

Introduction to English Linguistics

2: Phonetics and Phonology



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Phonetics

articulatory	describes the production of speech
acoustic	describes the physical properties of speech
auditory	describes the reception of speech

Articulatory Phonetics

oral and/or nasal cavity
↑
(vocal cords)
↑
egressive pulmonic airstream

Speech Tract and Articulators

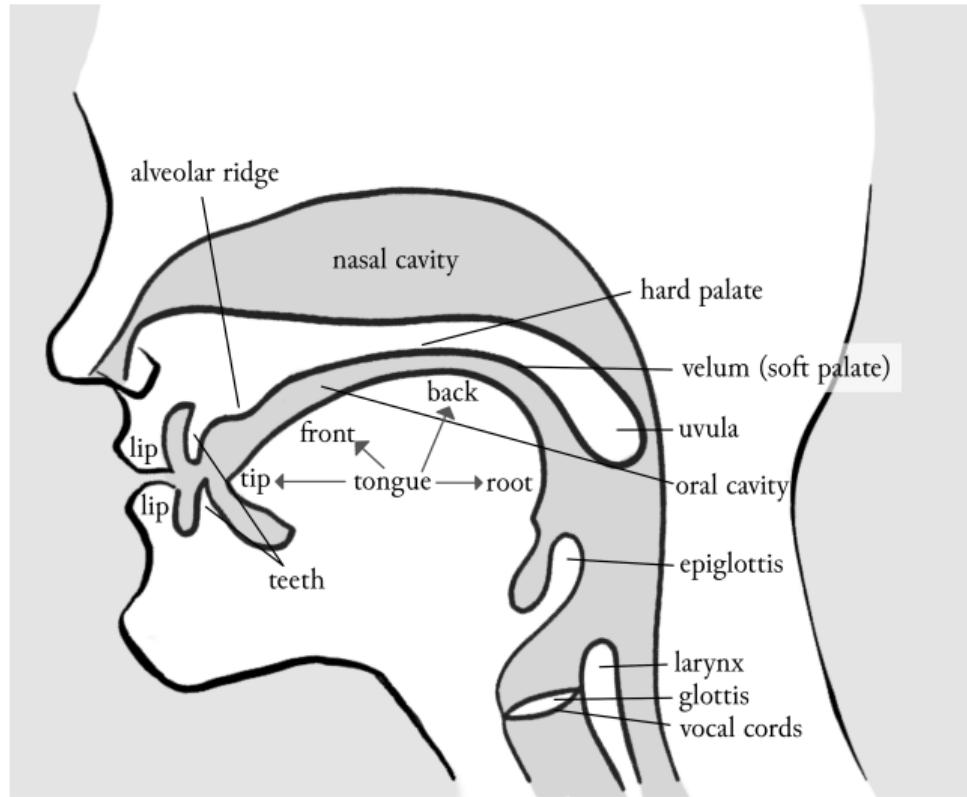


Figure: Supplied by Joost Eijkholt; do not reproduce without express permission

IPA Consonants

THE INTERNATIONAL PHONETIC ALPHABET (revised to 2020)

CONSONANTS (PULMONIC)

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	Bilabial	Labiodental	Dental	Alveolar	Postalveolar	Retroflex	Palatal	Velar	Uvular	Pharyngeal	Glottal
Plosive	p b			t d		t̪ d̪	c ɟ	k g	q ɢ		ʔ
Nasal	m	m̪		n		n̪	ɲ	ŋ	N		
Trill		B			r					R	
Tap or Flap		v̪		f		t̪					
Fricative	ɸ β	f v	θ ð	s z	ʃ ʒ	ʂ ʐ	ç ɟ	x ɣ	χ ʁ	ħ ʕ	h ɦ
Lateral fricative				ɬ ɭ							
Approximant		v̪		ɹ		ɻ	ɺ	ɻ	ɻ		
Lateral approximant				ɬ		ɬ	ɻ	ɬ	ɻ		

Symbols to the right in a cell are voiced, to the left are voiceless. Shaded areas denote articulations judged impossible.

Figure: CC-BY-SA International Phonetic Association

IPA Vowels

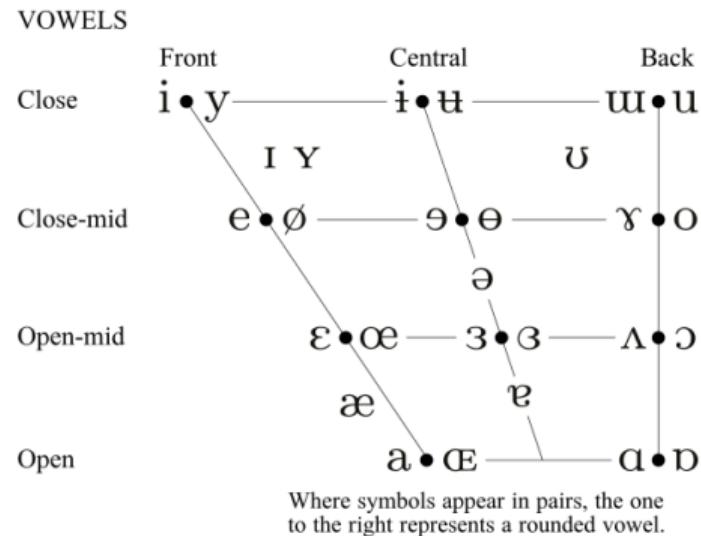


Figure: CC-BY-SA International Phonetic Association

Phonemics Terminology

phone	any speech sound, regardless of its status within a language's phonological system
phoneme	the smallest meaning-distinguishing unit of a specified language
allophone	one possible realization of a phoneme

Notation

Unit	Notation	Purpose
graphemic transcription	<keener>	Written communication
phonemic transcription	'ki:nə/	Specifying the general pronunciation of a speech sequence at the phonemic, meaning-distinguishing level (may include accent and vowel length)
phonetic transcription	['ci:nə]	Specifying a specific realization of a speech sequence as produced by a speaker or group of speakers at the allophonic level

The Description of Consonants

Descriptor	Possible Values
Voicing	Voiced; voiceless
Place of articulation	Bilabial; labiodental; dental; alveolar; postalveolar; palatal; velar; glottal (retroflex; uvular; pharyngeal)
Manner of articulation	Stop/plosive; fricative; affricate; nasal; approximant (i.e. semivowel or liquid)

Stops (Plosives)

/p/	voiceless	bilabial
/b/	voiced	bilabial
/t/	voiceless	alveolar
/d/	voiced	alveolar
/k/	voiceless	velar
/g/	voiced	velar
[?] [ʔ]	voiceless	glottal

Fricatives

/f/	voiceless	labiodental
/v/	voiced	labiodental
/θ/	voiceless	dental
/ð/	voiced	dental
/s/	voiceless	alveolar
/z/	voiced	alveolar
/ʃ/	voiceless	postalveolar
/ʒ/	voiced	postalveolar
/h/	voiceless	glottal

Nasals

/m/ bilabial

/n/ alveolar

/ŋ/ velar

Affricates

/tʃ/ voiceless postalveolar
/dʒ/ voiced postalveolar

Definitions to Supplement Mair 1/2

Consonant Phonetically, a sound produced with a marked constriction of the airflow in the speech tract; phonologically, a sound that normally occurs in the syllable boundary, rarely in its nucleus.

Vowel Phonetically, a speech sound produced without a marked constriction of the speech tract; phonologically, a speech sound found only as the nucleus of a syllable

Semivowel A sound that serves as a consonant phonologically but that has phonetic qualities like those of a vowel: /j, w/

Liquid Groups together /l, r/ for their shared phonological characteristics

Continuants

/w/	bilabial	semivowel
/j/	palatal	semivowel
/r/*	postalveolar	liquid
/l/		lateral liquid

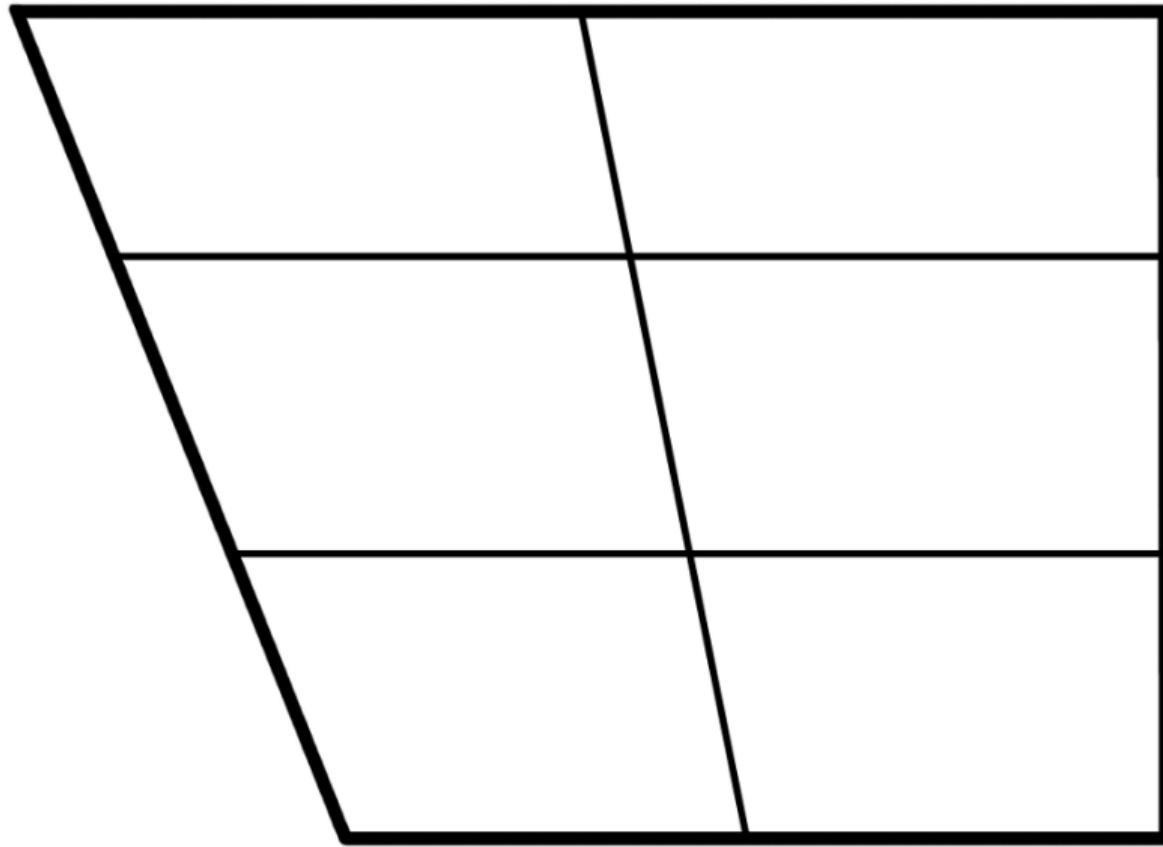
* More accurately [ɹ] (postalveolar approximant).

[r] is the alveolar trill as in Italian, Dutch, Czech, Scots, Max Raabe, etc.

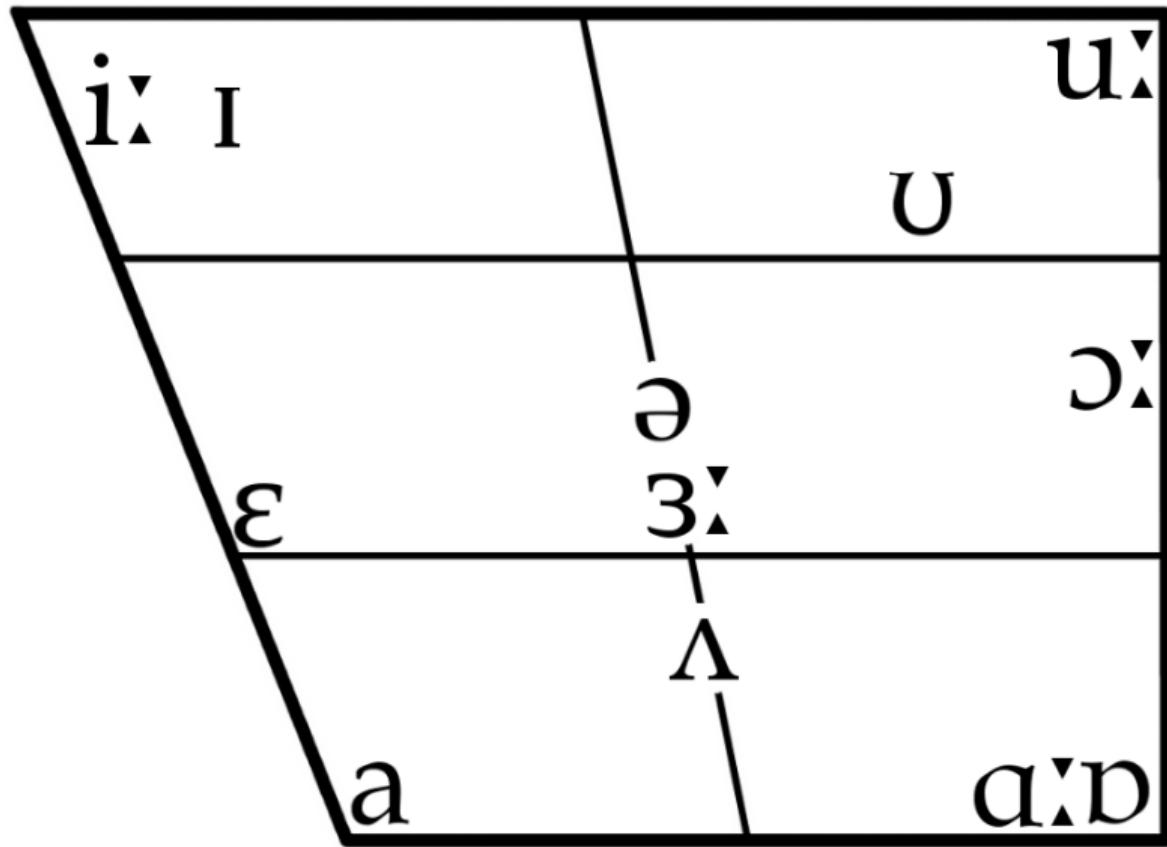
The Description of Vowels

Descriptor	Possible Values
Frontness	Front; Central; Back
Openness	Close; Close-mid; Open-mid; Open

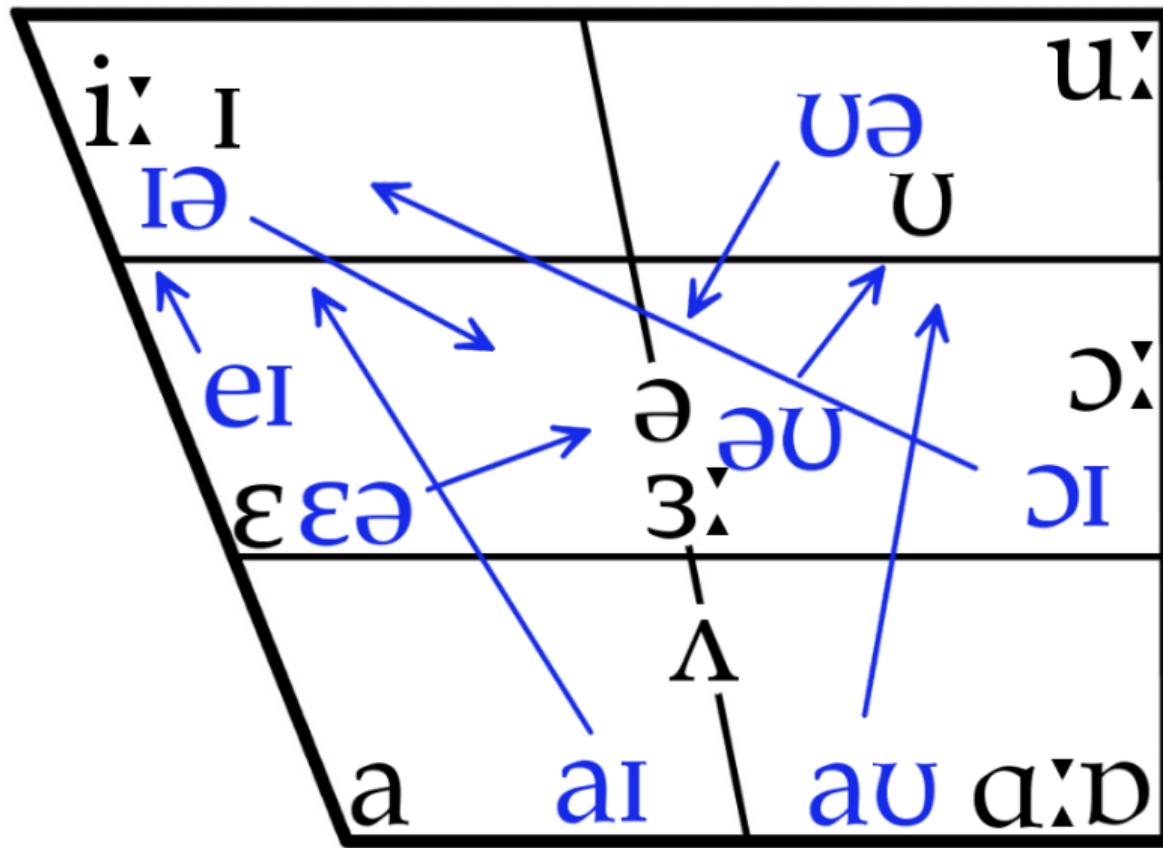
Vowel Diagram



RP Vowel Diagram



RP Vowel Diagram with Diphthongs



Conventional Variants

Because dialects change over time, even textbooks focusing on RP vary in their phoneme inventory:

Sound	<i>OED</i>	Mair	Barber
<i>bat</i>	/hat/	/hæt/	/hæt/
<i>bed</i>	/bɛd/	/bed/	/bed/
<i>bird</i>	/bə:d/	/bɜ:d/	/bɜ:d/

When doing your homework, please use *OED*'s notation for British pronunciation (oed.com) as your reference standard.

Minimal Pairs

/b/ and /p/	bit	pit
/ɪ/ and /i:/	bid	bead
/d/ and /t/	bid	bit

Definitions to Supplement Mair 2/2

Nucleus The core and only mandatory part of a syllable, normally occupied by a vowel

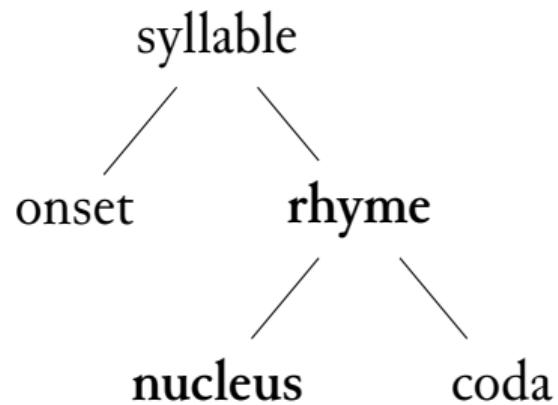
Onset The optional opening consonant or consonant cluster of a syllable (*Anlaut*)

Coda The optional concluding consonant or consonant cluster of a syllable (*Auslaut*)

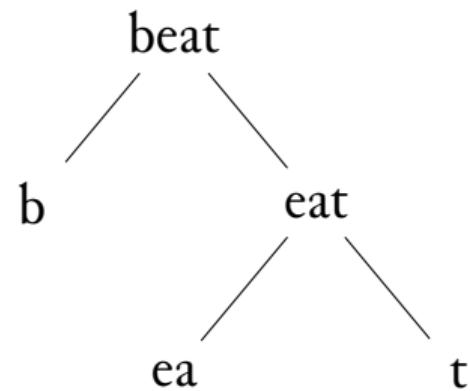
Rhyme The nucleus and coda of a syllable, i.e. typically the vowel and any following consonants

(Mair p. 30 introduces these concepts on a phrasal level only, in spite of the mistaken cross-reference on p. 21.)

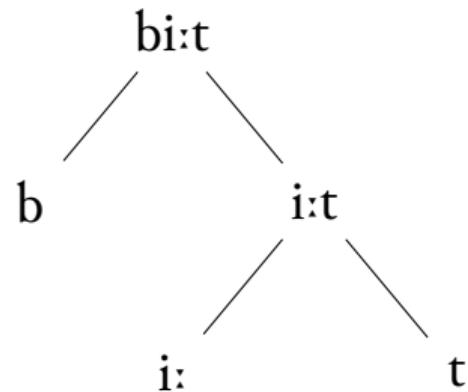
Syllable Structure



Syllable Structure



Syllable Structure



Bibliography

“International Phonetic Association.” <https://www.internationalphoneticassociation.org/>.

Mair, Christian. *English Linguistics: An Introduction*. 4th ed. bachelor-wissen. Tübingen: Narr Francke Attempto, 2022.