

## 5. The English syllable

Before you study this chapter, check whether you are familiar with the following terms: coronal, distribution, fricative, glide, homophone, liquid, monosyllabic, morpheme, nasal, obstruent, plosive, rhotic accent, suffix, velar

In this chapter, we take a closer look at the structure of English syllables. In Chapter 2 it was demonstrated that the syllable plays a significant role in defining what positions host the targets of phonological processes like aspiration or R-dropping. However, this is not the only way it affects the patterning of speech sounds; as it is shown below, the syllable is one of the major factors determining the restrictions on sound sequences.

You may have already noticed that in languages in general only a very small portion of theoretically possible sound sequences is used as actual words. On the one hand, there are always thousands of combinations whose absence cannot be accounted for: they are potential words but have no meaning. Such "nonsense words" are sometimes referred to as **accidental gaps** since they are gaps (that is, missing items) in the vocabulary by accident only and may gain some meaning later on. As an example, let us cite the first stanza of Lewis Carroll's *Jabberwocky*, a nonsense poem in his book entitled *Through the Looking Glass*, together with the Hungarian translation (by István Tótfalusi).

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### *JABBERWOCKY*

'Twas *brillig*, and the *slithy toves*

Did *gyre* and *gimble* in the *wabe*:

All *mimsy* were the *borogoves*,

And the *mome raths* *outgrabe*.

### *A GRUFFACSÓR*

*Nézsonra járt, nyalkás brigyók*

*turboltak, purrtak a zepén,*

*nyamlongott mind a pírityók,*

*bröftyent a mamsi plény.*

If you do not understand the italicized words (that is, virtually the whole text), do not panic – however well-formed English words *brillig* and *mimsy* and *gimble* look, they are nonexistent, just like the quasi-Hungarian words *nézson* and *brigyó* and *plény*. What is crucial is the fact that there is no principled reason for their nonexistence; they really sound like English and Hungarian words, therefore it would not be impossible to imagine them as, say, dialectal forms of existing words. In fact, certain accidental gaps do become part of the language with time, e.g., a nonsense trademark can start a life of its own, as it happened in the case of *spam* (once a trademark for a canned meat product, it appeared in a skit on the British television series *Monty Python's Flying Circus*; now it is generally accepted as a term to refer to unsolicited, usually commercial e-mail sent to a large number of addresses, and it is even used as a verb).

Not all gaps are accidental, though. In a great many cases, a sound sequence is not a potential word as it contains some combination which is systematically rejected by the language. For example, while *brillig* and *plény* are acceptable as words of English and Hungarian, respectively, neither *rbillig* nor *lpény* would be, although they contain exactly the same segments. No English or Hungarian words start with /rb/ or /lp/, and it is completely unlikely that some ever will, not even as trademarks or internet terminology. Notice, however, that word-finally you observe just the opposite: /rb/ or /lp/ is possible (cf. *kerb* /kɜrb/ in the rhotic accents of English, or Hungarian *talp*

'sole') but /br/ or /pl/ is not. In sum, both languages seem to impose strict restrictions on what sounds can appear in what order in what position. These restrictions are called **phonotactics** in phonology.

In what follows, we discover the major phonotactic restrictions in English. The chart below illustrates some of the most frequent two-member combinations of sounds on either edge of English monosyllabic morphemes (O = obstruent, N = nasal, L = liquid, G = glide, V = vowel, F = fricative, P = plosive). As we will see below, all single consonants except for /ŋ/ can start such a morpheme (e.g., *pit*, *heart*, *lie*), so there are almost as many consonant+vowel sequences as the number of consonants multiplied by the number of vowels – therefore they are not included in the chart. Bear in mind that we are talking about sounds here, not letters, and English spelling can sometimes be misleading. For example, <kn->, <ps->, <gn->, or <wh-> in spelling never stand for clusters because one or the other letter remains silent, cf. *knife* (cf. Hungarian *knédli* 'steamed dumpling'), *psychology* (cf. Hungarian *pszichológia*), *gnome* (cf. Hungarian *gnóm*), *who* or *which*. Such sequences of letters are not taken into consideration either.

O+O	O+N	O+L	O+G	V+G <sup>1</sup>	G+L	/r/+l/	L+N	N+F	F+P
<i>stop</i>	<i>snake</i>	<i>slay</i>	% <i>suit</i>	<i>eye</i>	% <i>fire</i>	% <i>earl</i>	% <i>earn</i>	<i>ounce</i>	<i>east</i>
<i>Spain</i>	<i>snore</i>	<i>shrimp</i>	% <i>tune</i>	<i>tow</i>	% <i>hour</i>	% <i>girl</i>	% <i>harm</i>	<i>nymph</i>	<i>raft</i>
<i>ski</i>	<i>shmuck</i>	<i>plead</i>	<i>queen</i>		<i>file</i>		<i>elm</i>		<i>clasp</i>
<i>sphere</i>	<i>schnook</i>	<i>trap</i>	<i>swing</i>		<i>owl</i>		<i>kiln</i>		<i>ask</i>

<sup>1</sup> Diphthongs can be analysed as vowel-glide sequences. Notice that the second members of closing diphthongs, viz. /ɪ/ and /ʊ/, are phonetically so close to the glides /j/ and /w/, respectively, that some transcription systems denote them with the symbols of the glides, e.g., /aj/ for /aɪ/, or /ow/ for /oʊ/. No wonder glides are also called semivowels! The intuition that there is no clear dividing line between vowels and glides is also reflected in the choice of the ancient Roman alphabet to represent both with the same symbol. Thus you can find inscriptions like *GAIVS IVLIVS CAESAR* for *Gaius Julius Caesar*.

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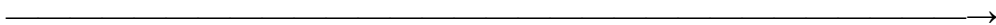
The percentage mark (%) customarily indicates that the given example only applies to certain speakers – in most cases it shows dialectal variation. In the chart above it mainly refers to /r/, which is only pronounced in rhotic accents, e.g., *earl* GA /ɜrl/ (vs. RP /ɜ:l/). In words like *tune* the yod (/j/) is not pronounced in GA (/tu:n/) so the example is only relevant to RP (/tju:n/), while in words like *suit* the yod is only pronounced by conservative (that is, older) speakers of RP (/sju:t/) but not by younger speakers or speakers of GA in general (/su:t/). This phenomenon, the absence of a yod in certain positions, is called **yod-dropping**, and it is elaborated on below and in Chapter 11.

On the basis of the examples, we arrive at the following order in which sound segments are usually organized in the syllable:

obstruents - nasals/liquids/glides - vowels - glides - /r/ - /l/ - nasals - fricatives - plosives

The careful reader may have noticed that this list is more or less symmetrically organized, having similar groups of consonants on either end (namely, obstruents), vowels in the centre, and sonorants inbetween. Moreover, it bears a spooky resemblance to the sonority scale discussed in Chapter 2 and repeated here for convenience.

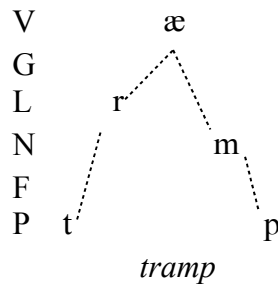
degree of sonority



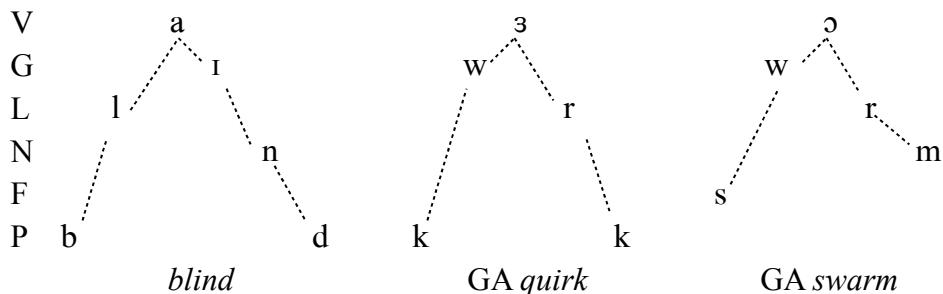
oral stops (plosives) and affricates – fricatives – nasal stops – liquids – glides (semivowels) (– vowels)

Therefore we can make the following generalization: within syllables, sonority increases towards the vowel, which forms a **sonority peak**, and then sonority decreases; or, on both sides of syllables, sonority increases towards

the vowel. Henceforth we will call this **the Sonority Principle**. Let us illustrate with a few examples how the Sonority Principle describes the structure of well-formed syllables. The word *tramp* /træmp/, for example, starts with a plosive, then comes a liquid, then the vowel, a nasal, and another plosive at the end. This can be schematically represented as follows.

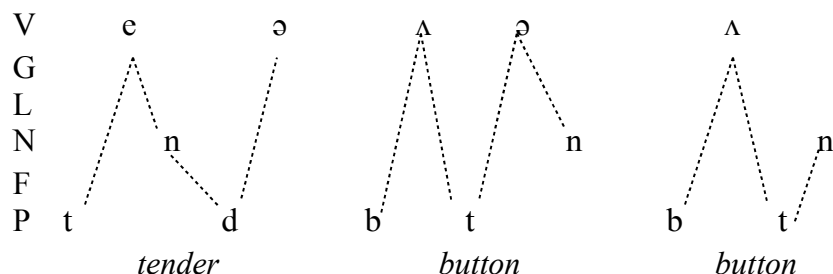


Further examples:



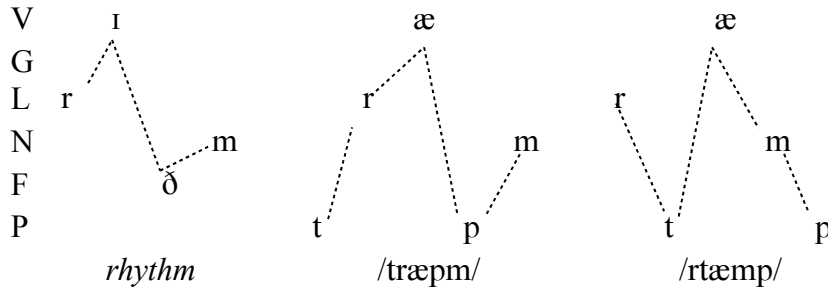
Notice what happens in words like *tender* or *button*: since there are two vowels, there are two sonority peaks, that is, two syllables! Even if the /n/ is syllabic in *button*, the number of sonority peaks, that is, the number of syllables is unchanged. The difference between the schwa-ful and the schwa-less pronunciations is that in the latter case the second sonority peak is not a vowel but a consonant (the /n/).

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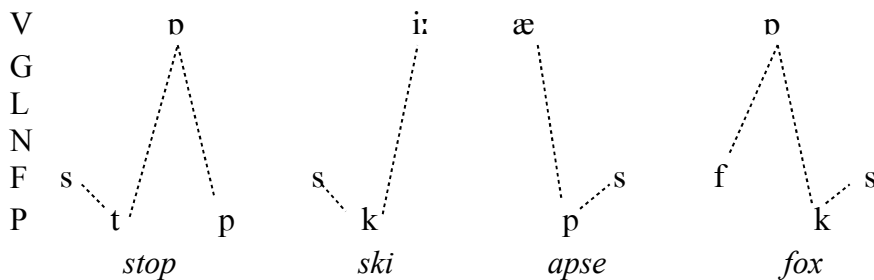
A simple definition of **syllabic consonants** ensues: they are consonants functioning as the sonority peak in a syllable. It also follows that not only vowels can occupy the sonority peak, thus the Sonority Principle needs reformulating: on both sides of syllables, sonority increases towards the peak, which is a vowel or a syllabic consonant. The conditions on syllabic consonant formation in English are discussed towards the end of this chapter.

It is very interesting that the above definition of the Sonority Principle can be turned inside out and translated as the definition of the syllable: it is a phonological unit which contains a sonority peak. What we have seen above, then, directly follows: in a word, there are as many syllables as sonority peaks. The English word *rhythm*, for instance, can only be pronounced with two syllables as it contains two such peaks (a vowel and a (syllabic) /m/). If we shuffle the segments in a well-formed syllable, e.g., *tramp* /træmp/ (mentioned above), resulting in /træpm/ or /rtæmp/, we arrive at the same conclusion: these must be disyllabic words.



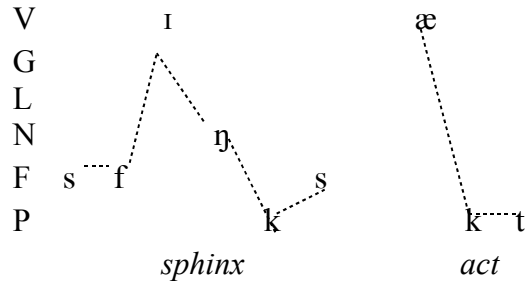
The difference between *rhythm* and (hypothetical) /<sup>h</sup>træpm/ is that the latter is simply non-existent, i.e., an accidental gap. The difference between (hypothetical) /<sup>h</sup>træpm/ and (hypothetical) /rtæmp/, however, is much graver: while /<sup>h</sup>træpm/ is a possible (disyllabic) word of English, the same is not true for the other: /rtæmp/ starts with a syllabic /r/, and for independent reasons English words never start with a syllabic consonant. The Sonority Principle is, therefore, one of the major factors determining and explaining what qualifies as a well-formed English syllable.

However, there exist a number of examples where the Sonority Principle fails. Consider the following words: they all contain two sonority peaks, still, all speakers of English insist that they are monosyllabic.



In addition, in a few cases segments of equal sonority follow each other within the syllable, and consequently sonority neither rises nor falls.

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Notice that the word *sphinx*, for example, is doubly problematic: on the one hand, it starts with flat sonority rather than the expected rise; on the other, it ends in a sonority rise rather than the expected fall. The following chart summarizes the possible exceptions to the Sonority Principle and gives a couple of examples.

initial fall	final rise		flat sonority initially	flat sonority finally	
	simple	complex		simple	complex
<i>stop</i>	<i>fox</i>	<i>hits</i>	<i>sphinx</i>	<i>act</i>	<i>fifth</i>
<i>ski</i>	<i>apse</i>	<i>lads</i>	<i>sphere</i>	<i>adopt</i>	<i>ached</i>
<i>Spain</i>	<i>axe</i>	<i>eighth</i>	<i>svelte</i>	<i>corrupt</i>	<i>robbed</i>

As you can see, the word-final examples fall into two categories: they are either monomorphemic (i.e., morphologically simple), e.g., *fox* or *act*, or the problematic segments straddle a morpheme boundary (i.e., the word is morphologically complex), e.g., *hit-s* or *fif-th*. Although words like these contradict the Sonority Principle, we can still conceive of it as a generalization describing the majority of the data, and treat *stop* and the like as exceptions. It is intriguing, however, that even these exceptions are constrained: the problems are caused by obstruents, in most cases fricatives, more specifically /s/. We will see below that /s/ takes part in the construction of syllables in a special way in several further respects.



In sum, the Sonority Principle serves us with a considerably reliable definition of the syllable, although sometimes it is overridden by native intuition. Compare *rhythm* and *fox*, discussed above: both contain two sonority peaks but only one of them (*rhythm*) is judged by speakers of English to be disyllabic.

From a cross-linguistic perspective, the role of the Sonority Principle is far from uniform. In most languages, there are strict conditions on sound sequences. In certain languages each syllable must start with a consonant, that is, with a sonority rise; in others there cannot be more than a single consonant at the beginning. Yet others (like English or Hungarian) allow for clusters syllable-initially but only certain types, usually with a strict adherence to the Sonority Principle. And finally, there are a few languages (e.g., the Slavic languages like Russian) where (almost) any combination of their consonants is possible, and numerous violations of the Sonority Principle are attested. As to the syllable-final position, some languages permit no consonants and therefore all syllables end in a vowel (such syllables are called **open**); others (like Italian or Japanese) differentiate between word-internal and final syllables, and only have syllable-final consonants in one of the two types. In languages like English, it is possible to find consonants at the end of any syllable (making it a so-called **closed syllable**), but there is always a limit on the maximal number of consonants. In English, this is four, which means that some syllables contain such "monster clusters" as /ksts/ or /ksθs/ in *texts* or *sixths*, for example. (You may have noticed that the clusters at the end of *texts* or *sixths* are not only too long, but they also contain violations of the Sonority Principle.) Nevertheless, there is one syllable type which is universal, i.e., which is possible in all the languages of the world: one starting with a single consonant and ending with a vowel. Besides being universal, this very simple configuration is also the first to emerge during the

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process of language acquisition, that is, when babies learn their mother tongue. Just list the words Hungarian kids learn first, and you will see.

Let us now turn back to the discussion of the English syllable. In what follows, we provide a brief description of what language-specific **phonotactic restrictions** accompany the Sonority Principle. As we have seen, the centre of the syllable is the sonority peak, which is usually a vowel, and in fact in English (and Hungarian) this peak is the only obligatory constituent – that is, there are syllables with a single vowel and no consonants (e.g., English *I/eye* /aɪ/ or Hungarian *ő* '(s)he'), but there are no syllables without a peak (in Hungarian, without a vowel). The English peak can be preceded by zero to three consonants and followed by zero to four.

If there is a single consonant before the peak, it can be any consonant except /ŋ/. Certain consonants like /ʒ/ and /ð/ are relatively infrequent in this position. Two-member clusters usually consist of an obstruent and an approximant, since these obey the Sonority Principle (e.g., *twin, trip, tube, play, pray, puke, quick, cry, clean, cube, fry, fling, dry, Gwen*, etc.). One consonant, /s/, can be combined with any of the others except for voiced obstruents and /r/ (e.g., *snip, slip, swim, sport, skirt, stink, sphere*, etc.), and this very often leads to the sonority sequencing violations mentioned above. Recall that it is usually /s/ that is to blame!

A few rising-sonority clusters, however, are ruled out, e.g., *\*pn, \*ps, \*gn* and *\*kn*. The warning is still in effect that you should not let words like *pneumonia, psycho, gnu* and *knight* mislead you – they only start with a consonant cluster in spelling. Similarly, the letter <x> at the beginning of words like *Xerox, xylophone* and *Xanadu* does not denote a /ks/ sequence but a single /z/. The spelling of the words *pterodactyl* and *mnemonics* suggest initial clusters of flat sonority, but in pronunciation they are simplified, and only a single consonant is pronounced. (Such spelling-to-pronunciation

regularities are discussed in detail in Chapter 11.) The nonexistence of these clusters of rising or flat sonority is curious because apparently they are completely acceptable in Hungarian (cf. the Hungarian equivalents of the above words, or the examples given earlier), although their foreign origin is evident.

There is another set of rising-sonority clusters which is unattested in English, but this time the same holds for Hungarian, and in fact, we will be able to find a principled explanation for why they are so unpopular. These include, e.g., *\*tl*, *\*tn*, *\*pw*, *\*fw* – no English (or Hungarian) examples are available for them. What these clusters have in common is that they are **homorganic**, i.e., their members share the place of articulation. Both /t/ and /l/ are coronal, and so is /n/; both /p/ and /w/ are labial, and so is /f/. Although a whole lot of other homorganic clusters exist, e.g., /tr, dr, θr, ʃr, ʒn/ plus the /s/+coronal clusters (recall that /s/ can combine with almost all other consonants), there is a clear dispreference for clustering consonants to share the place, one manifestation of which is a phenomenon referred to above, **Yod-dropping**. There is an absolute ban on /j/, the coronal glide, to appear after coronal /ʃ, ʒ, tʃ, dʒ, r/. There are no English syllables beginning with /ʃj, ʒj, tʃj, dʒj, rj/. After coronal /l/, it is again impossible to find a yod if the /l/ is preceded by another consonant, that is, when it is part of a cluster: e.g., *\*/blj-/*. Following a single /l/, the yod can "survive" dropping but only in conservative RP, cf. *lucid* /'lju:sɪd/, *lucrative* /'lju:krətɪv/, *ludicrous* /'lju:dɪkrəs/. Even in RP, however, the pronunciations without the yod, i.e., /'lu:sɪd/, /'lu:krətɪv/, /'lu:dɪkrəs/, are more frequent, and the same applies to /sj, zj/ in words like *suit* /sju:t~su:t/, *super* /'sju:pə~'su:pə/, *Zeus* /zju:s~zu:s/, *presume* /prɪ'zju:m~prɪ'zu:m/. In GA, this tendency to drop the yod has

become generalized to take place after all coronals – not only /l, s, z/ but /θ, t, d, n/ too. That is why *new* is /nju:/ in RP but /nu:/ in GA, *tuna* is /'tju:nə/ in RP but /'tu:nə/ in GA, *dude* is /'dju:d/ in RP but /'du:d/ in GA. It is only in GA that the title *Looney Tunes* can refer to lunatic toons (cartoon characters) since both are pronounced /tu:nz/, as opposed to RP, where *tune* is /tju:n/. In contrast, the yod is rather stable in both dialects in unstressed syllables, e.g., after a lone /l/ in *value* /'vælju:/, after an /s/ in *capsule* /'kæpsju:l/, although after an /n/ as in *avenue* both options are available in GA /'ævənu:~'ævənju:/. All in all, /j/ is gradually disappearing after the other coronals, which can be considered as another illustration of the dispreference of homorganic syllable-initial clusters.<sup>2</sup>

As it has been mentioned above, the maximal number of syllable-initial consonants in English is three. The three-member sequences are, however, heavily constrained: they always begin with /s/ (again, it is /s/!), which is followed by a legitimate two-member cluster (*strength, spring, square, splash, %stew* RP /stju:/, etc.). Since all such syllables contain the /s/+(voiceless) plosive+approximant sequence, they always violate the Sonority Principle.

Turning to the syllable-final position, we can state that any single consonant except for /h/ can occupy it. In addition, in non-rhotic accents like RP, /r/ is also banned at the end of syllables, as it was discovered in Chapter 2 – therefore the rule of R-dropping can be treated as a phonotactic restriction characterizing non-rhotic accents only. In two-member clusters after the peak, we usually find nasal/liquid+consonant sequences, which exhibit falling sonority, e.g., *lamp, month, land, mince, help, bulb, elf, %carp, %herb,*

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<sup>2</sup> You find further examples of Yod-dropping in Chapter 11, where it is discussed again from a slightly different point of view: as a letter-to-sound rule. In addition, it is argued there that the yod is in fact part of a complex vowel /ju:/.

*%search, film, %harm, %curl*, etc. Notice that within the class of liquids /r/ systematically "pretends" to be more sonorous than /l/: *-rl* is possible (at least in rhotic accents) but *-lr* is not.

When two obstruents compose a syllable-final cluster, one of them is usually /s/ (again!): /s/+obstruent in *grasp, last, risk*, etc., obstruent+/s/ in *lapse, axe*, etc. Flat sonority contours are also attested (*apt, act*, etc.) but the second consonant is always a coronal. In three-member strings (*prompt, against, next*, etc.) the third member is always a coronal obstruent, and in morphologically complex words additional combinations yielding the "monster clusters" with four consonants in a row can also be formed (ending in *-ed, -s, -th* – all coronals).

The examples of final clusters we have seen up to this point also appear word-medially, e.g., /mp/ is found in both *lamp* and *campaign*, /lm/ in *film* and *helmet*, /st/ in *last* and *asterisk*, and /pt/ in *apt* and *chapter*. There are, however, certain word-internal consonant clusters which are impossible word-finally. In such cases, the consonant cluster suggested by the spelling undergoes simplification, and remains simple even if a suffix is attached to the word. For instance, /gn/ is well-formed within words like *cognate, dignity, magnet, signature, resignation*, but the /g/ is deleted in *sign* and *resign* as well as in *signing* and *resigning*. The same goes for /mn/: it is acceptable in *alumnus, amnesty, chimney, insomnia, damnation, hymnal, autumnal*, but simplified (with the /n/ lost) in *damn* and *damning, hymn, autumn*. Homorganic nasal+voiced plosive sequences are also highly restricted unless the consonants are coronal: /nd/ is unmodified irrespective of its position (cf. *lend, bind, wound*, and *candle, tender, boundary*) whereas /mb/ and /ŋg/ only survive word-internally (*amber, ambulance, bombard; finger, anger*) but not finally (*bomb, bomber, bombing; long, strong, sing,*

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*bang, singer, singing, banger*). The distribution of the velar nasal is particularly intriguing: it does not normally appear between vowels in morphologically simplex forms like *finger* or *anger* (*\*fi[ŋ]er*; *\*a[ŋ]er*) – with just a few exceptions such as *hangar*. Next to a morphological boundary, however, it is rather frequent in such position, as we have seen above (*singer, singing, banger, etc.*). In this respect, what happens in the comparative and superlative forms of adjectives is surprising: the simplified cluster of the positive forms *long, strong, young* is "regained" in *longer, stronger, younger; longest, strongest, youngest* (all with /ŋg/).<sup>3</sup>

Besides the restrictions on syllable-initial and -final consonant sequences, there is an additional type of phonotactic constraint, namely, one which applies to the vowel and the following consonant(s) together. Since in poetry this part of the syllable determines whether two words rhyme, phonologists conventionally refer to it as the syllable **rhyme**. There are several restrictions on the English rhyme, e.g., /aʊ/ can only be followed by coronal consonants (*shout, crowd, south, town, etc.*); /ɔɪ/ can only be followed by alveolars (*exploit, void, voice, noise, coin, coil, moist, point*); a long vowel is only possible before a consonant cluster if the cluster is made up of coronals (*mind, boost, faint, etc.*); and in word-final open syllables (i.e., without a closing consonant) the vowel has to be either long (monophthong or diphthong, e.g., *taboo, array, RP near*) or unstressed (*happy, comma, etc.*).

Before discussing the restrictions concerning the peak, let us take another look at syllable and word edges, and the asymmetry between them. On the one hand, in word-final clusters more consonants are possible than in word-medial ones; what is more, they frequently violate the Sonority Principle (cf. *sixth, text*), which also holds for word-initial clusters (cf. *stop, Spain, screw, strip*).

<sup>3</sup> Examples like these are repeated in Chapter 11, in the discussion of silent letters.

combinations of well-formed syllables yield a well-formed word, so the attempt at joining the apparently well-formed right edge /kst/ of a syllable like *text* with the apparently well-formed left edge /str/ of a syllable like *strip* will result in the string /kststr/ unattested word-internally. It seems impossible to talk about phonotactic restrictions without making reference to the position of the syllable within the word.

Finally, let us see some of the phonotactic constraints on the syllable peak. In most cases it is occupied by a vowel, either monophthong or diphthong. As far as diphthongs go, we find that they are heavily restricted: not all the possible combinations of the vocalic segments of English exist. Moreover, their second members can only be one of three vowels, /ɪ ʊ ə/ – this number is radically smaller than the number of English monophthongs.

Besides vowels, certain consonants can also constitute the peak of the syllable, in which case they are syllabic consonants. Recall from Chapter 2 that syllabic consonants are indicated with a subscript [, ], e.g., *table* [-b̥t̩], *button* [-t̩n̩], *faculty* [-k̥t̩f̩t̩], *finally* [-n̩f̩l̩], *national* [-ʃ̩n̩t̩]. In RP, **syllabic consonant formation** (SCF) is only possible in unstressed syllables, where an alternative pronunciation (mainly used in slow, careful speech) contains a schwa followed by a non-syllabic version of the consonant. For instance, the word *table* has two possible pronunciations, one with a schwa [t̩<sup>h</sup>eɪbət̩] and one without, in which case the final consonant is syllabic [t̩<sup>h</sup>eɪb̥t̩]. Basically, what happens is that the schwa drops out but the number of syllables is preserved since the following consonant steps up to act as a peak instead. The process, however, has a number of conditions. First, the consonant following the schwa must be a sonorant; in most cases, it is /n/ or /l/. Second, the consonant following the schwa must be more sonorous than the one

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preceding it. In *camel*, e.g., SCF is possible, yielding [ˈkʰæmʔ], because /l/ is more sonorous than /m/; compare this with *column* /ˈkɒləm/, where it is not. The same applies to *kennel* ([ˈkʰenəʔ] or [ˈkʰenʔ]) versus *melon* [ˈmelən] and not \*[ˈmelŋ]. This sonority condition does not hold if the first consonant is /r/: *barrel* [ˈbærʔ] is well-formed although both consonants are liquids; *barren* [ˈbærŋ] is possible alongside examples like *banner* GA [ˈbænr̩]. In non-rhotic English (including RP) /r/ can only become syllabic word-internally, e.g., *natural* [ˈnætʃr̩ʔ]; but in rhotic English (especially GA) /r/ can also become syllabic word-finally (e.g., *better* [ˈbetr̩] or [ˈber̩r̩]) or even in stressed syllables (e.g., *bird* [bɪrd̩]).

SCF is not the only form of schwa deletion, though. Schwa can also drop out in such a way that the number of syllables is NOT preserved – a vowel is lost, consequently a peak is lost, consequently a syllable is lost. Such straightforward examples of vowel loss are traditionally referred to as **syncope**. Intriguingly, the conditions on syncope are more strict after a stressed vowel than before it. For **post-stress syncope** to take place, the consonant following the schwa must be a sonorant, and it must be more sonorous than the one preceding it. In addition, the following vowel must be unstressed, that is, weak (cf. Chapter 3). That is how the underlined vowels in *camera*, *family*, *different*, *separate* (adj) can be deleted, yielding disyllabic /ˈkæmrə/, /ˈfæmli/, /ˈdɪfrənt/, /ˈseprət/, but not in *vanity* (the /t/ is not a sonorant), *felony* (nasals are less sonorous than liquids) or *separate* (v) (the third syllable contains a full vowel).

**Pre-stress syncope**, however, is not as restricted: although it always occurs in initial syllables, the consonants surrounding the target schwa do not necessarily obey the sonority constraint. The underlined vowel can not only



be omitted from words like *terrain* or *parade* but also in *suppose*, *suffice*, *potato*, etc. Interesting new homophones emerge: *terrain* may sound the same as *train*, *parade* as *prayed*, *Sapir* as *spear*, *support* as *sport*, and *police* may only differ in the final consonant from *please*.

The difference between syncope and SCF, then, is that the number of syllables in the word is affected in the former but not in the latter. Both are, however, in most cases (except for pre-stress syncope) governed by some kind of sonority condition, similarly to the overall structure of the syllable.