Good morning you may remember we have been talking about word formation processes and today we will have the last session of this module we have said that in all languages of the world we have   processes using which we make new words   now new words can be made in at least   either of the two ways either you put two existing words together and make a third word or you put a word plus part of another word and you make a new word .Say for instance look at the examples .

(Refer Slide Time: 01:07)
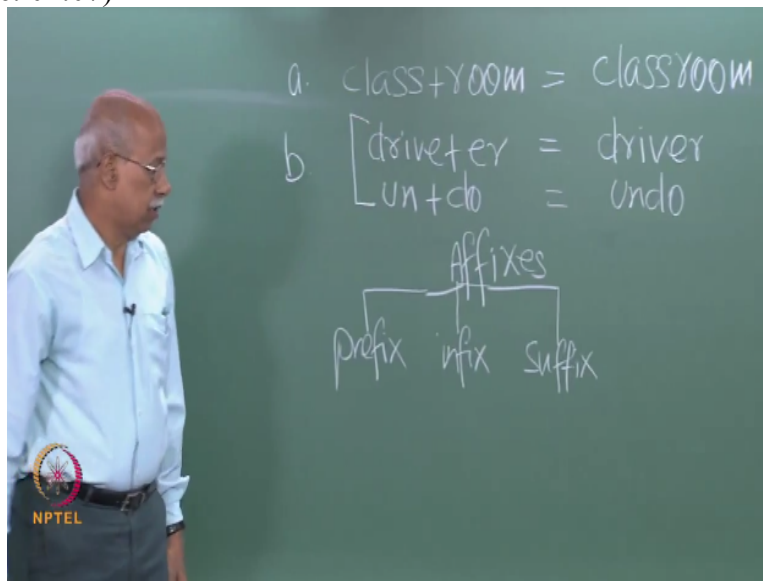
You have class which can mean more than   one thing what are the meanings of the   word class is a place where   teaching occurs the class is a group of students ,class is a group of people with particular level of economic standard but when you add room to it has now   only one meaning it is classroom it is a hall it is a chamber it is a place where the   students and teachers meet and

try to do some learning what we have done here is we have taken two existing words and made a third word out of it.

In all languages of the world we have this process there is a second process we can take one word and part of another word say for example you can have drive and you can add a part of another word and you get a new world which is driver or you can have one word add something else what we have done in a is two independent words coming together but in b we have word + part of the world we are part of a word + word and we get a new word .

These are some of the basic word formation processes in all languages of the world and we have been talking about it for some time I also told you if you may remember that these things are called affixes this is word + affix this is affix + word in the first case we have word + affix in the second case we have affix + word you may remember I also told you that we have three kinds of affixes .

We have prefix can you give me an example of prefix from English say for example in this case un is a prefix for do can you give me another example of a prefix sorry yes please redo undo misdeed these are all prefix legal illegal ok these are prefixes similarly we can have suffix something that comes at the end so in this case drive plus er this er is a suffix can you give me another example of suffix teacher runner dangerous danger plus ous so ous is a suffix you know and we can have a third kind infix not attested generally in many Indian languages.

But it is there in many Southeast Asian languages I gave you examples from a language from Philippines Filipino has you know similarly you know many tone languages have some African languages have infix as far as the linguistic theory is concerned the fact remains that we can make new words in either of the two ways ,either we put two existing words together and we get a third world or we put a word plus part of another word okay.

This part of another word is known as affix affixes can be of three kinds prefix, infix and suffix very simple so far but the problem arises and this is where you know we like to talk today and I like to close then I will expect that some of you take these problems for research create computer algorithms which can generate and recognize words and do a lot of other engineering a lot of other you know knowledge building systems okay.

The problem is here the question here is   if you have both of them coming okay let us say   you have danger you have endanger you have ing suppose you have something like   endangering now you have both a prefix okay a suffix which of the two would come   first okay   you may remember I told you that there   can be different kinds of affixation .

(Refer Slide Time: 07:20)

The different kinds of steps in word formation there are free and bound   morphemes you may remember I told you   that in linguistics we do not recognize   words it is difficult to define so we say that a unit larger than syllable but   a unit is smaller than sentence or   phrase is morpheme and there can be two kinds free morpheme just a cat but bound morpheme s so you can say cats okay you   can have free morpheme .

 (Refer Slide Time: 07:56)
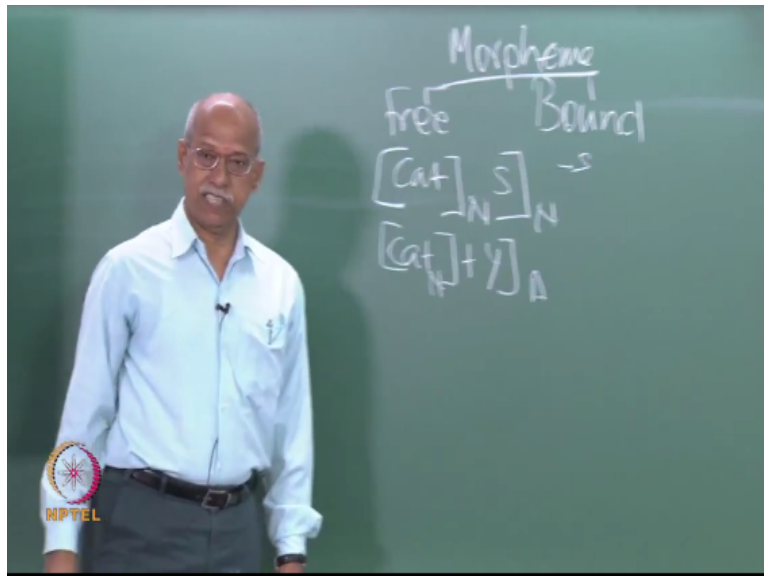
You have bound morpheme so for example this is free it can occur without anything but this cannot occur without anything this plural indicator in English requires something else so we have different kinds of morphemes free morpheme bound morpheme we have in flexional and derivational .

(Refer Slide Time: 08:30)
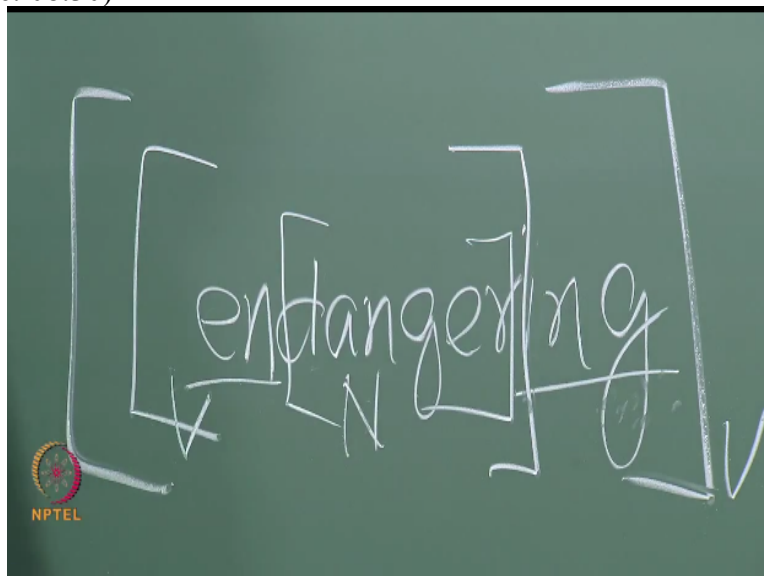
You see danger it is a noun but when you say any endanger you make it a verb when you say endangering it is still a verb with an inflexion with a sign indicating that you are talking about something in progress we are endangering the ecosystem .We were endangering the ecosystem you know the question here arises when you have all of this what comes first .

What will your machine what process will be queued up first and what will come up next similarly when you have you know you may remember I spoke about category retaining and category changing morphemes so when you say cat plus s it is still a noun this was a noun you add s this is still in now okay but when you say cat plus y then you know you are getting it this was a noun now this becomes an adjective catty .

This becomes an adjective so there is category changing this is category retaining noun remains a noun but known becomes an adjective in this case this was a verb but now this is please complete the sentence this was a verb Drive but when you added er what is it now noun it but you added this and now it is noun this was a verb you added unto it what is it now this is still verb so this is category changing but this is category retaining the point is there are all of these variations in word building is there an order is it that X happens before why is it that A happens before B is it that B happens before C that is a question.

You know look at examples like connect and disconnect okay if you want to make a past tense of disconnect what do you say you add an ed and you get disconnected the question would arise did should we first add ed and then add this suppose you have to get a past tense of the word disconnected sorry disconnect then what do you do you first add ed or do you first add dis what is your opinion the answer is we do not know.

These are empirical questions depending on statistics depending on data let us look at how words behave in any given language let us therefore also look at universal patterns universal trends is there any particular tendency that languages of the world follow okay that is the question where we should look at I will give you some examples okay .

(Refer Slide Time: 12:08)

Complete the Table

Noun	Verb	Adjective	Adverb
Accountant	Account	Accountable	Accountably
Reality	Realize	Real	Really
Doubt	Doubt	Doubtful	Doubtfully
Locality	Localize	Local	Locally
Friend	Befriend	Friend-like	Friendly
Nation, Nationality	Nationalize	National	Nationally

Let us first do this changing you know category you might remember we did this exercise take out your pen and paper please do not look at the all the words beyond the first column first column you have the first word account or accountant okay what is the verb of accountant do not look at the table write it on your notebook quickly what is the verb of accountant I am just revising it trying to refresh your memory before I raise questions so many of these questions have no definite answers.

But it is important that we understand these questions so what is the verb of accountant account okay what is the verb of reality realize what is the adjective of reality oh no that is realization is noun yeah okay or if doubt is a noun okay what is its adjective doubtful dubious will be an adjective okay if friend is a noun what is the verb of friend be friend yes what is the adverb of friend adverb friendly you know in all of these cases what we are doing is we are changing category.

I am going to give you a test and you will have this kind of test also at the examination and from your mother tongue okay not from English so please be careful do this table.

(Refer Slide Time: 14:13)

Complete the Table

Noun	Adjective	Verb	Adverb
	Personal		
		argue	
courage			
			dangerously
	Large		
Beauty			
Error			

Look at your watch   I am going to give you 120 seconds no   more please complete the table in English check.

(Refer Slide Time: 14:46)

Complete the Table

Noun	Adjective	Verb	Adverb
person	Personal	personify	personally
argument	arguable, argumentative	Argue	arguably
courage	courageous	encourage	courageously
danger	dangerous	endanger	dangerously
enlargement	large	enlarge	largely
beauty	beautiful	beautify	beautifully
error	erroneous	err	erroneously

If you have any differences please tell me if you made any mistakes if you had any   differences please tell me okay let us do   something different come back to the   earlier table we can do this kind of   thing in any language because it happens   in any language say for instance in   Telugu what is the Telugu word for person and what is the Telugu   word for personal correct can we do the entire thing what is the verb   form of think you see the answer is   there in your head the answer is there   in your mind all you have to do is to pull it out okay.

Look at another word look at the word argue what is the Telugu word for argue what is the Hindi word for argue anyone who speaks Hindi in the class okay what is the Hindi word for argue bad ki bad karna what will be the noun of buzz karna what will be the adjective of bass does not work only argue has that book have you heard of that book argumentative Indian okay in all of our languages we have these things okay .

What is the Telugu word for large pedda okay can we get noun out of pedda okay can we get an exactly as large itself is an adjective can we get a verb out of large that is English thank you but can we get it in Telugu you know a lot of Indian languages use Sanskrit here and they say vista Karan okay expansion enlarging sorry okay I want you to look at these possibilities you see can I draw your attention out of these things into the theoretical question imagine that country like India is speaking 1,700 different languages.

At least according to Government of India there may be more okay if at all we are able to create a machine and algorithm which you know translates you from Telugu to Kannada so you can speak on phone in Telugu and your customer listens to you in Kannada imagine the efficiency increase in efficiency radio broadcast alone will save crores of rupees entire batch of B.Tech can be employed with fancy salaries creating that engine alone .

The amount of saving that will happen only from radio broadcasts if you are able to create an engine which can automatically translate some of these things and there are there are great similarities in all among lots of Indian languages because we all draw from Sanskrit Persian Arabic English we have some local affixation some local inflictions if one of us can do this he will not only get Bharat Ratna he will also well do a lot of other interesting thing. Do you see the point are you with me please yes or no last benches are you also in the class last benches okay thanks I thought I had a different feeling okay so please let us do something with Indian languages okay.

(Refer Slide Time: 19:28)

Affixation in Hindi

- **Category-Retaining Prefix**: tʃhu:t "touchable" (a), ətʃhu:t "untouchable" (a); tithi "date" (n), ətithi "dateless" (n).. ...
- mɔd "enjoyment", amɔd: special enjoyment" ; gəmən "departure" (n), agəmən "arrival"(n)...
- man "respect"(n), əpman "disrespect" (n)...
- mol "priced" (a), ənmol "priceless" (a)...
- səmpadək "editor" (n), upsəmpadak "deputy editor" (n)

Does it happen only in English no it happens in all languages say for example look at some category retaining prefixes say for example a in Sanskrit which we use in many Indian languages in Hindi for instance you have thuth touchable truth kippa Mario Cherokee contagious touch but when you add a it becomes a thuth untouchable okay so that is a thuth similarly titi if you add a what does it become athithi guests they are still athithi is noun at it he is known they are category retaining suffixes.

Can you give me one example from Telugu using a suffix ah where noun remains are noun I will give you 30 seconds taken on our channel lovely anything ar e you know you have your lots of suffixation in our languages prefixation in our languages you can say Dom on you can say Ottoman okay come on please everybody please think close your eyes think for 30 seconds and give me somebody lots of them.

How do you say in Telugu chalak okay come on now going to open up a god a piccata who Bokhara prepare har is garland and then prepare mousse you know what security has done to Congress come on please give me some anybody correct yes somebody please any other I will have to hire Telugu tutors for you now I am Annie I am ok so the it is still you know category retaining it does not you know change .

I have given you examples mod enjoyment amod special enjoyment gamin is departure but agama   is arrival in airports you see this man is respect but adman is a disrespect   sampadak and what is the assistant   editor in Telugu upsampadak   Sahara Shark some particle okay.

Affixation in Hindi

- Category- Retaining Suffix: : ʦhatr "student" (masc. n), ʦhatra "student" (fem. n); gəri:b "poor" (n), gəri:bi: "poverty" (n); ʦɔr "thief" (n), ʦɔri: "theft" (n); mera "mine" (masc. a), meri: "mine" (fem.a);

NPTEL

But you can also have say forget these things   category retaining suffix a cartridge   Chartres lake hotly kike etc of Nathan a   three you can also have category   changing suffixes.

Category-Changing Suffix

- bəRa "big" (a), bəRai: "bigness" (n); dikh "see" (v), dikhai: "on seeing" (n); ʦəlana "drive", (v), ʦalək "driver", (n); sundər "beautiful" (a), sundərta "beauty" (n)...

NPTEL

Bora in Hindi is big   how do you get known out of that bara he   can we have similar thing in Telugu Pada yappa you see these are the word formation processes this is how native   sources sorry native resources of language are used by users to get new words out of   them similarly in Hindi you know very   common before you marry the girl you   want to see   the entire flamingoes' to torture the poor thing so dikh and the dikhai okay   or selana Drive what is the noun out of that chalak do we get something in   Telugu like that what is the word for drive in Telugu and driver sunder in Telugu beautiful in Telugu and beauty okay ugly kerubim and ugliness in Hindi. We say   kuru pata okay right   .

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Order of Affixation

- What comes first: prefix or suffix?
- [en[courage]]ment], [de[[odor]ant]
- Inflexion or Derivation ?

NPTEL

So the question you know arises when you   have are you together can I have your   attention please okay the question is what kind of affixation do you have first do you have   infixion before derivation do you make a new word then you add plural singular   gender or tense or things like that what do you do first given say for example in   this world look at the word before you encouragement there are three parts there is a prefix what is the prefix here please what is the prefix here .

And   what is the suffix here meant what is this term what is the root word courage now to this root word courage what came first N or meant what is your answer okay because you have word like encouraged but you do not have word like   courage meant fair enough but look at   the next word you have a word like deodorant okay you know the meaning of   the word deodorant right.

If you do not please look up your dictionary when you go back to your room today right now this also had three parts what are the parts what is the prefix here D and what is the suffix here meant and what is the root here order now what came here first can you say we had D order like we had encourage yes or no please say something no because we do not have a word like the order but we have a word like odorant .

So in this case we will say we had odorant then we added d and we got a deodorant we will worry about the answer later let us first look at the question the question is there an order in natural languages which they follow when confronted with when faced with a choice of more than one ethics what is the question can you repeat the question to me please what is the question two natural languages follow an order when they have more than one ethics.

Okay we cannot look at all the dimensions of the questions I have just going to look at inflexion and derivation what is inflexion when you say number gender person case when you say Charter tatra when you say wah dah hey watch out here he goes she goes so go plus es is inflexion but go plus e arch or teacher driver that is derivation you make a new word okay.

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Look at the examples in English imagine you have these three things you have Apple and cart and s plural where would you put this plural would you add it to Apple or to cart you add it to cart not to Apple you do not say apples cart do you see that imagine you have Bullock and cart and s would you add it to Bullock or to a cart , cart so it shows that first we do derivations first

we make a new word and then we add s or dd or e D or whatever so for example pigeonholes can we say pigeons hole .

We can but we do not you know it is pigeon then hole then s similarly engine-driver imagine there are too many engine drivers shall we say engines driver we say engine drivers even when there are too many engines and too many drivers which a engine drivers we do not say engines driver in other words derivational process new word making process happens first and then syntactic processes like making singular plural present past happen there always are some exceptions in English.

For instance son-in-law what is the plural no it is not son in laws so imagine you know somebody has three daughters and he had three sons in law he does not have three son in laws he has three sons in law imagine somebody has four sons so how many daughters in law four daughters in law at least okay right similarly you know group males match point look at the word personalities.

How many particles are there you have person you are all you have et and then you have s shall we say in the beginning personality what you know right there is not nothing wrong there is no rule in the Constitution of India or in the Indian Penal Code that you should not but natural languages for the sake of cost and efficiency prefer one kind of affixation to happen first so derivations all take go together you do personality and then you add one tiny bit plural so personalities film personalities sports personalities etc it happens not only with noun but also with verb .

You make a new verb and then you add a tense marker say for example you have a word like dehydrated you know in malls super malls these days god bless them you know you have dehydrated peas dehydrated X dehydrated Y actually now in this dehydrated do you think we first said hydrated and then we added D if you follow this principle then we will say it was dehydrate and then we added past tense to it .

Similarly downloaded did we say loaded and then we added down or did we say download and then we added ed this principle would say that first have download and then add ed and get downloaded the point once again is you are doing derivation before you are doing inflexion

please write derivation before inflexion do all the derivations no matter how long the word is it made me personalities it may be dangerously okay.

It may be endangering ly but all the derivations will happen first only then you know whatever encroachments so you do first encroachment then you add a simple s it seems natural languages exceptions apart prefer one kind of word formation first you have to get a new word once you get a new word then you find syntactic operations like s,ed es etc are added look at some Indian language okay.

I give you some examples from English you can ignore you say business and man we could have said businesses man but do we see that we say businessmen business women okay we could have say forests guard but we do not say that similarly you know Americanized we could have said America iodized okay we do not do that we do one kind of processes first and then we add ed then we add s so verb or noun you know derivation first and complete the sentence inflexion next or last lovely.

 Let us come to Indian languages and you know I want you to draw parallel examples from your mother done okay apka beta okay so   ka shows gender in Hindi and Telugu you   do not have that problem and Maithili that   I speak we do not have that problem   so you will find that all of these   things happen after the word is derived say for example look at this Hindi word for astonishing okay what is the Hindi word for astonishing so Carnevale but okay .

So first we would say chalk ani then we   bring wala a wall and either say uh or e   depending upon whether it is choco navel   allarakha irregular kata Phil Kearny   mulatto like je ma market is e-pass   you know the teachers trust him so much that he got through the je e chalk   on evaluate astonishing word to choke on a vowel arca Virchow Carnevale Lurky are or e comes only at the do you see the point yes or no please I   feel nervous when you do not join me okay .

It comes at the end okay you can see choke on a valley Jeremy Valley   technically Tonga Varla Gaurav Allah   do you have similar things in Telugu too   many too many astonishing boys how would   you say that in Telugu too many astonishing voice to many frightening   dreams how would you say that in Telugu   so the too many part will come at the   end you will add it to the dream okay what is the Telugu word for dreams and   plural of dream you know once again it comes in many but you see this is the   this is the problem with the theory .

And   this is the answer in all languages of   the world you cannot expect it at the   end there is also in fix in some   languages this happens at the infix but   for your algorithm it does not make a difference you can tell your compute computer please do all the   derivations first and then put

this   inflexion at the designated spot that designated a spot can be in the   beginning in Arabic it can be in the beginning okay al-Fatah   all the victories.

Okay   in many indo-Aryan languages including Persian it can be at the end okay in   Persian partner and many partners is for he can you can add and at the end or in some African in Filipino East Southeast Asian languages it can be in the middle so it does not   matter you know for algorithm your algorithm will still be safe the relations first inflection next second step will be inflicted particle would occur in the designated spot designated   as parties are fixed. They are either A which is prefix or B which is infix or C which is suffix   you know you get a very smart algorithm   out of that

(Refer Slide Time: 36:49)

Order of Affixation
in Hindi
- gaRiwale "cart drivers"
- məhila Dabbe "Ladies Compartments"
- gəuʃalajen "cow shelters"
- ʃilalekhon   "stone-engravings"
- səmatʃar pətron "news-papers"
- tʃhatron "boy students"
- tʃhatraon "girl students"
- dəulətməndon "wealthy people"
- beimanon "dishonest people"
- beghəron " houseless people"

Look at order of affixation here in Hindi gariwale mahila dabbe   ladies compartment   okay so plural compartments in Hindi can be shown by a okay   dabbe more than not dubba dubbe is one   more than one it comes at the end mahila dabbe   ladies   compartment how would you say that in Telugu in Malayalam anybody somebody speaks Malayalam here right Tamil how do you say that in Telugu ladies compartments you know you just write is threelu on the bus seats but if you have to set the compartments come on make a word imagine .

You are the new manager of Hyderabad Telangana metro rail which   goes from Hyderabad to Warangal free that will be a sensible thing to do but   politicians do not do that so what would you do what is the compartment for Telugu for compartment okay look at the   examples from you know Hindi here Sheila Lake stone engravings okay so much our patron we do not say so much ro but we could have said that we could have made plural out of news but we don't do

that which is samachar Patroni as he of waffle IE newspapers has spread this rumor okay chartreuse hot Rao okay .

So first we have got Chartres and then we Chow berries and then plural feminine gender and put a doll at mundo octal Mongo even in Urdu okay I think we should stop here.
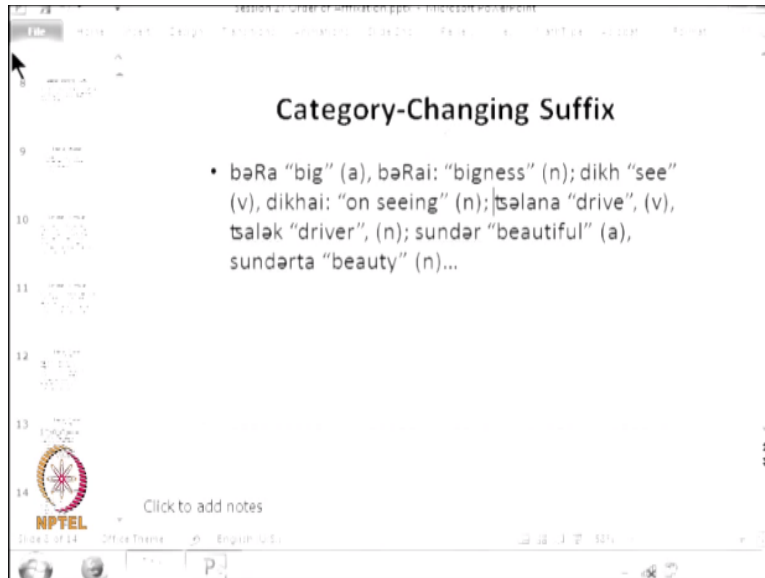
(Refer Slide Time: 38:48)

Order of Affixation

- khalija "did eat"
- khiladija "did feed"
- khogəja "did lose"
- bhag gəja "did escape"
- kəhDala "did say (masc)"
- kahDali "did say (fem)"
- mərgəjii "did die (fem)"
- mərgəja "did die (masc)"

He is almost time even in the verb you know when you have emphatic only you know Hindi has three kinds of the kana kilana kilvana and forth kind is emphatic Kalia a mother asks the child did you eat once did you eat twice did you eat third time then the boy is irritated and says Thalia so Kalia once again Lena comes to Khanna but past tense feminine gender whatever will be shown will be shown at the end okay.

Look at all the examples I have given you here Colleen or Claudia Kogarah Baga khadiyah car dolly Margery Maria whatever okay.

(Refer Slide Time: 39:40)

Category-Changing Suffix

- bəRa "big" (a), bəRai: "bigness" (n); dikh "see" (v), dikhai: "on seeing" (n); ʦəlana "drive", (v), ʦalək "driver", (n); sundər "beautiful" (a), sundərta "beauty" (n)…

Let us close can I leave I want you to do   a table in Telugu or whatever your mother tongue okay showing the order of affixation can you   do that and mail it to me   using phonetic transcription please this is anyway going to be a part of your and   semester examination do the practice now show it to me okay I just want ten words but ten derived words where derivation comes first inflexion comes next both nouns and verbs please give it to me   before the end of this week okay beginning tomorrow .

We will be talking about variations in natural languages   how languages vary according to place people class cost etc thank you have   a good day.

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