easy to distinguish **i**: from **I** or **u**: from **u**, but in weak syllables the difference is not so clear. For example, although it is easy enough to decide which vowel one hears in 'beat' or 'bit', it is much less easy to decide which vowel one hears in the second syllable of words such as 'easy' or 'busy'. There are accents of English (e.g. Welsh accents) in which the second syllable sounds most like the **i**: in the first syllable of '**ea**sy', and others (e.g. Yorkshire accents) in which it sounds more like the **I** in the first syllable of 'busy'. In present-day BBC pronunciation, however, the matter is not so clear. There is uncertainty, too, about the corresponding close back rounded vowels. If we look at the words 'good **to** eat' and 'food **to** eat', we must ask if the word '**to**' is pronounced with the **u** vowel phoneme of 'good' or the **u**: phoneme of 'food'. Again, which vowel comes in 'to' in 'I want **to**'?

One common feature is that the vowels in question are more like **i**: or **u**: when they precede another vowel, less so when they precede a consonant or pause. You should notice one further thing: with the exception of one or two very artificial examples, there is really no possibility in these contexts of a phonemic contrast between **i**: and **i**, or between **u**: and **u**. Effectively, then, the two distinctions, which undoubtedly exist within strong syllables, are neutralised in weak syllables of BBC pronunciation. How should we transcribe the words 'easy' and 'busy'? We will use the close front unrounded case as an example, since it is more straightforward. The possibilities, using our phoneme symbols, are the following:

'easy' 'busy' i) i:zi: bizi: ii) i:zi bizi Few speakers with a BBC accent seem to feel satisfied with any of these transcriptions. There is a possible solution to this problem, but it goes against standard phoneme theory. We can symbolise this weak vowel as **i** - that is, using the symbol for the vowel in 'b**ea**t' but without the length mark. Thus: **i**:zi bizi The **i** vowel is neither the **i**: of 'b**ea**t' nor the **i** of 'bit', and is not in contrast with them. We can set up a corresponding vowel **u** that is neither the **u**: of 'shoe' nor the **u** of 'book' but a weak vowel that shares the characteristics of both. If we use **i**, **u** in our transcription as well as **i**:, **i**, **u**:, **u**, it is no longer a true phonemic transcription in the traditional sense. However, this need not be too serious an objection, and the fact that native speakers seem to think that this transcription fits better with their feelings about the language is a good argument in its favour. Let us now look at where these vowels are found, beginning with close front unrounded ones. We find **i** occurring:

- i) In word-final position in words spelt with final 'y' or 'ey' after one or more consonant letters (e.g. 'happy' hæpi, 'valley' væli) and in morpheme-final position when such words have suffixes beginning with vowels (e.g. 'happier' hæpia, 'easiest' iiziast, 'hurrying' h∧riŋ).
- ii) In a prefix such as those spelt 're', 'pre', 'de' if it precedes a vowel and is unstressed (e.g. in 'react' riækt, 'create' krieit, 'deodorant' diaudarant).
- iii) In the suffixes spelt 'iate', 'ious' when they have two syllables (e.g. in 'appreciate' apri: fieit, 'hilarious' hilearias).

iv) In the following words when unstressed: 'he', 'she', 'we', me', 'be' and the word 'the' when it precedes a vowel. In most other cases of syllables containing a short close front unrounded vowel we can assign the vowel to the i phoneme, as in the first syllable of 'resist' rizist, 'inane' inein, 'enough' inAf, the middle syllable of 'incident' insidant, 'orchestra' o:kistra, 'artichoke' a:tifauk, and the final syllable of 'swimming' swimin, 'liquid' likwid, 'optic' optik. It can be seen that this vowel is most often represented in spelling by the letters 'i' and 'e'.

Weak syllables with close back rounded vowels are not so commonly found. We find **u** most frequently in the words '**you**', '**to**', '**into**', '**do**', when they are unstressed and are not immediately preceding a consonant, and '**through'**, '**who'** in all positions when they are unstressed. This vowel is also found before another vowel within a word, as in 'evacuation' ivækj**ue**iſn, 'influenza' infl**ue**nza.

Syllabic consonants: In the above sections we have looked at vowels in weak syllables. We must also consider syllables in which no vowel is found. In this case, a consonant, either **I**, **r** or **a** nasal, stands as the peak of the syllable instead of the vowel, and we count these as weak syllables like the vowel examples given earlier. It is usual to indicate that a consonant is syllabic by means of a small vertical mark (,) beneath the symbol, for example 'cattle' kæti.

1- Syllabic I: Syllabic I is perhaps the most noticeable example of the English syllabic consonants, although it would be wrong to expect to find it in all accents. It occurs after another consonant, and the way it is produced depends to some extent on the nature of that consonant. If the preceding consonant is alveolar, as in 'bottle b**lt**, 'muddle' m**d**, 'tunnel' t**An**, the articulatory movement from the preceding consonant to the syllabic I is quite simple. The sides of the tongue, which are raised for the preceding consonant, are lowered to allow air to escape over them (this is called lateral release). The tip and blade of the tongue do not move until the articulatory contact for the I is released. The I is a "dark I" . In some accents - particularly London ones, and "Estuary English" - we often find a close back rounded vowel instead (e.g. 'bottle' bJtu). Where do we find syllabic I in the BBC accent? It is useful to look at the spelling as a guide. The most obvious case is where we have a word ending with one or more consonant letters followed by 'le' (or, in the case of noun plurals or third person singular verb forms, 'les'). Examples are:

- i) with alveolar consonant preceding 'cattle' kætl, ' bottle' bOtl, 'wrestle' resl, 'muddle' mAdl,
- with non-alveolar consonant preceding 'couple' kAp I, 'trouble' trAb I, 'struggle' strAg I, 'knuckle' nAk I, Such words usually lose their final letter 'e' when a suffix beginning with a vowel is attached, but the I usually remains syllabic. Thus: 'bottle' 'bottling' bDt I, bot I,in) 'muddle' 'muddling' mAd I, mAd I,in) 'struggle' 'struggling' strAg I, strAg I,in. In the case of words such as 'bottle', 'muddle', 'struggle', which are quite common, it would be a mispronunciation to insert a vowel between the I and the preceding consonant in the accent described here. There are many accents of English which may do this, so that, for example, 'cattle' is pronounced kætəl, but this is rarely the case in BBC pronunciation. We also find syllabic I in words spelt, at the end, with one or more consonant letters followed by 'al' or 'el', for example: 'panel' pæn I, 'petal' pet I, 'kernel' k3:n I, 'pedal' ped I, 'parcel' pa:s I, 'papal' peip I, 'Babel' beib I, 'ducal' dju:k I,. In some less common or more technical words, it is not obligatory to pronounce syllabic I and the sequence əI may be used instead, although it is less likely: 'missal' mis I, or misəI, 'acquittal' əkwit I, or əkwitəI.

2- Syllabic **n** : Of the syllabic nasals, the most frequently found and the most important is **n**. When should it be pronounced? A general rule could be made that weak syllables which are phonologically composed of a plosive or fricative consonant plus **ən** are uncommon except in initial position in the words. So we can find words like 'tonight' t**ən**ait, 'canary' k**ən**eəri, 'fanatic' f**ən**ætik, 'sonata' s**ən**a:tə with **ə** before **n**, but medially and finally - as in words like 'threa**ten**', 'threa**tening**' - we find much more commonly a syllabic **n**: Θ ret**n**, Θ ret**n**, in. To pronounce a vowel before the nasal consonant would sound strange (or at best over-careful) in the BBC accent.

Syllabic **n** is most common after alveolar plosives and fricatives; in the case of **t**, **d**, **s**, **z** followed by **n** the plosive is nasally released by lowering the soft palate, so that in the word 'ea**ten**' i:t**n**,, for example, the tongue does not move in the **tn** sequence but the soft palate is lowered at the end of **t** so that compressed air escapes through the nose. We do not usually find **n** after **I**, **tJ**, **d3**, so that for example 'sullen' must be pronounced SAlan, 'Christian' as krist**Jan** (though this word may be pronounced with t followed by **i** or **j**) and 'pigeon' as pid3**an**.

Syllabic **n** after non-alveolar consonants is not so widespread. In words where the syllable following a velar consonant is spelt **'an'** or **'on'** (e.g. 'toboggan', 'wagon') it is rarely heard, the more usual pronunciation being tabOgan, wægan. After bilabial consonants, in words like 'happen', 'happening', 'ribbon' we can consider it equally acceptable to pronounce them with syllabic **n** (hæpn, , hæpn,in, ribn,) or with an (hæpan, haepanin, riban). In a similar way, after velar consonants in words like 'thicken', 'waken', syllabic **n** is possible but an is also acceptable. After **f**, **v**, syllabic **n** is more common than an (except, as with the other cases described, in word-initial syllables). Thus 'seven', 'heaven', 'often' are more usually sevn, hevn, ofn, than sevan, hevan, ofan. In all the examples given so far the syllabic **n** has been following another consonant; sometimes it is possible for another consonant to precede that consonant, but in this case a syllabic consonant is less likely to occur. If **n** is preceded by **I** and a plosive, as in 'Wilton', the pronunciation **wiltn**, is possible, but wiltan is also found regularly. If **s** precedes, as in 'Boston', a final syllabic nasal is less frequent, while clusters formed by nasal + plosive + syllabic nasal are very unusual: thus 'Minton', 'lantern', 'London', 'abandon' will normally have a in the last syllable and be pronounced mintan, læntan, Lvndan, abændan. Other nasals also discourage a following plosive plus syllabic nasal, so that for example 'Camden' is normally pronounced kæmdan.

3- Syllabic **m** ,**ŋ** : We will not spend much time on the syllabic pronunciation of these consonants. Both can occur as syllabic, but only as a result of processes such as assimilation and elision that are introduced later. We find them sometimes in words like 'happen', which can be pronounced hæpm, though hæpn and hæpən are equally acceptable, and 'uppermost', which could be pronounced as Apməust, though Apəməust would be more usual. Examples of possible syllabic velar nasals would be 'thicken'Oikŋ (where Oikən and Oikn are also possible), and 'broken key' brəukŋ ki:, where the nasal consonant occurs between velar consonants (n or ən could be substituted for ŋ.

4- Syllabic r: In many accents of the type called "**rhotic**", such as most American accents, syllabic **r** is very common. The word 'particular', for example, would probably be pronounced **prt ik jalr** in careful speech by most Americans, while BBC speakers would pronounce this word **patikjala**. Syllabic **r** is less common in BBC pronunciation: it is found in weak syllables such as the second syllable of 'preference' prefrans. In most cases where it occurs there are acceptable alternative pronunciations without the syllabic consonant. There are a few pairs of words (minimal pairs) in which a difference in meaning appears to depend on whether a particular **r** is syllabic or not, for example: 'hungry' hA**ngr**i 'Hungary' hA**ngri** But we find no case of syllabic **r** where it would not be possible to substitute either nonsyllabic **r** or **ar**; in the example above, 'Hungary' could equally well be pronounced hAng**ar**i.

5- Combinations of syllabic consonants : It is not unusual to find two syllabic consonants together. Examples are: 'national' næʃnl, 'literal' litrl, 'visionary' v i3nri, 'veteran' vetrn. It is important to remember that it is often not possible to say with certainty whether a speaker has pronounced a syllabic consonant, a non-syllabic consonant or a non-syllabic consonant plus **a**. For example, the word 'veteran' given above could be pronounced in other ways than **vetrn**. A BBC speaker might instead say **vetran**, **vetarn** or **vetaran**. The transcription makes it look as if the difference between these words is clear; it is not. In examining colloquial English it is often more or less a matter of arbitrary choice how one transcribes such a word. Transcription has the unfortunate tendency to make things seem simpler and more clear-cut than they really are.