

English vowels

Narrow transcription

Main vowel symbols of GA and WCE

Front	Central	Back*	Height
[i] 'beat'		[u] 'boot'	higher high
[ɪ] 'bit'		[ʊ] 'book'	lower high
[e] 'bait'		[o] 'boat'	higher mid
[ɛ] 'bet'	[ə] 'sofa'	[ɔ] 'bought, GA'	lower mid
	[ʌ] 'but'	[ɒ] 'Bob, bought WCE'	higher low
[æ] 'bat'		[ɑ] 'Bob, GA'	lower low

• Back vowels except [ɑ] are rounded; the rest are unrounded

• [ɒ] is described as lower low in your text and IPA. I'll take either. It is **ROUNDED**

• [e] and [o] are the first part (nucleus) of the diphthongs [ej] and [ow]

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Basic vowel description

- The basic descriptors for vowels are HAR
 - Height
 - Advancement
 - Rounding
- It is useful to subdivide each height class into a 'higher' and 'lower' subdivision
 - You should learn all the heights in the next chart

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Tense and Lax

- English phonology traditionally makes the distinction between tense and lax vowels
 - This is not phonetically well-defined as a single characteristic
 - You just need to learn which vowels are classed as tense and lax
- This distinction based mainly on phonotactics
 - Phonotactics is the description of which sounds can occur together in a legal word or syllable of a language

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Occurrence of TENSE Vs

- Vowels called **'tense'** occur freely at the ends of **one syllable** words
 - i, ej, u, ow, ɒ (ɑ and ɔ in GA)
 - Also tense : aj, aw, ɔj
- **Examples** :
 - 'bee', 'bay', 'too', 'tow', 'law' ('spa' and 'law' in GA)

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Occurrence of LAX Vs

- Vowels called **'lax'** can mostly occur in one syllable words only if they end in a consonant
 - ɪ, ɛ, ʊ, ʌ , æ,
 - Also **lax** : weak vowels like ə
- **Examples** : 'bit', 'bet', 'put', 'but', 'bat'
 - No easy examples of these vowels at ends of 1-syllable English words
 - Try to think of some

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Duration patterns tense and lax vowels

- Tense vowels are longer than lax vowels of the same general height class
 - /i/ longer than /ɪ/ /u/ longer than /ʊ/
 - /ej/ longer than /ɛ/
- The tense back vowels /ow/ and /ɒ/ (both /ɑ/ and /ɔ/ in GA) are longer than the lax central /ʌ /
- An **exception** to the 'lax vowels shorter than tense' is /æ/
 - It is often as long as any other vowel

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Length of tense v. lax vowels: All other things being equal

- Vowel length in English is affected by many factors
- *All other things being equal*, a tense vowel is longer than a lax vowel of a *similar height*
 - (Exception /æ/ is not shorter than low tense vowels (e.g., /ɒ/)

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Transcribing vowel length for tense vs lax vowels

- In a narrow transcription we can indicate relative length of vowels by diacritics
 - [ɑː] Slightly longer than ‘baseline’
 - [ɑ:] Substantially longer than ‘baseline’
- Rogers suggests
 - Tense vowels with two symbols don’t ever need extra marks (natural to assume [eɪ] longer than [e])
 - Tense vowels with one symbol could be written with single raised dot [ɑˑ]

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Moderately narrow transcription of length

- Ordinarily, we will not transcribe vowel length even in narrow transcriptions
- On special occasions when attention is focused on length you should know a three way ranking for 1-syllable words

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Allophonic vowel length: pre voiceless obstruents

- Vowel length in English is affected by many factors
- *All other things being equal*, a vowel is shorter when it is before a voiceless consonant in the same syllable
 - E.g.
 - /æ/ in ‘bat’ is shorter than in ‘bad’ or ‘ban’
 - /ɛ/ in ‘bet’ is shorter than in ‘bed’ or ‘bell’
 - /i/ in ‘beat’ is shorter than in ‘bead’ or ‘bees’ or ‘bee’

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Length transcription conventions 1 syllable words

- From longest to shortest: Three degrees of length for one-symbol vowels
- 1) Lax vowel before voiceless consonant:
‘bit’, [bɪt]
- 2) Lax vowel before voiced consonant or tense vowel before voiceless consonant (these are about the SAME length)
‘bid’ [bɪd] ; ‘beat’ [biˑt]
- 3) Tense vowel elsewhere (before voiced consonant or at end of word)
‘be’ [bi:] , ‘bead’ [bi:d]

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This is a little different from Rogers

- The above is for special exercises only.
- Actual facts of vowel duration in English are very complex
- My rules are closer to the truth than Rogers, but it's impossible to nail this down simply in a narrow transcription
- Our transcription in special exercises will be only to illustrate that we know the following reliable facts:
 - Tense vowels are longer than similar lax vowels
 - Vowels before voiceless consonants are shorter than the same vowel before voiced consonants (or at end of word)

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Other variations length: prosodics, rate More things we **won't** transcribe

- Vowel length in English is affected by many factors
- Vowels in various positions in longer utterances get shorter or longer depending on position
- All other things being equal
 - Vowels in syllables at ends of phrases get longer : prepausal lengthening
 - Vowels in two syllable utterances are shorter than those in one syllable utterances. 'Dog' in 'Dog' than in 'Bad dog'
 - Vowels in a 'tonic' syllable (most emphasized syllable) of a phrase longer than those not in tonic syllable
 - S1: 'You're a good DOG', S2: 'You're a GOOD dog'
 - Dog longer is S1 than S2

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Another source of length variation: Stress

- Vowel length in English is affected by many factors
- *All other things being equal*, a vowels with primary stress is longer than one with secondary stress
 - Vowel with weak stress is shortest of all
- This is too much detail to note in transcription
 - We run out of diacritics!!!
- But you should still know that more stressed vowels are longer than less stressed vowels in English
 - (It's part of how we know what vowels are stressed)

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Nasalization of vowels One more thing we **WILL** transcribe with diacritic

- Vowels in English are noticeably nasalized when they occur before nasal consonants in same syllable
 - 'ban' /bæn/ [bæ̃n]
 - 'bin' /pɪn/ [pɪ̃n]
- Rogers suggests there is also nasalization after nasal C's
 - But this is quite minor compared to nasalization before nasal consonants and we will ignore it in transcription 'nab' vs 'ban'

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Some special cases: Vowels before /ɪ/

- Dialects of English do not show a full inventory of tense and lax vowels before /ɪ/
- Following the text, I will use ‘lax vowel’ symbols for most ‘simple’ pre-r vowels, though many sound at least as close to the nearby tense one
 - Exceptions
 - Lower mid vowel in ‘bore’ /bɔr/
 - Low vowel in ‘bar’ /baɪ/ or /bɑɪ/
- Rather than argue, I will accept alternates in next chart

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Note also before /ɪ/

- Diphthongs /aj aw ɔj / also occur before /ɪ/
 - ‘fire’, ‘flour’, ‘coir’
 - (last word rare = ‘coconut husk fibre’)
- Some dialects have more vowels before /ɪ/
 - ‘cheery’, ‘Mary’, ‘merry’, ‘marry’, ‘Murray’
- Some have fewer
 - ‘shore’, ‘lure’, ‘sure’, ‘bore’, ‘tour’

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Example WCE vowels before /ɪ/

Word	Rogers	Alternate
‘beer’	bɪɪ	biɪ
‘bare’	bɛɪ	beɪ
‘tour’	tʊɪ	tuɪ
‘bore’	bɔɪ	boɪ
‘bar’ (tense!)	bar	baɪ

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Other curious environments / ɲ ʃ (g ʒ)/

- Text notes that mainly only lax vowels occur before ɲ ʃ
 - Some related restrictions apply to /g/ and /ʒ/ in some dialects
- There are some exceptional words, onomatopoea and borrowings
- Not too important... but we’ll check some facts of local pronunciation

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WCE Vowels pre /ŋ /

- Facts not well documented in WCE--lets' check /ŋ/
 - ‘ping’ ‘ring’
 - ‘(Mr) Peng’
 - ‘pang’
 - ‘Hong Kong’ (tense vowel !!!)
 - ‘long’ (tense vowel !!!)
 - ‘hung’
- Any other vowels or diphthongs?
 - Hint : old McDonald

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For your edification

- en.wikipedia.org/wiki/Frug
- The Frug was a dance craze from the 1960s that evolved from another dance of the era, The Chicken. The Chicken, which featured lateral body movements, was used primarily as a change of pace step while doing The Twist. As young dancers grew more tired they would do less work, moving only their hips while standing in place. They then started making up arm movements for the dance, which prompted the birth of The Swim, The Monkey, The Dog, The Watusi, and The Jerk.
en.wikipedia.org/wiki/Frug

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WCE Vowels pre / g /

- Facts not well documented in WCE--lets' check /g/
 - ‘league’
 - ‘pig’
 - ‘(the) Hague’
 - ‘bag’
 - ‘bug’
 - ‘berg’
 - ‘(the) Frug’
 - ‘sugar’
 - ‘dog’
 - ‘hog’
- Any other vowels?

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WCE Vowels pre /ʃ ʒ /

- Again facts not well documented-- lets' check
- ‘leash’, ‘leige’ (rare before /i/ - but easy)
- ‘wish’
- ‘fresh’
- ‘crash’
- ‘slosh’
- ‘push’
- ‘wash’

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Words with tense vowels before / ʃ ʒ /

- Again facts not well documented-- lets' check
- 'leash', 'leige'
- 'woosh', 'swoosh' 'douche', 'rouge', 'luge'
- 'wash' 'slosh' 'Taj (Mahal)'
- 'slosh'
- 'push'
- 'wash'

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Canadian raising

- The diphthongs /aj/ and /aw/ in Cdn Eng
 - The nuclei (/a/ part) show 'notorious' raised (higher ≈ / ʌ /) as well as shorter allophones before voiceless consonants
- 'ride' / 'ɹajd / -> [' ɹa' jd]
- 'right' / 'ɹajt / -> [' ɹʌ jt]
- 'loud' / 'lawd / -> [' la' wd]
- 'lout' / lawt / -> [' lʌ wt]

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Vowels before [ɫ]

- Vowels before dark l are often 'retracted' ('backer') than usual
- Sometimes there is a [ə] like or [ʊ] component
- 'Trail' vs 'trade' ['tʰɹe:ə ɫ] vs ['tʰɹe:jd]
- Some dialects show 'monophthongization' of some back vowels
 - 'coal' ['kʰo: ɫ] rather than ['kʰoʷ ɫ]
- Some dialects have lost some vowel distinctions before l.
 - Salt Lake City 'steel' and 'still'

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More than Canada

- Though rarely acknowledged, many other dialects show 'half' of Canadian raising
 - The vowel /aj/ is raised before voiceless sounds in many other dialects
 - Americans and Canadians on TV know often use the phrase 'out and about' as a Canadian shiboleth rather than 'right makes might'

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