

Sample Phonology: High Akhirene

1 Phoneme Inventory

This section outlines all the sounds we find in Akhirene, detailing their pronunciation and (Latin) orthographic representation. I am using the International Phonetic Alphabet (IPA) for scientific representations (you can look up the full chart [here](#)), but I have also included simple descriptions of all sounds in relation to English (as far as that is possible).

1.1 Phones, phonemes, and notations

Not all sounds are pronounced the same in all positions within a word; in other words, two different articulations can belong to a single underlying form in the sound system. For example, we may have a word *fethei*, and if we add a prefix *ne-* it will become *nevethēi*. /f/ between vowels is pronounced as voiced [v], and as voiceless [f] elsewhere; we call the former a *phoneme*, it represents the underlying form as relevant for the sound system and is usually printed between slashes—the rules of our phonology will always treat /f/ as /f/, no matter whether we pronounce it as [f] or as [v]. The latter are called *phones*, they represent the actual pronunciations of sounds and are usually printed in square brackets, and the second half of this introduction will be concerned with the exact rules for when which pronunciation is used. Our example above would look like this, comparing the underlying form and the actual pronunciation (I will explain all of the symbols below. What matters now are *f* and *v*):

fethei /fet^hɛɪ/ → [fet^hɛɪ]

nevethēi /nefet^hɛɪ/ → [nevɛt^hɛɪ]

The most important such differences are represented in the orthography, like <f> and <v> above, <l> and <lh>, and <s> and <r> (as you can see, orthographic representations are usually given in angle brackets).

1.2 Vowels

High Akhirene distinguishes seven vowel phonemes. Each vowel can additionally be found in two different pronunciations, *tense* and *lax*, depending on the type of syllable it appears in (see below); the diphthongs <ai>, <ei>, and <eo> are always tense.

i	/i/	[i]	[ɪ]	Like <ee> in English <i>feel</i> and <i> in <i>fill</i>
e	/e/	[e]	[ɛ]	Like <ai> in <i>hair</i> (Australia, NZ) and <e> in <i>then</i>
a	/a/	[æ]	[ɐ]	Like <a> in <i>bat</i> and (a bit like) <oo> in <i>blood</i>
o	/o/	[o]	[ɔ]	Like <o> in <i>wrote</i> (Scotland, Ireland) and <o> in <i>rot</i>
ai	/ɑ̪i/	TENSE	LAX	Like <i> in <i>right</i>
ei	/ɛ̪i/			Like <ay> in <i>ray</i>
eo	/ɛ̪o/			Like <ew> in <i>ew!</i>

1.3 Consonants

High Akhirene distinguishes 15 phonemic consonants. I don't want to get into too minute detail about phonological features at this point; the one important distinction you should know concerns only the plosives (the first eight on the list). You will note that Akhirene does not make a voicing distinction like English (*mate* and *made*) but instead distinguishes the series /p, t, k, q/ from /p^h, t^h, k^h, q^h/ through *aspiration*, an audible *h*-like noise following the sound (we also find that in English plosives in certain positions).

Otherwise, it might seem odd that <s> and <r> are grouped under the phoneme <s>; in Akhirene, they are indeed different pronunciations of the same underlying sound, with [r] appearing only between vowels (see, again, also the rules in section 3).

p	/p/	<p> in <i>spot</i>
t	/t/	<t> in <i>stop</i>
k	/k/	<c> in <i>scot</i>
q	/q/	Like <k>, but articulated further back, at the uvula
ph	/p ^h /	<p> in <i>pot</i>
th	/t ^h /	<t> in <i>top</i>
kh	/k ^h /	<c> in <i>cod</i>
qh	/q ^h /	Like <q>, but aspirated
f		<f> in <i>fast</i>
v	/f/	<v> in <i>vast</i> (pronunciation between vowels)
s		<s> in <i>same</i>
r	/s/	Rolled like in Italian (pronunciation between vowels)
h	/h/	<h> in <i>here</i>
c	/tʃ/	<ch> in <i>chat</i>
m	/m/	<m> in <i>map</i>
n	/n/	<n> in <i>nap</i>
l		<l> in <i>lost</i>
lh	/l/	Voiceless lateral fricative [ɬ], produced by breathing out with the tongue pressed against the palate, like <ll> in Welsh (pronunciation at the beginning of words)

2 Syllable Structure and Stress Assignment

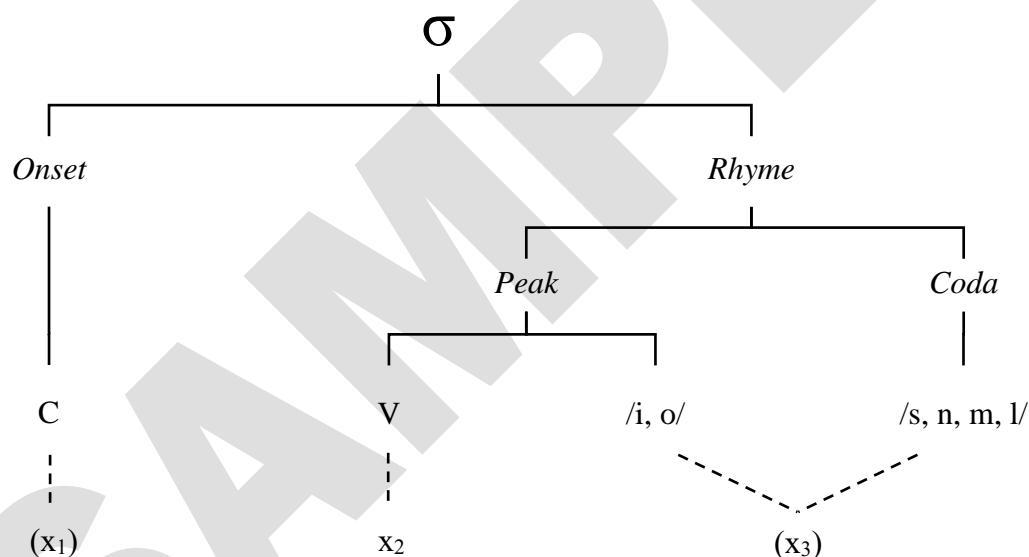
Syllable structure governs what Akhirene syllables can look like and which sounds can appear in what places; this will only really get important once you start inventing new words. Generally, we distinguish three main components of a syllable, *onset*, *peak*, and *coda*, which essentially just means beginning, middle, and end; and there are strict rules as to what each can contain:

ONSET The onset can contain any one consonant (C) from the inventory; there can never be more than one consonant, hence the absence of clusters like /br/ or /st/ in Akhirene. This component is optional, i.e. a syllable does not have to have an initial consonant.

PEAK The peak is the only obligatory part of the syllable. It can contain any vowel (V) from the inventory.

CODA The coda is like the onset optional, but unlike the onset, this slot remains empty in most words. If filled, it can contain a single consonant, but only the phonemes /s, n, m, l/, and if the peak contains a diphthong /ɑ̃, ε̃, ε̃/, it must be empty (nominally, the second part of the diphthong will take up this slot).

This tree diagram gives the same information in classical academic notation, breaking down the syllable σ into its component parts:



Syllables with an empty coda (and no diphthong) are called *light*, syllables with a non-empty coda *heavy syllables*. These terms come into play when we think about vowels: The vowel in a light syllable will always be pronounced tense, the vowel in a heavy syllable lax (this distinction is actually not reflected in writing in the high variety, so knowing the difference only becomes important in the vernacular, where tense and lax vowels have very different qualities). Also note that we generally care more about the onset than the coda, so if a syllable with an empty onset follows a syllable with a consonant in its coda, we will ‘move’ that consonant into the following onset (and the vowel will accordingly be pronounced tense since the coda is now empty)—this is called the *Maximum Onset Principle*, and it probably won’t come up often, but I think it is good to know about it when it does.

Stress is relatively easy to predict and hence not marked in the orthography, although it differs between standard and vernacular. High Akhirene always stresses the penultimate syllable of a word; in the vernacular, stress lies preferably on word-final nasals (m, n) and heavy syllables, or otherwise on the penultimate syllable.

3 Phonological Rules

In this last section, I will explain all the phonological rules that govern differences in pronunciation between different phonological environments for both the standard and the vernacular.

3.1 A note on phonological rules

The Overview contains the same lists just in phonological notation, without explanations; this notation contains three main parts: first, the phoneme we are looking at, then, following an arrow, the phone it will be pronounced as, and finally, following a slash, the environment in which this pronunciation is found. V represents any vowel, C any consonant; hashes mark word boundaries, sigmas syllable boundaries. Occasionally, you will also see a phonological feature in square brackets; I wouldn't worry too much about those, as all rules are explained and most features are either quite accessible or noted in the inventory tables in the Phonology Overview.

3.2 High Akhirene

$/l/ \rightarrow [l̥] \langle lh \rangle / \# _$

At the beginning of words, /l/ turns into <lh> (see above for the pronunciation).

$/s/ \rightarrow [r] \langle r \rangle / V _ V$

/s/ between vowels is pronounced as trilled [r] and written as <r>. This is something that actually happened in the history of Latin (albeit with a slightly different r-sound)!

$/f/ \rightarrow [v] \langle v \rangle / V _ V$

/f/ between vowels is pronounced as [v] and written as <v>.

$V \rightarrow [+tense] / _ \sigma$

A vowel is pronounced tense if it immediately precedes a syllable boundary (i.e. the coda is empty).

$V \rightarrow [-tense] / _ C \sigma$

A vowel is pronounced lax when it is followed by a consonant and a syllable boundary (i.e. a non-empty coda).

$/i\sigma i/ \rightarrow [ɛ̃]$

If a syllable ends in /i/ and is followed by a syllable beginning in /i/, they will be merged into one syllable with the vowel [ɛ̃].

$/h/ \rightarrow [s] \langle s \rangle / [nas] _$

/h/ becomes [s] if it immediately follows a nasal (m, n).

$$/h/ \rightarrow [j] \langle i \rangle / V_V$$

/h/ between vowels is pronounced as [j], like the <y> in English *yet*, and written simply as <i>. If the */h/* follows */o/*, we will get the diphthong <ai>, if it follows */i/*, we will get <ei>.

$$/h/ \rightarrow \emptyset \langle ' \rangle / s_$$

/h/ is deleted if it immediately follows */s/*. This deletion occurs after we have decided how to pronounce our vowels, so it won't affect tenseness: The vowel preceding */s/* will still be pronounced lax. To mark this irregularity, I represent the omitted */h/* as an apostrophe in the romanization; but I imagine that this is not reflected in native Akhirene spelling, and since tenseness works a bit different in the vernacular, this would be a rather difficult distinction for speakers from the lower classes. It could be a marker of education and prestige to know when a vowel that would be expected tense is to be pronounced lax, and many lower-class speakers might try to guess the 'correct' pronunciation and seem educated, but they would easily hypercorrect, i.e. pronounce vowels as lax where they are actually just supposed to be tense. I will leave it up to you whether to include the apostrophes in the text as it is finally printed.

$$[fric] \rightarrow \emptyset \langle ' \rangle / _ [nas]$$

/f/ and */s/* are deleted if they occur directly before */m, n/*. Again, the resulting gap is represented by an apostrophe, and the same pronunciation rules apply as above.

$$\alpha \rightarrow \emptyset \langle ' \rangle / \alpha _$$

If the same sound appears twice in a row, the second instance is deleted.

$$V \rightarrow [-tense] / _ C'$$

A vowel is pronounced lax if it is followed by two consonants, even if one of them is deleted (i.e. an apostrophe in writing). This is the formal notation of the rule explained above.

$$/f/ \rightarrow [p] \langle p \rangle / [-vow] _$$

/f/ is pronounced and written as */p/* if it follows a consonant.

$$[nas] \rightarrow [+bil] / _ [-vow, +lab]$$

/n/ becomes [m] if it is followed by a labial (a consonant pronounced at the lips, like */p/*).

$$[nas] \rightarrow [+alv] / _ [-vow, -lab]$$

/m/ becomes [n] if it is followed by any non-labial consonant. Note that, apart from the above rule, */n/* is always pronounced the same, irrespective of what sound follows, unlike in English, where the <n> in *rant* is quite different from the <n> in *rank*—in High Akhirene, it would have to be pronounced as *ran-k*. This might have also been the case for Classical Latin.

3.3 Vernacular Pronunciation

The following rules explain the pronunciation of the vernacular, where it differs from the standard, and how I suggest these differences might be represented in writing; this is especially important for tense vowels, which are pronounced very differently from their lax counterparts. I also give suggestions as to the kinds of mistakes vernacular speakers might make when trying to use standard pronunciation.

$/l/ \rightarrow [l] \langle l \rangle / \# _$

$/l/$ at the beginning of words is pronounced just as $[l]$, unlike in the standard. Some vernacular speakers might hypercorrect by using $\langle lh \rangle$ not just word-initially, but in random positions, or even for every instance of $/l/$.

$/s/ \rightarrow [r] \langle r \rangle / [+vow] _ [+vow, -front]$

$/s/$ is pronounced as $[r]$ between back vowels¹. This is fairly similar to standard $[r]$, but while the latter is trilled, this one is a single tap of the tongue against the teeth (like the $\langle t \rangle$ in American English *city*).

$/s/ \rightarrow [ʒ] \langle zh \rangle / [+vow] _ [+vow, +front]$

$/s/$ between front vowels is pronounced as $[ʒ]$, like the $\langle s \rangle$ in *leisure*, and spelled $\langle zh \rangle$.

$/f/ \rightarrow [v] \langle v \rangle / V _ V$

$/f/$ between vowels is pronounced as $[v]$, like in the standard.

$/e/ \rightarrow [i] \langle i \rangle / _ \sigma$

When tense, $/e/$ is pronounced as $[i]$, like $\langle ee \rangle$ in *feel*, and spelled $\langle i \rangle$.

$/a/ \rightarrow [\epsilon] \langle e \rangle / _ \sigma$

When tense, $/a/$ is pronounced as $[\epsilon]$, like $\langle e \rangle$ in *then*, and spelled $\langle e \rangle$.

$/o/ \rightarrow [u] \langle u \rangle / _ \sigma$

When tense, $/o/$ is pronounced as $[u]$, like $\langle oo \rangle$ in *root*, and spelled $\langle u \rangle$.

$/\epsilon i/ \rightarrow [i] \langle i \rangle$

$/\epsilon i/$ is always pronounced as $[i]$.

¹ In Akhirene, the back vowels are $/o/$ and lax $/a/$, all other vowels are considered front. When dealing with diphthongs, we count the relevant end, so $/ai/$ is back if it follows the sound we are examining, $/\epsilon u/$ if it precedes.

$/\varepsilon\varnothing/ \rightarrow [u] \langle u \rangle$

$/\varepsilon\varnothing/$ is always pronounced as [u].

$/\varepsilon\sigma i/, /i\sigma i/ \rightarrow /e\iota/ \rightarrow [i] \langle i \rangle$

Following from the above rules, whenever /e/ and /i/ or two instances of /i/ meet, they will be merged and pronounced as one [i].

$/h/ \rightarrow \emptyset$

/h/ is deleted in every position. This h-dropping will presumably be connected to strong social stigma, as it is in some varieties of English (and was in Latin). Vernacular speakers might hypercorrect by inserting surplus /h/s at the beginning of words that should just start in a vowel (this is actually something Roman grammarians complained about).

$\emptyset \rightarrow [j] \langle j \rangle / [+vow] _ [+vow, -round]$

If two vowels appear right next to each other (and no other rule intervenes), [j] will be inserted between them, pronounced like <y> in *yet*.

$\emptyset \rightarrow [w] \langle w \rangle / [+vow] _ [+vow, +round]$

If two vowels appear right next to each other and the second one is /o/, the sound inserted will be [w], pronounced like in English.

$[\text{nas}] \rightarrow [+bil] / _ [-vow, +lab]$

/n/ becomes [m] if it is followed by a labial, like in the standard.

$[\text{nas}] \rightarrow [+alv] / _ [-vow, -lab]$

/m/ becomes [n] if it is followed by any non-labial consonant, like in the standard. Note that this is in turn affected by the following rules.

$/n/ \rightarrow [\eta] / _ [+vel]$

$/n/ \rightarrow [N] / _ [+uv]$

These rules relate back to what I mentioned about /n/ earlier. While its pronunciation can only change to [m] in the standard, in the vernacular it will assimilate to a greater range of sounds: when followed by /k, k^h/, it will be pronounced like English <ng>, when followed by /q, q^h/ as the uvular equivalent. Neither is reflected in writing, and in spoken language, the difference might merely be perceived as ‘sloppy speech’.

$/f/ \rightarrow [p] / [-\text{vow}]_-$

$/f/$ is pronounced and written as $/p/$ if it follows a consonant, like in the standard.

$V \rightarrow [+tense] / _C'$

Unlike in the standard, vowels are pronounced tense if followed by two consonants one of which is deleted.

$**[o\underline{1}] \rightarrow [a\underline{1}]$

If by any rule we happen to produce the sequence $\langle oi \rangle$, this is changed into $\langle ai \rangle$.

$**[i\underline{1}] \rightarrow [\epsilon\underline{1}]$

If by any rule we happen to produce the sequence $\langle ii \rangle$, this is changed into $\langle ei \rangle$.