

3. The phonology of English vowels: an introduction

Before you study this chapter, check whether you are familiar with the following terms: back, central, close, consonant cluster, diphthong, front, full vowel, half-close, half-open, high, lax, low, manner of articulation, mid, monophthong, open, place of articulation, rounded, schwa, stress, suffix, syllable, tense, triphthong, unrounded, vowel shift, weak vowel

In this chapter we take a look at English vowel sounds and their possible classifications, compare them with the Hungarian vowel system and see what typical vowel alternations occur in English.

Vowels differ from consonants in two very important ways: they are articulated without any kind of obstruction in the oral cavity – i.e., the articulators do not form a complete or partial closure or a narrowed passage in the way of the exhaled air. On the other hand, vowels differ from consonants in their behaviour, too: while consonants typically occur in syllable marginal positions – they appear at the peripheries of the syllable –, vowels form the very core of the syllable and occur in syllable central position.

As suggested in Chapter 1, vowel sounds may be classified according to two types of factors: phonetic and phonological. In the first case, classification is based on some articulatory characteristics while in the second it is some aspect of vowel behaviour that serves as the basis for classification.

Let us first examine what **phonetic classes** may be defined in the English vowel system. In some vowels the position of the tongue is relatively stable during articulation; such vowels are called **monophthongs**. In other vowels, though, the position that the tongue occupies at the beginning of the vowel differs significantly from what it occupies at the end of the vowel; i.e.,

some tongue movement is involved. Such vowels are referred to as **diphthongs** (and **triphthongs**). We may also think of this difference as a difference in how many vowels are found within one syllable: in monophthongs there is one – e.g., /ɪ, e, ʊ, ɔ:, ɑ:/ –, in diphthongs there are two – e.g., /aɪ, eə, əʊ/ – while in triphthongs there are three – e.g., /aɪə, aʊə/. Note though that triphthongs are not found in all dialects of English: those dialects that pronounce all underlying /r/'s – the so-called rhotic dialects, cf. Chapter 2 – typically lack triphthongs – and even some of the diphthongs as we will show in Chapter 4.

On the other hand, vowels may be short – e.g. /ɪ, e, ʊ/ – or long – e.g., /ɔ:, ɑ:, eə, əʊ, aɪə/ – depending on their **duration**: long vowels are approximately twice as long as short ones. Note that diphthongs and triphthongs are just as long as long monophthongs. Whenever we refer to long vowels, we always mean long monophthongs, diphthongs and triphthongs together. Note that length in English varies depending on the environment – i.e., length is not a stable property. For more on length alternations, see Chapter 6. The vowels of RP are the following:

Short vowels	Long vowels		
ɪ, ʊ, e, ɒ, ʌ, æ	ɑ:, ɪ:, u:, ɔ:, ɜ:	eɪ, aɪ, ɔɪ, aʊ, əʊ, ɪə, eə, ʊə	aɪə, aʊə
Monophthongs	Diphthongs		Triphthongs

To further demonstrate that length is not a purely phonetic property of English vowels, we may refer to the **controversy of length marking**: the vowel length of monophthongal – or pure – vowels is indicated with a colon. However, one of the so-called short monophthongs, the vowel /æ/ is just as long in actual pronunciation as any of the long monophthongs or diphthongs and it even undergoes the very same shortening process as long vowels do

Chapter 3

(see Chapter 6). However, its length is not indicated in transcription with the colon. The vowel /æ/ is categorized as a short vowel because it behaves like other short vowels do. The phonetic length of /æ/ may be due to the fact that during its production the lower jaw and the tongue are in their most open position, a gesture which might take long enough to cause a perceivable length difference.

Another important note concerning vowel length is due here: while most Hungarian **short-long vowel pairs** consist of vowels of more or less the same quality with just a length difference (e.g., /y/-/y:/ *tűze* 'his/her/its fire' vs. *tűz-e* 'does he/she/it stitch?', /ø/-/ø:/ *kör* 'circle' vs. *kőr* 'hearts (in cards)', /i/-/i:/ *Sírok* (a placename) vs. *sírok* 'I cry'), English short-long vowel pairs always involve a quality difference, that is, there is no English short-long vowel pair in which the qualities of the two vowels are the same. This is also reflected in the phonetic symbols used to indicate them. Consequently, while there is a short /ɪ/ and a long /i:/, there is no /ɪ:/; similarly, while there is a short /ʊ/ and a long /u:/, there is no /ʊ:/. The only exception to this rule is the vowel pair /ə/-/ɜ:/, mentioned in Chapter 1, where the quality of the vowels is the same. However, in this case it is the full vowel-weak vowel distinction, to be discussed presently, that justifies the use of the different symbols.

As far as **phonological classifications of vowels** are concerned, the two major phonological classes are based on the type of syllable the vowel appears in. English behaves quite differently from Hungarian as far as stressed and unstressed syllables are concerned. On the one hand, while it is always the first syllable of the word that carries the main stress in Hungarian, it may be the first, second, third, etc. syllable of an English word that carries primary stress.¹ On the other hand, English unstressed syllables have **reduced**

¹ For the degrees of stress, see Chapter 8.

vowels only, in the sense that these vowels are shorter, weaker in energy and closer to schwa /ə/ in place of articulation. Thus, in unstressed syllables only weak vowels – /ə/, /ɪ/ and /ʊ/ – may be found while in stressed syllables we may only find so-called **full vowels** – i.e., all the other vowels of English, also including /ɪ/ and /ʊ/, which, besides occurring in unstressed syllables, may also function as full vowels.

Within the class of full vowels we may distinguish two subclasses: **tense and lax vowels**. One has to be very careful when using these two terms as they are often used as phonetic labels, too. In a phonetic sense, these terms refer to the muscle bundles located at the backmost part of the tongue, against the back wall of the pharynx (throat). Whenever these muscles are tense, the vowel is tense (in a phonetic sense); when such muscle tenseness is not present, the vowel is lax (phonetically). However, we will use these terms in a purely phonological sense, i.e., to refer to a certain kind of vowel behaviour. (We might just as well call the two types of vowel Type1 and Type2 was it not for our wish to follow the tradition.) As we will show below, tense and lax vowels (in a phonological sense) occur in different types of environment.

	Tense	Lax
Monophthongs	i:, u:, ɔ: ³	ɪ, e, æ, ʌ, ʊ, ɒ, ɑ:, ɜ:, ɔ: ¹ , ɔ: ²
Diphthongs and triphthongs	aɪ, eɪ, ɔɪ, aʊ, əʊ, ɪə, eə, uə, aɪə, aʊə	

There are a few generalizations to be drawn on the basis of the above table: all short vowels are lax and all diphthongs and triphthongs are tense while long monophthongs are divided between the two classes. Non-high long monophthongs – that is /ɑ:/, /ɜ:/ and /ɔ:/ – are lax, except in the case of /ɔ:³.

Chapter 3

The behaviour of /ɔ:/ is twofold: sometimes it is tense, in other cases it is lax. There are two general types of spellings that indicate a lax /ɔ:/ while a further set of spellings represents the tense variant.

/ɔ:/ ¹	Lax	No <r> in spelling	<i>ball, called, saw, bought, broad, Shaw, clause, fault</i>
/ɔ:/ ²		<ar> or <or> in spelling in word-final position or followed by a consonant letter	<i>for, horde, morning, gorgeous, cord, north, war, dwarf, quarter, horn, sport</i>
/ɔ:/ ³	Tense	<or> in spelling followed by a (pronounced or silent) vowel letter	<i>before, historian, store, more, adore, bored, shore</i>
		<oar>, <oor>, <our>, <aur> in spelling	<i>soar, boar, roar, door, floor, four, pour, aura, Laura</i>

The behaviour and alternations of tense and lax vowels are discussed below and also in Chapter 4, where we take a look at their behaviour before <r>. The following table sums up what we have discussed about the manner of articulation and the behaviour of vowels so far.

	Full vowel			Weak vowel
	lax		tense	
	short	long	long	
Monophthong	ɪ, e, æ, ʌ, ʊ, ɒ	ɑ:, ɜ:, ɔ:	i:, u:, ɔ:	ɪ, ʊ, ə
Diphthong	-	-	aɪ, eɪ, ɔɪ, aʊ, əʊ, ɪə, eə, ʊə	-
Triphthong	-	-	aɪə, aʊə	-

Let us now turn to the **places of articulation of vowels**. Before we actually discuss these we have to point out that places of articulation are not as clearcut for vowels as for consonants for the very simple reason that while in consonants the place of articulation refers to the articulators producing some

The phonology of English vowels: an introduction

degree of obstruction, in vowels it is simply inapplicable as they do not involve any kind of obstruction. Instead of referring to obstruction sites, we will use three criteria to classify vowels according to horizontal tongue position, vertical tongue position and lip rounding.

The **places of articulation of the monophthongs** of RP are the following:

	Front	Central	Back	
	unrounded	unrounded	unrounded	rounded
Close	/i:/ <i>beat</i>	-	-	/u:/ <i>boot</i>
Half-close	/ɪ/ <i>bit</i>	/ɔ/ <i>ago</i>	-	/ʊ/ <i>put</i>
Half-open	/e/ <i>bet</i>		/ɜ:/ <i>burn</i>	-
Open	/æ/ <i>bat</i>	/ʌ/ <i>but</i>	/ɑ:/ <i>bar</i>	/ɒ/ <i>Bob</i>

We have to note that besides the terms used in the table above, close vowels are often referred to as **high**, open vowels as **low**, while the ones inbetween as **mid**. As it can be seen from the above table the following generalizations may be drawn: front and central vowels are unrounded while back vowels are rounded, except for /ɑ:/.

The **places of articulation of the diphthongs** of RP are the following:

	Front	Central	Back		
	unrounded	unrounded	unrounded	rounded	
Close					/eɪ/ <i>bay</i>
Half-close					/aɪ/ <i>bye</i>
Half-open	↙ eɪ ↘	əʊ		ɔɪ	/ɔɪ/ <i>boy</i>
Open		aɪ aʊ			/aʊ/ <i>bound</i>
					/əʊ/ <i>boat</i>

Chapter 3

	Front	Central	Back		
	unrounded	unrounded	unrounded	rounded	
Close					
Half-close	ɪə			ʊə	/ɪə/ <i>beer</i>
Half-open	eə				/eə/ <i>bear</i>
Open					/ʊə/ <i>boorish</i>

Diphthongs may be classified according to several factors. On the one hand, we may distinguish them according to their second component: if it is a schwa /ə/, then we talk about **centring diphthongs**. In all other diphthongs the second component is more close than the first, and these are thus called **closing diphthongs**; those that end in /ɪ/ are **fronting** (and closing) while those ending in /ʊ/ are **backing** (and closing). On the other hand, closing diphthongs may be classified according to the articulatory distance between the two components: the diphthongs /eɪ/, /əʊ/ are **narrow** (and closing), while the rest, /aɪ/, /aʊ/, /ɔɪ/ are the so-called **low-starting** or **wide diphthongs**. This is summarized in the table below:

	Centring	Closing	
		Fronting	Backing
Narrow	ɪə, eə, ʊə	eɪ	əʊ
Wide	-	aɪ, ɔɪ	aʊ

As shown in the following table, unlike English, Hungarian also has front rounded vowels. In addition, Hungarian back vowels are all rounded – note that /a:/ is a central vowel. Attention must also be paid to the fact that the traditional **Hungarian terminology** might be misleading: the so-called "magas (hangrendű)" vowels are actually front – and not high –, while "mély (hangrendű)" vowels are central or back – and not low –, i.e., *magas* and

mély do not refer to tongue height, but are metaphors for the acoustic effect made by the vowel.

The **places of articulation of Hungarian vowels** are the following:

	Front		Central	Back
	unrounded	rounded	unrounded	rounded
Close	/i:/ <i>hív</i>	/y:/ <i>tűz</i>	-	/u:/ <i>út</i>
	/i/ <i>ki</i>	/y/ <i>üt</i>		/u/ <i>kulcs</i>
Half-close	/e:/ <i>kér</i>	/ø:/ <i>nő</i>	-	/o:/ <i>tó</i>
		/ø/ <i>kör</i>		/o/ <i>hoz</i>
Half-open	/ɛ/ <i>kert</i>	-	-	-
Open	-	-	/a:/ <i>ház</i>	/ɒ/ <i>kar</i>

Let us now turn back to phonology and the discussion of tense and lax vowels. One of the differences between them is in what positions they may appear in a word. In English, unlike in Hungarian, when a word is suffixed, often it is the pronunciation of the word stem that changes and not that of the suffix. One such alternation involves the change of an original tense vowel into a lax one. The phenomenon is called **vowel shift**, a historical version of which – the Great Vowel Shift – applied to English long vowels around the 15th century.

The vowel shift is thus a case of tense-lax alternations. Tense vowels of word stems become lax in certain environments. The tense-lax vowel pairs are as follows:

Regular type		Vowel letter		Before R
1. /eɪ/-/æ/	<i>gr<u>a</u>de-gr<u>a</u>dual</i> <i>s<u>a</u>ne-s<u>a</u>nity</i> <i>v<u>a</u>ne-v<u>a</u>nity</i>	A	<i>comp<u>a</u>re-comp<u>a</u>rison</i> <i>pre<u>a</u>re-pre<u>a</u>ratory</i> <i>barb<u>a</u>rian-barb<u>a</u>ric</i>	1. /eə/-/æ/
2. /i:/-/e/	<i>met<u>e</u>r-met<u>r</u>ic</i> <i>sec<u>r</u>et-sec<u>r</u>etary</i> <i>ke<u>e</u>p-ke<u>p</u>t</i>	E	<i>imp<u>e</u>rial-imp<u>e</u>rative</i> <i>se<u>v</u>ere-se<u>v</u>erity</i> <i>h<u>e</u>ro-h<u>e</u>roine</i>	2. /ɪə/-/e/
3. /aɪ/-/ɪ/	<i>fin<u>a</u>l-fin<u>i</u>sh</i> <i>dec<u>i</u>de-dec<u>i</u>sion</i> <i>B<u>i</u>bble-b<u>i</u>blical</i>	I or Y	<i>sat<u>i</u>re-sat<u>i</u>rical</i> <i>tyr<u>a</u>nt-tyr<u>a</u>nny</i> <i>ly<u>r</u>e-ly<u>r</u>ical</i>	3. /aɪə/-/ɪ/
4. /əʊ/-/ʊ/	<i>hol<u>o</u>y-hol<u>o</u>liday</i> <i>kn<u>o</u>w-kn<u>o</u>wledge</i> <i>sol<u>o</u>e-sol<u>o</u>itude</i>	O	<i>hist<u>o</u>rian-hist<u>o</u>rical</i> <i>expl<u>o</u>re-expl<u>o</u>ratory</i> <i>fl<u>o</u>ra-fl<u>o</u>rist</i>	4. /ɔ:/-/ʊ/

There are two types of word pair: one in which the stressed vowel is followed by the letter <r> and one in which it is not. As vowels may be influenced by a following <r> – Pre-R Breaking for tense vowels and Pre-R Broadening for lax vowels, for details see Chapter 4 – we have to consider pre-R cases separately. Note that in the examples relevant to the present discussion, Pre-R Breaking does apply for tense vowels (that is, tense vowels differ according to what follows them) but Pre-R Broadening does not (that is, the same lax vowels appear in both the first and the last columns of the table).

It is also clear from the table that some of the tense vowels, namely /*(j)u:/*, /*ɔ:/*, and /*əʊ*/ have no lax counterparts and as a result do not participate in the alternation (they are **non-laxable**). There are a few untypical pairings that may occur: /*əʊ*/-/*ʌ*/ *pronounce-pronunciation*, /*ɔ:/*-/*ʌ*/ *join-jucture*, /*u:/*-/*ʌ*/ *do-does*, etc. Also, there are a few cases that involve some alternation but

it is either not one of the regular vowel pairs above – e.g., /ɪə/-/æ/ *clear-clarity*, /eɪ/-/e/ *break-breakfast* – or they involve lax-lax or tense-tense alternations – /ɑː/-/e/ *example-exemplify*, /aɪə/-/ɪə/ *empire-imperial*. Let us now turn to the environments in which vowel shift may occur.

Probably the most influential such **laxing process** is **Trisyllabic Laxness**, in which a stressed vowel in (at least) the third-last syllable must be lax – e.g., *sane-sanity*, *grade-gradual*, *compare-comparison*. As we have noted above, this rule has regular exceptions: the tense vowels /uː/, /juː/ and their variants /ʊə/, /juə/ are regular exceptions, i.e., they freely occur in trisyllabic environments, e.g., *unity*, *purify*, *stupefy*. Besides these, there are irregular exceptions, too. In a few cases other tense vowels may also occur in trisyllabic environments, e.g., *nightingale*, *Abraham*, *notify*, *isolate*. What makes this rule problematic is that there is a great number of exceptions, both regular and irregular. Also, the rule is sensitive to the morphological structure of the word: it applies if certain suffixes are attached to the stem but not if others are added. That is, it seems that the syllables of certain suffixes are counted when we count the three syllables from the end of the word while others are not. Whether to count the syllables of the suffix or not depends on whether the suffix is a regular, **productive suffix**, which can be added to almost all members of a category (noun, verb, adjective, etc.) to produce a large number of words, or a **non-productive suffix** which is only added to certain stems of a class and therefore has fewer examples. Some of the typical examples of the two suffix classes are shown in the following table.

Chapter 3

Productive suffixes not counted in Trisyllabic Laxness		Non-productive suffixes counted in Trisyllabic Laxness	
<i>-ness</i>	<i>lazy-laziness, tidy-tidiness</i>	<i>-ity</i>	<i>grave-gravity, sane-sanity</i>
<i>-ly</i>	<i>total-totally, lazy-lazily</i>	<i>-al</i>	<i>crime-criminal</i>
<i>-ary/-ery/-ory</i>	<i>advise-<u>a</u>dvisory</i>	<i>-ative</i>	<i>provo<u>k</u>e-provo<u>c</u>ative</i>
<i>-ing</i>	<i><u>p</u>ilot-<u>p</u>iloting</i>	<i>-ible</i>	<i>divi<u>d</u>e-divi<u>s</u>ible, <u>e</u>at-<u>e</u>dible</i>

We must mention here that Trisyllabic Laxness is not just an active phonological rule that applies to certain roots if they are followed by certain suffixes but also a so-called **morpheme structure condition**, a passive constraint that requires that a stressed vowel which is in at least the third syllable from the end of the word must be lax – even if no suffix is added to it.

/æ/	/ɛ/	/ɪ/	/ɒ/
<i><u>a</u>nimal, <u>s</u>tamina, <u>f</u>antasy, <u>c</u>annibal, <u>j</u>anitor, <u>ch</u>aracter</i>	<i><u>p</u>en<u>e</u>trate, <u>s</u>ep<u>a</u>rate, <u>d</u>em<u>o</u>nstrate, <u>s</u>ev<u>e</u>ral, <u>d</u>ec<u>o</u>rate, <u>i</u>ntellig<u>e</u>nt</i>	<i><u>i</u>rritate, <u>m</u>iracle, <u>s</u>im<u>i</u>lar, <u>l</u>imerick, <u>s</u>timulate, <u>f</u>ri<u>v</u>olous</i>	<i><u>o</u>pera, <u>p</u>ositive, <u>s</u>onorant, <u>h</u>omonym, <u>d</u>ominate, <u>o</u>racle</i>

/ʌ/	/ɜ:/	/ɑ:/	/ɔ:/
<i><u>c</u>ompany, <u>g</u>ullible, <u>s</u>ucculent, <u>G</u>ulliver</i>	<i><u>t</u>ermin<u>a</u>l, <u>p</u>ermanent, <u>p</u>ertinent, <u>c</u>ourtesy</i>	<i><u>p</u>articip<u>e</u>, <u>h</u>armony, <u>c</u>arnival, <u>p</u>arsimony</i>	<i><u>o</u>rthodox, <u>a</u>uditor, <u>a</u>udible, <u>a</u>utism</i>

Short /ʊ/ is missing from the charts above simply because it is so rare in present-day standard English that it is almost impossible to find relevant examples, e.g., *bulletin*.

Another laxing process applies if a so-called **laxing ending** is added to the word stem: a stressed syllable followed by one of the laxing endings must be lax. Examples include monosyllabic suffixes typically spelled with <i> or <e>: e.g., *-ic*, *-ish* (n/v), *-id*, *-it*, *-et*, *-el*, as in *mētre-mētric*, *fīnal-fīnish*, *satīre-satīrical*, etc. As indicated in brackets, *-ish* (n/v) is a laxing ending only if the word ending in *-ish* is a noun or a verb. However, if it is an adjective, the ending is non-laxing and the preceding stressed vowel may remain tense. Compare the sample words *fīnish* (n/v), *vānish* (v) and *grēenish* (adj), *Swedish* (adj). The first two examples are nouns and verbs and thus the stressed vowel must be lax as opposed to the other two examples which are both adjectives and, as a result, the suffix does not influence the pronunciation of the stressed vowel.

Just as in the case of trisyllabic laxness, there are exceptions to this laxing rule, too. On the one hand, the vowels /u:/, /ju:/ and their variants /ʊə/, /juə/ are regular exceptions; stressed /u:/ and /ju:/ vowels are not affected by this laxing process: *cūbe-cūbic*, *stūpe-stūpid*, *Cūpid*. There are irregular exceptions as well; some roots resist laxing, e.g., *bāse-bāsic*. It is important that this rule does not only apply if the endings are separate morphemes attached to a root but also if they are just part of the root. For instance, the ending *-ic* causes the laxness of the stressed vowels in the names *Eric*, *Patrick* although the very same stressed vowels would be tense where they are followed by some other kind of ending, e.g., *era* ['ɪərə], *patron* ['peɪtrən]. It is clear then that this rule is not just an active phonological rule but also a **letter-to-sound rule** that determines how letters must be pronounced depending on the environment.

The third relevant laxing rule is triggered by the presence of a consonant cluster – a sequence of at least two consonants – immediately after the stressed vowel, and thus a stressed vowel followed by at least two

Chapter 3

consonants must be lax: e.g., *intervene- intervention, receive-reception, etc. This regularity is sometimes dubbed **Pre-cluster Laxness**.*

There are two more rules that may cause the laxness of a vowel but they are clearly not phonological rules but letter-to-sound rules, that is they tell us how to pronounce vowel letters in certain environments in spelling. For this reason we just mention them here very briefly and they will be discussed in detail in Chapters 11-12, where we discuss letter-to-sound rules exhaustively.

The first such rule is **Laxing by free U**, which requires that if the stressed syllable is followed by a free U – roughly, a letter U followed by a vowel letter (as in *venue, statue*) – then the stressed vowel must be pronounced lax, e.g., *grade-gradual, rite-ritual, etc. Just like in all other laxing rules, the vowels /*(j)u:/* and /*(j)ʊə/* are regular exceptions, they stay tense before a free U, e.g., *use-usual.**

The other letter-to-sound rule causing laxness is the so-called **CiV Laxing rule**, which forces a stressed vowel letter – spelled with <i> or <y> – to be pronounced lax /ɪ/ when followed by a consonant letter, another letter <i> and one more vowel letter. That is, the stressed vowel letter <i/y> is followed by the CiV configuration in spelling, hence the name of the rule, e.g., *decide-decision, revise-revision, idiot, familiar, Syria, etc. It is important to note that all the other vowel letters undergo **CiV Tensing** in the same environment, i.e., other vowel letters must be pronounced with a tense vowel, e.g., *manic-manania, Albania, Celia, Gloria, senior, radio, etc. Interestingly, this rule is able to block the application of the laxing rules. In all the sample words above the stressed vowel is the third-last vowel from the end of the word, still, Trisyllabic Laxness does not apply and make them lax. The reason for this is that CiV tensing is more powerful and robust than the laxing rules, and thus it can override their effect. Of course, there are exceptions to the**

CiV tensing rule as well, in which the stressed vowel is lax even though it is followed by CiV, e.g., *national*, *special*, *Italian*, *Daniel*, etc.

Besides CiV Tenseness, there is another regularity in English which requires a vowel in a certain position to be tense. It is called **Prevocalic Tenseness**, as its effect is to ensure that all stressed vowels preceding other vowels are tense. The situation when two separate vowels (the centres of their respective syllables) are adjacent is generally referred to as **hiatus**, e.g., the underlined portions of *Noam*, *Leo*, *hiatus*. Prevocalic Tenseness does nothing but describe the observation that in English the first member of a hiatus, if stressed, is always tense, namely /əʊ i: aɪ/ in the examples above. Note that it does not apply to unstressed vowels, e.g., *react*, which are of course reduced. In addition, it is only relevant to pronunciation: compare *Leo* to *mean* or *people* – the underlined vowel letter is pronounced as a separate sound in *Leo* only, in the others it combines with the following vowel letter to represent a single sound. That is, in *mean* and *people* there is no hiatus, and consequently Prevocalic Tenseness is not applicable.

Similarly to CiV Tenseness, Prevocalic Tenseness is also stronger than the laxness rules: in *variety*, for instance, either Trisyllabic Laxness or Prevocalic Tenseness could in principle take effect, but it is the latter that "wins".

In this chapter we saw that, although sometimes English chooses a tense vowel systematically, in many situations tense vowels are replaced by their lax counterparts. There are numerous examples where the originally tense stressed vowel becomes lax although none of the above environments may be blamed for the change. In such cases we may only say that these are unexplained, idiosyncratic cases of vowel shift, the surviving effects of older rules which are no longer active in the language, e.g., *read* (present)-*read* (past), *life*-*live* (v), *shade*-*shadow*, *mead*-*meadow*.

Chapter 3

Although the above discussion of the phonetic and phonological classification of vowels concentrated on RP, most of it is valid in the case of GA, too. The tense-lax distinction applies to GA in the same way, together with the tenseness and laxness rules, with just a handful of examples where the two dialects diverge, e.g., *apricot*, pronounced (irregularly) with /eɪ/ in RP but very often (conforming to Trisyllabic Laxness) with /æ/ in GA. There are only a few minor differences in the vowel inventories, e.g., recall from Chapter 1 that all RP /əʊ/'s correspond to /ou/ in GA. Some of these also affect the classification of vowels, e.g., RP /ɒ/ in *lot*, *odd*, *wash* is usually long and unrounded /ɑ:/ in GA, still, the vowel behaves as lax in the same way in the two accents: cf. *tone* – *tonic* RP /təʊn/ – /^htɒnɪk/, GA /toun/ – /^htɑ:nɪk/, etc. As we will see in the next chapter, the rest of the dialectal deviations are caused by the differing distribution of /r/.