Vowels
Vowel classification

- Vowels are pronounced with open approximation: allowing the airflow to exit unhindered.

- produced in a smaller area of the vocal tract (the palatal & velar regions)

- vowels are voiced

- For all the above, vowels can’t be classified the same way as consonants
Vowel classification

- Vowels can be classified by answering three questions
  - How high is the tongue?
    - High - mid - low
  - What part of the tongue is involved?
    - Front - central - back
  - What is the position of the lips?
    - Rounded or unrounded
Vowel classification

Other factors:

- **Vowel length**: how long the vowel lasts
- **Nasality**: whether the velum is raised or lowered
- **Monophthong vs. Diphthong**: whether or not the tongue remains in the same position
The Vowel Space

- Vowel space establishes the limit of vowel articulation
- If the tongue is higher than the highest point, or further back than the furthest back vowel, a consonant is pronounced
Cardinal Vowels

- Daniel Jones, 1920s

Fig. 4.2 Cardinal Vowel chart
Cardinal Vowels

- (1-5) unrounded
- (6-8) rounded
- doesn’t represent an accurate anatomical diagram of the vowel space
- not necessarily the vowels of a particular language
Further classifications

- **vowel Length** indicated by (ː, or doubling symbol); e.g. vowel is ‘seat’ is longer than the one in ‘sit’ ([iː] vs. [i])
- Vowel length is not major in distinguishing between vowels in English

- **monophthongs**: vowels that are steady (e.g. see) [iː]

- **diphthongs**: involve tongue movement; (e.g. sigh; low front to high front) ([aɪ]’sky’, [ɔɪ] ‘boy’, [aʊ] ‘cow’, [eɪ] ‘face’)

- **nasal vowels**: with a lowered velum (when precedes a nasal stop); e.g. ‘bean’

- **oral vowels**: with a raised velum
The vowels of English

- much more variation in vowels than in consonants
- Vowel variation may have to do with regional or sociolinguistic factors
High front vowels

- The long monophthong [iː] as in ‘see’
- The short monophthong [i] as in ‘sit’
Mid front vowels

- short mid front: [e], or [ε] as in ‘bed’
- long mid front: [e:] as in ‘day’,
Low front vowels

- Short low front: [æ] as in ‘rat’
- Many varieties pronounce this as a lower vowel [a]
Low back vowels

- Long low back unrounded [ɑː] as in ‘father’
- Short low back round [ɒ] as in ‘dog’
Mid back vowels

- low mid back vowel [ɔː] as in ‘cause’, bought’, ‘door’

- High mid back vowel [oː] as in ‘goat’
High back vowels

- High back vowel [uː] as in ‘shoe’
- Low back vowel [ʊ] as in ‘put’
Central vowels

- Low mid unround back [ʌ] as in ‘cup’, ‘luck’, ‘fuss’

- Mid central unround [ɜː] as in ‘nurse’, ‘fir’, ‘worse’

- Central vowel schwa [ə] as in ‘about’, ‘puma’: commonest vowel in syllables that don’t carry stress
Distribution

- Short vowels may not occur finally in stressed monosyllabic words, while long vowels and diphthongs may. ([bi:], [bɔi], but not *[bɪ] or *[bɔ]

- Short vowels only occur in stressed monosyllables when these are consonant final; (bɪt] or [bɔg]