

Course: Phonetics and Phonology (9056)

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Level: BS English

ASSIGNMENT No. 1

(Units 1-4)

Q.1 Phonetics is concerned with the description of speech sounds while phonology is concerned with the description of the sound system of a particular language. Differentiate between the two areas of study by providing relevant examples.

ANS:

Phonetics

Definition:

Phonetics is the scientific study of the physical properties of speech sounds. It is concerned with how sounds are produced (articulation), how they travel through the air (acoustics), and how they are heard and processed by the ear (auditory perception).

Key Areas of Study:

Articulatory Phonetics:

Focus: This area examines how speech sounds are physically produced by the vocal tract. It involves the study of the articulatory processes and the role of different speech organs, including the lips, tongue, teeth, and palate.

Example: To produce the sound [t] (as in "top"), the tip of the tongue makes contact with the alveolar ridge, stopping the airflow before releasing it suddenly.

Acoustic Phonetics:

Focus: This area deals with the physical properties of speech sounds as they travel through the air. It involves the study of sound waves, including frequency (pitch), amplitude (loudness), and duration.

Example: The vowel sound [i] (as in "see") has a high frequency and a relatively long duration

compared to the vowel [a] (as in "cat"), which has a lower frequency and shorter duration.

#### Auditory Phonetics:

Focus: This area explores how speech sounds are perceived by the ear and interpreted by the brain. It includes the study of how listeners distinguish between different sounds and how they process acoustic information.

Example: Understanding how the human ear distinguishes between the sounds [p] and [b] involves analyzing how listeners perceive the presence or absence of voicing.

#### Phonology

##### Definition:

Phonology is the study of how sounds function within a particular language or dialect. It is concerned with the abstract, mental representations of sounds (phonemes) and the rules governing their organization and interaction.

##### Key Areas of Study:

##### Phonemic Analysis:

Focus: Phonology investigates the phonemes of a language, which are the smallest units of sound that can distinguish meaning. Phonemes are abstract representations of speech sounds that are not necessarily identical to their physical realizations (allophones).

Example: In English, the sounds [p] and [b] are distinct phonemes because they can change the meaning of a word (e.g., "pat" vs. "bat"). Despite their different acoustic properties, they are perceived as distinct units in the language.

##### Phonological Processes:

Focus: Phonology studies the rules and patterns that govern how phonemes are organized and how they interact with each other in speech. This includes processes such as assimilation, elision, and syllable structure.

Example: In English, the process of assimilation can be observed in the pronunciation of the

prefix "in-" before a labial sound. It becomes "im-" (as in "impossible"), where the [n] changes to [m] to match the place of articulation of the following labial consonant.

Phonological Patterns:

Focus: Phonology looks at the patterns of sound distribution and the constraints on sound sequences in a language. It includes the study of phonotactics (the allowable combinations of sounds) and prosody (intonation and stress patterns).

Example: In many languages, including English, certain sounds are restricted to specific positions within words. For instance, the [ŋ] sound (as in "sing") cannot appear at the beginning of English words, illustrating a phonotactic constraint.

Summary of Differences

Phonetics deals with the physical aspects of speech sounds: how they are produced, transmitted, and perceived. It focuses on the concrete and measurable properties of sounds.

Phonology deals with the abstract, mental representations of sounds and how they function within a specific language. It focuses on how sounds are organized and patterned within a language.

By understanding both phonetics and phonology, linguists can gain a comprehensive understanding of how speech sounds are used and perceived in human languages.

Q.2 How would you define accent variation? Discuss Pakistani English and its peculiar features as a distinct variety of English.

Ans:

Definition of Accent Variation

Accent Variation refers to the differences in pronunciation and speech patterns that occur among speakers of the same language, often influenced by geographic, social, or ethnic factors. Accent variation encompasses differences in phonetic elements such as vowel quality, consonant articulation, intonation patterns, and stress. These variations can be systematic and consistent within particular speech communities or regions.

Factors Influencing Accent Variation:

**Geographic Location:** Different regions often have distinct accents due to historical, cultural, and linguistic influences.

**Social Class:** Social stratification can lead to variations in accent among different socioeconomic groups.

**Ethnic Background:** Ethnic communities may have unique accents influenced by their native languages or dialects.

**Age and Generation:** Younger and older speakers may use different accents or pronunciation patterns.

### Pakistani English and Its Peculiar Features

Pakistani English is a distinct variety of English spoken in Pakistan. It has developed its unique characteristics due to the influence of local languages, cultural practices, and historical factors. Here are some key features of Pakistani English:

#### Phonetic and Phonological Features:

**Vowel Sounds:** Pakistani English speakers often use vowel sounds that are influenced by their native languages, such as Urdu, Punjabi, or Sindhi. For example, the vowel sound in "cat" may be pronounced more like the vowel in "cut," reflecting influences from regional languages.

**Consonant Pronunciation:** Certain consonants may be pronounced differently. For example, the "th" sounds in "this" and "think" may be pronounced as [d] and [t] respectively, which is a common feature in South Asian English varieties.

**Retroflex Sounds:** Influences from languages like Urdu and Hindi can lead to the use of retroflex sounds (e.g., [ɖ], [ɗ]), which are not native to Standard British or American English.

#### Syntactic Features:

**Sentence Structure:** Pakistani English often reflects the syntactic structures of local languages. For example, the use of prepositions and word order might differ slightly from Standard English, such as in the phrase "on the weekend" instead of "at the weekend."

**Complex Sentences:** There may be a tendency to use more complex sentence structures influenced by local language patterns.



Lexical Features:

Local Vocabulary: Pakistani English includes words and expressions borrowed from Urdu, Punjabi, and other regional languages. For example, terms like "kothi" (villa), "chappal" (sandals), and "dosti" (friendship) are commonly used.

Code-Switching: Frequent switching between English and local languages in conversation is common. For instance, a speaker might mix English sentences with Urdu phrases.

Intonation and Stress Patterns:

Intonation: The intonation patterns in Pakistani English may reflect those of local languages, which can differ from the rising and falling patterns typical in British or American English.

Stress: Stress patterns in words and sentences might vary, often influenced by the stress patterns of local languages.

Usage of Formal and Informal Registers:

Formality: Pakistani English speakers may use more formal language in professional or academic settings, while informal contexts may see a greater mix of local expressions and informal speech patterns.

Examples:

Phonetic Example: The word "think" might be pronounced more like "tink," reflecting the influence of local languages on English phonology.

Lexical Example: A Pakistani English speaker might say, "I need to buy some chappals," using the Urdu word for sandals.

Syntactic Example: Instead of saying "I will meet you on Monday," a Pakistani English speaker might say, "I will meet you at Monday."

Conclusion:

Pakistani English is a distinct variety of English shaped by the linguistic and cultural context of Pakistan. Its unique features reflect the blend of English with local languages and traditions,

resulting in a rich and varied form of English that is both functional and representative of the region's diverse linguistic heritage.

Q. 3. American vowels are essentially different from British vowels. Demonstrate the difference by providing examples of the words containing vowels which are pronounced differently in American and British English.

Ans:

American and British English vowels often differ significantly in their pronunciation. Here are some examples illustrating these differences:

#### 1. Vowel in "Cat"

British English (Received Pronunciation): The vowel sound in "cat" is pronounced as [æ], which is a near-front, open vowel. It sounds like /kæt/.

Example Word: cat [kæt]

American English: The same vowel is pronounced as [æ] but often with a slightly different quality and sometimes more centralized. It is more of an open-front vowel.

Example Word: cat [kæt] (American pronunciation can sound more like /kæʔ/ with slight variations depending on the regional accent)

#### 2. Vowel in "Caught"

British English: The vowel in "caught" is pronounced as [ɔ:], a long open-mid back rounded vowel. This vowel sound is used in many British accents.

Example Word: caught [kɔ:t]

American English: In many American accents, particularly General American, the vowel is pronounced as [ɑ:], a low back unrounded vowel. This causes "caught" and "cot" to sound the same in many American accents.

Example Word: caught [kɑ:t]

#### 3. Vowel in "Bottle"

British English: In Received Pronunciation, the vowel in "bottle" is pronounced as [ɒ], a short open back rounded vowel. The "t" may also be pronounced as a clear [t].

Example Word: bottle [ 'bɒt]

American English: In General American English, the vowel is pronounced as [ɑ:], and the "t" is

often pronounced as a flap [ɾ], making it sound like "boddle."

Example Word: bottle [ˈbɑːlɪ]

#### 4. Vowel in "Dance"

British English: The vowel in "dance" is pronounced as [ɑː], a low back unrounded vowel. This makes "dance" sound more like /dɑːns/.

Example Word: dance [dɑːns]

American English: The vowel is often pronounced as [æ], similar to the vowel in "cat," making "dance" sound more like /dæns/.

Example Word: dance [dæns]

#### 5. Vowel in "Go"

British English: The vowel in "go" is pronounced as [əʊ], a diphthong starting with a mid-central vowel and gliding to a high back rounded vowel.

Example Word: go [gəʊ]

American English: The vowel is pronounced as [oʊ], a diphthong starting with a mid-back rounded vowel and gliding to a high back rounded vowel.

Example Word: go [goʊ]

#### 6. Vowel in "Bag"

British English: In Received Pronunciation, the vowel in "bag" is pronounced as [æ], a near-front open vowel.

Example Word: bag [bæɡ]

American English: The vowel in "bag" is often pronounced as [æ], but it can sound slightly different, often more open or central.

Example Word: bag [bæɡ] (American pronunciation can vary, sometimes sounding closer to [æ] but with subtle differences)

These examples illustrate how vowel pronunciation can differ between American and British English, contributing to the distinctive accents and regional variations within the language.

Q.4 Compare "monophthongs" and "diphthongs" How are the two types of vowels different from each other in the following examples.

Monophthongs Diphthongs

Stark Stair

Steal Steer

Stink Spear

Splash Sprout

Seek Sear

Ans:

### Comparison of Monophthongs and Diphthongs

Monophthongs and diphthongs are two types of vowel sounds in phonetics. They differ in how they are articulated and perceived in speech.

#### Monophthongs:

Definition: Monophthongs are single, pure vowel sounds where the tongue and lips remain in a relatively stable position throughout the articulation of the vowel. The vowel sound does not change in quality during its production.

Characteristics: The articulation remains constant, and the vowel sound is typically steady and homogeneous.

#### Diphthongs:

Definition: Diphthongs are complex vowel sounds that involve a transition from one vowel quality to another within the same syllable. The tongue and lips move during the articulation, causing a shift in vowel quality.

Characteristics: Diphthongs begin with one vowel sound and glide into another within the same syllable, resulting in a change in vowel quality over the course of the articulation.

#### Examples of Monophthongs vs. Diphthongs

Let's analyze how monophthongs and diphthongs differ using the provided examples:

#### Stark vs. Stair

Stark (Monophthong): The vowel in "stark" is a monophthong. In General American English,



this is typically the [ɑ:] sound, a low back unrounded vowel.

Example: stark [stɑ:rk]

Stair (Diphthong): The vowel in "stair" is a diphthong. It starts with an [ɛ] (a mid-front unrounded vowel) and glides towards [ɪ] (a high-front unrounded vowel).

Example: stair [stɛər] or [stɛə] (depending on accent)

Steal vs. Steer

Steal (Diphthong): The vowel in "steal" is a diphthong in General American English, where it starts with [ɪ] (a high-front unrounded vowel) and glides towards [ɪ] or [i:] (a close-mid front unrounded vowel).

Example: steal [stiəl]

Steer (Diphthong): The vowel in "steer" is also a diphthong, starting with [ɪ] and gliding to [ə] or [i:].

Example: steer [stiər] or [stiə]

Stink vs. Spear

Stink (Monophthong): The vowel in "stink" is a monophthong, typically the [ɪ] sound, a high-front unrounded vowel.

Example: stink [stɪŋk]

Spear (Diphthong): The vowel in "spear" is a diphthong. It starts with [ɪ] and glides towards [ə] or [i:].

Example: spear [spiə] or [spɪər]

Splash vs. Sprout

Splash (Monophthong): The vowel in "splash" is a monophthong, often the [æ] sound, a low-front unrounded vowel.

Example: splash [splæʃ]

Sprout (Diphthong): The vowel in "sprout" is a diphthong, starting with [aʊ] (a low-to-high back rounded vowel) and gliding towards [ʊ] or [oʊ].

Example: sprout [spraʊt]

Seek vs. Sear

Seek (Monophthong): The vowel in "seek" is a monophthong, typically the [i:] sound, a high-front unrounded vowel.

Example: seek [si:k]

Sear (Diphthong): The vowel in "sear" is a diphthong. It starts with [ɪ] and glides to [ə].

Example: sear [sɪə] or [sɪər]

Summary

Monophthongs are pure vowel sounds with a single, unchanging quality.

Diphthongs are complex vowel sounds that involve a noticeable change in quality within the same syllable.

In the examples provided, words with monophthongs have a single vowel sound that remains constant, whereas words with diphthongs exhibit a transition between two vowel sounds within the same syllable. This distinction highlights the phonetic diversity within the English language and its various accents.

Q.5 Write the place, voicing and manner of articulation of final consonant sound in the following words:

Suburb trap

click flag

tough curve

church gauge

base bash

Ans:

o analyze the final consonant sounds in the provided words, we'll identify their place, voicing, and manner of articulation. Here's a detailed breakdown:

1. Suburb [b]

Place of Articulation: Bilabial (articulated with both lips)

Voicing: Voiced (vocal cords vibrate)

Manner of Articulation: Plosive (the sound is produced by stopping the airflow and then releasing it)

## 2. Trap [p]

Place of Articulation: Bilabial (articulated with both lips)

Voicing: Voiceless (vocal cords do not vibrate)

Manner of Articulation: Plosive (the sound is produced by stopping the airflow and then releasing it)

## 3. Click [k]

Place of Articulation: Velar (articulated with the back of the tongue against the soft part of the roof of the mouth)

Voicing: Voiceless (vocal cords do not vibrate)

Manner of Articulation: Plosive (the sound is produced by stopping the airflow and then releasing it)

## 4. Gag [g]

Place of Articulation: Velar (articulated with the back of the tongue against the soft part of the roof of the mouth)

Voicing: Voiced (vocal cords vibrate)

Manner of Articulation: Plosive (the sound is produced by stopping the airflow and then releasing it)

## 5. Tough [f]

Place of Articulation: Labiodental (articulated with the bottom lip against the upper teeth)

Voicing: Voiceless (vocal cords do not vibrate)

Manner of Articulation: Fricative (the sound is produced by forcing air through a narrow constriction)

## 6. Curve [v]

Place of Articulation: Labiodental (articulated with the bottom lip against the upper teeth)

Voicing: Voiced (vocal cords vibrate)

Manner of Articulation: Fricative (the sound is produced by forcing air through a narrow constriction)

## 7. Church [tʃ]

Place of Articulation: Postalveolar (articulated just behind the alveolar ridge, with the tongue contacting the hard palate)

Voicing: Voiceless (vocal cords do not vibrate)

Manner of Articulation: Affricate (the sound begins as a plosive and then releases as a fricative)

8. Gauge [dʒ]

Place of Articulation: Postalveolar (articulated just behind the alveolar ridge, with the tongue contacting the hard palate)

Voicing: Voiced (vocal cords vibrate)

Manner of Articulation: Affricate (the sound begins as a plosive and then releases as a fricative)

9. Base [s]

Place of Articulation: Alveolar (articulated with the tongue against the alveolar ridge)

Voicing: Voiceless (vocal cords do not vibrate)

Manner of Articulation: Fricative (the sound is produced by forcing air through a narrow constriction)

10. Bash [ʃ]

Place of Articulation: Postalveolar (articulated just behind the alveolar ridge, with the tongue contacting the hard palate)

Voicing: Voiceless (vocal cords do not vibrate)

Manner of Articulation: Fricative (the sound is produced by forcing air through a narrow constriction)

Q.6 Briefly answer the following questions:

- a) How would you differentiate between a syllable and morpheme?
- b) Which phoneme clusters are possible in English language? Discuss.
- c) Differentiate between weak and strong syllables.
- d) Compare and exemplify open and closed syllables.

Ans:

a) Differentiating Between a Syllable and a Morpheme

Syllable:



Definition: A syllable is a unit of sound in a word that typically contains a vowel sound (or a vowel-like sound) and may be accompanied by consonants.

Function: Syllables are units of pronunciation that help in the rhythm and flow of speech. They contribute to the phonetic structure of words.

Example: In the word "apple," there are two syllables: "ap" and "ple."

Morpheme:

Definition: A morpheme is the smallest unit of meaning in a language. It can be a single word or a part of a word (like a prefix or suffix) that contributes to the meaning.

Function: Morphemes are the building blocks of words and convey semantic content.

Example: In the word "cats," there are two morphemes: "cat" (the base morpheme) and "-s" (the plural suffix).

b) Possible Phoneme Clusters in English

Phoneme Clusters:

Definition: Phoneme clusters are groups of consonants that appear together in a word without intervening vowels.

Possible Clusters:

Initial Clusters: English allows a variety of initial consonant clusters, such as:

/st/ in "star"

/bl/ in "blue"

/tr/ in "train"

Final Clusters: Consonant clusters can also occur at the end of words, such as:

/nd/ in "hand"

/mp/ in "jump"

/sk/ in "tasks"

c) Weak and Strong Syllables

Strong Syllables:

Definition: Strong syllables, also known as stressed syllables, carry emphasis and have a clear,

pronounced vowel sound.

Characteristics: They are often louder, longer, and pronounced with greater force.

Example: In the word "banana," the second syllable "na" is strong: /bə 'nænə/.

Weak Syllables:

Definition: Weak syllables, also known as unstressed syllables, are less emphasized and may have a reduced vowel sound.

Characteristics: They are quieter, shorter, and pronounced with less force.

Example: In the same word "banana," the first and third syllables "ba" and "na" are weak: /bə 'nænə/.

d) Open and Closed Syllables

Open Syllables:

Definition: Open syllables end in a vowel sound, and the vowel is typically long.

Characteristics: There is no consonant closing off the syllable.

Example: The word "he" has an open syllable: /hi:/.

Closed Syllables:

Definition: Closed syllables end in one or more consonants, which "close" the syllable.

Characteristics: The vowel sound in closed syllables is often short.

Example: The word "cat" has a closed syllable: /kæt/.

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