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Introduction to Acoustic and Articulatory Phonetics

Goal

Introduce the essentials of acoustic and articulatory phonetics. Examine acoustic resonance as a perceptual characteristic in the articulation and perception of speech sounds

Objectives

- **Apply the functions of the major parts of a resonating system to the human vocal tract.**
- **Distinguish among phone, phoneme, and allophone.**
- **Relate vocal tract patency to phoneme articulation.**
- **Distinguish among the sound sources for vowels, diphthongs, approximants, plosives, and fricatives.**
- **Distinguish among the four major articulatory characteristics of vowels.**
- **Distinguish the articulatory characteristics of approximant consonants from those of nasal consonants and vowels.**
- **Describe or recognize any General American English vowel in terms of its International Phonetic Alphabet (IPA) classification.**

The Resonant Vocal Tract

The vocal tract is an acoustic resonating system. It enables mankind to communicate by means of speech because it is uniquely capable of producing and modifying complex sound sources. By virtue of its great flexibility and its location at the distal end of the respiratory tract, the vocal tract can produce one quasiperiodic and two aperiodic sound sources and vary the spectral

Culbertson, W. R.
Fundamentals of the Speech and Language Sciences (pp 37-47).