

11 Complex word stress

11.1 Complex words

In Chapter 10 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 Chapter 10, it is often difficult to decide 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 if they were 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’ is 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.

Complex words are of two major types:

- i) words made from a basic word form (which we will call the **stem**), with the addition of an **affix**; and
- ii) **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. 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 have one of three possible effects on word stress:

- i) The affix itself receives the primary stress (e.g. 'semi-' + 'circle' sɜ:kəl → 'semicircle' 'semɪsɜ:kəl; '-ality' + 'person' 'pɜ:sən → 'personality' pɜ:sən'æləti).
- ii) The word is stressed as if the affix were not there (e.g. 'pleasant' 'pleznt, 'unpleasant' ʌn'pleznt; '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' mæɡ'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 we encounter is that we find words which are obviously complex but which, when we try to divide them into stem + affix, turn out to have a stem that is difficult to imagine as 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: for example, should we analyse 'personality' from the point of view of stress assignment, as pɜ:sən + æləti or as pɜ:sən + æl + əti? In the study of English word formation at a deeper level than we can go into here, it is necessary for such reasons to distinguish between a stem (which is what remains when affixes are removed), and a **root**, which is the smallest piece of lexical material that a stem can be reduced to. So, in 'personality', we could say that the *suffix* '-ity' is attached to the *stem* 'personal' which contains the *root* 'person' and the suffix 'al'. We will not spend more time here on looking at these problems, but go on to look at some generalisations about suffixes and stress, using only the term 'stem' for the sake of simplicity. The suffixes are referred to in their spelling form.

Suffixes carrying primary stress themselves

⌚ AU11 (CD 2), 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' ,dʒæpə'ni:z.

- '-ee': 'refugee' ,refjʊ'dʒi:; 'evacuee' ɪ,vækju'i:
- '-eer': 'mountaineer' ,maʊntɪ'nɪə; 'volunteer' ,vɒlən'tɪə
- '-ese': 'Portuguese' ,pɔ:tʃə'gi:z; 'journalese' ,dʒɜ:nəl'i:z

- ‘-ette’: ‘cigarette’ ,sɪɡrɪ'et; ‘laundrette’ ,ləʊndrɪ'et
- ‘esque’: ‘picturesque’ ,pɪktʃrɪ'esk

Suffixes that do not affect stress placement

⌚ AU11 (CD 2), Ex 2

- ‘-able’: ‘comfort’ 'kʌmfət; ‘comfortable’ 'kʌmfətəbəl
- ‘-age’: ‘anchor’ 'æŋkə; ‘anchorage’ 'æŋkɪdʒ
- ‘-al’: ‘refuse’ (verb) rɪ'fju:z; ‘refusal’ rɪ'fju:zəl
- ‘-en’: ‘wide’ 'waɪd; ‘widen’ 'waɪdn̩
- ‘-ful’: ‘wonder’ 'wʌndə; ‘wonderful’ 'wʌndəfəl
- ‘-ing’: ‘amaze’ ə'meɪz; ‘amazing’ ə'meɪzɪŋ
- ‘-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’ 'pɔɪzən; ‘poisonous’ 'pɔɪzənəs
- ‘-fy’: ‘glory’ 'glɔ:ri; ‘glorify’ 'glɔ:rɪfaɪ
- ‘-wise’: ‘other’ 'ʌðə; ‘otherwise’ 'ʌðəwaɪz
- ‘-y’ (adjective or noun): ‘fun’ 'fʌn; ‘funny’ 'fʌni
- (‘-ish’ in the case of adjectives does not affect stress placement: ‘devil’ 'devl; ‘devilish’ 'devlɪʃ; however, verbs with stems of more than one syllable always have the stress on the syllable immediately preceding ‘ish’ – for example, ‘replenish’ rɪ'plenɪʃ, ‘demolish’ dɪ'mɒlɪʃ)

Suffixes that influence stress in the stem

⌚ AU11 (CD 2), Ex 3

In these examples primary stress is on the last syllable of the stem.

- ‘-eous’: ‘advantage’ əd'vɑ:ntɪdʒ; ‘advantageous’ ,ædvən'teɪdʒəs
- ‘-graphy’: ‘photo’ 'fəʊtəʊ; ‘photography’ fə'tɒɡrəfi
- ‘-ial’: ‘proverb’ 'prɒvɜ:b; ‘proverbial’ prə'vɜ:biəl
- ‘-ic’: ‘climate’ 'klaɪmət; ‘climatic’ klaɪ'mætɪk
- ‘-ion’: ‘perfect’ 'pɜ:fɪkt; ‘perfection’ pə'fekʃn̩
- ‘-ious’: ‘injure’ 'ɪndʒə; ‘injurious’ ɪn'dʒʊəriəs
- ‘-ty’: ‘tranquil’ 'træŋkwɪl; ‘tranquillity’ træŋ'kwɪləti
- ‘-ive’: ‘reflex’ 'rɪ:fleks; ‘reflexive’ rɪ'fleksɪv

Finally, when the suffixes ‘-ance’, ‘-ant’ and ‘-ary’ are attached to single-syllable stems, the stress is almost always placed on the stem (e.g. ‘guidance’, ‘sealant’, ‘dietary’). When the stem has more than one syllable, the stress is on one of the syllables in 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 is strong, that syllable receives the stress. For example: ‘importance’ ɪm'pɔ:təns, ‘centenary’ sen'tɪ:nəri.

Otherwise the syllable *before* the last one receives the stress: 'inheritance' ɪn'herɪtəns, 'military' 'mɪlətri.

11.3 Prefixes

We will look only briefly at 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 polysyllabic words without prefixes.

11.4 Compound words

⌚ AU11 (CD 2), 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 is 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 a simple word. If, however, someone drew a graph displaying numerical information about photos, this would perhaps be called a 'photo-graph' and the word would then 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. 'open-minded', 'cost-effective'); and sometimes with two words separated by a space (e.g. 'desk lamp', 'battery charger'). In this last case there would 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 constituent word of the compound and when on the second? Both patterns are found. A few rules can be given, although these are not completely reliable. Perhaps the most familiar type of compound is the one which combines two nouns and which normally has the stress on the first element, as in:

'typewriter' 'taɪpraɪtə
'car ferry' 'kɑ:fəri
'sunrise' 'sʌnraɪz
'suitcase' 'su:tkeɪs
'teacup' 'ti:kʌp

It is probably safest to assume that stress will normally fall in this way on other compounds; however, a number of compounds receive stress instead on the second element. The first

words in such compounds often have secondary stress. For example, compounds with an adjectival first element and the *-ed* morpheme at the end have this pattern (given in spelling only):

ˌbad- 'tempered
 ˌhalf- 'timbered
 ˌheavy- 'handed

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

ˌthree- 'wheeler
 ˌsecond- 'class
 ˌfive- 'finger

Compounds functioning as adverbs are usually final-stressed:

ˌhead 'first
 ˌNorth- 'East
 ˌdown 'stream

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

ˌdown 'grade
 ˌback- 'pedal
 ˌill- '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 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 a preceding syllable and change to secondary stress if the following word begins with a strongly stressed syllable. Thus (using some examples from the previous section):

ˌbad- 'tempered	<i>but</i>	a ˌbad-tempered 'teacher
ˌhalf- 'timbered	<i>but</i>	a ˌhalf-timbered 'house
ˌheavy- 'handed	<i>but</i>	a ˌheavy-handed 'sentence

The second is not a serious problem, but is 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'

(either ,aɪs kri:m or 'aɪs kri:m), 'kilometre' (either kɪ'lɒmɪtə or 'kɪləmi:tə) and 'formidable' ('fɔ:mɪdəbəl or fɔ:'mɪdəbəl).

11.6 Word-class pairs

⌚ AU11 (CD 2), 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: if a pair of prefix-plus-stem words exists, both members of which are spelt identically, one of which is a verb and the other of which is either a noun or an adjective, then the stress is 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	'eksɜ:t (N)	ɪk'spɜ:t (V)
import	'ɪmpɜ:t (N)	ɪm'pɜ:t (V)
insult	'ɪnsʌlt (N)	ɪn'sʌlt (V)
object	'ɒbdʒekt (N)	əb'dʒekt (V)
perfect	'pɜ:fɪkt (A)	pə'fekt (V)
permit	'pɜ:mɪt (N)	pə'mɪt (V)
present	'preznt (N, A)	pri'zent (V)
produce	'prɒdju:s (N)	prə'dju:s (V)
protest	'prəʊtest (N)	prə'test (V)
rebel	'rebəl (N)	rɪ'bel (V)
record	'rekɔ:d (N, A)	rɪ'kɔ:d (V)
subject	'sʌbdʒekt (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). See also Cruttenden (2008: 242–5). 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). On the distinction between *stem* and *root*, see Radford *et al.* (1999: 67–8).

Written exercises

- 1 Put stress marks on the following words (try to put secondary stress marks on as well).
 - a) shopkeeper
 - b) open-ended
 - c) Javanese
 - d) birthmark
 - e) anti-clockwise
 - f) confirmation
 - g) eight-sided
 - h) fruitcake
 - i) defective
 - j) roof timber
- 2 Write the words in phonemic transcription, including the stress marks.