

8. Word stress – Part 1: The degrees of stress

Before you study this chapter, check whether you are familiar with the following terms: ambisyllabic, aspirated, CiV, closed syllable, derivation, diacritic, foot, free variation, full vowel, function word, IPA, major stress, monomorphemic, morpheme, morphology, productive suffix, pulmonic, reduced vowel, syllabic consonant, syllable peak, tapping/flapping, Trisyllabic Laxness, utterance, vocal cords

As it was already mentioned in Chapter 7, stress is one of the **suprasegmental** (or **prosodic**) **features** of speech, which extend over more than one sound segment. They include variations in pitch, loudness, tempo and rhythm, out of which pitch and loudness play the most significant role in the stress system of English.

Pitch roughly corresponds to the acoustic feature of frequency, the rate of vibration of the vocal cords, which is produced by their stretching and tensing: the tenser they are, the higher the rate of vibration, and the higher the pitch. The distinctive use of patterns of pitch is called **intonation**, whose most important function is to signal grammatical structure (e.g., clause boundaries within sentences, and the different sentence types, especially questions vs. statements), similarly to punctuation in writing. In Hungarian, for example, intonation plays a pivotal role in the distinction between segmentally identical statements and yes-no questions like *Jani elment* 'Johnny has left' vs. *Jani elment?* 'Has Johnny left?'. Chapter 10 is devoted to intonation in English.

Certain languages, but neither English nor Hungarian, use pitch to contrast not sentences but words, thus pitch becomes an essential feature of

the meaning of morphemes. This phenomenon is called **tone**, and such languages are called tone languages. Many of the languages of South-East Asia and sub-Saharan Africa, e.g., Beijing Mandarin Chinese and Thai in Asia or Hausa in Africa, belong here.

Besides pitch, **loudness** is the other major ingredient of stress prominence in English. The loudness of (strings of) speech sounds depends on the size of the vibrations of the vocal cords caused by the varying degrees of pulmonic air pressure. Together with pitch level and vowel quality, loudness produces the relative prominence of syllables called **stress**. It is of crucial importance to understand that stress is not an absolute feature of syllables but rather it is relative, only relevant in comparison of several syllables. It is possible to say that a syllable is stressed, but this always means that it is more stressed (=stronger, more prominent) than the adjacent syllable(s). Due to the fact that stress is an extremely complex phenomenon (governed by a number of different factors) and the fact that it is relative, there exist several **degrees of stress**, out of which four are linguistically relevant in English. In fact, these various degrees come into being owing to the unequal role played by pitch, rhythmic prominence (already mentioned in Chapter 7), and the full or reduced quality of the syllable peak.

Recall from the previous chapter that all non-function words in English contain at least one syllable that constitutes a rhythmic beat (called **major stress**) – at the same time, function words are normally unstressed. The primary source of this rhythmic prominence of major stress is the loudness of the syllable, but the difference in pitch level causes a difference between two types of major stresses. In *suprasegmental* or *syllabification*, for example, there are two rhythmic beats (underlined), but one of them, namely the second one, is more prominent owing to its highest pitch in the word. In addition, only this syllable can carry the main stress of an utterance, e.g., *Are*

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these features suprasegmental? or *This is the correct syllabification* (cf. the discussion of phrasal stress in Chapter 7). It is traditionally called **primary stress** or **main stress**, for obvious reasons, while the other type of major stress is usually referred to as **secondary stress**. Secondary stress is optional, basically it only appears in longer English words under very specific circumstances (see below in more detail). For example, the first syllable of the word *suprasegmental* and the second syllable of *syllabification* are secondary stressed. Another basic difference between primary and secondary stress is that while the former can only appear once in a word (this is logical, since it is, by definition, the *most* prominent syllable), there may be several occurrences of secondary stress, depending on the length of the word. For instance, the word *contamination* contains one such syllable (underlined), whereas *decontamination* already contains two.¹

Syllables without rhythmic prominence also fall into two subtypes. In most such cases, the whole syllable becomes weak and reduced, which means that, on the one hand, the vowel is not full but one of /ə ɪ ʊ/ – most frequently, schwa. It is in these cases that Syllabic Consonant Formation (discussed in Chapter 5) is possible. On the other hand, the consonants surrounding this weak peak also become unstable, especially the consonant preceding it. So much so that /h/, for example, systematically disappears altogether (recall the examples *vehicle* /'vi:əkl/ and *shepherd* /'ʃepəd/ of Chapter 7, but *vehement* /'vi:əmənt/, *annihilate* /ə'naiələt/, *Buddha* /'bʊdə/, *Birmingham* /'bɜ:mɪŋəm/, etc. are analogous), and even if a consonant remains pronounced in such a position, its syllabic status is vague, that is, the consonant is ambisyllabic (cf. Chapter 2), with all the consequences of this.

¹ Based on the observation that out of two (or more) successive secondary-stressed syllables the first one is always slightly stronger than the other(s), some authors apply the term "secondary stress" to that one only and refer to the others as "tertiary-stressed".

Such syllables are **zero-stressed** or **completely unstressed**. However, some otherwise weak syllables contain an unreduced vowel, that is, under certain (not exactly straightforward) circumstances the expected vowel reduction fails to take place, as in the first syllable of *activity* /æk'tɪvəti/. This full-vowelled, rhythmically or pitch-wise non-prominent stress is called **tertiary stress** in this book. An alternative name is **minor stress** (as opposed to *major stress*). Although such syllables are not prominent as far as suprasegmental features go, still they are stronger than completely unstressed syllables in the sense that they are characterized by neither vowel reduction nor consonant weakening, the two elementary features of zero stress mentioned above. Compare the final syllable of *Abraham* /'eɪbrəhæm/ and *Graham* /'grɛɪəm/ – in the former the vowel is full and the /h/ is pronounced (this is what we call tertiary stress), whereas in the latter the vowel is a schwa and the /h/ is dropped (this is what we call zero stress). Compare the underlined /t/ in *hesitate*, which is strong and therefore aspirated, with that of *activity* or *better*, which is not – rather, it is tapped in the tapping dialects of English (as an indication of its ambisyllabicity), yielding [æ'k'tɪvətɪ] and ['bɛtə(r)].

The four degrees of word stress are summarized in the following chart. As the shaded areas show, the basic difference between unstressed and stressed syllables lies in the presence vs. absence of vowel reduction, respectively, while the major stress – minor stress distinction is based on loudness (rhythmic prominence).

| Stress category | MAJOR | | MINOR | UNSTRESSED |
|-----------------|---|--|--|---|
| | primary | secondary | tertiary | zero |
| Stress degree | primary | secondary | tertiary | zero |
| Prominence | full vowel | full vowel | full vowel | -- |
| | loudness | loudness | | |
| | highest pitch | | | |
| Examples | <i>suprasegmental syllabification</i> <i>annihilate</i> <i>hesitate</i> <i>Japan</i> | <i>suprasegmental syllabification</i> <i>hesitation</i> <i>grammaticality</i> <i>Japanese</i> | <i>suprasegmental syllabify</i> <i>annihilate</i> <i>hesitate</i> <i>activity</i> | <i>suprasegmental syllabification</i> <i>annihilate</i> <i>grammaticality</i> <i>Japan</i> |

There are three equivalent **stress-marking conventions** in phonology: the use of numbers, diacritics, and IPA stress marks. In this book, we only use their most widely accepted forms, which are shown in the table below. In the IPA, the upper mark / ^ˈ / is used for primary stress, and the lower mark / _ˌ / for secondary stress. Sometimes the segments are not transcribed but rather the spelt form of the word is supplemented by diacritics on top of the stressed vowel letters: the acute accent (e.g., *ó*) signals primary stress, and the grave accent (e.g., *ò*) secondary stress. Finally, the stress degrees of the syllables in a word can be referred to with numbers, 1 standing for primary, 2 for secondary, 3 for tertiary, and 0 for zero.

| Stress category | MAJOR | | MINOR | UNSTRESSED |
|------------------|--------------|--------------|----------|------------|
| | primary | secondary | tertiary | zero |
| Numbers | 1 | 2 | 3 | 0 |
| Diacritics | acute accent | grave accent | - | - |
| IPA stress marks | upper mark | lower mark | - | - |

Accordingly, the stress pattern of *suprasegmental* can be indicated with numbers as 20310, with accents as *sùprasegméntal*, or, accompanying an IPA transcription, as /sʊ:prəseg^lmentl/.

On the basis of the examples above, the careful reader must have already noticed some of the general properties of English word stress. First, no major stress occurs after the primary stressed syllable (i.e., secondary stress always precedes primary stress). It follows that primary stress is always the rightmost major stress, i.e., the last rhythmic beat is the strongest. This **prominence of the right edge** is usually explained by the directionality of primary stress placement: it is supposed to proceed from right to left, docking onto the first potential site available (see the next chapter).

Second, there are no English words starting with two successive zero- or tertiary stressed syllables – one of the first two syllables of a word must be rhythmically prominent (i.e., primary or secondary stressed). This is the **prominence of the left edge**, or, as sometimes it is referred to, the **Early Stress Requirement**. Notice that the prominence of the right edge and the prominence of the left edge are in potential conflict in longer words: in a five-syllable word, for instance, where primary stress falls on the second-last syllable, there remain three more syllables to the left, which cannot all be unstressed. Consequently, either the first one (as in *sùprasegméntal*) or the second one (as in *contàminátion*) will necessarily receive secondary stress. In fact, this is the reason why secondary stresses are created: to produce a more or less regular alternation of stressed and unstressed syllables, e.g., 20310 in *suprasegmental* or 02010 in *contamination*. This tendency in English for a regular **iambic rhythm** (that is, speech rhythm with metrical feet consisting of one unstressed syllable followed by one stressed syllable) also manifests itself in the dispreference of adjacent major stresses. Such situations, called **stress clashes**, tend to be avoided: in most cases (as in the examples above),

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there is at least one zero or tertiary stressed syllable between any two primary or secondary stresses.

The basic principles of the English stress system, discussed above, determine the regularities of stress placement. Primary stress is dealt with in the next chapter – here we turn to **secondary stress assignment**. It has been mentioned that the "war" of the two word edges is the primary motivation for the creation of secondary stresses: recall the Early Stress Requirement, as a result of which in longer words, if primary stress falls on the third (or a later) syllable, the first or the second syllable must be assigned secondary stress. Monomorphemic English words tend to be rather short, so there are just a few examples (including a number of place names) for **underived secondary stress**; in most such words (e.g., *Àbergavénny*, *àbracadábra*, *àgoraphóbia*, *àlumínium*, *Àpalàchicóla*, *Kàlamazóo*, *màcaróni*, *pàraphernália*, *sànatórium*, *Winnepesáukee*) the first syllable receives secondary stress irrespective of the number of syllables before the primary stress – if there are more than three, as in *Apalachicola*, additional secondary stresses are created.

The problem, however, mainly arises in derived words. What usually happens in such cases is that since suffixation has made the word longer, primary stress shifts to the right, and the original primary stress reduces to secondary. Bear in mind that the rightmost rhythmic beat is the strongest! As such derived words preserve the rhythmic prominence of the original stress pattern, this secondary stress is frequently referred to as **Derivational Secondary Stress**. In *fiction*, for example, primary stress falls on the first syllable, which reduces to secondary stress when *fictionéer* is derived. The following examples illustrate the same mechanism: *adáptable* – *adáptabilité*, *éducate* – *èducátion*, *impréssion* – *impréssionístic*, *irrégular* – *irrègulárité*, *jústify* – *jústificátion*, *órchid* – *òrchidáceous*, *perípheral* – *perìphèrálité*. Here again the number of syllables before the primary stress does not matter. If a

suffix is attached to a long word which already contains a secondary stress, further secondary stresses are brought about, cf. *individual* and *individuálicity*, *còmprehénsible* and *còmprehénsibility*. Whole chains of derivation illuminate how former primary stresses turn into secondary: *different* – *differéntiate* – *differèntiátion*, *ínstitute* – *ínstitútion* – *ínstitùtionalizátion*.

There is one situation, however, in which Derivational Secondary Stress is blocked: when it would result in stress clash. The pressure to avoid adjacent major stresses and therefore maintain a (near-)iambic rhythm leads to one of two possible solutions: the original primary stress reduces to tertiary or zero, either with a secondary stress appearing to the left (this is called **Iambic Secondary Stress**), or with no (new) secondary stress at all, the original major stress being deleted and lost (**Major Stress Deletion**). All in all, the output of both strategies is a stress pattern with the stresses evenly distributed. Here are a couple of examples – the previously primary stressed syllables are underlined, and their vowels are indicated with IPA symbols:

| Iambic Secondary Stress | Major Stress Deletion |
|--|---|
| <i>adápt</i> – <i>à<u>dapt</u>átion</i> /æ/ | <i>áctive</i> – <i>ac<u>tiv</u>ity</i> /æ/ |
| <i>doméstic</i> – <i>dòm<u>est</u>icity</i> /e/ | <i>ànthropólogy</i> – <i>ànthrop<u>ol</u>ógical</i> /ə/ |
| <i>enígma</i> – <i>èn<u>igm</u>átic</i> /ɪ/ | <i>átom</i> – <i>at<u>om</u>ic</i> /ə/ |
| <i>fragmént</i> (verb) – <i>fràg<u>ment</u>átion</i> /ə/ | <i>clímate</i> – <i>cl<u>im</u>átic</i> /aɪ/ |
| <i>horízon</i> – <i>hòr<u>iz</u>óntal</i> /ɪ/ | <i>Gérman</i> – <i>G<u>erm</u>ánic</i> /ɜ:/ |
| <i>Japán</i> – <i>Jàp<u>an</u>ése</i> /ə/ | <i>frágile</i> – <i>fr<u>ag</u>ility</i> /ə/ |
| <i>refórm</i> – <i>rèf<u>orm</u>átion</i> /ə/ | <i>víctory</i> – <i>v<u>ict</u>órious</i> /ɪ/ |
| <i>transpórt</i> – <i>tràns<u>port</u>átion</i> /ɔ:/ | <i>vírgin</i> – <i>V<u>irg</u>inia</i> /ə/ |

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Since the primary stress is placed in different ways in the case of different suffixes (see below and in the next chapter), the same word can undergo Derivational Secondary Stress formation in one case and Iambic Secondary Stress formation or Major Stress Deletion in another, e.g., for *córrelate*, the original major stress is preserved in *còrrelátió*n but deleted in *córrélati*ve.

Another manifestation of the tendency to maintain iambic rhythm and avoid stress clash characterizes connected speech. When a word with a secondary and a primary stress (e.g., *thirtéen*) forms a phrase with another one (e.g., *mén*), based on the discussion of phrasal stress (Chapter 7) we expect the final stress to be the strongest, while all the others are expected to reduce their stress degree by one, that is, something like *thirtèen mén*, with a 321 stress pattern. Instead, what normally happens in English is that the stress levels "switch round" in the first element of the phrase, the result being *thirtéen mén*, i.e., 231, where the intervening tertiary stress (formerly the primary stress – underlined) separates the major stresses. This phenomenon has been widely studied and therefore has a whole range of names, e.g., **stress shift**, **iambic reversal**, or **the rhythm rule**, all of which highlight one or another feature of the process: stress degrees are shifted to move rhythmic beats away from each other and thus facilitate the iambic rhythm of the phrase. Some linguists dub it **the thirteen men rule**, after this very frequent example. It is important to keep in mind, though, that it does not only take place in *thirteen men*, but occurs automatically in all phrases where the first element has at least one secondary stress, e.g., *àchromatic léns*, *àcademic wrítíng*, *àfternoon téa*, *Chínese chéckers*, *fúndamental fréquency*, *ínternatiónal láw*, *Jàpanese lánguage*, *néolithiic víllage*, *Tènnesse Válléy*, or, for some speakers, *the Bèrlin Wáll* or *ídeal pártners*.

From the discussion of secondary stress, it should be clear that after certain suffixes have been attached to a word, the original stress pattern may

change, as in *átom* – *atómic*; moreover, this is the primary source for the creation of secondary stress, as in *décorate* – *dècorátion*. Obviously, morphology plays a crucial part in the English stress system. Nevertheless, it is necessary to distinguish between two types of morphological operation.

Consider the following examples:

éducate – *éducatíng* – *èducatíon*
adápt – *adápted* – *àdaptátion*
diagnose – *díagnoses* – *díagnóstic*
jóurnal – *jóurnalist* – *jòurnalése*
áutumn – *áutumn-like* – *autúmnnal*

As you can see, when a new word is formed out of a base word, the original stress pattern may or may not be preserved. In *educate*, the first syllable is primary stressed, and so is it in the *-ing* form, whereas in the *-ion* form it reduces to secondary and a different syllable receives the primary stress. Therefore, we are forced to break down the family of suffixes into two classes. Certain suffixes, e.g., *-ing*, *-ed*, *-s*, *-ist*, and *-like* above, are unable to affect the stress pattern of the word they are part of – they are **stress-neutral**. Most of them are of Germanic origin. Curiously enough, the list of these suffixes coincides with the type referred to in Chapter 3 as **productive**. Others, like *-ion*, *-ic*, *-ese*, and *-al*, systematically change the place and/or the degree of the stresses because they require primary stress to fall on a specific syllable – they are **non-neutral** or **stress-fixing**. Most of them are of Latin origin (they are **Latinate**). Curiously enough, the list of these suffixes coincides with the type referred to in Chapter 3 as **non-productive**. Notice that at this point we are able to make a generalization: regular, productive suffixes, which do not count in, e.g., Trisyllabic Laxness (recall examples

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like *lazy-laziness*), are stress-neutral, i.e., do not count in stress placement, either. Non-productive suffixes, on the other hand, *do* count in both Trisyllabic Laxness (recall *vain-vanity*) and stress assignment – they are stress-fixing. This is a curious interplay between word structure and sound pattern: suffixes seem to exhibit consistent behaviour in phonology.

The most common productive (stress-neutral) and non-productive (stress-fixing) suffixes are illustrated below.

(1) Stress-neutral suffixes

| Suffix | Examples |
|------------------|---|
| -able | <i>consider – considerable, avoid – unavoidable</i> |
| -dom | <i>martyr – martyrdom, tópsy-túrvy – tópsy-túrvydom</i> |
| -ed | <i>adapt – adapted, edit – edited</i> |
| -er ² | <i>common – commoner, adventure – adventurer</i> |
| -ful | <i>barrow – barrowful, beauty – beautiful</i> |
| -hood | <i>brother – brotherhood, adult – adulthood</i> |
| -ing | <i>educate – educating, interest – interesting</i> |
| -ish (adj) | <i>animal – animalish, forty – fortyish</i> |
| -ism | <i>alcohol – alcoholism, fanatic – fanaticism</i> |
| -ist | <i>journal – journalist, physics – physicist</i> |
| -less | <i>bottom – bottomless, defence – defenceless</i> |
| -like | <i>autumn – autumn-like, business – businesslike</i> |
| -ly | <i>careless – carelessly, apparent – apparently</i> |
| -ment | <i>develop – development, accompany – accompaniment</i> |
| -ness | <i>careless – carelessness, lukewarm – lukewarmness</i> |
| -s | <i>diagnose – diagnoses, image – images</i> |
| -ship | <i>censor – censorship, dictator – dictatorship</i> |
| -some | <i>adventure – adventuresome, quarrel – quarrelsome</i> |
| -wise | <i>other – otherwise, corner – cornerwise</i> |

(2) Stress-fixing suffixes and endings

Some of these are not clearly isolatable suffixes (perhaps not even morphemes) but rather simple word endings which are present in recurrent stress patterns. They fall into various subclasses, two of which are introduced

² This suffix either forms a comparative adjective (like *commoner*) or an agentive noun (like *adventurer*) – in both cases it behaves in the same fashion.

presently (and a third one in the next chapter). First, **auto-stressed** (or **self-stressed**) suffixes and endings are primary stressed themselves.

| Suffix/ending | Examples |
|---------------|--|
| -ade | <i>lémon – lèmonade, bàrricade, cànnon – cànnonade</i> |
| -aire | <i>míllion – míllionáire, quèstion – quèstionnáire</i> |
| -ee | <i>rèfuge – rèfugée, tràin – trainée</i> |
| -een | <i>vèlvet – vèlvetéen, séven – sèventéen</i> |
| -eer/ier | <i>éngine – énginéer, bombard – bòmbardier</i> |
| -elle | <i>mozèlle, nacèlle</i> |
| -enne | <i>comédian – comèdiénne, Cayénne</i> |
| -esce | <i>àcquiésce, èffervésce</i> |
| -ese | <i>jóurnal – jòurnalése, Japán – Jàpanése</i> |
| -esque | <i>Róman – Ròmanésque, picture – picturésque</i> |
| -esse | <i>largésse, noblésse</i> |
| -ette | <i>cigár – cigarète, cassète</i> |
| -eur/euse | <i>èntreprenéur, masséuse</i> |
| -ine | <i>cuisíne, ravíne</i> |
| -ique | <i>antíque, critíque, techníque, uníque</i> |
| -itis | <i>lárinx – làryngítis, appéndix - appèndicítis</i> |
| -oo/oon | <i>kàngaróo, cartóon</i> |

Second, the so-called **pre-stressed** suffixes and endings require primary stress to fall on the syllable which immediately precedes them in the word. For example, *-ic* is a typical (and very frequent) pre-stressed suffix: while in *diagnose* the first syllable is primary stressed, in *diagnóctic* it is the third one – right before *-ic* itself. The same happens in *academy* – *àcadémic* and *atom* – *atómic*. Some of these suffixes and endings are monosyllabic (e.g., *-ic*, *-ics*, *-id*, *-ish* (v/n)³), some are disyllabic (e.g., *-ify/efy*, *-itude*, *-ity/ety*, *-itive*, *-ible*, *-ular*, *-ulous*), some contain the CiV configuration introduced in Chapter 3, or the similar CuV sequence (e.g., *-ion*, *-ial/uál*, *-ious/uous*, *-ian*, *-uant*).

³ Note that adjectival *-ish* is a stress-neutral suffix, and as such, is listed in the first chart above.

| Suffix/ending | Examples |
|-------------------|---|
| <i>-ial/ual</i> | <i>tútor – tutórial, cóntext – contéxtual</i> |
| <i>-ian/ean</i> | <i>Húngary – Hungárian, libràry – libràrian,</i> <i>Cáesar – Caesárean, crustácean</i> |
| <i>-ible</i> | <i>deléte – indélible, incrédible</i> |
| <i>-ic</i> | <i>dynámic, ecónomy – èconómíc</i> |
| <i>-icide</i> | <i>ínsect – insécticide</i> |
| <i>-ics</i> | <i>ecónomy – èconómics, ácrobat – àcrobátics</i> |
| <i>-id</i> | <i>intrépid, insípíd, pellúcid</i> |
| <i>-ify/efy</i> | <i>ácíd – acídify, exémplify</i> |
| <i>-ion</i> | <i>opínion, sólve – solútion, éducate – èducátion,</i> <i>adápt – àdaptátion</i> |
| <i>-ious/</i> | <i>céremony – cèremónious,</i> |
| <i>-eous/uous</i> | <i>órchid – òrchidáceous, innócuous</i> |
| <i>-ish (v/n)</i> | <i>abólísh, demólísh, díminísh, estáblísh</i> |
| <i>-itive</i> | <i>compétitive, infínitive, íntuítion – íntúitive</i> |
| <i>-itude</i> | <i>exáctitude, símilar – símilitude</i> |
| <i>-ity/ety</i> | <i>compléxity, società, perípheral – perípheráality,</i> <i>ánxious – anxíety</i> |
| <i>-meter</i> | <i>spéed – speedómeter, thermómeter</i> |
| <i>-uant</i> | <i>contínuant</i> |
| <i>-ular</i> | <i>mólecule – molécular, mándible – mandíbular</i> |
| <i>-ulous</i> | <i>míracle – miráculous, metículous, rídicule – rídículous</i> |

After the story of secondary stress and the effect morphological structure has on stress placement, let us mention **tertiary stress** briefly. Recall that tertiary stress is in fact the prominence caused by the absence of vowel reduction. Why certain otherwise unstressed vowels fail to reduce to /ə/, /ɪ/ or /ʊ/ is difficult – if not impossible – to explain: it appears to be quite irregular and mostly unpredictable, although a number of tendencies are observable. For example, the syllable whose vowel refuses to reduce is very often a closed syllable (cf. Chapter 5) (e.g., *actí* vity) or the vowel is long, either a long monophthong (e.g., *Germánic*) or a diphthong (e.g., *clímatic*). Unfortunately,

this does not mean that all such vowels are protected from reduction (cf. *infórm* – *informátion* /ə/; *frágmént* – *fràgméntátion* /ə/ versus *condémn* – *còndemnátion* /e/). Word frequency may also influence this: the more frequently a speaker uses a word, the more likely vowel reduction is. For instance, the musical instrument *trombone* is usually pronounced /trɒm'bəʊn/, the musicians who play the trombone, however, tend to have a schwa in the first syllable (/trəm'bəʊn/).

There are only a few cases where tertiary stress appears systematically. One is the so-called Alternating Stress Rule, which is dealt with in Chapter 9, and which accounts for the 103 stress pattern of verbs like *dédicate* and certain adjectives and nouns like *ábsolute* or *húrricane*. Another situation when tertiary stress is expected is **compound stress**. Chapter 7 explains that primary stress in a compound word normally falls on the first term. Logically, this is accompanied by reduction in the other term(s), namely, they lose their original rhythmic prominence but retain their full vowel. For example, when *bláck* and *bóard*, two separate words with their obligatory primary stress (neither of them is a function word!), are combined, *board* ceases to be major stressed but its long vowel /ɔ:/ survives in *bláckboard* /'blækbo:d/. Therefore, its stress pattern is 13. The same applies to *ráinbow* /'reɪnbəʊ/, *lifestyle* /'laɪfstáɪl/, and *súperman* /'su:pəməɪn/. This is in sharp contrast with what we usually observe in underived words like *bládder* /'blædə/ or *blánket* /'blæŋkɪt/, or in words containing suffixes (other than auto-stressed ones, of course) like *blácking* /'blækɪŋ/ or *blábber* /'blæbə/ – all exhibiting 10. Interestingly, a number of historical compounds have by now given up their complex morphological structure and are pronounced according to the regularities of simple words. The word *cupboard*, for instance, only means the piece of furniture if pronounced with considerable

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vowel (and consonant) reduction /'kʌbəd/ (its stress pattern is 10, similarly to *cumber*, *cupper*, *cupping* or *cupful*) - a /'kʌpbə:d/ (with a 13 stress pattern) is simply a board with cups. Original *sheep* /ʃi:p/ plus *herd* /hɜ:d/ has become *shepherd* /'ʃepəd/, *post* /pəʊst/ plus *man* /mæn/ is *postman* /'pəʊsmən/, *black* /blæk/ plus *berry* /'berɪ/ is *blackberry* /'blæk(ə)rɪ/. *Forehead* has two alternative pronunciations: one which follows the rules for compounds /'fə:hed/, and another with a reduced second term /'fɒrɪd/. In sum, the morphological structure of a word is clearly reflected in its pronunciation: only constructs with a primary stress and a tertiary stress are real compounds.

Let us conclude this chapter with a remark concerning the fact that, unfortunately, most of the stress rules introduced above have exceptions. Stress clash does occur, although only in a handful of words like *sàrdine*, *thirtéen* or *Chinése*. Derivational Secondary Stress can override the desired iambic rhythm, too, as in *elétric* – *elétricity*. Exceptions also exist to the stress-fixing mechanism of suffixes, e.g., *Árabic*, *ársenic*, *cátholic*, *chóleric*, *lúnatic*, *pólitics*, *impóverish*. In addition, the picture is further complicated by the free variation of zero and tertiary stress in words like *direct* /dɪ'rekt/~ /daɪ'rekt/ as well as occasional dialectal differences between RP and GA, e.g., *address* (n) RP /ə'dres/ vs. GA /'ædres/, *advertisement* RP /əd'vɜ:tɪsmənt/ vs. GA /,ædvər'taɪzmənt/ (or /'ædvɜ:taɪzmənt/), or words ending in *-ary* and *-ory* like *January* RP /'dʒænjʊəri/ vs. GA /'dʒænjʊeri/ or *laboratory* RP /lə'bɒrətɪrɪ/ vs. GA /'læbrətɔ:ri/. The next chapter, on primary stress, will face even more exceptions and subregularities.