

**Indian institute of technology of technology madras  
Presents**

**NPTEL**  
**National Programme on Technology Enhanced Learning**

**Introduction to modern linguistics**

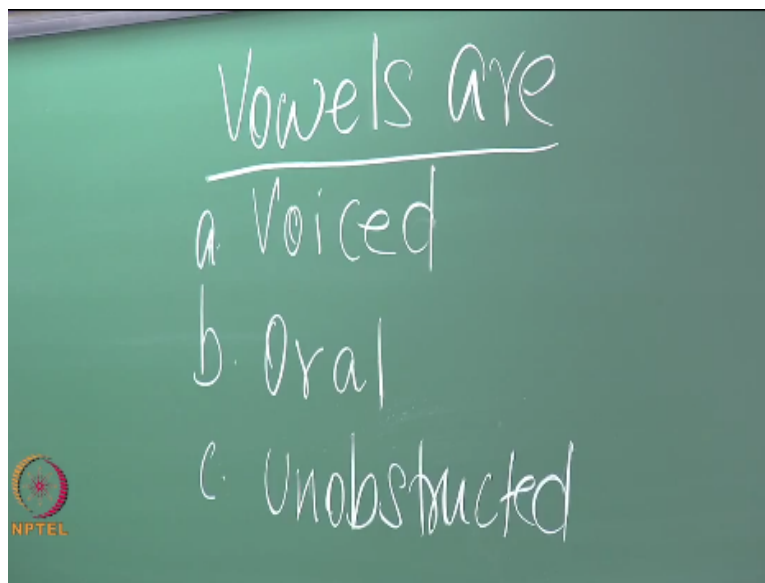
**Lecture-11**

**English vowels**

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Good morning are you alright lovely let us continue with our discussion of vowel sounds we have been talking about since last week we have been talking about production of speech sounds and we have seen that there are two kinds of speech sounds in major broad clauses one is the class called vowel sounds and the other is the consonant sounds we saw that vowel sounds are those sounds that are can you please repeat with me that are voiced that are oral and that are free without of that are produced without obstruction let me repeat myself.

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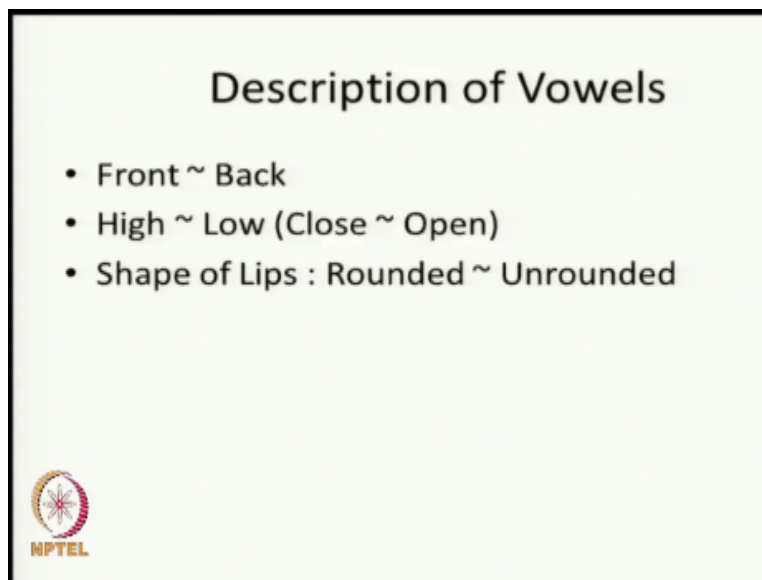


Vowel sounds are those sounds morals are voiced what else oral and unobstructed great in all languages of the world no matter what language you speak vowel sounds are voiced oral and

unobstructed close your eyes and answer me define in all languages vowel sounds are number one a voiced B oral and C unobstructed correct then the second question is if all vowel sounds are like that how do we distinguish between one and another.


How are we in other words able to produce different kinds of vowel sounds some languages have 40 in some languages have 16 a language like British English standard British English has 20 vowel sounds how do we produce these different of the sounds.

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### Description of Vowels

- Front ~ Back
- High ~ Low (Close ~ Open)
- Shape of Lips : Rounded ~ Unrounded



And last week we were talking about in and we saw that these vowel sounds differ because of the following these three parameters either they are produced from the front of the mouth or they are produced from the back of the mouth back of the tongue or either in the production of these vowel sounds the jaws are closed or jaws are open and there can be in between positions they can be half open half closed central there can be other distinctions.

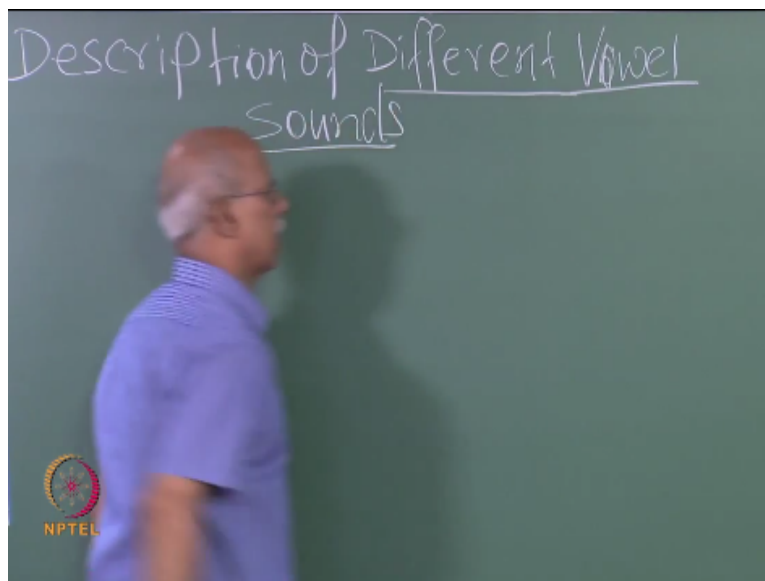
And there is a third parameter what is the third parameter some vowels are produced with lips rounded and some others are produced with lips unrounded or spread or flat okay I will repeat myself the question is how are we able to produce different kinds of vowel sounds we have recognized that all vowel sounds are voiced oral unobstructed these are common characteristics then how it is how do we distinguish one from another okay.

Then these are the parameters along which vowel sounds differ from you know one another one differs from another what are the parameters either they are produced.

From the front of the tongue or from the police close your eyes and tell me or from the back of the tongue either they are produced with jaws closed or jaws open or they are produced with lips rounded or unrounded once again how do we distinguish between or among different vowel sounds please tell me A close your eyes and tell me A either they are produced from the front of the tongue or from the back of the tongue number.

One number two in the production of them either jaws are closed or jaws are open third in the production of them either lips are rounded or lips are unrounded these are the three basic parameters along which we describe different vowel sounds any quest any problems about this any questions please I have also given you references to some books look at those books there is plenty of material on the net you can see any of these things or you can talk to me let us be clear how do we describe the vowel sounds of different languages or how do we describe different vowel sounds that is what we are going to talk about today.

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Description of different vowel sounds how do we say all is different from our what are the fretted characteristics of earth which distinguishes our from our AH from a from a from Oh from oh you know how do we distinguish that is what we are going to attempt today you will

have to write think talk please participate okay are you alright yes or no please are you comfortable I hope you have had a nice weekend.

And you are charged to undergo even boring classes like phonetics and linguistics alright shall we continue only five people are shall we continue okay before we go into the description of these vowel sounds.

I would like to tell you a word or two about the international phonetic alphabet you know the way we write you saw while we were talking about design features of language that natural languages are primarily vocal not written do you agree is it the case that anyone was born writing and learned talking after afterwards what do you say what do you say no obviously not you know we were yeah not really.

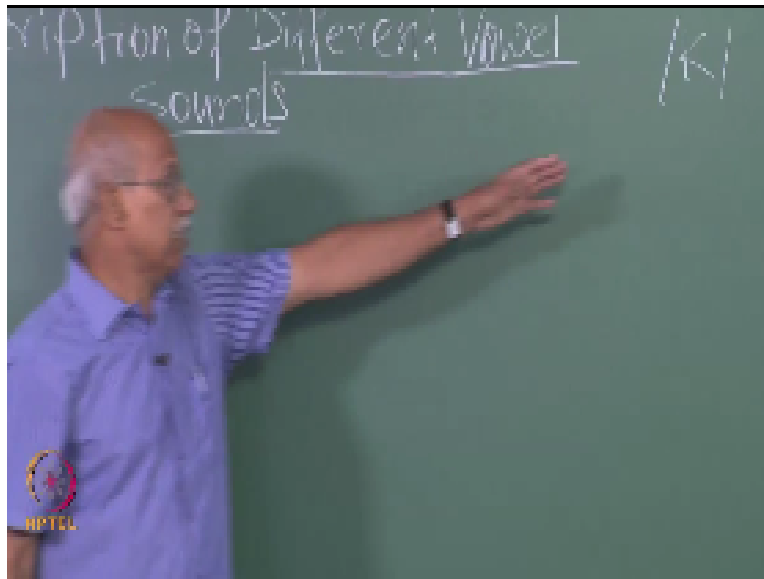
If that is you know in a certain sense they learn making sign language but you know that is their expression as well but even before that they observe shape of lips production of you know sounds they cannot hear because they are deaf but then they mark the shape of lips so first all of us you know in a certain sense learn and you are quite right you know those who are you know deaf neither is speak nor write in that sense.

They have they do not have that kind of script they have a sign language which also differ say for example American sign language is different from Indian sign language okay there are some differences all of us first learn to speak in whatever manner and writing systems alphabet come later okay now alphabet you know writing systems differ greatly in India itself we have as many different kinds of scripts as we have languages Telugu and Kannada.

you know you know if they are spoken to each other all kanadas speakers I guess will understand all Telugu speakers and all Telugu speakers will understand all kanadas speakers but the scripts are different to a great extent right okay there are similarities similarly for Malayalam and Tamil or in Devanagari and Bengali they have Nagi and guru Mukhi Punjabi or look at European languages or look at Arabic or look at Hebrew.

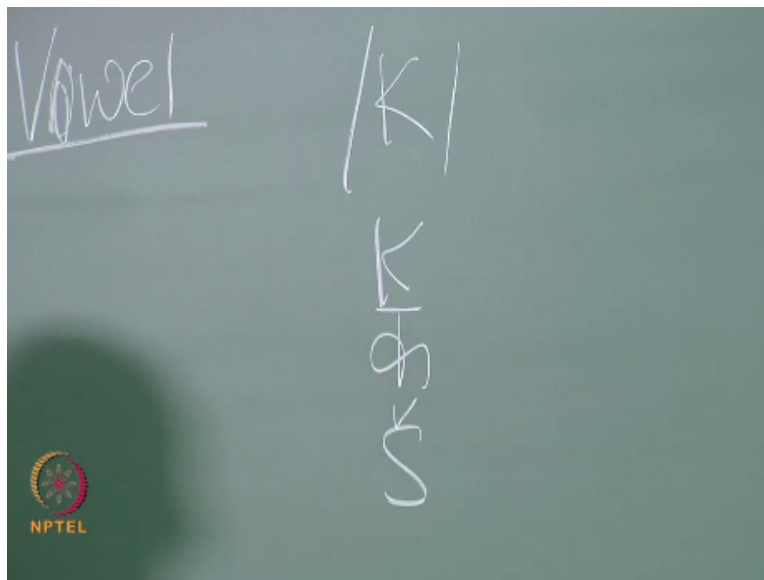
You know Hebrew is written from right to left or do is written from Arabic is written from right to left Parshin is written from right to left Roman Latin Greek is written from left to right writing systems differ we use different kinds of symbols to express the same sound say for example look at this sound look at this sound.

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Go okay now you can in Roman alphabet you use K in Devanagari you use क in Telugu is it correct and there are you know.

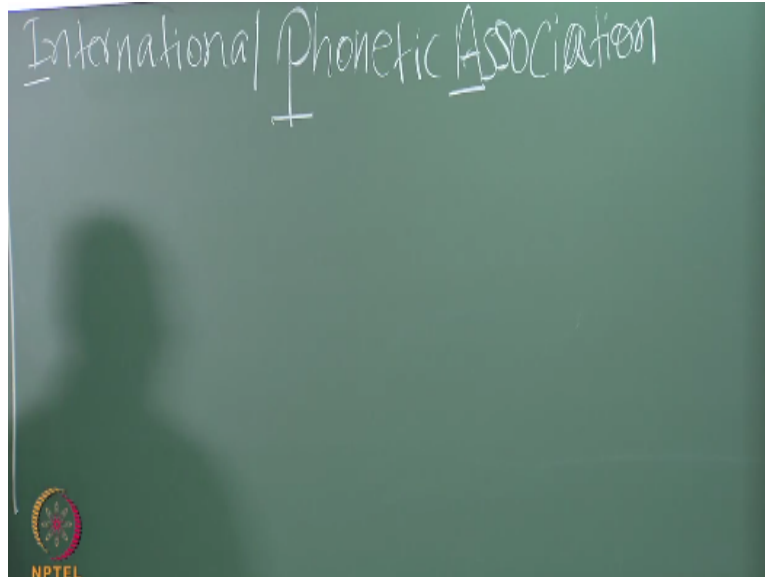
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So the question is how shall we talk about sounds so there is a group of there is an international body called international please write International Phonetic Association it is the international

body of politicians those who have study speech sounds of natural languages it is called International Phonetic Association okay International Phonetic Association.

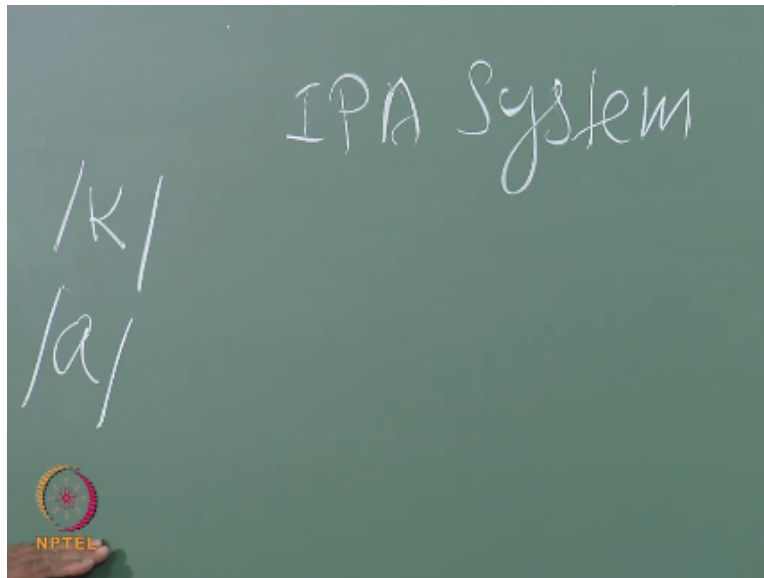
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International Phonetic Association or in brief I be a okay so they agreed upon an alphabet a system is set of symbols which are used to indicate sounds which are not peculiar to any language which is international and which is indicate which is used to indicate particular sound which is produced in a particular manner so when we talk about speech sounds we use those symbols just add in different Sciences in trigonometry.

You have one kind of set of symbols in mathematics in algebra you have another kind of symbols so in phonetics we use symbols agreed upon by International Phonetic Association and this is called IPA system or in other words it is called international phonetic alphabet system or IPA system IPA system international phonetic alphabet system or international phonetic alphabet.

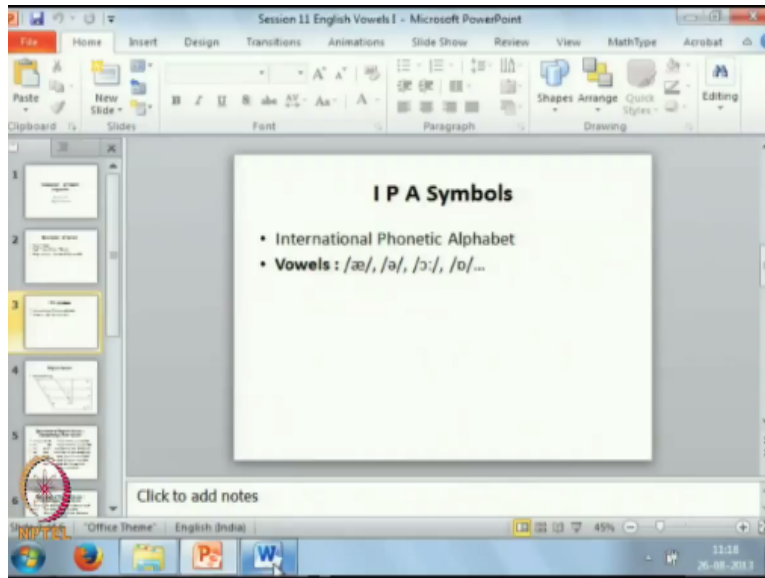
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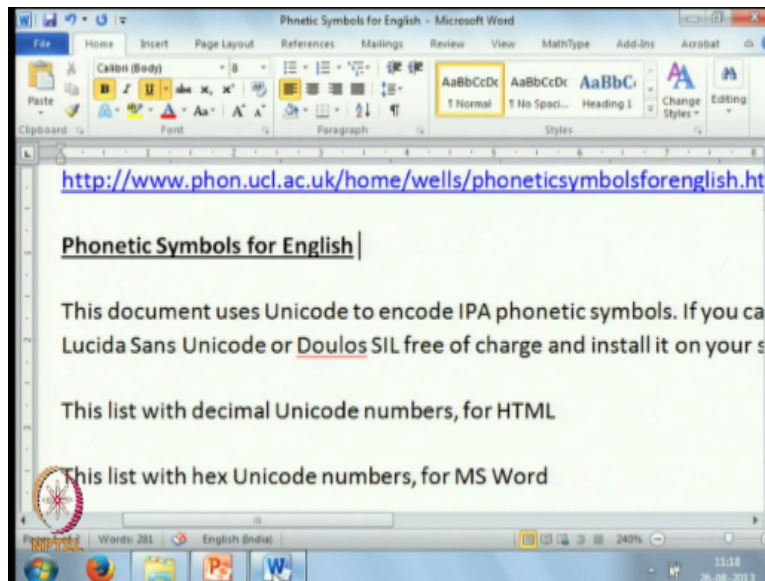
Now in this language this is not K this is not K what is this is good It means GA that it is produced in a particular manner from the back of the tongue voiceless etc okay this is this is not a what is this is a not A this is AA it is produced from the back of the tongue it is produced with open mouth it is produced without rounded lips okay it does not mean a it does not belong to English or Latin it does not belong to X or Y this symbol represents a sound she's produced from the back of the tongue.

Which is produced without rounded lips in the production of which mouth is open vocal cords vibrate it is a free sound unobstructed aural it is a vowel sound do you see the difference it is not KA it is not a this is this is AA right it has certain phonetic features it is produced in a certain manner so in the description of vowels description of speech sounds we will be using international phonetic alphabet system am I clear to you yes or no please right I have given you a handout okay and it is there you can download it on your computer if you like here is the link.

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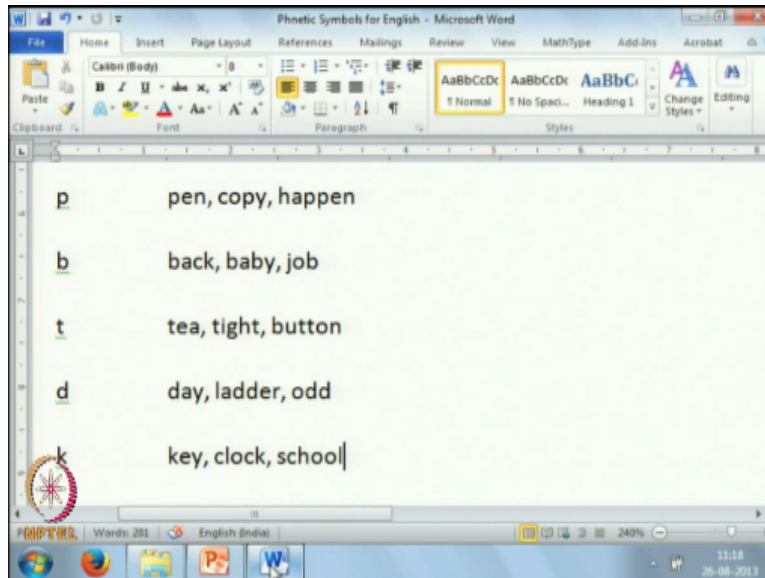
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Here is the link you know I will mail it to my and the entire llama has I will request my tell took place to copy it to the entire class you can download it you can have your own set I have given you a handout printing this if you have not got it please take a copy from Mahesh make his life as difficult as you can or pay him for it right okay.

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For all the photocopies that this young man takes right these are the symbols so we have this is the first symbols shown there is not P it is always written within slanted bars I did not put it to keep it simple but you know I will be using this kind of slanted bars okay so the first symbol indicates there not P but PA as in this word that word that word as in pen or copy or happen similarly the next symbol is BA but it indicates BAA both okay.

As in as in everybody please as in back baby job next symbol is TA the as in go slow and you know with the rhythm next is the well as in next is as in TA next is GA as in like that you know I have given you the entire set I will mail it to you have the hand out before you please look at it you have all this while talking about English sounds you know as I have said phonetic symbols for English sound a large number of these symbols can also be used.

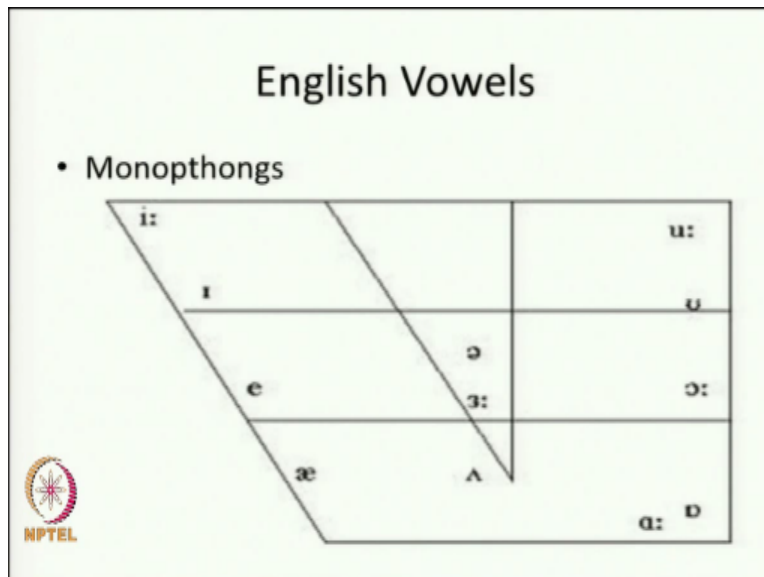
To indicate speech sounds in other languages there are one or two which differ and I will indicate that to you as we go along right you can go to Google and you can also say international phonetic alphabet or IPA symbols and you will get the entire chart okay you can use some of them to describe sounds in Telugu you can use some of them to describe sounds in other language it is easily available free download.

Please have it on your computer and use those symbols in assignments or in talking about speech sounds am I clear to you please everybody please am I clear to you okay have a copy right let us come back to the description of sounds so we describe different vowel sounds with

the help of symbols from IPA system what is IPA system give me the full name international phonetic alphabet system who has designed this system.

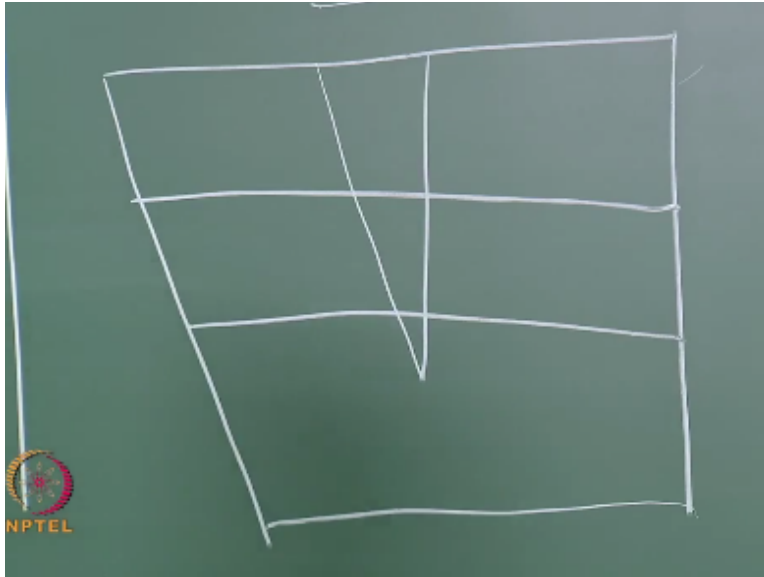
The international association of politicians or International Phonetic Association correct generally agreed upon not the best system it is very Europe centered. But you know it happens sometimes in the history of mankind that some nations or some groups of nations dominate the culture of some others but by enlarge it is as representative as symbols you find in other sciences right let us use them okay now what are we talking about we are talking about how different kinds of vowel sounds are produced and how we can describe them look at the situation.

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Please draw a trapezium like this do not write those symbols as I have written but draw a large trapezium okay and you know put two lines in between horizontal from left to right and two lines in the center a triangle in the center to indicate the entire area correct draw a vowel trapezium something in this manner.

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I am sure you guys can do a better job you know my drawing skills are pretty poor but basically you know this is a vowel trapezium I have not done it well it should come further right or it should be further slanting as you see on this screen I downloaded it from some website on the Google but we will describe sounds with respect to we describe all speech sounds especially vowel sounds you know we describe.

All vowel sounds with respect to please mark my word with respect to their position on the vowel trapezium do you understand me with respect to their position for example look at the top so you know look at this sound e what is it e as an English word key cheese now where is this is front of the mouth correct its it front is it closed or open closed you know jaws are closed but this is open this is fully open right here jaws are open or closed.

Is it front or back front but look at this sound ooh as in choose earlier thing was cheese well now it is choose where is this produced from it is produced from the back of the mouth okay front sorry closed or open please make a listing does not matter closed are open obviously the clothes are open closed but look at this sound look at on the other hand this sound please here this is AHH produce it now let us describe the position.

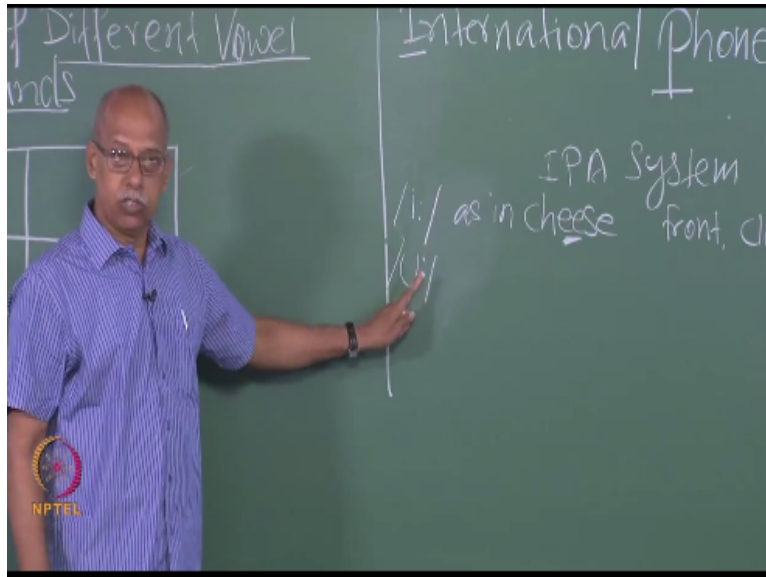
Its position of the word is it back up front it is back of course it is back of the tongue not front if your clothes are open it is opened the jaws are fully open you know you cannot produce an AHH until you produce and English is particularly long you know more much longer than in

our Indian languages you know we are a gentle nation we do not exaggerate anything but you know in some European languages like English it is pretty exaggerated.

You know so for example this sound is AH sorry this sound is back of the turn this sound is produced from open what is the third parameter for the description of all sounds.

Front or back close or open and third rounded or unrounded please right the third parameter okay three parameters now look at look at this sound here E is it rounded or unrounded this predict and say EEE everybody say please he say please rounded or unrounded rounded but look at this zone we say choose rounded or and round it round it but look at this case AHHH rounded or unrounded all wrong then is spread okay so this is the third parameter so how shall we describe it let us write this sound E okay can I take it off but you can I want you to keep it on one page and use the other space to describe things as we have there.

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Let us say this is where we have E please write e okay how shall we describe it we will say this way correct right as in let us see as in the particular word called cheese correct you can have another word you can say please you can say PE you can say deep you can say keep lots of words which have this sound in English in our languages also we have this sound in Sanskrit if you say DEEN that is poor okay.

Then you can use that do you have this sound in Telugu anybody please okay so you can see as in a particular word particular language correct I am using English because that seems to be the only common language among us everyone does not know Hindi everyone does not know Telugu everyone does not know Sanskrit but in this class I guess everyone knows English okay but you do not have to do that you are not obliged to do that you can actually.

I will give you an assignment many people can also take it as for their term paper but there will be a general assignment for all of us describe vowel sounds in your mother tongue okay how shall we do that I am heading towards that so first you slanted bar right EE at the moment. We are talking about English I have not said otherwise I should have said as in English word cheese what is the description number one is it front or back look at that look at the vowel trapezium is it front or back front so we will write from it okay is it closed or open everybody please is it closed or open closed so we will write closed is it rounded or unrolled it rounded or unrounded so please write on rounded this is this is the complete phonetic.

Description of this vowel on this vowel sound is E as in English word cheese what is the phonetic description it is produced from the front of the tongue jaws are closed and lips are unrounded but look at the other sound ooh okay this colon: mark this colon: mark indicates length extra length okay some more time it has taken without this it has taken 300 nanoseconds with this it takes six hundred nanoseconds or seven hundred nano second double.

In duration extra length that is why in other languages we have Russell what is the opposite of Russell anybody please they would correct deerg the you means long Russell means short you can you know you can wonder at the imagination intelligence of those sages of thousands of years ago who did not have the advantage of a spectrogram computers and yet they were able to describe minuscule differences between sounds.

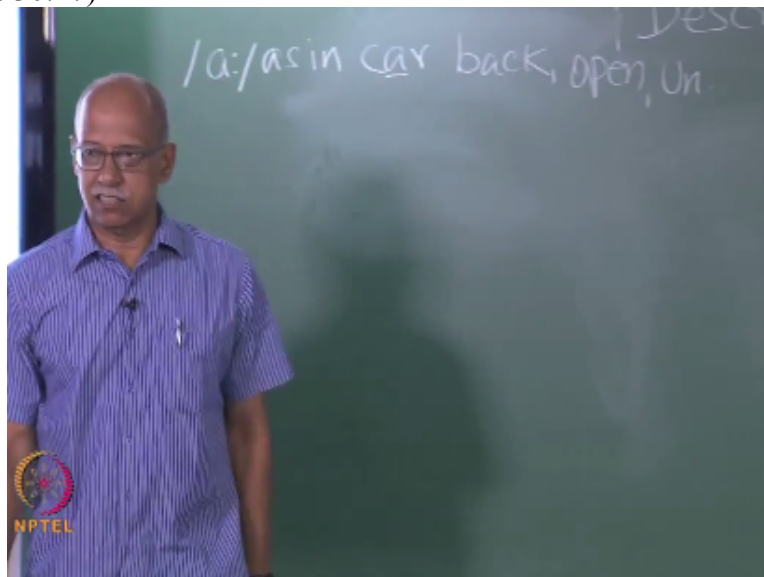
That is why they were called Rishi's you know Sears or sages so this indicates length with this it is a long sound without this it is a short sound once again with this it is a long sound without this itself short sound that was deerga let us describe this as in choose indicate which part of the word by underlining choose how shall we describe it is this sound produced from the front of the turn or back of the tongue.

Everybody please speak back of the tongue right not the front of the tongue back of the time jaws closed or open jaws are closed lips rounded or on rounded in this case okay rounded we

call this level in the literature of phonetics this level is known as please write three term level what is it known as three term level what are the three terms front or back closed or open and rounded are unrounded these are the three terms.

So along these terms on the axes of these three terms we describe vowel sounds let us look at other sounds in English and let us apply okay take this sound now take this sound AHH do it on your notebook without my help okay you can talk to two people three people together you can do it together okay what did you decide this was that particular sound here this sound here.

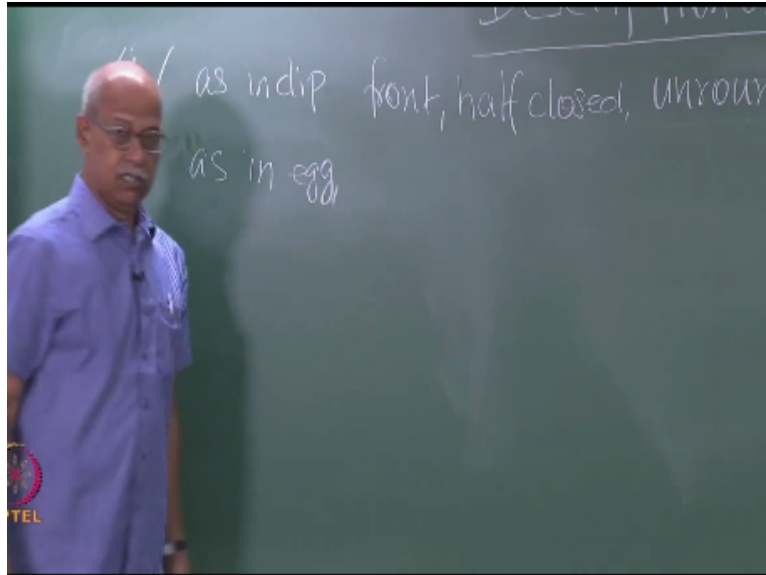
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What is it so first let us write the symbol do you have a length marker there yes put a length marker here as in give me an English word car because every we take a car wants soon after we take a car they or job or car first car now give me the description please this is back open correct you got it your phoneticians now let us describe all English sounds and then you know we will have the homework who will describe vowel sounds in Telugu correct.

But before we do that come here this is E without length this is E it that it is Russell in English word like you know Ching or pin or pill or dip not D double EP but di P deep very short okay how shall we describe it come on attempt at description two of you three of you together please but first do it on your notebook and then tell me this sound do it on your notebook and then tell me then share with the rest of the class please okay.

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How do you describe it this is E as in no length marker here no length marker here you see as in dip or as in till as in pin as in bin as in bin din okay now is it front or back front obviously closed or open is it as close as earlier sound P no now we are bringing in variations how close is it half closed you see arbitrarily we have decided to call it half closed and this line is therefore half open this is arbitrary but you know it helps sign scientists.

Sometimes arbitrarily design you know the names of symbols etcetera actually half close should have meant the same thing as half open okay but in this case the association of interest then of annotations said no half close is up above and half open is way below okay they could as well have called it open a open V open C open D if in that case it will be open A this will be B this will be C and this will be D so treat it as just another descriptive.

Parameter so now come back to it e how close it is of course front is it closed or open how close half closed please right half closed okay and then rounded or unrounded lovely okay let us look at this sound let us look at this A how shall we describe it A as in egg as in debt okay as in pet as in bet as in get but not gate in English word get as in get okay how shall we describe it is it front is it front to back front okay is it closed or open half open.

Is it rounded or unrounded ,unrounded lovely your phoneticians now okay let us look at this sound let us make our lives a little more difficult look at this is OH this sound this symbol can you see everybody please can you see can you draw it this symbol oh it is drawn you know it is

an inverted E this is what is this symbol is called a okay can you describe it now let us give a phonetic description AH as in as in give me an example please are not up okay in Indian pronunciation of appeared but in English pronunciation of as in away or as in how do you pronounce it are we or as in what is this is A are we together everybody please are we together yeah so this is a as in away about a rest okay attend the initial sound right now.

Let us ask those questions is it front or back is it front of back it is middle it is central let us write central correct is it closed or open now here comes you know here comes a challenge for science is it half open there is another sound there is it half closed so what we do is it is between half closed in half open but closer to half closed please right between half closed and half open but closer to closer to half closed closer to closer to half closed.

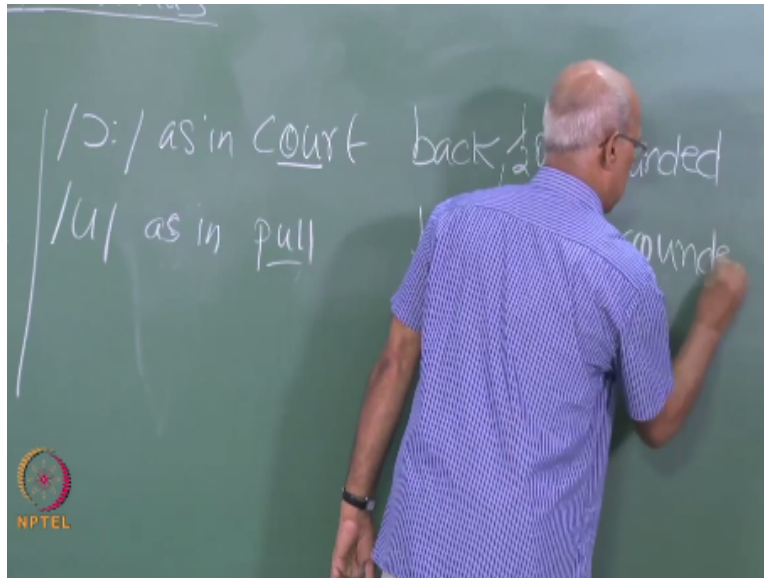
Is it rounded or unrounded obviously okay on the other hand let us look at this sound this symbol this is as in girl as in ball any English word which is where always followed by as in come on give me the world as in earth as in earn or as in shirt as in dirt as in heard okay any English word where our is followed by this all becomes long it becomes okay right okay now how do you describe it let us describe this sound this is this is the symbol.

Put a length marker put a length marker please okay as in as in burn earn turn learn or as in hurt dirt shirt as in earth as in girth the lots of English words okay is it front or back it front of back it is central is it front or back look at the vowel trapezium make it in your where is it is it front or back is it front or is it back central obviously you know that question will be answered by saying it is central so right center okay is it open or closed between half closed.

And half open but closer to half open please right between half closed and half open but closer to half open rounded or unrounded rounded or unrounded I want everybody to say please rounded or and rounded on round it okay let us take some let us look at some of the other sound let us look at this oh okay let us look at this is Oh round your lips and say oh please as an English word port fort fourth okay for fourth what is it food court.

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What is the spelling see oh you are T please describe it so we are talking about this is the symbol inverted what is this what is this sound what sound is indicated by this symbol oh you round your lips and make it long but not narrow rounding broad round o as in as in cold as in Ford as in many of them were fourth okay many other words right how do we describe it is it front or back please look at the monitor trapezium and tell me is it front or back.

Please right back is it open or closed is it open or closed because come on make a mistake does not matter it is between you know it is actually half open you know it or you can say closer to half open okay it is half open right is it rounded or unrounded half open and rounded okay on the other hand take this sound ooh this is ooh as in push put pull okay full okay please give me a description of this sound here what will you say now as in as in whole full okay.

Against pulling fool okay push lots of words is it front or back everybody plays the class entire class please are we together is it front or back okay is it open or closed it is half closed rounded or unrounded rounded please right it is very simple back half closed and rounded all right come to this here look at this sound okay can you are you able to draw the symbol correctly it is very easy take an inverted E inverted E okay and put a property back.

To back this is a as AHH in as in English words get back Lac that hat okay let us describe it as in as impact how shall we describe it front or back please do risk front or back front okay close or open half open rounded or unrounded mace okay anybody please any doubts okay now I

would not do it I want you to do it look at this sound this symbol please are you able to see the arrow yes or no please okay.

Here this are you able to see it or as in this is the symbol as in pun as in fun as in boss as in bought as in cart you know open your mouth fully and close it quickly say boss please eat but fun run okay this is the English sound ah okay how do you describe it is it front or back here is it is it front or back central is it open or closed it is half open but closer to open is it rounded or unrounded in this manner we can describe all English vowel sounds.

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**Description of English Vowels :  
Monophthongs/Pure Vowels**

- /i:/ as in bead : front, close, unrounded
- /i/ bid : front, ½ close, unrounded
- /e/ bed: front, bet. ½ close & ½op.,un.
- /æ/ bad: front, bet. ½ open & Open, un.
- /ɑ/ bard: back, open, unrounded
- /ɒ/ boss: back, ½ open, rounded
- /ɔ:/ ball : back, bet ½ open & ½ close, rounded



I am going to anyway mail it to you know this is how I have described it okay I am going to mail it to Mahesh but there is an assignment for you know please do i us an optional assignment but you will learn a great deal can you look at the vowels of your mother tongue can you look at the vowels of Telugu and bring it at least bring me tomorrow six vowels kindly mail it to me so that I can project it here and the deadline.

Is before you know 5 o'clock today right or can I give you Denise's email ID you can mail it to him mail it to me okay or mail it to Mahesh by 5 o'clock and my hands can give it to me at least six Telugu vowels six vowels from Malayalam Tamil whatever your mother tongue take any six vowels describe them in this manner any questions please any questions thank you have a good day.

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