UIDLC

ENG 202

Introduction to English Phonetics and Phonology

Course Manual

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Introduction to English Phonetics and Phonology

ENG202

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Vice-Chancellor's Message

The Distance Learning Centre is building on a solid tradition of over two decades of service in the provision of External Studies Programme and now Distance Learning Education in Nigeria and beyond. The Distance Learning mode to which we are committed is providing access to many deserving Nigerians in having access to higher education especially those who by the nature of their engagement do not have the luxury of full time education. Recently, it is contributing in no small measure to providing places for teeming Nigerian youths who for one reason or the other could not get admission into the conventional universities.

These course materials have been written by writers specially trained in ODL course delivery. The writers have made great efforts to provide up to date information, knowledge and skills in the different disciplines and ensure that the materials are user-friendly.

In addition to provision of course materials in print and e-format, a lot of Information Technology input has also gone into the deployment of course materials. Most of them can be downloaded from the DLC website and are available in audio format which you can also download into your mobile phones, IPod, MP3 among other devices to allow you listen to the audio study sessions. Some of the study session materials have been scripted and are being broadcast on the university's Diamond Radio FM 101.1, while others have been delivered and captured in audio-visual format in a classroom environment for use by our students. Detailed information on availability and access is available on the website. We will continue in our efforts to provide and review course materials for our courses.

However, for you to take advantage of these formats, you will need to improve on your I.T. skills and develop requisite distance learning Culture. It is well known that, for efficient and effective provision of Distance learning education, availability of appropriate and relevant course materials is a *sine qua non*. So also, is the availability of multiple plat form for the convenience of our students. It is in fulfilment of this, that series of course materials are being written to enable our students study at their own pace and convenience.

It is our hope that you will put these course materials to the best use.

Prof. Abel Idowu Olayinka

Vice-Chancellor

Foreword

As part of its vision of providing education for "Liberty and Development" for Nigerians and the International Community, the University of Ibadan, Distance Learning Centre has recently embarked on a vigorous repositioning agenda which aimed at embracing a holistic and all encompassing approach to the delivery of its Open Distance Learning (ODL) programmes. Thus we are committed to global best practices in distance learning provision. Apart from providing an efficient administrative and academic support for our students, we are committed to providing educational resource materials for the use of our students. We are convinced that, without an up-to-date, learner-friendly and distance learning compliant course materials, there cannot be any basis to lay claim to being a provider of distance learning education. Indeed, availability of appropriate course materials in multiple formats is the hub of any distance learning provision worldwide.

In view of the above, we are vigorously pursuing as a matter of priority, the provision of credible, learner-friendly and interactive course materials for all our courses. We commissioned the authoring of, and review of course materials to teams of experts and their outputs were subjected to rigorous peer review to ensure standard. The approach not only emphasizes cognitive knowledge, but also skills and humane values which are at the core of education, even in an ICT age.

The development of the materials which is on-going also had input from experienced editors and illustrators who have ensured that they are accurate, current and learner-friendly. They are specially written with distance learners in mind. This is very important because, distance learning involves non-residential students who can often feel isolated from the community of learners.

It is important to note that, for a distance learner to excel there is the need to source and read relevant materials apart from this course material. Therefore, adequate supplementary reading materials as well as other information sources are suggested in the course materials.

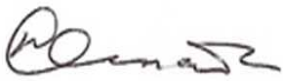
Apart from the responsibility for you to read this course material with others, you are also advised to seek assistance from your course facilitators especially academic advisors during your study even before the interactive session which is by design for revision. Your academic advisors will assist you using convenient technology including Google Hang Out, You Tube, Talk Fusion, etc. but you have to take advantage of these. It is also going to be of immense advantage if you complete assignments as at when due so as to have necessary feedbacks as a guide.

The implication of the above is that, a distance learner has a responsibility to develop requisite distance learning culture which includes diligent and disciplined self-study, seeking available administrative and academic support and acquisition of basic information technology skills. This is why you are encouraged to develop your computer skills by availing yourself the opportunity of training that the Centre's provide and put these into use.

In conclusion, it is envisaged that the course materials would also be useful for the regular students of tertiary institutions in Nigeria who are faced with a dearth of high quality textbooks. We are therefore, delighted to present these titles to both our distance learning students and the university's regular students. We are confident that the materials will be an invaluable resource to all.

We would like to thank all our authors, reviewers and production staff for the high quality of work.

Best wishes.



Professor Bayo Okunade

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About this course manual

Introduction to English Phonetics and PhonologyENG202 has been produced by University of Ibadan Distance Learning Centre. All course manuals produced by University of Ibadan Distance Learning Centreare structured in the same way, as outlined below.

How this course manual is structured

The course overview

The course overview gives you a general introduction to the course. Information contained in the course overview will help you determine:

- If the course is suitable for you.
- What you will already need to know.
- What you can expect from the course.
- How much time you will need to invest to complete the course.

The overview also provides guidance on:

- Study skills.
- Where to get help.
- Course assignments and assessments.
- Margin icons.

We strongly recommend that you read the overview *carefully* before starting your study.

The course content

The course is broken down into Study Sessions. Each Study Session comprises:

- An introduction to the Study Session content.
- Study Session outcomes.
- Core content of the Study Session with a variety of learning activities.
- A Study Session summary.
- Assignments and/or assessments, as applicable.
- Bibliography

Your comments

After completing Introduction to English Phonetics and Phonology we would appreciate it if you would take a few moments to give us your feedback on any aspect of this course. Your feedback might include comments on:

- Course content and structure.
- Course reading materials and resources.
- Course assignments.
- Course assessments.
- Course duration.
- Course support (assigned tutors, technical help, etc.)

Your constructive feedback will help us to improve and enhance this course.

Course Overview

Welcome to Introduction to English Phonetics and PhonologyENG202

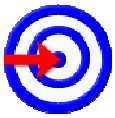
This course introduces students to phonetics and phonology. These are fields of study dealing mainly with the spoken form of language. In this case, specifically with the spoken form of the English Language.

Phonetics and Phonology are two interrelated fields of study that deal with sounds. Phonetics deals with the scientific study of sounds and its articulatory auditory and acoustic properties while phonology deals with how sounds pattern in individual languages. In this course, we shall discuss the segmental sounds of English which are the consonants and vowels. We shall also discuss the minimum suprasegmental domain which is the syllable and then the suprasegmentals which are stress, intonation and rhythm.

We shall conclude our discussion by looking at Nigerian English and the reasons why it has been found to be peculiarly different from Standard English in the areas of the segmentals as well as suprasegmentals.

Course outcomes

Upon completion of Introduction to English Phonetics and PhonologyENG202, you will be able to:



Outcomes

- *fully describe* and *properly articulate* all English consonant and vowel sounds.
- *differentiate* between segmental and suprasegmental features.
- *establish* the syllable as the domain for suprasegmental features.
- *explain* suprasegmental features.
- *establish* the relationship between stress and rhythm.
- *list* intonation tunes and their functions while also giving examples.
- *explain* the concept of Nigerian English.

Timeframe

How long?

This is a 15 week course. It requires a formal study time of 45 hours. The formal study times are scheduled around online discussions / chats with your course facilitator / academic advisor to facilitate your learning. Kindly see course calendar on your course website for scheduled dates. You will still require independent/personal study time particularly in studying your course materials.

How to be successful in this course

As an open and distance learner your approach to learning will be different to that from your school days, where you had onsite education. You will now choose what you want to study, you will have professional and/or personal motivation for doing so and you will most likely be fitting your study activities around other professional or domestic responsibilities.

Essentially you will be taking control of your learning environment. As a consequence, you will need to consider performance issues related to time management, goal setting, stress management, etc. Perhaps you will also need to reacquaint yourself in areas such as essay planning, coping with exams and using the web as a learning resource.

We recommend that you take time now—before starting your self-study—to familiarize yourself with these issues. There are a number of excellent resources on the web. A few suggested links are:

- http://www.dlc.ui.edu.ng/resources/studyskill.pdf

  This is a resource of the UIDLC pilot course module. You will find sections on building study skills, time scheduling, basic concentration techniques, control of the study environment, note taking, how to read essays for analysis and memory skills ("remembering").
- http://www.ivywise.com/newsletter_march13_how_to_self_study.html

  This site provides how to master self-studying, with bias to emerging technologies.
- http://www.howtostudy.org/resources.php

  Another "How to study" web site with useful links to time management, efficient reading, questioning/listening/observing skills, getting the most out of doing ("hands-on" learning), memory building, tips for staying motivated, developing a learning plan.

The above links are our suggestions to start you on your way. At the time of writing these web links were active. If you want to look for more, go to www.google.com and type "self-study basics", "self-study tips", "self-study skills" or similar phrases.

Need help?

Help

As earlier noted, this course manual complements and supplements ENG202at UI Mobile Class as an online course.

You may contact any of the following units for information, learning resources and library services.

Distance Learning Centre (DLC)
University of Ibadan, Nigeria
Tel: (+234) 08077593551 – 55
(Student Support Officers)
Email: ssu@dlc.ui.edu.ng

Head Office
Morohundiya Complex, Ibadan-Ilorin Expressway, Idi-Ose, Ibadan.

Information Centre
20 Awolowo Road, Bodija, Ibadan.

Lagos Office
Speedwriting House, No. 16 Ajanaku Street, Off Salvation Bus Stop, Awuse Estate, Opebi, Ikeja, Lagos.

For technical issues (computer problems, web access, and etcetera), please send mail to webmaster@dlc.ui.edu.ng.

Academic Support

Help

A course facilitator is commissioned for this course. You have also been assigned an academic advisor to provide learning support. The contacts of your course facilitator and academic advisor for this course are available at onlineacademicsupport@dlc.ui.edu.ng

Activities

Activities

This manual features "Activities," which may present material that is NOT extensively covered in the Study Sessions. When completing these activities, you will demonstrate your understanding of basic material (by answering questions) before you learn more advanced concepts. You will be provided with answers to every activity question. Therefore, your emphasis when working the activities should be on understanding your answers. It is more important that you understand why every answer is correct.

Assessments

Assessments

There are three basic forms of assessment in this course: in-text questions (ITQs) and self assessment questions (SAQs), and tutor marked assessment (TMAs). This manual is essentially filled with ITQs and SAQs. Feedbacks to the ITQs are placed immediately after the questions, while the feedbacks to SAQs are at the back of manual. You will receive your TMAs as part of online class activities at the UI Mobile Class. Feedbacks to TMAs will be provided by your tutor in not more than 2 weeks expected duration.
Schedule dates for submitting assignments and engaging in course / class activities is available on the course website. Kindly visit your course website often for updates.

Bibliography

Readings

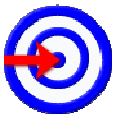
For those interested in learning more on this subject, we provide you with a list of additional resources at the end of each Study Session; these may be books, articles or websites.

Getting around this course manual

Margin icons

While working through this course manual you will notice the frequent use of margin icons. These icons serve to "signpost" a particular piece of text, a new task or change in activity; they have been included to help you to find your way around this course manual.

A complete icon set is shown below. We suggest that you familiarize yourself with the icons and their meaning before starting your study.

 Activity	 Assessment	 Assignment	 Case study
 Discussion	 Group Activity	 Help	 Outcomes
 Note	 Reflection	 Reading	 Study skills
 Summary	 Terminology	 Time	 Tip

Study Session 1

Spoken and Written Language

Introduction

This course is specifically about the sounds and sound patterns English. However, there is a need to understand the two basic forms of language and be able to differentiate them. Therefore, this Study Session will expose you to the differences between spoken and written language. It will also make clear the fact that spoken language, which is acquired naturally when dealing with a mother tongue, has to be learned in the classroom when dealing with a second language such as English in Nigeria

Learning Outcomes

When you have studied this session, you should be able to:

1.1 *differentiate* between English as mother tongue and as second language.
1.2 *differentiate* between spoken and written language and *explain* why spoken language is natural and written language artificial.
1.3 *discuss* the different stages of speech production.

Terminology

Spoken English	English used in speech rather than in writing
Written language	Words written down rather than spoken
Mother tongue	The language you acquire first, often from childhood. Igbo, for example, is a mother tongue for millions in Nigeria
Second language	A language you learn after your first language. English, for example, is a second language in Nigeria

1.1 Mother Tongue versus Second Language

Spoken English is often acquired in a first language or mother tongue context in countries such as Britain, America, part of Canada and New Zealand. Though some linguists are pointing attention to some Nigerian

children speaking English as a **mother tongue**, this has generated conflicting opinions in terms of whether or not the English they acquire measure up to standard. In order not to get into this controversy, we will not consider Nigeria as a country where English is acquired as a first language. We must also be careful here because of the issue of standardization since Nigerian English is yet to be standardized. English is a **second language** in Nigeria. It is therefore not acquired but learned.

Spoken English, which every normal person acquires naturally, without being taught in class, in a first language setting, has to be learned in class in a second language setting as Nigeria. English sound segments, that is, individual sounds such as /b, t, k, I, aI/ etc, are challenging to learn for us as non-native speakers because they are not the same with the sounds of our mother tongues. The English suprasegmentals of pitch such as stress, intonation and rhythm are more challenging because they are not features of our mother tongues. Due to this, they constitute major areas of problem for people learning and using English as a second language, especially in a country such as Nigeria.

Therefore, as you are coming into contact with the various aspects of this course, you are advised to concentrate more on the practice of the difficult sounds, which are not in your mother tongues, and the suprasegmental features, which are most likely going to be strange to you. This textbook should therefore be supplemented with others, especially those accompanied by pronunciation materials such as audio CDs.

As earlier pointed out, the naturalness of spoken language is limited to the mother tongue while it has to be learned in the classroom in a second language context as Nigeria. Therefore, most Nigerian users of spoken language do not acquire the language naturally but rather by learning. Another salient point is that for most Nigerian users of English, the mother tongue must have been acquired before the learning of English. Therefore, there is an unavoidable tendency for the mother tongue features to interfere with the target language, which in this case is English. This is one of the factors that account for the peculiar nature of Nigerian English that makes it different from other types of 'Englishes'. There are certain sounds and features in the mother tongues, in this case Nigerian languages, which are not found in English. There are certain sounds and features that are found in our mother tongues, which are not found in English. There are certain rules that apply in standard spoken English that are not appropriated in Nigerian English. It has even been discovered through research that many people specialized in spoken English by virtue of their education do not apply the rules they have learned in class. All these contradictions may make the learning of English phonetics and phonology look tedious to a second language speaker.

Hint

Nigerians don't acquire English from native speakers but from one another; consequently, they don't speak it the way native speakers do. Many features of the indigenous languages find their way into the English they speak; their indigenous proverbs and idioms also find their way into their written English. The English that result from all these is far from the English in places where it is the indigenous language.

Many Nigerian parents bring their children up with English. But as is expected, the English used by their parents is Nigerian English, so the one they bequeath to their children too is Nigerian English. Can we then classify those children as native speakers of English, or can we because of them classify Nigeria as one of the countries where English is mother tongue?

1.2 Spoken Word versus Written Word

Spoken language is oral and it is acquired naturally while **written language** is artificial. An adequate introduction to English Phonetics and Phonology should expose learners to one of the guiding principles of the study which is the realization of the fact that sounds and letters do not often correspond. Consequently, a good understanding of this discourse requires you to know from the start that you must not use your knowledge of letters to prepare yourself for the task of learning English phonetics and phonology. You have to concentrate on the sounds as they are produced rather than how the letters are spelt. Using your knowledge of spelling to 'guess' how English sounds are produced will most likely get you into trouble than be a help to you.

It has been observed over time that second language learners often allow their knowledge of letters interfere with the learning of English sounds. You therefore have words such as sword pronounced with the letter 'w' inclusive whereas, 'w' is silent in the word. Rather than pronounce / sw□:d/, you should pronounce / s□:d/. There are many of such words in the English language. This calls for caution on the part of the English student wishing to perform well in Phonetics and phonology. For the purpose of understanding this course well, you should therefore concentrate on how sounds are pronounced rather than how they are spelt.

Tip

Often in English, you are not to pronounce all the letters you spell, for instance, You spell rendezvous but pronounce 'rondivu'.

Now, let us look at some differences between spoken language and written language. We will be specific now since our emphasis is on the English language. In written English language, the symbols used are letters. These letters are used to form words and words form phrases, clauses and sentences. On the other hand, in spoken English language, there are also symbols but these symbols are not letters. They are unique sound symbols that represent sounds. The letters used in written language are pronounced in different forms in speech. No letter has a particular single way of pronunciation in the English language. Sometimes, many vowel letters (including even consonants!) may be realized as a single sound. An example of such is *quay* which is pronounced as / ki: /. Here, 'uay' represents the sound /i:/! There is a tendency therefore for a second language learner of English phonetics and phonology to get confused

because the letters and the sounds are not consistently the same. This is a characteristic of the English that should be noted with caution by second language users.

Look at these!

k**ey** /kI:/	q**uay** /kI:/
ewe /ju:/	**you** / ju:/
knight /naIt /	**n**ight /naIt/
r**igh**t /raIt/	r**i**te /raIt/
w**a**ste /weIst/	w**ai**st /w**e**Ist/
pr**ay** /preI /	pr**ey** /preI/

For this reason, as second language learners of English, you should forget your knowledge of English letters for a good comprehension of English sounds. Therefore, in this course, you will be introduced to a new set of symbols that represent sounds. They are not letters as you have in the English language but each stands for a particular sound of English.

1.3 Speech Production Stages

The act of speaking is complex i.e. it is not as easy as we believe/experience. You do not just open your mouth to talk. There are certain processes involved in the act of speaking that the speaker himself may not consciously notice.

There are different stages involved in speech production. Let us take a look at these stages.

1.3.1 Psychological Stage:

This is the language processing stage when the idea to be expressed is conceived in the brain and the content is converted into phonemic symbols in the brain's language centre.

1.3.2 Physiological Stage

This is the generation stage. It is at this stage that there is a generation of motor commands to the brain's motor centre .It is the stage at which the various organs are instructed by the brain to articulate a sound.

1.3.3 Physical Stage

This is the transmission stage. At this stage, there are articulatory movements for the production of speech by the vocal organs based on the motor commands from the brain. At this stage, the brain must have instructed the organs of speech and the organs of speech will articulate the sound. This stage is accompanied by emission of air from the lungs in the form of speech. For the English language, the air coming from the lungs is modified at various points by the organs of speech in the production of sounds.

As explained earlier, these stages are not noticeable by the ordinary speaker or listener but it is a process that is continuous happening as long as we articulate sounds in speech production.

The organs of the body that are involved in sound production have speech imposed on them. This is because their primary function is not speech production. Your tongue, two lips, teeth, lungs, oral cavity, nasal cavity, tongue are not produced for speech. All these are organs of speech but speech is not their primary function. For example, your tongue is primarily for tasting, your two lips to seal your mouth, your teeth to cut etc.

Study Session Summary

Summary

In this Study Session, we exposed to you the spoken and written forms of the English language. We discussed the differences between the two forms. We highlighted the dominance of speech over writing. We also pointed out the needs to remember that the spoken form of English is not acquired naturally in a second language context as Nigeria. We finally discussed the stages of speech production such as the psychological stage, physiological stage and the physical stage.

Bibliography

Reading

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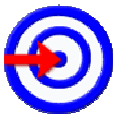
http://www.hamilton.edu/oralcommunication/spoken-language-vs-written-language retrieved Sept., 2013.

Study Session 2

Phonetics and Phonology

Introduction

In this Study Session, you will examine the two main fields which are the concerns of the course—phonetics and phonology. These two fields are often confused by many as one or as very different from one another. It is good to note here that they are two fields of study that have a lot in common.



Learning Outcomes

When you have studied this session, you should be able to:

2.1 *describe* the following sub-fields of phonetics
- articulatory phonetics
- acoustic phonetics
- auditory phonetics

2.2 *define*and use correctly the term "phonology".

2.3 *differentiate*between phonetics and phonology.

2.1 Phonetics

Phonetics study of the sounds that combine to form words

Phonetics is the scientific study of speech sounds. You may be wondering what this means. It simply means it is the study of the speech sounds utilized in human languages to represent meaning. Not all sounds have direct meaning. For instance, when you cough, you make a sound that does not have a direct meaning or relationship with speech. Of course it signals illness, a bout of cold, or some other ailment but it does not have a meaning of its own. However, phonetics is concerned with the study of real meaningful sounds i.e. sound that are produced in natural contexts. While studying phonetics, you need to know what constitutes individual sounds in languages.

There are (3) sub-fields in phonetics. These are:

i. Articulatory Phonetics
ii. Acoustic Phonetics
iii. Auditory Phonetics

2.1.1Articulatory Phonetics

Studies the activities of the speaker in terms of what the speaker experiences in the course of producing the sounds of a language. When

you speak your mother tongue or the English language, what happens to your organs of speech? How closely do they get together in the course of producing some sounds? What movement of air do you experience? What happens to your vocal cords in the process of producing the sounds? Do they come together and vibrate when the air passes between them or do they stay apart to allow a free movement of air? Articulation has to do with the movement and contacts of the organs. For instance, /p/ is produced with the two lips coming together and the vocal cords apart such that there is no voicing. These are articulatory explanations.

You should not forget that phonetics is concerned with how speech sounds result from air being somehow obstructed or modified within the vocal tract. Three processes are involved here. The three processes work together. We will only mention them here since we will still discuss them in details in later lectures. Let us start with the **airstream process** which is the source of air used in making a sound, **the phonation process** which has to do with the behavior of the vocal cords in the glottis during the production of such sound and the **articulatory process** which has to do with the modification of that flow of air in the vocal track (from the glottis to the lips and nose).

2.1.2Acoustic Phonetics

Is a composite branch of physics and linguistics. It is actually regarded as a branch of science. You can therefore understand why it studies sounds based on its physical properties. It attends to the sound waves generated by speaking and their transmission through the air. You should also not forget that acoustic phonetics often involves the use of instruments such as spectrographs and the study of waveforms; pitch tracts etc. It enables the calculation of frequency, duration, intensity, etc. by means of instruments. An advantage acoustic phonetics has over the other branches is that it is very objective. Therefore, acoustic description are often more plausible than other forms of descriptions, especially in research.

2.1.3 Auditory Phonetics

Is the sub-field of phonetics that deals with the physiological processes involved in the reception of speech. When a speaker speaks, a listener receives the sounds and interpret them as meaningful signals. While discussing articulatory phonetics, we were concerned with the physiological processes in the body of the speaker. The physiological processes in the body of the listener are the central focus of auditory phonetics. It studies sound reception in the ear where sounds in the form of air pressure fluctuations are converted to neural impulses. It covers adequate hearing ability, perception of the full range of frequencies contained within various speech sounds, filtering out of irrelevant background, adjusting to speakers' idiosyncrasies (speaking habits peculiar to a speaker.). It also deals with the decoding of the speech signal into meaningful elements and the association of identified elements with mental representations that bear meaning.

Tip

- The articulatory phonetician concerns himself with the one speaking [how does he produce the sounds?].
- The acoustic phonetician concerns himself with the journey of the produced sounds through the air.
- The auditory phonetician concerns himself with the listener [how does he perceive the sounds?])

2.1.4 Experimental Phonetics

Is another branch of general phonetics that we may need to know about. It is often not listed with the previous three we discussed because it covers the three in scope and it is basically about experiments in the three subfields. It deals with the study of the sounds and other human speech units using the experimental method. The scientific field of experimental phonetics covers articulatory phonetics, acoustic phonetics and auditory phonetics. It employs the method of investigation commonly used in other disciplines such as physics, physiology, psychology for measuring the physical and physiological dimensions of speech sounds and their perceptual characteristics. For instance in acoustic phonetics, you will come in contact with sound spectrographs and speech synthesizers. Other methods include the use of X-rays, palatography, etc. which are all instruments of physiology that are used to study the actions of the vocal organs. Experimental phonetics gives more accurate descriptions of sounds as well as the central cerebral processes involved in speech production.

Generally, phonetics is not language specific. It is the field of study that deals with all possible human sounds in their abstract and real forms. Unlike the counterpart which we are going to study next, phonology, that studies how sounds pattern in a particular language. This difference will be clearer as we go on in our discussion. Meanwhile, note that the phonetician studies all sounds scientifically while the phonologist studies how these various sounds pattern in a particular language.

2.2 Phonology

Phonology is the study of how sounds pattern or form structures in particular human languages. For a mother tongue user, it is easy to know what sounds pattern and how they do. (phonology: the study of patterns formed by speech sounds)He understands the possible sounds of his mother tongue, could produce them without being taught and could say what syllable structures are possible or not possible in that language. He doesn't need to learn this. He just naturally knows it. However, a person speaking English as a second language will have to consciously learn the sounds and how they pattern because he does not have the native speaker's intuition.

Phonologists also study the rules that govern how sounds behave in a particular language. When sounds are joined together or when they occur in particular environment, they are usually modified. They could lose some features or add some features which will make them slightly

different from when they are produced in isolation. Sometimes, sounds get totally deleted or changed in certain contexts! For instance, the English language (our central concern here) has rules such as nasalization rule, homorganic nasal rule, vowel reduction rule, aspiration rule etc.

2.3 Difference between Phonetics and Phonology

Phonetics studies speech sounds scientifically while phonology studies how sounds form patterns in particular languages. Phonetics is ascience while phonology is in the humanities. Phonetics discovers, identifies and describes the sounds that phonologists study their patterns in particular languages. Phonetic descriptions are general and applicable wherever the sounds are found while phonological descriptions are usually language-specific.

Study Session Summary

Summary

In this Study Session, we explained phonetics to be the study of how speech sounds used in *all* human languages are produced, and phonology to be the study of the patterns formed by speech sounds in a particular language. We identified the three subfields of phonetics to be articulatory phonetics, acoustic phonetics and auditory phonetics. We also touched the subfield of experimental phonetics. Lastly, we differentiated the two fields of study and also highlighted their relatedness.

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Study Session 3

Basic Terms of Phonetics and Phonology

Introduction

This Study Session will discuss some of the basic terms used in phonetics and phonology. Here, you will come across such terms as phonemes, allophonic variants/allophones/contextual variants, phones, minimal pair, complementary distribution etcetera. Their relevance to phonetics and phonology will be highlighted.

Learning Outcomes

When you have studied this session, you should be able to:

3.1 *define* and use correctly the term phoneme.
3.2 *explain* what it means when sounds are said to be allophones of the same phonemes.
3.3 *explain* the term, phone
3.4 *form* at least five minimal pairs.
3.5 *form* at least two minimal sets.

3.1 Phoneme

A **Phoneme** is a distinct sound of a language. It is an abstract sound that is able to contrast the meaning of words in any human language. Changing a phoneme of a sound to another in similar contexts will result in a change of meaning. For instance, if the /m/ of *mat* is changed to /k/, the meaning of the word will change from 'a material used to cover a part of the floor' to 'a small animal with four legs that people often keep as a pet' - *cat*. You can look for other English words that are similar and practice with them. Some examples are *pin/fin, pat/pet.*

It is very important to note that a phoneme can be realized as slightly different sounds, depending on the context. This is the reason why it is considered a summary of many related phonetic sounds.

3.2 Allophones

Phonemes, which we discussed earlier as distinct sounds of a language, have many variants, depending on the position in the word. We should quickly note at this point that sounds tend to be modified by the environments in which they occur. The environments of a sound is constituted by the sounds that are before or after it, its position in the word or group, (whether word initial, medial or final), whether it's next to silence (word boundary). All these are important influences on how a

sound finally comes out when we speak. Remember we learned earlier here that a phoneme is a summary of similar sounds found in different contexts. These variants are called allophones. Allophones are the phonetic variants of a phoneme. They are very similar sounds in a language that cannot change the meaning of words but add phonetic details to the word. The allophones of any phoneme are all alternative pronunciations for a phoneme but the allophone selected in a given situation is often predictable. Let's look at the following examples together:

[p^h]	e.g **p**in	(aspirated)
[p^N]	e.g. ha**pp**en	(nasally released)
/ p / [p^L]	e.g a**pp**le	(laterally released)
[p^o]	e.g to**p**coat	(unreleased)

We can see here that where one of the variants occurs, the others will not. You will always find the aspirated /p/, [p^h], as the first sound of a stressed syllable that starts with /p/. You will always find [p^N] occurring before syllabic nasals as in the case of 'happen' where the final sound is a syllabic nasal.

However, please note that, unlike with phonemes where changing a one to another will change the meaning of a word, allophones only indicate proper pronunciation; they never change the meaning of words.

Allophones are also called contextual variants of a phoneme. This means they are variants of the same phoneme that occur in different contexts (environments). Therefore, in the example above, [p^h], [p^N], [p^L] and [p^o] are allophones or contextual variants of /p/.

Reflection

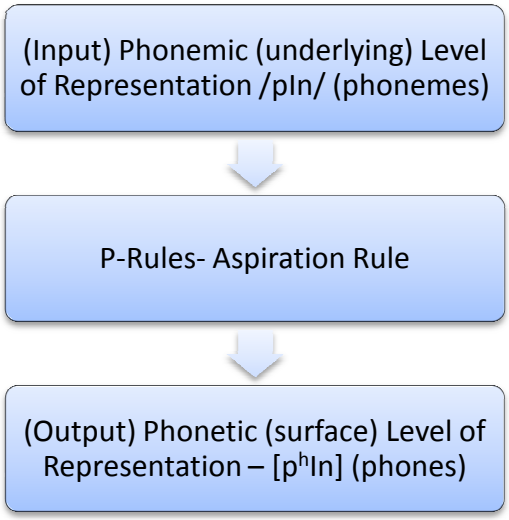
Imagine this situation. A nutritionist advises you, 'Eat a fruit daily to enhance your health.' Today you eat an orange, tomorrow you eat a mango, the day after you eat a banana, the day after, still, you eat a walnut. Have you actually eaten a *fruit*? If I say no, I can argue you have only eaten an orange, a mango, a banana and a walnut and not anything properly named 'fruit'. But common sense tells us the answer should be 'Yes', because orange, mango, banana and walnut are types of fruit. In that case, fruit is something and yet nothing in particular, only a common name for several things in the same category. Likewise, a phoneme is a model, a standard; allophones are the different ways of realizing or concretizing that model. Phoneme is abstract; allophones are concrete and specific.

3.3 Phones

Phones An allophone of a phoneme. It becomes a phone when it is analyzed independent of the originating phoneme.

[p^h], [p^N], [p^L] and [p^o], the allophones of the phoneme /p/ which we just discussed, are **phones** in their individual descriptions. Though they are phones when considered individually, when you consider them in relation to their 'mother' sound /p/, they are called allophones of /p/. What are phones then? Phones are phonetic units of sounds with detailed production. Appropriate phones of a language can only be produced when you know the phonological rules of that language. After applying those phonological rules on the abstract phonemes, you will come up with appropriate phones. Let us look at the diagram in Fig 3.1 together.

Fig 3.1



You can see that phonemes are input at the underlying level which is abstract. It is only when you apply the phonological rules of a language (P-rules) that you get the phones (output) at the phonetic (surface) level of representation.

Note again that phonemes are termed abstract because they do not represent actual sounds and one needs to know the phonological rules of a language to be able to pronounce them appropriately. For instance, as earlier demonstrated, /p/ is a phoneme that can be realized in various ways phonetically. When it occurs as the first sound of a stressed syllable, it is aspirated e.g [p^{h}], when it is nasally released before a nasal sound, it is [p^{N}], when it is laterally released before a lateral sound, it is [p^{L}].

How do you know when two or more phones are allophones of the same phoneme? A common test to for this is by finding minimal pairs or minimal sets. When you are able to establish minimal pairs or sets, you are then able to conclude that such sounds are distinct sounds of that language. We shall be discussing minimal pairs and sets in the next section of this lecture.

3.4 Minimal Pairs

A minimal pair will be two similar words of a language that are only different in one segment in the same position. Please note that the position of the two segments in the two words of the language must be the same to call them a minimal pair. Let's take a look at the following pairs:

/**b**In/ /**p**In/

/nI**p**/ /nI**b**/

/**k**In/ /**g**In/

/**t**In/ /**d**In/

/t**I**n/ /t**e**n/

When minimal pairs occur in a language, the phonemes that make the difference will automatically be regarded as distinct phonemes of that language. You can see that in the English language /p/, /b/, /k/, /t/, /d/, /g/, /e/ and /I/ are distinct phonemes.

3.5 Minimal Set

A minimal set is just like a minimal pair. In a minimal set, sounds contrast at the same environments minimally and you can determine the phonemes of a language by looking for minimal sets, just like you do with the minimal pair. The only difference between the two is that one is a pair, the other is a set. A pair will have just two words while a set will have many words. Let's look at a minimal set:

/pIn/

/tIn/

/dIn/

/kIn/

/gIn/

3.6 Complementary Distribution

Complementary distribution is made up of two sounds that don't coexist.

Sounds are said to be in **complementary distribution** when where one occurs, the other does not. This is a common characteristic of allophones of the same phoneme. Where one occurs, the other will never be found there. A nasally released /p/, [p^N], will never occur before a lateral sound; an aspirated /p/, [p^h], will never occur at word boundary finally where you may find an unreleased /p/, [p^o].

3.7 Contexts

In phonology, contexts are environments of sounds. The context of a sound could be other sounds before or after it or whether the sound occurs initially (as the first sound of a word), medially (at the middle of the word) or finally (at the end of the word). We should remember that in the previous lecture, we learned that sounds are often affected by other sounds in their environment. They tend to adjust or adapt to the characteristics of other sounds in the environments in which they occur. This adjustment or adaptation is responsible for phonetic variants of phonemes such as affects our popular example the /p/ sound which could be realized as [p^h], [p^h] and [p^o], depending on contexts.

3.8 Phonemic and Phonetic Transcription Systems

Transcription is the visual representation of speech sounds using particular symbols. Symbols are very specific and non-negotiable. A symbol in phonetics has a specific meaning and representation. If it is changed, it is no longer representing that sound which it's supposed to represent. It is important to know this because in the course of your

contact with phonetics and phonology, you will be reading and doing transcription.

There are two types of transcriptions – phonemic transcription and phonetic transcription. The phonemic transcription is abstract transcription (you can infer that from the word phoneme which by now you should be used to), while the phonetic transcription is detailed (you can also infer the meaning from phonetic as earlier learned).

The most commonly used transcription system is the International Phonetic Alphabet (IPA) which we shall discuss after this section. Now, let us return to our discussion of the types of transcriptions we have – phonemic and phonetic transcription. Transcription may be broad or narrow. When it is broad, it means it is not detailed. It does not include the phonetic details. It contains only phonemes. Do not forget that phonemes are abstract sounds. A broad transcription will disregard the application of rules. The broad transcription is the phonemic transcription.

On the other hand, a narrow transcription is detailed. It contains phones. Do not forget that phones are actual sounds. A phonetic transcription will regard the application of rules. A phonemic transcription of 'apple' will be / æpl / while the phonetic transcription will be [æp^{L}l]. The added superscript symbol stands for laterally released.

Let's look at more examples:

/pIn/ phonemic transcription (no rule is applied and phonetic details are disregarded)

[p^{h}Ĩn] phonetic transcription (aspiration rule and nasalization rules are applied as phonetic details).

As you must have observed above, slanting lines enclose phonemes or phonemically transcribed sounds while square brackets enclose phones or phonetically transcribed sounds.

Note

Phonemic transcription uses phonemes [phonemic symbols] while phonetic transcription uses phones [phonetic symbols].

3.9 International Phonetic Alphabet

The transcription of speech is done with the International Phonetic Alphabet. Based on the Latin alphabet, it is used to transcribe sounds and features of speech such as consonants, vowels, and suprasegmental features. The symbols are fixed and they refer to specific sounds as described using phonetic studies. All known world languages have their phonemes as well as features assigned their own corresponding symbol.

As the most widely known system of phonetic transcription, the International Phonetic Alphabet (IPA) is standardized to enable the users transcribe the phones of different languages, dialects, and idiolects accurately and consistently. It is a useful tool not only for the study of

phonetics, phonology, language teaching, professional acting, and speech pathology.

3.10 Received Pronunciation (RP)

We all know that the way people speak the same language differ for many reasons. Educated speech will be different from uneducated; youths use language differently from adults etc. So is the case with the topic on hand, Received Pronunciation. Received Pronunciation is a pronunciation of British English that is originally based on the speech of the upper class of southeastern England. Though more widespread in London and in the South–East of England, it does not belong to a particular geographical area. It has been identified as the language of the very educated and it is the language mainly used by the mass media in 'prestige broadcasting'. So it is also called 'BBC pronunciation' though its use in broadcasting in recent times is dwindling. It is characteristic of the English spoken at the public schools and at Oxford and Cambridge Universities. It is the target for pronunciation in most contexts where English is used as a second language. That is why it is the target for the teaching and learning of pronunciation in Nigeria. We must not forget that English is a second language in Nigeria.

Study Session Summary

Summary

In this Study Session, we discussed the basic terminologies employed in phonetics and phonology. We dealt with terms such as phoneme, allophones, phones, minimal pairs, minimal set, complimentary distribution, context, phonemic and phonetic transcription, International phonetic alphabet and Received Pronunciation

Study Session 4

Organs of Speech and Airstream Mechanisms

Introduction

The organs of speech are crucial to the understanding of how sounds are produced in any language. There is therefore the need to look at each of the organs and how they interact with one another to produce the meaningful sounds we perceive. It is also very important to understand the body of air that is modified in different ways to produce the sounds of language. In this Study Session therefore, we will be looking at the various organs and the airstream mechanism involved in the production of various English sounds.

Learning Outcomes

When you have studied this session, you should be able to:
4.1 *identify* organs of speech
4.2 *explain* what is meant by airstream mechanism

4.1 Organs of Speech

Organs of speech as a term is used to refer to the various parts of the human anatomy involved in the production of human sounds. Please note that there is no part of the human body that is specifically designed for speech. The organs involved in speech production have other primary functions and speech is only imposed on them. We have the same types of organs used to produce sounds in all human beings irrespective of the race or language spoken.

At this point you need to have the diagram of the organs of speech close to you so you could refer to the mentioned organs as you read. The **lungs**, which we all know as a respiratory organ, are the take-off point of human sound production. This is because the air we use in the production of sounds is generated from the lungs. This air gets modified at the **larynx** which contains the **vocal cords** also called **vocal folds**. What are vocal cords? They are two elastic tissues located in the larynx. They have a passage between them. The passage is called the **glottis**. The glottis is also very important because the state it takes determines whether you have produced a voiced sound or voiceless sound. The vocal cords, which are flexible elastic tissues, can shut the passage such that the air will have to beat them aside or leave the passage free so that the air could pass freely between them. When the air forces itself through, resulting in the

vibration of the vocal cords, you have produced a voiced sound but when the cords are apart and the air could move freely, and no vibration of the cords occurs, you have produced a voiceless sound. The glottal sound /h/ is also produced in the glottis.

Don't forget that we've been following the movement of the air coming from the lungs. Now let's move further. The air gets to a point where its route splits into two, one to the oral cavity, and the other to the nasal cavity. The route to be taken by the air is determined by the position of the **velum** which is also called the **soft palate**. This organ may be raised or lowered, depending on the manner of the sound being produced. For oral sounds, the velum is raised while it is lowered in the production of nasal sounds such as /m n ŋ / which are the only nasal sounds found in the English language. The velum as an organ is also used in the production of velar sounds such as /k, g/.

Moving further towards the mouth, we'll find the **hard palate** after the velum or soft palate (note that this description took off from the lungs towards the oral cavity). It is used in the production of palatal and palato-alveolar sounds such as /j, ʃ □□□ /.

The alveolar ridge or teeth ridge is the hollow portion directly behind the teeth and it is also involved in the production of alveolar sounds such as /t, d, s, z, l, r / The teeth, technically termed dental, is involved in the production of labiodental and dental sounds /f, v, □, ð /. While the **lips**, technically termed **labials**, are also involved in the production of bilabial sounds such as /m, b, p / and labiodental sounds such as /f, v /, they are also used in the description of vowel sounds as rounded, unrounded or neutral.

Though no sound is named after the tongue, it is a very important organ of speech. The various parts articulate against the fixed organs in the production of various sounds. For instance, for a dental sound to be produced, the blade of the tongue articulates against the upper teeth; for velar sounds, the back of the tongue; and for vowels the position of the hump of the tongue determines whether a vowel is front, central or back.

These various organs may be classified as mobile and immobile (or fixed), depending on their various characteristics. The **tongue**, is often considered mobile (because it is movable) while the other organs which are unmovable are considered immobile or fixed. (**margin note**: active articulator[or, mobile articulator]—the speech organ which moves towards another to produce a sound; passive articulator[or, immobile articulator]—the speech organ)Mobile or immobile, all the organs of speech are important because they all have important roles to play in the articulation of sounds.

We took off in our description from the lungs. Don't forget that the respiratory system is involved in speech production. This includes the lungs, the muscles of the lungs, the windpipes and the air itself. All these have the primary function of respiration but they have speech imposed on them.

4.2 Airstream Mechanisms

Airstream mechanism
Origin and direction of the air with which sounds are produced.

As earlier pointed out, speech sounds are produced with the movement of the body of air which will henceforth be referred to as **airstreams**. When the airstream's direction is towards outside, it is called Egressive but if it is towards inside it is called Ingressive.

There are basically three airstream mechanisms: Pulmonic Airstream, Glottalic Airstream and Oral or Velaric Airstream. Please note that each airstream is named by where it takes off from or where it is modified. Pulmonic aistream takes off from the lungs, glottalic, from the glottis and velaric, from the velum.

Most speech sounds, especially speech sounds of English, are produced with the air from the lungs which is technically regarded as Pulmonic aistream. Most sounds in human languages and all sounds in English (specifically), are produced with the air generated in the lungs and moving towards outside. The airstream is referred to as Pulmonic Egressive Airstream Mechanism. No other airstream mechanism is used in the production of English sounds. Please note that no sound in human language is produced with the **pulmonic ingressive airstream mechanism** (that is the airstream moving inwards to the lungs).

Try to pronounce some words while breathing in. Audible? Sensible? Please note that no sound in human language is produced while the airstream moving inwards to the lungs, that is, with the pulmonic ingressive airstream mechanism.All English sounds are produced with the pulmonic eggresive airstreammechanism.

Let us discuss the other airstream mechanisms. Though they are not used in the production of English sounds, it is still good to know about them as scholars of Linguistics. The glottalic airstream mechanism is initiated at the larynx. Remember glottis is the name given to the passage in the larynx. When the closed glottis shuts off the air coming from the lungs or going into the lungs and serves as a piston in the production of a sound, the sound is either an implosive or ejective. Ejectives are produced with the glottalic egressive airstream while implosives are produced with the glottalic ingressive airstream. Velaric or oral airstream is initiated at the velum and it is used in the production of sounds referred to as clicks.

Since this course is an introduction to English phonetics and phonology, the concern of this discourse is with English sounds which are produced with the pulmonic egressive airstream. Do not forget that the pulmonic egressive airstream is generated at the lungs and has an outward movement. This is the air we breathe out, used in speech production.

Tip Box
Pulmonic—relating to the lung
Velaric—relating to the velum
Glottalic—relating to the glottis
Ingressive—going inward
Eggressive—going outward

Study Session Summary

Summary

In this Study Session, we discussed the various organs involved in the production of English sounds, we pointed out the fact that these organs have other functions, which are primary to them but that they have speech imposed on them. We noted the differencesbetween the fixed and mobile articulators. We also explained that the fixed articulators describe sounds. We discussed the three basic airstream mechanisms and their movements, which, could be ingressive or egressive. We finally laid emphasizes that the pulmonic egressive airstream is the only airstream employed in the English Language

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Study Session 5

Description of Consonant Sounds

Introduction

Consonants and vowels constitute the phonemes of any language. Since we are dealing with English in this course, we will discuss the consonants and vowels of the English language. In this Study Session, we will be dealing mainly with consonants but we also need to know that there are consonant and vowel letters as well as sounds. Letters deal with orthography, which is writing while sounds relate to speaking. Do not confuse the consonant and vowels we will discuss from now on with letters, which you are more used to. Henceforth, we will be discussing the consonant and vowel sounds, not letters.

Learning Outcomes

When you have studied this session, you should be able to:
5.1 *distinguish* between the consonant sounds and the vowel sounds.
5.2 *state* the parameters by which consonant sounds are described and why.
5.3 *exemplify* the manners of articulation of English sounds.
5.4 *explain* the difference between oral and nasal sounds.
5.5 *pronounce* consonant sounds.

5.1 Identifying Consonant and Vowel Sounds

English sounds can be divided into the broad categories of consonants and vowels. Consonant sounds are produced with the total/partial blockage of the airstream used in its production at some point in the vocal tract.

To produce /b/, as we have in 'bible', there is a total blockage of the airstream at the lips, technically called 'labials'. This accounts for why it is easy to name consonants sounds after the places of articulation because you can indicate the specific point at which the blockages occur.

Now produce /e/ as we have in 'pen'. Is there any blockage in its production? Vowels sounds are produced with the free passage of the airstream with no radical obstruction at any point. There is no blockage in their production, so the air can move easily. They are therefore not easy to describe based on the particular place of articulation. This is because you cannot feel the organs articulating against each other and no obstruction is done to the airstream used in the production of vowels.

How are vowels described then? Vowels are described based on:

a. the height of the hump of the tongue (high , mid, low);
b. the shape of the lips (spread , neutral , round);

c. whether or not the mouth is closed or open (open, half-open, close, half-close);
d. whether or not the sound is front, mid or back.

Tip

When air is blocked by a speech organ, a consonant is produced; when no organ blocks the air and it flows out freely, a vowel is produced.)

5.1.1 Differences between Vowels and Consonants

Unlike consonants that are produced with radical obstruction in the oral cavity, vowels are produced with no such obstruction. With consonants, there is often one form of obstruction or the other, though the impact may differ from one type to another. In the case of vowels however, all are produced with open approximation. None of the articulators come very close together in their production, so the passage of the airstream is considerably always unobstructed.

Hint

We shall start our discussion of the English consonant sounds now. We will come back to vowels later.

5.2 Parameters for Describing English Consonant Sounds

There are the 24 consonant sounds in English. They are described based on three parameters which are:

i. State of the glottis
ii. Places of Articulation
iii. Manner of Articulation

Fig 5.1English Consonant chart. Note that the dark portions mark the voiced sounds

Source: englishbaby.com

Manner of Articulation \ Place of Articulation	Bilabial		Labio dental		Inter dental		Alveolar		Alveo-palatal		Palatal		Velar		Glottal	
Stop	p	b					t	d					k	g	ʔ	
Fricative			f	v	θ	ð	s	z	ʃ	ʒ					h	
Affricate									tʃ	dʒ						
Nasal		m						n						ŋ		
Lateral Approximant								l								
Retroflex Approximant								ɹ								
Glide	ʍ	w										j				

State of the Glottis

Voiceless	Voiced

5.2.1 State of the Glottis

The glottis could takeup to 5 different states. However, in our discussion of English sounds, two states are relevant. So we shall only be discussing these two states which are the voiceless state of the glottis and the voiced state of the glottis. Let us discuss how these two states are achieved and how they are used to describe English sounds.

Earlier, we mentioned two elastic tissues located in the larynx referred to as the vocal cords or vocal folds. Remember the passage between them is called glottis. In the production of voiceless sounds, the vocal cords will be resting apart, therefore, the airstream could pass through freely without the vocal cords vibrating. Sounds produced with this state of the glottis are said to be voiceless.

However, in the production of voiced sounds, the two vocal cords will be holding on loosely to one another such that the airstream has to force itself through the vocal cords. Since they (the vocal cords) are elastic, they give way intermittently and therefore vibrate as the sound is produced. Sounds produced with this state of the glottis are said to be voiced.

Tip

When vocal cords close and air has to pierce forcefully through them, a voiced sound is produced; when the vocal cords are wide apart and air passes freely through an open glottis, a voiceless sound is produced.

5.2.2 Place of Articulation

Place of articulation Where active and passive articulators meet to produce a sound.

The **place of articulation** states where the sound is produced. It names where the radical obstruction occurs when an English consonant sound is produced. Now, let us look at some places of articulation of English consonant sounds. We are starting with Bilabial sounds.

Bilabial Sounds

These are sounds that are produced with the two lips in contact with one another. This implies that the radical obstruction occurs at the point where the two lips meet. Produce the following sounds as you have them in the words ‘bank, pan, man’ /b/, /p/, /m/. The initial sounds are bilabial.

Labiodental Sounds

Labiodental is a combination of the words ‘lips’ and ‘teeth’. Don’t forget that ‘labia’ means ‘lips’ and ‘dental’ means ‘teeth’ With labiodental sounds, we have the radical obstruction occurring at the point where the upper teeth make contact with the lower lips. /f, v/ are labiodental sounds. Pronounce the words ‘fine’ and ‘vine’. The initial sound of each word is a labiodental sound. /f/ is voiceless while /v/ is voiced. Do not forget that a voices sound is one produced with the glottis open and vocal cords apart while voiced sounds are produced with the glottis modified by the vocal cords in a manner that vibration occurs as the air passes through.

Dental Sounds

Do not forget, dental means teeth! In the production of dental sounds, the teeth makes contact with the blade of the tongue as you have in the words 'tee**th**', '**th**ere' /□, ð / are dental sounds. Dental sounds should be practiced with seriousness by Nigerian learners of English because it is a problematic sound for many. To practice this sound, place the blade of your tongue against the upper teeth and blow some air. Without adding voice, you will produce / □ /, when voice is added you will produce / ð /.

Alveolar Sound

The alveola ridge is the teeth ridge, the hollow space after the upper teeth. In the production of alveola sounds, the radical obstruction occurs at the alveolar ridge where the tongue articulates against the ridge'. English alveola sounds are /s/, /z/, /t/, /r/, /l/.

Palatal Sound

The hard palate is located after the alveola ridge. /j/, the palatal sound, is produced with the tongue articulating against the hard palate. The /j/ sound is found in words such as 'university, **y**ear, **y**ou, **y**ounger'.

Velar Sound

The velum or soft palate is located after the hard palate. Velar sounds are produced with the back of the tongue articulating against the velum. Examples of words with velar sounds are '**k**ing, go, si**ng**'. The velar sounds are /k/, /g/, / ŋ /

Glottal sound

The glottis, as we have discussed is thepassage between the vocal cords. The glottal sound is produced in the glottis. Examples of words with the English glottal sound /h/ are '**h**ouse, a**h**ead, **h**ot/.The English glottal sound is /h/.

Alveopalatal Sounds

As the term suggests,English alveopalatal sounds are produced with the body of the tongue articulating against the alveolar ridge and the hard palate at the same time. They are, / ʃ, □, □,□/ as we have in words such as ' ma**sh**, plea**s**ure, **ch**ur**ch**, j**udge**'.

5.3 Manners of Articulation

As earlier discussed, the three parameters by which consonant sounds are described are the state of the glottis, place of articulation and manner of articulation. The previous section discussed the state of the glottis as well as the place of articulation. In this section, we will discuss the manners of articulation of English sounds.

Manners of articulation as a parameter for describing English sounds discusses 'how' the (**margin note**: manner of articulation—how the air is expelled)sounds are produced (as opposed to 'places of articulation' which discusses 'where' sounds are produced). Now let us look at how English consonant sounds are produced. This is very relevant and general

to other languages too but our emphasis on the English language since the course under discussion is English phonetics and phonology.

Do you still remember that the pulmonic egressive airstream is the body of air used in the production of English sounds? When the pulmonic eggressive airstream gets into the oral cavity, it may be totally obstructed, partially obstructed or flow freely out of the mouth. The nature of the obstruction is what is called the manner of articulation for a sound.

Different sounds have different manners of articulation. The manner has to do with how the sounds are produced. The organs, in the course of producing the sound, may close totally and open suddenly (plosives). They may close totally and then release slowly (affricates). They may be partially closed such that the air could pass through with little force causing friction (fricatives). They may be open at the centre while the sides are free for air to pass through (lateral). The body of air may pass though the mouth passage (oral). The body of air may pass through the nasal cavity (nasal) or there is a stricture of free passage close to the one experienced in the production of vowel sounds (semi-vowels).

We shall sometimes refer to the various manners discussed above as **strictures**. There are different strictures as you could see from the earlier explanation on manners of articulation.

5.3.1 Complete Closure Followed by a Sudden Release

Sounds produced in this manner are called PLOSIVES. In the production of a plosive, there will be complete closure of the organs at a point. Then the closure will be suddenly released, sounding like a mini-bomb. The English plosive sounds are /p,b,t,d,k,g /. Examples of words with such sounds are *ma**t**, **p**ray, **k**in**g**, **g**roun**d**, **b**i**g***.

5.3.2Complete Closure Followed by a Slow Release

Sounds produced with this manner of articulation are called AFRICATES. In the production of affricates, there is a complete closure of the organs of speech at a point. Then the closure is gradually and slowly released. The English affricate sounds are / □□ /. Examples of words with such sounds are ***ch**ur**ch**, **ch**allen**ge**, **j**u**dge**, **g**ist*.

5.3.3 Partial Closure Resulting in a Slow Continuous Sound

Sounds produced with this manner of articulation are called FRICATIVES. While producing fricatives, the organs of speech involved are very close but there will not be total closure such that air can still pass through but with friction and a hissing sound. The English fricative sounds are / □,ð, f,v, s, z, ʃ, □, h/. Examples of words with such sounds are *tee**th**, **th**e**se**, **f**ive, **s**i**ze**, s**h**e, **s**eizure **h**at.*

5.3.4 Closure at the Centre while Air Passes Freely by the Sides

Sounds produced with this stricture are called LATERAL. The only lateral sound in the English language is / l/ as in the words ***l**i**tt**le, **all**ay*.

5.3.5 Open Approximation

Sounds produced with open approximation have a free passage of air. This is very similar to that of vowel sounds where there is no form of radical obstruction. Consonants produced in this manner are called semi-vowels or glides. English /w/ and /j/ are examples of semivowels or glides. They are phonetically similar to vowel but they function as the syllable boundary rather than as the nucleus of a syllable.

5.3.6 Partial Closure at the Centre Accompanied by Vibrations between the Articulator and the Place of Articulation

Sounds produced with this manner of articulation are called TRILL. English /r/ is a consonant sound produced by vibrations between the blade of the tongue and the alveola ridge.

5.4 Nasal and Oral Sounds

Sounds are also generally divided into nasal and oral groups. Some sounds are produced with the velum lowered and a free passage of air through the nasal cavity. Such sounds are called NASAL sounds. There are three of such sounds in English and they are all automatically voiced. These are /m. n, ŋ /. Oral sounds, on the other hand, are produced with the velum raised and a blockage of the nasal cavity such that the air passes through the oral. All other English sounds apart from /m. n, ŋ / are oral sounds. Examples of such sounds are /p, b. t. d, k, g, s, z, f, v/. All English vowels are oral sounds.

5.5 Description of Consonants

Now, let us go through a description of the consonant sounds of English based on the three parameters we discussed - state of the glottis, place of articulation and manner of articulation:

/m/	bilabial nasal	*man*	/ mæn /
/p/	voiceless bilabial plosive	*pan*	/pæn/
/b/	voiced bilabial plosive	*ban*	/ bæn /
/f/	voiceless labiodental fricative	*five*	/ falv /
/v/	voiced labiodental fricative	*van*	/ væn /
/Θ/	voiceless dental fricative	*teeth*	/ ti:Θ /
/ð	voiced dental fricative	*bathe*	/ belð /
/s/	voiceless alveolar fricative	*sin*	/ sln /
/z/	voiced alveolar fricative	*zoo*	/ zu: /
/t/	voiceless alveolar plosive	*tin*	/ tln /
/d/	voiced alveolar plosive	*dance*	/ dan*t*s /

/l/	alveolar lateral	*late* / leɪt /
/r/	alveolar trill	*river* / rɪvə/
/n/	alveolar nasal	*nurse* / nɜːs /
/ʃ/	voiceless palato alveolar fricative	*shame* / ʃeɪm /
/ʒ/	voiced palato alveolar fricative	*television* / telɪvɪʒn /
/ʧ/	voiceless palato-alveolar affricate	*church* / ʧɜːʧ /
/ʤ/	voiced palato-alveolar affricate	*judge* / ʤʌʤ /
/k/	voiceless velar plosive	*make* / meɪk /
/g/	voiced velar plosive	*game* / geɪm /
/ŋ/	velar nasal	*sing* / sɪŋ /
/h/	voiceless glottal fricative	*house* / haʊs /
/j/	palatal semi-vowel	*yes* / jes /
/w/	labiovelar semi-vowel	*wet* / wet /

You must have noticed that the nasals and semivowels are not described in terms of voice. This is because all nasal and semivowel sounds are automatically voiced. Therefore, the moment you claim a sound is nasal or semivowel in English, it is known to be voiced. Which means it does not contrast with any other sound in terms of voice.

Study Session Summary

Summary

In this Study Session,we discussed the differences between vowel and consonant sounds. We also discussed the three parameters by which consonant sounds are described as 'state of the glottis, place of articulation and manner of articulation. We however discussed in details only the state of the glottis and the place of articulation.

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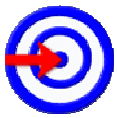
Study Session6

Description of Vowel Sounds

Introduction

Vowels are different from consonant sounds in terms of articulation. While consonants are produced with a radical obstruction of the airstream used in speech production, vowels are produced with a free flow of the airstream. In this Study Session, you will discuss how vowel sounds are produced and the parameters by which they are described.



Learning Outcomes

When you have studied this session, you should be able to:

6.1 *discuss* the parameters by which vowel sounds are described.
6.2 *outline* the twelve stationary vowels of English.
6.3 *pronounce* correctly English vowel sounds.

6.1 Parameters for Describing Vowel Sounds

The configuration of the vocal tract in the production of a vowel sound determines its quality. The following are basically the parameters by which vowel sounds are described:

- the height of the body of the tongue;
- the front/back position of the tongue;
- the degree of lip rounding;
- the length of the vowel.

6.1.1 Height

The tongue also plays a prominent role in the description of vowel sounds. The height of the body of the tongue differentiates the high sounds such as / i: /, where the body of the tongue is raised and /a:/, where the body of the tongue is low.

6.1.2 Front/Back Position

When vowel sounds are produced, the tongue forms a hump. This hump can either be at the front, middle or back of the tongue. The place where the hump is formed determines whether the vowel sound is described as front or back (or more technically, [+ back] or [- back] e.g. / u: / [+back] / i: / [-back].

6.1.3 Lip-Rounding

We should also note that in the production of English vowels, the posture of the lips is considered important for descriptive purposes. The lips may be round or unrounded (neutral and spread). The high non-low back vowels in English such as / □ / and / u: / are produced with some degree of lip rounding while the other vowels are produced with unrounded lips.

6.1.4 Length

Another parameter by which vowels are described is length. Some vowels are long while others are short. The longer vowels are assumed to be produced with greater muscular effort than the shorter vowels. The long vowels are therefore long and tense while the short vowels are short and lax e.g.

pull/pul/ - short and lax

pool /pu:l/ long and tense.

All vowel sounds are automatically voiced. So we do not describe English vowels as voiced so as to avoid redundancy. Voice is an inherent quality of an English vowel.

6.2 Monophthongs and Diphthongs

English vowels are often divided into these groups: monophthongs and diphthongs. Some literatures add a third group called triphthongs. Monophthongs are also called stationary vowels because they are produced at a particular vowel point unlike diphthongs and triphthongs that involve movements from a vowel point to another. We will now take a look at the twelve stationary vowels of English.

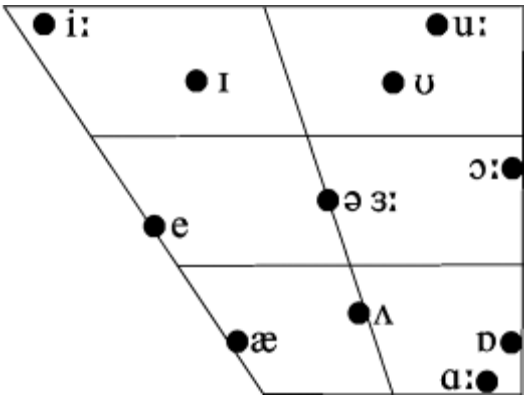


Fig 6.1 Diagram and Description of Monophthongs

As illustrated in the diagram, there are twelve stationary vowels (i.e. monophthongs) in English. Now let us look at the various descriptions together.

/i:/ Front, close, tense and unroundedas in *bee*, *teach*

/I/ Front, close, lax and unrounded as in *kid, pit*

/e/ Front, half-open, lax and unrounded as in *pen, friend, bread*

/ æ / Front, open, lax and unrounded as in *bag, plait*

/a:/ Back, open, tense and unrounded as in *flask, car,heart,balm*

/ □ / Back, open, lax and rounded as in *pot, wasp, tall balm*

/ □: / Back, half-open, tense and rounded as in *sword,fork,door,talk*

/ □ / Back, close, lax and rounded as in *cook, push*

/u: / Back, close, tense and rounded as in *rule, shoe food, two, juice*

/ □ / Central, half-open, lax and unrounded as in *cup, come, flood*

/3:/ Central, half-close, tense and unrounded as in*bird, church, work, learn*

/ Ə / central, half-close, lax and unrounded as in*doctor, about, teacher*

6.2.1 Differentiating Diphthongs from Monophthongs

We discussed the vowel sounds referred to as monophthongs in the previous section. We learned that these vowels are also called stationary vowels because they are produced at a vowel point unlike diphthongs and triphtongs that involve a movement from a vowel point to another. In section, we will discuss the diphthongs. We will cover the centering as well as closing diphthongs.

In the production of monophthongs, the tongue remains in a position but for diphthongs, the tongue glides from one vowel point to another. Consequently, a diphthong may be referred to as a vowel of continually changing quality.

Tip Box

Diphthong — two-in-one vowel
Monophthong — single [stationary] vowel
Triphthong — three-in-one vowel

6.2.2 Types of Diphthongs

There are basically two types of diphthongs in English. These are the closing diphthongs and the centering diphthongs.

Centering Diphthongs

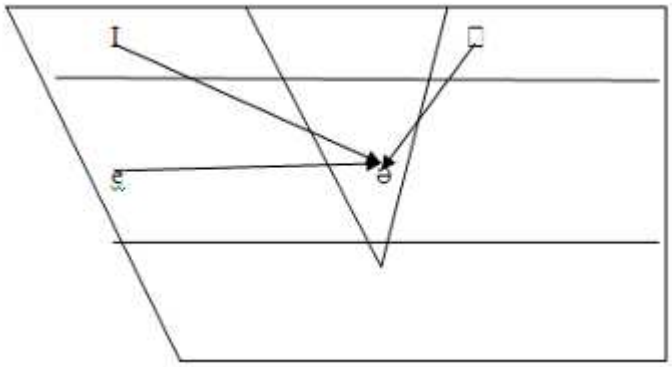
In the production of centring diphthongs, the movement is from the peripheral position to a central position e.g. / eƏ, IƏ , □Ə / as in *pear, ear, tour*.

/IƏ / *ear, deer, here*

/ eƏ / *bear, fare, pair*

/ □Ə / *cure, tour, poor*

Fig 6.2



Closing Diphthongs

Closing diphthongs are produced when there is a movement from a relatively open tongue position to relatively close position e.g. /aI, □I, eI, , a□, Ə□/ as in *height, out, oil, eight*.

/eI / *cake, pail, lay*

/aI/ *kite, eye*

/ □I / *boy, coil*

/ Ə□ / *toe, bone, road, flow*

/ a□ / *cow, mouse, browse*


Note

Centering diphthong ends in /Ə/; closing diphthong ends in /I/ or/ □ /.

Fig 6.3

Gliding towards / I/ / aI, □I, eI,/

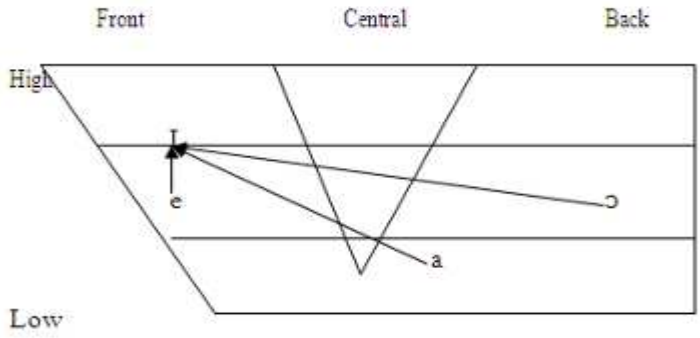
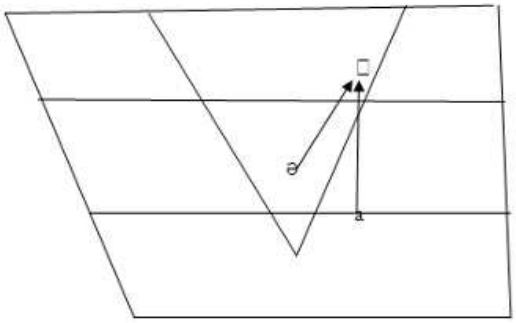


Fig 6.4

Gliding towards / □ / / a□, Ə□ /



6.3 Triphthongs

For some words the movement is from one vowel point to another and to another (i.e. A-B-C) as in *player*, *flour*, *lawyer*. These **triphthongs** are / eIə, a□ə, □Iə/.

Fig 6.5

/eIə/ as in player

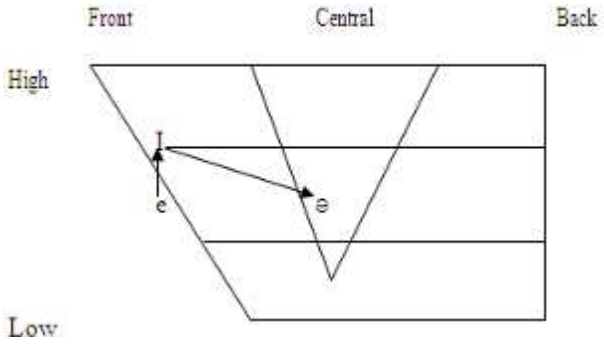
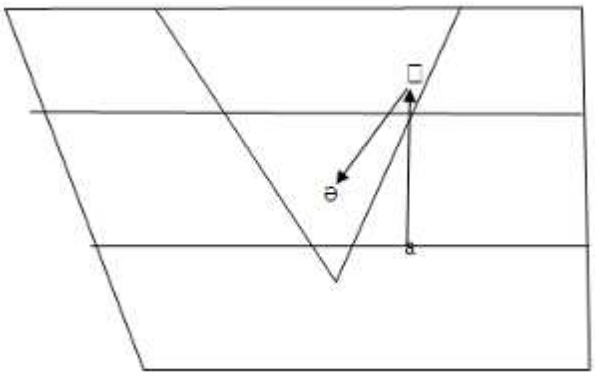


Fig 6.6

/ a□ə / as in flour



Study Session Summary

Summary

In this Study Session,we discussed the monophthong vowels of English. We have also looked at the parameters by which they are described, which are the height of the body of the tongue, the front/back position of the tongue, the degree of lip rounding and the length of the vowel. We also learned that short vowels are lax while long vowels are tense.

We have also been able to describe the vowels that are termed diphthongs and triphthongs in English. We have learned that unlike the stationary vowels called monophthongs, they involve a movement from one vowel point to another. We have also seen examples of English words containing diphthongs and triphtongs

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Study Session7

The Syllable

Introduction

The phonemes, which we discussed in the earlier study sessions are called segmentals. They include consonants and vowels. For example, *man* pronounced as /mæn/ has three sound segments which are /m/, / æ / and /n/. Each of the segments that constitute *man* is a phoneme. We are now moving further to discuss some features that apply above the segment in the English language. They are called suprasegmentals. 'Supra' here means 'above'. So, we are dealing with features of language that operate above segments. These features apply at the linguistic levels that are above phonemes.

Learning Outcomes

When you have studied this session, you should be able to:

7.1 *clarify* syllable as the minimum domain of the suprasegmentals.
7.2 *explain* the syllable from phonetic and phonological perspectives.
7.3 *outline* the internal structure of English syllable.
7.4 *explain* consonant clusters, form complex syllable structures such as the $(C_3)V(C_4)$ structure
7.5 *exemplify* (i) open (ii) close (iii) monosyllabic (iv) disyllabic (iv) polysyllabic syllables

7.1 Syllableas Minimum Domain for English Suprasegmental Features

Suprasegmental features are also called prosody. As earlier explained, they are features above the phoneme. Do not get confused with the words 'phonemes' and segments. They both refer to individual sounds. You must have noticed that while discussing segments, we discussed each sound as an entity. A sound is taken in isolation from other sounds. However, in real speech production, we cannot produce a consonant alone. Sounds are uttered in company of other sounds. When we speak, we do not utter individual sounds. The sounds occur together and blend as we produce them. Try producing kkkk… it will not be pronounceable except with the addition of a vowel. This will take us to the minimum sound that could be pronounced which is the **syllable**. The syllable is the minimum domain of the suprasegmenal features. What are the suprasegmental features of the English language? They are stress, rhythm and intonation.

It is known that mothertongue speakers of languages naturally know what constitutes a syllable in that language. They may not be able to explain the term but if you give them some words to break into small units that they could pronounce with a breath effort, it would be easy for them to do it.

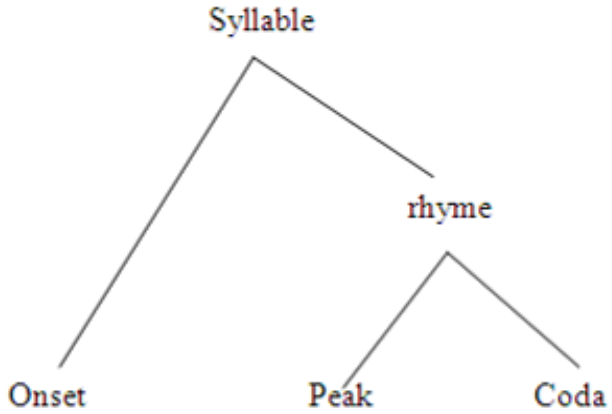
7.2 Syllable: Phonetic and Phonological Perspectives

Many linguists such as Hyman (1975), Roach (1991) have claimed that the syllable has been observed as a widely discussed unit of language. It has been discussed from both the phonetic and phonological perspectives. The syllable may be described phonetically in terms of how they are produced and how they sound. Syllables are usually described as constituting a centre which has little or no obstruction to airflow and which sounds comparatively loud. This centre is usually a vowel or liquid. However, before and after this centre are sounds that are produced with greater obstruction to airflow, which are not as loud as the sound at the centre. These margins are consonants. Now let us take the example we used earlier to make this portion clearer. /mæn/ has three sound segments which are /m/, / æ / and /n/. At the centre is / æ / which is loud, sonorous and the peak of the syllable, being the vowel. At the margins are the consonants /m/ and /n/, produced with greater obstruction to the airflow and not as loud as / æ /.

The phonological perspective, on the other hand, is often based on the phonotactic constraints of a given language. Every language has particular ways in which sounds are arranged. The possible structures of sounds in a language can help in the determining what (Margin note: Phonological explanation of syllable depends on each language.)constitutes a syllable in such language. What are the possible ways in which the segments combine to form acceptable pronounceable units in that language?

More argument in favour of the syllable as a phonological entity is how some rules apply in syllable edges. For instance, the aspiration rule in English affects voiceless plosives that begin a syllable. This implies that wherever there is aspiration in the English language is a syllable boundary. It has also been observed that some games are played by attaching some words to the edges of syllables in some languages.

Looking at the syllable from a phonological perspective, Roach (1991) views the syllable as comprising an obligatory vowel, which is the nucleus, and two margins, which are the onset (i.e. the consonant(s) before the nucleus and the coda (i.e. the consonants after the nucleus). He however observes as more ‘refined’, recent works in phonology in which the vowel and the coda (if there is anyone) are termed as the rhyme.



7.3 Internal Structure and Weight of the English Syllable

We have learned that the syllable can be described from a phonetic as well as phonological perspective. It is good for us to know the internal structure of the English syllable and how the weight of its constituents affects it. There is no universal agreement on the precise internal structure of the syllable. While some linguists view it as comprising the segments that constitute it (e.g. /man/ as /m/, /æ/ and /n/), some view it as comprising moras, some as constituted by onset, nucleus and coda, others as onset and rhyme which is further divisible into nucleus and coda.

We have to note the importance of the vowel as a constituent of the syllable. They are [+ syllabic] because they are the nucleus of the syllable while consonants, which either precede or succeed the nucleus as onset or coda, are [-syllabic].

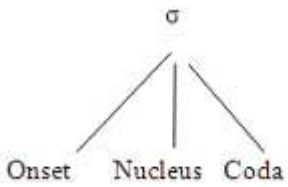
Vowels=Nucleus

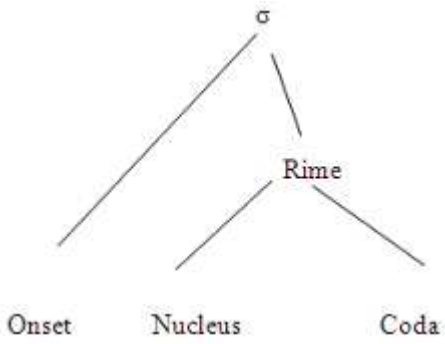
Initial consonant(s) = onset

Final consonant(s) = coda.

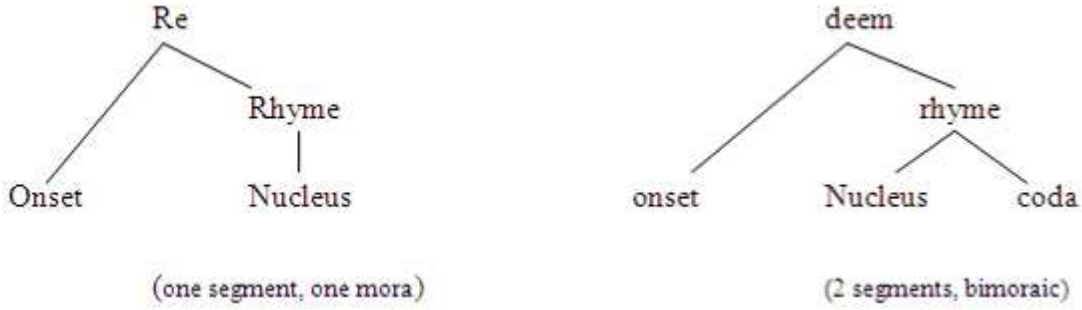
Though a syllable may have no onset or coda, it must have a nucleus since every syllable obligatorily has a beat, which is carried by the nucleus (i.e. the vowel).

The following are some of the various ways by which the syllable has been divided into its internal structures in various literatures. The symbol σ stands for syllable henceforth, wherever it may be found.





In the situation where the syllable is divided into onset and rhyme and rhyme is further divided into nucleus and coda, if the rhyme contains only one segment, that is one phoneme, the syllable is said to consist of one mora. However, when the rhyme contains two or more segments, the syllable is said to be bimoraic e.g. *re`deem.* The word re`deem has two syllables: 're' and 'deem'. 'Re' is a mora because the rime contains just one segment /I/. The second syllable, 'deem', has three segments, /d/ is the onset while the ryhme is bimoraic because it contains two segments / I, m /.



The number of moras it contains affects the weight of the syllable. A bimoraic syllable is heavier than a syllable with just one mora. Therefore, a light syllable has a rhyme of a single short segment in the nucleus (i.e. has one mora) while a syllable with more than one element in the rhyme is called a heavy syllable. Suprasegmental features such as stress has a lot to do with the weight of the syllable. A heavy syllable has a very high tendency to be stressed while a light syllable does not. The bimoraic syllable '-deem' is assigned stress in the word redeem while're-' is not stressed.

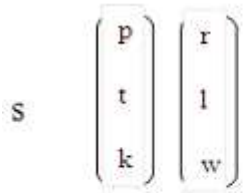
(Tip: A heavy syllable has all the parts complete [ie. onset, nucleus, coda] and is more likely to be stressed. A light syllable does not have all the parts [ie. may not contain a coda] and is not likely to be stressed. A heavy syllable is also called a bimoraic.)

7.4 Composition of English Syllable

Now, let us look at the composition of the English syllable in terms of the combination of consonants and vowels. How complex is the English syllabic structure? Compared to some other world languages, especially Nigerian languages, the English syllabic structure is complex. The maximum syllable structure in English is $(C_3)V\ (C_4)$. This means you

may have up to three optional consonants starting an English word, followed by an obligatory vowel and four optional consonants clustering at the end of the word.

Is the clustering that could occur at the beginning of an English word orderly, that is, patterned or not? It is not anyhow, it is patterned. To have a succession of consonants clustering in an English word, it must start with /s/ followed by /p,t,k/ and then by /l,w,r/. Some syllables have more than one consonant following in quick succession at their beginning, middle or end. This is called consonant clusters. In English words, up to three consonants can cluster at the beginning of a word and up to four at the end. For example, **spla**sh /splæ□/ has three consonants clustering initially, that is, at the beginning while te**xts /teskts**/ has four consonants clustering at the end of the word, that is, finally**.** The consonant clusters are not arranged just anyhow in English. Initially, it has to follow a particular pattern. It has to start with /s/, followed by /p,t,k/ and finally, by /l,r,w/ as in *splash, spray, stray, squeeze.*



We have to be careful so that we do not confuse writing with speech. English spelling and sounds do not have a one-to-one correlation. Sometimes, one of the sounds in the cluster may not be represented by a letter but only present in sound form. For example, there are two consonant letters visible as clustering in the word **sq**ueeze but when pronounced, there are three consonant sounds clustering in the word. /**skw**I:z/. Also in the word te**xts** there are three visible consonant letters clustering but when pronounced four consonant letters are realized as clustering /te**ksts**/.

We also have some three letter consonant clusters that are produced as two sound consonant clusters. Let us look at the word shrank with the three letters '**shr-'** as the initial consonants clustering in the word. When pronounced, it turns out as the two consonant clustered onset /ʃr/. Another example is the word **sing** wherethe two letters **'-ng'** are produced as a single sound /ŋ/.

The fact that most Nigerian languages do not have consonant clusters in them makes it challenging for most Nigerians to use the consonant clusters of English. More often than not, some of the sounds are dropped off to make the words easier to pronounce. However, this is not a challenge that cannot be overcome with constant practice and cautious speaking and reading.

7.4.1 Some Possible English Syllable Structures

Unlike some world languages that may have very limited possible syllable structures, the English language has a very complex syllable system. Yoruba for instance has the structures CV (Consonant+Vowel), V (Vowel) and N (syllabic nasal). This makes the syllabic system of Yoruba easy to comprehend and even use. English has a long list of possible syllable structures. Earlier we summarized this complex system as (C^3) V (C^4). This as earlier explained means you could have up to three consonants as the onset of an English syllable and up to four as the coda. The bracket is to indicate that the onset and coda are optional parts of the English syllable. Only the vowel, which is the nucleus is the obligatory part. Let us take a look at some of the possible syllable structures of English.

V – just a single vowel functioning alone as single syllable e.g. *are* /a:/ *a* /eI/.

CV – Consonant + Vowel e.g. *pee* - /pi:/, *tea* /ti:/ - They are called open syllables and they are the most common syllable types in languages.

CVC – Consonant+ Vowel+Consonant e.g. *met* /met/, *cat* /kæt/, *ran* /ræn/

CCV – Consonant+ Consonant+ Vowel e.g. *pray* - /preI/

CCCV – Cons+Cons+Cons+Vowel e.g. *spray* - /spreI/

CCCVC – Cons+Cons+Cons+ Vowel+Cons e.g *splash* /splæʃ/ *spread* /spred/

CVCCCC – Cons+Vowel+Cons+Cons+Cons+Cons e.g. *texts* /teksts/

There are many other syllable structures that are not presented here but are also possible in the English language. The complexity of the English syllable poses a huge challenge to most Nigerian speakers who have less complex syllabic structures in their mothertongues.

7.4.2 Open and Close Syllables

The English syllable could be described as open or close depending on the constituents. An open syllable is one that does not have a coda but ends with a nucleus, that is, a vowel. Examples of open syllables are *car* /ka:/, *see* /si:/, *spray* /spreI/ These words have onset and nucleus but no coda.

7.4.3 Syllables and Words

English words are described based on the number of syllables that constitute them. Therefore terms such as monosyllabic, disyllabic and polysyllabic are often used to define English words.

Monosyllabic words are words of one syllable such as *man, go, eat.* Disyllabic words are words of two syllables such as *manage, redeem, assign*. Polysyllabic words are words of more than two syllables such as *preparation, informative, sanctity.*

7.4.4 Strong and Weak Syllables

A noticeable feature of the English language is that many syllables are weak while some are strong. We use the terms 'strong' and 'weak' to refer to the phonetic characteristics of syllables which could be described partly in terms of stress by saying, for example, that strong syllables are stressed while weak syllables are unstressed. When an English syllable is stressed, it is strong but an unstressed syllable is weak.

Study Session Summary

Summary

In this Study Session, we discussed what suprasegmentals are as well as what the syllable is as the minimum domain of the suprasegmentals. We discussed the components of a syllable noting the optional and obligatory parts. We also highlighted the possible syllabic structures in the English language and how they are complex when compared to some other world languages. We also dealt with the relationship between strong and weak syllables of English words especially in terms of stress

Bibliography

Reading

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Study Session 8

Stress

Introduction

We have discussed the syllable as a domain for the suprasegmental of English. We have also identified the suprasegmentals as stress, intonation and rhythm. This Study Session will discuss stress in detail.

Learning Outcomes

When you have studied this session, you should be able to:

8.1 *define* and *use* correctly the term"stress".
8.2 *use* phonetic cues to identify stressed syllable in a word.
8.3 *state*the characteristics of stress.
8.4 *explain* what fixed and free stress means.
8.5 *point out* cases where stress could be predicted in the English language.
8.6 *discuss* and exemplify stress rules as suggested by Crutended and Roach.
8.7 *produce*English compound and phrasal stress.
8.8 *voice* stress in sentences.
8.9 *differentiate* stressing of content words from grammatical words.
8.10*differentiate* the strong and weak forms of English grammatical words.

8.1 Explaining the Concept of Stress

Stressdegree of prominence [length, duration, loudness, etc.] which a syllable has more than other syllables in a word.

When an English word is pronounced, a particular syllable of the word is made more prominent than the other syllables in the same word. The syllable that is made more prominent is the stressed syllable. **Stress** has to do with pitch prominence, exertion of more muscular energy, greater degree of articulation, loudness and often, length on a particular syllable of an English word. A stressed syllable of an English word will 'stand out' among the other syllables. A monosyllabic word (a word of one syllable) often takes the stress on the only syllable it is made of. 'Man' /'mæn/ is an example of a monosyllabic word where the only syllable available, /mæn/, is assigned the stress. A disyllabic word is made of two syllables while a polysyllabic word is made of many syllables. 'Pencil' is an example of a disyllabic word while 'eradication' / erædikeiʃn/ where /-kei-/ takes the primary stress, is an example of a polysyllabic word.

The prominence associated with stress may be achieved in various ways. Some linguists associate this prominence with greater muscular energy and loudness. Other linguists have looked at this prominence as being achieved mainly by pitch. This is often called pitch prominence. It is believed that a stressed syllable must have a different pitch level from all

the unstressed syllables in its environment. It is this pitch prominence that will make it stand out from the other unstressed syllables in the word.

8.2 Phonetic Cues of Stress

What are the characteristic activities that accompany a stressed syllable? These are called phonetic cues of Stress. We have discussed the most important cue which is pitch prominence. Other cues are duration, intensity (otherwise called loudness) and segmental quality. Duration has to do with the length of a stressed syllable. A stressed syllable has tendency to be longer than an unstressed syllable.

Intensity is the third cue to stress in the hierarchy. It has to do with loudness. A stressed syllable has a tendency to be louder than an unstressed syllable. It has been found through some researches earlier conducted on phonetic cues to stress that loudness is not an important cue to stress. However from observation, especially in Nigerian context, one could notice that many Nigerians do not assign stress appropriately and there is a tendency to use loudness to depict the stressed syllable.

Segmental quality: This has to do with what happens to the segments of an unstressed syllable which most of the time is affected by reduction, elision or a change to a different sound. There is a tendency to tamper with segments in English unstressed syllables. Vowels have a tendency to get reduced to the vowel / Ə / or to have syllabic consonants as their peak. E.g. `conduct (Noun) and con`duct as a verb. The noun form has stress on the first syllable so the syllable contains the vowel /Ə / while the second syllable is assigned stress in the verb form. Because the stress is not on the first syllable anymore, the vowel gets reduced to /Ə /.

Conduct	'kɒn.dʌkt
Conduct	kən'dʌkt

Tip

The stressed syllable is a favoured one: it is articulated with greater strength, it is longer, louder and loses none of its segments [sounds]

It is very important to point out the fact that English stress is very complex when compared to other stress systems in other world languages. This accounts for some of the difficulties encountered by second language learners and users of English language. It is good to note that every word in English has a tendency to be learnt with its peculiar stress pattern.

8.3 Characteristics of Stress

Apart from the phonetic cues to stress, some basic characteristics have been identified with stress assignment in English.

8.3.1 Stress is Culminative

Stress is culminative in the English language. What does this mean? Every English word has at least one stressed syllable, even monosyllabic grammatical words are assigned stress when they occur in isolation. This means an English word must have a stress assigned to one of its syllables.

8.3.2 Stress is Hierarchical

English stress is also hierarchical in nature. There are three levels of stress in English. Primary stress is assigned to the syllable that has the higher or highest pitch prominence in a disyllabic or polysyllabic word. Secondary stress is next in prominence to primary stress. The third in the hierarchy is unstressed which has the least prominence. Therefore, a syllable assigned primary stress is the most prominent syllable in a word. It is followed by the secondarily stressed syllable; and the unstressed syllable has the least prominence. Secondary stress is important when dealing with long words with several syllables before the primary stress. Words such as 'education' will have a primary stress on 'ca' and a secondary stress on the first syllable, 'e'. All other syllables will be unstressed.

Hierarchy is a system of organization in which people or things are divided into levels of importance. A prominence hierarchy may occur among multiple stresses. For instance in polysyllabic or complex words, one syllable among the multiple syllables will be made more prominent than the others (i.e. assigned the primary stress). Another which will be next in the hierarchy of prominence to the one assigned the primary stress (the most prominent pitch in the word) will bear the secondary stress (the next prominent pitch in the word) while all other syllables left in the word will have the least prominence e.g. *eradication* has the primary stress on the syllable *-ca-* while *-ra-* takes the secondary stress. All the other remaining syllables are unstressed. Before the addition of the suffix '*-ion'*, the primary stress must have been on*--ra-* in the verb form *e`radicate*.

However, whether a syllable is assigned the primary or secondary stress, the vowel that occurs within the syllable as its nucleus retains its strong quality consequently making the syllable strong. But when the syllable is unstressed, the vowel quality is usually affected and the vowel gets reduced to / Ə / or /I/ and sometimes / □ / or gets totally elided (removed) as in the word 'chocolate' / □□kleIt /.

8.3.3 Stress is Rhythmic

Another characteristic of English stress is that it is rhythmic. In English, stressed and unstressed syllables alternate and stress clashes are usually avoided. Stress contrasts are often enhanced segmentally. How does this happen? Stressed syllables are usually lengthened due to vowel lengthening or while unstressed syllables are weakened by vowel reduction. As mentioned while discussing strong and weak syllables in previous lecture, there is a common characteristic of reducing otherwise

strong vowels to the weak sound schwa /ə/ in unstressed positions in English.

8.4 Free Versus Fixed Stress

It is good to note at this juncture that English is not the only language that employs stress. Traditionally, word stress systems have been classified along various dimensions, one of which is the distinction between fixed systems and free stress. In a fixed stress system, the location of stress is predictable. What this means is that it is rule-governed. A rule can easily predict which syllable of the word in that language is to be stressed. Another classification is free stress. Stress is not predictable by rule when dealing with a language with free stress. In this case, stress assignment is unpredictable, that is, distinctive.

Languages that restrict the placement of stress to one particular syllable within each word are said to have fixed or non-phonemic stress. Therefore, languages such as Hungarian, Turkish, Polish and French are said to have fixed or non-phonemic stress because their stress systems are relatively predictable. Let us take them one after the other. In Hungarian, the first syllable of a word is usually assigned the primary stress. Therefore, a stress rule in Hungarian will state: Assign stress to the first syllable of every Hungarian word. In Polish, the penultimate syllable, that is the syllable immediately before the last syllable, takes the stress. Therefore, there should be a stress rule in Polish stating thus: Assign stress to the antepenultimate syllable of a Polish word. In Turkish and French, the last syllable is assigned stress. This should also have a simple stress rule stating that the last syllable should be assigned stress. In these languages, stress has a demarcative function because it signals word boundaries.

In languages with free stress, however, stress does not have a demarcative function. With these languages, the prominence associated with stress is assigned on different syllables of different words, depending on the nature of each word. English is one of such languages. Stress in the English language is unpredictable. Therefore, in English, stress acquires a lexical function since it has to be marked on lexical items.

Do note, however, that there are some peculiar cases of some disyllabic noun/Verb and adjective/verb pairs in English, where the first syllable is assigned the primary stress in the noun or adjective form and the second syllable in the verb form. In these limited instances, English stress becomes predictable. Do not forget that these words form a close system in English. Let us look at these pairs together:

Nouns/ Adjectives	**Verbs**
EXport	exPORT
CONduct	conDUCT
PERfect	perFECT
REcord	reCORD
FREquent	freQUENT

CONcert conCERT

Though, English stress is predictable in the noun/adjective and verb forms in the group, it does not imply that English has a predictable stress pattern. This is because they form a close set since not so many words are involved. Therefore, there is no basis for such generalization.

Hint

English stress is largely unpredictable, arbitrary.

8.5 English Word Stress and Suggested Rules

English stress has been acknowledged to be complex due to the fact that the syllables that are assigned stress in English words cannot be predicted arbitrarily as is the case with certain languages such as French where the last syllables of words are often assigned the stress. This means that English stress does not submit easily to stress rules as languages with stress rules do. Some linguists, however, still believe that a set of rules with exceptions would do better than viewing stress as a property of individual words, each to be learnt with its distinct pattern. We will now look at some of the rules listed by some of these linguists who believe that a complex list of rules will still be better than taking each word as having its peculiar stress rule.

8.5.1 Rules as Suggested by Crutenden

Crutenden (1986) notes that languages (such as English), which do not use stress delimitatively and use it distinctively only to a very restricted extent, may have their word stress predictable but only by a set of complex rules. These rules, which may have many exceptions, still prove a better option than not having rules at all. To Crutenden, a general rule with exceptions is still more economical than listing every word with its unique pattern which will therefore imply listing everything as an exception. Crutenden therefore proposes a set of rules for English word stress, depending on the class of the word (i.e. whether the word is a noun, verb, adjective etc.). He also observes morphological features such as stems, suffixes etc.

i. Verbs and Adjectives

a. Stress on the penultimate syllable when the final syllable has a short vowel in an open syllable or is followed by not more than one consonant e.g. *sur`render, `polish, as`tonish.*
b. Otherwise stress on the final syllable (subject to rule (iii) below) e.g. *main`tain, se`vere, de`fend.*

ii. Nouns

a. If the final syllable has a short vowel, disregard it and apply rules under (i) above e.g. *`elephant, `moment, comp`lexion.*
b. If the final syllable has a long vowel, it is stressed (subject to (iii) below) e.g. *po`lice, ma`chine, ca`tarrh.*

iii. Words of more than two syllables with long final vowels should be stressed on the antipenultimate syllable e.g. *`anecdote, `fahrenheit, `pedigree.*

However, there are apparently a number of exceptions to these basic rules of stress assignment in English discussed by Crutenden (1986). Such exceptions include words such as *po`sition, `window, kanga`roo.*

He also discusses the influence of suffixes on stress assignment in English. This is attributed to the fact that stressing in English often involves counting the syllables backward. He identified three types of suffixes, which are:

- suffixes that leave the stress on the stem (e.g. *ful`fil /ful`fillment, `usual/`usually);*
- suffixes that take the stress themselves (e.g. *`limit/limi`tation, `china/chi`nese);*
- and suffixes that shift the stress on the stem (e.g. e`conomy/eco`nomic, `apply, appli`cation).

8.5.2 Rules as Suggested by Roach

Now, let us look at the rules proposed by Roach (1990). He also makes an attempt to establish the rules of word stress in English. With two syllable words, either the first or second syllable is stressed (not both). If the word is a verb, and the second syllable contains a long vowel, or diphthong, or it ends in more than a consonant, that second syllable is stressed e.g. *a`pply* / ə`plaI/, a`*rrive* / ə `raIv/, a`*ttract* / ə `trækt/. If the final syllable contains a short vowel and one or no final consonant, the first syllable is stressed e.g. *`enter/* /`entə /, *`envy* / `envI /, *`equal* /`Ikwəl/. The final syllable is also unstressed if it contains / ə□ / e.g. *`follow* /`f□lə□ /, *`borrow* /`b□rə□ /, *`window* /`wIndə□ /. Roach listed all other verbs as exceptions.

Roach further claims that the rules above can also be applied to adjectives e.g. *`lovely* / `l□vlI / *di`vine* / dI`vain /, *`even* / `Ivn /, *cor`rect* / k□`rekt /. As with the other rules, there are also exceptions e.g. *`honest* / `□nIst / *and `perfect* / `pɜ:fIkt / both end with two consonants and yet they have the first syllables assigned the stress.

Nouns, according to Roach, also have their stress assigned to the first syllable when the second syllable contains a short vowel, otherwise the second syllable is assigned the stress e.g. *`money* /`m□nI/, *e`state* /I`steIt/, *ba`lloon* /bə`lu:n/. Other two-syllable adjectives are also believed to behave in like manner.

Three-syllable words have been observed to be more complicated. If the word is a verb and the last syllable contains a short vowel and ends with not more than one consonant, that syllable will be unstressed. The stress will be assigned to the penultimate syllable (i.e. the preceding syllable) e.g. *en`counter* / Iŋ`kauntə /, *de`termine* /dI`tɜ:mIn/. However, if the final syllable contains a long vowel or diphthong, or ends with more than one consonant, that final syllable will be stressed e.g. *enter`tain* /entə`teIn/, *resu`rrect* /rezə`rekt/. With three-syllable nouns, when the final syllable contains a short vowel or / ə□ /, it is unstressed. But if the syllable preceding this final syllable ends with more than one consonant, the middle syllable will be stressed e.g. *`potato* /pə`teItə /, *disaster* /dI`za:stə /. When the final syllable of a three-syllable word contains a short vowel and the middle syllable contains a short vowel, and ends with

not more than one consonant, the final as well as the middle syllable is left unstressed and the first syllable is assigned the primary stress e.g. `*quantity* / `kw□ntItI /, `*cinema* / `sInəmə /. The same rule also applies to adjectives e.g. *opportune* / `□pətju:n /, *derelict* / `derəlIkt /.

What has been observed from the complex rules proposed by Crutenden (1986) and Roach (1991) is that they could only guide as hints to the complex stress system of English. They are cumbersome and made more complex by their many exceptions though they possess many exceptions.

8.6 English Compound and Phrasal Stress

Compound words are two words that are used as one word. More technically, a**compound** is a word composed of more than one free morpheme. It functions as noun that is, giving a name to a person, an object, a place etc. Examples of compound nouns are, headmaster, grandfather, black board, blackbird.

Phrase, however refer to a group of words. (note that a phrase will function as words not a word like a compound). However, stress patterns may distinguish a compound word from a noun phrase consisting of the same component words.We can change the meaning of the words that combine to form compound words that give names to people, objects and places by changing the place of the stress. For example, ***`black, bird*** with the primary stress on the first word 'black----' and the secondary stress on the second word '----bird' is the name of a particular kind of bird. But ***black `bird*** with the primary stress on the second word '-----bird' and the secondary stress on the first word black----means any bird that is black in colour.

This means that when such words give names to people, objects, places (as nouns), you should put the major stress on the first word. But when they have other meanings, you should stress the second word.

Let us look at the following words and their meanings:

As nouns naming people, places and objects **(compounds)**	`black,bird (the name of a particular bird)	`grand,father your parent's father	`light,ship a ship made like a light house
As a group of words with other meanings (phrases)	,black `bird (a bird that is black)	,grand `father (a father that is grand)	light` ship (a ship that is light)

We should note however that there are exceptions to this rule. There are some compound words with the primary stress on the second free morpheme /element rather than the first. Examples of such words are, down`stairs, ,mince-`pie, ,full-`grown.

8.7 Hints on English Stress Assignment

There are no fast rules regarding the syllable to be stressed in an English word. A learner of English has to learn the stress pattern alongside the vocabulary. Some hints however may assist. These are:

1. Prefixes and suffixes are not usually stressed e.g. –ian, -ed, -s, -al, -ic, -less, in-, pre-, etc.
2. Words that end with –ial, -ian, -ic, -ion, often take their stress marks on the penultimate syllable (i.e. the syllable preceeding the last syllable) e.g. co`lonian, ci`vilian, eco`nomic and edu`cation.
3. Words ending with the suffix -ity take their stress on the antepenultimate syllable e.g. inferi`ority, `unity, cap`tivity.

8.8 Sentence Stress

Thus far in this Study Session, we examined stress, its characteristics, as well as its systems. Our concern was primarily with word stress. In this section, we will be laying emphasis on sentence stress. Stress in the English language displays some characteristics when you are no longer dealing with isolated words but word groups, that is, words in company.

We have discussed word stress and now know that one cannot predict where stress will be on an English word with a single simple rule. However, each word has its stress pattern that remains valid. You should note also that when such words occur in sentences, that is, when they occur as part of a sentence, the stress assigned to the words become gradable. You should still remember that one of the characteristics of English stress is that it is hierarchical. Therefore, in a word group or sentence, some one-syllable words that are usually stressed when they occur in isolation become unstressed while others have the primary stress they take in isolation converted to tertiary stress with just one word of the word group taking the strongest stress.

All lexical items of the open classes (such as nouns, adjectives, adverbs and verbs) have an inherent stress pattern while those of the closed classes (such as pronouns, conjunctions, determiners, prepositions, and auxiliary verbs) are often unstressed. Let's look at this sentence together:

Mary is a very beautiful lady.

In the sentence, *Mary, beautiful* and *lady* will be assigned stress while *is* and *a* will be left unstressed. In addition to this, the stress to be assigned to the three content words will be graded such that *lady*, the last stressed syllable in the group, will be assigned the nuclear stress which is the most prominent stress while *Mary* and *beautiful* will be assigned tertiary stress, a prominence that is not as outstanding as that of lady.

These one-syllable closed class words of English referred to here as grammatical words therefore have more than one pronunciation – one strong and the other weak. The following are the grammatical words of English in their strong and weak instances of pronunciation and the environments in which each variant occurs.

Tip

How stress behaves in a single word is different from how it behaves in a group of words. In a group, stress is reassigned. Stress may be deleted from some syllables which are originally stressed and transferred to another. Grammatical words are often unstressed.

8.9 The Strong and Weak Forms of Standard English Grammatical Words

Words	Stressed Strong Forms	Unstressed Weak Forms	Contexts of weak variants
Determiners			
'a' (used only before a consonant sound)	/eI/	/ ə /	All weak contexts
'an' (before vowels)	/ æn /	/ ən/ / n /	Every weak context except after /t/ or /d/
'the'	/ ðiː/	/ ðə / / ðI/	Before consonants Before vowels
'some'	/ s□m /	/ səm /	All weak contexts
Conjunctions			
'and'	/ ænd/	/m/ /ŋ/ /ənd, ən/	After labials After velars Other weak contexts
'that'	/ ðæt/	/ ðət/	All weak contexts
'but'	/b□t/	/ bət/	All weak contexts
'or'	/ □ː/	/ □ /	All weak contexts
Prepositions			
'to'	/tuː /	/ tə / / t□ /	Before consonants Before vowels
'for'	/ f□ː/	/ fə / / fər /	Before consonants Before vowels
'from'	/fr□m/	/ frəm /	All weak contexts
'of'	/ □v /	/f/	Before voiceless consonants

		/ əv /	All other weak contexts
'by'	/ baɪ /	/bə/	All weak contexts
'at'	/ æt /	/ ət /	All weak contexts
Pronouns			
I	/ aɪ /	/ ə /	All weak contexts
'me'	/ mi: /	/ mə /	All weak contexts
'my'	/maɪ/	/ mə /	All weak contexts
'you'	/ ju: /	/j□/ /jə /	Before vowels Before consonants
'he'	/hi:/	/ I /	All weak contexts except at the beginning of a word group where /hi: / is used.
'his'	/ hɪz /	/ Iz /	All weak contexts except at the beginning of a word group where /hɪz/ is used.
'her'	/ hɜ:/	/ ə /	All weak contexts except at the beginning of a word group where /hɜ:/ is used.
'him'	/ hɪm /	/ Im /	All weak contexts
'their'	/ ðeə /	/ ðə/	All weak contexts
'them'	/ ðem/	/ ðəm/	All weak contexts
'us'	/ s/	/ əs/	All weak contexts
Auxiliary Verbs			
'shall'	/ ʃæl /	/ ʃəl, ʃl /	All weak contexts
'should'	/ ʃud /	/ ʃəd /	All weak contexts
'would'	/ wʊd /	/ d / /wəd/	After I, he, she, we. you, they Every other weak context
'will'	/wɪl/	/ əl /	After vowels and /l/

		/ l / / l /	After l, he, she, we, you, they After consonants except /l/
'must'	/m□st/	/ məst /	All weak contexts
'are'	/ a: /	/ ə / / ər /	Before consonants Before vowels
'were'	/ wɜ:/	/ wə /	All weak contexts
'was'	/ w□z /	/ wəz /	All weak contexts
'is'	/ Iz /	/ s / / z / / Iz /	After /p, t, k, f, θ/ After vowels and voiced consonants except /z,□,d / Used after / s, z, ʃ,□ , □, □ /
'do'	/du:/	/ d□ / / də /	Before vowels Before consonants
'does'	/d□z/	/dəz/	All weak contexts
'am'	/æm/	/ m / / əm /	After I All other weak contexts
'has'	/hæz/	/ əz / / s / z /	After / s, z, ʃ,□ , □□ / After /p, t, k, f, θ, / All other weak contexts except at the beginning of a word group where /hæz/ is used.
'have'	/hæv/	/ v / / əv /	After I, we, you, they All other contexts except at the beginning of a word where /hæv/is used.
'be'	/bi:/	/ bI /	All weak contexts
'had'	/hæd/	/ d / / əd /	After I, he, she, we, they, you Every other context except at the beginning of a word group where /hæd/ is used.

'can'	/kæn/	/kən, kn/	All weak contexts

8.2.1 Circumstances Warranting Use of Strong Forms

It should be noted that though the weak forms are used when these words occur in a group, the strong forms are used in the following circumstances:

- When that word is emphasized in the utterance e.g. Mary gave it to *her* (not *him*).
- Whenever the grammatical word occurs as the last word in the group e.g. 'John will'. *Him, his, her, us,* are exceptions to this exception because they weaken in word final positions.

Except when used contrastively, the words illustrated above are usually unstressed when they occur in sentences. However, when they constitute the focus of information they get stressed e.g. I 'put this 'dress '**ON** the 'bed (not **under** the bed)' Jide loves '**THOSE** 'shoes (not **these**).

It should be noted here however that contrastive stress as use of stress for focusing on units of special information in sentences does not deal with only grammatical Words. Content words may also receive stress contrastively as in the sentence 'KATE borrowed my car' implying that Kate, not Mary or any other person, borrowed the car. If the contrastive stress shifts to 'borrowed' as in 'Kate 'BORROWED my car', the implication will be that Kate did not steal the car.

Study Session Summary

Summary

In this Study Session, we have been able to discuss what fixed and free stress means by differentiating fixed stress as stress systems with predictable stress and free stress as stress systems with unpredictable stress. Languages with fixed stress have a simple stress rule among their phonological rules to guide the speakers while those with free stress have very complex rules with many exceptions. We have also learned that English is a free stress system. We have identified some phonetic cues to stress such as pitch prominence, duration, intensity and segmental quality. We discussed basic characteristics of English stress such as English stress being culminative, hierarchical and rhythmical. Compound and phrasal stress have been discussed and differentiated while hints have been given on instances where stress could be predicted in the English language.

We also discussed sentence stress, differentiating it from word stress, pointing out the hierarchical nature of English stress which makes it important to re-assign stress when words occur together in a word group. We learned how to differentiate stressing of content words from grammatical words. We also addressed the strong and weak forms of English grammatical words and the various contexts for the variants of the weak forms.

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Study Session 9

Intonation

Introduction

The three English suprasegmentals of pitch (stress, intonation and rhythm) are interrelated. The syllable is central to them and they are language interwoven features. Though we study language in portions for ease of learning, it does not mean that when stress is applied, intonation is not, or rhythm is ignored. They all function together. In this Study Session, we will discuss intonation. Note that in our study of intonation, we shall need our knowledge of stress because intonation relies heavily on stress.

Learning Outcomes

When you have studied this session, you should be able to:

9.1 *explain* the concept of intonation.
9.2 *discuss* the components of a tone group.
9.3 *produce* different possible configurations of tone group.
9.4 *state*the functions of tune and draw a tune pattern for it.

9.1 Explaining the Concept of Intonation

It is important for you to know at this juncture that the spoken language does not only consist of variations in sounds and accentual (stress) patterns alone. A very vital characteristic of spoken language is the musical pitch of the voice. When English sentences are made, they are characteristically uttered with variation in pitch (which may either rise or fall). This is referred to as Intonation.

Intonation is often an area of difficulty for second language users of English who have tonal languages as their first language. It is good to know the difference between intonation and tone. For Nigerian students, this is important because most Nigerian languages are tonal, not intonational like English. Intonation is used in all languages (whether tonal or intonational but the uses differ). In the case of tonal languages, it is applied to contrast the meaning of individual words (e.g. Yoruba, Igba (calabash) Igba (time). In the case of an intonational language as English, intonation is not a property of the word. It operates at a level above the word, the tone group. Intonation affects grammatical units such as phrases, clauses and sentences. Do not forget, however, that there are instances where a single word could be functioning as a complete meaningful unit. In this instance, the word will be taken as a tone group.

Yes as a response to the question:*Are you travelling tomorrow?* is a complete thought. It is therefore considered an intonation group.

(**Note**: Chinese, Japanese and most African languages are tonal.)

Consequently, the pitch pattern of an English sentence will be referred to as its intonation. Intonation patterns carry different information about sentences, depending on whether the utterance is a question or a statement, whether or not there is an important word to be emphasized in the utterance, and the attitude of the speaker towards what is being said or the hearer e.g. *Yes* with a falling tune is emphatic while *yes* with a rising tune is either doubtful or a question. Before looking at the various functions of intonation tunes, let us take a look at the components of a tone group.

Tip

In tonal languages, intonation function on individual words; in intonational languages, it functions on a tone group.

9.2 Components of a Tone Group (TG)

In our previous discussion, we learned that a tone group is the minimum domain of intonation as opposed to tone which has the lexical word as its domain. A tone group may be a lone word utterance, a phrase a clause or a sentence. Earlier, you came across the example of the word *yes*. *Yes*, when uttered alone could constitute a TG. Other grammatical constituents that usually coincide with a TG are phrases, clauses and sentences.

The TG has four components which are the (optional) pre-head, head, (obligatory) tonic syllable and (optional) tail. Now, let us take these components one after the other, starting with the pre-head. The pre-head refers to all the unstressed syllables that come before the first stressed syllable of a tone group. Let us look at the following example:

TG: That is the `wealthy `man that `gave his `beautiful `daughter to her.

It is good to note here that your knowledge of sentence stress will really help here. You should not forget that in a word group, content words are stressed while grammatical words are left unstressed. Let us mark stress on the appropriate syllables of the sentence.

That is the `wealthy `man that `gave his `beautiful `daughter to her.

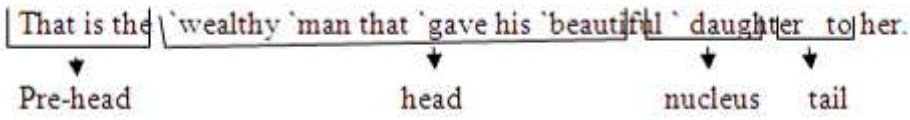
The **pre-head** for this intonation group is ‘That is the’ because the first stressed syllable of this group is ‘wealthy’.

The **head** is taken from the first stressed syllable to the last stressed syllable in the group. The head of this group is `wealthy `man that `gave his `beautiful’. It is everything after the pre-head up to the last stressed syllable.

The **tonic syllable or nucleus** is the last stressed syllable in the group. As the term suggests, is the only obligatory part of the tone group. Though

other parts are optional (not present in all tone groups), the tonic syllable is obligatory and indispensable. It is the tonic syllable that is assigned the pitch direction. If the pitch should fall, it does on the tonic syllable. If it should rise, it does on the tonic syllable. The tonic syllable of this tone group is the first syllable of daughter which is 'daugh…'. It is the last stressed syllable in the group.

The last of the components is the **tail** of the TG. The tail is every unstressed syllable after the nucleus. Just like the tail of an animal, it goes in whichever direction the pitch of the nuclearly stressed syllable (i.e. the tonic syllable) goes. The tail of this TG is '…ter to her'. Now let us analyze the entire components together for clarity.



As earlier stated, a TG may not have a pre-head, head and tail; it must have a tonic syllable or nucleus. The nucleus is also called the tonic syllable, so do not be confused about the two terms. Do not forget that it is usually the last stressed syllable in the TG and it is usually on this syllable that this pitch direction is effected. Study the following:

TG without a pre-head: `Mary `married `John.

TG without a Head: He is `handsome.

TG without a tail: `Mary `married `John.

Don't be confused. The pre-head is constituted of all the unstressed syllables before the first stressed syllable. Not all tone groups have it. The head starts from the first stressed syllable and ends on the last stressed syllable. Again, not all tone groups have it. The nucleus is the last stressed syllable. A tone group must have it. The tail is every unstressed syllable after the nucleus. Not all syllables have it.)

Other Possible Compositions of Tone Group

We discussed earlier on that a word could constitute a TG. Let us look at the word 'unfortunately' in the sentence 'Unfortunately, he died'. In this sentence, there are two tone groups. *Unfortunately* and *he died*. Two different tunes should go with the two tone groups. *Unfortunately* should be assigned the rising tune while *he died* should be assigned the falling tune.

un `for tunately

prehead Nucleus Tail

The word above, which often in speech constitutes a TG, has 'un-' as a pre-head because it is unstressed, '-for-' as the nucleus or tonic syllable, being the last' and only stressed syllable of the word, and '-tunately-' as the tail, being all that is left after the tonic syllable.

It should be noted that the tail must go in the direction of the tonic syllable. If the falling tune is assigned to the tonic syllable, the tail will continue the fall but if the rising tune is assigned, the tail will continue to rise.

9.3 Intonational Tunes

You know already that intonation is the variation in the pitch of utterances. When someone says, “It is not what he said that angered me but HOW he said it”, the issue is usually an intonation misperception or undertone. In this section, we will discuss the tunes and the various functions they perform. Do note that English intonation is more complex than what you will learn here. However, as an introductory course, the basic tunes and functions we shall discuss here will be adequate

There are basically two intonational tunes used in the English language. These are the rise tune and the fall tune. There are however variations of each type to suit the purpose for which they are being used e.g. fall, high-fall, low-fall, high rise, low rise, rise-fall, fall rise, etc.

The appropriateness of an intonation pattern for any sentence will depend on

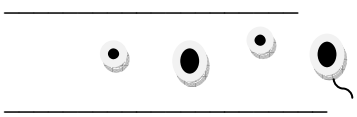
1) the accentual meaning;
2) the grammatical type of sentence;
3) the attitude of the speaker; and
4) the general and (more specifically) the intonational context

(Gimson, 1975).

Intonation performs different grammatical functions such as differentiating between types of sentences such as statements, wh-questions (which are questions beginning with when, where, what, why, how, etc.), yes/ no questions technically called polar questions (which require the respondents to either answer 'yes or 'no'), commands, warnings and requests, exclamations and greetings.

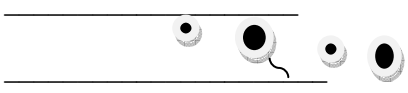
Intonation also performs an accentual function when a particular word in the sentence needs to be given prominence above the others. In this case, the word, not minding whether it should customarily be the tonic syllable (i.e. the last stressed syllable) *or* not, receives the pitch change and automatically takes up the position of the TS e.g.

He 'bought a 'car.



Ordinarily, 'car' being the last stressed syllable of this sentence should be the TS but if 'bought;' is to be made prominent, (usually for contrastive purposes, as implying that he did not 'sell’ a car) then it automatically takes on the function of the TS because the pitch direction will now change on the monosyllabic word 'bought'.

He 'bought a 'car



Do learn how to draw the diagram above for tone groups.

 means unstressed

means stressed but not the tonic syllable

means tonic syllable

9.3.1 Functions of the Tunes

Let us take a look at the functions of the various tunes, starting from the fall tune.

Fall Tune

It is used to show finality, that is, that there is no other information expected in that utterance. We use the falling tune for the following:

Simple statements
This is because statements often give the impression of finality. There is often no additional information expected.

The man is a genius

Mike loves to play basketball.

Mark loves to read Harry Porter.

Simple commands
A command is an order that must be obeyed. This is usually uttered by a superior to someone under his control.

Close the door.

Erase the drawing.

Kick the ball.

Wh-questions
Wh-questions are questions that start with words such as *what, who, whom, why, where, how* etc. For this type of question, the tune should fall on the last stressed syllable.

What is your name?

Who is your teacher?

When is your examination?

Exclamation
An exclamation is something you say suddenly and loudly because you are surprised, excited or angry.

Whoa!

Fantastic!

Incredible!

These are uttered with the FALLING tune.			
Simple statements	**Simple commands**	**Wh-questions**	**Exclamations**
The man is a	Close the door.	What is your	Whoa!

genius. Mike loves to play basketball. Mark loves to read Harry Porter.	Erase the drawing. Kick the ball.	name? Who is your teacher? When is your examination?	Fantastic! Incredible!

Rising Tune

The rising tune is used for polar questions, polite statements, changing statements to questions etc. Let's start with polar questions.

Polar Questions
These are questions that require either a yes or no response.

Are you the Prince we are looking for?

Will you visit your friend on Monday?

Did you eat rice and fish at the party?

Polite Requests
This is to politely or formally ask for something without offending the person you are addressing.

Please close the gate.

Could you shift for me?

Pass the salt, please.

Changing statements to questions
You can use the rising tune to change sentences that have the structure of statements to questions.

Statement: You're a teacher.

Question: You're a teacher?

Statement: They love singing.

Question: They love singing?

Combination of the Fall and RiseTune

We also need to combine the rise and fall tunes when certain utterances are made.

Rise/Fall Combination

To separate clauses

These two tunes are combined when there are two or more than two clauses in a sentence. The incomplete part is said with a rising tune while the clause that completes it is said with a falling tune.

Whenever the cloud gathers, it rains.

As I was looking around for a stone, I saw a snake.

In as much as you are honest, you need not fear the panel.

Listing Items

The rise/fall tune is also used when listing items. The rise tune is used on each item until we get to the last item which takes the fall tune.

One, two, three and four.

He bought a pair of shoes, clothes and ties.

She got some pencils, erasers and biros.

These utterances are uttered with the Rising and Falling Tunes Combined.	
To separate clauses	**Listing items**
whenever the cloud gathers, it rains. As I was looking around for a stone, I saw a snake. In as much as you are honest, you need not fear the panel.	One, two, three and four He bought a pair of shoes, clothes and ties. She got some pencils, erasers and biros.

Fall /RiseCombination

Tag Questions

Tag questions are question that are formed by adding a phrase such as 'can't we?', 'wouldn't he?', or 'is it?' to a sentence.

When we produce utterances that end with question tags, we use the combined fall/rise tune. The falling tune will be on the statement part while the rising tune will be assigned to the question tag, which is a yes/no question.

Statement: He is a genius. Fall tune
Question tag (Yes/No question): Isn't he? Rise tune

These two have to be combined such that the first part will take a fall tune as statements do and the tag will take the rise tune as yes/no questions do.

He is a genius, isn't he?

Mary will marry John, won't she?

I can use your book, can't I?

These utterances are uttered with the Falling and Rising Tunes Combined.
He is a genius, isn't he?
Mary will marry John, won't she?
I can use your book, can't I?

9.4 Attitudinal Function of Intonation

We can use intonation to show our attitude towards the person we are talking to or what we are putting across. Attitudinal function of intonation is more complex than what is discussed here. But these hints will guide us in learning to use some basic ones.

I. Indifference – Low Rise tune

You may come.

I may dance.

John could do it.

II. Surprise – Rise Tune

It is true.

Mary married John.

Nigeria won the Olympic Gold Medal.

III. Uncertainty and doubt – Rise tune

She could make it here in the morning.

He might be of help.

John could play the role.

Warm Greeting – High/Fall tune

Good morning

Good afternoon

Good evening

Good day

Nice weather

IV. Routine Greeting (not warm) – Low Rise Tune

Good morning

Good afternoon

Good evening

Good day

Nice weather

Indifference – Low Rise Tune	Surprise – Rise Tune	Uncertainty and Doubt – Rise tune
You may come. I may dance. John could do it.	It is true. Mary married John. Nigeria won the Olympic Gold Medal.	Well, she could make it here in the morning. He might be of help. John could play the role.
Warm Greeting – High- Fall Tune	**Routine Greeting (Not Warm) – Low RiseTune**	

Good morning	Good morning
Good afternoon	Good afternoon
Good evening	Good evening
Good day	Good day
Nice weather	Nice weather

9.5 Discourse Function of Intonation

Intonation also performs a discourse function on utterances. For example, in context such as in the sentence 'I am taking the dog for a walk', 'dog' is more likely to be the nucleus of the sentence because it is predictable that 'dog' often collocates with 'walk'. However, in the case of the sentence 'I am taking the dog to the vet', vet' is more likely to be the nucleus. This is because though 'dog' and 'vet' collocate, its occurrence is not as predictable as 'dog' and 'walk' since taking the dog to the vet is not an everyday affair.

Study Session Summary

Summary

In this Study Session, we learned the definition of intonation as the variation of pitch of utterances. We also noted that all languages use intonation but that the use varies with tonal and intonational languages. We also discussed the components of intonation as (optional) pre-head, head, (obligatory) tonic syllable and (optional) tail. We emphasized that the obligatory component of the tone group is the tonic syllable and that it is on this tonic syllable that the tune, whether falling or rising, is assigned.

We also discussed the basic intonation tunes and the various functions they perform such as grammatical, accentual and attitudinal functions. The basic intonation tunes are the rise and the fall tune which have variations such as fall, high-fall, low-fall, high rise, low rise, rise-fall, fall rise, etc.

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Study Session 10

Standard English Rhythm

Introduction

Rhythm is a regular repeated pattern of sounds or movements. The languages of the world have different kinds of rhythm determined by features such as stress and tone. However, our main concern is the English language. We will discuss the rhythm of English in this Study Session. Nevertheless, we will refer to the rhythm of some of our tonal Nigerian languages from time to time so we could appreciate the difference in rhythm and understand the possible causes of the deviational use of English rhythm in Nigeria.

Learning Outcomes

When you have studied this session, you should be able to:

10.1 *define* rhythm.
10.2 *discuss* syllable–timing rhythm.
10.3 *discuss* stress-timing rhythm.
10.4 *discuss* English rhythm and give examples.

10.1 Meaning of Rhythm

As pointed out in the introduction to this lecture, rhythm is the recurrent movement of speech. It has a regular pattern that is usually determined by stress or tone, depending on the characteristics of the language involved. The recurrent patterned movement is often referred to in the literatures as timing. The idea is that the timing of the regular movements is determined by stress for some languages and tone for others. There are, therefore, stress-timed languages and syllable-timed languages.

While the rhythm of a Nigerian language like Yoruba is known as syllable-timed, many as a stress-timed language have viewed English. This implies that the stress pulses supply the periodic recurrence of movement. This results in the stressed syllables occurring at regular intervals of time. The succession of stressed and unstressed syllables or words in the stream of English speech produces a natural, even fairly regular, rhythm (Wales, 1989). Consequently, the natural rhythm of English is seen as providing roughly equal intervals of time between the stresses when unaffected by factors such as hesitation (which may slow down the speaker) or excitement (which may speed him up).

In more technical terms, English is described as a stress-timed language because English rhythm has an isochrony based on stress.

10.2 Rhythm Group or Unit

Rhythm group stretch of utterance from one stressed syllable to the last unstressed syllable before the next stressed syllable.

The stretch of utterances from one stressed syllable to the last unstressed syllable before the next stressed syllable is referred to as a rhythm group or unit in English. Let us look at the following English sentence to buttress the point. All utterances written together belong to the same rhythm group. Do note the position of the stresses because they determine what words or syllables are 'packed' together to get the typical rhythm of English which is based on stresses. It is equally good to remember what we learned under sentence stress about stressing content words and unstressing grammatical words in English word groups. That will help in knowing why some words are stressed while others are not stressed.

`Mary and `John are to `dance at the `show.

`Maryand `Johnareto `danceatthe `show

1 2 3 4

Based on the stresses, there are four rhythm groups or units in this sentence. You must have noticed that the number of the syllables that make up the rhythm units vary – one has one, another one has two, two have three each. Therefore, in an English rhythm group, all syllables are not equal. A stressed syllable is generally longer than an unstressed one, especially if the unstressed syllable has a reduced vowel.

10.3 Perspectives on Rhythm

Now we know some languages (such as Yoruba) are termed syllable-timed while others (such as English) are termed stress-timed. However, the dichotomous classification of languages into syllable-timed and stress-timed has been argued against by some linguists. Crutenden (1986) upholds the theory of stress isochrony in English but claims that all the syllables in a rhythm group cannot be compressed to be equal to the next rhythm group in exact timing, especially if there are many syllables involved. He argues further that when compared with the so-called syllable-timed languages, the classification is not so sharp. This is because all evidence suggests that both stresses and the number of syllables influence rhythm in all languages but particular languages have a tendency to give greater or lesser weight to the stress factor.

Another linguist, Knowles (1974), also argues that viewing English rhythm in terms of isochrony is a misinterpretation of rhythm because the intervals between accented syllables are 'more equivalent than equal' and isochrony is rarely produced in natural conversational English. Therefore, it is good to note at this juncture that saying all syllables in a rhythm group will be produced within the same time limit as the next irrespective of the number of syllables in each rhythm group is not realistic. We can only take the timing as fairly regular, not exact. Stress-timing is more valid as a perception phenomenon than it is in precise physical terms in speech production.

There have been arguments against the dichotomous classification of languages into syllable-timed and stress-timed. It has been viewed as

misleading since some languages of the world have shown the signs of being both syllable-timed and stress-timed e.g. Spanish. English rhythm is however more stress-timed than syllable-timed.

A different approach to the description of English rhythm was proposed by Bolinger (1981). Rather than view English rhythm as a result of stress timing, he views it in terms of the patterns made in any section of continuous speech by a mixture of syllables containing full vowels with syllables containing reduced vowels. What this means is that, stress will not determine the boundaries of rhythm groups but full vowels.

With Bolinger's theory, the basic unit of rhythm is a full 'vowelled' syllable together with any reduced 'vowelled' syllables that follow it. Each rhythm unit must therefore contain only one full 'vowelled' syllable. However, this theory is not as widely accepted as the stress-timing theory, which is still used by most linguists as a description for Standard English till now.

10.4 Paramount Trait of Rhythm

It therefore becomes important to note at this juncture that whatever form of description is employed for Standard English rhythm, the rhythm effect has a lot to do with stressing and unstressing. This is because all stressed syllable contain full vowels. Majority of the unstressed syllables contain reduced (weak) vowels. Though some full vowels occur in unstressed syllables, they are not so many. A major characteristic of the spoken English language is to have strong full vowels in stressed syllables and weak reduced vowels in unstressed syllables.

It is also good to note that when we speak English, some syllables are said longer and louder than others. These are the strong syllables. The ones that are not as long and loud are weak syllables. English combines the strong and weak syllables to have a particular melody. This is called its rhythm. Weak syllables often contain the sound / Ə / or / I/. / Ə / is the weakest sound in English. It is a sound that is not in many Nigerian languages. So it is often difficult for Nigerians to produce.

10.5 Exemplifying Rhythm Group

Let us take a look at the following sentences and their division into rhythm units or groups.

Sentence:	The `man is un`fortunate.
Rhythm groups:	The `manisun `fortunate
Sentence:	`Mary is a `beautiful `girl.
Rhythm groups:	`Maryisa `beautiful `girl.
Sentence:	`What are the `ladies `doing?
Rhythm groups:	`Whatarethe `ladies ` doing?
Sentence:	`See `what I `bought for you.
Rhythm groups:	See `whatI `boughtforyou.

The words typed together should be read together to achieve the isocrony of English rhythm which is based on stresses. Each group should be

produced equal or almost equal in timing to the others not minding the number of words it contains.

Study Session Summary

Summary

In this Study Session, we highlighted what rhythm is and established the difference between the rhythm of English and the tonal Nigerian languages and why they are different. We discussed syllable –timing as well as stress-timing and emphasized that stress-timing affects English rhythm while syllable-timing affects tonal languages. We also learned the rhythm unit or word. We emphasized that this timing is more perceptual than physical.

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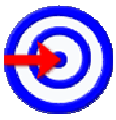
Study Session 11

Nigerian English Suprasegmentals

Introduction

This course deals with Phonetics and phonology from the perspective of Standard English. However, because English is a second language in Nigeria and Nigerian English has been established through various researches to be different from the standard, especially the spoken form, there is a need to take a look at Nigerian English, especially at the suprasegmental level.



Learning Outcomes

When you have studied this session, you should be able to:

11.1 *identify* 5 English sounds that may be difficult for people from at least 2 different language groups in Nigeria to produce.

11.2 *explain* the Nigerian stress patterns based on previous research results.

11.3 *discuss* Nigerian English intonation patterns.

11.4 *account* for reasons why Nigerian English does not use the rhythm of Standard English.

11.1 Nigerian English Consonants and Vowels

It seems a matter of less controversy that Nigerian spoken English has its peculiar features at the segmental as well as supra-segmental levels. Some consonants have been identified as difficult for Nigerian speakers to produce. These are often identified with particular language groups such as the Yoruba second language speaker encountering problems in the production of /z, □,v, □ □ ð /. The Hausa speaker is known to use /p/ and /f/ in free variation. However, it has been observed that at the segmental level, the problem is more with vowels than consonants. Let us take a look at some of these problems.

(**Tip**: These consonants are different for many speakers of Nigerian English to pronounce: /z, □,v, □ □ ð /. Hausa speakers of Nigerian English confuse /p/ with /f/ and vice versa.)

Dunstan (1969), one of the foremost linguists to work practically on Nigerian spoken English, claims speakers of the Nigerian languages have particular difficulty with vowels because only few of the Nigerian languages have more than seven vowels while some even have fewer. Therefore learning to make the number of contrasts required for English

is hard for most Nigerian English speakers. It is general knowledge that vowels that are not in the Nigerian languages are usually difficult for Nigerians to produce.

Short vowel and long vowel distinctions are not usually observed in Nigerian English. Therefore words such as *shot* and *short* are produced precisely the same way. This may affect intelligibility since these words have different meanings. Let us look at more examples of such words:

Shot /□□t/ an act of firing a gun

Short / □□□t / someone who is short is not as tall as most people

Live /l□v/ if you live in a place, you have your home there

Leave /li:v/ to go away from a place or a person

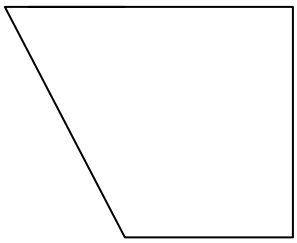
11.2 Vowels / ə / and / I / in Standard English and Nigerian English Usage

There are four different sounds that could be the peak of the syllable in English. While discussing the syllable, we learned that vowels constitute the peak of syllables. However, while dealing with unstressed syllables, which are also called weak syllables, the sounds /ə /, /I/ and / □ /are usually the vowels found at the peak. There are also syllabic consonants such as /ŋ/ , /n/ and / m / which are also found in unstressed syllables.

The vowel sound / ə / does not occur at all in stressed syllables and most vowels in English change to / ə / in unstressed positions of words. Phonologically, in Standard English, the presence of the vowel / ə / in a syllable automatically signals the syllable as unstressed.

/ ə / (also usually called vowel 12 in some literatures) , a mid- central and lax vowel produced with the lips in neutral position and the tongue lying almost motionless in the floor of the mouth with only a slight arch in the centre, has the highest rate of occurrence in Standard English. This is because vowels that are realized in their strong forms in stressed positions get reduced to the weak vowel / ə / in unstressed positions e.g. /æ/ in *drama* / dræmə / gets reduced to / ə / when the stress shifts in *dramatic* /drəmætIk /.

/ Ə /



/ ə / Mid- central and lax

/I/, another sound that is commonly found in unstressed positions in English has been described as a close front unrounded vowel in the general area of /i:/and /i/ which are strong vowels. Roach (1991) claims it does not possess the exact quality of the / I / that is found in stressed

positions. He therefore proposes the /i/ symbol to differentiate it from the stressed /I/ since:

The / i / vowel is neither the / i: / of 'beat' nor the / I / of 'bit' and is not in contrast with them.

The same applies for / □ / which he claims:is neither the / u: / of 'shoe' nor the / □ / of 'book' but a weak vowel that shares the characteristics of both.

The most frequently occurring vowel in Standard English, / ə /, has been observed to be the rarest sound in Nigerian English usage. Ufomata (1990) identifies / ə / as a reduced vowel sound that is not used in Nigerian English. She claims it gives an appearance of many accented syllables in an utterance and a preponderance of strong forms'. She argues further that the typical rhythm of Standard English is lacking in Nigerian English due to the absence of the schwa / ə / in the unstressed syllables where, rather, the strong vowels are often used.


Note

The schwa / ə / is the commonest sound in Standard English. It is very crucial to the creation of the Standard English Rhythm. But it is not found at all in Nigerian English.)

11.3 Stress Assignment in Nigerian English

There is a fair agreement on the notion that stress and other suprasegmentals of pitch as important features of spoken English language are problematic for Nigerian users of English Kujore (1985) draws our attention to two major areas in Nigerian English usage: the area of stress patterns and vowel sounds. According to him, the most striking characteristic of Nigerian pronunciation is the 'delayed primary stress, a feature which seems to betray the influence of local languages with a rising rhythm as opposed to the falling rhythm of Standard English'. Kujore attempts defining the stress assignment rules of Nigerian English and came up with the following:

- The principal stress falls on the last syllable of verbs ending with –ass, -ate, -bit,-fy, -ise/-ize/-yse, -ish, -ment, -ute e.g. *abbreviate, exhibit, amplify, advertise, distinguish, comment, attribute*. The same applies to nouns ending with –ene, -ine,--oir, -in, one e.g. *gangrene, ampicilin, iodine, abattoir, baritone.* Compound nouns and forms such as *aeroplane, backbite, wardrobe, watchman* are also noted to have their stress assigned to the last syllable.
- Some words are also noted to have their stress assigned to the penultimate syllable e.g. *advertisement, beneficent, embarrassment, omnipotent*. Nouns that end with –er, -or, -sphere are also affected by this rule e.g. *accelerator, fertilizer, atmosphere.*

He observes that certain words that end with –ive, –tory and –ture that could function as nouns and adjectives are also assigned penultimate stress. E.g. *administrative, primitive, accusative, ablative, compensatory, laboratory, agriculture, legislature*. Kujore discusses instances of stress pattern reversal as in *acute, cabal, canoe, cassette* where the first

syllables are assigned the primary stress in Nigerian English rather than the second syllables which are assigned the stress in Standard English.

Though approached from different perspectives, there is a striking resemblance between the analysis of Kujore (1985) and Jowitt (1991). Jowitt observes a tendency to shift the primary stress to the right in Nigerian English. This he notes to be more systematic with verbs than with nouns and adjectives. Compound words and complex noun phrases with pre-modification have been observed to have a tendency to shift primary stress as far to the right as possible.

Jowitt observes that at the sentence level, the same tendency is there to shift stress as far to the right as possible. This, according to him, results in a tendency to assign nuclear stress to an unsuitable word in the sentence. He also notes that the contrastive use of stress, which is important in Standard English, is not often used in Nigerian English. When there is the need to emphasize a particular word in contrast with other words in a group in Standard English, the nuclear stress is assigned to that word irrespective of its location in the group e.g.

The *lecturer* bought the Benz. (Not the *student*)

It is important to note here that stress, one of standard English suprasegmentals, is problematic for Nigerian English speakers. There are many cases of consistent but inappropriate assignment of stress. Also, the phonetic cues to stress are not in the hierarchical form of standard application. Often, even for the few that could assign stress appropriately, rather than use pitch prominence, intensity (loudness), the least cue to stress in standard use, is the only cue to stress in Nigerian English.

Hint

In Nigerian English, stress is often shifted from where it is in Standard English to another syllable.

11.4 Nigerian English Intonation

While discussing Standard English intonation, we learned that intonation is a feature of many languages, but that it has different presentations in different languages. In tonal languages such as most Nigerian languages, the variation in pitch is used to contrast the meaning of individual words while in intonational languages such as English, it is a feature of the word group. Cruz- Ferraire (1989) claims that intonation is the 'last stronghold of a foreign accent in speaking any L2' and intonation as used in Nigerian English has been observed to be peculiarly different from that of Standard English. It has been viewed as a difficult suprasegmental to master for Nigerian speakers of English (Dunstan, 1969; Banjo, 1979; Eka, 1985; Atoye, 2005; Jowitt, 1991; Udofot, 1997; Akinjobi & Oladipupo, 2010).

Eka (1985) found that the distribution of simple tones, that is the fall and rise tunes, were more than complex tones in Nigerian English. The combination of tunes gives Nigerian speakers a lot of challenge. Udofot's study also revealed that both in read and spontaneous speeches, falling tunes were predominant in Nigerian English, rising tones relatively rare, fall-rise even rarer and rise-fall mainly by her Variety II subjects. Still confirming the disparity between the uses of intonation tunes in Standard English and Nigerian English, Jowitt (1991) also observes that the rich

intonational resources of Standard English are neglected by the majority of Nigerian users.

Atoye (2005) however observes that the problem is greater with interpretation than perception. He investigated the perception and interpretation of a sub-class of sentence intonation by some Nigerian users of English. He discovered that majority of the Nigerian subjects could not correctly perceive changes in intonation. He therefore recommends the teaching of the social meaning of intonation to Nigerian non-native learners of English instead of the analysis of its phonological structure.

Akinjobi and Oladipupo's (2010) study also revealed that the Nigerian subjects could not use intonation to perform attitudinal function appropriately. This further confirms that Nigerian users of English encounter difficulties in the appropriate use of intonation tunes, especially for attitudinal functions.

11.5 The Rhythm of Nigerian English

Rhythm, the regular repeated pattern of sounds is another major area of challenge to Nigerian English speakers. Despite the fact that Standard English has been usually described as stress-timed, Nigerian English has never been described as stress-timed due to the marked difference between the rhythm of Nigerian English and that of Standard English. Though Nigerian English is a variety of English, yet the rhythm, as it is also the case with other suprasegmentals, has been very typically different.

Nigerian English rhythm has earlier been described as syllable-timed due to the supposed influence of the Nigerian languages, which are mostly tonal. A major contributor to this difference is the quality of vowels in Nigerian English. There are more weak vowels and syllables in Standard English than are strong. On the other hand, in Nigerian English, there are more strong vowels and syllables than weak. This has implication for communication because however close a Nigerian speaker may approximate to consonant and vowel quality, if he uses syllable-timing when speaking English, he may well be faced with the problem of total incomprehension on the part of any listener who is a native speaker of English (Dunstan, 1969). O'Connor (1984) also sees such language as Yoruba which possesses syllable rhythm as a hindrance to its speakers in acquiring the rhythm of the English language since 'if every syllable is made the same length in English it gives the effect of a machine-gun firing and makes the utterance difficult to understand'.

Hint

In Nigerian English, the / ə / is not used. Weakened syllables never occur. All syllables are given the same prominence. These rob it of the ability to create rhythm as in Standard English.

However in recent times, the description of Nigerian English as syllable-timed has been questioned. Eka (1993) studied rhythm in the English speeches of some penultimate year Education English undergraduates and suggests that Nigerian English be better described as 'inelastic-timed'. He claimed that Nigerian English does not possess the rhythm of Standard English due to the failure to 'squeeze-in' or stretch-out' the syllables in a

rhythm unit as is the case in Standard English which he claims is 'elastic-timed'. The in-elasticity of Nigerian English, according to Eka, is caused by the frequency of more prominent syllables than used by native speakers. What is observed here looks more like a terminology switch than a totally new description since 'elastic' and' in-elastic timing' as used in the work seems to reflect the age-long distinction between stressed-timed and syllable-timed languages.

Udofot (2000) also carried out research on the rhythm of Nigerian English, offering an alternative to the earlier description of syllable-timing. The subjects were sixty Nigerians of varied linguistic, educational and socio-economic backgrounds. The rhythm of their speech forms was compared to that of a native speaker and a striking difference was observed. She likens the rhythm of educated Nigerian spoken English to 'the pulsation of an African drum, heard as rhythmic but hardly varying its tempo'.

We can then conclude that in Nigerian English rhythm, there is:

- a proliferation of prominent and strong syllables;
- a tendency to have more or less even syllable duration than the native speaker;
- a tendency not to reduce unstressed vowels; and
- a tendency not to push unstressed vowels along with stressed vowels such that the pattern of rhythm is determined by stresses

Study Session Summary

Summary

In this Study Session, we discussed the various statements of some Nigerian English researchers on the peculiar nature of Nigerian English from the segmentals (consonants and vowels) to the suprasegmentals (stress, intonation and rhythm). The vowels have been discussed as problematic due to the fact that most Nigerian languages have very few number of vowels compared to standard English. The stress pattern of Nigerian English has been described as regular but different from the standard. The simple tunes are easier to use while the complex combined tunes as well as attitudinal and accentual functions of intonation are difficult for Nigerian English speakers to manipulate. On rhythm, though the popular description for standard English rhythm is stress-timed, Nigerian English has always been described as syllable-timed, an influence from the mother tongue as a result of the preponderance of strong vowels and syllable as opposed to the vowel reduction characteristic of standard English

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