Peoples's Democratic Republic of Algeria

Ministry of Higher Education and Scientific Research

University Center of Barika

Institute of Letters and Foreign Languages

Department of English Language and Literature

A Pedagogical Handout

On

Corrective and Articulatory Phonetics

For 2nd Year Bachelor Students (Semester 1 & 2)

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Introduction

This course provides a comprehensive and detailed exploration of English Phonetics and Phonology, combining theoretical principles with practical application. The course emphasizes both segmental and supra-segmental components of the English sound system, offering a thorough understanding of English pronunciation. It is designed to not only deepen students' comprehension of speech sounds but also to improve their listening and speaking proficiency. Building on the foundational knowledge acquired in the first-year phonetics course, which introduced key concepts such as speech production mechanisms, phonetic terminology, and the representation of speech sounds using IPA symbols, this course delves into more advanced phonetic and phonological rules. It refines students' articulation of English sounds and transcription skills while providing extensive practice in connected speech and its practical applications.

Phonetics is typically divided into two main areas: **segmental phonetics**, which focuses on the individual sounds of speech (i.e., vowels and consonants), and **supra-segmental phonetics** (also known as prosodic phonetics), which studies features like stress, intonation, pitch, rhythm, and speech melody that span across multiple segments. This course specifically addresses **Articulatory Phonetics**, which concentrates on the segmental aspects of English pronunciation, and the **Prosodic Aspects** of English, which include stress patterns, intonation, and rhythm in connected speech. By exploring both these areas in depth, the course aims to improve students' overall pronunciation, speech fluency, and their ability to transcribe spoken English accurately.

To facilitate student learning, the course content is structured into four comprehensive chapters, each designed to address a specific area of phonetic and phonological study. These chapters are supported by a wide variety of practical exercises and assignments, designed to enhance students' practical skills in articulation, transcription, and the analysis of spoken English.

Course Objectives:

Upon completion of this course, students will be able to:

1. Articulate English (RP) speech sounds with accuracy and fluency, including vowels, consonants, words, and sentences, in a manner consistent with standard English pronunciation.
2. Transcribe words and sentences using IPA symbols, with a solid understanding of how to represent word and sentence stress, and produce accurate stress patterns in spoken English.
3. Analyze connected speech features, such as elision, assimilation, linking, and rhythm, and effectively apply these features in both spoken and written contexts.
4. Refine listening and speaking skills by recognizing and correcting mispronunciations, improving fluency, and applying prosodic features of English (such as intonation, stress, and rhythm) in a natural and fluid manner.
5. Integrate phonetic and phonological principles in both the transcription of spoken language and in real-time spoken interaction, improving both academic and professional communication in English.

Course Prerequisites:

To ensure success in this course, students are expected to have:

1. A solid understanding of basic phonetic principles, including knowledge of phonetic terminology, speech production mechanisms, and familiarity with the International Phonetic Alphabet (IPA) symbols.
2. An ability to explain and apply the processes of speech production, such as articulation, voicing, and manner of articulation, and recognize how these processes affect sound production in English.
3. Competence in basic transcription skills using IPA, with an ability to transcribe individual sounds, words, and simple sentences in English.

Assessment:

The final assessment is as follows:

- Final exam: 60% for the course and 40% for the tutorials.

- Continuous assessment based on the following criteria: (attendance grade for tutorial sessions + active participation grade + research, presentation, and format grade + homework completion grade).

➢ Final average = (final exam grade + continuous assessment grade) / 2

Here is how the assessment is conducted:

a. Final Exam (60% of the final grade)

Course: The final exam covers all topics discussed during the semester, accounting for 60% of the final grade. In this exam, students will:

- ✓ Solve problems similar or closely related to those dealt with during the tutorial sessions (TD) and quizzes.
- ✓ Answer synthesis questions in the form of multiple-choice questions (MCQs).
- ✓ Answer reflective questions. These questions will be prepared throughout the semester through the TD sessions, lectures, and online quizzes.

b. Tutorials (40% of the final grade)

Continuous assessment: The grade for the tutorials is based on several criteria, each contributing equally to the overall continuous assessment grade:

- ✓ Attendance in tutorial sessions: A grade is assigned for attendance.
- ✓ Active participation: A grade is assigned for active participation during the sessions.
- ✓ Research and presentation: A grade is assigned for the quality of research, oral presentations, and their format.
- ✓ Homework completion: A grade is assigned for the completion and quality of submitted homework.

c. **Formative Assessment** (does not count towards the final grade) - Occasional Activities: To help students succeed in the final exam, formative activities are organized throughout the semester. These activities include:

- **Online**: Consultation of educational materials, participation in online quizzes followed by

feedback, and a mock exam similar to the final exam to assess knowledge and guide revision.

- **In-person**: Active participation in classes, with debates, exchanges, and interactions to better understand the concepts.

Final Average:

The final average is calculated using the following formula:

➢ Final average = (final exam grade + continuous assessment grade) / 2

❖ The final grade must be greater than or equal to 10 to pass the course.

Course Structure:

The course is divided into three chapters, each building on foundational knowledge to develop more advanced skills:

1. **Chapter 1: Segmental Phonetics**

   - Detailed analysis of English vowels and consonants
   - Focus on place and manner of articulation
   - Advanced techniques for accurate pronunciation

2. **Chapter 2: Supra-segmental Phonetics**

   - Exploration of stress, intonation, and rhythm in English
   - Application of prosodic features in connected speech
   - Exercises in speech fluency and the natural flow of language

3. **Chapter 3: Connected Speech**

   - In-depth study of elision, assimilation, linking, and other connected speech phenomena
   - Practical exercises in the production of natural-sounding connected speech

Chapter 1: Segmental Phonetics

- **Detailed analysis of English vowels and consonants**
- **Focus on place and manner of articulation**
- **Advanced techniques for accurate pronunciation**

Learning Outcomes:

- Conduct a detailed analysis of English vowels and consonants, exploring their distinctive features.
- Examine the place and manner of articulation in relation to the production of English speech sounds.
- Apply advanced techniques to enhance accuracy in pronunciation.

Lecture 1: Overview of Phonetics and Phonology

Phonetics and phonology represent two fundamental branches of linguistics that focus on the study of sound. Phonetics is concerned with the objective description and analysis of the various sounds produced in human languages, while phonology examines the sound patterns specific to particular languages, exploring what speakers and listeners must understand and what children need to acquire to become proficient speakers of those languages.

Phonetics

Phonetics is defined as "the systematic study of human speech sounds," providing methodologies for describing and classifying nearly all sounds produced by the human vocal apparatus (Catford, 1988). To categorize the sounds within a specific language, phonetics employs the International Phonetic Alphabet (IPA), a notation system established by the International Phonetic Association in 1886. This course utilizes the IPA to represent all speech sounds in English, particularly focusing on its two primary varieties: Received Pronunciation (RP) and General American (GA).

Phonology

Phonology is a subfield of linguistics that investigates the characteristics of speech sounds in languages, particularly their distribution, organization, and the implicit rules governing pronunciation. It seeks to uncover the principles that dictate how sounds combine and are structured within languages, thereby determining which phonemes are utilized and how they interact. Essentially, phonology addresses how speech sounds are organized and convey meaning within specific languages.The interplay between phonetics and phonology is intricate; one might conceptualize phonology as a refined aspect of phonetics. Infants, during their babbling phase, produce a wide array of possible human sounds—some of which may not be present in their linguistic environment. For instance, a child raised in an English-speaking context may spontaneously articulate consonants not found in European languages but present in certain African languages. As the child matures, they gradually restrict their sound production to those present in their ambient language(s). When later exposed to a different language with an unfamiliar sound inventory, they may assert an inability to produce sounds they once articulated effortlessly.

Branches of Phonetics

Phonetics is traditionally divided into three sub-disciplines:

- **Articulatory Phonetics:** This branch examines how speech sounds are produced or articulated. It details the role of various speech organs (articulators) in generating speech sounds.
- **Acoustic Phonetics:** This area focuses on the physical properties of speech as it manifests as sound waves in the air. It analyzes how air vibrates as sound travels from speaker to listener.
- **Auditory (Perceptual) Phonetics**: This branch investigates how listeners perceive speech sounds through their auditory systems, specifically, how these sounds are transmitted from the ear to the brain and processed cognitively.

Branches of Phonology

Phonology can be categorized into two main branches:

1. **Segmental Phonology:** This branch deals with individual speech sounds as identified by phonetics. Unlike phonetics, segmental phonology does not concern itself with sound production or perception but rather focuses on the functional roles and potential combinations of sounds within a language's sound system.
2. **Suprasegmental Phonology:** Also referred to as prosody, this branch addresses features of pronunciation that extend beyond single segments or sounds. It encompasses aspects such as stress, intonation, and rhythm that influence meaning but cannot be isolated to individual phonemes.

Here is a visual representation of the Speech Chain, illustrating the articulatory, acoustic, and auditory phases. It shows the flow from a speaker producing speech to a listener perceiving it, integrating the spheres of phonetics and phonology.

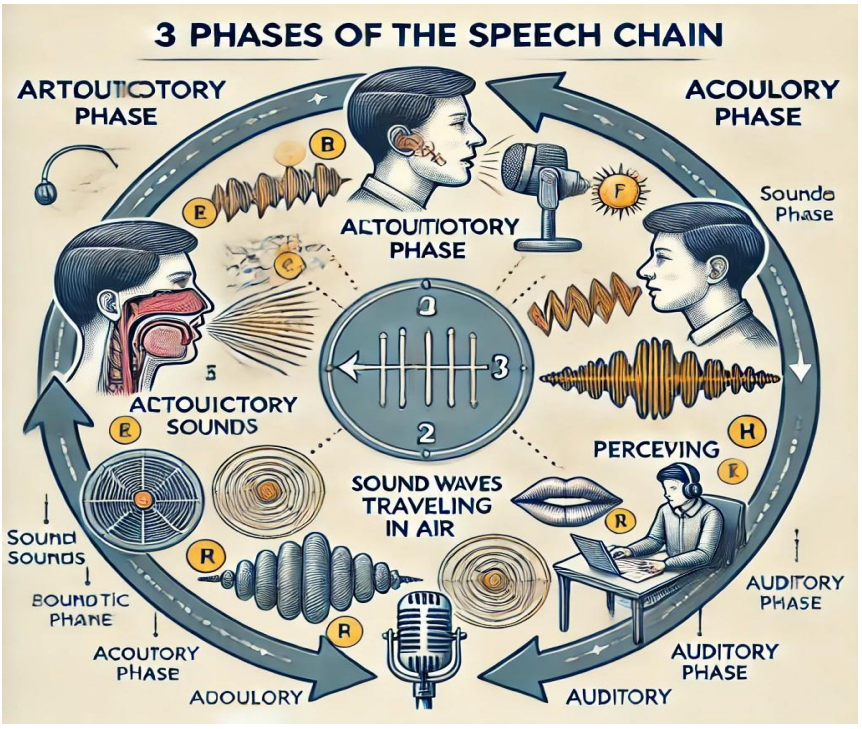

Figure 1: The Speech Chain

Phonology's Role in Linguistics

Students often question the significance of studying phonetics and phonology within linguistics. Phonology, a core branch of linguistics, plays a crucial role in various applied linguistic fields, enhancing our understanding of language structure and its applications (Roach, 2009).

1.Understanding Language Structure

Phonology investigates the systematic organization of speech sounds in languages, revealing how these sounds combine to form meaningful words and sentences. This branch of linguistics elucidates sound patterns that influence word formation and pronunciation. For instance, it identifies phonological universals, common sound patterns across languages that contribute to theories of linguistic universals (Hyman, 2006). A notable example is the presence of vowel and consonant sounds in most languages, which reflects a universal aspect of human language capacity.

2.Language Typology and Classification

Phonology significantly contributes to language typology by classifying languages based on their phonological characteristics. This classification aids linguists in recognizing both the diversity and similarities among languages, facilitating cross-linguistic comparisons (Crystal, 2008). For example, syllabic languages such as French and Polish exhibit similar phonological structures compared to stress-timed languages like English.

3.Phonological Change and Historical Linguistics

In historical linguistics, phonological analysis is vital for tracing the evolution of language patterns, thereby uncovering relationships among languages and their ancestral forms (Baker, 2001). It can illustrate how sound shifts have occurred over time, providing insights into the historical development of languages like English.

4.Dialectology and Variation

Phonology also plays a key role in dialectology by analyzing pronunciation variations across different regions and dialects. These variations often manifest in vowel pronunciation, which can serve as a distinguishing feature among dialects of the same language (Wells, 1982).

5.Interdisciplinary Connections

Phonology interacts with other linguistic domains such as morphology and syntax. Phonological processes, like stress placement and vowel harmony—can influence word formation and sentence structure (Selkirk, 1984). Additionally, phonological features can impose constraints on semantics, affecting how meaning is constructed within language.

6. Language Acquisition and Psycholinguistics

In the fields of language acquisition and psycholinguistics, phonology provides insights into how children learn their native language and how humans process speech sounds. This understanding is crucial for developing effective teaching methods and therapeutic interventions for speech disorders (Kuhl, 2004).

7.Applications in Education and Therapy

Phonology is instrumental in applied linguistics, particularly in language education and speech therapy. It equips language educators with knowledge about pronunciation while aiding speech therapists in addressing communication disorders (Ladefoged & Johnson, 2015). This dual application underscores phonology's importance as a tool for enhancing communication skills across diverse populations.

Lecture 2: Vowels Sounds in English

Overview of English Vowel Sounds

The English language comprises 44 distinct sounds, which can be categorized into two main types: consonant sounds and vowel sounds. This lecture focuses on the latter, specifically the characteristics and classifications of English vowels.

Definition of Vowels

From a phonetic perspective, vowels are defined as sounds produced without any significant obstruction to the airflow as it travels from the larynx to the lips. For example, when a doctor asks a patient to say “ah,” this vowel sound allows for an unobstructed view of the back of the mouth. In contrast, consonant sounds—such as /s/ and /d/—involve some degree of obstruction that restricts airflow, making it clear why these sounds are classified as consonants (Roach, 2009).

Types of English Vowels

English vowels can be classified into three primary categories: monophthongs, diphthongs, and triphthongs. These categories are visually represented in the Received Pronunciation (RP) vowel chart, which illustrates the position of the tongue during vowel articulation.

Description of Vowels

In Received Pronunciation, there are twelve pure vowels. The articulation of these vowel sounds is influenced by the shape and position of the articulators (e.g., tongue and lips). Vowels can be categorized based on four key features:

1. **Position of the Soft Palate**: This refers to whether the soft palate is raised or lowered during articulation.
2. **Lip Shape**: The lips can take on three general shapes during vowel production:

- **Rounded**: For instance, in the vowel sound /u:/ found in words like "group," "shoes," and "move," the corners of the lips are brought together and pushed forward.
- **Spread**: In contrast, for the vowel sound /i:/ in words such as "green," "achieve," and "please," the corners of the lips are spread apart, resembling a smile.
- **Neutral**: In the case of /ɑ:/ in words like "calm," "heart," and "father," the lips remain neither rounded

nor spread.

3. **Place of Articulation**: This feature describes which part of the tongue is primarily raised during vowel production:

- **Front Vowels**: These sounds involve raising the front part of the tongue toward the hard palate. Examples include /i:/, /ɪ/, /e/, and /æ/.
- **Central Vowels**: These sounds are produced with the central part of the tongue raised toward the hard palate. The central vowels include /ɜ:/, /ʌ/, and /ə/.
- **Back Vowels**: These involve raising the back part of the tongue toward the soft palate. Examples are /ʊ/, /u:/, /ɒ/, /ɔ:/, and /ɑ:/.

Daniel Jones, a prominent phonetician from the late 19th to early 20th century, developed a diagram known as the Cardinal Vowel Quadrilateral. This four-sided chart serves as a reference for describing vowel sounds based on tongue height and position during articulation. The chart illustrates both the degrees to which the tongue is raised and how lip shape corresponds to each vowel sound.According to Jones' framework, there are seven short vowels, five long vowels, and eight diphthongs represented within this diagram. This systematic approach aids phoneticians in categorizing and understanding vowel sounds across different languages. There are **7** short vowels, **5** long ones and **8** diphthongs as shown in the figure below:

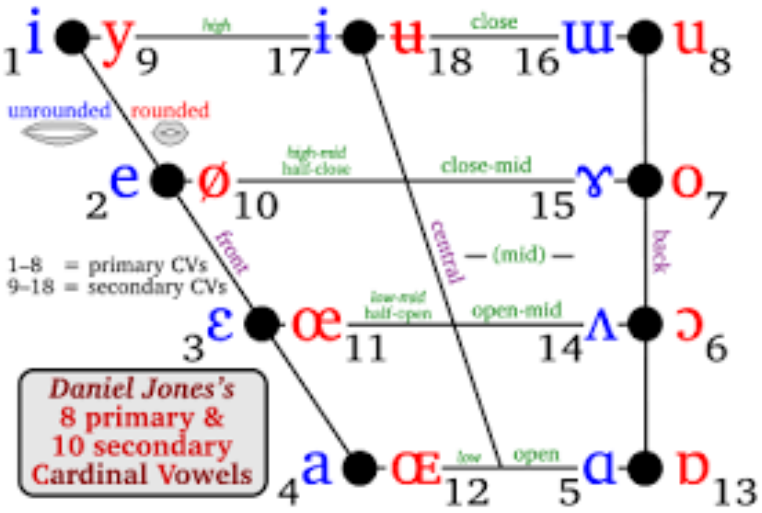

Figure 2: The Cardinal Vowels

The Cardinal Vowel System is a significant framework in phonetics that delineates the range of vowel sounds that humans can produce. This system, developed by Daniel Jones, serves as a reference point for understanding vowel articulation across different languages and accents.

Understanding the Cardinal Vowels

When studying the Cardinal Vowels, learners are not limited to English sounds; instead, they gain insight into the broader human capacity for sound production. The Cardinal Vowel System allows individuals to describe, classify, and compare vowels based on their articulatory properties. Each cardinal vowel represents a specific position in the vowel space, characterized by tongue height and lip shape, making it possible to articulate and analyze vowel sounds systematically (Weisser, 2022).

The Importance of Learning Cardinal Vowels

Learning the Cardinal Vowel System equips students with essential skills for several reasons:

- **Articulatory Mastery**: By understanding how to produce cardinal vowels, learners can improve their pronunciation in English and other languages. This knowledge helps them recognize the physical adjustments required for accurate sound production (Knight et al., 2014).
- **Descriptive Framework**: The system provides a structured way to describe any vowel sound by comparing it to cardinal vowels. For example, one can specify whether a vowel is more fronted or backed than a cardinal reference point (Ball & Müller, 2005).
- **Cross-Linguistic Application**: The Cardinal Vowel System is applicable beyond English, allowing linguists and language learners to analyze and compare vowel sounds across different languages effectively (Ladefoged, 2001).

Category	Vowel	Examples
Front	/i:/	see, machine, chief, field, magazine, belief
	/ɪ/	fish, busy, women, pretty, city, will pen, said, many, bury, any, guess
	/e/	cat, hand, plan, badge, marry, badge
	/æ/	
Back	/ʊ/	book, pull, foot, full, good, should
	/u:/	food, mood, room, moon, who, lose
	/ ɒ /	dog, stop, lot, top, what, cross, door, talk, board, sport, chore, pour
	/ɔ:/	star, half, father, hard, start, drama
	/ɑ:/	
Central	/ ə /	banana, support, alone, sofa, doctor,
	/ɜ:/	actor bird, nurse, earth, work, pearl, Thursday
	/ʌ /	fun, cup, mud, luck, enough, butter

Classification of Vowels Based on the Degree of Tongue Raising (Manner of Articulation):

1. **Close (High) Vowels**

a. The tongue is raised as high as possible without causing a constriction that would turn the sound into a consonant.

b. Examples: **/iː/** (as in *see*), **/uː/** (as in *blue*).

2. **Open (Low) Vowels**

a. The tongue is as low as possible, creating a wide-open vocal tract.

b. Example: **/ɑː/** (as in *car*).

3. **Mid Vowels**

a. The tongue is placed in an intermediate position between high and low.

b. Mid vowels are further divided into:

i. **Half-Close Vowels**: The tongue is slightly lower than for close vowels.

1. Examples: **/e/** (as in *bed*), **/ʊ/** (as in *foot*).

ii. **Half-Open Vowels**: The tongue is slightly higher than for open vowels.

1. Examples: **/ɔː/** (as in *thought*), **/ʌ/** (as in *cup*).

Categories of Vowels

Vowels in English can be categorized primarily into two groups based on their duration: long vowels and short vowels. This classification is essential for understanding how vowel length affects pronunciation and meaning in spoken English.

Long Vowels:

Long vowels are characterized by a prolonged articulation, meaning that the sound is held for a longer duration compared to short vowels. In the International Phonetic Alphabet (IPA), long vowels are represented with a colon (":") following the vowel symbol to indicate their length. The long vowels in English include:

- /ɑː/ as in "father"
- /iː/ as in "see"
- /ɔː/ as in "thought"
- /uː/ as in "blue"
- /ɜː/ as in "bird"

These sounds require more time to articulate, which can influence the rhythm and flow of speech.

Short Vowels:

In contrast, short vowels are produced with a quicker articulation, resulting in a shorter duration of sound. The short vowels in English, represented without the colon, include:

- /ɪ/ as in "sit"
- /e/ as in "bed"
- /æ/ as in "cat"
- /ɒ/ as in "hot"

- /ʊ/ as in "put"
- /ʌ/ as in "cup"
- /ə/ (schwa) as in "sofa"

Short vowels are typically quicker to pronounce and play a crucial role in the overall rhythm of speech.

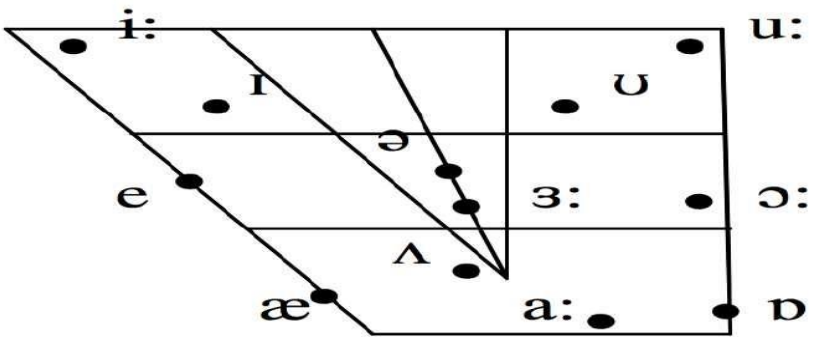

Figure 3: Pure RP Vowels

In addition to long and short vowels, English also features mixed vowels, which are composed of two or more pure vowel sounds. These mixed vowels can be further categorized into diphthongs and triphthongs.

Diphthongs

A diphthong is a complex vowel sound that occurs when there is a glide from one vowel to another within the same syllable. This glide involves transitioning between two different vowel positions in a smooth manner. In Received Pronunciation (RP), there are eight primary diphthongs, each represented in the International Phonetic Alphabet (IPA) as follows:

1. **/eɪ/ as in "take"**
2. **/ɑɪ/ as in "buy"**
3. **/ɔɪ/ as in "boy"**
4. **/ɪə/ as in "fear"**
5. **/eə/ as in "care"**
6. **/əʊ/ as in "go"**

7. **/ʊə/ as in "pure"**

8. **/ɑʊ/ as in "cow"**

Each of these diphthongs combines two distinct vowel sounds, creating a unique sound quality that is essential for accurate pronunciation in English.

Category	Diphthong	Examples
Closing	**/eɪ/**	***face, lake, date, mate, make, say***
	/aɪ/	***high, my, why, price, life, sight***
	/ɔɪ/	***boy, joy, coin, oil, toy, voice***
	/əʊ/	***go, home, boat, know, show, though***
	/ɑʊ/	***house, now, out, about, brown, loud***
Centring	**/ɪə/**	***here, ear, dear, fear, near, serious***
	/eə/	***care, bear, hair, pair, stair, square***
	/ʊə/	***tour, pure, sure, cure, during***

Definition of Triphthongs

A triphthong is a complex vowel sound that is produced by gliding from one vowel to another and then to a third vowel, all in rapid succession and without interruption. This seamless transition creates a single, cohesive sound that can be challenging for learners to articulate correctly. In Received

Pronunciation (RP), there are five primary triphthongs, each formed by combining a closing diphthong with the schwa /ə/ at the end.

Triphthongs in Received Pronunciation

The five triphthongs in RP are as follows:

- **/eɪə/ as in "player"**
- **/ɑɪə/ as in "fire"**
- **/ɔɪə/ as in "employer"**
- **/əʊə/ as in "lower"**
- **/ɑʊə/ as in "power"**

Each of these triphthongs consists of a glide through three distinct vowel sounds, culminating in the schwa. The inclusion of the schwa adds a neutral vowel quality that facilitates the smooth transition between the preceding sounds.

Importance of Triphthongs

Understanding and mastering triphthongs is essential for achieving fluency and naturalness in English pronunciation. These sounds play a significant role in the rhythm and melody of spoken English, influencing how words are perceived by listeners. Proper articulation of triphthongs enhances clarity and can help convey meaning more effectively.

Triphthongs	Examples
/eɪə/	***player, prayer, layer, mayor***
/ɑɪə/	***fire, buyer, liar, tire***
/ɔɪə/	***royal, employer, toil, broiler***
/əʊə/	***lower, mower, power, shower***
/ɑʊə/	***flower, sour, tower, hour***

Lecture 3: Consonants Sounds in English

Overview of Consonants

Consonants are speech sounds produced with some degree of obstruction in the vocal tract. This obstruction occurs when the vocal tract is narrowed at specific points, a process referred to as constriction. The characteristics of a consonant sound depend on several factors, including the location and degree of constriction, whether the vocal folds are vibrating, and the airflow through the nasal or oral cavities. Consequently, consonants can be classified along four primary dimensions: **place of articulation**, **manner of articulation**, **voicing**, and **force of articulation**. For example, the English consonant /t/ is classified as an alveolar plosive voiceless fortis consonant, while /m/ is described as a bilabial nasal voiced lenis consonant (Ladefoged & Johnson, 2011).

Place of Articulation

The **place of articulation** refers to where in the vocal tract the constriction occurs. The following categories describe different places of articulation:

1. **Bilabials**: Sounds produced by bringing both lips together. Examples include:
- /p/ as in "put"
- /b/ as in "bring"
- /m/ as in "many"
- /w/ as in "worm"

2. **Labiodentals**: Sounds made with the lower lip against the upper teeth. Examples include:
- /f/ as in "fever"
- /v/ as in "very"

3. **Dentals**: Sounds articulated with the tongue against the upper teeth. Examples include:
- /θ/ as in "thing"
- /ð/ as in "then"

4. **Alveolars**: Sounds produced with the blade or tip of the tongue against the alveolar ridge.

Examples include:

- /t/ as in "tick"
- /d/ as in "day"
- /n/ as in "nose"
- /s/ as in "some"
- /z/ as in "zebra"
- /l/ as in "lip"
- /r/ as in "run"

5. **Post-alveolars**: Sounds articulated with the blade or tip of the tongue near the alveolar ridge and sometimes towards the hard palate. Examples include:

- /ʃ/ as in "sheep"
- /ʒ/ as in "measure"
- /ʧ/ as in "cheap"
- /ʤ/ as in "judge"

6. **Palatals**: Sounds produced with the front of the tongue against the hard palate. An example is:

- /j/ as in "yes"

7. **Velars**: Sounds articulated with the back of the tongue against the soft palate. Examples include:

- /k/ as in "cat"
- /g/ as in "go"
- /ŋ/ as in "sing"

8. **Glottals**: Sounds produced at the glottis (the space between the vocal cords). An example is:

- /h/ as in "house"

Manner of Articulation

The **manner of articulation** describes how airflow is obstructed during consonant production. The following categories outline different manners of articulation:

1. **Plosives**: Produced by complete closure at two points of articulation, causing air pressure to

build up before being released explosively. English plosives include:

- /p/, /b/, /t/, /d/, /k/, and /g/

2. **Affricates**: Begin with a complete closure followed by a slow release that creates friction. English affricates include:

- /ʧ/, and /ʤ/

3. **Nasals**: Produced with a complete closure that prevents airflow through the mouth while allowing air to escape through the nose. English nasals include:

- /m/, /n/, and /ŋ/

4. **Laterals**: Allow airflow to pass around both sides of the tongue, exemplified by:

- /l/

5. **Approximants**: Articulators approach each other but do not create a complete closure, allowing for smoother airflow. English approximants include:

- /w/, /j/, and /r/

6. **Fricatives**: Characterized by a narrow constriction that produces turbulence and friction when air passes through. English fricatives include:

- /f/, /v/, /s/, /z/, /ʃ/, and others.

Voicing

Voicing refers to whether or not the vocal cords vibrate during consonant production:

1. **Voiced Consonants**: Produced when vocal cords vibrate during articulation (e.g., /b/, /d/, and /v/).

2. **Voiceless Consonants**: Produced without vocal cord vibration (e.g., /p/, /t/, and /f/) (Roach, 2009).

Consonants are in two categories **voiced** and **voiceless** as shown in the table below:

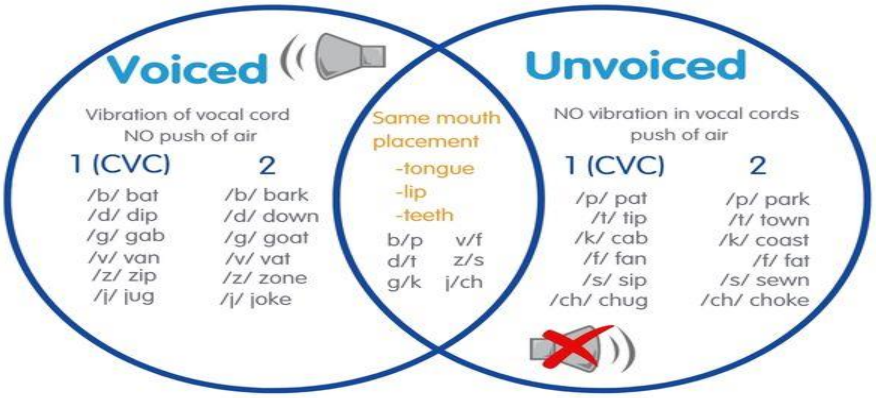

Figure 4: Voiced and Voiceless Consonant Sounds in English

The following IPA chart contains the consonant phonemes of the English language:

	MANNER		VOICING	PLACE						
				Bilabial	Labiodental	Interdental	Alveolar	Palatal	Velar	Glottal
Obstruent	Stop		Voiceless	p			t		k	ʔ
			Voiced	b			d		g	
	Fricative		Voiceless		f	θ	s	ʃ		h
			Voiced		v	ð	z	ʒ		
	Affricate		Voiceless					tʃ		
			Voiced					ʤ		
Sonorant	Nasal		Voiced	m			n		ŋ	
	Liquid	Lateral	Voiced				l			
		Rhotic	Voiced					r (ɹ)		
	Glide		Voiced	w				j	(w)	

Chart 1: Consonants Phonemes

International Phonetic Alphabet (IPA) and Spelling Differences:

The International Phonetic Alphabet (IPA) provides a consistent, standardized way of representing the sounds of speech across all languages. While many IPA symbols correspond directly to the letters we use in everyday spelling, there are some key differences that need to be understood.

1. **The letter "c":** In English spelling, the letter "c" can represent different sounds depending on the word. For example:

- **In words like "cup" or "back", the letter "c" represents the /k/ sound, as in [kʌp] or [bæk].**

- **In words like "receive" or "circle", the letter "c" represents the /s/ sound, as in [rɪˈsiːv] or [ˈsɜːrkəl].**

The IPA uses different symbols for each of these sounds to eliminate ambiguity in pronunciation.

2. **The phoneme /ŋ/:** The sound represented by the letters "ng" in English, as in "king" or "hang", is transcribed using the IPA symbol /ŋ/. This sound is produced by blocking the air at the back of the mouth, without fully closing the vocal tract. Examples include:

    - ✓ **king /kɪŋ/**
    - ✓ **trying /ˈtraɪɪŋ/**
    - ✓ **think /θɪŋk/**
    - ✓ **hang /hæŋ/**

This nasal sound appears frequently in English, often represented as "ng," but in IPA, it is consistently represented by the /ŋ/ symbol, regardless of the spelling.

Lecture 4: Core Phonological Concepts in Allophonic Variation

Phoneme: Definition and Role in Language

A **phoneme** is the smallest unit of sound in a language that has the potential to distinguish one word from another. It is a fundamental, contrastive sound unit that serves to differentiate meanings in a language. Phonemes are typically represented by slashes, for example, /b/ or /p/.

Phonemes do not carry meaning by themselves. Instead, they combine to form words, and it is the arrangement of phonemes that determines the meaning of words. The ability of a single phoneme to change the meaning of a word highlights its contrastive nature.

The Role of Phonemes in Meaning Distinction

In English, there are around 44 phonemes, divided into consonant and vowel sounds. These phonemes can be combined in various ways to form words. The contrast between two phonemes can change the meaning of a word, a concept that is illustrated by **minimal pairs** — pairs of words that differ by only one sound.

For example:

- **/b/** and **/p/** are contrastive phonemes because they differentiate words like **"bat"** /bæt/ and **"pat"** /pæt/.
- Similarly, the phoneme **/d/** contrasts with **/f/**, which changes the word **"dog"** /dɒg/ into **"fog"** /fɒg/, demonstrating how a single phoneme can alter the meaning of a word.

Importance of Phonemes in English

Phonemes are crucial to understanding pronunciation and meaning in English. Without a clear understanding of phonemes, it would be difficult to distinguish between words that are spelled similarly but pronounced differently. For example:

- **"ship"** /ʃɪp/ and **"sheep"** /ʃiːp/ are differentiated by the vowel sound /ɪ/ in "ship" and /iː/ in "sheep."

Minimal Pairs

Minimal pairs are pairs of words that differ in only one phoneme and have distinct meanings. This difference indicates that the sounds are stored separately in the mental lexicon of speakers. For example:

1. **/lɪp/** vs. **/tɪp/**: These words differ only in their initial sounds, where [l] and [t] are significant for English speakers. Thus, both /l/ and /t/ are recognized as separate phonemes.
2. **/bæg/** vs. **/beg/**: In this case, the vowel sounds [æ] and [e] create a meaningful distinction, confirming that both /æ/ and /e/ are phonemes in English.

Allophones

An **allophone** is a variant pronunciation of a phoneme that occurs in specific contexts without changing the meaning of a word. For instance, the phoneme /p/ can be aspirated [p^h] in "peak" ([p^hi:k]) but unaspirated [p] in "speak" ([spi:k]). The difference between these pronunciations can be perceived when one places their hand in front of their mouth while pronouncing both words (Ladefoged & Johnson, 2011).Allophones are represented within square brackets to indicate their phonetic variation. For example, the words "port" and "sport" both contain the phoneme /p/, but they are articulated differently: [p^h] in "port" versus [p] in "sport." While these variations do not create distinct meanings in English, they may serve as meaningful distinctions in other languages, such as Hindi, where aspirated and unaspirated sounds can change word meanings (Hock, 2003).

Types of Transcriptions:

Transcriptions can be classified into two main types: **phonemic** and **phonetic**.

- **Phonemic Transcription**: This type captures the pronunciation of words using a simplified set of symbols that represent phonemes. It is typically found in dictionaries and enclosed between slashes. For instance:
- girl: /gɜ:l/
- think: /θɪŋk/

Phonemic transcription focuses on how words differ from one another at a conceptual level while

ignoring finer pronunciation details.

- **Phonetic Transcription**: This transcription provides more detailed information about actual pronunciation by representing utterances with phones or allophones. It is enclosed within square brackets and captures specific articulatory features:

- proposal: [prəˈpʰoʊzəl]

Here, [pʰ] indicates an aspirated sound, while other details about articulation are preserved.

The Environment of Sounds

The context surrounding a sound, known as its **environment**, plays a crucial role in determining which allophone is produced. The environment includes adjacent sounds or breaks such as syllable or word boundaries:

- In the word **[pæt]**, the environment for [æ] is [p_t].
- In **[pen]**, the environment for [n] is represented as [pe_#], where "#" denotes the end of a word.
- In **[kæt]**, the environment for [k] is noted as [#_æt].

A. Allophonic Variation: Consonants

In this lecture, we will explore various aspects of speech that speakers produce unconsciously, focusing on how phonology describes and explains these phenomena. Specifically, we will examine how different allophones of consonants are realized due to changes in phonemes. Key aspects of allophonic variation include aspiration, (de)voicing, variations in place and manner of articulation, and glottal replacement or reinforcement.

Aspiration

Aspiration refers to the presence of a burst of air that accompanies the pronunciation of certain voiceless plosive sounds. In English, aspiration is particularly noticeable with the voiceless stops /p/, /t/, and /k/ when they occur at the beginning of a stressed syllable. For example, the phoneme /p/ can be aspirated as [p^h] in "pin" [p^hɪn] but remains unaspirated as [p] in "spin" [spɪn]. Similarly, the word "pie" [p^haɪ] features an aspirated /p/, while "spy" [spaɪ] does not.In contrast, voiceless plosives that are not at the beginning of a word or stressed syllable do not exhibit aspiration. For instance:

- **Piece** [p^hi:s] vs. **Speed** [spi:d]
- **Tea** [t^hi:] vs. **Eat** [i:t]
- **Cat** [k^hæt] vs. **Fat** [fæt]

Variations in Place of Articulation

Allophones can also be realized through changes in the place of articulation depending on their phonetic context. Here are some common variations:

1. **Dentalization**: When alveolar consonants such as /t/, /d/, /n/, and /l/ occur before dental fricatives like /θ/ and /ð/, they are articulated as dentals. This is indicated by placing a diacritic [̪] beneath the phoneme symbol. Examples include:

- "Tenth" [t̪ɛnθ]
- "Health" [hɛalth]
- "Eighth" [eɪt̪θ]

2. **Retraction and Advancement**: Alveolar consonants /t/ and /d/ may be retracted (produced with a post-alveolar articulation) before /r/. This is denoted by a minus sign [−] under the phoneme symbol. For example:

- Compare /t/ in **tea** vs. **tree**
- Compare /d/ in **do** vs. **drew**

Additionally, velar plosives /k/ and /g/ are advanced before front vowels and retracted before back vowels, indicated by plus [+] and minus [−] marks respectively:

- Compare /k/ in **keep** vs. **car**
- Compare /g/ in **geese** vs. **garden**

3. **Velarization**: This secondary articulation occurs when the back of the tongue is raised toward the soft palate during the production of certain consonants. The English phoneme /l/ has two allophones: a clear [l], as in "leave" [liːv], and a dark or velarized [ɫ], as in "shield" [ʃiːɫd]. The clear /l/ occurs before vowels, while the dark /l/ appears word-finally or before consonants, such as in "ball" or "filled."

Variations in Manner of Articulation

Consonantal phonemes can also exhibit different realizations based on their manner of articulation within specific contexts:

1. **Frictionless to Fricative Change**: The phoneme /r/ may be articulated as a fricative following unaspirated stops like /d/ (as in "dry") or after aspirated stops (as in "stream").
2. **No Release (Inaudible Release)**: When a plosive is followed by another plosive, the release of the first plosive may not be audible. This is indicated by placing a diacritic for an unreleased plosive (e.g., “apt” is pronounced without an audible release).
3. **Nasal Release**: This occurs when a plosive consonant is released through the nasal cavity when followed by a homorganic nasal (a nasal sound produced at the same place of articulation). This is indicated by a superscript [n] next to the plosive symbol, as seen in words like "sudden" and "kitten."
4. **Lateral Release**: A plosive may also be released laterally when followed by an /l/. This lateral release is denoted by a superscript [l], as seen in words like "little" and "badly."

B. Allophonic Variation: Vowels

In this lecture, we will explore how different realizations of the same vowel can vary based on two primary features: vowel shortening (also known as pre-fortis clipping) and nasalization.

Vowel Shortening

The length of a vowel can change depending on its phonetic environment, particularly in relation to the type of consonant that follows it. Specifically, vowels tend to be longest in open syllables, shorter before voiced consonants, and shortest before voiceless consonants. This phenomenon is referred to as **pre-fortis clipping**, where vowels are pronounced with reduced duration when they occur immediately before a voiceless consonant within the same syllable. In this context, the term "fortis" refers to voiceless consonants that create a stronger articulatory force, while "lenis" refers to voiced consonants that require less muscular effort. The diacritic for pre-fortis clipping is represented as [˘], placed above the symbol for the shortened vowel or diphthong. For example, clipped short vowels might be denoted as [ĕ, ĭ, ʊ, æ], while clipped long vowels are indicated with a dot instead of a colon (e.g., [iˑ, uˑ, ɜˑ]).

Examples of Vowel Shortening

Here are some examples illustrating vowel shortening due to pre-fortis clipping:

- **Clipped Vowels**:
- **Seed** [iˑ] vs. **Seat** [iː]
- **Hard** [ɑˑ] vs. **Heart** [ɑː]
- **Save** [ĕɪ] vs. **Safe** [eɪ]
- **Height** [ăɪ] vs. **Hide** [aɪ]
- **Cap** [æ] vs. **Cab** [æ]
- **Lock** [ɒ] vs. **Log** [ɒ]
- **Rough** [ʌ] vs. **Rub** [ʌ]

In these examples, the vowels before voiceless consonants (e.g., in "cap" or "lock") are pronounced shorter than their counterparts in words that end with voiced consonants or are in open syllables.It is important to note that only fortis consonants trigger pre-fortis clipping; lenis consonants do not induce this shortening effect, even if they are devoiced. For instance, in the case of "bad" and "bat," the vowel length remains consistent despite the voicing differences.

Exercises

1. **Count the Sounds**

- How many sounds are there in the following words?
- **Train:** ……..
- **Thought:** ……..
- **Sing:** ……..
- **Frog:** ……..
- **Friend:** ……..
- **Mouth:** ……..
- **Shout:** ……..
- **Light:** ……..

2. **Vowel Symbols and Descriptions**

- Write the IPA symbols for the vowels in the following words and provide a description of each vowel:
- **Cloud** / /……
- **Bread** / /……
- **Foot** / /……
- **Desk** / /……
- **Nurse** / /……

3. **Diphthong Symbols and Descriptions**

- Write the IPA symbols for the diphthongs in the following words and provide a description of each diphthong:
- **Coin** / /……
- **Mile** / /……
- **Joy** / /……
- **Play** / /……
- **Loud** / /……

4. **Minimal Pairs Identification**

- Can the following pairs of words be considered minimal pairs? Explain your reasoning.
- **Bite/Bite**
- **Ship/Sheep**
- **Pat/Mat**
- **Fan/Van**
- **Bat/Bet**

5. **Sound Identification and Description**

- Identify the sound represented by the following IPA symbol and provide its description:
- For each word provided, fill in the blank spaces with the appropriate information.
- Use your knowledge of phonetics to describe each sound accurately.
- Provide two additional examples for each identified sound.

1. **The initial sound in "Thames" is**

- **IPA Symbol: _____**
- **Description:** It is a _____ (e.g., voiceless dental fricative). The sound is produced by _____.
- **Examples: _____, _____.**

2. **The second sound in "said" is**

- **IPA Symbol: _____**
- **Description:** It is a _____ (e.g., mid-front unrounded vowel). The tongue is positioned _____.
- **Examples: _____, _____.**

3. **The second sound in "island" is**

- **IPA Symbol: _____**
- **Description:** It is a _____ (e.g., diphthong). This sound begins with _____ and glides to

_____.

- **Examples:** _____, _____.

4. **The last sound in "courage" is**

- **IPA Symbol:** _____
- **Description:** It is a _____ (e.g., voiced postalveolar affricate). This sound begins with _____ and then releases into _____.
- **Examples:** _____, _____.

5. **The initial sound in "horizontal" is**

- **IPA Symbol:** _____
- **Description:** It is a _____ (e.g., voiceless glottal fricative). The sound is produced by _____.
- **Examples:** _____, _____.

6. **The initial sound in "chef" is**

- **IPA Symbol:** _____
- **Description:** It is a _____ (e.g., voiceless postalveolar fricative). This sound is articulated by _____.
- **Examples:** _____, _____.

7. **The last sound in "fly" is**

- **IPA Symbol:** _____
- **Description:** It is a _____ (e.g., diphthong). The transition between these two sounds creates _____.
- **Examples:** _____, _____.

8. **The third sound in "margarine" is**

- **IPA Symbol:** _____
- **Description:** It is a _____ (e.g., voiced velar plosive). This sound involves obstructing airflow at the _____ and then releasing it abruptly.

- **Examples: _____, _____.**

9. **The second sound in "butcher" is**

- **IPA Symbol: _____**
- **Description:** It is a _____ (e.g., near-close back rounded vowel). The tongue is positioned high in the mouth while rounding the lips, producing a sound that is _____.
- **Examples: _____, _____.**

6. **Sound Environment Description**

- Describe the environment of the sounds corresponding to the bold letters in these words:
- **Crane:** …….
- **Fight:** …….
- **Might:** …….
- **Dumb:** …….
- **Show:** …….

7. **Aspirated vs. Unaspirated Sounds**

- Identify which sounds are aspirated and which are unaspirated in the following examples:
- **Cattle** /
- **Cough** /
- **Star** /
- **Kite** /
- **Bark** /

Aspirated	Unaspirated

8. **Dark ‘l’ vs. Light ‘l’ Identification**

- Identify dark ‘l’ and light ‘l’ in the following words:
- **Ballot/**
- **Little/**
- **Fallen/**
- **Silly/**
- **Pillow/**

Clear /l/	**Dark /ɫ/**

9. **Phonetic Transcription**

- Transcribe the following words phonetically using IPA:
- **Dance:** ………………..
- **Grape:** ………………..
- **House:** ………………..
- **Cheese:** ………………..
- **Jumping:** ………………..

10. **Provide Symbols and Examples**

Provide the IPA symbols and give two examples for each:

1. Voiced th: ....
2. Voiceless th: ....
3. Aspirated p: ....
4. Syllabic m: ....

5. Glottal stop: .....

6. Affricate j: .....

7. Palatalized n: .....

8. Labiodental v: .....

9. Voiceless r: .....

10. Nasalized vowel: .....

11. **Error Correction Exercise**

Find the mistakes in these transcriptions and correct them:

text

/bæd/ ..... /fɪʃɪŋ/ ..... /sʌmɪt/ ..... /hɛlp/ .....

/kɛr/ ..... /bɔːt/ ..... /tʃeɪm/ ..... /pəʊl/ .....

Chapter 2: Supra-segmental Phonetics

- **Exploration of stress, intonation, and rhythm in English**
- **Application of prosodic features in connected speech**
- **Exercises in speech fluency and the natural flow of language**

Learning Outcomes:

- Conduct a detailed analysis of English vowels and consonants, exploring their distinctive features.
- Examine the place and manner of articulation in relation to the production of English speech sounds.
- Apply advanced techniques to enhance accuracy in pronunciation.

Lecture 5: Syllable Structure and Consonant Clusters

Definition of Syllable

A syllable is a fundamental unit of spoken language that serves as a building block for words. It is defined as a segment larger than a phoneme, typically consisting of a vowel sound (or vowel-like sound) that may be surrounded by one or more consonants. Syllables are produced as uninterrupted units of pronunciation, forming whole or part of a word. Different linguistic perspectives offer various definitions of syllables:

- **Phonetic Definition**: From a phonetic standpoint, a syllable is characterized by a central element (the nucleus) that allows for little to no obstruction to airflow, making it sound relatively loud compared to the surrounding consonants. For example, in the monosyllabic word "light" /laɪt/, the vowel /aɪ/ functions as the nucleus flanked by the consonants /l/ and /t/.
- **Phonological Definition**: Phonologically, a syllable consists of nuclear elements (typically vowels) and marginal elements (consonants). While the nucleus is usually a vowel, certain consonants can also serve as syllabic nuclei, such as /l/ in "bottle" or /n/ in "button." In the word "scream" /skriːm/, the vowel /iː/ acts as the nucleus, while the initial consonant cluster /skr/ and the final consonant /m/ are considered marginal elements.

Counting Syllables

To determine the number of syllables in a word, follow these steps:

1. **Count the Vowels**: Identify all vowel sounds in the word.
2. **Subtract Silent Vowels**: Exclude any silent vowels, such as the final silent 'e' in "cake" /keɪk/.
3. **Count Diphthongs as One Vowel**: Treat diphthongs like /aʊ/ in "cloud" or /eɪ/ in "play" as single vowel sounds.
4. **Match Vowel Sounds to Syllables**: The number of vowel sounds typically corresponds to the number of syllables. For example:

- "Believe" /bɪˈliːv/: 2 syllables
- "Perhaps" /pəˈhæps/: 2 syllables
- "Record" (verb) /rɪˈkɔːd/: 2 syllables

- "Money" /ˈmʌni/: 2 syllables

5. **Handling Final "-le"**: In words ending with "-le," divide before the consonant preceding "-le," such as in "humble" (/ˈhʌm.bəl/) and "table" (/ˈteɪ.bəl/).

Types of Syllables

Syllables can be classified based on their structure:

- **Monosyllabic Words**: Containing one syllable, e.g., "cat" /kæt/, "dog" /dɔg/.
- **Disyllabic Words**: Containing two syllables, e.g., "doctor" /ˈdɒktə/, "happy" /ˈhæpi/.
- **Trisyllabic Words**: Containing three syllables, e.g., "beautiful" /ˈbjuːtɪfəl/.
- **Polysyllabic Words**: Containing four or more syllables, e.g., "unbelievable" /ʌn.bɪˈliː.və.bəl/.

Syllable Structure

Syllables have an internal structure that can be divided into components:

- **Onset (O)**: The initial consonant(s) preceding the nucleus.
- **Nucleus (N)**: The core part of the syllable, typically a vowel or diphthong.
- **Coda (C)**: The consonant(s) following the nucleus.

The simplest possible syllable contains only a nucleus (e.g., "I," "are"). Not all syllables have an onset or coda; for example, in the word “eat” (/iːt/), there is no onset.

Examples:

- For “read” (/riːd/):
- Onset: [r]
- Nucleus: [iː]
- Coda: [d]
- For “flop” (/flɒp/):
- Onset: [fl]
- Nucleus: [ɒ]
- Coda: [p]

Closed vs. Open Syllables

Syllables can be categorized as closed or open based on whether they end with a coda:

- **Closed Syllables**: End with one or more consonants (e.g., “cat” /kæt/, “text” /tɛkst/).
- **Open Syllables**: End with a vowel sound (e.g., “go” /gəʊ/, “me” /mi:/).

Weak and Strong Syllables

In English, strong and weak syllables are distinguished by their prominence:

- **Strong Syllables**: Typically longer and louder; can contain any English vowel except for schwa (/ə/).
- **Weak Syllables**: Shorter and quieter; usually contain schwa (/ə/) or other reduced vowels like /ɪ/ or /ʊ/.

Consonant Clusters

A consonant cluster occurs when two or more consonants appear together at the onset or coda of a syllable without intervening vowels.

Initial Consonant Clusters:

English allows up to three consonants at the beginning of a word:

- Examples include:
- “splash” (/splæʃ/)
- “strength” (/strɛŋθ/)

Final Consonant Clusters:

In coda positions, up to four consonants can occur:

- Examples include:
- “texts” (/tɛksts/)
- “lasts” (/læsts/)

The Onset

The **onset** refers to the initial sounds of a syllable that precede the nucleus. In English, onsets are always composed of consonants, which can occur as single consonants or in clusters of two or three. All consonants except for [ŋ] can function as onsets, although [ʒ] is relatively rare. For example, in the words "read" (/riːd/), "flop" (/flɒp/), and "strap" (/stræp/), the onset is highlighted in bold.When a word contains multiple syllables, each syllable will have its own onset. For instance:

- "window" can be divided into two syllables: win.dow

- "tomato" can be divided into three syllables: to.ma.to
- "fundamental" can be divided into four syllables: fun.da.men.tal

If the first syllable of a word begins with a vowel, we refer to this initial syllable as having a **zero onset**. For example, in the word "apple" (/ˈæpl/), the first syllable has no preceding consonant.

Rhyme (or Rime)

The **rhyme** of a syllable consists of the nucleus and the coda. The nucleus is typically a vowel or diphthong, while the coda comprises any following consonants.

The Nucleus

The **nucleus** is the core part of a syllable and is essential for its existence. In English and most languages, the nucleus is usually a vowel or diphthong. For example, in the word "read" (/riːd/), /iː/ serves as the nucleus.

The Coda

The **coda** consists of one or more consonants that may follow the nucleus. It is important to note that not all syllables have a coda; for instance, in the word "go" (/gəʊ/), there is no coda present.

Syllable Structure Analysis

To illustrate syllable structure, consider the following analysis of two words:

- **Read** = one syllable
- Onset = [r]
- Rhyme = [iːd]
- Nucleus = [iː]
- Coda = [d]
- **Flop** = one syllable
- Onset = [fl]
- Rhyme = [ɒp]
- Nucleus = [ɒ]
- Coda = [p]

In its minimal form, a syllable can consist solely of a nucleus (e.g., "eye," "are," "a," "or," "err," "owe," "ear," and "air"). Thus, the nucleus is an obligatory element in all languages; it must be present for a syllable to exist. In English, vowels can initiate (as in "ice," "ear," "earth") or conclude syllables (as in "high," "low," "sir"). While a syllable may include an onset and/or a coda, both elements are optional.

Open and Closed Syllables

Syllables can be categorized as **closed** or **open** based on whether they end with a coda:

- **Closed Syllables**: These end with one or more consonants (e.g., “cat” /kæt/, “height” /haɪt/, “eight” /eɪt/).
- **Open Syllables**: These end with a vowel sound (e.g., “sea” /siː/, “eyes” /aɪz/, “high” /haɪ/).

It is important to note that onsets do not affect this classification; there are open syllables with or without onsets and closed syllables with or without onsets.

Weak and Strong Syllables

In English, we distinguish between weak and strong syllables:

- **Weak Syllables**: Typically quieter and shorter than strong syllables. They often contain reduced vowels such as schwa (/ə/) or close vowels like /ɪ/ and /ʊ/.
- **Strong Syllables**: Can have any English vowel phoneme except for schwa (/ə/). These syllables are generally longer and more prominent.

Close Front and Close Back Vowels

In contemporary British and American English, distinguishing between close front vowels like /ɪ/ and long vowels like /iː/ can sometimes be challenging. For example, it may be difficult to determine whether the final vowel in words like "city" and "easy" should be classified as /iː/ or /ɪ/. A similar issue arises with close back vowels such as /ʊ/ and long vowels like /uː/, particularly in words like "to" and "who." To address these neutralized sounds, phoneticians often use symbols for long vowels without indicating length (e.g., using /bɪzi/ for “busy”).

Syllabic Consonants

Syllabic consonants are those that can function as nuclei without accompanying vowels. In unstressed syllables where schwa plus consonant sequences occur, certain consonants can act as syllabic nuclei. The English consonants that can serve this function include:

- **Syllabic /n/**: Commonly found after alveolar plosives and fricatives; examples include:
- eaten (/iːtn/)
- seven (/sevən/)
- threaten (/θretn/)
- **Syllabic /l/**: Often occurs at the end of words following plosives and fricatives; examples include:
- cattle (/kætl/)
- bottle (/bɒtl/)
- muddle (/mʌdl/)
- **Syllabic /m/**: Found in words like:
- bottom (/bɒtm/)
- rhythm (/rɪðm/).

Consonant Cluster:

A **consonant cluster** occurs when two or more consonants appear together in a syllable without a vowel intervening between them. This can happen at the onset or coda of a syllable, and it is essential to differentiate between consonant clusters and digraphs.

- **Consonant Clusters vs. Digraphs**: A digraph consists of two letters that represent a single sound, such as "ch" in "chat" (/tʃæt/). In this case, the letters 'c' and 'h' are contiguous but do not form a consonant cluster since they represent one phoneme. In contrast, consonant clusters consist of multiple consonants that maintain their individual sounds, as seen in words like "splash" (/splæʃ/) or "strength" (/strɛŋθ/).

The Syllable Onset and Coda

Syllables can have initial (onset) and final (coda) consonant clusters. The specific combinations of consonants that can occur in these positions are governed by phonotactic rules, which dictate

permissible sequences of sounds.

Phonotactics

Phonotactics refers to the set of rules that specify which combinations of sounds are allowed in a given language. In English, consonant clusters can appear both at the beginning (onset) and end (coda) of syllables. English allows for up to three consonants in both positions:

- **Initial Consonant Clusters**:
- English words may begin with up to three consonants. If a word starts with three consonants, the first must be /s/, the second must be a voiceless stop (/p/, /t/, or /k/), and the third must be either a liquid (/l/, /r/) or a glide (/w/, /j/).
- Examples include:
- "squeeze" (/skwiːz/)
- "split" (/splɪt/)
- "street" (/striːt/)
- **Final Consonant Clusters**:
- At the end of syllables, up to four consonants can occur. This is more common in monosyllabic words.
- Examples include:
- "texts" (/tɛksts/)
- "lasts" (/læsts/)

Types of Initial Consonant Clusters

1. **Two-Consonant Clusters**:

- These can be categorized into two types:
- **Type 1**: Clusters beginning with /s/ followed by another consonant. Examples include:
- "smile" (/smaɪl/)
- "stop" (/stɒp/)
- **Type 2**: Clusters starting with one of about fifteen other consonants followed by /l/, /w/, /r/, or /j/. Examples include:
- "play" (/pleɪ/)

- “tray” (/treɪ/)

2. **Three-Consonant Clusters**:

- These often follow similar patterns as two-consonant clusters but include an additional consonant:
- Examples include:
- “spring” (/sprɪŋ/)
- “scream” (/skriːm/)

Types of Final Consonant Clusters

Final consonant clusters can also be categorized based on their structure:

1. **Two-Consonant Final Clusters**:

- These can consist of:
- A pre-final consonant followed by a final consonant, where pre-final consonants include /m/, /n/, /l/, /ŋ/, or /s/. Examples include:
- “bump” (/bʌmp/)
- “bend” (/bɛnd/)
- A final consonant followed by a post-final consonant, where post-final options include /s/, /z/, /t/, /d/, or /θ/. Examples include:
- “beds” (/bɛdz/)
- “masks” (/mæks/)

2. **Three-Consonant Final Clusters**:

- These consist of a pre-final, final, and post-final consonant.
- Examples include:
- “twelfths” (/twɛlfθs/)
- “texts” (/tɛksts/)

3. **Four-Consonant Final Clusters**:

- These are less common but can occur in certain contexts.
- Example:
- “lengths” (/lɛŋkθs/)

Syllable Division

Syllable division involves identifying where syllable boundaries occur in a word. The process of **syllabication** is guided by three primary criteria:

1. Morphemic Criterion

Syllables should align with morpheme boundaries. For example:

- **"unlock"**: /un.lock/
- **"replay"**: /re.play/ This ensures that the meaningful parts of a word, the morphemes, are preserved during division.

2. Phonotactic Criterion

Syllable divisions must follow the phonotactic rules of the language. In English, syllables cannot be divided in a way that violates permissible sound combinations. For example:

- **"happy"**: /ˈhæ.pi/ (correct)
- **"receipt"**: /rɪˈsiːt/ (correct) Both follow the rules for allowed combinations of sounds in English.

3. Maximization of Onsets

When the first two criteria do not provide a clear division, the Maximization of Onsets principle is applied. This principle favors placing as many consonants as possible in the onset of a syllable. For example:

- Word: **"impose"**
- Possible divisions: im.pose, im.po.se
- Correct division: **im.pose**
- This division is chosen because placing /mp/ at the start of a syllable is allowed, whereas /po.se/ would violate the onset rule.

Ambiguity in Syllable Division

In some cases, applying these principles may lead to ambiguity. For example, in the words **"doctor"** and **"summer"**, applying the Maximization of Onsets principle could lead to incorrect divisions like /doc.tər/ or /sum.mər/. To resolve such issues, the principle of **ambisyllabicity** is used, where

consonants in unstressed syllables can function in both the onset and coda of adjacent syllables. Thus, in **"doctor"** (/ˈdɒk.tər/) and **"summer"** (/ˈsʌm.ər/), the consonants /k/ and /m/ are ambisyllabic.

Examples of Syllable Division

1. **"doctor"**

- Correct division: /ˈdɒk.tər/
- The consonant /k/ is placed in the coda of the first syllable to follow phonotactic rules.

2. **"summer"**

- Correct division: /ˈsʌm.ər/
- The structure maintains proper phonotactic constraints while dividing between the two syllables.

Lecture 6: Stress Patterns

In English, when a word consists of more than one syllable, one of those syllables is produced with greater force, energy, and prominence than the others. This emphasis is known as **stress**. Stress can be understood as the power applied to a syllable, making it louder, longer, and stronger compared to unstressed syllables. In phonetic transcription, a stressed syllable is marked by placing a small vertical line (') before the syllable. The position of stress can vary; it may fall on the first, second, third, or even fourth syllable of a word.For example:

- In **'father** (/ˈfɑːðə/), the first syllable is stressed.
- In **po'tato** (/pəˈteɪtəʊ/), the middle syllable receives stress.
- In **a'bout** (/əˈbaʊt/), the final syllable is stressed.

Factors Influencing Stress Placement

Several factors influence where stress falls within a word:

1. **Loudness**: Stressed syllables are typically louder than their unstressed counterparts. If one syllable is pronounced with more volume, it will be perceived as stressed.
2. **Length**: Stressed syllables are often longer in duration compared to unstressed ones. The vowel in a stressed syllable is pronounced for a longer time than the reduced vowels found in unstressed syllables.
3. **Vowel Quality**: Stressed syllables usually contain prominent vowels. Strong vowels such as /e/, /æ/, /ɒ/, /ɑː/, /iː/, and /ɜː/ tend to occur in stressed positions, while weak vowels like /ə/ and /ɪ/ are more frequently found in unstressed syllables.
4. **Pitch of the Voice**: The pitch of the voice plays a crucial role in indicating stress. A stressed syllable is often pronounced with a higher pitch compared to unstressed ones. For instance, if all syllables are spoken with a low pitch except for one that is pronounced with a higher pitch, that high-pitched syllable will be perceived as stressed.

The combination of these four factors, loudness, length, quality, and pitch—creates prominence in speech. While all four factors contribute to stress perception, research indicates that pitch has the most significant effect, followed by length.

Levels of Stress

In polysyllabic words, there can be varying degrees of stress:

- **Primary Stress**: This is the strongest type of stress and is marked by being louder, longer, and higher in pitch. For example:
- "water" /ˈwɔːtə/
- "beautiful" /ˈbjuːtɪfəl/
- **Secondary Stress**: This type of stress is weaker than primary stress but still noticeable. It may occur in longer words with multiple stressed syllables and is marked with a small lowered vertical line (ˌ) before the stressed syllable:
- "information" /ˌɪnfəˈmeɪʃən/
- "understand" /ˌʌndəˈstænd/
- **Unstressed Syllables**: These are syllables that lack stress and often contain reduced vowels such as schwa (/ə/) or other weak vowels:
- "alone" /əˈloʊn/
- "envy" /ˈɛnvi/

Placement of Stress within Words

The assignment of stress to specific syllables in English words follows particular rules:

1. **Morphological Structure**: The complexity of a word (whether it is simple or complex) affects stress placement. Compound words and those with affixes may have different stress patterns.
2. **Grammatical Category**: Stress assignment varies between nouns and verbs due to differing rules. For example:

- In nouns like "record" (/ˈrɛkərd/), the first syllable is stressed.

- In verbs like "record" (/rɪˈkɔrd/), the second syllable receives stress.

3. **Number of Syllables**: The total number of syllables in a word influences how stress is distributed.
4. **Phonological Structure**: The phonological characteristics of each syllable also play a role. A distinction exists between heavy and light syllables:

- **Heavy Syllables**: Contain long vowels or diphthongs or short vowels followed by consonants.
- **Light Syllables**: Contain short vowels without coda.

As a general rule, heavy syllables tend to attract stress more than light ones.

Ambisyllabicity

Ambiguities can arise during syllabication, particularly with intervocalic consonants that might belong to either the coda or onset of adjacent syllables. This issue can be addressed through the concept of **ambisyllabicity**, which posits that certain consonants can straddle two syllable boundaries:

- For instance, in "better" (/ˈbɛtər/) and "seven" (/ˈsɛvən/), the consonants /t/ and /v/ are considered ambisyllabic because they function as both coda for one syllable and onset for another.

A. Stress in Simple Words

In English, the placement of stress in two-syllable words can vary, with either the first or second syllable receiving emphasis based on specific rules. Stress is defined as the degree of force or prominence placed on a syllable, which can manifest as increased loudness, length, and energy. In phonetic transcription, stressed syllables are marked with a small vertical line (') before the syllable.

Stress Patterns in Two-Syllable Words

1. **Stress on the First Syllable**: In many two-syllable nouns and adjectives, stress typically falls on the first syllable. Examples include:

- **Present** (/ˈprɛzənt/) — noun
- **Clever** (/ˈklɛvər/)
- **Happy** (/ˈhæpi/)

2. **Stress on the Second Syllable**: Conversely, most two-syllable verbs place stress on the second syllable. Examples include:

- **Present** (/prɪˈzɛnt/) — verb
- **Decide** (/dɪˈsaɪd/)
- **Begin** (/bɪˈgɪn/)

Criteria for Stress Placement

The placement of stress within two-syllable words is influenced by several factors:

- If the second syllable contains a long vowel or a diphthong (excluding /əʊ/) or ends with a consonant cluster, it typically receives stress. For instance:
- **Complete** (/kəmˈpliːt/)
- **Receive** (/rɪˈsiːv/)
- Conversely, if the second syllable contains a short vowel or the diphthong /əʊ/, stress usually

falls on the first syllable:

- **Open** (/ˈəʊpən/)
- **Envy** (/ˈɛnvi/)

Summary of Stress Patterns for Two-Syllabic Words

Word Type	Example	IPA Transcription
Nouns	Balloon	/bəˈluːn/
	Finger	/ˈfɪŋgər/
	Money	/ˈmʌni/
Adjectives	Correct	/kəˈrɛkt/
	Alive	/əˈlaɪv/
Adverbs	Hardly	/ˈhɑrdli/
	Outside	/aʊtˈsaɪd/
Prepositions	Among	/əˈmʌŋ/
	Beyond	/bɪˈjɔnd/

Important Notes

- The syllable containing the schwa sound (/ə/) is never stressed.
- In two-syllable words where the first syllable contains schwa (/ə/), stress typically shifts to the second syllable:
- Examples:
- "Ahead" (/ə'hed/)
- "Oppose" (/ə'pəʊz/)
- "Suggest" (/sə'dʒɛst/)
- Conversely, if a two-syllable word has schwa in the second syllable, then stress is placed on the first syllable:
- Examples:

- "Purpose" (/ˈpɜːpəs/)
- "Ballad" (/ˈbæləd/)

Stress Patterns in Three-Syllabic Words

For three-syllabic words (verbs, nouns, adjectives), stress placement follows these guidelines:

- If the third syllable contains a long vowel, diphthong, or consonant cluster, that syllable is stressed. Otherwise, the penultimate (second-to-last) syllable receives stress.
- If the third syllable contains a short vowel or the diphthong /əʊ/, it is unstressed and the second syllable is stressed.

Examples of Three-Syllabic Words

Word Type	Example	IPA Transcription
Verbs	Entertain	/entəˈteɪn/
	Encounter	/ɪnˈkaʊntər/
	Resurrect	/rezəˈrekt/
Nouns	Synopsis	/sɪˈnɒpsɪs/
	Disaster	/dɪˈzɑːstə/

Important Notes for Three-Syllabic Words

- If both the second and third syllables contain short vowels and do not end with a consonant cluster, both are unstressed, and stress is placed on the first syllable:
- Examples:
- "Emperor" (/ˈɛmpərər/)
- "Parody" (/ˈpærədɪ/)
- "Insolent" (/ˈɪnsələnt/)
- "Professor" (/prəˈfɛsər/)

- "Opportune" (/ɒpər'tju:n/)
- "Infamous" (/ˈɪnfəməs/)

Word-Class Pairs

Many two-syllable words in English share identical spellings but differ in their stress placement based on their grammatical category (noun, verb, adjective). The stress typically falls on the second syllable for verbs but on the first for nouns and adjectives.

Examples of Word-Class Pairs:

Word	Noun/Adjective	Verb
Absent	/'æbsənt/	/æb'sent/
Addict	/'ædɪkt/	/ə'dɪkt/
Compact	/'kɒmpækt/	/kəm'pækt/
Conduct	/'kɒndʌkt/	/kən'dʌkt/
Conflict	/'kɒnflɪkt/	/kən'flɪkt/
Contrast	/'kɒntræst/	/kən'træst/
Increase	/'ɪnkris/	/ɪn'kri:s/
Desert	/'dezət/	/dɪ'z3rt/

B. Stress in Complex Words

Understanding Complex Words

Complex words are defined as words that consist of more than one grammatical or semantic unit, typically composed of multiple morphemes. For instance, the word "careful" is formed from the root "care" combined with the suffix "-ful." Similarly, "blackbird" merges "black" and "bird." Other examples include "carefully," which consists of three morphemes (care + ful + ly), and "carelessness," which comprises care + less + ness.Complex words can be categorized into two primary types:

1. **Affix Words**: These are formed by adding prefixes or suffixes to a base stem. For example, the prefix "un-" can be added to "happy" to create "unhappy" (/ʌnˈhæpi/).
2. **Compound Words**: These consist of two or more independent words combined to form a new meaning, such as "toothbrush" (/ˈtuːθbrʌʃ/) and "notebook" (/ˈnoʊtbʊk/).

Stress Placement on Prefixes

In English, prefixes generally do not carry primary stress. Instead, the primary stress typically falls on one of the syllables in the stem. This means that stress assignment for words with prefixes follows similar rules to those without prefixes.

Key Characteristics of Prefix Stress

1. **Primary Stress on Stem**: In most cases, the stress is placed on the syllable of the stem rather than on the prefix itself. For example:

- **Unhappy** (/ʌnˈhæpi/): The stress is on the second syllable.
- **Disagree** (/dɪsəˈgriː/): The stress falls on the last syllable.
- **Rebuild** (/riːˈbɪld/): The stress is placed on the second syllable.

2. **Variability**: While there are general patterns for stress placement, exceptions exist due to the complexity and vastness of the English language. For instance:

- **Impotent** (/ˈɪmpətənt/): Here, the stress is placed on the first syllable despite having a prefix.
- **Impulse** (/ˈɪmpʌls/): The first syllable also receives stress.

3. **Influence of Affixes**: The addition of certain prefixes may not alter existing stress patterns but rather reinforce them based on established rules. For example, in compound structures like "dislike," the prefix does not affect where stress is placed; it remains consistent with how similar words are stressed.

Stress Placement on Suffixes

Stress placement can also be affected by the addition of suffixes. Here are some categories based on their influence on stress:

1. Stress-Attracting Suffixes

Certain suffixes attract primary stress to the final syllable, known as **stress-attracting suffixes**:

Suffix	Examples
'ese'	Japanese (/dʒæpəˈniːz/), Portuguese (/pɔːtʃəˈgiːz/)
'eur'	Entrepreneur (/ɒntrəprəˈnɜːr/)
'ee'	Refugee (/ˌrɛfjuˈdʒiː/)
'eer'	Volunteer (/vɒlənˈtɪə/)
'aire'	Millionaire (/ˌmɪljəˈnɛə/)
'ette'	Launderette (/lɔːndəˈrɛt/)
'ique'	Critique (/krɪˈtiːk/)

2. Stress-Neutral Suffixes

Some suffixes neither carry stress nor affect existing stress patterns. These include many inflectional and derivational suffixes:

Suffix	Examples
'able'	Comfortable (/kəmˈfɔːtəbl/)
'age'	Percentage (/pərˈsɛntɪdʒ/)
'dom'	Kingdom (/ˈkɪŋdəm/)
'ful'	Wonderful (/ˈwʌndərfəl/)

3. Suffixes Causing Penultimate Stress

Certain suffixes do not carry stress themselves but cause a shift in primary stress to the penultimate syllable when added to a stem:

Suffix	Examples
'acy'	Democracy (/dɪˈmɒkrəsi/)
'ity'	Tranquility (/træŋˈkwɪlɪti/)
'ial'	Commercial (/kəˈmɜrʃəl/)

Stress Patterns in Three-Syllabic Words

For three-syllabic words (verbs, nouns, adjectives), stress placement follows specific guidelines:

- If the third syllable contains a long vowel, diphthong, or consonant cluster, it receives stress.
- If it contains a short vowel or the diphthong /əʊ/, it is usually unstressed, and stress falls on the second syllable.

Examples of Three-Syllabic Words

Word Type	Example	IPA Transcription
Verbs	Entertain	/ˌɛntəˈteɪn/
	Encounter	/ɪnˈkaʊntə/
	Resurrect	/ˌrɛzəˈrɛkt/
Nouns	Disaster	/dɪˈzɑːstə/
	Synopsis	/sɪˈnɒpsɪs/

Important Notes for Three-Syllabic Words

- If both the second and third syllables contain short vowels and do not end with a consonant cluster, they are both typically unstressed, with stress placed on the first syllable:
- Examples include:
- **Emperor** (/ˈɛmpərər/)
- **Parody** (/ˈpærədɪ/)

- **Insolent** (/ˈɪnsələnt/)
- **Professor** (/prəˈfɛsər/)
- **Opportune** (/ɒpər'tju:n/)
- **Infamous** (/ˈɪnfəməs/)

Word-Class Pairs

Many two-syllable words in English share identical spellings but differ in their stress placement based on their grammatical category (noun, verb, adjective). Generally, verbs receive stress on the second syllable while nouns and adjectives receive it on the first.

Examples of Word-Class Pairs:

Word	Noun/Adjective	Verb
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Conduct	/'kɒndʌkt/	/kən'dʌkt/
Conflict	/'kɒnflɪkt/	/kən'flɪkt/
Contrast	/'kɒntræst/	/kən'træst/
Increase	/'ɪnkris/	/ɪn'kri:s/
Desert	/'dezət/	/dɪ'z3rt/

C. Stress in Compound words

Compound words are formed by combining two or more elements to create a single semantic unit. These elements can be independent words, and the resulting compound typically carries a primary accent on one syllable, while another syllable may carry a secondary accent. The placement of stress in compound words can vary, with stress potentially falling on either the first or second component of the compound.

Types of Compound Words

There are three primary types of compound words in English:

1. **Hyphenated Compounds**: These compounds are linked by hyphens and include phrases such as:

- **Good-hearted** (/ˈgʊdˌhɑːtɪd/)
- **Life-saver** (/ˈlaɪfˌseɪvər/)
- **One-way** (/ˈwʌn.weɪ/)
- **Well-done** (/ˈwɛl.dʌn/)
- **Part-time** (/ˈpɑːrt.taɪm/)

2. **Closed Compounds**: These compounds are written as single words without spaces or hyphens, such as:

- **Armchair** (/ˈɑːrm.tʃɛr/)
- **Postman** (/ˈpoʊst.mæn/)
- **Teapot** (/ˈtiː.pɒt/)
- **Crossword** (/ˈkrɔs.wɜrd/)

- **Goodwill** (/gʊdˈwɪl/)

3. **Open Compounds**: These compounds consist of separate words that function together to convey a single idea, such as:

- **Coffee machine** (/ˈkɔfi məˈʃin/)
- **Cassette recorder** (/kæˈsɛt rɪˈkɔrdər/)
- **Ice age** (/aɪs eɪdʒ/)
- **Phone call** (/foʊn kɔl/)

3. Stress Patterns in Compound Words

A. Noun Compounds

Noun compounds are among the most frequent types of compounds in English and can be categorized into three types based on their structure:

1. **Noun + Noun Compounds**: The first element typically receives primary stress.

- Examples:
- **Typewriter** (/ˈtaɪpraɪtər/)
- **Sunrise** (/ˈsʌnraɪz/)
- **Suitcase** (/ˈsuːtkeɪs/)
- **Teacup** (/ˈtiː.kʌp/)

2. **Adjective + Noun Compounds**: Similar to noun + noun compounds, the first element often carries the primary stress.

- Examples:

- **Blackboard** (/ˈblæk.bɔrd/)
- **Darkroom** (/ˈdɑrk.ruːm/)

3. **Verb + Noun Compounds**: The same stress pattern applies, with the first element receiving stress.

- Examples:
- **Rainfall** (/ˈreɪn.fɔl/)
- **Sunshine** (/ˈsʌn.ʃaɪn/)

B. Stress in Compound Words with Adjectives Ending in 'ed'

When the first element is an adjective that ends with "ed," stress typically shifts to the second element:

- Examples:
- **Bad-tempered** (/bæd ˈtɛmpərd/)
- **Long-sighted** (/lɔŋ ˈsaɪtɪd/)

C. Stress in Compound Words Composed of Adjective + Gerund

For compounds formed from an adjective followed by a gerund, stress is placed on the second element:

- Examples:
- **Good-looking** (/gʊd ˈlʊkɪŋ/)
- **Easy-going** (/ˈiːzi ˌgoʊɪŋ/)

D. Stress in Compound Words with Numbers

In compounds where the first element is a number, stress typically shifts to the second element:

- Examples:
- **Four-wheels** (/fɔr ˈwi:lz/)
- **Second class** (/ˈsɛkənd klæs/)

E. Stress in Adverbial Compounds

When compound words function as adverbs, they usually receive stress on the second element:

- Examples:
- **South-East** (/saʊθ ˈi:st/)
- **Downstream** (/daʊn ˈstri:m/)

F. Stress in Verb Compounds with an Adverbial Element First

For compounds that function as verbs and have an adverbial element first, stress typically shifts to the second element:

- Examples:
- **Ill-treat** (/ɪl ˈtri:t/)
- **Downgrade** (/daʊn ˈgreɪd/)

G. Phrasal Verbs

Phrasal verbs usually place stress on the second element:

- Examples:
- Let `down

- Take `over
- Turn `off

H. Past Participle + Noun Compounds

In compounds that consist of a past participle followed by a noun, stress is generally placed on the second element:

- Examples:
- Lost `property
- Inverted `comma

Variable Stress Patterns

The stress pattern in English is not always fixed; there are instances where stress shifts to another position due to contextual factors or speaker variation. Two primary reasons for this variability include:

1. **Connected Speech Influence**: In rapid speech, some words may be influenced by adjacent words, leading to shifts in stress placement.
2. **Speaker Variation**: Not all speakers agree on where to place stress in certain words, resulting in differing pronunciations.

D. Sentence Stress

In spoken English, effective communication relies not only on individual words but also on phrases and sentences. While we have previously explored patterns of word stress, it is essential to understand how stress operates at the level of phrases and sentences. In a sentence, multiple words can be stressed, and this stress plays a crucial role in conveying meaning, especially in rapid speech. To grasp the concept of sentence stress, we must consider several factors, including the distinction between content words and function words, rhythm, and phrasal stress.

Definition of Sentence Stress

Sentence stress refers to the emphasis placed on specific words within a sentence. This emphasis helps listeners identify the most important information being conveyed. Similar to word stress, which highlights one syllable within a word, sentence stress highlights particular words within a sentence. For example:

- In the sentence **"Sarah really enjoys hiking in the mountains,"** the stressed words could be "Sarah," "enjoys," and "mountains."
- In **"The team won the championship last year,"** the important stressed words might be "team," "won," and "championship."

These stressed words are typically content words that carry significant meaning, contrasting with function words that serve grammatical purposes.

Content Words vs. Function Words

At the level of phrases and sentences, distinguishing between content words and function words is vital for understanding stress placement:

- **Content Words**: These are words that carry the primary meaning in a sentence. They include nouns, main verbs, adjectives, adverbs, and question words. Examples include:

- **Nouns**: "teacher," "freedom"
- **Verbs**: "create," "discover"
- **Adjectives**: "interesting," "colorful"
- **Adverbs**: "quickly," "silently"
- **Function Words**: These are smaller, less meaningful words that provide grammatical structure to sentences. They include articles, prepositions, conjunctions, and auxiliary verbs. Examples are:
- **Articles**: "the," "an"
- **Prepositions**: "under," "between"
- **Conjunctions**: "and," "but"
- **Auxiliary Verbs**: "is," "have"

When constructing sentences, content words typically receive greater stress than function words because they convey essential information. For instance:

- In the phrase **"The dog barked loudly at the stranger,"** the stressed content words would be “dog,” “barked,” and “stranger,” while “the” and “at” would remain unstressed.

Stress Patterns in Sentences

When spoken naturally, each thought group or phrase in a sentence has one word that is most stressed. This word is usually the last content word in that phrase. The last content word in the final phrase of a sentence is typically considered to be the most stressed overall.

Example Sentences

Consider these two sentences when read slowly:

- **"The tall building was constructed quickly."**
- **"Many students often study late at night."**

When spoken rapidly:

- The tall building was constructed quickly.
- Many students often study late at NIGHT.

In rapid speech, less emphasis is placed on unstressed syllables and more on key content words.

Phrasal Stress

Understanding **phrasal stress** is crucial for non-native speakers learning English. Phrasal stress refers to identifying which word receives the most emphasis within each phrase of a sentence. Each phrase typically contains one stressed word—usually the last content word—indicating both importance and completion of thought.

Stress Patterns

When analyzing phrasal stress:

- Each thought group (or phrase) has one prominent stressed word.
- The final content word in each phrase carries significant weight in conveying meaning.

For example:

- In **"He decided to take a long vacation this summer,"** the primary stresses would likely fall on “decided,” “take,” “long,” and “vacation.”

Variable Stress Patterns

The pattern of stress is not always fixed; there are instances where stress shifts based on context or speaker variation. Two main reasons for this variability include:

1. **Connected Speech Influence**: In fluent speech, adjacent words can influence each other's stress patterns.
2. **Speaker Variation**: Different speakers may have varying interpretations of where to place stress in certain phrases or sentences.

E. Stress in Connected Speech

Stress in connected speech refers to the variation in emphasis placed on certain words or syllables within sentences. It allows speakers to highlight key information, convey emotions, clarify contrasts, and organize their speech rhythmically. In English, understanding stress is essential for effective communication, as misplaced stress can lead to misunderstanding. This lecture will explore four major types of stress in connected speech: **Tonic Stress**, **Emphatic Stress**, **Contrastive Stress**, and **New Information Stress**, supported by detailed explanations and examples.

1. Tonic Stress

Definition

Tonic stress is the emphasis placed on the most important word (the tonic word) in a thought group or sentence. This stress usually falls on the last major content word in a neutral utterance and reflects the primary focus of the speaker's message.

Key Features

- Typically found in the **nucleus** of the intonation pattern.
- Marks the word carrying the most significant meaning in the utterance.
- Indicates the speaker's communicative focus.

Examples

1. *"I'm going to the **cinema**."*

   (Tonic stress falls on **cinema**, emphasizing the destination).

2. *"They're arriving at **midnight**."*

   (Stress on **midnight** highlights the timing).

Usage in Context

- Neutral sentences: The tonic stress naturally falls on the last content word. *Example*:

  *"She is watching a **movie**."* (Focus on the activity).

- In responses: The tonic stress is placed on the word providing the answer.

  Example:

  - Question: *"Where are they going?"*
  - Answer: *"To the **market**."*

2. Emphatic Stress

Definition

Emphatic stress is used to strengthen or emphasize a specific word, conveying emotions such as surprise, frustration, or excitement. This type of stress overrides the usual placement rules to draw special attention to a word.

Key Features

- Adds intensity or emotion to the speaker's tone.
- Highlights the speaker's attitude or reaction to a situation.

Examples

1. *"I told you to **wait**!"*

   (Emphasis on **wait** shows frustration).

2. *"It was absolutely **fantastic**!"*

   (Stress on **fantastic** expresses enthusiasm).

Usage in Context

- In disagreements: *"I **did** say that!"*
- In exclamations: *"What a **wonderful** surprise!"*

Practical Exercise

Underline the stressed words to express the intended emotions:

1. *"I **love** this song!"*
2. *"You're **not** going anywhere!"*

3. Contrastive Stress

Definition

Contrastive stress is used to draw attention to differences, correct misunderstandings, or emphasize contrasts between two or more elements in a sentence.

Key Features

- Breaks the usual stress patterns to highlight contrasts.
- Often appears in comparisons or corrections.

Examples

1. *"I wanted the **blue** shirt, not the **red** one."*

   (Stress on **blue** and **red** clarifies the choice).

2. *"She's a **teacher**, not a **student**."*

   (Emphasis on **teacher** and **student** makes the correction clear).

Usage in Context

- **Correcting errors:**

  Example:

  - *"I thought you said Monday."*
  - *"No, I said **Sunday**."*

- **Highlighting alternatives:**

  Example:

  - *"Do you want coffee or tea?"*
  - *"I'd prefer **tea**."*

4. New Information Stress

Definition

New information stress emphasizes the part of a sentence that introduces previously unknown or important information to the listener. This stress is crucial for effective communication, as it helps identify the focus of new details.

Key Features

- Typically aligns with the last content word of a sentence.
- Common in responses to questions or in explanations.

Examples

1. *"What are you eating?" → "I'm eating a **sandwich**."*

   (Stress on **sandwich** introduces the answer).

2. *"Who called you yesterday?" → "My **sister** called."*

(Stress on **sister** highlights the new information).

Usage in Context

- **Answering questions:**

  Example:

  - *"What time is the meeting?"*
  - *"It's at **three o'clock**."*

- **Clarifying points:**

  Example:

  - *"Where did you leave the keys?"*
  - *"On the **table**."*

Lecture 7: Intonation in English

Definition and Importance of Intonation:

Intonation refers to the variations in pitch that occur during connected speech, as defined by Jones (1960). It encompasses the changes in pitch produced by the vibration of vocal cords, which contribute significantly to the expressiveness of spoken language. Roach (1991) emphasizes that pitch is central to intonation; in everyday communication, our voices rarely maintain a constant pitch. Instead, they exhibit a dynamic melody that enhances the meaning of our speech.Intonation serves as a crucial element of spoken English, contributing to its distinctiveness. It enriches communication by conveying meanings that go beyond mere words. Specifically, intonation influences understanding in two primary ways:

- **A. Relationship among Words**: Intonation clarifies how words relate to one another within and across sentences.
- **B. Speaker's Emotion**: It provides insight into the speaker's feelings and attitudes.

Different pitch patterns can alter the interpretation of identical phrases, allowing speakers to express a range of emotions such as joy, sadness, surprise, or frustration. Thus, comprehending an utterance requires attention to both what is said (the content) and how it is said (the intonation). The interplay between these elements shapes the overall meaning conveyed in English. The significance of employing appropriate intonation patterns cannot be overstated; incorrect intonation can lead to misunderstandings or unintended implications. For instance, mismatched intonation may suggest sarcasm or uncertainty when clarity is intended.

Understanding Tone

Roach (1991) describes tone as a specific pattern of voice movement characterized by musicality and rhythm. Unlike arbitrary sounds, tones convey meaningful distinctions within

discourse. Through tonal variations, speakers can express intentions such as affirming, questioning, or indicating completion in conversation. Each tone unit typically centers around a prominent syllable known as the **tonic syllable**, which carries both tone and a unique type of stress termed **tonic stress**. For example, consider the one-syllable responses "yes" and "no." These can be articulated with either a steady pitch or one that fluctuates significantly. The overall pitch behavior in these scenarios exemplifies tone.

Tone Units

In analyzing intonation, speech is often segmented into larger units than syllables, these are known as **tone units**. Tone-unit boundaries mark transitions between distinct patterns of speech. An **intonation unit** (also referred to as an intonation group or tone group) represents a continuous stream of sounds separated by noticeable pauses. While pauses are a clear indicator of these boundaries, listeners can also detect tone-unit separations through rhythmic or intonational changes even without explicit pauses. Typically, an intonation unit aligns with a sense group—be it a word, phrase, or clause—comprising multiple syllables with varying stress levels. The last stressed syllable usually marks the highest importance and features focus stress, where a notable pitch change occurs. The placement of pauses can significantly alter meaning within an utterance. For instance:

- "When danger threatens your children, call the police." (This implies you should call when your children are in danger.)
- "When danger threatens your children, call the police." (This suggests your children should call whenever danger arises.)

In these examples, shifting the pause alters the intended message entirely.

Overview of Intonation Units

In English intonation, the structure of an intonation unit is crucial for conveying meaning and emphasis. An intonation unit is typically defined by its components: the nucleus, tail, head, and pre-head. Each of these elements plays a distinct role in shaping the overall intonation pattern of a spoken utterance.

Key Components

1. **Nucleus**: The nucleus is the most prominent syllable within an intonation unit, often referred to as the tonic. It carries the primary stress and pitch change that conveys the intended meaning of the speaker. For example, in the sentence "I am WRIting a LETter to him NOW," the word "NOW" serves as the nucleus, indicating focus and finality.
2. **Tail**: Following the nucleus, any syllables that come after are classified as the tail. In our example, "to him" represents the tail of the unit. The tail typically consists of unstressed syllables that provide additional context but do not carry primary stress.
3. **Head**: The head encompasses all syllables from the first stressed syllable up to the nucleus. In our example, "WRIting a" forms the head. This portion contributes to the buildup leading to the nucleus and helps establish the rhythm and flow of speech.
4. **Pre-head**: Any unstressed syllables preceding the head are termed the pre-head. In our example, "I am" constitutes the pre-head. While pre-heads, heads, and tails can vary in presence and length, the nucleus is always essential for forming a complete intonation unit.

Structure Representation

Using our example sentence, we can represent its structure as follows:

- **P = Pre-head**: I am

- **H = Head**: WRIting a
- **N = Nucleus**: LETter
- **T = Tail**: to him

This structure illustrates how each component contributes to the overall meaning conveyed through intonation.

Importance of Pausing

Pauses within speech are closely linked to intonation patterns and can significantly alter meaning. For instance:

- "Those who sold quickly / made a profit." (Indicates that quick sellers profited.)
- "Those who sold / quickly made a profit." (Suggests that a profit was made quickly by those who sold.)

The placement of pauses can shift emphasis and clarity, underscoring how critical proper intonation is for effective communication.

Types of Intonation Patterns

In connected speech, pitch fluctuates to create recognizable patterns or "tunes." These patterns can be classified into four primary tones: falling, rising, fall-rise, and rise-fall. Each tone conveys a specific function and emotion in communication.

1. Falling Tone (↘)

The falling tone is the most commonly used and indicates finality, certainty, or completion. It is assertive and often signals that no further response is expected, though it allows space for the listener to agree, disagree, or contribute.

Common Uses:

- **Statements:**
  - *She is a ↘teacher.*
  - *It's ↘raining.*
- **Wh- Questions:**
  - *Where is the ↘book?*
  - *How did you ↘know?*
- **Commands and Orders:**
  - *Close the ↘door.*
  - *Stop ↘talking.*
- **Exclamations:**
  - *What a wonderful sur↘prise!*
  - *How ↘nice!*
- **Gratitude:**
  - *↘Thank you.*

Example of Usage in Conversation:

- A: *Are you ready for the exam?*
- B: *Yes, I've studied ↘enough.*

2. Rising Tone (↗)

The rising tone signals uncertainty, incompletion, or a need for a response. It is frequently used in yes/no questions, politeness strategies, and introductory phrases.

Common Uses:

- **Yes/No Questions:**
  - *Have you read the ↗book?*
  - *Is he ↗coming?*
- **Tag Questions (Seeking Confirmation):**
  - *You like coffee, ↗don't you?*
- **Requests and Polite Expressions:**
  - *Could you pass the ↗salt, please?*
- **Lists (Except the Last Item):**
  - *I bought ↗apples, ↗oranges, and ↘bananas.*

Example of Usage in Conversation:

- A: *Would you like tea or coffee?*
- B: *↗Coffee, please.*

3. Fall-Rise Tone (↘↗)

The fall-rise tone suggests limited agreement, doubt, or hesitation. It can also imply politeness or a non-final response, leaving room for continuation.

Common Uses:

- **Polite Corrections:**
  - *I think it's ↘↗possible.*
  - *That's not what I ↘↗meant.*

- **Hesitation or Uncertainty:**
    - *I'm not ↘↗sure.*
    - *Maybe ↘↗yes.*

Example of Usage in Conversation:

- A: *It's a good school, isn't it?*
- B: *↘↗Yes, but it's quite expensive.*

4. Rise-Fall Tone (↗↘)

The rise-fall tone conveys strong emotions such as surprise, disbelief, approval, or disapproval. It is often used to emphasize contrasts or express shock.

Common Uses:

- **Strong Feelings:**
    - *↗↘No!*
    - *↗↘Really?*
- **Contrasts or Surprises:**
    - *You said ↗↘what?*

Example of Usage in Conversation:

- A: *Did you finish the project?*
- B: *↗↘Absolutely!*

Intonation in Interaction

In real-life conversations, intonation serves practical purposes:

- **Clarification:** *You ↗mean this book?*
- **Turn-taking:** Intonation signals when a speaker has completed their thought or when a listener is expected to respond.
- **Emotion:** ↗*Thank you!* expresses politeness, while ↘*Thank you* conveys sincerity.

Functions of Intonation

Imagine speaking monotonously, with no variations in pitch, pause, speed, or loudness, it would render communication lifeless and harder to understand. Intonation introduces nuances in speech, adding layers of meaning and aiding comprehension.

1. Attitudinal Function

Intonation conveys emotions and attitudes, adding expressive depth to spoken language. For example:

- **Variations in "Yes":**
    - Rising tone: Signaling openness to interaction.
    - Falling tone: Signaling disinterest or abruptness.

Tone Examples and Associated Attitudes:

- **Falling Tone:**
    - Finality/Definiteness: *"Stop talking."*
    - Certainty: *"That's the end of the news."*
- **Rising Tone:**
    - Questions: *"Can you help me?"*
    - Encouragement: *"It won't hurt."*

- **Fall-Rise:**
    - Doubt: *"You may be right."*
    - Requests: *"Will you lend it to me?"*
- **Rise-Fall:**
    - Surprise/Impression: *"You were first of all of them!"*

Pitch Variations:

- **Wider pitch range:** Indicates enthusiasm or excitement.
- **Slower speed:** Signals tiredness or boredom.

2. Accentual Function

Intonation determines which syllables are stressed, emphasizing the most important information in a tone unit. This is particularly important in marking **new vs. old information**, **contrast**, and **emphasis**.

Examples:

- **New vs. Old Information:**

  A: *"Where did you go in the summer?"*

  B: *"The south of FRANCE."*

  (Here, "France" carries the nucleus as it is new information.)

- **Contrastive Stress:**

  A: *"I don't want to know where he's traveling from."*

  B: *"I want to know where he's traveling TO."*

- **Emphatic Stress:**

  A: *"It was very boring."*

  B: *"It was VERY boring."*

3. Grammatical Function

Intonation clarifies the syntactic structure of sentences by signaling boundaries between phrases and clauses. It helps resolve ambiguities and differentiate between statements and questions.

Examples:

- **Phrase Boundaries:**
  - *"He worked hard │ and passed the exam."*
  - *"Because he worked hard │ he passed the exam."*
- **Ambiguity Resolution:**

  1. a. *"Those who sold quickly │ made a profit."*

  (Profit by those who sold quickly.)

  b. *"Those who sold │ quickly made a profit."*

  (Profit made quickly by those who sold.)

- **Question vs. Statement:**

o Rising tone: *"Is Bill a doctor?"*

o Falling tone: *"Bill is a doctor."*

4. Discourse Function

Intonation facilitates the flow of conversation by distinguishing between **new and given information**, marking **contrasts**, and signaling **expected responses**.

Examples:

- **New vs. Given Information:**

  - *"Since the LAST time we met │ when we had that huge DINner │ I've been on DIET."*

    (The last tone unit introduces new information.)

- **Contrast or Links Across Tone Units:**

  - Falling tone: Indicates new information.
  - Rising tone: Suggests shared or given information.

Lecture 8: Rhythm

1. Definition of Rhythm

- Rhythm is a universal phenomenon present in life and language. In English, rhythm arises from the **stress pattern** of syllables, creating a "musicality" in speech.
- **Sentence stress** determines English rhythm, where stressed syllables create a regular "beat," and unstressed syllables adjust to fit between these beats.

  Example:

  "Can you take the book over to Sam's house?"

- Stressed words: **take, book, Sam, house**
- Unstressed words (e.g., *can you, the, over to*) are shortened or sped up to maintain rhythm.

2. Stress-timed vs. Syllable-timed Rhythm

- **Stress-timed rhythm (e.g., English, German):** Stressed syllables occur at equal intervals, regardless of the number of unstressed syllables.
- **Syllable-timed rhythm (e.g., Spanish, French):** Each syllable is equally timed, so the more syllables, the longer the phrase.

  Example:

  "John needs five more apples for the pie."

- Stress-timed rhythm: Stressed syllables (**John, five, ap, pie**) are evenly spaced.
- Unstressed syllables (**needs, more, les, for, the**) adjust their duration to maintain this rhythm.

3. The Foot

- A **foot** in English rhythm begins with a stressed syllable and includes all following unstressed syllables until the next stressed syllable.

  Example:

  "Please bring the package to Mary today."

- Rhythmical division into feet:

  Please / bring the / pack-age to / Mar-y to / day

  Each foot starts with a stressed syllable (e.g., *please, bring, pack*, etc.).

4. Rhythmic Strong and Weak Patterns

- Within phrases, some syllables are **stronger** or more emphasized than others, creating hierarchical stress patterns.

  Example:

- Word: **Teacher** → S W (strong, weak)
- Phrase: **Great teachers** → W S W S
- Sentence: **Great teachers inspire us daily** → W S W S W S W S

  Stress can shift depending on context:

- *Rebel* (noun) → ˈreb·el
- *Rebel leader* → re·ˈbel ˈlea·der

  Further Examples:

- *Fourteen* → ˈfɔːrˌtiːn
- *Fourteen apples* → ˈfɔːrˌtiːn ˈæp·əlz

5. Importance of Rhythm Practice

- Non-native speakers from syllable-timed languages (e.g., Japanese, Italian) may struggle with English rhythm.
- Practicing rhythm helps learners:
    - Emphasize key words naturally.
    - Adjust the timing of unstressed syllables.

Examples for Practice:

1. Repeat rhythmical sentences:
    - *"She called me right before the train arrived."*
    - *"The children will play outside after lunch."*
2. Emphasize stressed syllables:
    - *I'd LOVE to go to the PARK.*
    - *They WANT to FINISH their HOMEWORK.*
3. **Adjust rhythm in phrases:**
    - *Big red car* → ˈbig ˈred ˈcar
    - *The big red car broke down* → The ˈbig ˈred ˈcar broke ˈdown

Lecture 9: Weak and Strong Forms

1. Definition of Weak and Strong Forms

- In English, many frequently used single-syllable words (like articles, prepositions, auxiliary verbs, etc.) have two forms:
    - **Strong form:** Used when the word is stressed or pronounced in isolation.
    - **Weak form:** Used in connected speech when the word is unstressed.

Example:

- *From* (strong form: /frɒm/): "This book is from me."
- *From* (weak form: /frəm/): "He came from work late."

2. Word Classes with Weak and Strong Forms

Certain types of words have weak forms, while others always use the strong form:

1. **Words with weak and strong forms:**
    - **Articles**: *a, an, the*
    - **Prepositions**: *at, for, from, of, to*
    - **Auxiliary verbs**: *am, are, is, was, were, have, has, had*
    - **Modal verbs**: *must, can, should, could*
    - **Pronouns**: *he, she, we, us*
    - **Conjunctions**: *and, as, but*
    - **Possessive pronouns and adjectives**: *his, her, your, their*
2. **Words with only strong forms:**
    - **Nouns**: *table, cat, idea*
    - **Main verbs**: *run, eat, think*

- **Adjectives**: *happy, green, large*
- **Adverbs**: *quickly, silently, very*

3. Examples of Weak and Strong Forms

Below are some common words with their strong and weak forms, along with usage examples:

Word	Strong Form	Weak Form	Examples
a	/eɪ/	/ə/	*It's a book* → /ɪts ə bʊk/
an	/æn/	/ən/	*He ate an apple* → /hi eɪt ən æpl/
the	/ðiː/	/ðə/	*The book is here* → /ðə bʊk ɪz hɪə/
at	/æt/	/ət/	*I'm at home* → /aɪm ət hoʊm/
can	/kæn/	/kən/	*Can you help?* → /kən ju hɛlp/
must	/mʌst/	/məs/	*I must leave* → /aɪ məs liv/
He	/hiː/	/ɪ/ or /hɪ/	*Is he here?* → /ɪz ɪ hɪə/

4. Rules for Using Weak Forms

- Weak forms are used when the word is **unstressed** and occurs in **connected speech**.
- **Strong forms** must be used:
  - When the word is stressed.
  - When the word is at the **end of a sentence**.

Examples:

1. *Where are you from?* → /weə ə ju frɒm/ (strong form of *from* at the end).

2. *I am.* → /aɪ æm/ (strong form of *am* when emphasized).

Exercises

Exercise 1: For the following words, place stress on the correct syllable (primary or secondary stress). Then, practice saying the words out loud with correct stress.

- **Photographer**
- **Restaurant**
- **Economy**
- **Dictionary**
- **Information**

Exercise 2: For each pair of sentences, underline the word that carries primary stress, then practice saying the sentence out loud with the correct stress.

- **I've been** to **Paris**.
- I **don't** like **football**.
- She **didn't** come to the **party**.
- He **wants** to be a **doctor**.

Exercise 3: Read the following sentences aloud, focusing on the rising and falling intonation patterns.

- My name is John.
- I love studying linguistics.
- He's going to the market.
- Are you coming to the meeting?
- Do you like coffee?
- Is she coming with us?
- Where are you going?
- What time does the movie start?

- Why did you leave early?

Exercise 4: Listen to the following sentences, then clap your hands on the stressed syllables. Practice saying the sentence while clapping to emphasize the rhythm.

- I bought a new book yesterday.
- She always enjoys going to the beach.
- They will travel to Paris next week.
- He enjoys playing the guitar in his free time.
- My friends love to eat at Italian restaurants.

Exercise 5: In the following sentences, identify which syllables are stressed and say the sentence out loud, emphasizing the stressed syllables:

- The music was very loud.
- I have a meeting this afternoon.
- She worked hard on the project.

Exercise 6: For each of the following words, determine where the primary stress falls. Then, say the word aloud, emphasizing the stressed syllable.

- **Toothbrush**
- **Football**
- **Airport**
- **Bedroom**
- **Handbag**
- **Happiness**
- **Teacher**
- **Comfortable**
- **Unbelievable**
- **Irreplaceable**

Exercise 7: Transcribe the following sentences and mark the stressed words:

- I can't believe how much he's changed since last year.
- She went to the market to buy some fresh vegetables.
- The professor explained the concept in great detail during the lecture.
- They were planning to meet at the new cafe after work.
- It's important to always keep an open mind when learning something new.
- The movie was amazing, and the actors gave outstanding performances.
- You need to focus on the main points during the presentation.
- Our team worked hard to finish the project before the deadline.
- We should take a break and then continue with our discussion.
- He enjoys playing the guitar in his free time on weekends.

Exercise 8: Transcribe and mark stress in the words underlined in the following sentences

1. He finally realized the importance of communication.
2. The students presented their projects during the seminar.
3. She bought a beautiful vase from the antique shop.
4. They are reconsidering their decision about the trip.
5. The landscape was breathtaking, especially at sunrise.
6. We need to collaborate effectively to meet our goals.
7. His interpretation of the poem was fascinating.
8. The classroom environment plays a key role in learning.
9. She was unprepared for the sudden change in plans.
10. The handwriting on the card was difficult to read.

Exercise 9: Analyze the onset structure of the following monosyllabic words.

- Cat
- Eat
- Smile
- Plane
- Star
- Tree
- Ink
- Cry
- School
- Run

Exercise 10: Analyze the coda structure of the following monosyllabic words.

- Dog
- Pie
- Hand
- Mask
- Sleep
- Jump
- Run
- Box
- Lamb
- Sky

Exercise 11: Analyze the initial consonant clusters of the following words

- Tree
- Climb
- Street
- Tasks
- Blame
- Drink
- Sixth
- Frost
- Plunge
- Crafts

Chapter 3: Connected Speech

- In-depth study of elision, assimilation, linking, and other connected speech phenomena
- Practical exercises in the production of natural-sounding connected speech

Learning Outcomes:

- Examine the features of connected speech, including elision, assimilation, linking, and related phenomena.
- Apply practical techniques to produce natural and fluent connected speech.

Lecture 10: Assimilation

1. **Definition of Assimilation**

   Assimilation is a process in connected speech where a sound (the assimilated sound) changes to become more like an adjacent sound (the conditioning sound). It makes speech easier and quicker, as sounds influence each other when spoken in close proximity.

   Examples of Assimilation:

   - "ten mice" /tenmaɪs/ → /temmaɪs/
   - "good boy" /gʊdbɔɪ/ → /gʊbbɔɪ/
   - "good girl" /gʊdgɜːl/ → /gʊggɜːl/
   - "credit card" /kredɪtkɑːd/ → /kredɪkkɑːd/
   - "that soup" /ðætsuːp/ → /ðæssuːp/

2. **Types of Assimilation**

   2.1 Types According to the Extent of Assimilation

   Complete Assimilation: The sound becomes identical to the adjacent sound.

   - Example: "ten mice" → /temmaɪs/, "good girl" → /gʊggɜːl/

   Partial Assimilation: The sound is influenced but does not become identical to the adjacent sound.

   - Example: "That girl" → /ðækgɜːl/, "Ten cars" → /teŋkɑːz/

   2.2 Types According to the Direction of Assimilation

   Regressive Assimilation (Anticipatory/Right-to-Left): The assimilated sound comes before the conditioning sound.

- Example: "ten mice" → /temmaɪs/ (The "n" influences the "m").

Progressive Assimilation (Left-to-Right): The assimilated sound comes after the conditioning sound.

- Example: "cats" → /kæts/ (The "s" affects the "t").

Coalescence: The sounds fuse to create a new sound.

- Example: "Could you help me?" → /kʊdʒʊ help mi/ (The "d" and "j" combine to form /dʒ/).

2.3 Types According to the Nature of the Sound Change

Assimilation of Place: The place of articulation changes.

- /t/ → /p/ before bilabials (e.g., "that pen" → /ðæp pɛn/)
- /t/ → /k/ before velars (e.g., "that cup" → /ðæk kʌp/)
- /s/ → /ʃ/ before palatal consonants (e.g., "this shirt" → /ðɪʃ ʃɜːt/).

Assimilation of Manner: The manner of articulation changes (less common).

- Example: "get some" → /get sʌm/ → /ges sʌm/

Assimilation of Voicing: Voicing changes, typically in fast speech or set phrases.

- Example: "have to" → /hæv tuː/ → /hæf tə/

3. **Examples of Assimilation in Speech**

Place Assimilation:

- "that pen" → /ðæp pɛn/
- "ten men" → /ten mɛn/

Manner Assimilation:

- "get some" → /ges sʌm/
- "good night" → /gʊn naɪt/

Voicing Assimilation:

- "have to" → /hæf tə/
- "has to" → /hæz tə/
- "used to" → /juːst ə/

Assimilation is an essential feature of connected speech that helps make speech more fluid and efficient by reducing the effort needed for articulation.

Lecture 11: Elision

1. **Definition of Elision**

Elision (also known as deletion or omission) is a process in connected speech where a sound is omitted to simplify pronunciation. This can occur within a word (word-internal elision) or between words (word boundary elision), and is usually unintentional, though sometimes it can be deliberate.

Examples:

Words/Phrases	Transcription	Pronunciation with Elision
development	/dɪˈvɛləpmənt/	/dɪˈvɛləpmənt/
camera	/ˈkæmərə/	/ˈkæmrə/
vegetable	/ˈvɛdʒɪtəbl/	/ˈvɛdʒtəbl/
this week	/ðɪs wiːk/	/ðəs wiːk/
he has to go	/hi hæz tə gəʊ/	/hi hæz tə gəʊ/ (no elision)
I don't know	/aɪ dəʊnt nəʊ/	/aɪ dəʊnəʊ/

2. **Common Cases of Elision in English:**

- **Weak Forms Elisions**

h-dropping: The /h/ sound in function words like *he*, *her*, and *have* can be dropped, except when it appears at the beginning of a sentence or is stressed.

- **Examples**:

- *He gave me a gift* → /i gɛɪv mi ə gɪft/ (→ /ɪ gɛɪv mi ə gɪft/)

- *She has arrived* → /ʃi hæz əˈraɪvd/ (→ /ʃi æz əˈraɪvd/)

  Loss of other consonants: The consonants in words like *and*, *must*, *will*, and *them* can also be elided when unstressed.

- **Examples**:

- *John will come* → /dʒɒn wɪl kʌm/ → /dʒɒn wɪl kʌm/

- *I must go now* → /aɪ məst gəʊ naʊ/ → /aɪ məst gəʊ naʊ/

- **Consonant Cluster Reduction**

  When two or more consonants appear together, it's common for one of them to be dropped in informal speech. This is especially noticeable with the alveolar plosives /t/ and /d/.

  Examples:

- *next day* → /nɛkst deɪ/ → /nɛks deɪ/

- *dressed up* → /drɛst ʌp/ → /drɛs ʌp/

- *left school* → /lɛft skuːl/ → /lɛf skuːl/

- **Elision of Final /t/ or /d/**

  This is common before consonant sounds, where the final /t/ or /d/ is dropped, especially before /s/ or /d/.

  Examples:

- *best friend* → /bɛst frɛnd/ → /bɛs frɛnd/

- *last time* → /læst taɪm/ → /læs taɪm/

- **Elision of Unstressed Vowels (Syncope)**

A short, unstressed vowel like /ə/ or /ɪ/ may drop out, particularly in multi-syllable words after the first stressed syllable.

Examples:

- *chocolate* → /ˈtʃɒklət/ → /ˈtʃɒklət/
- *family* → /ˈfæmɪli/ → /ˈfæmli/
- *vegetable* → /ˈvɛdʒɪtəbl/ → /ˈvɛdʒtəbl/

- **Elision of Consonant Clusters at Word Boundaries**

  When two consonants appear at the boundary between two words, it's common for one of them to be elided in casual speech.

  Examples:

- *What do you want?* → /wɒt də ju wɒnt/ → /wɒdə ju wɒnt/
- *I want to see* → /aɪ wɒnt tə siː/ → /aɪ wɒnə siː/

- **Loss of Initial Unstressed Vowels (Aphesis)**

  In highly informal speech, an unstressed vowel at the beginning of a word can be dropped, which is called aphesis.

  Examples:

- *not alone* → /nɒt əˈləʊn/ → /nɒt ləʊn/
- *give me* → /gɪv mi/ → /gɪmi/

Lecture 12: Linking

Definition of Linking

Linking refers to the way sounds at the boundaries between words connect in spoken language, helping speech flow more naturally. This process may involve the addition of sounds that do not exist in individual words to create a smoother transition from one word to the next.

Examples:

- *Green‿apple* → /ɡriːnˈæpl/
- *A‿old friend* → /əʊld frɛnd/
- *He‿is amazing* → /hiːɪz əˈmeɪzɪŋ/
- *This‿is easy* → /ðɪsɪz iːzi/
- *They‿are here* → /ðeɪə hɪə/

2. **Common Types of Linking**

Linking occurs in various ways depending on the sounds at the boundaries of words. The main types of linking are:

2.1. Consonant to Vowel Linking

When a word ends with a consonant sound and the next word begins with a vowel sound, these sounds are linked smoothly. The consonant sound at the end of the first word flows into the vowel sound at the beginning of the next word.

- **Examples:**
    - *Can‿I help?* → /kæn aɪ hɛlp/
    - *She‿understood* → /ʃiːʌndəstʊd/

- *What‿is it?* → /wɒtɪzɪt/
- *Take‿it easy* → /teɪkɪt iːziː/

2.2. [j, w] Linking

Linking sounds [j] and [w] are used when a word ends with a tense vowel or diphthong and the next word begins with a vowel. This ensures the smooth flow of speech.

- **Linking [j]**: When the vowel ends with a high front vowel sound like /iː/ or a diphthong ending with /ɪ/, a [j] sound is inserted.

  Examples:

  - *Say‿ʲit* → /seɪʲɪt/
  - *My‿ʲeyes* → /maɪʲaɪz/
  - *They‿ʲasked* → /ðeɪʲæskd/

- **Linking [w]**: When the vowel ends with a high back vowel sound like /uː/, /əʊ/, or /aʊ/, a [w] sound is inserted.

  Examples:

  - *Too‿ʷold* → /tuːʷəʊld/
  - *How‿ʷare you?* → /haʊʷɑːr juː/
  - *I‿ʷunderstand* → /aɪʷʌndəstænd/

2.3. Linking /r/

Speakers of non-rhotic accents (e.g., RP) do not pronounce the /r/ sound unless the next word begins with a vowel. This /r/ sound is often linked between words where it wasn't pronounced in isolation.

- **Examples of linking /r/:**
    - *Far away* → /fɑːrəweɪ/
    - *More information* → /mɔːrɪnfəˈmeɪʃən/
    - *Better idea* → /bɛtəˈɪdɪə/

2.4. Intrusive /r/

The intrusive /r/ is a non-existent /r/ sound that is inserted when a word ending in a vowel is followed by a word beginning with a vowel. This is often seen in RP and some other British accents. The /r/ is not represented in the spelling of the words.

- **Examples of intrusive /r/:**
- *Law and order* → /lɔːr ənd ɔːdə/
- *The idea of* → /ðə aɪdɪər ɒv/
- *Asia and Africa* → /ˈeɪʒər ənd ˈæfrɪkə/
- *A banana and an apple* → /ə bənɑːnər ə næpl/

Exercises:

Exercise 1: Listen to the following phrases and identify where elision occurs. Write down the full pronunciation of the words as they would be in careful speech, then rewrite them as they are pronounced with elision.

1. Next day
2. Must be done
3. Old man
4. Friends will come
5. The wind blows

Exercise 2: Rewrite the following phrases as they would be spoken in natural, fast speech. Indicate the type of assimilation (place, manner, or voice) that occurs in each case.

1. In bed
2. That boy
3. Could you
4. Good girl
5. Don’t care

Exercise 3: Transcribe the following sentences and show where linking sounds occur. Underline the linking sounds.

1. He saw it happen.
2. We’re all going out.
3. They are over there.
4. I know it’s hard.
5. She ran away.

Exercise 4: Compare the following sentences pronounced with and without elision, assimilation, or linking. Write down how the meaning or rhythm changes.

1. I liked it.
2. He’s not there.
3. I am ready.
4. They want to go.
5. We must stay here.

Exercise 5: Analyze the phonetic changes in the following paragraph. Mark all instances of elision, assimilation, and linking.

Text:

Yesterday afternoon, I decided to take a walk down to the park because the weather was so nice. I hadn’t been out in a while, and I thought it would be refreshing. On my way there, I saw a couple of friends who were sitting at a café, and they waved at me to join them. I stopped for a moment but told them I’d catch up later, as I really wanted to enjoy some quiet time. When I got to the park, I noticed how peaceful it was. Birds were chirping, and the trees swayed gently in the breeze. I sat on a bench and took out my notebook to jot down a few thoughts. As the sun started to set, I realized I was getting hungry. I packed up my things and headed back, stopping at a small bakery near my house to grab some bread. The smell of freshly baked pastries was irresistible, so I ended up buying a couple of croissants as well. When I finally got home, I made myself a cup of tea and sat by the window, watching the sky turn a soft shade of pink. It was a perfect end to a calm and peaceful day.

Exercise 6: Prepare a short dialogue that includes examples of elision, assimilation, and linking. Perform the dialogue with a partner, focusing on natural speech patterns. Discuss how these features improve fluency and clarity.

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