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Phonetics

Course for the module of Corrective and Articulatory Phonetics

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Preface

This handout has been devised to serve as a comprehensive guide in decoding the mysteries of English phonology. Second-year students of English as a foreign language in the Department of English at the University of Tlemcen, often witness difficulty to understand and succeed in the module of Corrective and Articulatory Phonetics. The present handout is a journey through the fascinating realm of linguistics, and phonology, per se. It has been designed with a dual purpose in mind: to help students gain a better theoretical understanding of phonetics and English phonology, and to equip them with the tools necessary to overcome potential challenges when speaking the language. It is our belief that a solid foundation in these areas will not only enhance their language awareness, but also train them to reach certain language proficiency, in order to prepare them for the demands of academic examinations. As the student studies the following pages, it will enable them to discover essential concepts, practical insights, and valuable tips; this will empower them to master phonetics and English phonology; in a game-like question- answer course, to avoid boredom.

This handout, also, can be useful for teachers in an enlightening voyage through the world of Phonetics and English Phonology, where they will unlock the mysteries of language sound systems and gain a deeper appreciation for the nuances of English pronunciation. It, thus, provides a useful pedagogical resource, and a simplified explanation of phonetic concepts that might be a stepping stone towards ensuring a better communication with their students.

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I. Introductory Section

The key terms, phonetics and phonology, are often used interchangeably. Yet, each refers to a definite domain, though interacts with the other, adopts distinct methodologies, and approaches human speech in an independent perspective.

1.1 What is Phonetics

Phonetics is the field of scientific analysis used as a tool in linguistics. It deals with the study of speech sounds. It focuses on the physical properties of sounds, such as their articulation[1] (how they are produced by the human vocal tract), acoustic properties[2] (how they are transmitted as waves through the air), and auditory properties (how they are perceived by the human ear). Phonetics is essential for understanding and analyzing the sounds of language, including their classification, transcription, and variations in different languages and dialects. It provides the foundation for understanding how speech sounds are produced and perceived, which is crucial for fields related to theoretical and applied linguistics. Therefore, a key word, essential in defining phonetics is the term ‘physical‘, which implies that a phonetician, though concerned with human speech sounds, is not necessarily speaking the language in question. He is rather playing the role of a musician, who listens to a music piece and resynthesize it, using music instruments.

1.2 What is Phonology

Phonology is a branch of linguistics that is closely related to phonetics. While phonetics deals with the physical properties and articulation of speech sounds, phonology focuses on the abstract, mental representations and systematic organization of these sounds in a particular language or languages.

[1] Huffman, M '(2016)

[2] Ladefoged, P. (1996).

This means that a phonologist, contrary to a phonetician, should master the language in question, in order to be able to analyze it, and unveil how its pronunciation functions

Phonology is concerned with the study of how sounds function in a given language, including their distinctive features and patterns. It examines the rules and structures that govern how sounds are organized, combined, and modified to form meaningful words and sentences in a specific language. Phonology also explores phenomena like phonemes (the smallest distinctive sound units in a language), phonological rules, stress patterns, and the way in which sound changes can affect the meaning of words.

1.3 Difference between Phonetics and Phonology

Phonetics and phonology are two distinct branches of linguistics that differ in their focus and scope. Phonetics primarily delves into the physical aspects of speech sounds, examining how sounds are produced, transmitted, and perceived. It involves the study of articulation, acoustic properties, and auditory characteristics, focusing on details such as airflow, tongue position, and sound waves. In contrast, phonology is concerned with the abstract, mental representations of speech sounds within a specific language. It investigates the rules, patterns, and structures governing how sounds function in that language, emphasizing the organization and interpretation of these sounds within a linguistic system.

Moreover, phonetics has a broad, universal application, encompassing the study of speech sounds in various languages without differentiation. It examines the acoustic and physiological properties of sounds. Phonology, on the other hand, is language-specific, concentrating on the unique sound patterns, rules, and distinctions within a particular language. Phonologists analyze how sounds operate in a given language, including concepts like phonemes and allophones, syllable structure, stress patterns, and more. Both

phonetics and phonology play crucial roles in comprehending language functionality, production, and perception.

An illustrative example, is the fact that a combination like ‘zdr’, or the word ‘zdrav’, is transcribed by any phoneticians, as any succession of human sounds, without caring if this combination exists in any language, while a phonologist, is unable to describe its function without considering from which language it is taken. Studying the possible combinations in each language is the scope of interest of phonology, and thus defining English phonology, or Russian, or any other language is important for meaningful analysis. While phonetics serves as a tool to visualize human speech sounds and analyse its physical properties.

1.4 IPA in Phonetics

In phonetics, "IPA" stands for the International Phonetic Alphabet[3]. It is a standardized system of symbols used to represent the sounds of spoken language. The IPA provides a way to transcribe and describe the sounds of any language, making it easier to study and compare the pronunciation of words and languages from around the world. Each symbol in the IPA corresponds to a specific speech sound or phoneme, allowing linguists and language learners to accurately represent and analyze the sounds of speech. It often includes significant alphabets, taken from Latin, such as, [p, t, k], or Greek like [θ]. There is also the use of some diacritics, meaning small symbols, to show small phonetic phenomena, like devoicing, and aspiration. Note that transcribing pronunciation is very exact and any small change can give as a result a pronunciation with sounds not existing in the language in question, but rather it might coincide with a sound in another human language. So, as explained in a former title, a phonetician is compared to a musician, any change in his solfège, will generate a change in his melody.

1.5 Branches of Phonetics

[3] Jones, D. (1988).

Phonetics is typically divided into three main branches:

1. Articulatory Phonetics: This branch of phonetics focuses on the physical aspects of speech sounds, particularly how these sounds are produced by the human vocal apparatus. Articulatory phoneticians study the movements and positions of various speech organs (e.g., tongue, lips, and vocal cords) during the production of sounds. They analyze the articulatory mechanisms involved in creating different speech sounds.

2. Acoustic Phonetics: Acoustic phonetics is concerned with the acoustic properties of speech sounds. It deals with the transmission and reception of sound waves produced during speech. Acoustic phoneticians use instruments to measure and analyze the sound waves, studying parameters like frequency, intensity, and duration. They aim to understand how speech sounds are represented in terms of their acoustic properties.

3. Auditory Phonetics: This branch of phonetics is interested in how speech sounds are perceived by the human ear and processed by the brain. Auditory phoneticians investigate how listeners distinguish and interpret different speech sounds. They explore aspects of auditory perception, including how humans recognize phonemes, distinguish between similar sounds, and perceive speech in noisy environments.

These three branches of phonetics collectively provide a comprehensive understanding of speech sounds, encompassing their production, transmission, and perception, and are essential in the study of language and linguistics.

1.6 Phonology Contribution in Linguistics

Often students of English wonder about the motives that make them study the module of phonetics and phonology. Phonology, as a fundamental branch of linguistics, has a wide range of applications in different domains of applied linguistics, making significant contributions to the understanding of language structure and beyond.

One of its key applications is in understanding language structure. Phonology examines the patterns and rules governing the organization of speech sounds within a language, helping linguists understand how sounds are combined to create meaningful words and sentences. For example, it elucidates how specific sound patterns affect word formation and pronunciation. It also plays a crucial role in identifying phonological universals, which are common sound patterns found in many languages. These universals inform theories of linguistic universals and provide insights into the human capacity for language. For instance, the tendency for languages to have vowel and consonant sounds is a phonological universal, or the fact that sounds affect the production of neighbouring sounds

Moreover, it contributes to Language Typology, aiding in the classification of languages based on their phonological features. This classification helps linguists understand the diversity and commonalities among languages, allowing for the comparison of language structures across the world. Syllabic languages, like French and Polish, for instance, have much in common in terms of phonological structure, in comparison to stressed time languages like English.

In the realm of phonological change and historical linguistics, phonological analysis is instrumental in tracing the historical evolution of language patterns, helping uncover relationships between languages and their common ancestral forms. For example, it can reveal how sound shifts have occurred over time in English. In the study of phonological variation and dialectology, phonology is used to describe and analyze pronunciation differences across dialects and regions. For instance, variations in vowel pronunciation can distinguish different dialects of English.

Additionally, phonology interacts with other linguistic subfields, such as morphology and syntax, by influencing phonological analysis in morphology and syntax. Phonological processes like stress placement and vowel harmony

can impact word formation and sentence structure. Furthermore, it can have phonological constraints on semantics, affecting the meaning of words and phrases. Understanding how phonological features interact with semantics is crucial in the study of language meaning and interpretation.

In the domain of language acquisition and psycholinguistics, phonology helps in understanding how children acquire their native language and how humans perceive and process speech sounds, contributing to the field of psycholinguistics[4]. Phonology is also essential in other applied linguistics, particularly in language teaching and speech therapy. It informs language teachers about pronunciation and helps speech therapists address speech disorders, aiding individuals in improving their communication skills. It is, therefore, a valuable tool for cross-linguistic research, enabling comparisons between different languages and contributing to the development of language universals and language processing models. It facilitates the exploration of language diversity and commonalities on a global scale.

Phonology contributions extend across multiple linguistic subfields, providing essential insights into language structure, evolution, variation, meaning, and applications in practical domains such as education and therapy. The present section attempts to define the essential key concepts necessary to decode phonetic and phonological theories. The two sections below gather important concepts at two different scales, segmental and supra segmental levels of phonological analysis.

[4] Aliyah, V., Nashiba, S. and Indah, R. (2020)

II. Segmental Phonology

The English sounds are classified in phonology into a definite number of segments, often referred to as phonemes.

2.1 Segmental Phonology

Segmental phonology, also known as segmental phonetics or phonology is the study of individual speech sounds, or phonemes, in a language. It focuses on the analysis and description of the distinct, discrete sounds that make up the phonological and phonetic system of a language. Segmental phonology studies properties and features of individual speech sounds, including vowels and consonants, and their organization and distribution within words and sentences.

Key aspects of segmental phonology include:

1. Phonemes: Identification and analysis of the phonemes, which are the smallest distinctive sound units in a language. Segmental phonology seeks to understand the inventory of phonemes in a given language and their specific articulatory and acoustic characteristics.

2. Phonological Rules: Exploration of the rules and processes that govern how phonemes are pronounced in various phonetic contexts. These rules may involve assimilation, elision, voicing, devoicing, and other phonological phenomena.

3. Allophones: Recognition of allophones, which are variant pronunciations of a single phoneme due to context. Segmental phonology helps identify when and where allophones occur and how they relate to the underlying phonemic representation.

4. Syllable Structure: Examination of how phonemes are organized into syllables and how syllables are structured in terms of onset, nucleus (often a vowel), and coda.

5. Phonemic Transcription: The use of phonetic symbols (typically from the International Phonetic Alphabet, or IPA) to represent the phonemes and their allophones in a specific language.

Segmental phonology is an essential component of linguistic analysis and is fundamental to understanding the sound system of a language. It plays a crucial role in areas like language acquisition, phonological theory, and the study of dialectal variations in pronunciation.

2.2 Phoneme

'A phoneme is the smallest unit of sound in a language[5] that can change the meaning of a word'. It is a distinctive sound that can be used to differentiate one word from another. According to the search results, a phoneme is an element of pronunciation that is considered as a distinctive unit of sound in a language It is an abstract unit that can be realized in different ways by different speakers or in different contexts. For example, the English language has around 44 phonemes (check appendix i), including vowel and consonant sounds, which can be combined to form words with different meanings. If a sound unit does not change the meaning of word, it is, therefore just a realisation, or what is often referred to as 'Allophone' in literature. A clarifying instance of this nuance is the sounds [p], and [b]; they are two different phonemes in English because they change the meaning of the words, 'park' and 'bark', while in Arabic, they are realisations, of allophone for one sole phoneme. Compare the realisation of the phoneme /b/ in the two words [ba:sim] and [iptisem]. Notice that theoretically, the two realisations are not even noticed by native speakers of Arabic, because represented with the same letter graphically, but in terms of realisation, devoicing of /b/ in the second example is detectable.

[5] Crystal, David (2010:3)

2.3 Phonemic System in English

The phonemic system in English is made up of a set of phonemes. Phonemes are the smallest distinctive sound units in a language. In English, there are approximately 44 phonemes, depending on the dialect and accent. These phonemes are categorized into vowel and consonant sounds. Here's a general breakdown of the phonemic system in English:

Vowel Phonemes: there are 7 short vowels, 5long simple vowels, in addition 8 diphthongs, that include a glide from one vowel position to another shorter one. Some theorists choose, furthermore, to include 5 triphthongs, whose pronunciations involve two successive glides from a first vowel, to a second, then to a third vowel. The sum of 25 sound units in English can be distinguished [6], then, as listed below, providing examples from RP pronunciation.

Short Vowels

- /ɪ/ - as in "sit", "bit", and "fit"
- /e/ - as in "set"; "bet", and fell"
- /æ/ - as in "cat", "bat", and "fat"
- /ɒ/ - as in "hot", "bot", and"fog"
- /ʌ/ - as in "cup", "but, and "fun"
- /ʊ/ - as in "book", "should", and "full"
- /ə/ - as in "sofa" (schwa, a neutral vowel)also in "about"; "teacher", and "perhaps".

Long Vowels

- /i:/ - as in "seat", "beat"; and "feet"
- /ɑ:/ - as in "father", "bar", and 'far"
- /u:/ - as in "school", "boot", and 'food"
- /ɔ:/ - as in "father", "bar", and 'far"

[6] Deterding, D. (2004).

- /ɜː/ - as in “her”, “ bird”, and “girl”

Diphthongs

- /eɪ/ - as in “day” , “may”, and “say”.
- /aɪ/ - as in “high”, “my”, bye”
- /ɔɪ/ - as in “boy”; “alloy”
- / əʊ/ - as in “go”, “low”, and “so”
- /aʊ/ - as in “out”
- /ɪə/- as in “ear”, “fear”, “here”; and “dear”,
- /eə/- as in , “air”; “fair”, “hair”; and “dare”,
- / ʊə/- as in “doer”, “pure”, and “cure”,

Triphthongs

- /eɪə/ as in “player” or “prayer”
- /aɪə/ as in “fire” or “higher”
- /ɔɪə/as in “coir” or “employer”
- /aʊə/ as in “hour” or “flower”
- / əʊə/ as in “goer” or “lower”

Consonant Phonemes: There are at least 24 consonant phonemes in RP English[7]

- /p/ - as in “pat”
- /b/ - as in “bat”
- /t/ - as in “tag”
- /d/ - as in “dog”
- /k/ - as in “cat”
- /g/ - as in “goat”
- /f/ - as in “fat”
- /v/ - as in “vat”

[7] Deterding, D. (2005).

- /θ/ - as in “think”
- /ð/ - as in “this”
- /s/ - as in “see”
- /z/ - as in “zip”
- /ʃ/ - as in “shoe”
- /ʒ/ - as in “measure”
- /h/ - as in “hat”
- /m/ - as in “mat”
- /n/ - as in “not”
- /ŋ/ - as in “song”
- /l/ - as in “lid”
- /r/ - as in “red”
- /j/ - as in “yes”
- /w/ - as in “wet”
- /tʃ/ - as in “church”
- /dʒ// - as in “judge”

These phonemes are the building blocks of English words and are crucial for understanding the phonological system of the language. The specific number of phonemes may vary depending on regional accents and dialects, but the above list covers the core phonemic system in English.

2.4 English vowels

English vowels can be described using several phonetic features, including their height, backness, roundedness, and tenseness. Here’s how English vowels can be categorized based on these features:

1. Height (Tongue Position):

- High Vowels: These are produced with the tongue positioned close to the roof of the mouth. In English, high vowels include /i/ as in “seat” and /u/ as in “blue.”

- Mid Vowels: The tongue is in a mid-position, neither too high nor too low. Examples in English are /e/ as in “set” and /o/ as in “go.”

- Low Vowels: These are produced with the tongue in a relatively low position. English examples include /æ/ as in “cat” and /ɑ/ as in “father.”

2. Backness (Tongue Placement):

- Front Vowels: The tongue is positioned near the front of the mouth. English front vowels include /i/, /e/, and /æ/.

- Central Vowels: The tongue is in a central or neutral position. The schwa /ə/ is a central vowel and is found in words like “sofa.”

- Back Vowels: The tongue is positioned near the back of the mouth. English back vowels include /u/, /o/, and /ɑ/.

3. Roundedness:

- Rounded Vowels: These vowels are produced with rounded lips. In English, rounded vowels include /u/ and /o/.

4. Tenseness (Length):

- Tense Vowels: These vowels are typically longer in duration and are often found in stressed syllables. Examples in English include /i:/ like in “seat” and, /eɪ/ as in “day”.

- Lax Vowels: Lax vowels are generally shorter in duration and are often found in unstressed syllables. English examples include /ɪ/ (as in “sit”) and /ʌ/ (as in “cup”).

These features help linguists describe and classify English vowels (check Appendix ii). The English vowel system can vary depending on accents and dialects, which might have different sets of vowels and variations in vowel pronunciation.

2.5 English consonants

English consonants can be described using various phonetic features that pertain to the manner and place of articulation, voicing, and other characteristics. Here's how English consonants can be categorized based on these features:

1. Manner of Articulation:

- Stops: These consonants are produced by completely blocking the airflow and then releasing it. Examples in English include /p/ as in "pat," /b/ as in "bat," /t/ as in "tag," /d/ as in "dog," /k/ as in "cat," and /g/ as in "goat."
- Fricatives: Fricatives are produced by constricting the airflow, creating friction. English fricatives include /f/ as in "fat," /v/ as in "vat," /θ/ as in "think," /ð/ as in "this," /s/ as in "see," and /z/ as in "zip."
- Affricates: Affricates begin with a stop and release into a fricative. English has /tʃ/ as in "church" and /dʒ/ as in "judge."
- Nasals: Nasal consonants are produced by allowing air to escape through the nose while blocking the oral cavity. English nasals include /m/ as in "mat," /n/ as in "not," and /ŋ/ as in "sing."
- Liquids: Liquids include the lateral /l/ and the rhotic approximant /r/. They are consonants where the airflow is only partially obstructed. English liquids are /l/ as in "lid" and /r/ as in "red."
- Glides: or in some references they are referred to as approximants Glides involve a slight constriction of airflow but less than in fricatives. English glides include /j/ as in "yes" and /w/ as in "wet.", while /r/ inclusion within glides has been subject to discussion and most English phonologists choose to exclude it from the range of glides.

2. Place of Articulation:

For a better understanding of the different places of articulation, please, check appendix iii, so that you can figure out the exact articulator responsible for sounds production.

Bilabial: Consonants produced by bringing both lips together, as in /p/ and /b/.

Labio-dental: Consonants produced by placing the lower lip against the upper teeth, as in /f/ and /v/.

Alveolar: Consonants produced by raising the tongue tip to the alveolar ridge (the area just behind the upper front teeth), as in /t/ and /d/.

Post-alveolar consonants are articulated with the tongue near or touching the back of the alveolar ridge, placing them a bit further back in the mouth than the alveolar consonants, but not as far back as the hard palate, which is the place of articulation for palatal consonants, as in /ʃ/ and /ʒ/, [tʃ] and [dʒ].

Palatal: Consonants produced by raising the front part of the tongue to the hard palate, like; [j].

Velar: Consonants produced by raising the back of the tongue to the soft palate (velum), as in /k/ and /g/.

Glottal: Consonants produced by constricting or blocking airflow at the level of the glottis (the space between the vocal cords), as in /h/.

3. Voicing:

- Voiceless: Consonants produced without vibration of the vocal cords, such as /p/, /t/, and /s/.

- Voiced: Consonants produced with vibration of the vocal cords, such as /b/, /d/, and /z/.

4. Nasality:

- Oral: Consonants produced with a completely closed oral cavity, as in /p/ and /k/.

- Nasal: Consonants produced with an open nasal passage, as in /m/, /n/, and /ŋ/.

These features help linguists describe and classify English consonants, allowing for a detailed analysis of their articulatory properties and phonological characteristics. Please note that variations can exist in different accents and dialects of English.

2.6 Plosive Consonants in English

A plosive consonant in English, also known as a stop consonant, is a speech sound that is produced by briefly obstructing the airflow in the vocal tract and then releasing it abruptly. The key characteristic of plosive consonants is the complete closure of the oral passage, creating a momentary silence or pause followed by a burst of sound. Plosive consonants are characterized by the following features.

1. Complete Closure: Plosive consonants are produced by completely blocking the airflow at a specific place of articulation within the vocal tract. This blockage can occur at various points, depending on the specific plosive sound. For example, /p/ is a bilabial plosive, produced by closing the lips, while /t/ is an alveolar plosive, produced by raising the tongue tip to the alveolar ridge.

2. Release: After the complete closure, there is a sudden release of the airflow. This release results in a distinctive burst of sound. The release phase of a plosive is what gives the consonant its characteristic “explosive” or “popping” quality.

3. Voicing: Plosives can be categorized as either voiceless or voiced. Voiceless plosives, like /p/, /t/, and /k/, are produced without vibration of the vocal cords. Voiced plosives, like /b/, /d/, and /g/, are produced with vibration of the vocal cords during the production of the sound.

Common English plosive consonants include:

- /p/ as in “pat” (voiceless bilabial plosive)

- /b/ as in “bat” (voiced bilabial plosive)

- /t/ as in “tag” (voiceless alveolar plosive)

- /d/ as in “dog” (voiced alveolar plosive)

- /k/ as in “cat” (voiceless velar plosive)

- /g/ as in “goat” (voiced velar plosive)

2.7 Aspiration

Aspiration, in phonetics, refers to the presence or absence of a puff of air that accompanies the release of certain voiceless plosive consonants, such as /p/, /t/, and /k/. Aspiration is a key feature in the articulation of these sounds, and it can vary across languages and dialects. Here’s how it works:

1. Voiceless Plosives: Voiceless plosive consonants are produced without vibration of the vocal cords. In English, examples of voiceless plosives include /p/ (as in “pat”), /t/ (as in “tag”), and /k/ (as in “cat”).

2. Aspiration: When a voiceless plosive is pronounced at the beginning of a word or stressed syllable in English, it is typically aspirated. This means that there is a brief puff of air released after the plosive sound. You can feel this aspiration by holding your hand in front of your mouth as you say words like “pat,” “tag,” or “cat.” You’ll notice a slight burst of air after the initial sound.

3. Voiceless Stops with No Aspiration: In contrast, when voiceless plosives occur after the /s/ sound or within a word without stress, they are usually unaspirated. For example, the /t/ in “stop” is unaspirated. When you say “stop,” you won’t feel the same puff of air as in “tag.”

Aspiration can affect the meaning of words in some languages. For example, in some Indian languages, the presence or absence of aspiration on voiceless plosives can distinguish between different words. In English, aspiration is not typically used to distinguish words, but it is an important

phonetic feature that contributes to the way certain sounds are pronounced and perceived.

2.8 English Consonants Devoicing

Voiced English consonants often lose their voicing in specific environments. This phenomenon is referred to as devoicing in literature in the field. In specific phonetic contexts or due to certain phonological rules, devoicing of consonants in English typically occurs in the following situations:

- When a voiced consonant occurs in final position, or before a pause. This occurs with plosives, fricatives, and affricates, eg, in the words bad, judge and of, the respective final consonants /d, dʒ, v/

Note that the lateral consonant /l/ does not lose its voicing in final position. Therefore, [l] retains its voicing in all positions in English. Similarly, nasals are voiced in final position in English. The consonants /w/ and /j/ do not lose their voicing in final position. Similarly, the consonant /r/does not lose its voicing in final position. These consonants retain their voicing in all positions in English. However, the approximants /w r l j/ undergo some degree of devoicing whenever they occur after /p t k/ at the start of a word or stressed syllable. The devoicing of [r] in English is a complex issue, and it can be influenced by various factors such as the position of the [r] in a word and the following sounds. Generally, its devoicing occurs in specific phonological contexts, such as after voiceless plosives at the beginning of a word or stressed syllable, and this is due to the phenomenon of assimilation

- Assimilation: Devoicing can occur as a result of assimilation when a voiced consonant is followed by a voiceless one. For instance, in the phrase “have to,” the /v/ in “have” might become devoiced before the voiceless /t/ in “to.”

2.9 Difference between Fricatives and Affricates

Fricatives and affricates are two different types of consonant sounds, and they differ in their manner of articulation. Here are the key differences between fricatives and affricates:

- Fricatives:

1. Manner of Articulation: Fricatives are produced by creating a narrow constriction in the vocal tract, causing the airflow to pass through this constriction with turbulence or friction.

2. Continuous Sound: Fricatives produce a continuous, non-stop sound. Airflow is partially obstructed, but not completely blocked, so the sound can be sustained as long as the speaker wants.

3. Examples in English: English fricatives include /f/ as in “fat,” /v/ as in “vat,” /s/ as in “see,” and /z/ as in “zip.”

- Affricates:

1. Manner of Articulation: Affricates are a combination of a stop (plosive) sound followed by a fricative sound. They begin with a complete closure in the vocal tract, similar to stops, and then transition into a fricative phase where there is a narrow constriction causing friction.

2. Two-Part Sound: Affricates have two distinct phases: a stop phase (complete closure) followed by a fricative phase (constriction with turbulence). This gives them a characteristic “explosive” quality.

3. Examples in English: English affricates include /tʃ/ as in “church” and /dʒ/ as in “judge.” The /tʃ/ sound starts with a stop, while /dʒ/ starts with a stop and transitions into a fricative.

The primary difference between fricatives and affricates lies in their manner of articulation. Fricatives involve a continuous, non-stop sound with friction, while affricates are characterized by a two-part sound with an initial stop phase followed by a fricative phase.

2.10 Can nasal consonants be devoiced?

In English, nasal consonants are typically not devoiced in standard pronunciation. However, there are certain contexts and accents where nasal devoicing can occur, especially in fast or casual speech. Here are a few instances where nasal devoicing might be observed in some English accents:

1. Intervocalic Devoicing: In some English accents, nasal consonants can be devoiced when they appear between vowels. For example, in fast speech, the /n/ in words like "winner" or "dinner" can become devoiced. This phenomenon is more common in certain American English dialects.

2. [8]Cluster Devoicing: Nasal consonants in clusters may also undergo devoicing. For instance, the /n/ in the word "handbag" or the /m/ in "empty" may become devoiced in rapid speech.

3. Connected Speech: In fast, connected speech, nasal devoicing can be observed as a natural consequence of the rapid articulation of sounds. However, this devoicing is often less noticeable in careful or formal speech.

It's important to note that nasal devoicing is not a standard feature of English pronunciation and is more likely to be found in specific accents or in informal, colloquial speech. In most standard varieties of English, nasal consonants are pronounced with voicing as their natural feature.

2.11 Lateral Consonant in English

Lateral consonants in English are characterized by a unique airflow pattern in their articulation. The key features of lateral consonants in English, such as /l/, are as follows:

Lateral Articulation: The term "lateral" in lateral consonants refers to the manner in which the airflow is directed. Unlike most other consonants, where the airstream flows centrally down the oral cavity, lateral consonants involve a

[8] Parker, F, (1980); 'The perceptual basis of consonant cluster reduction and final devoicing' in *Journal of Phonetics (1980) 8,* pp259-268

partial closure of the oral cavity along the centre and a lateral opening on one or both sides of the tongue. In English, the most common lateral consonant is /l/.

Liquid Consonants: Lateral consonants, like /l/, are often categorized as "liquid" consonants due to their flowing or fluid-like quality. The airflow is directed around the sides of the tongue, giving these sounds a distinctive character.

Voiced: Lateral consonants in English are voiced. This means that the vocal cords vibrate during their production, creating a voiced sound.

Variation across Dialects: The specific articulation of /l/ can vary across different English dialects. In some dialects, /l/ is realized as a "dark" or velarized /l/, where the back of the tongue approaches the soft palate (velum). In other dialects, /l/ is pronounced as a "clear" or non-velarized /l/ with the tongue tip at the alveolar ridge.

Silent "L" in Some Accents: In certain accents, particularly non-rhotic accents, the /l/ sound at the end of words or before consonants is often silent, leading to the phenomenon known as "L-vocalization." For example, in Received Pronunciation (RP), "bottle" may be pronounced as "boddle."

Non-Standard Pronunciations: Some English accents and dialects may have non-standard pronunciations of /l/. For example, the "intrusive /l/" can be found in some varieties of British English, where /l/ is inserted between certain vowels, such as in "falm and calm."

Lateral consonants are a distinctive feature of English phonetics and are characterized by their unique airflow pattern, particularly in the articulation of /l/. The precise articulation and pronunciation of /l/ can vary among English speakers, making it a subject of interest in sociolinguistics and dialectology.

2.12 Syllabic Consonants in English

Syllabic consonants in English, or in any language, are consonant sounds that take on the role of a syllable nucleus, effectively acting as the core or peak of a syllable. Syllabic consonants serve as the centre of syllabic structure and perform the function typically associated with vowel sounds. In English, the most common example of a syllabic consonant is the /l/ sound.

For example, in the word “bottle,” the final syllable “tle” contains a syllabic /l/. In this case, the /l/ sound acts as the nucleus of the syllable, replacing the need for a vowel sound. It is the /l/ that receives the primary stress and carries the syllable weight.

Other examples of syllabic consonants in English include:

1. “little” – the final syllable “tle” contains a syllabic /l/.

2. “butter” – the second syllable “tt” contains a syllabic /t/.

3. “rhythm” – the first syllable “rythm” contains a syllabic /m/.

Syllabic consonants are most commonly found in word-final positions and in certain dialects and accents of English. They play an essential role in the pronunciation of words and syllables, and their use can vary among speakers and regions.

2.13 Are [w] and [y] Consonants or Vowels in English

In English, the sounds represented by the letters “w” and “y” can function as both consonants and vowels, depending on their role within a word or syllable. This dual nature of “w” and “y” is known as their semi-vowel or semi-consonant status.

‘W’ as a Consonant: When it represents a consonant sound, it is typically pronounced with a brief constriction of the airflow, making it a consonant. For example, in the word “wet,” /w/ is a consonant. /j/ as a Consonant: It

represents a consonant sound, when functions as a consonant. In words like "yes" or "yellow," the /j/ phoneme is a consonant. We notice in the two above examples that /w/ and /j/ have consonantal distribution, so they are considered as consonants from a phonological standpoint.

However, /W/ and /j/ are often referred to as "semivowels" because they exhibit characteristics of vowels in terms of production. Both are vowel-like in nature. When pronounced in certain contexts, they can create vowel-like glides or approximants. These sounds approach the qualities of pure vowels in the sense that they are articulated with no obstruction in the airflow during their production, which is a typical feature of vowels articulation. They are, consequently considered as vowels from a phonetic point of view.

[w] and [j] ; though have a vowel nature, considering them phonetically, they are considered as consonants in English if perceived through a phonological perspective, because of their consonant like distribution.

2.14 /r/ Function in English

The [r] sound in English functions in several different ways, depending on its position within words, accents, and dialects. Its role can be categorized into the following functions. It is described as a voiced palate alveolar approximant consonant in English. In most standard varieties of English, [r] is a consonant sound. It is articulated by raising the tongue tip toward or close to the alveolar ridge (for alveolar "r") or the hard palate (for retroflex or postalveolar "r"). English has several "r" sounds, including the alveolar /r/ and the retroflex /ɹ/ (also known as the postalveolar or tap "r"). As a consonant, it typically appears before vowels, in initial or medial positions within words, and between vowels[9]. Rolled [r] is not technically present en native speakers speech, as we can notice it in other languages like Spanish, or Italian. In English, it is the distinctive feature that distinguishes Rhotic and non Rhotic accents.

[9] Jones, D. (1964)

In some varieties of English, particularly American English, Scottish English, and some dialects in England, [r] is a rhotic sound. This means that [r] is pronounced clearly and distinctly in all positions within words, including at the end of syllables and words. Rhotic accents maintain the pronunciation of [r] in "rhotic" positions, be it final such as in "car," "far," and "more.", or middle like in "park", and "internet", contrary to non rhotic accents.

In contrast, in many other dialects of English, particularly British Received Pronunciation (RP) and non-rhotic American accents, the [r] sound is not pronounced at the end of syllables or words. This result in an absence of [r] in word-final positions, and words like "car" or "far" are pronounced without a final [r] sound. These words, if they happen to be followed by a word beginning with a vowel, we use what is referred to as linking "R".

Indeed, in some accents and dialects, particularly in British English, the [r] sound can appear in word-final positions when the next word begins with a vowel sound. This is known as "linking 'r'" and helps to link words together in speech. For example, "sister and brother" may be pronounced with an "r" sound linking the two words and is realised as /ˈsɪstə (r) ən ˈbrʌðə/ ; with a [r] sound linking the two words because pronouncing a succession of vowels is difficult to realise, and because it is written. To facilitate pronunciation, English speakers, sometimes use a [r] sound among vowels. Consequently, native speakers took the habit to intrude a [r] sound in any succession of vowels as a case of hypercorrection, and led to what is referred to as intrusive "r".

In some dialects, particularly some varieties of British English, a [r] sound may be inserted between vowels when it doesn't typically exist in the spelling. This is called "intrusive 'r'" and can be heard in phrases like "law and order," where an "r" sound is inserted between "law" and "and." [lɔːr ən ˈɔːdər]

The function of the “r” sound in English can vary significantly based on regional accents and dialects, which may influence its pronunciation and presence in different positions within words. The role of “r” can range from being a prominent consonant sound to being silent, depending on the variety of English being spoken.

2.15 Exercise and Practice 1

- **Exercise1 Transcribe phonemically the following words (RP pronunciation)**

- Random
- Elephant
- Sunshine
- Computer
- Butterfly
- Chocolate
- Telephone
- Restaurant
- Guitar
- Umbrella
- Bomb
- Climb
- Comb
- Pneumonia
- Psychology
- Receipt
- Castle
- Listen
- Knife

- **Exercise 2: Transcribe a narrow phonetic transcription the in each word in the following words, and comment on the different phenomena you notic**e

1. Colonel
2. Bouquet
3. Through
4. Biscuit
5. Comfortable
6. Months
7. Jewellery
8. Pronunciation
9. Accommodation
10. Chemistry

2.16 Correction 1

- **Exercise 1: Here are the phonemic transcriptions for the provided words:**

  - Random: /ˈrændəm/
  - Elephant: /ˈeləfənt/
  - Sunshine: /ˈsʌnʃaɪn/
  - Computer: /kəmˈpjuːtə/
  - Butterfly: /ˈbʌtəflaɪ/
  - Chocolate: /ˈtʃɒklət/
  - Telephone: /ˈtelɪfəʊn/
  - Restaurant: /ˈrestrənt/
  - Guitar: /gɪˈtɑː/
  - Umbrella: /ʌmˈbrelə/
  - Bomb: /bɒm/
  - Climb: /klaɪm/
  - Comb: /koʊm/
  - Pneumonia: /nʊˈmoʊniə/
  - Psychology: /saɪˈkɒlədʒi/
  - Receipt: /rɪˈsit/
  - Castle: /ˈkæsl/
  - Listen: /ˈlɪsən/
  - Knife: /naɪf/

.

Exercise2. Narrow Phonetic transcription with comments

Narrow phonetic transcription should be between square brackets

1. Colonel – [ˈkʰɜːrnə̪ɬ] or [ˈkʰɝːnə̪ɬ]
2. Bouquet – [buːˈkʰeɪ]
3. Through – [θruː]
4. Biscuit – [ˈbɪskɪt]
5. Comfortable – [ˈkʰʌmftəbɬ] or [ˈkʰʌmfərtəbɬ]
6. Months – [mʌnθs]
7. Jewellery – [ˈdʒuːəlri]
8. Pronunciation – [prəˌnʌnsiˈeɪʃən]
9. Accommodation – [əˌkɒməˈdeɪʃən]
10. Chemistry – [ˈkʰemɪstri]

Notes :

Aspiration occurs in all stressed syllables, containing a voiceless plosive [p, t, k] followed by a vowel.

Dark l [ɬ] occurs when there is no vowel after l, or when it occurs in final position

III. Supra Segmental Phonology

If the elementary unit for segmental phonology is ‘phoneme’, supra segmental phonology goes beyond the level of a sound unit. It deals with a superior level of analysis, and concerns rather syllable as elementary unit for analysis.

3.1 Supra Segmental Phonology

Supra-segmental phonology, also known as prosody or supra-segmental features, is the study of speech elements that extend beyond individual speech sounds (phonemes) and involve larger units of speech, such as syllables, words, and phrases. Supra-segmental phonology focusses on the rhythmic, melodic, and temporal aspects of speech that contribute to the prosodic features of spoken language. These features include:

1. Stress: Supra-segmental phonology examines the patterns of stress in words and sentences. It involves the emphasis placed on particular syllables or words within an utterance. Stress patterns can vary between languages and dialects.

2. Pitch: It deals with the variations in pitch (or tone) that occur in speech. This includes the rising and falling of pitch within sentences, which can convey information such as questions, statements, or emotional tone.

3. Intonation: Intonation refers to the overall melodic pattern of a sentence. It can convey information about sentence type (e.g., declarative, interrogative, or imperative) and emotional nuances, such as surprise, excitement, or uncertainty[10].

4. Tempo: Supra-segmental phonology includes the timing or tempo of speech. It examines variations in speech rate, including pauses and speech fluency.

[10] Jones, D. (1964)

5. Rhythm: It explores the patterns of stress and unstressed syllables within words and sentences, contributing to the overall rhythm of speech. Some languages, like English, have a stress-timed rhythm, while others, like French, have a syllable-timed rhythm.

6. Loudness: Supra-segmental features consider variations in loudness, which can convey emphasis or emotional intensity.

7. Phrasing: It involves the division of speech into meaningful units, such as phrases, clauses, or breath groups. Supra-segmental phonology examines how speech is structured into these units, affecting the flow and comprehension of speech.

Supra-segmental phonology plays a crucial role in the interpretation and communication of meaning in spoken language. It helps convey pragmatic and emotional aspects of speech, such as sarcasm, politeness, and emphasis. Additionally, the study of supra-segmental features is essential for understanding how speech is produced and perceived in different languages and dialects.

3.2 Syllable

A syllable is a fundamental unit of speech and language that consists of one or more sounds produced as a single, continuous, and uninterrupted vocal unit. Syllables are the building blocks of words and play a crucial role in the structure and rhythm of spoken language. Here are some key characteristics of syllables:

1. Components: A syllable typically contains one vowel sound, which is known as the syllable's nucleus. In some cases, a syllable can have a consonant sound before the vowel (onset) and/or after the vowel (coda).

2. Vowel Sound: The vowel sound in a syllable is often the most prominent and essential part of that syllable. It gives the syllable its sonority and is the core of the syllable structure.

3. Consonants: Consonant sounds in the onset or coda may surround the vowel sound. The combination of consonants and the vowel sound creates the characteristic sound of the syllable.

4. Stress: Syllables within words and sentences may be stressed or unstressed. Stressed syllables receive greater emphasis, are typically louder and longer, and contribute to the rhythmic pattern of speech.

5. Syllable Division: In written language, words can be divided into syllables, often for pronunciation and spelling purposes. The division of syllables can vary across languages and dialects.

6. Syllable Count: The number of syllables in a word can affect its pronunciation, rhythm, and overall structure. For example, monosyllabic words contain a single syllable, while polysyllabic words contain multiple syllables.

Syllables are essential for the organization of speech and play a role in the prosody of language, affecting the rhythm, timing, and melody of spoken words and sentences. They are a fundamental concept in phonology, and understanding syllables is important for various aspects of language analysis, including phonetics, phonology, and language acquisition.

3.3 Syllable Phonetically vs Phonologically

The definitions of a syllable from phonetic and phonological perspectives are related but have different emphases and purposes:

1. Phonetic Definition of Syllable:

- Phonetic View: From a phonetic standpoint, a syllable is defined based on the physical properties of speech sounds. It is a unit of speech that consists of a nucleus (typically a vowel sound) and, optionally, an onset (consonant sounds before the nucleus) and a coda (consonant sounds after the nucleus).

- Emphasis: The phonetic definition of a syllable focuses on the actual articulatory and acoustic properties of speech, such as vowel length, consonant articulation, and the sonority of speech sounds. It deals with how speech sounds are physically produced and perceived.

2. Phonological Definition of Syllable:

- Phonological View: In phonology, a syllable is defined based on its role in a language's phonological structure. It is a unit that carries meaning and has implications for the phonotactics (permissible sound sequences) of a language.

- Emphasis: The phonological definition of a syllable is more abstract and considers how syllables function in terms of stress patterns, metrical structure, and phonotactic constraints. It addresses questions of syllable weight, stress placement, and syllable patterns within a language's grammar.

The phonetic definition of a syllable is concerned with the physical properties and acoustic characteristics of speech sounds, while the phonological definition is focused on the role of syllables in a language's phonological structure and how they contribute to the organization of linguistic information. Both perspectives are important for understanding the phonetic and phonological aspects of spoken language.

3.4 Strong vs Weak Syllable

In linguistics, the concepts of strong and weak syllables refer to the prominence or stress that syllables can have in a word or phrase. The distinction between strong and weak syllables is related to the pattern of stress in a language. Here's how they differ:

Strong Syllable:

- A strong syllable, often referred to as a stressed syllable, is a syllable within a word or phrase that receives greater emphasis in terms of

pitch, loudness, or duration. It is typically perceived as being more prominent or "strong" in spoken language[11].

- In English, strong syllables are typically marked with a primary stress, indicated in phonetic transcriptions with a raised vertical line (e.g., /ˈˈstrong/). Words typically have one or more strong syllables, depending on their length and stress pattern.

- Strong syllables often contain vowel sounds that are fully pronounced and not reduced. For example, in the word "happy," the first syllable, "hap," is strong, and the vowel /æ/ is pronounced with full quality.

Weak Syllable:

- A weak syllable, also known as an unstressed syllable, is a syllable within a word or phrase that receives less emphasis in terms of pitch, loudness, or duration. It is perceived as less prominent or "weaker" than strong syllables.
- In English, weak syllables are typically marked with no stress or secondary stress, indicated in phonetic transcriptions with an absence of stress marks or a secondary stress mark (e.g., /ˌweaker/). Words may have one or more weak syllables, especially in longer words or multi-syllabic words.
- Weak syllables often contain vowel sounds that are reduced or pronounced with less fullness. Common reductions include the schwa sound /ə/ or even the complete elision of the vowel sound. For example, in the word "banana," the middle syllable, "na," is weak, and the vowel /ə/ is often reduced in pronunciation.

The distinction between strong and weak syllables is essential for understanding the patterns of stress and rhythm in a language. In English and

[11] Roach, P. (2009)

many other languages, the arrangement of strong and weak syllables contributes to the overall prosody and pronunciation of words and phrases.

3.5 Weak Syllable

A weak syllable, also known as an unstressed syllable, is defined by the fact that it receives less emphasis or prominence in terms of pitch, loudness, and duration compared to strong (stressed) syllables within a word or phrase. Several characteristics define a weak syllable:

1. Reduced Vowel Quality: Weak syllables often contain reduced vowel sounds. In English, the most common reduced vowel sound is the schwa /ə/. This reduced vowel is pronounced with a centralized, mid-central, or neutral tongue position and is often very short and unstressed. For example, the second syllable in “banana” contains a reduced vowel, typically pronounced as /bəˈnænə/.

2. Less Pitch: Weak syllables are typically associated with a lower pitch or pitch reduction. In languages with pitch accent or intonation patterns, weak syllables may have flatter or less pronounced pitch contours compared to strong syllables.

3. Shorter Duration: Weak syllables are usually shorter in duration than strong syllables. They are often perceived as more rapid or hurried in spoken language.

4. Less Loudness: Weak syllables are generally less loud or less sonorous than strong syllables. The volume of weak syllables is lower in comparison.

5. Secondary Stress or No Stress: In languages with stress-based prosody (like English), weak syllables may have secondary stress or no stress at all. They are not the primary focal points of emphasis within words or phrases.

6. Less Clarity: Weak syllables may have less articulatory precision and clarity. This is often because reduced vowel sounds are less distinct in their articulation.

In English and many other languages, the arrangement of strong and weak syllables within words and phrases contributes to the rhythmic patterns and prosody of speech. Understanding the role of weak syllables is crucial for accurate pronunciation and speech rhythm

3.6 Weak Forms in English

Weak forms are specific pronunciations of words in English that involve the reduction or simplification of certain vowels to a centralized, unstressed, and often schwa /ə/ sound. Weak forms are typically used in unstressed or weakly stressed syllables within sentences and phrases, contributing to the natural rhythm and flow of spoken English. They help speakers and listeners convey and understand speech more efficiently. Here are some key points about weak forms in English:

1. Reduction of Vowels: Weak forms primarily involve the reduction of vowel sounds in unstressed syllables. This reduction may occur in function words, such as articles (e.g., "the," "a"), prepositions (e.g., "of," "to"), auxiliary verbs (e.g., "is," "have"), and pronouns (e.g., "he," "she"). When these words appear in unstressed positions, their full vowel sounds may change to the schwa sound /ə/.

2. Schwa (/ə/) Sound: The schwa sound, represented by the symbol /ə/, is the most common vowel sound in weak forms. It's a centralized and neutral vowel sound, often pronounced quickly and with reduced articulatory effort. In weak forms, other unstressed vowels may also be pronounced as a schwa.

3. Unpredictable: The use of weak forms can be unpredictable, as it depends on the surrounding words and the specific pronunciation habits of

speakers. While there are patterns in English that guide the use of weak forms, they can vary among accents and dialects.

4. Contributes to Natural Speech Rhythm: Weak forms play a significant role in the natural rhythm of spoken English. They allow speakers to articulate sentences more fluently and quickly. In contrast, strong forms (full, stressed pronunciations) of these words tend to slow down speech.

5. Comprehension: Native English speakers are accustomed to hearing and using weak forms, so they often have no difficulty understanding them. However, learners of English may find weak forms challenging to recognize initially because they differ from the clear, full pronunciations taught in language learning materials.

Examples of weak forms in English include:

- "the" pronounced as /ðə/ (weak form) vs. /ði/ (strong form)

- "of" pronounced as /əv/ (weak form) vs. /ɒv/ (strong form)

- "to" pronounced as /tə/ (weak form) vs. /tuː/ (strong form)

- "have" pronounced as /əv/ (weak form) vs. /hæv/ (strong form)

Learning to recognize and use weak forms is an important aspect of English pronunciation and helps learners sound more natural in spoken English.

3.7 Levels of Stress

In phonetics and phonology, the concept of "levels of stress" refers to the relative prominence or emphasis placed on different syllables within a word, phrase, or sentence. Stress is a feature of prosody, which is the rhythmic, and the melodic aspects of spoken language. Levels of stress categorize syllables or words based on how much emphasis or prominence they receive in terms of

various phonetic features, including pitch, loudness, and duration. There are typically three levels of stress:

1. Primary Stress: Primary stress, often represented by a vertical line (ˊ), is the highest level of stress in a word, phrase, or sentence. It's the most emphasized and prominent syllable or word. Primary stress is often marked by higher pitch, greater loudness, and longer duration.

2. Secondary Stress: Secondary stress, often represented by a secondary stress mark (ˌ), is a level of stress that is less prominent than primary stress but more prominent than unstressed syllables. In longer words or phrases, secondary stress can occur on specific syllables, typically with lower pitch and less duration than primary stress.

3. Unstressed: Unstressed syllables or words receive the least emphasis and are often pronounced with neutral pitch, lower loudness, and shorter duration. These syllables or words contribute to the rhythm of speech but do not stand out as prominently as stressed ones.

The arrangement of primary and secondary stress within words and sentences is an important feature of a language's prosody and can affect the meaning and comprehension of spoken utterances. Stress patterns vary between languages, and even within a language, different dialects may have distinct stress patterns. In English, for example, stress patterns can differ between British English and American English. Stress is also used to convey nuances of meaning and emphasis in speech.

3.8 Word Class Pairs

Word class pairs refer to pairs of words that belong to different word classes but have the same spelling. For example, "bass" can be a noun referring to a type of fish or a musical instrument, and it can also be an adjective meaning low in pitch or intensity. These pairs are also known as homographs. In English, the major word classes are nouns, verbs, adjectives,

adverbs, prepositions, determiners, pronouns, and conjunctions. We picked just these examples:

Here are some examples of word class pairs in English:

- Bass (noun meaning a type of fish or a musical instrument, and adjective meaning low in pitch or intensity)
- Tear (noun meaning a drop of liquid from the eye, and verb meaning to rip or pull apart)
- Wind (noun meaning a current of air, and verb meaning to turn or twist)
- Object (noun meaning a thing, and verb meaning to express disapproval or disagreement)
- Bow (noun meaning a knot tied with two loops and two loose ends, and verb meaning to bend forward at the waist as a sign of respect or greeting)

We can provide plenty of examples in English[12], we have just chosen some for the sake of illustration.

3.9 Stress Placement Rules in English Words

Any native speaker of English can guess stress placement automatically, without thinking of the rules governing stress placement. Yet, deciding on which syllable to place stress is not random. Here are some rules that could be summarized to facilitate their retention.

- Two syllable words:

1. Verbs

- If the second syllable has got a long vowel or a diphthong, or more than two consonants then the syllable is stressed, e.g. Repeat, apply, protect

[12] Unknow author: A web retrieved document on December 18th, 2023, https://cte.univ-setif2.dz/moodle/pluginfile.php/166334/mod_resource/content/0/Stress%20in%20Homographs.pdf

- If the second syllable has got a short vowel or one consonant at the end, then the first syllable is stressed, e.g. Envy, open, (except follow)

2. Adjectives (the same rule as that of verbs: e.g. divine, alive, correct/ lovely, even) but there are a lot of exceptions: honest, perfect, hollow…

3. Nouns

- If the second syllable has got a short vowel, then, usually, it is the first syllable which is stressed, e.g. money, product, larynx/ balloon, design.

4. Adverbs and prepositions: more or less the same rule as nouns, e.g. about, ago, today/ toward

- Three syllable words:

1. Verbs

- If the last syllable has got a short vowel or one consonant at the end, then the penultimate syllable is stressed, e.g. encounter, determine/ entertain.

2. Nouns

- If the final syllable has got a short vowel or /əu/ and the penultimate is a long vowel or two consonants, then, usually, it is the penultimate syllable which is stressed, e.g. disaster, potato, mimosa.

- If the penultimate is a short vowel or one consonant, then the first syllable is stressed, e.g. quantity, cinema, emperor.

- If the last syllable has got a long vowel or two consonants, then stress is on the first syllable, and the last has got a secondary stress. , e.g. intellect, stalactite- stalagmite.

- Adjectives: the same rule as that of nouns: e.g. opportunity, insolent, anthropoid

3.10 Stress Placement Rules in English Compound Nouns

In English compound nouns, stress placement often follows certain patterns depending on the nature of the compound[13]. We examine the first word, if it is a noun, or an adjective. Here the general rules:

1. Noun + Noun: In compound nouns formed by two nouns, the stress typically falls on the first noun.

- Examples: Bookshelf (BOOKshelf), Doghouse (DOGhouse)

2. Adjective + Noun: In compound nouns beginning with an adjective, stress tends to fall on the Second element.

- Examples: Blackboard' (black BOARD); Greenhouse' (greenHOUSE)

It's important to note that these are general patterns, and there can be exceptions. Additionally, the stress pattern may change based on the specific meaning or context of the compound.

3.11 Aspects of Connected Speech

Aspects of connected speech in English refer to the various modifications and features that occur when individual words are spoken together in a continuous, fluent manner. Connected speech encompasses the changes in pronunciation, sound patterns, and rhythm that naturally occur in spoken language, as opposed to isolated, careful word pronunciation. Here are some key aspects of connected speech in English:

1. Assimilation: Assimilation is the phenomenon where sounds in a word change or adapt to match the neighbouring sounds. Common examples include:

- Progressive Assimilation: Sounds become more like the following sound (e.g., “have to” pronounced as “have to”).

[13] Roach, P.(2009)

- Regressive Assimilation: Sounds become more like the preceding sound (e.g., “ten books” pronounced as “tem books”).

2. Elision: Elision involves the omission or dropping of sounds, usually in unstressed syllables or between words, to facilitate smooth speech. Examples include:

- “gonna” for “going to.”

- “wanna” for “want to.”

- “I’m” for “I am.”

3. Intrusion: Intrusion is the insertion of an extra sound, often a /j/ or /w/ sound, to connect words smoothly. This occurs in phrases like “law and order,” where an “r” sound is inserted between words.

4. Contractions: Contractions are shortened forms of words, where letters or sounds are omitted to facilitate faster speech. Common contractions include:

- “can’t” for “cannot.”

- “I’m” for “I am.”

- “you’re” for “you are.”

Reduction of Vowels: In unstressed syllables, vowel sounds are often reduced to the schwa /ə/ sound, contributing to the natural rhythm of speech. For example, the word “banana” may have a reduced /ə/ sound in the middle syllable.

5. Linking: Linking involves connecting words within a sentence or phrase so that they flow together smoothly. This can include the linking “r” mentioned earlier, where an “r” sound is inserted between words to facilitate pronunciation (e.g., “sister and brother”).

6. Rhythmic Patterns: Connected speech often follows rhythmic patterns that involve variations in the timing, stress, and intonation of words and phrases. This contributes to the natural prosody of speech.

7. Intonation: Intonation patterns in connected speech convey nuances such as questions, statements, emotions, or emphasis. Rising and falling intonation patterns contribute to the meaning and tone of speech.

Understanding and using these aspects of connected speech is essential for effective communication in English. Native speakers employ these features naturally to achieve fluency and convey meaning in a more fluid manner. Learners of English often need to become familiar with these aspects to sound more natural and comprehend spoken English more effectively.

3.12 Assimilation in English Phonology

Assimilation in English phonology is a phonological process in which sounds in words change or adapt to become more similar to neighbouring sounds, making pronunciation smoother and more efficient[14]. This can occur within a word or at word boundaries. There are two primary types of assimilation in English: progressive assimilation and regressive assimilation.

1. Progressive Assimilation [15] (or anticipatory assimilation): This occurs when a sound influences the following sound, making it more like itself.

- Example 1: “have to” is often pronounced as “have to,” where the /v/ sound anticipates the /t/ sound, and the /v/ becomes voiceless like /f/.

- Example 2: “good boy” is pronounced as “gud boy,” where the /d/ sound anticipates the following /b/ sound, and both become pronounced as voiced stops.

[14] Jones, D. (1988)

[15] Roach, P. (2009)

2. Regressive Assimilation (or perseverative assimilation): This occurs when a sound is influenced by the preceding sound, making it more like the sound that came before it.

- Example 1: “ten books” is often pronounced as “tem books,” where the /n/ sound is influenced by the following /b/ sound and becomes more like /m/.

- Example 2: “handbag” is pronounced as “hamdbag,” where the /n/ sound is influenced by the following /b/ sound and becomes a nasalized /m/ sound.

Assimilation is a common feature in spoken English and serves to make speech more efficient and easier to produce. It’s important to note that these assimilation patterns can vary between accents and dialects, and not all speakers may exhibit the same assimilation in all situations.

3.13 Elision in English

Elision in English is a phonological phenomenon where certain sounds, often vowels or consonants, are omitted or “elided” from words during connected speech. Elision occurs to make spoken language flow more smoothly and quickly[16]. Here are some examples of elision in English:

1. Consonant Elision:

- “government” pronounced as “governmen’” or “governmint” – The final /t/ sound is often elided.

- “sandwich” pronounced as “sanwich” – The /d/ sound is frequently omitted in casual speech.

2. Vowel Elision:

- “library” pronounced as “libry” – The middle /r/ sound and the unstressed /a/ are often elided.

[16] Hasan, , N, A. (2012)

- “chocolate” pronounced as “choc’late” – The /o/ and /l/ sounds in the middle are commonly elided.

3. Schwa Elision:

- “chocolate” pronounced as “choclit” – The schwa /ə/ sound in the middle syllable is often omitted.

- “banana” pronounced as “ban-na” – The schwa in the second syllable is frequently elided.

4. Contractions:

- “cannot” pronounced as “can’t” – The elision occurs in the middle of the word, where “not” is omitted.

- “you are” pronounced as “you’re” – The elision here omits the space and the word “are.”

5. Final Consonant Elision:

- “next week” pronounced as “nek week” – The final /st/ consonant cluster is often elided.

6. Word Boundary Elision:

- “I am” pronounced as “I’m” – The word boundary between “I” and “am” is elided to create the contraction “I’m.”

Elision is a common feature in connected speech, and the extent to which it occurs can vary based on speaking style, formality, and regional accents. It contributes to the natural rhythm and efficiency of spoken English.

3.14 Intonation

Intonation in English refers to the variation in pitch (the highness or lowness of a sound) and the melodic patterns used in speech to convey meaning and emotion. English speakers use intonation to indicate different sentence types, emotions, attitudes, and emphasis[17]. Here are some common intonation patterns in English, along with examples:

1. Rising Intonation:

- Question Intonation: Rising intonation is typically used in yes-no questions and wh-questions, indicating that the speaker is seeking a response.

- "Did you go to the party last night?" (The pitch rises at the end, indicating a question.)

- Polite Requests: Rising intonation is used to make polite requests.

- "Could you please pass the salt?" (The pitch rises at "salt" to make it sound like a request.)

2. Falling Intonation:

- Statement Intonation: Falling intonation is used in declarative statements, indicating that the sentence is a statement or a fact.

- "I went to the store." (The pitch falls at the end, indicating a statement.)

- Commands: Falling intonation is used to give commands or orders.

- "Close the door." (The pitch falls at "door," making it sound like a command.)

3. Flat or Level Intonation:

[17] Jones, D. (1964)

- In some cases, sentences or phrases may be pronounced with relatively flat or level pitch, conveying a neutral or matter-of-fact tone.

- "I'll be there at 3 PM." (The pitch remains fairly level throughout.)

4. Contrastive Stress:

- Intonation can be used to emphasize or contrast certain words or elements within a sentence.

- "I want the red shirt, not the blue one." (The pitch rises on "red" and falls on "one" to emphasize the contrast.)

5. Emotional Intonation:

- Intonation can convey various emotions, such as excitement, surprise, anger, or sadness.

- "I can't believe you did that!" (The rising and falling pitch indicates surprise or shock.)

6. List Intonation:

- When listing items or elements, intonation is often used to separate and emphasize each item.

- "I need apples, bananas, and oranges." (Each item is typically pronounced with a rising pitch before the final item, which has a falling pitch.)

Intonation plays a significant role in effective communication, as it can change the meaning or interpretation of a sentence. It helps convey the speaker's attitude, intention, and emotional state, making spoken language more nuanced and expressive

3.15 Exercises and Application 2

Excercise1: transcribe a broad phonetic transcription and comment on aspects of connected speech you find in.

1. "What are you doing?"
2. "I don't know"
3. "Could have been"
4. "Going to the store"
5. "What time is it?"

Exercise 2:

Here are five random English words, transcribe them with their stress placement, then comment on it.

1. Elephant
2. Computer
3. Butterfly
4. Chocolate
5. Restaurant

3.16 Correction 2

Excercise1

1. "What are you doing?" – [wɒtərjəduːɪn]

In this expression, the “are” is in its weak form as a shwa and the "u" in "you" is reduced to a schwa sound. The "d" in "doing" is also linked to the "y" in "you."

2. "I don't know" – [aɪdəʊnnəʊ]

In this expression, the "t" in "don't" is elided, and the "o" in "don't" is reduced to a schwa sound..

3. "Could have been" – [kədəv bɪːn]

In this expression, the vowel in "could" is reduced to a schwa sound, and the "h" in "have" is elided. The "v" in "have" is also linked to the "b" in "been."

4. "Going to the store" – [gəʊnəðəstɔːr]

In this expression, the "i" in "going" is reduced to a schwa sound, and the "t" in "to" is linked to the "th" in "the." The "e" in "the" is also reduced to a schwa sound.

5. "What time is it?" – [wətaɪmɪzɪt]

In this expression, “what” is in its weak form. The "s" in "is" is also linked to the "i" in "it."

Exercise 2:

Words transcription with their stress placement:

1. Elephant - /ˈeləfənt/
2. Computer - /kəmˈpjuːtər/
3. Butterfly - /ˈbʌtəflaɪ/
4. Chocolate - /ˈtʃɒklət/

5. Restaurant - /ˈrestrənt/

In these words, stress falls on the first syllable in "elephant," "computer," and "butterfly," while it falls on the second syllable in "chocolate" and "restaurant." Stress placement in English words can be influenced by factors. The examples in the list contain weak syllables, with shwa as centre, which makes the speaker, automatically place stress on the syllable containing a vowel other than schwa.

IV. Some Phonetic and Phonological Concepts

This section gathers possible terminology that often causes ambiguities to students of phonetics and English phonology. It has often to do with key concepts in the field of linguistics, and particularly phonology, such as distinguishing broad and narrow phonetic transcriptions, distinctive features, and redundancy.

4.1 Narrow Phonetic Transcription in English

A narrow phonetic transcription in English provides a highly detailed and precise representation of the actual sounds in spoken language[18]. To create a narrow phonetic transcription, you should include the following elements:

1. Phonetic Symbols: Use the International Phonetic Alphabet (IPA) symbols to represent each individual sound in the word or phrase. The IPA provides specific symbols for all speech sounds, including vowels, consonants, and supra-segmental features.

2. Segmentation: Indicate the boundaries between individual phonemes, syllables, and words using appropriate diacritics. For example, use square brackets to enclose individual phonemes and periods to separate words and syllables.

3. Supra-segmental Features: Include notations for features like stress, intonation patterns, pitch, and tempo. Use appropriate diacritics to indicate these aspects, such as stress marks (e.g., ‘ˈ’ for primary stress and ‘ˌ’ for secondary stress) and intonation contours.

4. Phonological Rules: If applicable, note any phonological rules that affect the pronunciation of specific sounds in the given context. For instance,

[18] Jones, D. (1988)

if a particular consonant becomes voiced or devoiced in a specific position, document this in your transcription.

5. Diacritics: Use diacritics to denote variations in the articulation of sounds. Common diacritics include those indicating palatalization (ʸ), labialization (ʷ), nasalization (ⁿ), and more. These diacritics provide additional precision in representing speech sounds.

6. Linking and Intrusive 'R': If relevant to the accent or dialect being transcribed, represent linking 'r' (inserted 'r' between vowels) and intrusive 'r' (an added 'r' sound where it doesn't exist in the spelling).

7. Phonetic Descriptions of Vowels and Consonants: Ensure that you provide a detailed description of the articulation of each sound, specifying factors like voicing, place of articulation, manner of articulation, vowel height and backness, etc.

A narrow phonetic transcription is highly detailed and is typically used for linguistic analysis, phonological studies, and when a precise representation of spoken language is necessary. It goes beyond the broad phonemic transcription to capture finer nuances of pronunciation.

4.2 Complementary distribution vs free variation in phonology

In phonology, "complementary distribution" and "free variation" are two different ways to describe the relationships between phonemes or allophones in a language. These concepts help linguists understand how sounds behave in different linguistic environments. Here's an explanation of each:

1. Complementary Distribution:

- Definition: Complementary distribution occurs when two or more sounds (phonemes or allophones) do not appear in the same linguistic environment, meaning they are never found in the same word or position within words. Instead, each sound is restricted to specific contexts, and the choice of which sound to use is predictable based on those contexts.

- Example: In some dialects of English, the sounds [p] and [ph] are in complementary distribution. [p] is used at the beginning of a syllable (e.g., “pat”), while [ph] is used when it occurs after /s/ (e.g., “spot”). These two sounds never occur in the same context.

2. Free Variation:

- Definition: Free variation occurs when two or more sounds can be used interchangeably in the same linguistic environment without affecting meaning. In other words, the choice of which sound to use is not determined by the phonological rules or context but may depend on individual or regional speech patterns.

- Example: The pronunciation of the English word “tomato” can vary between [təˈmeɪtoʊ] and [təˈmɑtoʊ] without any change in meaning. Some speakers may use a schwa sound /ə/ for the first vowel, while others use the /ɑ/ sound. This variation is not conditioned by linguistic context but rather by individual preference or regional differences.

Complementary distribution indicates that sounds have distinct and predictable contexts in which they occur, while free variation suggests that sounds can be used interchangeably in the same context without affecting meaning. These concepts help linguists analyze and describe the phonological patterns within a language and understand how sounds behave in different speech varieties.

4.3 Co-occurent articulation in phonetics

Co-occurrent articulation" in phonetics refers to the simultaneous production of two or more speech sounds, specifically, the articulation of multiple phonemes or allophones in a single speech sound. It involves the coordination of different articulatory movements within the vocal tract to produce these sounds[19]. This phenomenon is particularly relevant when studying certain co-articulatory effects and assimilation in speech. Here are a couple of examples to illustrate the concept:

1. Assimilatory Co-occurrent Articulation:

- In some languages, when two different speech sounds are next to each other, they can influence each other's articulation. For instance, the nasalization of a vowel before a nasal consonant (e.g., in the word "song") involves the co-occurrent articulation of both the vowel and the nasal consonant.

2. Co-articulation in Consonant Clusters:

- When producing a cluster of consonants in a word, like "spring," co-occurrent articulation is observed as the vocal tract moves through different configurations for each consonant. In this case, /s/ and /p/ co-occur, each with its respective articulatory gestures.

Co-occurrent articulation is a fundamental concept in phonetics, as it helps explain how speech sounds are produced in a connected and coordinated manner, considering the influence of adjacent sounds on one another. It plays a significant role in understanding the physical and articulatory processes involved in spoken language.

[19] Hardcastle, W.; Hewlett, N. (2006).

4.4 Redundancy and Distinctiveness

In phonology, redundancy and distinctiveness are two different concepts that relate to the way sounds are organized and perceived in a language[20]. Here's how they differ:

1. Redundancy:

- Definition: Redundancy refers to the occurrence of multiple phonetic or phonological features within a language that do not change the meaning of a word. Redundant features are extra or additional articulatory or acoustic information that, when present or absent, doesn't lead to a change in word meaning.

Example: In English, the plural form of regular nouns is marked by adding /z/ or /s/ to the end of the word (e.g., "cats" or "dogs"). The presence of the plural marker /z/ or /s/ is redundant because it does not change the core meaning of the word; it simply indicates plurality.

2. Distinctiveness:

- Definition: Distinctiveness, on the other hand, refers to the phonological features or distinctions that can change the meaning of words. These are crucial distinctions in a language that are not redundant and are essential for conveying meaning.

- Example: In English, the distinction between /p/ and /b/ is distinctive. For example, "pat" and "bat" are two distinct words with different meanings, primarily due to the distinctiveness of the initial sounds /p/ and /b/. Changing one sound to the other leads to a change in meaning.

Redundancy involves non-essential features or distinctions within languages that do not alter word meanings when present or absent, while distinctiveness refers to the essential phonological features or distinctions that

[20] Roach, P. (2009)

do change word meanings when altered. Understanding both concepts is essential in the study of phonology and phonological systems in languages.

4.5 distinctive features in Phonology

In phonology, distinctive features are specific, binary properties that linguists use to describe and analyze the phonemes (speech sounds) of a language. These features help distinguish one phoneme from another by specifying the essential characteristics that make each sound distinct. Distinctive features are particularly useful for comparing and contrasting sounds and understanding phonological processes[21]. Here are some common distinctive features:

1. Manner of Articulation:

- Stop/Continuant: Distinguishes between stops (e.g., /p/, /t/, /k/) and continuants (e.g., /s/, /m/, /f/).

- Fricative/Affricate: Distinguishes between fricatives (e.g., /s/, /z/) and affricates (e.g., /ʧ/, /ʤ/).

- Nasal/Oral: Distinguishes between nasal sounds (e.g., /m/, /n/) and oral sounds (e.g., /b/, /d/).

2. Place of Articulation:

- Bilabial/Alveolar/Velar: Distinguishes between sounds produced with different places of articulation (e.g., /p/ vs. /t/ vs. /k/).

3. Voice:

- Voice/voiceless: Distinguishes between sounds with and without vocal cord vibration (e.g., /b/ vs. /p/).

4. Nasality:

- Nasal/Non-nasal: Distinguishes between sounds produced with and without airflow through the nasal cavity (e.g., /m/ vs. /p/).

[21] Hall, T. A. (2007).

5. Tongue Position:

- Front/Central/Back: Distinguishes between the front, central, and back positions of the tongue (e.g., /i/ vs. /ʌ/ vs. /u/).

6. Lip Rounding:

- Rounded/Unrounded: Distinguishes between sounds produced with rounded or unrounded lips (e.g., /u/ vs. /i/).

7. Tense/Lax Vowels:

- Distinguishes between tense (longer and often diphthongized) and lax (shorter) vowel sounds.

8. Nasalized Vowels:

- Distinguishes between nasalized and non-nasalized vowels (e.g., French nasalized vowels like /ɑ̃/).

These distinctive features help linguists categorize and analyze the phonemes of a language and understand phonological rules and patterns. For example, the change from /p/ to /b/ in English (e.g., “pat” to “bat”) can be explained using the distinctive feature of voice, as /p/ is voiceless and /b/ is voiced. Distinctive features are a fundamental tool in the study of phonology and the analysis of phonological processes within languages.

V. Sample Phonetics Exams.

- **First Semester Exam Sample**

1. Transcribe the words "wringer" and "triangle". What comment (s) can you make on the occurrences of "n+g" in both words?

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……
……
……
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……
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……
……..

2. **What allophones of /l/ can you find in the following sentence**: "pleasurable" is a multi-syllabic word".

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……
……
……
……
……
……
……

3. What comment(s) can you make on the sound /j/ in the word « Pure »?

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……
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……
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……

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……

4. Comment on the pronunciation of /n/ in the following words: "Fallen" and "sudden".

……
……
……
……
……
……
……
……
……

State the rules for stress placement in the following words:

Attain:……
……

Monarchy:……
……

Employee……
……

- **<u>First Semester Exam Correction</u>**

1. Comparing ‘g’ pronunciation in the words ‘wringer’ and ‘triangle’.

"Wringer" transcription:

- The word "wringer" is transcribed as /ˈrɪŋər/.

Comment: In the word "wringer," the "g" is silent, because, morphologically, it is not orginal in the word ‘wring’,o the word, will not add automatically a phoneme /g/, which is not original in the word

"Triangle" transcription:

- The word "triangle" is transcribed as /ˈtraɪˌæŋgəl/.

Comment: The ‘g’ is pronounced here, because, morphologically, the word is a single morpheme, so ‘g’ is original in the word.

2. In the sentence "pleasurable is a multi-syllabic word," the /l/ sound has different allophones, which are variations of the same phoneme occurring in different contexts.

[ˈpleʒərəbł ɪz ə ˈmʌłtɪˌsɪləbɪk wɝ:d]

The allophones of /l/ in this sentence are:

- **Clear /l/:**

- In the word "pleasurable," the /l/ sound at the beginning is a clear or light /l/. It is pronounced with the tongue touching the alveolar ridge, as in the standard pronunciation of the letter "l."

- **Dark /l/:**

- In the word "multi-syllabic," the /l/ sound is a dark or velarized /l/. When /l/ occurs after a vowel sound within the same syllable or before a

consonant, it tends to be pronounced as a dark /l/. In this case, the /l/ in "multi-" is a dark /l/ because it follows a vowel.

3. ‘Pure’ comments on j

Narrow phonetic transcription [pj˚ʊə]

[j] is devoiced, decause of the influence of p on it. And a it is realised along with a friction sound. The rule says, [w, j] are devoiced when preceded by fortis (voiceless) plosives [p, t, k]; and a friction appears in between, during their realisation.

4. In both words, "fallen" and "sudden," the /n/ sound is pronounced with an alveolar articulation.

The /n/ sound is syllabic in "fallen" because it forms the nucleus of the final syllable, marked by the diacritic ˌ.

Overall, the pronunciation of /n/ in these words follows the typical English pattern, maintaining an alveolar articulation and adapting to the surrounding sounds in terms of syllabic structure.

5. Stress Placement Rules:

- Stress on the Second Syllable in Many Two-Syllable Verbs:

at-TAIN (verb) : Two-syllable verbs often have the stress on the second syllable.

- Monarchy: stress in "monarchy" typically falls on the first syllable.

[ˈmɒn.ə.ki], it is a noun, stress on the first syllable, and phonologically, speaking, the centre of the first syllable is different in quality, and thus, makes the syllable more prominent

- Employee: The stress in "employee" falls on the third syllable.

[i*m*ˌ*pl*ɔɪˈ*i*ː]

In "employee," the stress is indeed on the third syllable, ‘ee.' This stress pattern is typical for words with the suffix "-ee."

- **Second Semester Exam Sample**

Exercise one: Transcribe these utterances and comment on aspects of connected speech, mainly, strong/ weak forms, elision, and assimilation

1. I'd like some coffee with my breakfast, please.
2. He can't come to the party tonight.

Exercise two: define the following terms:

- Primary stress
- Non tonic stress
- Cluster
- Pitch

Exercise three: identify which syllable is stressed, justify your answer.

Computer

Photograph

University

Remember

Elevator

Important

Apartment

- **<u>Second Semester Exam Correction</u>**

Exercise one:

1. [ad ˈlaık ˈsm ˈkɔfi wıð ma ˈbrekfəsp, pliz]

I’ d, grammatical contraction, elision

Som, weak form, because unstressed

My, weak form, because unstressed

/t/ is realised as [p]; a case of regressive assimilation of place. An alveolar is realised as a bilabial plosive.

2. [ˈhi ‘ka; ŋk ‘kɔm t ð ˈpa:ti ‘tnaıt]

(He, to, the) are in their weak forms, because unstressed

(Can’t) is in its strong form, because it is a negation

/t/ is realised as [k]; a case of regressive assimilation of place. An alveolar is realised as a velar plosive., and consequently, the nasal alveolar /n/ is realised as a velar [ŋ], it is a regressive assimilation of place.

In rapid speech, even schwas, in to, and the, witnessed an elision.

Exercise two: definitions

- Primary stress: Primary stress refers to the strongest degree of stress placed on a syllable within a word. It is typically marked in phonetic transcriptions with a vertical line (ˈ) before the stressed syllable. For example, in the word "elephant," the primary stress is on the first syllable, and it is transcribed as /ˈelıfənt/.

- Non-tonic stress: Non-tonic stress refers to the stress placed on syllables within a word that are not the primary stressed syllable. These syllables may carry secondary or weaker degrees of stress. Non-tonic stress is important in the rhythm and intonation of speech

- Cluster: a cluster refers to a group of consonants that appear together in a syllable without any vowels between them. Clusters can occur at the beginning or end of a syllable or word. For example, the word "split" contains the cluster /spl/ at the beginning.

- Pitch: Pitch refers to the perceived frequency of a sound and is a fundamental auditory attribute of sounds. In the context of speech, pitch is associated with the relative highness or lowness of a sound and is a key component of intonation and prosody

Exercise three: identification of stressed syllable, with justification.

- Computer: The stressed syllable is the second one, "PU". A possible justification is the fact that the centres of the two remaining syllables are weak, so automatically, the stressed syllable is the most prominent

- Photograph: The stressed syllable is the first one, "PHO". This is justified by the fact that the work is compound; made up of two nouns, so stress is on the first word, ‘to’, is weak because contains a schwa’ as its centre.

- University: The primary stressed syllable is the fourth one, "ver". This is justified by the fact that the primary stress in this word falls on the most prominent syllable, containing the longest vowel, the highest pitch, and largest facial movements associated with stressed syllable. Secondary stress falls on the first syllable, to ensure a balanced pronunciation of the word.

- Remember: The stressed syllable is the second one, "MEM". This is justified by the fact that the primary stress in this word falls on the second syllable, as indicated by the higher pitch, clearer vowel sound and larger facial movements associated with stressed syllable.

- Elevator: The stressed syllable is the third one, "va". This is justified by the fact that the primary stress in this word falls on the third syllable, as indicated by the higher pitch, clearer vowel sound and larger facial

movements associated with stressed syllables. A secondary stress is on /e/, while ‘le’, and ‘tor’, are weak, because have shwa vowels as centres.

- Important: The stressed syllable is the second one, "POR". This is justified by the fact that the primary stress in this word falls on the second syllable, as indicated by the higher pitch, clearer vowel sound and larger facial movements associated with stressed syllables. The remaining syllables, on the other hand, have weaker centres, and thus are not prominent.

- Apartment: The stressed syllable is the third one, "PART". This is justified by the fact that the primary stress in this word falls on the third syllable, as indicated by the higher pitch, clearer vowel sound, and larger facial movements associated with stressed syllable; Here, too, the remaining syllable are automatically weak, because they contain shwas as centres.

VI. Concluding Words

In the journey to mastering the phonology of the English language, students encounter a fascinating and intricate world of sounds and their patterns. English phonology plays a pivotal role in effective communication and comprehension, making it a crucial element in the pursuit of language proficiency. In this concluding section, we will summarize the main points that students should respect in their quest for a deep understanding of English phonology and, ultimately, a superior command of the language.

The foundation of English phonology lies in the sound inventory, which includes consonants and vowels, each with their own phonemic and allophonic distinctions. Familiarizing oneself with these distinctions is fundamental to understanding the specific sounds and their variations. Additionally, students should dive into the world of distinctive features, the binary properties that set sounds apart from one another. Manner and place of articulation, voicing, nasality, and other features are tools for recognizing the building blocks of English speech. Furthermore, students should appreciate the structure and restrictions governing the arrangement of sounds in English. Phono-tactics influence syllable structure, stress patterns, and phonological processes like assimilation and elision.

Stress and intonation are essential aspects of English phonology, contributing to the meaning and emotional expression of the language. Vowel and consonant patterns, including vowel shifts in different dialects and the rules governing consonant clusters, are crucial for enhancing spoken and listening skills. Connected speech involves phenomena like assimilation, elision, intrusion, and other processes that make spoken English flow smoothly, enabling students to understand spoken language as it is naturally used.

Recognizing the difference between redundant features that do not change word meaning and distinctive features that carry significant meaning is

important. This understanding will deepen students' insight into the workings of phonological systems. Regular, deliberate practice through phonetic transcriptions, listening to native speakers, and mimicking their pronunciation can be powerful learning tools. By focusing on the intricacies and subtleties of phonological systems, students will develop a proficient command of the English language and open doors to effective communication, whether for academic, professional, or personal purposes.

Eventually, the journey to mastering English phonology is a quest for the heart of the language itself. It is the pursuit of eloquent expression and clear comprehension. The sounds of English, with their intricacies and subtleties, form the melody of a language that spans the globe. As students deepen into the world of English phonology, patience and practice are their closest companions. Their commitment to the mastery of phonological patterns will undoubtedly enrich their command of the English language and open doors to effective communication.

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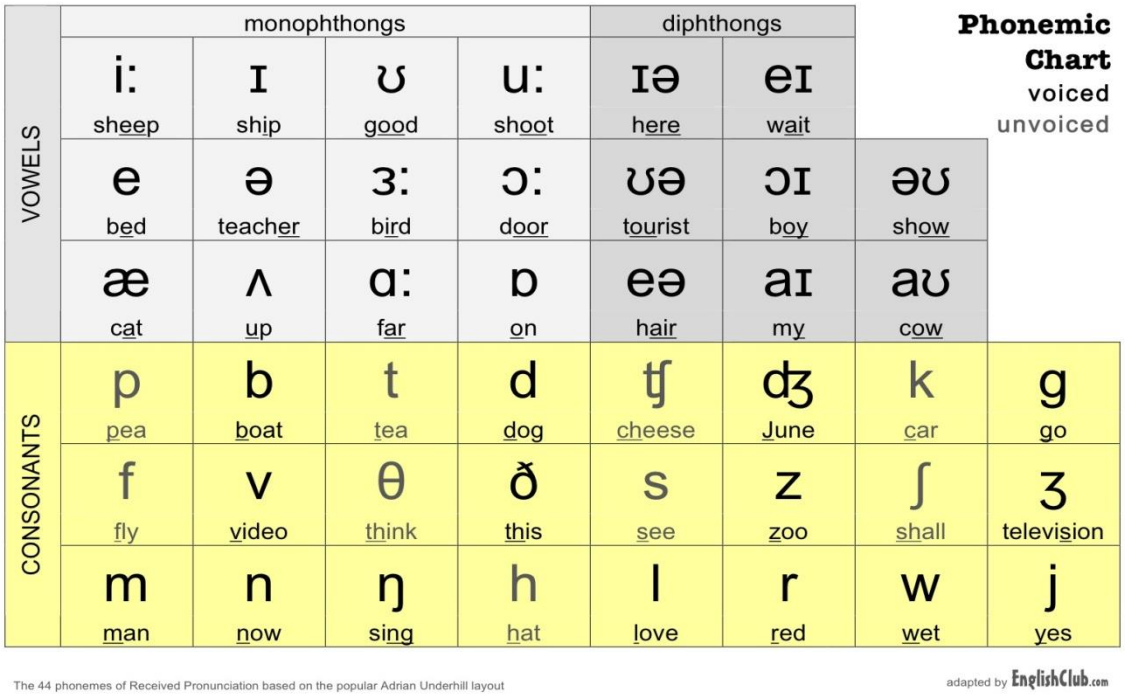
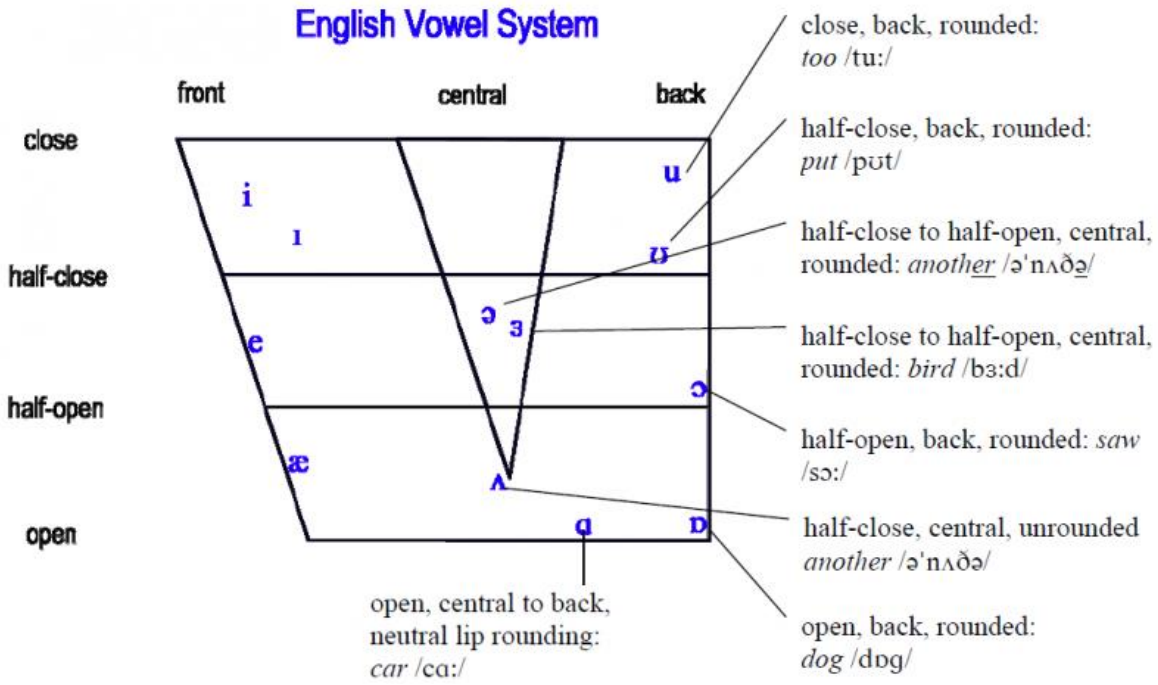
Appendices

Appendix i: Chart of English phonemes[22]



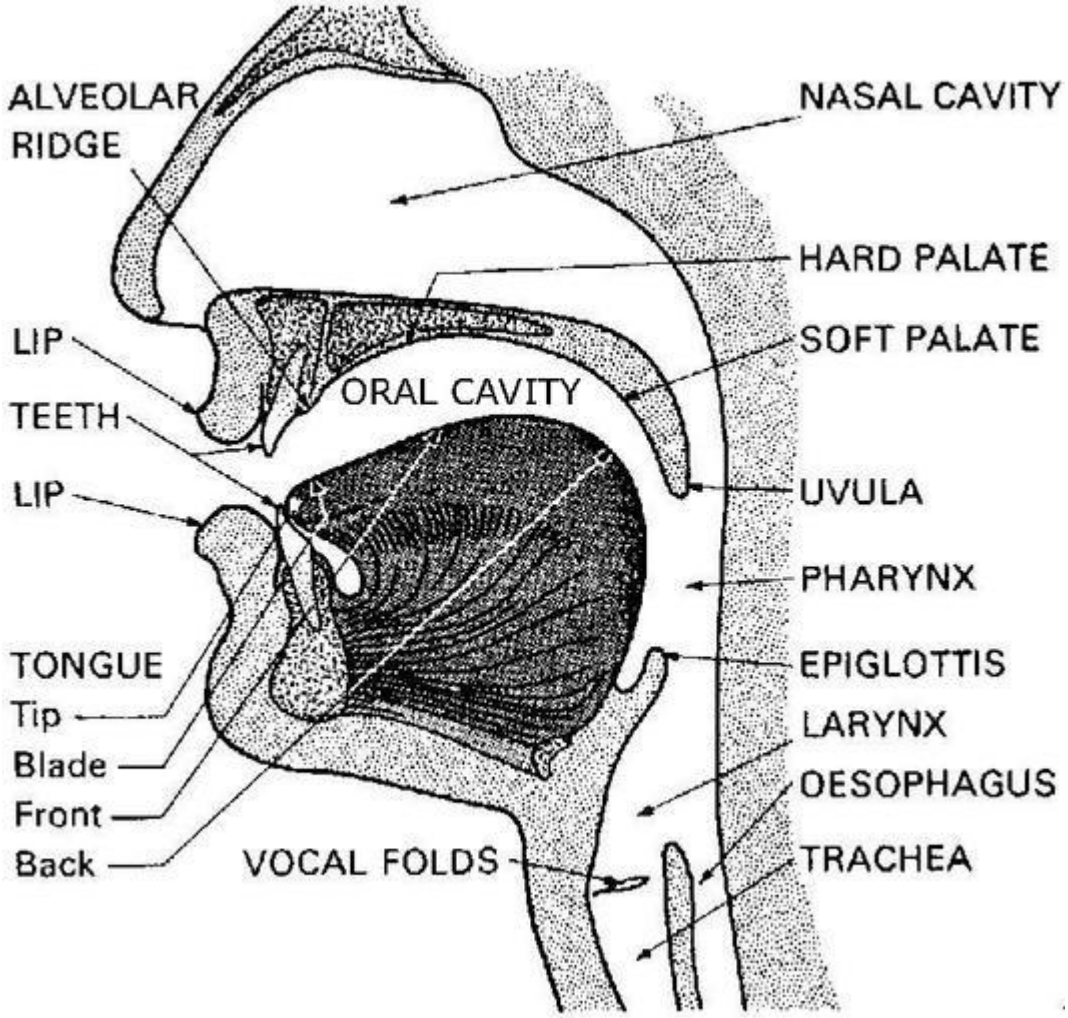
[22] Quoted in https://www.englishclub.com/images/pronunciation/Phonemic-Chart.jpg; o, December 20th, 2023.

Appendix ii: English Vowel System[23]



[23] Quoted in http://www.linguisticsweb.org/lib/exe/fetch.php?w=800&tok=da32fb&media=linguisticsweb:glossary:1-2_vowel_trapezoid_-_english_vowel_system.png on December 21st, 2023

Appendix iii: Articulators Chart[24]



[24] Quoted in https://static.wixstatic.com/media/3e4ee3_4b293c85a6d248eba207a3a5124dbeec~mv2.jpg on December 20th 2023