9 Strong and weak syllables

9.1 Strong and weak

One of the most noticeable features of English is that many syllables are **weak**; this is 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 a major factor in determining whether a syllable will be 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" 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"? In the present context, we are using these terms to refer to phonetic characteristics of 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 Chapter 3, but not ə. Weak syllables, on the other hand, as they are being defined here, can only have four types of peak:

i) the vowel ə ("schwa")
ii) a close front unrounded vowel in the general area of iː and ɪ
iii) a close back rounded vowel in the general area of uː and ʊ
iv) a syllabic consonant.

When we compare weak syllables containing vowels with strong syllables, we find the vowel in a weak syllable tends to be shorter, of lower intensity and different in quality. For example, in the word 'father' fɑːðə 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' bɒtl̩ the weak second syllable contains no vowel at all, but consists entirely of the consonant l̩. We call this a **syllabic consonant**. In the rest of this chapter we will look at the different types of weak syllable in more detail.

9.2 The ə vowel ("schwa")

TU 9, Ex 1

The most frequently occurring vowel in English is ə, which is always associated with weak syllables. In quality it is mid (that is, half-way between close and open) and central (that is, half-way 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 ə, though many do. Learners of English need to learn where ə 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 strong instead, which vowel would it be most likely to have, according to the usual rules of English spelling? Of course, 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
'*a*ttend' ətend 'char*a*cter' kærəktə
'barr*a*cks' bærəks

ii) Spelt with 'ar'; strong pronunciation would have ɑ:
'p*ar*ticul*ar*' pətɪkjələ 'mol*ar*' məʊlə
'mon*ar*chy' mɒnəkɪ

iii) Adjectival endings spelt '*ate*'; strong pronunciation would have eɪ
'intim*ate*' ɪntɪmət 'accur*ate*' ækjərət
'desol*ate*' desələt (though there are exceptions to this: 'priv*ate*' is usually praɪvɪt)

iv) Spelt with 'o'; strong pronunciation would have ɒ
'tomorrow' təmɒrəʊ 'potato' pəteɪtəʊ
'carrot' kærət

v) Spelt with 'or'; strong pronunciation would have ɔ:
'f*or*get' fəget 'ambassad*or*' æmbæsədə
'opp*or*tunity' ɒpətju:nɪtɪ

vi) Spelt with 'e'; strong pronunciation would have e
'settlem*e*nt' set|mənt 'viol*e*t' vaɪələt
'postm*e*n' pəʊstmən

vii) Spelt with 'er'; strong pronunciation would have ɜ:
'p*er*haps' pəhæps 'strong*er*' strɒŋgə
'sup*er*man' su:pəmæn

viii) Spelt with 'u'; strong pronunciation would have ʌ
'Aut*u*mn' ɔ:təm '*su*pport' səpɔ:t
'halib*u*t' hælɪbət

ix) Spelt with 'ough' (there are, of course, many other pronunciations for the letter-sequence '*ough*')
'thor*ough*' θʌrə 'bor*ough*' bʌrə

x) Spelt with 'ous'
'graci*ous*' greɪʃəs 'call*ous*' 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 iː and ɪ) and the other close back rounded (in the general region of uː and ʊ). In strong syllables it is comparatively easy to distinguish iː from ɪ, uː from ʊ, 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, for example, 'easy' or 'busy'. There are accents of English (for example Welsh accents) in which the second syllable sounds most like the iː in the first syllable of 'easy', and others (for example Yorkshire accents) in which it sounds more like the ɪ in the first syllable of 'busy'. In present-day RP, 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 ʊ vowel phoneme of 'good' or the uː 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 iː or uː 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 contrast between iː and ɪ, or between uː and ʊ. Effectively, then, the two distinctions, which undoubtedly exist within strong syllables, are neutralised in RP. How should we transcribe the words 'easy' and 'busy' as pronounced in RP? 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)	iːziː	bɪziː
ii)	iːzɪ	bɪzɪ

Few speakers of RP 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 bɪzi

The i vowel is neither the i: of 'beat' nor the ɪ 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 ʊ of 'book' but a weak vowel that shares the characteristics of both. If we use i and u in our transcription as well as i:, ɪ, u: and ʊ, 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.

TU 9, Ex 2

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' hʌriɪŋ.
ii) In a prefix such as those spelt 're', 'pre', 'de' if it precedes a vowel and is unstressed, for example in 'react' riækt, 'preoccupied' priɒkjʊpaɪd, 'deactivate' diæktɪveɪt.
iii) In the suffixes spelt 'iate', 'ious' when they have two syllables, for example in 'appreciate' əpri:ʃieɪt, 'hilarious' hɪleəriəs.
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 weak syllables containing a close front unrounded vowel we can assign the vowel to the ɪ phoneme, as in the first syllable of 'resist' rɪzɪst, 'inane' ɪneɪn, 'enough' ɪnʌf, the middle syllable of 'incident' ɪnsɪdn̩t, 'orchestra' ɔ:kɪstrə, 'artichoke' ɑ:tɪtʃəʊk, and the final syllable of 'swimming' swɪmɪŋ, 'liquid' lɪkwɪd, 'optic' ɒptɪk. 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' and 'who' in all positions when they are unstressed. This vowel is also found before another vowel within a word, as in 'evacuation' ɪvækjueɪʃn̩, 'influenza' ɪnfluenzə.

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 l, r or a nasal, stands as the centre of the syllable instead

of the vowel. It is usual to indicate that a consonant is syllabic by means of a small vertical mark ,, for example 'cattle' kæt̩l.

l

TU 9, Ex 3

Syllabic l̩ is perhaps the most noticeable example of the English syllabic consonant, though 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' bɒt̩l, 'muddle' mʌd̩l, 'tunnel' tʌn̩l, the articulatory movement from the preceding consonant to the syllabic l 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 l̩ is released. The l̩ is a "dark l" (as explained in Chapter 7). In some accents – particularly London ones – we often find a close back rounded vowel instead.

Where do we find syllabic l̩ in RP? 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' kæt̩l 'bottle' bɒt̩l
'wrestle' res̩l 'muddle' mʌd̩l

ii) with non-alveolar consonant preceding
'couple' kʌp̩l 'trouble' trʌb̩l
'struggle' strʌg̩l 'knuckle' nʌk̩l

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

'bottle' – 'bottling' bɒt̩l – bɒt̩lɪŋ
'muddle' – 'muddling' mʌd̩l – mʌd̩lɪŋ
'struggle' – 'struggling' strʌg̩l – strʌg̩lɪŋ

Similar words not derived in this way do not have the syllabic l̩ – 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 l: 'coddling' kɒd̩lɪŋ and 'codling' kɒdlɪŋ. 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 l and the preceding consonant. There are a few accents of English which may do this, so that, for example, 'cattle' is pronounced kætəl, but this is not the case in RP.

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

'panel' pænl̩	'papal' peɪpl̩
'petal' petl̩	'parcel' pɑ:sl̩
'kernel' kɜ:nl̩	'Babel' beɪbl̩
'pedal' pedl̩	'ducal' dju:kl̩

In some less common or more technical words, it is not obligatory to pronounce syllabic l̩ and the sequence əl may be used instead, though it is less likely: 'missal' mɪsl̩ or mɪsəl; 'acquittal' əkwɪtl̩ or əkwɪtəl.

n̩

TU 9, Ex 4

Of the syllabic nasals, the most frequently found and the most important is n̩. 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' tənaɪt, 'canary' kəneəri with an ə before n, but medially and finally, as in words like 'threaten', 'threatening', we find much more commonly a syllabic n̩: θretn̩, θretn̩ɪŋ. To pronounce a vowel before the nasal consonant would sound strange (or at best overcareful) in RP. Syllabic n̩ is most common after alveolar plosives and fricatives; in the case of t and d followed by n̩ the plosive is nasally released by lowering the soft palate, so that in the word 'eaten' i:tn̩, for example, the tongue does not move in the tn̩ sequence but the soft palate is lowered at the end of t so that compressed air escapes through the nose. We do not find n̩ after l or tʃ, dʒ, so that for example 'sullen' must be pronounced sʌlən, 'Christian' as krɪstʃən (though this word may be pronounced with t plus i or j instead of tʃ) and 'pigeon' as pɪdʒən.

Syllabic n̩ after non-alveolar consonants is not so widespread. In words where the syllable following a velar consonant is spelt 'an' or 'on' (for example, 'toboggan', 'wagon') it is rarely heard, the more usual pronunciation being təbɒgən, wægən. After bilabial consonants, in words like 'happen', 'happening', 'ribbon' we can consider it equally acceptable to pronounce them with syllabic n̩ (hæpn̩, hæpn̩ɪŋ, rɪbn̩) or with ən (hæpən, hæpənɪŋ, rɪbən). As we will see, syllabic m̩ is also possible in this context. In a similar way, after velar consonants in words like 'thicken', 'waken', syllabic n̩ is possible but ən is also acceptable. Syllabic velar nasal ŋ̩ is also possible in this context.

After f or v, syllabic n̩ is more common than ən (except, as with the other cases described, in word-initial syllables). Thus 'seven', 'heaven', 'often' are more usually sevn̩, hevn̩, ɒfn̩ than sevən, hevən, ɒfən.

In all the examples given so far the syllabic n̩ 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 l is followed by a plosive, as in 'Wilton', the pronunciation wɪltn̩ is possible, but wɪltən 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 ə in the last syllable and be pronounced mɪntən, læntən, lʌndən, əbændən. Other nasals also discourage a following plosive plus syllabic nasal, so that for example 'Camden' is normally pronounced kæmdən.

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 I have not yet described. We find them sometimes in words like 'happen', which can be pronounced hæpm̩, though hæpn̩ and hæpən are equally acceptable, and 'uppermost', which could be pronounced as ʌpm̃əʊst though ʌpəməʊst would be more usual. Examples of possible syllabic velar nasals would be 'thicken' θɪkŋ̩ (where θɪkən and θɪkn̩ are also possible), and 'broken key' brəʊkŋ̩ kiː, where the nasal consonant occurs between velar consonants (again, n̩ or ən could be substituted for ŋ̩).

A note about symbols: the usual convention for the syllabic mark is that it should be placed below symbols that do not come below the line, for example m̩, n̩ but above a symbol that does come below the line, for example ɲ̍. In this course, however, it is felt preferable to put the mark underneath the symbol in all cases of syllabic consonants.

r

In many accents of the type called "rhotic" (as explained in Chapter 7), such as most American accents, syllabic r̩ is very common. The word 'particular', for example, would probably be pronounced pr̩tɪkjəlr̩ by most Americans, while RP speakers would pronounce this word pətɪkjələ. Syllabic r̩ is less common in RP and in most cases where it occurs there are perfectly acceptable alternative pronunciations without the syllabic consonant. Here are some examples:

a) where non-syllabic r is also acceptable
'history' hɪstr̩i or hɪstri (not usually hɪstəri)
'wanderer' wɒndr̩ə or wɒndrə (not usually wɒndərə)

b) where ər is also acceptable
'buttering' bʌtr̩ɪŋ or bʌtərɪŋ (not usually bʌtrɪŋ)
'flattery' flætr̩i or flætəri (not usually flætri)

It seems that type (a) concerns cases where more than one consonant precedes the weak syllable in question, and type (b) where there is only one consonant preceding. 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:

'Hungary' hʌŋgr̩i 'hungry' hʌŋgri
'adulterous' ədʌltr̩əs 'adultress' ədʌltrəs

But we find no case of syllabic r̩ where it would not be possible to substitute either non-syllabic r (type a) or ər (type b); in the examples above, 'Hungary' could equally well be pronounced hʌŋgəri and 'adulterous' as ədʌltərəs.

Combinations of syllabic consonants

It is not unusual to find two syllabic consonants together. Examples are: 'national' næʃn̩l̩ 'literal' lɪtr̩l̩ 'visionary' vɪʒn̩r̩i 'veteran' vetr̩n̩. 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 ə. For example, the word 'veteran' given above could be pronounced in other ways than vetr̩n̩. An RP speaker might instead say vetrən, vetərn̩ or vetərən. The transcription makes it look as if the difference between these words was 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 "schwa", but the subject of stress is such a large one that I have felt it best to leave its main treatment until later.

9.2 On the subject of schwa, see Jones (1975), sections 355–72; Gimson (1989), 7.9.12.

9.3 The introduction of i and u is an idea that not everyone agrees with, but its acceptance as a convention in two influential dictionaries (the *Longman Dictionary of Contemporary English* and the *Longman Pronunciation Dictionary*) gives substantial support. 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 of RP or had accents only slightly different from it, and their usual reaction to being told to use ɪ 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 iː, which suggests a stronger vowel than should be pronounced (like the final vowel in 'evacuee', 'Tennessee'). For some time, I told students that since ɪ and iː were equally unsuitable for this vowel in the context in question, I would accept either in a transcription. This, not unnaturally, led to further confusion on the students' part, and the treatment suggested here was adopted as the solution that fitted best with what the students felt they wanted to write. I must emphasise that the vowels i and u are *not* included in the set of English phonemes but are simply additional symbols to make the writing and reading of transcription easier.

9.4 I feel that the subject of syllabic consonants is an area that we need to know more about, and that there has not yet been enough discussion of the problems found in their analysis. See Wells (1965).

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 relationship between strong and weak syllables and the overall prosodic characteristics of words and sentences are essential to intelligibility, and most of the remaining chapters of the course are concerned with such matters.

Written exercises

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 m v ð b twz l k
2. Opening the bottle presented no difficulty
   p n ŋ ð b tl pr znt d n d f kl̩t
3. There is no alternative to the Government's proposal
   ð r z n lt n tv t ð g v nm nt s pr p zl̩
4. We ought to make a collection to cover the expenses
   w tt m k l kʃ n t k v ð ksp ns z
5. Finally they arrived at a harbour at the edge of the mountains
   f n l ð r vd t h b r tð dʒ v m nt nz

10 Stress in simple words

10.1 The nature of stress

TU 10, Ex 1

Stress has been mentioned several times already in this course without any attempt to define what the word means. The nature of stress is simple enough – practically everyone would agree that the first syllable of words like 'father', 'open', 'camera' is stressed, that the middle syllable is stressed in 'potato', 'apartment', 'relation' and that the final syllable is stressed in 'about', 'receive', 'perhaps', and most people feel they have some sort of idea of what the difference is between stressed and unstressed syllables, though they might explain it in many different ways. We will mark a stressed syllable in transcription by placing a small vertical line ˈ high up, just before the syllable it relates to; the words quoted above will thus be transcribed as follows:

ˈfɑːðə	pəˈteɪtəʊ	əˈbaʊt
ˈəʊpən	əˈpɑːtmənt	rˈsiːv
ˈkæmɹə	rˈleɪʃn̩	pəˈhæps

What are the characteristics of stressed syllables that enable us to identify them? It is important to understand that there are two different ways of approaching this question, one being to consider what the speaker does in producing stressed syllables and the other being to consider what characteristics of sound make a syllable seem to a listener to be stressed. In other words we can study stress from the point of view of production and of perception; the two are obviously closely related, but are not identical. The production of stress is generally believed to depend on the speaker using more muscular energy than is used for unstressed syllables. Measuring muscular effort is difficult, but it seems possible, according to experimental studies, that when we produce stressed syllables, the muscles that we use to expel air from the lungs are more active, producing higher subglottal pressure. It seems probable that similar things happen with muscles in other parts of our speech apparatus.

Many experiments have been carried out on the perception of stress, and it is clear that many different sound characteristics are important in making a syllable recognisably stressed. From the perceptual point of view, all stressed syllables have one characteristic in common, and that is

prominence; stressed syllables are recognised as stressed because they are more prominent than unstressed syllables. What makes a syllable prominent? At least four different factors are important.

i) Most people seem to feel that stressed syllables are **louder** than unstressed; in other words, loudness is a component of prominence. In a sequence of identical syllables (e.g. ba:ba:ba:ba:), if one syllable is made louder than the others, it will be heard as stressed. However, it is important to realise that it is very difficult for a speaker to make a syllable louder without changing other characteristics of the syllable such as those explained below (ii–iv); if one literally changes *only* the loudness, the perceptual effect is not very strong.

ii) The **length** of syllables has an important part to play in prominence. If one of the syllables in our "nonsense word" ba:ba:ba:ba: is made longer than the others, there is quite a strong tendency for that syllable to be heard as stressed.

iii) Every syllable is said on some pitch; pitch in speech is closely related to the frequency of vibration of the vocal folds and to the musical notion of low- and high-pitched notes. It is essentially a *perceptual* characteristic of speech. If one syllable of our "nonsense word" is said with a pitch that is noticeably different from that of the others, this will have a strong tendency to produce the effect of prominence. For example, if all syllables are said with low pitch except for one said with high pitch, then the high-pitched syllable will be heard as stressed and the others as unstressed. To place some *movement* of pitch (e.g. rising or falling) on a syllable is even more effective.

iv) A syllable will tend to be prominent if it contains a vowel that is different in **quality** from neighbouring vowels. If we change one of the vowels in our "nonsense word" (e.g. ba:bi:ba:ba:) the "odd" syllable bi: will tend to be heard as stressed. This effect is not very powerful nor very important, but there is one particular way in which it is relevant in English: the previous chapter explained how the most frequently encountered vowels in weak syllables are ɪ, ʊ and ə (syllabic consonants are also quite common). We can look on stressed syllables as occurring against a "background" of these weak syllables, so that their prominence is increased by contrast with these background qualities.

Prominence, then, is produced by four main factors: (i) loudness, (ii) length, (iii) pitch and (iv) quality. Generally these four factors work together in combination, though syllables may sometimes be made prominent by means of only one or two of them. Experimental work has shown that these factors are not equally important; the strongest effect is produced by pitch, and length is also a powerful factor. Loudness and quality have much less effect.

10.2 Levels of stress

Up to this point we have talked about stress as though there was a simple distinction between "stressed" and "unstressed" syllables with no intermediate levels; such a treatment would be a two-level analysis of stress. Usually, however, we have to recognise one or more intermediate levels. It should be remembered that in this chapter we are dealing only with stress *within the word*; this means that we are looking at words as they are said in isolation, which is a rather artificial situation – we do not often say words in isolation, except for a few such as 'yes', 'no', 'possibly', 'please' and interrogative words such as 'what', 'who', etc., but looking at words in isolation does help us to see stress placement and stress levels more clearly than studying them in the context of continuous speech.

Let us begin by looking at the word 'around' əˈraʊnd, where the stress always falls clearly on the last syllable and the first syllable is weak. From the point of view of stress, the most important fact about the way we pronounce this word is that on the second syllable the pitch of the voice does not remain level, but usually falls from a higher to a lower pitch. We might diagram the pitch movement as shown below, where the two parallel lines represent the speaker's high and low pitch level:

The prominence that results from this pitch movement, or tone, gives the strongest type of stress; this is called primary stress.

In some words, we can observe a type of stress that is weaker than primary stress but stronger than that of the first syllable of 'around', for example in the first syllables of the words 'photographic' fəʊtəgræfɪk, 'anthropology' ænθrəpɒlədʒi. The stress in these words is called secondary stress. It is sometimes represented in transcription with a low mark ˌ so that the examples could be transcribed as ˌfəʊtəˈgræfɪk, ˌænθrəˈpɒlədʒi. This convention will only be used where necessary in this course.

We have now identified two levels of stress: primary and secondary, as well as a third level which can be called unstressed and regarded as being the absence of any recognisable amount of prominence. These are the three levels that we will use in describing English stress. However, it is worth noting that unstressed syllables containing ə, ɪ, ʊ or a syllabic

consonant will sound less prominent than an unstressed syllable containing some other vowel. For example, the first syllable of 'poetic' pəʊ'etɪk is more prominent than the first syllable of 'pathetic' pə'θetɪk. This *could* be used as a basis for a further division of stress levels, giving us a third and fourth level, but it seems unnecessarily complex to do so.

10.3 Placement of stress within the word

We now come to a question that causes a great deal of difficulty, particularly to foreign learners (who cannot simply dismiss it as an academic question): how can one select the correct syllable or syllables to stress in an English word? As is well known, English is not one of those languages where word stress can be decided simply in relation to the syllables of the word, as can be done in French (where the last syllable is usually stressed), Polish (where the syllable before the last – the penultimate syllable – is stressed) or Czech (where the first syllable is stressed). Many writers have said that English word stress is so difficult to predict that it is best to treat stress placement as a property of the individual word, to be learned when the word itself is learned. Certainly anyone who tries to analyse English stress placement has to recognise that it is a highly complex matter. However, it must also be recognised that in most cases when English speakers come across an unfamiliar word, they can pronounce it with the correct stress (there are exceptions to this, of course); in principle, it should be possible to discover what it is that the English speaker knows and to write in the form of rules. The following summary of ideas on stress placement in nouns, verbs and adjectives is an attempt to present a few rules in the simplest possible form. Nevertheless, practically all the rules have exceptions and readers may feel that the rules are so complex that it would be easier to go back to the idea of learning the stress for each word individually.

In order to decide on stress placement, it is necessary to make use of some or all of the following information:

i) Whether the word is morphologically simple, or whether it is complex as a result either of containing one or more affixes (that is, prefixes or suffixes) or of being a compound word.
ii) The grammatical category to which the word belongs (noun, verb, adjective, etc.).
iii) The number of syllables in the word.
iv) The phonological structure of those syllables.

It is sometimes difficult to make the decision referred to in (i). The rules

for complex words are different from those for simple words and these will be dealt with in Chapter 11. Obviously, single-syllable words present no problems – if they are pronounced in isolation they are said with primary stress.

Two-syllable words

TU 10, Ex 3

Here the *choice* is still simple: either the first or the second syllable will be stressed – not both. We will look first at verbs. The basic rule is that if the second syllable of the verb contains a long vowel or diphthong, or if it ends with more than one consonant, that second syllable is stressed. Thus:

'apply' ə'plaɪ	'attract' ə'trækt
'arrive' ə'raɪv	'assist' ə'sɪst

If the final syllable contains a short vowel and one (or no) final consonant, the first syllable is stressed. Thus:

'enter' 'entə	'open' 'əʊpən
'envy' 'envi	'equal' 'i:kwəl

A final syllable is also unstressed if it contains əʊ (e.g. 'follow' 'fɒləʊ, 'borrow' 'bɒrəʊ). Most two-syllable verbs that seem to be exceptions to the above might be interpreted as being morphologically complex (e.g. 'permit' pə'mɪt = 'per' + 'mit'), or we could simply list all such verbs as exceptions.

TU 10, Ex 3

Two-syllable simple adjectives are stressed according to the same rule, giving:

'lovely' 'lʌvli	'divine' dɪ'vaɪn
'even' 'i:vn̩	'correct' kə'rekt
'hollow' 'hɒləʊ	'alive' ə'laɪv

As with most stress rules, there are exceptions, for example 'honest' 'ɒnɪst, 'perfect' 'pɜ:fɪkt or 'pɜ:fekt, both of which end with two consonants but are stressed on the first syllable.

Nouns require a different rule: if the second syllable contains a short vowel the stress will usually come on the first syllable. Otherwise it will be on the second syllable.

'money' 'mʌni	'estate' ɪ'steɪt
'product' 'prɒdʌkt	'balloon' bə'lu:n
'larynx' 'lærɪŋks	'design' dɪ'zaɪn

Other two-syllable words such as adverbs and prepositions seem to behave like verbs and adjectives.

Three-syllable words

Here we find a more complicated picture. In verbs, if the last syllable contains a short vowel and ends with not more than one consonant, that syllable will be unstressed, and stress will be placed on the preceding (penultimate) syllable. Thus:

'encounter' ɪŋ'kaʊntə 'determine' dɪ'tɜ:mɪn

If the final syllable contains a long vowel or diphthong, or ends with more than one consonant, that final syllable will be stressed. Thus:

'entertain' entə'teɪn 'resurrect' rezə'rekt

Nouns require a different rule. Here, if the final syllable contains a short vowel or əʊ, it is unstressed; if the syllable preceding this final syllable contains a long vowel or diphthong, or if it ends with more than one consonant, that middle syllable will be stressed. Thus:

'mimosa' mɪ'məʊzə 'disaster' dɪ'zɑ:stə
'potato' pə'teɪtəʊ 'synopsis' sɪ'nɒpsɪs

If the final syllable contains a short vowel and the middle syllable contains a short vowel and ends with not more than one consonant, both final and middle syllables are unstressed and the first syllable is stressed:

'quantity' 'kwɒntɪti 'emperor' 'empṛə
'cinema' 'sɪnəmə 'custody' 'kʌstədi

Most of the above rules show stress tending to go on syllables containing a long vowel or diphthong and/or ending with more than one consonant. However, three-syllable simple nouns are different. If the final syllable is of this type, the stress will usually be placed on the *first* syllable. The last syllable is usually quite prominent so that in some cases it could be said to have secondary stress.

'intellect' 'ɪntəlekt 'marigold' 'mærɪgəʊld
'alkali' 'ælkəlaɪ (or 'ælkḷaɪ) 'stalactite' 'stæləktaɪt

Adjectives seem to need the same rule, to produce stress patterns such as:

'opportune' 'ɒpətju:n 'insolent' 'ɪnsḷənt
'derelict' 'derəlɪkt 'anthropoid' 'ænθrəpɔɪd

The above rules do not, of course, cover all English words. They apply only to major categories of lexical words (nouns, verbs and adjectives in this chapter), not to function words such as articles and prepositions. There is not enough space in this course to deal with simple words of more than three syllables, nor with special cases of loan words (words

brought into the language from other languages comparatively recently). Complex and compound words are dealt with in the next chapter. One problem that we must also leave until the next chapter is the fact that there are many cases of English words with alternative possible stress patterns (e.g. 'controversy', either 'kɒntrəvɜːsi or kən'trɒvəsi). Other words, which we will look at in studying connected speech, change their stress pattern according to the context they occur in. Above all, there is not space to discuss the many exceptions to the above rules. Despite the exceptions, it seems better in many ways to attempt to produce some stress rules (even if they are rather crude and inaccurate) than to claim that there is no rule or regularity in English word stress.

Notes on problems and further reading

The subject of English stress has received a large amount of attention, and the references given here are only a small selection from an enormous number. As I implied in the notes on the previous chapter, incorrect stress placement is the major cause of intelligibility problems for foreign learners, and is therefore a subject that needs to be treated very seriously.

10.1 I have deliberately avoided using the term accent, which is found widely in the literature on stress. This is for three main reasons:

(i) it increases the complexity of the description without, in my view, contributing much to its value.
(ii) different writers do not agree with each other about the way the term should be used.
(iii) the word 'accent' is used elsewhere to refer to different varieties of pronunciation (e.g. "a foreign accent"); it is confusing to use it for a quite different purpose – to a lesser extent we also have this problem with 'stress', which can be used to refer to psychological tension.

There is a good discussion of the confusing nature of the terms 'stress' and 'accent' in Clark and Yallop (1990), pp. 288–9; see also Kreidler (1989), pp. 75–6 and Gimson (1989), sections, 9.1–9.7, 10.1–10.4.

An important study of muscular effort and air-pressure in stressed syllables is that reported in Ladefoged (1967), pp. 1–49. Although many experimental studies have been carried out since then, this remains the clearest and best-known work. On the perception of stress, the pioneering work is by Fry (e.g. 1958).

10.2 Many studies of stress have tried to deal with the question of the numbers of different levels. Arnold (1957) presents a well-reasoned approach; most writers conclude that three levels (primary, secondary and unstressed) are required, as outlined in this chapter.

10.3 It is said above that one must take one of two positions: one is that stress is *not* predictable by rule and must be learned word by word (see for example Jones (1975), sections 920–1). The second (which I prefer) is to say that, difficult though the task is, one must try to find a way of writing rules that express what native speakers naturally tend to do in placing stress (while acknowledging that there will always be a substantial residue of cases which appear to follow no regular rules). Kingdon (1958b) produced a detailed survey of stress tendencies in a corpus of many thousands of words; the analysis is based not only on phonological structure but also on etymology and morphology. The result is that it is very complex; in addition, I must note that quite a few words are given stress patterns that I do not feel are acceptable in present-day English. A more modern, and very thorough treatment is Fudge (1984), which is an extremely valuable work on the subject and in many ways takes over the place of Kingdon's earlier work.

The other well-known approach to English stress rules is radically different, being based on generative phonology. This is the analysis which was presented in Chomsky and Halle (1968) and has been followed by an enormous number of works exploring the same field. To anyone not familiar with this type of treatment, the presentation will seem difficult or even unintelligible; within the generative approach, many different theories, all with different names, tend to come and go with changes in fashion, which is very confusing. The following paragraph is an attempt to summarise the main characteristics of basic generative phonology, and recommends some further reading for those interested in learning about it properly.

The level of phonology is very abstract in this theory. An old-fashioned view of speech communication would be that what the speaker intends to say is coded, or *represented*, as a string of phonemes just like a phonemic transcription, and what a hearer hears is also converted by the brain from sound waves into a similar string of phonemes. But a generative phonologist would say that this phonemic representation is irrelevant; the representation in the brain of the speaker or hearer is much more complex and is often quite different from the 'real' sounds recognisable in the sound wave. You may *hear* the word 'football' pronounced as fʊpbɔːl, but your brain recognises the word as made up of 'foot' and 'ball' and interprets it phonologically as fʊtbɔːl. You may hear ə in the first syllable of 'photography', in the second syllable of 'photograph' and in the third syllable of 'photographer', but the brain recognises links between these ə vowels and əʊ, ɒ and æ respectively, and supplies *underlying* vowels which change

into the appropriate sound as the stress pattern changes. These vowel changes are brought about by *rules* – not the sort of rules that one might teach to language learners, but more like the instructions that one might build into a machine or write into a computer program. According to Chomsky and Halle, at the abstract phonological level there is no stress; stress (of many different levels) is the result of the application of phonological rules, which are simple enough in theory but highly complex in practice. The principles of these rules are explained first in pp. 15–43 of their book, and in greater detail in pp. 69–162.

There is a clear and thorough introductory account of generative phonology in Clark and Yallop (1990), chapter 6, and they present a brief account of the generative treatment of stress on pp. 300–3. A brief review that covers more modern forms of generative treatment is in Katamba (1989), chapter 11, section 1.

Notes for teachers

It should be clear from what is said above that from the purely practical classroom point of view, generative phonology has little to offer and could well create confusion. Producing practice and testing material for word stress is very simple: any modern English dictionary will show word stress patterns as part of word entries, and lists of these can be made either with stress marks for student to read from (as in Exercise 2 of Tape Unit 10), or without stress marks for students to put their own marks on (as in Exercise 1 of the same Tape Unit).

Written exercises (mainly for foreign learners)

Mark the stress on the following words:

1. verbs

a)	protect	*e)*	bellow
b)	clamber	*f)*	menace
c)	festoon	*g)*	disconnect
d)	detest	*h)*	entering

2. nouns

a)	language	*e)*	event
b)	captain	*f)*	jonquil
e)	career	*g)*	injury
d)	paper	*h)*	connection

(Native speakers of English should transcribe the words phonemically as well as marking stress.)

11 Complex word stress

11.1 Complex words

In the last chapter the nature of stress was explained and some broad general rules were given for deciding which syllable in a word should receive primary stress. The words that were described were called "simple" words; "simple" in this context means "not composed of more than one grammatical unit", so that, for example, the word 'care' is simple while 'careful' and 'careless' (being composed of two grammatical units each) are complex; 'carefully' and 'carelessness' are also complex, and are composed of three grammatical units each. Unfortunately, as was suggested in the last chapter, it is often difficult to decide on whether a word should be treated as complex or simple. The majority of English words of more than one syllable (polysyllabic words) have come from other languages whose way of constructing words is easily recognisable; for example, we can see how combining 'mit' with the prefixes 'per-', 'sub-', 'com-' produced 'permit', 'submit', 'commit', words which have come into English from Latin. Similarly, Greek has given us 'catalogue', 'analogue', 'dialogue', 'monologue', in which the prefixes 'cata-', 'ana-', 'dia-', 'mono-' are recognisable. But we cannot automatically treat the separate grammatical units of other languages as separate grammatical units of English; if we did, we would not be able to study English morphology without first studying the morphology of five or six other languages, and we would be forced into ridiculous analyses such as that the English word 'parallelepiped' was composed of four or five grammatical units (which is the case in Ancient Greek). We must accept, then, that the distinction between "simple" and "complex" words is difficult to draw, and is therefore not always useful.

Complex words are of two major types: words made from a basic **stem** word with the addition of an **affix**, and **compound words**, which are made of two (or occasionally more) independent English words (e.g. 'ice-cream', 'armchair'). We will look first at the words made with affixes; these will be called **affix words**. Affixes are of two sorts in English: **prefixes**, which come before the stem (e.g. prefix 'un-' + stem 'pleasant' → 'unpleasant') and **suffixes**, which come after the stem (e.g. stem 'good' + suffix '-ness' → 'goodness').

Affixes will have one of three possible effects on word stress:

i) The affix itself receives the primary stress (e.g. 'semi-' + 'circle' 'sɜ:kl̩ → 'semicircle' 'semɪsɜ:kl̩; '-ality' + 'person' 'pɜ:sn̩ → 'personality' pɜ:sn̩'ælɪti).
ii) The word is stressed just as if the affix was not there (e.g. 'pleasant' 'plezn̩t, 'unpleasant' ʌn'plezn̩t; 'market' 'mɑ:kɪt, 'marketing' 'mɑ:kɪtɪŋ).
iii) The stress remains on the stem, not the affix, but is shifted to a different syllable (e.g. 'magnet' 'mægnət, 'magnetic' mæg'netɪk).

11.2 Suffixes

There are so many suffixes that it will only be possible here to examine a small proportion of them; we will concentrate on those which are common and productive (that is, are applied to a considerable number of stems and could be applied to more to make new English words). In the case of the others, foreign learners would probably be better advised to learn the stem + affix combination as an individual item.

One of the problems that will be encountered is that we may find words which are obviously complex but which, when we divide them into stem + affix, turn out to have a stem that it is difficult to imagine is an English word. For example, the word 'audacity' seems to be a complex word – but what is its stem? Another problem is that it is difficult in some cases to know whether a word has one, or more than one, suffix (e.g. should we analyse 'personality', from the point of view of stress assignment, as pɜ:sn̩ + ælɪti or as pɜ:sn̩ + æl + ɪti?). We will not spend more time here on looking at the problems, but go on to look at some generalisations about suffixes and stress. The suffixes are referred to in their spelling form.

Suffixes carrying primary stress themselves

TU 11, Ex 1

In the examples given, which seem to be the most common, the primary stress is on the first syllable of the suffix. If the stem consists of more than one syllable there will be a secondary stress on one of the syllables of the stem. This cannot fall on the last syllable of the stem, and is, if necessary, moved to an earlier syllable. For example, in 'Japan' dʒə'pæn the primary stress is on the last syllable, but when we add the stress-carrying suffix '-ese' the primary stress is on the suffix and the secondary stress is placed not on the second syllable but on the first: 'Japanese' ˌdʒæpə'ni:z.

'-ain' (for verbs only)
'entertain' ˌentə'teɪn 'ascertain' ˌæsə'teɪn
'-ee'
'refugee' ˌrefjʊ'dʒi: 'evacuee' ɪˌvækju'i:
'-eer'
'mountaineer' ˌmaʊntɪ'nɪə 'volunteer' ˌvɒlən'tɪə
'-ese'
'Portuguese' ˌpɔ:tʃə'gi:z 'journalese' ˌdʒɜ:nl̩'i:z
'-ette'
'cigarette' sɪgr̩et 'launderette' ˌlɔ:ndr̩et
'-esque', '-ique'
'picturesque' ˌpɪktʃə'resk 'unique' ˌju:'ni:k

Suffixes that do not affect stress placement

TU 11, Ex 2

'-able': 'comfort' 'kʌmfət; 'comfortable' 'kʌmftəbl̩
'-age': 'anchor' 'æŋkə; 'anchorage' 'æŋkr̩ɪdʒ
'-al': 'refuse' (verb) rɪ'fju:z; 'refusal' rɪ'fju:zl̩
'-en': 'wide' 'waɪd; 'widen' 'waɪdn̩
'-ful': 'wonder' 'wʌndə; 'wonderful' 'wʌndəfl̩
'-ing': 'amaze' ə'meɪz; 'amazing' ə'meɪzɪŋ
'-ish': 'devil' 'devl̩; 'devilish' 'devl̩ɪʃ

(This is the rule for adjectives; verbs with stems of more than one syllable always have the stress on the syllable immediately preceding 'ish', e.g. 'replenish' rɪ'plenɪʃ, 'demolish' dɪ'mɒlɪʃ.)

'-like': 'bird' 'bɜ:d; 'birdlike' 'bɜ:dlaɪk
'-less': 'power' 'paʊə; 'powerless' 'paʊələs
'-ly': 'hurried' 'hʌrɪd; 'hurriedly' 'hʌrɪdli
'-ment' (noun): 'punish' 'pʌnɪʃ; 'punishment' 'pʌnɪʃmənt
'-ness': 'yellow' 'jeləʊ; 'yellowness' 'jeləʊnəs
'-ous': 'poison' 'pɔɪzn̩; 'poisonous' 'pɔɪzn̩əs
'-fy': 'glory' 'glɔ:rɪ; 'glorify' 'glɔ:rɪfaɪ
'-wise': 'other' 'ʌðə; 'otherwise' 'ʌðəwaɪz
'-y' (adjective or noun): 'fun' 'fʌn; 'funny' 'fʌni

Suffixes that influence stress in the stem

PRIMARY STRESS ON THE LAST SYLLABLE OF THE STEM

TU 11, Ex 3

'-eous': 'advantage' əd'vɑ:ntɪdʒ; 'advantageous' ˌædvən'teɪdʒəs
'-graphy': 'photo' 'fəʊtəʊ; 'photography' fə'tɒgrəfi

'-ial': 'proverb' 'prɒvɜ:b; 'proverbial' prə'vɜ:biəl
'-ic': 'climate' 'klaɪmɪt; 'climatic' klaɪ'mætɪk
'-*ion*': '*perfect*' '*pɜ:fɪkt*; '*perfection*' pə'fekʃn̩
'-ious': 'injure' 'ɪndʒə; 'injurious' ɪn'dʒʊəriəs
'-ty': 'tranquil' 'træŋkwɪl; 'tranquillity' træŋ'kwɪlɪti
'-ive': 'reflex' 'ri:fleks; 'reflexive' rɪ'fleksɪv

THE SUFFIXES '-ANCE', '-ANT' AND '-ARY'

When these suffixes are attached to single-syllable stems, the stress is almost always placed on the stem. When the stem has two syllables the stress is sometimes on the first, sometimes on the second syllable of the stem. To explain this we need to use a rule based on syllable-structure, as was done for simple words in the previous chapter. If the final syllable of the stem contains a long vowel or diphthong, or if it ends with more than one consonant, that syllable receives the stress. For example: 'importance' ɪm'pɔ:tn̩s; 'centenary' sen'ti:nɳi. Otherwise the syllable *before* the last one receives the stress: 'consonant' 'kɒnsn̩ənt; 'military' 'mɪlɪtɳi. We will not consider words with stems of more than two syllables. Such words are, from the point of view of this course, too complex and uncommon for it to be worth attempting to write rules.

11.3 Prefixes

We will only deal briefly with prefixes. Their effect on stress does not have the comparative regularity, independence and predictability of suffixes, and there is no prefix of one or two syllables that always carries primary stress. Consequently, the best treatment seems to be to say that stress in words with prefixes is governed by the same rules as those for words without prefixes.

11.4 Compound words

TU 11, Ex 4

The words discussed so far in this chapter have all consisted of a stem plus an affix. We now pass on to another type of word. This will be called **compound**, and its main characteristic is that it can be analysed into two words, both of which can exist independently as English words. (Some compounds are made of more than two words, but we will not consider these.) As with many of the distinctions being made in connection with stress, there are areas of uncertainty. For example, it

could be argued that 'photograph' may be divided into two independent words, 'photo' and 'graph'; yet we usually do not regard it as a compound, but as an affix word. (If someone drew a graph displaying numerical information about photos, this would perhaps be called a 'photo-graph' and the word *would* be regarded as a compound). Compounds are written in different ways; sometimes they are written as one word, e.g. 'armchair', 'sunflower', sometimes with the words separated by a hyphen, e.g. 'gear-change', 'fruit-cake', and sometimes with two words separated by a space, e.g. 'desk lamp', 'battery charger'. In this last case there would, of course be no indication to the foreign learner that the pair of words was to be treated as a compound. There is no clear dividing line between two-word compounds and pairs of words that simply happen to occur together quite frequently.

As far as stress is concerned, the question is quite simple. When is primary stress placed on the first word of the compound and when on the second? Both patterns are found. A few rules can be given, though these are not completely reliable. Words which do not receive primary stress normally have secondary stress, though for the sake of simplicity this is not marked here. Perhaps the most familiar type of compound is the one which combines two nouns, and normally has the stress on the first element, as in:

'typewriter' 'taɪpraɪtə
'car-ferry' 'kɑ:feri
'sunrise' 'sʌnraɪz
'suitcase' 'sju:tkeɪs
'tea-cup' 'ti:kʌp

It is probably safest for foreign learners to assume that stress will normally fall in this way on other compounds; however, a variety of compounds receive stress instead on the second element. For example, compounds with an adjectival first element and the *-ed* morpheme at the end have this pattern (given in spelling only):

bad-'tempered
half-'timbered
heavy-'handed

Compounds in which the first element is a number in some form also tend to have final stress:

three-'wheeler
second-'class
five-'finger

Compounds functioning as adverbs are usually final-stressed:

head-'first
North-'East
down'stream

Finally, compounds which function as verbs and have an adverbial first element take final stress:

down-'grade
back-'pedal
ill-'treat

11.5 Variable stress

It would be wrong to imagine that the stress pattern is always fixed and unchanging in English words. Stress position may vary for one of two reasons: either as a result of the stress on other words occurring next to the word in question, or because not all speakers of RP agree on the placement of stress in some words. The former case is an aspect of connected speech that will be encountered again in Chapter 14: the main effect is that the stress on a final-stressed compound tends to move to the preceding syllable if the following word begins with a strongly stressed syllable. Thus (using some examples from the previous section):

bad-'tempered	*but*	a 'bad-tempered 'teacher
half-'timbered	*but*	a 'half-timbered 'house
heavy-'handed	*but*	a 'heavy-handed 'sentence

The second is not a serious problem, but one that foreign learners should be aware of. A well-known example is 'controversy', which is pronounced by some speakers as 'kɒntrəvɜ:si and by others as kən'trɒvəsi; it would be quite wrong to say that one version was correct and one incorrect. Other examples of different possibilities are 'ice-cream', 'kilometer' (either 'kɪləmi:tə or kɪ'lɒmɪtə) and 'formidable' ('fɔ:mɪdəbl̩ or fə'mɪdəbl̩).

11.6 Word-class pairs

TU 11, Ex 5

One aspect of word stress is best treated as a separate issue. There are several dozen pairs of two-syllable words with identical spelling which differ from each other in stress placement, apparently according to word class (noun, verb or adjective). All appear to consist of prefix + stem. We shall treat them as a special type of word and give them the following rule: when a pair of prefix-plus-stem words exists, both members of which are spelt identically, one of which is a verb and

the other is either a noun or an adjective, the stress will be placed on the second syllable of the verb but on the first syllable of the noun or adjective. Some common examples are given below (V = verb, A = adjective, N = noun):

'abstract' 'æbstrækt (A), æb'strækt (V)
'conduct' 'kɒndʌkt (N), kən'dʌkt (V)
'contract' 'kɒntrækt (N), kən'trækt (V)
'contrast' 'kɒntrɑ:st (N), kən'trɑ:st (V)
'desert' 'dezət (N), dɪ'zɜ:t (V)
'escort' 'eskɔ:t (N), ɪ'skɔ:t (V)
'export' 'ekspɔ:t (N), ɪk'spɔ:t (V)
'import' 'ɪmpɔ:t (N), ɪm'pɔ:t (V)
'insult' 'ɪnsʌlt (N), ɪn'sʌlt (V)
'object' 'ɒbdʒɪkt (N), əb'dʒekt (V)
'perfect' 'pɜ:fɪkt (A), pə'fekt (V)
'permit' 'pɜ:mɪt (N), pə'mɪt (V)
'present' 'prezn̩t (N, A), prɪ'zent (V)
'produce' 'prɒdju:s (N), prə'dju:s (V)
'protest' 'prəʊtest (N), prə'test (V)
'rebel' 'rebl̩ (N), rɪ'bel (V)
'record' 'rekɔ:d (N), rɪ'kɔ:d (V)
'subject' 'sʌbdʒɪkt (N), səb'dʒekt (V)

Notes on problems and further reading

Most of the reading recommended in the notes for the previous chapter is relevant for this one too. Looking specifically at compounds, it is worth reading Fudge (1984), chapter 5.

If you wish to go more deeply into compound word stress, you should first study English word formation. Recommended reading for this is Bauer (1983).

Written exercises

1 Put stress marks on the following words (try to put secondary stress marks on as well).

a)	shop-fitter	*b)*	open-ended	*c)*	Javanese
d)	birth-mark	*e)*	anti-clockwise	*f)*	confirmation
g)	eight-sided	*h)*	fruit-cake	*i)*	defective
j)	roof-timber				

2 Write the words in phonemic transcription, including the stress marks.

12 Weak forms

Chapter 9 discussed the difference between strong and weak syllables in English. We have now moved on from looking at syllables to looking at words, and we will consider certain well-known English words that can be pronounced in two different ways, which are called **strong forms** and **weak forms**. As an example, the word 'that' can be pronounced ðæt (strong form) or ðət (weak form). The sentence 'I like that' is pronounced aɪ laɪk ðæt (strong form); the sentence 'I hope that she will' is pronounced aɪ həʊp ðət ʃi wɪl (weak form). There are roughly forty such words in English. It *is* possible to use only strong forms in speaking, and some foreigners do this. Usually they can still be understood by other speakers of English, so why is it important to learn how weak forms are used? There are two main reasons; firstly, most native speakers of English find an "all-strong-form" pronunciation unnatural and foreign-sounding, something that most learners would wish to avoid. Secondly, and more importantly, speakers who are not familiar with the use of weak forms are likely to have difficulty understanding speakers who do use weak forms; since practically all native speakers of British English use them, learners of the language need to learn about these weak forms to help them to understand what they hear.

We must distinguish between **weak forms** and **contracted forms.** Certain English words are shortened so severely (usually to a single phoneme) and so consistently that they are represented differently in informal writing, e.g. 'it is' – 'it's'; 'we have' – 'we've'; 'do not' – 'don't'. These contracted forms are discussed in a later chapter, and are not included here.

Almost all the words which have both a strong and weak form belong to a category that may be called **function words** – words that do not have a dictionary meaning in the way that we normally expect nouns, verbs, adjectives and adverbs to have. These function words are words such as auxiliary verbs, prepositions, conjunctions, etc., all of which are in certain circumstances pronounced in their strong forms but which are more frequently pronounced in their weak forms. It is important to remember that there are certain contexts where only the strong form is acceptable, and others where the weak form is the

normal pronunciation. There are some fairly simple rules; we can say that the strong form is used in the following cases:

i) For many weak-form words, when they occur at the end of a sentence. For example, the word 'of' has the weak form əv in the following sentence:

'I'm fond of chips' aɪm 'fɒnd əv 'tʃɪps

but when it comes at the end of the sentence, as in the following example, it has the strong form ɒv:

'Chips are what I'm fond of' 'tʃɪps ə 'wɒt aɪm 'fɒnd ɒv

Many of the words given below (particularly the first nine) never occur at the end of a sentence, e.g. 'the', 'your'. Some words (particularly the pronouns numbered 10–14 below) *do* occur in their weak forms in final position.

ii) When a weak-form word is being *contrasted* with another word, e.g.:

'The letter's *from* him, not *to* him' ðə 'letəz 'frɒm ɪm nɒt 'tu: ɪm

A similar case is what we might call a co-ordinated use of prepositions:

'I travel to and from London a lot' aɪ 'trævl̩ 'tu: ən 'frɒm 'lʌndən ə 'lɒt

'A work of and about literature' ə 'wɜ:k 'ɒv ən ə'baʊt 'lɪtrɪtʃə

iii) When a weak-form word is given stress for the purpose of emphasis, e.g.:

'You *must* give me more money' ju 'mʌst 'gɪv mi 'mɔ: 'mʌni

iv) When a weak-form word is being "cited" or "quoted", e.g.:

'You shouldn't put "and" at the end of a sentence'
ju 'ʃʊdn̩t pʊt 'ænd ət ði 'end əv ə 'sentəns

Another point to remember is that when weak-form words whose spelling begins with 'h' (e.g. 'her', 'have') occur at the beginning of a sentence, the pronunciation is with initial h, even though this is usually omitted in other contexts.

TU 12, Exs 1–4

In the rest of this chapter, the most common weak-form words will be introduced.

1. 'THE'

Weak forms: ðə (before consonants)
'Shut the door' 'ʃʌt ðə 'dɔ:
ði (before vowels)
'Wait for the end' 'weɪt fə ði 'end

2. 'A', 'AN'

Weak forms: ə (before consonants)
'Read a book' 'ri:d ə 'bʊk
ən (before vowels)
'Eat an apple' 'i:t ən 'æpl̩

3. 'AND'
   Weak form: ən (sometimes ṇ after t, d, s, z, ʃ)
   'Come and see' 'kʌm ən 'si:
   'Fish and chips' 'fɪʃ ṇ 'tʃɪps
4. 'BUT'
   Weak form: bət 'It's good but expensive' ɪts 'gʊd bət ɪks'pensɪv
5. 'THAT' (This word only has a weak form when used in a relative clause; when used with a demonstrative sense it is always pronounced in its strong form.)
   Weak form: ðət 'The price is the thing that annoys me' ðə 'praɪs ɪz ðə 'θɪŋ ðət ə'nɔɪz mi
6. 'THAN'
   Weak form: ðən 'Better than ever' 'betə ðən 'evə
7. 'HIS' (when it occurs before a noun)
   Weak form: ɪz (hɪz at the beginning of a sentence)
   'Take his name' 'teɪk ɪz 'neɪm
   (Another sense of 'his', as in 'it was his', or 'his was late', always has the strong form.)
8. 'HER' (When used with possessive sense, preceding a noun; as an object pronoun, this can also occur at the end of a sentence.)
   Weak forms: ə (before consonants)
   'Take her home' 'teɪk ə 'həʊm
   ər (before vowels)
   'Take her out' 'teɪk ər 'aʊt
9. 'YOUR'
   Weak forms: jə (before consonants)
   'Take your time' 'teɪk jə 'taɪm
   jər (before vowels)
   'On your own' 'ɒn jər 'əʊn
10. 'SHE', 'HE', 'WE', 'YOU'
    This group of pronouns has weak forms pronounced with weaker vowels than the i: and u: of their strong forms. I will use the symbols i and u (in preference to ɪ and ʊ) to represent them. There is little difference in the pronunciation in different places in the sentence, except in the case of 'he'.
    Weak forms:
    'SHE' ʃi
    'Why did she read it?' 'waɪ dɪd ʃi 'ri:d ɪt
    'Who *is* she?' 'hu: 'ɪz ʃi
    'HE' i (the weak form is usually pronounced without h except at the beginning of a sentence)
    'Which did he choose?' 'wɪtʃ dɪd i 'tʃu:z
    'He was late, wasn't he?' hi wəz 'leɪt 'wɒzṇt i

'WE' wi

'How can we get there?' 'haʊ kən wi 'get ðeə

'We need that, don't we?' wi 'ni:d ðæt 'dəʊnt wi

'YOU' ju

'What do you think?' 'wɒt də ju 'θɪŋk

'You like it, do you?' ju 'laɪk ɪt 'du: ju

11. 'HIM'

Weak form: ɪm

'Leave him alone' 'li:v ɪm ə'ləʊn

'I've seen him' aɪv 'si:n ɪm

12. 'HER'

Weak form: ə (hə when sentence-initial)

'Ask her to come' 'ɑ:sk ə tə 'kʌm

'I've met her' aɪv 'met ə

13. 'THEM'

Weak form: ðəm

'Leave them here' 'li:v ðəm 'hɪə

'Eat them' 'i:t ðəm

14. 'US'

Weak form: əs

'Write us a letter' 'raɪt əs ə 'letə

'They invited all of us' ðeɪ ɪn'vaɪtɪd 'ɔ:l əv əs

The next group of words (some prepositions and other function words) occur in their strong forms when they are final in a sentence; examples of this are given. (19 is a partial exception.)

15. 'AT'

Weak form: ət

'I'll see you at lunch' aɪl 'si: ju ət 'lʌnʃ

In final position: æt

'What's he shooting at?' 'wɒts i 'ʃu:tɪŋ æt

16. 'FOR'

Weak form: fə (before consonants)

'Tea for two' 'ti: fə 'tu:

fər (before vowels)

'Thanks for asking' 'θæŋks fər 'ɑ:skɪŋ

In final position: fɔ:

'What's that for?' 'wɒts 'ðæt fɔ:

17. 'FROM'

Weak form: frəm

'I'm home from work' aɪm 'həʊm frəm 'wɜ:k

In final position: frɒm

'Here's where it came from' 'hɪəz weər ɪt 'keɪm frɒm

18. 'OF'

Weak form: əv

'Most of all' 'məʊst əv 'ɔ:l

In final position: ɒv

'Someone I've heard of' 'sʌmwʌn aɪv 'hɜ:d ɒv

19. 'TO'

Weak forms: tə (before consonants)

'Try to stop' 'traɪ tə 'stɒp

tu (before vowels)

'Time to eat' 'taɪm tu 'i:t

In final position: tu (*It is not usual to use the strong form tu:, and the pre-consonantal weak form tə is never used.*)

'I don't want to' aɪ 'dəʊnt 'wɒnt tu

20. 'AS'

Weak form: əz

'As much as possible' əz 'mʌtʃ əz 'pɒsɪbl̩

In final position: æz

'That's what it was sold as' 'ðæts 'wɒt ɪt wəz 'səʊld æz

21. 'SOME'

This word is used in two different ways. In one sense (typically, *when it occurs before a countable noun, meaning "an unknown* individual") it has the strong form:

'I think some animal broke it' aɪ 'θɪŋk sʌm 'ænɪml̩ 'brəʊk ɪt

It is also used before uncountable nouns (meaning "an unspecified amount of") and before other nouns in the plural (meaning "an unspecified number of"), in such uses it has the weak form səm.

'Have some more tea' 'hæv səm 'mɔ: 'ti:

In final position: sʌm

'I've got some' aɪv 'gɒt sʌm

22. 'THERE'

When this word has a demonstrative function, it always occurs in its strong form ðeə (ðeər before vowels), e.g.

'There it is' 'ðeər ɪt 'ɪz

'Put it there' 'pʊt ɪt 'ðeə

Weak forms: ðə (before consonants)

'There should be a rule' ðə 'ʃʊd bi ə 'ru:l

ðər (before vowels)
'There is' ðər 'ɪz
In final position the pronunciation may be ðə or ðeə.
'There isn't any, is there?' ðər 'ɪzn̩t eni 'ɪz ðə
or ðər 'ɪzn̩t eni 'ɪz ðeə

The remaining weak-form words are all auxiliary verbs, which are always used in conjunction with (or at least implying) another ("full") verb. It is important to remember that in their negative form (i.e. combined with 'not') they never have the weak pronunciation, and some (e.g. 'don't', 'can't') have different vowels from their non-negative strong forms.

23. 'CAN', 'COULD'
Weak forms: kən, kəd
'They can wait' 'ðeɪ kən 'weɪt
'He could do it' 'hi: kəd 'du: ɪt
In final position: kæn, kʊd
'I think we can' aɪ 'θɪŋk wi kæn
'Most of them could' 'məʊst əv ðəm kʊd

24. 'HAVE', 'HAS', 'HAD'
Weak forms: əv, əz, əd (with initial h in initial position)
'Which have you seen?' 'wɪtʃ əv jʊ 'si:n
'Which has been best?' 'wɪtʃ əz 'bi:n̩ 'best
'Most had gone home' 'məʊst əd 'gɒn 'həʊm

In final position: hæv, hæz, hæd
'Yes, we have' 'jes wi 'hæv
'I think she has' aɪ 'θɪŋk ʃi 'hæz
'I thought we had' aɪ 'θɔ:t wi 'hæd

25. 'SHALL', 'SHOULD'
Weak forms: ʃəl or ʃl̩; ʃəd
'We shall need to hurry' wi ʃl̩ 'ni:d tə 'hʌri
'I should forget it' 'aɪ ʃəd fə'get ɪt
In final position: ʃæl, ʃʊd
'I think we shall' aɪ 'θɪŋk wi 'ʃæl
'So you should' 'səʊ jʊ 'ʃʊd

26. 'MUST'
This word is sometimes used with the sense of forming a conclusion or deduction, e.g. 'she left at 8 o'clock, so she must have arrived by now'; when 'must' is used in this way, it is rather less

likely to occur in its weak form than when it is being used in its more familiar sense of "obligation".

Weak forms: məs (before consonants)

'You must try harder' ju məs 'traɪ 'hɑ:də

məst (before vowels)

'He must eat more' hi məst 'i:t 'mɔ:

In final position: mʌst

'She certainly must' ʃi 'sɜ:tn̩li 'mʌst

27. 'DO', 'DOES'

Weak forms:

'DO' də (before consonants)

'Why do they like it?' 'wɑɪ də ðeɪ 'laɪk ɪt

du (before vowels)

'Why do all the cars stop?' 'waɪ du ɔ:l ðə 'kɑ:z 'stɒp

'DOES' dəz

'When does it arrive?' 'wen dəz ɪt ə'raɪv

In final position: du:, dʌz

'We don't smoke, but some people do' 'wi: dəʊnt 'sməʊk bət 'sʌm 'pi:pl̩ 'du:

'I think John does' aɪ 'θɪŋk 'dʒɒn dʌz

28. 'AM', 'ARE', 'WAS', 'WERE'

Weak forms: əm

'Why am I here?' 'waɪ əm aɪ 'hɪə

ə (before consonants)

'Here are the plates' 'hɪər ə ðə 'pleɪts

ər (before vowels)

'The coats are in there' ðə 'kəʊts ər ɪn 'ðeə

wəz 'He was here a minute ago' hi wəz 'hɪər ə 'mɪnɪt ə'gəʊ

wə (before consonants)

'The papers were late' ðə 'peɪpəz wə 'leɪt

wər (before vowels)

'The questions were easy' ðə 'kwestʃənz wər 'i:zi

In final position: æm, ɑ:, wɒz, wɜ:

'She's not as old as I am' ʃiz 'nɒt əz 'əʊld əz 'aɪ æm

'I know the Smiths are' aɪ 'nəʊ ðə 'smɪθs ɑ:

'The last record was' ðə 'lɑ:st
'rekɔ:d wɒz
'They weren't as cold as we were'
ðeɪ 'wɜ:nt əz 'kəʊld əz 'wi: wɜ:

Notes on problems and further reading

This chapter is almost entirely practical. All books about English pronunciation devote a lot of attention to these words. Some of them give a great deal of importance to using weak forms, but do not stress the importance of also knowing when to use the strong forms, something which I feel is very important. See Mortimer (1984).

Written exercises

In the following sentences, the transcription for the weak-form words is left blank. Fill in the blanks, taking care to use the appropriate form.

1. I want her to park that car over there.
   aɪ wɒnt pɑ:k kɑ:r əʊvə
2. Of all the proposals, the one that you made is the silliest.
   ɔ:l prəpəʊzl̩z wʌn meɪd sɪlɪəst
3. Jane and Bill could have driven them to and from the party.
   dʒeɪn bɪl drɪvən pɑ:ti
4. To come to the point, what shall we do for the rest of the week?
   kʌm pɔɪnt wɒt rest wi:k
5. Has anyone got an idea where it came from?
   enɪwʌn gɒt aɪdɪə weər ɪt keɪm
6. Pedestrians must always use the crossings provided for them.
   pədestrɪənz ɔ:lwɪz ju:z krɒsɪŋz prəvaɪdɪd
7. Each one was a perfect example of the art that had been developed there.
   i:tʃ wʌn pɜ:fɪkt ɪgzɑ:mpl̩ ɑ:t bi:n dɪveləpt