12. Letter-to-sound rules – Part 2: Vowels

Before you study this chapter, check whether you are familiar with the following terms: CiV, digraph, free U, lax (plain/broad), laxing rules, orthography, Pre-R Breaking, Pre-R Broadening, stem, suffix, tense (plain/broken), Yod-Dropping, Vowel Shift, Trisyllabic Laxness

This chapter deals with the area of the English language that has driven many language learners crazy throughout the years: the relationship between the spelling and pronunciation of English vowels. This is probably the area that is the most difficult for language learners, especially Hungarian learners as its principles are very different from those found in Hungarian. Hungarian letterto-sound rules for vowels are very simple, each vowel letter represents one vowel sound and each vowel sound is represented by one vowel letter; there are a few minor alternations both in length and quality but they are not significant. In English, however, each vowel sound may be represented by quite a few vowel letters or digraphs, and each vowel letter and digraph may stand for a few vowel sounds.

The main reason for this many-to-many relationship between English vowel letters and sounds originates in the fact that, as introduced in Chapter 3, there are two major types of full vowel in English, tense and lax, and each vowel letter has tense and lax pronunciations as well. Moreover, tense vowels are further divided into two subclasses, Plain-Tense and Broken-Tense vowels, while lax vowels are classified into the Plain-Lax and Broad-Lax subcategories. Logically, each vowel letter will have not just a tense and a lax pronunciation but a Plain-Tense, a Broken-Tense, a Plain-Lax and a Broad-Lax pronunciation. It is these four different pronunciations that we turn to

first, followed by a discussion of the pronunciation values of vowel digraphs, the rules determining the pronunciation of vowel letters and finally the many different kinds of regular and irregular exceptions to leave the best for last.

	<a>	<e></e>	<i>=<y></y></i>	<0>	<u></u>
Plain-Tense	/eɪ/	/i:/	/aɪ/	/ວບ/	/(j)u:/
Broken-Tense	/eə/	/19/	/aɪ(ə)/	/ ɔː / ³	/(j)ʊə/
Plain-Lax	/æ/	/e/	/I/	/ŋ/	/Λ/
Broad-Lax	/aː/	/3ľ/	/3ː/	/ ɔ ː/²	/3ː/

The regular sound values of single vowel letters are as follows:

A few important remarks are due here concerning the table above. First, we have to note an interesting peculiarity of English, namely that one of its vowel phonemes, /u/ does not have a regular representation in spelling – we will only find it in the last section of the chapter, containing irregularities. Second, the vowel letter <o> actually has only three different pronunciations as its Broken-Tense and Broad-Lax pronunciations are phonetically identical. Third, the vowel letter <u> has six different pronunciations instead of the expected four since it is also affected by the rule of Yod-Dropping, i.e., in the tense values there is a yodless and yodful pronunciation (see the discussion below and in the previous chapter). Fourth, it is very easy to remember the Plain-Tense value for each vowel letter as it is the pronunciation used to name the letter in the alphabet or to spell a word letter by letter.

Let us now take a look at the pronunciation values of vowel digraphs.

	<ai>=<ay></ay></ai>	<ei>=<ey></ey></ei>	<ea></ea>	<ee></ee>	<ie></ie>
Plain-Tense	/eɪ/	/eɪ/	/i:/	/i:/	/i:/
Brkn-Tense	/eə/	/eə/	/19/	/I9/	/I9/

	< <u>oa</u> >	<00>	<eu>=<ew></ew></eu>	<ui></ui>	<0u>=<0W>
Plain-Tense	/əʊ/	/u:/	/(j)u:/	/(j)u:/	/au/
Brkn-Tense	/ ɔː / ³	/ບə/	/(j)ʊə/	/(j)ʊə/	/au(ə)/

	<_0i>=<_0y>		<au>=<av< th=""></av<></au>
Plain-Tense	/31/	Plain-Lax	-
Brkn-Tense	/ɔɪ(ə)/	Broad-Lax	/31/1

Again, some generalizations may be found in the tables above. First, vowel digraphs regularly represent tense vowel sounds with one exception only, $\langle au \rangle = \langle aw \rangle$. Second, the letters $\langle i \rangle - \langle y \rangle$, and $\langle u \rangle - \langle w \rangle$ play the same role in the digraphs. As it will be clear from the examples below there is even a tendency (although not a rule) to predict where we find which.

Let us now take a look at some examples for the above sound values of single vowel letters and vowel digraphs.

	<a>	<e></e>	<i>=<y></y></i>	<0>	<u></u>
Plain-Tense	mate /meit/	scene /si:n/	bite /baɪt/	sole /səul/	<i>cute</i> /kju:t/
					<i>rude</i> /ru:d/
Broken-	care /keə(r)/	here /hɪə(r)/	<i>fire</i> /faiə(r)/	sore /so:(r)/	<i>cure /</i> kjuə(r)/
Tense					sure /ʃʊə(r)/
Plain-Lax	bat /bæt/	bet /bet/	<i>bit</i> /bɪt/	bond /bond/	but /bʌt/
Broad-Lax	<i>car</i> /ka:(r)/	<i>her /</i> hз:(r)/	firm /f3:m/	born /bɔːn/	burn /b3:n/

	<ai>=<ay></ay></ai>	<ei>=<ey></ey></ei>	<ea></ea>	<ee></ee>	<ie></ie>
Plain-Tense	bay /bei/	obey /əˈbeɪ/	<i>beat</i> /bi:t/	bee /bi:/	<i>believe</i> /bɪ'liːv/
Brkn-Tense	fair /feə(r)/	heir /eə(r)/	fear /fiə(r)/	beer /biə(r)/	pier /pɪə/

	<0a>	<00>	<eu>=<ew></ew></eu>	<ui></ui>	<0u>=<0w>
Plain-Tense	boat /bəut/	<i>boot</i> /bu:t/	few /fju:/	<i>suit</i> /sju:t/	house /haus/
			drew /dru:/	<i>fruit</i> /fru:t/	how /hau/
Broken-	boar /bɔ:(r)/	boor /buə(r)/	Europe	Muir /mjʊə/	our /auə(r)/
Tense			/ˈjʊərəp/		Bowra
			Jewry		/ˈbaʊ(ə)rə/
			/ˈdʒʊərɪ/		

	<0i>=<0y>		<au>=<aw></aw></au>
Plain-Tense	boy /bəɪ/	Plain-Lax	-
Broken-	Moira	Broad-Lax	<i>claw</i> /klɔː/
Tense	/ ^ı məı(ə)rə/		

As for the digraphs ending in <i> or <y> and <u> or <w> we can claim that there is a tendency to use <i> and <u> inside a word, e.g., *fair, heir, Europe, our, Moira, sauce*, and to use <y> and <w> in word-final position, e.g., *bay, obey, drew, how, boy, claw.* However, one should be careful as this is not an exceptionless rule, rather a tendency and there are quite many exceptions for it, e.g., *town, Bowra, Jewry, powder, drown, bowl.*

In the following we enumerate and discuss the rules which are responsible for the letter-to-sound correspondences in English vowels. The first such rule concerns the distinction between the vowels /ju:/, /juə/ and /u:/, /uə/, that is the yodful and yodless variants. The basic rule is that the five graphic representations, <u>, <eu>, <ew>, <ue>, <ui> normally stand for the variants starting with /j/. All other representations normally stand for the variants without /j/, typically <oo> and in some irregular cases <o> and <ou> (for irregular cases, see below). However, in many environments the vowel

letters and digraphs normally representing /ju:/ or /juo/ are pronounced without /j/, a case often referred to as Yod-Dropping. The details of this rule may be found at the end of Chapter 11.

Before actually discussing the pronunciation rules of vowel letters, we must introduce a pair of notions referring to the positions of vowel letters in the orthographic word. The two types of **graphic positions** are called **Free Position** and **Covered Position**. In the examples below the vowel letter in question is in underlined boldface and the letters of the relevant environment are in capitals. (V = vowel letter, C = consonant letter, S = stop, L = liquid; the hyphen indicates the position of the stressed vowel letter.)

	Free P	Covered	Position		
(1) -V	(2) -CV	(3) -SLV	(4) -#	(5) -CC	(6) -C#
d <u>i</u> Al	b <u>a</u> KE	<u>a</u> PROn	m y #	b <u>a</u> NK	sp <u>a</u> M#
g <u>o</u> Ing	m <u>u</u> TE	cyCLone	s <u>o</u> #	th <u>u</u> NDer	f <u>i</u> T#
d <u>i</u> E	c <u>a</u> RE	m <u>a</u> PLE	b <u>e</u> #	у <u>а</u> СНТ	h <u>e</u> R#
d <u>o</u> Er	h <u>o</u> CUs-	<u>∎</u> GRE	fl y #	f <u>i</u> RSt	sp <u>o</u> T#
	p <u>o</u> CUs				

As it can be seen in the table above, vowel letters are said to be in free graphic position if they are followed by another vowel letter, a consonant+vowel letter, two consonant letters representing a stop and a liquid sound plus a vowel letter and also when they are word-final. Single vowel letters are in covered graphic position if they are followed by two consonant letters (which are either not followed by a vowel letter, or if they are, then they do not represent a stop and a liquid sound) and if they are followed by a word-final consonant letter.

Note that there are some problematic cases. On the one hand, the consonant letter $\langle x \rangle$ normally represents the sound sequence /ks/, so it must

be counted as a sequence of two consonant letters. As a result, words like $t\underline{a}Xi$ will belong to class (5) in the table. On the other hand, if we recall that consonant digraphs regularly represent a single consonant sound, they must be counted as one letter. As a result again, words like $g\underline{o}PHer$ will belong to class (2) and $b\underline{u}SH$ to (6). Bear in mind that these are graphic positions for letters – whether these letters are pronounced or not does not matter. That is why dial and die, for instance, belong to the same category. The word yacht (/jpt/) contains a silent digraph followed by another consonant letter, but is totally identical to bank (in class 5) in this respect.

There are two rules that help us decide the pronunciation of vowel letters on the basis of whether they are in a free or covered position. If we take a look at the words in columns (1) to (4), we can see that they all contain a stressed (plain or broken) tense vowel. Thus, the **Free Position Basic Rule** (FPBR) can be stated as follows:

FPBR: Stressed single vowel letters in free position are normally pronounced as tense. (See exceptions below.)

On the other hand, columns (5) and (6) both contain words in which the stressed vowels are (plain or broad) lax. On the basis of this we can state the **Covered Position Rule** (CPR) as follows:

CPR: Stressed single vowel letters in covered position are normally pronounced as lax. (See exceptions below.)

Remember that these two rules only refer to stressed single vowel letters – unstressed or weak vowels behave differently, while vowel digraphs usually represent tense vowels, i.e., a rule is unnecessary in their case. Also, note that the expression "stressed single vowel letter" is just a short hand for a single vowel letter representing a stressed vowel.

In the following part of the chapter we take a look at exceptions, i.e., those cases when a vowel letter is not pronounced according to the two rules above. Exceptions may fall into two different types: those that simply do not obey the two rules but the vowel is pronounced with one of its regular pronunciations (discussed in the very first table above) – this type of exception is often called a **tenseness reversal** – and those that involve a vowel letter pronounced as an irregular sound, i.e., it has a sound value which is not one of its four regular pronunciations – a kind of exception often referred to as a **quality deviation**. We address the two types in this order below.

Tenseness reversals

In some cases the stressed single vowel letter is not pronounced with the tense/lax value predicted by the FPBR or the CPR, i.e., it is pronounced with a tenseness/laxness which is just the opposite of what is expected on the basis of the rules.

Tenseness reversal exceptions to the Covered Position Rule bind /baind/, bold /bəuld/, both /bəuθ/, chamber /'tʃeimbə(r)/, comb /kəum/, danger /'deindʒə(r)/, fight /fait/, find /faind/, fold /fəuld/, gross /grəus/, island /'ailənd/, kind /kaind/, manger /'meindʒə(r)/, mild /maild/, most /məust/, old /əuld/, range /reindʒ/, Ruth /ru:θ/, sign /sain/, soldier /'səuldʒə(r)/, told /təuld/, truth /tru:θ/, etc.

Tenseness reversal exceptions to the Free Position Basic Rule

In the case of the Free Position Basic Rule we may add one more clause to the rule: stressed single vowel letters in free graphic position are pronounced tense *unless they are laxed by one of the laxing rules*. These **laxing rules** are those that we have already discussed in Chapter 3 in connection with the Vowel Shift. Recall that in the Vowel Shift a tense vowel of a stem becomes lax if a certain kind of suffix is added. The original stem vowel is tense, which means that if it is a regular word then the vowel letter representing the tense vowel must be in a free graphic position. If a suffix is added, the stressed vowel may still be in free position but its pronunciation becomes lax because of one of the laxing rules. Let us repeat the most important features of the laxing rules for the convenience of the reader now focussing on the spelling of the stem and the suffix. Before we start enumerating the laxing rules, we must remember that the vowel /(j)u:/ is non-laxable in any position, i.e., it is a regular exception to all the laxing rules below.

Trisyllabic Laxness

If the stressed vowel is in at least the third-last syllable of the word then it must be lax. This is a result of the Trisyllabic Laxing rule, an active phonological rule which applies if a suffix is added to the stem. In the present context, it is simply applied to any word even without adding suffixes.

<a>	<e></e>	<i>=<y></y></i>	<0>
C <u>a</u> nada	pr <u>e</u> sident	m <u>i</u> racle	s <u>o</u> litude
l <u>a</u> minate	h <u>e</u> sitate	s <u>i</u> milar	d <u>o</u> mino
s <u>a</u> livate	r <u>e</u> giment	c <u>i</u> nema	mah <u>o</u> gany
C <u>a</u> pricorn	<u>fe</u> derate	p <u>i</u> tiful	p <u>o</u> sitive
c <u>a</u> baret	<u>ge</u> neral	m <u>i</u> litant	s <u>o</u> litary
r <u>a</u> dical	H <u>e</u> mingway	typical	d <u>o</u> minant

In some words the stressed single vowel letter remains tense as required by the FPBR in spite of the fact that it is in a trisyllabic position, e.g., *isolate*, *microphone*, *notify*, *nightingale*, *omega*, etc. Also, recall from Chapter 3 that regular, productive suffixes are not counted when determining whether a word serves as an input to the rule. Free <u> is non-laxable; this is illustrated by examples like *cubicle*, *puritan*, *enumerate*.

Laxing by ending

In some words the stressed single vowel letter in free graphic position is pronounced lax despite the FPBR because one of the so-called laxing endings follows.

<a>	<e></e>	<i>> = <y></y></i>	<0>
m <u>a</u> nic	m <u>e</u> tric	cl <u>i</u> nic	p <u>o</u> lish
st <u>a</u> tic	intr <u>e</u> pid	t <u>i</u> mid	t <u>o</u> nic
h <u>a</u> bit	<u>e</u> dit	optim <u>i</u> stic	s <u>o</u> lid
t <u>a</u> blet	l <u>e</u> vel	l <u>i</u> mit	sh <u>o</u> vel
est <u>a</u> blish	<u>E</u> ric	cr <u>i</u> tic	n <u>o</u> vel
p <u>a</u> rish	p <u>e</u> rish	l <u>y</u> ric	c <u>o</u> met

There are a few words in which the stressed vowel is followed by one of the laxing endings but still it is pronounced as tense as in *basic*, *strategic*, *label*, *navel*, *secret*. Recall also that the ending *-ish* is only laxing when producing a noun or a verb but it is non-laxing if it makes an adjective, hence the difference between *Polish* /¹poolif/ vs. *polish* /¹polif/ and *Swedish* /¹swi:dif/ vs. *finish* /¹finif/.¹ Free <u> is non-laxable; this is illustrated by examples like *Punic*, *Cupid*, *rubric*, *unit*.

Laxing by free <u>

The stressed single vowel letter occurring in free graphic position is regularly pronounced lax if it is followed by a free vowel letter $\langle u \rangle$ in the next syllable, i.e., a $\langle u \rangle$ followed by a vowel or a consonant+vowel combination.

<a>	<e></e>	<i>> = <y></y></i>	<0>
gr <u>a</u> dual	s <u>e</u> nsual	v <u>i</u> sual	s <u>o</u> luble
v <u>a</u> lue	sch <u>e</u> dule	r <u>i</u> tual	m <u>o</u> dule

A typical exception to this laxing rule is the ending *-ure*, which often attaches to a stem whose vowel is pronounced tense in spite of the free $\langle u \rangle$ of the suffix, as in *closure*, *erasure*, *nature*, etc. Free $\langle u \rangle$ itself is non-laxable; this is illustrated by examples like *usual*.

CiV laxing

The rule of CiV laxing only applies if there is a stressed vowel letter $\langle i \rangle$ or $\langle y \rangle$ which is followed by a consonant letter + another vowel letter $\langle i \rangle$ + one more vowel letter. The rule does not apply to any of the other vowel letters (cf. CiV tensing below). Its application may be witnessed in words like *idiot*,

¹ The word *Spanish* is exceptional.

idiom, *decision*, *revision*, *dominion*, *Syria*. The rule does not have any exceptions.

Before continuing to a rule which works just in the opposite direction as compared to the ones we have just discussed, let us note that there is a further restriction on all laxing rules, namely, that vowels occurring before another vowel, i.e., prevocalic vowels, are non-laxable, they have to remain tense even before suffixes, even if one of the laxing rules could apply. That is, as explained in Chapter 3, **Prevocalic Tenseness** is stronger than any of the laxing rules. The following examples could as well be subject to either Trisyllabic Laxness or Laxing by ending, still, their stressed vowel (underlined) is tense.

<a>	<e></e>	<i> = <y></y></i>	<0>
pros <u>a</u> ic	nucl <u>e</u> ic	var <u>i</u> ety	her <u>o</u> ic
arch <u>a</u> ic	spontan <u>e</u> ity	d <u>i</u> et	st <u>o</u> ic
l <u>a</u> ity	simultan <u>e</u> ity	sobr <u>i</u> ety	ech <u>o</u> ic
mos <u>a</u> ic	d <u>e</u> ity	anx <u>i</u> ety	p <u>o</u> et

CiV tensing

Recall that the rule of CiV tensing is the mirror image of CiV laxing in two senses: firstly, it applies to all vowel letters except $\langle i \rangle$ or $\langle y \rangle$ – remember that CiV laxing only applies to these. Secondly, it requires that the stressed vowel letter followed by CiV be tense, while CiV laxing enforces the opposite. A very important feature of this rule is that it overrides the laxing rules, i.e., it blocks their application and applies instead resulting in tense vowels in an environment where some of the laxing rules, in most cases Trisyllabic Laxness, should apply.

<a>	<e></e>	<0>
m <u>a</u> niac	s <u>e</u> rious	n <u>o</u> tion
Austr <u>a</u> lia	s <u>e</u> rial	Gl <u>o</u> ria
r <u>a</u> diate	s <u>e</u> nior	ph <u>o</u> bia

There are no examples listed for the vowel letters $\langle i/y \rangle$ and $\langle u \rangle$. For the former we noted that it is made lax in this environment; for the latter we have already mentioned that it is an exception to all the laxing rules, that is, in free graphic position it will always be tense even if a laxing rule could apply (cf. *fusion, union, Muriel,* etc.). Since CiV tensing makes a vowel tense, it is not necessary to indicate it for a vowel letter which is always pronounced as tense in free positions anyway.

The rule has a few exceptions in which the vowel letters $\langle a \rangle$, $\langle e \rangle$, $\langle o \rangle$ are followed by CiV in spelling but they are pronounced as lax – but remember, this cannot be the result of CiV laxing as that rule only applies to the vowel letter $\langle i/y \rangle$! Exceptions to CiV tensing include words like *Daniel*, *Slovakia, special, national, precious,* RP *patriot* etc.

Irregular tenseness reversals

There are cases where the stressed single vowel letter occurring in free graphic position is not made lax by any of the laxing rules but, for some reason, it is still lax. This typically happens in the last or only syllable of a word, which is pronounced as if the final silent <e> was not present at the end, and also in the second-last syllable of the word.

Irregular tenseness reversal in last or	Irregular tenseness reversal in
only syllable	second-last syllable
<a> are, have	<a> cabin, Latin, salad, atom
<e> were, allege</e>	<e> lemon, tenant, very, devil</e>
<i> live (v), give</i>	<i> city, pity, linen, consider</i>
<o> gone, RP shone²</o>	<0> body, copy, orange, forest
	<u> punish, study, Dublin, public</u>

Quality deviations

In a great number of words the single vowel letters or vowel digraphs are not pronounced with one of their regular pronunciation values given in the tables at the beginning of this chapter. Since these are not simple exceptions from the FPBR or the CPR, i.e., they do not belong to any of the tenseness reversal cases discussed above, they are often called **quality deviations** as the graphemes deviate from their own regular qualities and take on the quality of some other vowel grapheme. As a result, the spelling and pronunciation of these words is not predictable by any of the rules we have seen, they must be memorized as exceptions.

1. Isolated deviating words

There are a few sporadic quality deviations which are isolated in the sense that there are very few examples for them, e.g., $\langle a \rangle = /e/as$ in *any, many, ate* RP /et/ (cf. GA /ett/), *Thames* (exhaustive list!), $\langle u \rangle = /t/as$ in *busy, business*, $\langle u \rangle = /e/as$ in *bury, burial*, or $\langle oa \rangle = /ot/as$ in *broad, abroad* (cases of broadness without *r*).

² GA / \int oun/ is regular.

2. Groups of deviating words

Some quality deviations are unpredictable but much more common than the ones above and can be classified according to some pronunciation or spelling characteristics. (A few of these groups have been mentioned in Chapter 4.)

Deviations due to neighbouring sounds/letters

WANT-words	$<_{a}> = /_{b}/$	want, was, wash, swan, quality, quantity, squash
WAR-words	<a>=/3!/	war, thwart, dwarf, quarter, swarm, warmth
CALL-words	$<_{a}> = /_{3!}/$	call, fall, bald, talk, alter, stalk, walk, Balkans
ASK-words	$<_{a}> = /_{a}./$	ask, dance, fast, past, class, path, last, example
CALM-words	$<_{a}> = /_{a}./$	calm, palm, calf, halve, balm, psalm
WORK-words	<0> = \3;\	work, worth, world, word, worth, Wordsworth

Foreignisms (French	h or Italian	loanwords with spelling imitating the original)
MACHINE-words	=/i!/	machine, clique, kilo, ski, pizza, visa
CREPE-words	$<\!\!e\!\!>=\!\!/e_{I}/$	crepe, fete, suede, régime, café, née, fiancé(e)
CHAUFFEUR-words	<au> = /əu/</au>	chauffeur, mauve, chauvinism, sauté
SOUP-words	<ou> = /u:/</ou>	soup, group, route, souvenir, rouge, douche (also
	some orig	ginal English words like <i>you, youth, wound</i> (n))
MEMOIR-words	$<_{0i}> = /_{Wat}$	/ memoir, bourgeois, reservoir

Traditional spellings with <e>, <ea>

CLERK-words	<e>=/a:/</e>	clerk, sergeant, Derby, Berkeley ³
BREAD-words	$<\!\!ea\!\!> = /e/$	bread, health, meant, pleasant, jealous
EARTH-words	<ea>=/3:/</ea>	earth, heard, pearl, earn
BEAR-words	$\langle ea \rangle = /ea /$	bear, swear, tear (v)

³ GA *clerk* /kl3rk/ and *Derby* /¹d3rb1/ are regular. Also, the place in California called *Berkeley* is pronounced /¹b3(r)kl1/.

LOVE-words	$<_0>=/_\Lambda/$	love, come, onion, mother, London, among
MOVE-words	<_0> = /u:/	move, do, prove, tomb
LOOK-words	< 00 > = /0/	look, book, crook, good, wool
TROUBLE-words	$<_{\rm OU}>=/_{\Lambda}/$	trouble, country, courage ⁴ , young
SOUL/BOWL-words	$<_{\rm OU/OW}> = /_{\rm OU}$	soul, shoulder, bowl, know
THOUGHT-words	<ough> = /3:/</ough>	thought, brought, nought
PUT-words	= /u/	put, full, butcher, cushion

However numerous these exceptions may seem, the majority of English words, including new coinages, do conform to the basic letter-to-sound rules introduced in the first half of the chapter.

 $^{^{4}}$ GA / k3rId₃/ – cf. the exceptions to the Carrot-Rule in Chapter 4.