

# Introduction to English vowels

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## Description of vowels: HAR

- Three basic ‘dimensions’: Height, advancement and rounding
  - Height or ‘tongue height’:
    - High, mid, low
  - Advancement or ‘tongue advancement’
    - Front, central, back
  - Rounding or ‘lip rounding’
    - Rounded, unrounded
- Finer divisions may be useful (more steps)

## The key (‘point’) vowels [i a u]

Real vowels [http://www.ling.yale.edu:16080/ling120/Gestural\\_structure/MRI\\_Vowels/](http://www.ling.yale.edu:16080/ling120/Gestural_structure/MRI_Vowels/)

Graphics unavailable.  
Similar images at :  
[http://www.ling.yale.edu/ling120/Gestural\\_structure/MRI\\_Vowels/index.html](http://www.ling.yale.edu/ling120/Gestural_structure/MRI_Vowels/index.html)

Artist’s conception

Graphics unavailable.

For similar drawings, see Rogers 2000 p 28 29 30, figures 2.5 2.8 and 2.9

## Stylized tongue positions

- Most phonetics books use “artists’ conceptions” of vowel articulation
  - Exaggerate differences of tongue position in oral cavity
  - Miss large differences in pharynx

## Rogers Vowel Diagrams of GA (p 34)

- Graphics unavailable
  - See Figures 2.17, 2.18 and 2.19 p 34 of Rogers 2000

## Traditional vowel diagrams

- The acoustic data based on F1 and F2 resonances are quite similar to traditional vowel diagrams
  - We'll talk more about F1 and F2 later in course
  - For now I'll let you hear them
- But basic descriptive properties are correlated with real physical differences
  - Anyway they're very useful and the HAR scheme is world standard for descriptive phonetics

## More X-rays with acoustics

- Graphics unavailable
- For related info see <http://www.phon.ucl.ac.uk/home/johnm/ball.htm>

## Rogers' p. 33 table of GA Vs

- Graphic unavailable. See text p 33.
- “General American”

## The Simple Vowels of General American (GA)

- The 'simple' vowels

Front	Central	Back*
[i] 'beat'		[u] 'boot' <i>higher high</i>
[ɪ] 'bit'		[ʊ] 'book' <i>lower high</i>
(e)		(o) <i>higher mid</i>
[ɛ] 'bet'	[ə] 'sofa'	[ɔ] 'bought' <i>lower mid</i>
	[ʌ] 'but'	
[æ] 'bat'		[ɑ] 'Bob' <i>(lower) low</i>

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

## The Simple Vowels W. Canadian (WCE)

- The 'simple' vowels

Front	Central	Back*
[i] 'beat'		[u] 'boot' <i>higher high</i>
[ɪ] 'bit'		[ʊ] 'book' <i>lower high</i>
(e)		(o) <i>higher mid</i>
[ɛ] 'bet'	[ə] 'sofa'	<i>lower mid</i>
	[ʌ] 'but'	
		[ɒ] <i>(higher) low</i>
[æ] 'bat'		'Bob, bought' <i>(lower) low</i>

*\*All back vowels including [ɒ] are rounded; the rest are unrounded*

Note: The 'official' IPA description of /ʌ/ is a lower mid back unrounded vowel, but it we will call it a central vowel, since that is how the vowel symbol is used in English. (Strict IPA would have us use the symbol /ɐ/ for the vowel in 'but'.)

## Diphthongs of GA (and WCE)

- The 'simple' vowels

Front	Central	Back
[ej] 'bait'		[ow] 'boat' <i>(higher) mid</i>
[aj] 'tide'	[aw] 'loud'	<i>low</i>

## Variations on transcribing second part of diphthongs

- Vowel in 'hide' variously transcribed

○ [aj] [aɪ] [a<sup>j</sup>] [a<sup>i</sup>]

- They all mean pretty much the same thing
- We'll use Roger's convention
  - I may slip up and use [aɪ]

## The low back vowel in W. Cdn

- Rogers' p. 124 uses [ɑ] for Cdn vowel in 'Bob' or 'bought'
  - But he notes variation
  - Local pronunciation seems closer to [ɒ]
  - You can choose either symbol for broad transcription
    - I may vary on board

## Next couple of weeks...

- We'll be concentrating on consonant sounds
- Transcription part of first quiz will include *broad* transcription of all English consonants
- Only the three 'point vowels' [i ɑ u]