## 9 Strong and weak syllables

### 9.1 Strong and weak

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. In this chapter we look at the general nature of weak syllables.

What do we mean by "strong" and "weak"? To begin with, we can look at how we use these terms to refer to phonetic characteristics of syllables. 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 quality. 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' bot| the weak second syllable contains no vowel at all, but consists entirely of the consonant l. 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) listed in Chapters 2 and 3, but not $2, \mathrm{i}, \mathrm{u}$ (the last two are explained in Section 9.3 below). If the vowel is one of $\mathrm{I}, \mathrm{e}, \mathfrak{x}, \Lambda, \mathrm{D}, \mathrm{U}$, 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 $\partial$ ("schwa");
ii) a close front unrounded vowel in the general area of it, 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' $Ө æ \supseteq k ~ j u ~$

We also find weak syllables in word-final position with a coda if the vowel is $\partial$. For example:
i) 'open' әupən
ii) 'sharpen' fa: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' fəutəgra:f
ii) 'radio' reIdiau
iii) 'influence' influəns

In addition, the vowel I can act as a peak without a coda if the following syllable begins with a consonant:
iv) 'architect' a:kitekt

In the rest of this chapter we will look at the different types of weak syllable in more detail.

### 9.2 The $\partial$ vowel ("schwa")

§AU9 (CD 1), Ex 1
The most frequently occurring vowel in English is $\partial$, 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 $\partial$, though many do. Learners of English need to learn where $\partial$ is appropriate and where it is not. To do this we often have to use information that traditional phonemic theory would not accept as relevant - we must consider spelling. The question to ask is: if the speaker were to pronounce a particular weak syllable as if it were strong instead, which vowel would it be most likely to have, according to the usual rules of English spelling? Knowing this will not tell us which syllables in a word or utterance should be weak - that is something we look at in later chapters - but it will give us a rough guide to the correct pronunciation of weak syllables. Let us look at some examples:
i) Spelt with 'a'; strong pronunciation would have æ 'attend' ətend 'character' kærəktə 'barracks' bærəks
ii) Spelt with 'ar'; strong pronunciation would have a:
'particular' pətıkjələ 'molar' məulə 'monarchy' monəki
iii) Adjectival endings spelt 'ate'; strong pronunciation would have eI
'intimate' intımət 'accurate' ækjərət
'desolate' desələt (although there are exceptions to this: 'private' is usually praivit)
iv) Spelt with 'o'; strong pronunciation would have v or $\partial u$
'tomorrow' təmorəu 'potato' pateitau
'carrot' kærət
v) Spelt with 'or'; strong pronunciation would have $s$ :
'forget' fəget 'ambassador' æmbæsədə
'opportunity' opətfuinəti
vi) Spelt with ' $e$ '; strong pronunciation would have $e$
'settlement' setlmənt 'violet' vaıələt
'postmen' paustmən
vii) Spelt with 'er'; strong pronunciation would have 3 :
'perhaps' pəhæps 'stronger' strongə
'superman' su:pəmæn
viii) Spelt with ' $u$ '; strong pronunciation would have $\Lambda$
'autumn' ostəm 'support' səpost
'halibut' hælıbət
ix) Spelt with 'ough' (there are many pronunciations for the letter-sequence 'ough') 'thorough' $\theta$ лrə 'borough' bırə
x) Spelt with 'ou'; strong pronunciation might have au 'gracious' greifas 'callous' kæləs

### 9.3 Close front and close back vowels

Two other vowels are commonly found in weak syllables, one close front (in the general region of $\mathrm{i}, \mathrm{I}$ ) and the other close back rounded (in the general region of $u_{:}, v$ ). In strong syllables it is comparatively easy to distinguish is 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 'easy', 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 is 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: | bızi: |
| ii) | i:zi | bızi |

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 'beat' but without the length mark. Thus:
i:zi bızi

The i vowel is neither the i: of 'beat' 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 $\mathrm{i}:, \mathrm{I}, \mathrm{u}:, \mathrm{U}$, 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.

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\text { §AU9 (CD 1), Ex } 2
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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' hæpiə, 'easiest' i:ziəst, 'hurrying' hırim).
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' krieıt, 'deodorant' diəudərənt).
iii) In the suffixes spelt 'iate', 'ious' when they have two syllables (e.g. in 'appreciate' әpri: $\int i e \mathrm{I}$, 'hilarious' hileərizs).
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' innf, the middle syllable of 'incident' insidənt, 'orchestra' o:kistrə, 'artichoke' a:titfouk, and the final syllable of 'swimming' swımıy, 'liquid' lıkwid, 'optic' optık. 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' ıvækjueı $\int n$, 'influenza' influenza.

### 9.4 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 $1, r$ 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 in this chapter. It is usual to indicate that a consonant is syllabic by means of a small vertical mark (.) beneath the symbol, for example 'cattle' kætl.

Syllabic 1
ßaU9 (CD 1), Ex 3
Syllabic lis 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' botl, 'muddle' madl, 'tunnel' t $\wedge n l$, the articulatory movement from the preceding consonant to the syllabic 1 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 1 is released. The 1 is a "dark 1" (as explained in Chapter 7). In some accents - particularly London ones, and "Estuary English" - we often find a close back rounded vowel instead (e.g. 'bottle' botu). Where do we find syllabic 1 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' res
ii) with non-alveolar consonant preceding 'couple' kıpl 'trouble' trıbl 'struggle' stragl 'knuckle' nıkl

Such words usually lose their final letter 'e' when a suffix beginning with a vowel is attached, but the 1 usually remains syllabic. Thus:

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'bottle' - 'bottling' botl - botlın
'muddle' - 'muddling' madl-madlin
'struggle' - 'struggling' str^gl- str^glıŋ
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Similar words not derived in this way do not have the syllabic 1 - it has been pointed out that the two words 'coddling' (derived from the verb 'coddle') and 'codling' (meaning "small cod", derived by adding the diminutive suffix ' - ling' to 'cod') show a contrast between syllabic and non-syllabic 1: 'coddling' kpdlıin and 'codling' kodlıp. 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 1 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 kætal, but this is rarely the case in BBC pronunciation.

We also find syllabic 1 in words spelt, at the end, with one or more consonant letters followed by 'al' or 'el', for example:

| 'panel' pæn! | 'petal' pet! <br> 'kernel' ks:nl <br> 'pedal' |
| :--- | :--- |
| 'parcel' pa:s! | 'papal' peipl |
| 'Babel' berb! | 'ducal' dju:k! |

In some less common or more technical words, it is not obligatory to pronounce syllabic $l$ and the sequence al may be used instead, although it is less likely: 'missal' mıs! or mısal, 'acquittal' $\partial \mathrm{kwit}$ or $2 \mathrm{kwit} \partial \mathrm{l}$.

## Syllabic n

〇au9 (CD 1), Ex 4
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 an are uncommon except in initial position in the words. So we can find words like 'tonight' tonatt, 'canary' kəneəri, 'fanatic' fənætrk, 'sonata' səna:tə with ə before n , but medially and finally - as in words like 'threaten', 'threatening' - we find much more commonly a syllabic ṇ: $\theta$ retn, $\theta$ retnin. 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 , $\mathrm{d}, \mathrm{s}, \mathrm{z}$ followed by n the plosive is nasally released by lowering the soft palate, so that in the word 'eaten' ittn, 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 $\mathrm{l}, \mathrm{t}\}$, d 3 , so that for example 'sullen' must be pronounced sslən, 'Christian' as kristfən (though this word may be pronounced with $t$ followed by i or j ) and 'pigeon' as pidzən.

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 tabngən, wægən. After bilabial consonants, in
words like 'happen', 'happening', 'ribbon' we can consider it equally acceptable to pronounce them with syllabic n (hæpn, hæpnıı, rıbn) or with ən (hæpən, hæpənıy, rıbən). In a similar way, after velar consonants in words like 'thicken', 'waken', syllabic n is possible but ən is also acceptable.

After $\mathrm{f}, \mathrm{v}$, syllabic n is more common than on (except, as with the other cases described, in word-initial syllables). Thus 'seven', 'heaven', 'often' are more usually sevñ, hevñ, pfṇ than sevən, hevən, pfən.

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 l and a plosive, as in 'Wilton', the pronunciation wiltn is possible, but wilton 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 $\partial$ in the last syllable and be pronounced mıntən, læntən, lındən, əbændən. Other nasals also discourage a following plosive plus syllabic nasal, so that for example 'Camden' is normally pronounced kæmdən.

## Syllabic m,1

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 $\Lambda$ pmioust, though $\Lambda$ pəməust would be more usual. Examples of possible syllabic velar nasals would be 'thicken' $\theta_{\mathrm{rk}}^{\mathrm{r}}$ (where $\theta_{\mathrm{r} k}$ ( are also possible), and 'broken key' brəuky ki', where the nasal consonant occurs between velar consonants ( $n$ or ən could be substituted for $\eta$ ).

## Syllabic r

In many accents of the type called "rhotic" (introduced in Chapter 7), such as most American accents, syllabic $r$ is very common. The word 'particular', for example, would probably be pronounced prt Ikjalr in careful speech by most Americans, while BBC speakers would pronounce this word pətrkjəla. Syllabic $r$ is less common in BBC pronunciation: it is found in weak syllables such as the second syllable of 'preference' prefrens. 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' hıngri 'Hungary' hıngri
But we find no case of syllabic $r$ where it would not be possible to substitute either nonsyllabic r or $\partial$ r; in the example above, 'Hungary' could equally well be pronounced haygəri.

## Combinations of syllabic consonants

It is not unusual to find two syllabic consonants together. Examples are:'national'næfnl, 'literal' litr!!, 'visionary' viznriv, '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 $\partial$. For example, the word 'veteran' given above could be pronounced in other ways than vetrn. A BBC speaker might instead say vetrən, vetərṇ or vetərən. 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.

## Notes on problems and further reading

9.1 I have at this point tried to bring in some preliminary notions of stress and prominence without giving a full explanation. By this stage in the course it is important to be getting familiar with the difference between stressed and unstressed syllables, and the nature of the "schwa" vowel. However, the subject of stress is such a large one that I have felt it best to leave its main treatment until later. On the subject of schwa, see Ashby (2005: p. 29); Cruttenden (2008: Section 8.9.12).
9.2 The introduction of $i$ and $u$ is a relatively recent idea, but it is now widely accepted as a convention in influential dictionaries such as the Longman Pronunciation Dictionary (Wells, 2008), the Cambridge English Pronouncing Dictionary (Jones, eds. Roach et al., 2006) and the Oxford Dictionary of Pronunciation (Upton et al., 2001). Since I mention native speakers' feelings in this connection, and since I am elsewhere rather sceptical about appeals to native speakers' feelings, I had better explain that in this case my evidence comes from the native speakers of English I have taught in practical classes on transcription over many years. A substantial number of these students have either been speakers with BBC pronunciation or had accents only slightly different from it, and their usual reaction to being told to use i for the vowel at the end of 'easy', 'busy' has been one of puzzlement and frustration; like them, I cannot equate this vowel with the vowel of 'bit'. I am, however, reluctant to use i:, which suggests a stronger vowel than should be pronounced (like the final vowel in 'evacuee', 'Tennessee'). I must emphasise that the vowels $i$, $u$ are not to be included in the set of English phonemes but are simply additional symbols to make the writing and reading of transcription easier. The Introduction to the Cambridge English Pronouncing Dictionary (Jones, eds. Roach et al., 2006) discusses some of the issues involved in syllabic consonants and weak syllables: see section 2.10 and p. 492.

## Notes for teachers

Introduction of the "schwa" vowel has been deliberately delayed until this chapter, since I wanted it to be presented in the context of weak syllables in general. Since students
should by now be comparatively well informed about basic segmental phonetics, it is very important that their production and recognition of this vowel should be good before moving on to the following chapters.

This chapter is in a sense a crucial point in the course. Although the segmental material of the preceding chapters is important as a foundation, the strong/weak syllable distinction and the overall prosodic characteristics of words and sentences are essential to intelligibility. Most of the remaining chapters of the course are concerned with such matters.

## Written exercise

The following sentences have been partially transcribed, but the vowels have been left blank. Fill in the vowels, taking care to identify which vowels are weak; put no vowel at all if you think a syllabic consonant is appropriate, but put a syllabic mark beneath the syllabic consonant

1 A particular problem of the boat was a leak
p tkjl pr bl mv d b twz l k
2 Opening the bottle presented no difficulty

3 There is no alternative to the government's proposal

4 We ought to make a collection to cover the expenses w tt mk kl kJ nt kv d kspns z
5 Finally they arrived at a harbour at the edge of the mountains fnl d r vdther t d du vo m nt nz

