

Consonants

Airflow through oral cavity is obstructed

Voicing: Voiced v/s Voiceless, Voiceless are on the left

Place of Articulation: Bilabial is furthest out, glottal is deepest

Manner of Articulation: Stops are Plosive / Nasal, Approximants are Liquids / Glides

	BILABIAL	LABIODENTAL	INTER-DENTAL	ALVEOLAR	POST-ALV.	PALATAL	VELAR	GLOTTAL
PLOSIVE	p b			t d			k g	ʔ
NASAL	m			n			ŋ	
FRICATIVE		f v	θ ð	s z	ʃ ʒ			h
AFFRICATE					tʃ dʒ			
LIQUID (CENTRAL)				r				
(LATERAL)				l				
GLIDE	w					j		

bilabial	[p], [b], [w], [m]	pet, bet, wet, met
labiodental	[f], [v]	fine, vine
interdental	[θ], [ð]	thin, this
alveolar	[t], [d], [s], [z], [l], [r], [n]	tune, dune, soon, zoo, loon, rune, noon
post-alveolar	[ʃ], [ʒ], [tʃ], [dʒ]	ship, genre / measure, chip, gym
palatal	[j]	yes
velar	[k], [g], [ŋ]	kit, gift, king / think
glottal	[h], [ʔ]	hat, uh-oh

VOWELS	monophthongs				diphthongs		Phonemic Chart voiced unvoiced	
	i:	ɪ	ʊ	u:	ɪə	eɪ		
	sheep	ship	good	shoot	here	wait		
	e	ə	ɜ:	ɔ:	ʊə	ɔɪ		
	bed	teacher	bird	door	tourist	boy	əʊ	show
	æ	ʌ	ɑ:	ɒ	eə	aɪ	aʊ	cow
	cat	up	far	on	hair	my		
CONSONANTS	p	b	t	d	tʃ	dʒ	k	g
	pea	boat	tea	dog	cheese	June	car	go
	f	v	θ	ð	s	z	ʃ	ʒ
	fly	video	think	this	see	zoo	shall	television
	m	n	ŋ	h	l	r	w	j
	man	now	sing	hat	love	red	wet	yes

The 44 phonemes of Received Pronunciation based on the popular Adrian Underhill layout.

adapted by EnglishClub.com

Vowels

Airflow through oral cavity is not obstructed

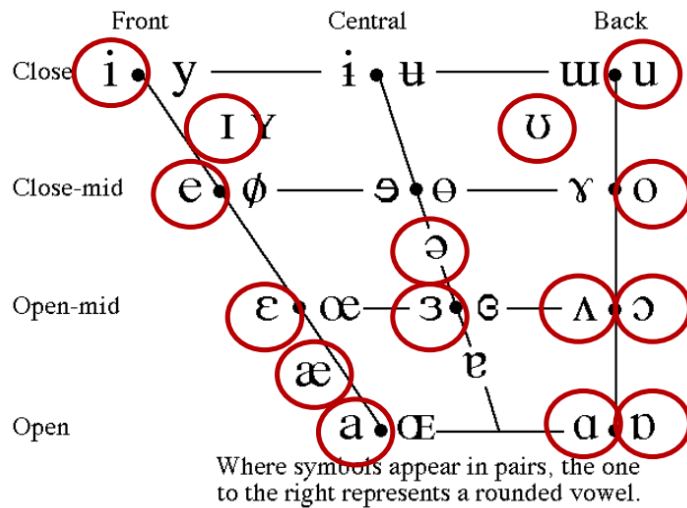
Lip Rounding: Rounded v/s Unrounded

Height: Low / Mid / High

Frontness: Front / Central / Back

Tenseness: Tense v/s Lax

Mophthong v/s Diphthong



AmE

Rhotic: [r] following a vowel is retained

	front	central	back
high	i		u
	ɪ		ʊ
mid	e	ə	o
	ɛ	ɜ	ɔ
low	æ	ʌ	ɑ
	ɶ		

Only appear in diphthongs

	front	central	back
high	i		u
	ɪ		ʊ
mid	e	ə	o
	ɛ	ɜ	ɔ
low	æ	ʌ	ɑ
	ɶ		

rounded

	front	central	back
high	i		u
	ɪ		ʊ
mid	e	ə	o
	ɛ	ɜ	ɔ
low	æ	ʌ	ɑ
	ɶ		

lax

BrE

Postvocalic r: When [r] comes after a vowel and before a pause or consonant, it is deleted and realized as a schwa [ə] or replaced with a long vowel [:]

	front	central	back
high	i		u
	ɪ		ʊ
mid	e	ə	
	ɛ	ɜ	ɔ
low	æ	ʌ	ɒ
	a		ɑ

rounded

	front	central	back
high	i		u
	ɪ		ʊ
mid	e	ə	
	ɛ	ɜ	ɔ
low	æ	ʌ	ɒ
	a		ɑ

lax

SgE

No tense-lax distinction

Most Singaporeans delete postvocalic [r]

	front	central	back
high	i		u
mid	e	ə	ɔ
	ɛ		ɔ
low		a	

Summary

Example	US - GA	UK - RP	SingE
SHEEP	i	i	i
SHIP	ɪ	ɪ	i
SET	ɛ	ɛ	ɛ
TRAP	æ	æ	ɛ
CLASS	æ	ɑ	a
GOOSE	u	u	u
FOOT	ʊ	ʊ	u
STRUT	ʌ	ʌ	a
THOUGHT	ɔ	ɔ:	ɔ
LOT	ɑ	ɒ	ɔ
COMMA	ə	ə	ə

Example	US (GA)	UK (RP)	SingE
MAY	eɪ	eɪ	e
MY	aɪ	aɪ	ai
BOY	ɔɪ	ɔɪ	ɔi
MOW	oʊ	əʊ	o
NOW	aʊ	aʊ	au
NEAR	ɪr	ɪə	iə
SQUARE	ɛr	ɛə	ɛ(r)
TOUR	ʊr	ʊə	uə(r)
PURE	jɜr	jʊə	jo(r)
NORTH	ɔr	ɔ:	ɔ(r)
START	ɑr	ɑ:	a(r)
NERD	ɜr	ɜ:	ə(r)
WRITER	ər	ə	ə(r)

Stress

All words have one syllable that receives primary stressed which is marked with ['] before the syllable

Secondary stress is marked with a low apostrophe [.]

Phonology

Phonemes

Minimal Pair: Changing one phone results in a different word

Contrastive Distribution: Can occur in the same phonological environment forming minimal pairs

Complementary Distribution: Can never occur in the same phonological environment

Free Variation: Can occur in same environment as different pronunciations but do NOT result in different words

Phoneme:



Allophones:

[t] [r]

Not in contrastive distribution, and are phonetically similar

Phonological Rules

Underline represents current phoneme

Use + and - to represent properties e.g. [+ high] [- voice]

Example: /t/ → [ʔ] / _[əŋ]

Symbols: V (Vowel), C (Consonant), ∅ (Nothing), \$ (Syllable Boundary), # (Word Boundary)

$A \rightarrow B / [\text{env. 1}] _ [\text{env. 2}]$

Phonological Processes

Assimilation: Two nearby sounds become more similar

Dissimilation: Two nearby sounds become more different

Epenthesis: A phone is added

Deletion: Underlying phoneme is not realised on surface phonetic level

Metathesis: Two sounds are switched

Synchronic: Phoneme deleted in certain phonological environments

Diachronic: Phoneme deleted in modern language

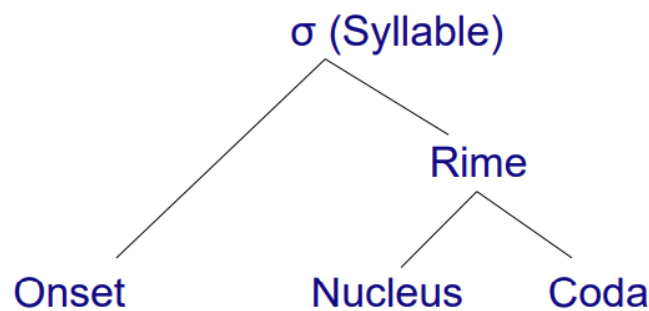
Syllables

Sonority Hierarchy: How "loud" phones are

More sonorous phones tend to be closer to nucleus

i.e. Nucleus is usually vowels

All syllables must have a nucleus



Morphology

Morpheme: Smallest meaningful unit in a language

Bound: Cannot exist on its own

Free: Stands on its own as a word

Affixes

Most bound morphemes are affixes

Affixes must occur more than one in vocabulary, have an identifiable grammatical function or meaning, and be added to a word to modify its core meaning

Prefix: Before word

Suffix / postfix: After a word

Infix: Middle of a word

Circumfix: Surrounding

Productive: New words are commonly / easily made out of the affix

Inflectional: Used to express certain grammatical information, word stays at the same part of speech

Derivational: Creates new word with different meaning, often a different part of speech

Can be Class-Changing or Class-Maintaining

Word Classes

Nouns: Person / animal / thing

Verbs: Action / event / state

Adjectives: Give more information and modify or describe features and qualities of things

Adverbs: Add more information about verb or adjective

Preposition: Describe relationship between words from major word classes

Pronouns: Words which substitute for noun phrases

Determiners: Come before nouns, show what type of reference the noun is making

Conjunctions: Show link between two words or phrases

Interjections: Exclamation words

Allomorphs: Irregular forms of inflectional affixes (e.g. plural that is not -s), different realisations of underlying morphemes

Roots: Morphemes that form the core meaning of the word

Bound roots: Bound morphemes that are roots

Cranberry Morphemes: Bound morphemes with no clear meaning

Compound Words: Contain more than one root

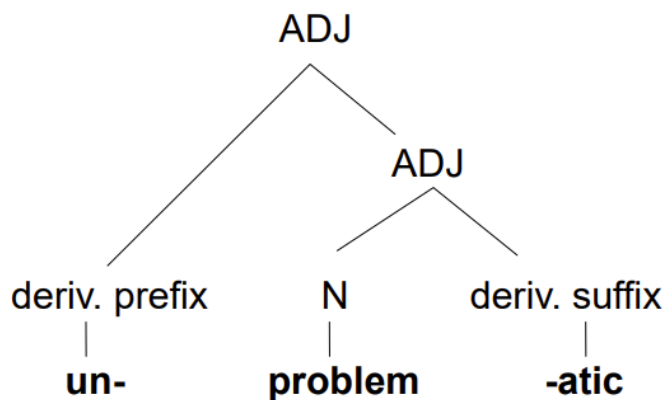
Open Compound Words: Single words conventionally written as two orthographic words

Closed: Written without space

Hyphenated: Written with hyphen between them

Hierarchical Word Structure:

Prevent confusion in word formation



Word Boundaries

Orthography: Are there spaces when written out

Phonology: Stress patterns or phonological rules

Divisibility: Can sequence be divided

Pause: Can speakers put a pause

Parts of Speech

Content Words: Contentful and provide meaning

Function Words: Serve grammatical functions and indicate relationship between content words

Word Formation

Conversion: Word changes word class with no new morphemes added

Backformation: Word appears to be made up of certain morphemes when it is not, usually from trimming a word

Clipping: Cutting of parts of a word

Blending: Combining Clippings together

Acronym: Initials pronounced as a regular word

Initialism: Words pronounced as letters

Syntax

Syntax: Study of rules underlying sentence structure

Top-Down: How can we parse a sentence

Bottom-Up: What rules determine how words can fit together

Morphological Tests

Nouns: Can we attach -s to it

Adjectives: Can we attach -ly to it

Verbs: Can we attach -ed to it

Inverse is not necessarily true

Words can belong to more than one word class

Constituents

Units that group together in sentence structure

Phrase: Between word and sentence level

Phrases can be nested in other phrases

Tests:

- Topicalization: Can it be moved to the front of the sentence
- Cleft: It is <> that <>
- Pseudocleft: <> is what <>
- Substitution: Can the chunk be replaced by a known constituent
 - Pronouns: that / this
 - Proforms: did so / do so / was so
- Deletion: Can the unit be deleted

Phrases

Phrases have an important word known as the head of the phrase

Phrase types are named after word class of head

Test for phrase head: A Y is a type of X

Phrase Rules

Noun Phrases may or may not have determiners, and can have as many adjectives as needed

$NP \rightarrow (Det) (Adj)^* N (PP)$

() = Optional, * = Repeatable