

**Indian Institute of Technology Madras
Presents**

**NPTEL
NATIONAL PROGRAMME ON TECHNOLOGY ENHANCED LEARNING**

Introduction to Modern Linguistics

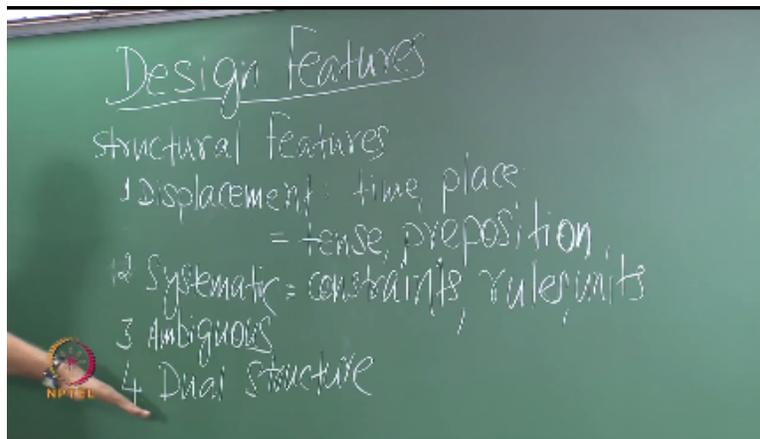
Lecture – 6

Design Features of Language-5

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Good morning lovely nice to hear your booming voice I hope you had a great weekend and let us hope you have a another long weekend coming right okay today we will have the last session of the first unit of the course the first unit of the course said design features of language.

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Design features of language in other words in other words what are those features those characteristics of language that make it such an efficient such a versatile medium of communication you can talk in dark you can talk while running in India we talk even while eating do not we most family quarrels happen at the dining table right other animals cannot it cannot a dog cannot chew the bone and can also be quarreling with other dogs okay.

We have we have that kind of so what is you know so unique about language it is there in the design of language the way nature has designed it the way God has designed it language has some uniqueness and we have been talking about these unique features we said languages can you name some features please everybody one by one it is specific only human beings have it then species uniform all human beings have it then that is culturally transmitted that is we have to be part of a group a family and orphanage a hostel you know does not matter which hostel does not matter which family but you have to be a part of it the child may be born to a Chinese parents but may be in America and can learn American English okay.

Any other feature it varies please it is open ended it gains words and it loses words on a daily basis word sounds features anything else creativity there are lots of other features you know people count 50 in 16 many of these features now I am going to talk against myself I am going to contradict what I told you many of these features may or may not be unique to human beings we do not know we do not know that dog language is not there in all dogs, dogs cannot talk about you know meat or biriyani or telangana or you know JE.

There are some features please pay attention there are some features which are no pay attention I am going to say the keywords which are indisputably human language specific please write indisputable features what are those features we have recorded dog language and we have found that it does not have as many variations okay you can do actually I am going to give you some assignments you have to do term paper for 30% of the course okay and you can take one of these things and you can examine how a dog talks to another dog after all they do okay.

How the parrot how a bird how they you know anything any other creature how does it communicate people have studied and people have studied her toils people have studied Birds okay there are those studies or you can study children how does a multilingual family teach its child one language or another language you can do a term paper on some of these things but there are some three or four features which are decidedly unique peculiar to human language.

Only human language has it and these are parts of its structure it is these features it is these characteristics of natural languages human languages that make them unique that make them

versatile that make them do what they do we call them please write structural features so far we have talked about cultural features learning features use features okay now we are talking about structural features we talked about a whole lot of cultural features languages culturally transmitted language varies from village to village from university to University from hostel to hostel or college to college we talked about all that.

Today I will take about half an hour telling you about structural features number one please write language has the feature of displacement.

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Language has the feature of displacement

- **Language can go beyond time and place.**
- The baby **will** need it tomorrow.
- The baby **smiled** yesterday.
- The director is **likely** to meet the minister.
- The director **has** lunch with the actors.
- The baby comes **from** God's home.
- Sinners go **to** hell.

Natural languages human languages can talk about tomorrow can talk about yesterday can talk about another country can talk about another age last week I gave you the example of Gulliver's Travels talks about another place one has never been to time machine talks about another time how does that happen that happens because human languages have something called please write tense it has the feature of displacement what does it mean it means that human languages can go beyond time and place.

They are not bound hello childrens language in the beginning you will see children can only talk about here and now doggy pain book similarly you know many animals can also talk only about the present immediate context a dog can bark at a stranger but a dog cannot tell its

master that the same stranger was here at the gate looking at your daughter or your son right no dog can tell its master no matter how much it loves it because the dog does not have the capacity to talk about yesterday.

The dog does not have the capacity to talk about the next street it visited and had a wonderful bone to chew there it cannot human languages have how do human languages have that they have the feature of tense because of because of tense look at this sentence you know look at this sentence the baby will need it tomorrow does the baby need it today say yes or no please did the baby need it yesterday no how do we know it will need it tomorrow because of will even if I remove me will even if I say the baby will need it does it mean present does it mean present or does it mean future obviously future him the baby is mildly yesterday.

There were a lot of celebration mother sang a song made a phone call to father or actually father sang a song made a phone call to mother who was in the office okay etcetera even if we do not have yesterday we will know it is past how shall we know that because there is Edie there and that is there in all our languages not just English even in Hindi but chatocal hasata okay in Telugu how would you say that in Telugu.

Okay at the child cried mostly okay you do not need to say yesterday you do not need to say repu nethikku okay you do not need tomorrow yesterday the tense does it okay look at this sentence the director is likely to meet the Minister has he met no it is future he may meet so there are elements in language like tense like adverse like time markers which help you go beyond the present.

Which help you go beyond here beyond now look at another sentence the director has lunch with the actors is it talking about tomorrow say yes or no make a mistake does the sentence talk about tomorrow when you say the director has lunch with the actors about every day the director has lunch not at home the director has lunch at wherever he is but he has it with his actors okay.

But if we said the director had lunch with the actors then it is past it is yesterday if you say the director will have lunch with the actors then it will mean tomorrow it will mean so language has elements in all languages have it is not that only English has it is not that only Sanskrit has it is not that only Telugu has it what you call tribal languages what you call child language what we call any language natural language has this ability to go beyond here and now.

Similarly you know you can talk about distant places the baby comes you know of people children often ask where does the baby come from and many parents you know do not tell them the truth they tell them baby comes from God our baby comes from God's home okay so this element from tells you of a place which is beyond here which is not here when you say from that means you are talking about another place when we say two where do sinners go well sinners have fun you know they do not suffer many people say but I do not know I have never been to hell you know some people say that sinners go to hell.

And hell is a lot of you know bad place small rooms no windows no breakfast almost like hostel okay right or any other hostel for new or hostels I hear are bad or worse perhaps anyway you know so but we have never been to hell have we but we can still talk about it how do we do that we use words like from too will may likely and all languages have this capacity not is not just English so they can go beyond here and now this is one strong feature of language okay.

Any doubts any questions shall we go to the next right look at the next structural feature language is systemic.

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Language is systematic

In English words,
some sounds, such as
pr-, kr-, gr-,
can combine at the beginning: but not at the
end.
Similarly,
-rk, -lk, -nk
can occur at the end, but not at the beginning

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There is a bit of arbitrariness in meaning you know and we do not know therefore we call it arbitrary but at the moment you know in the state of the art today we believe that meaning has no logical correlation with sounds any word can mean anything and any meaning can have any word okay I gave you examples last week that in some language BB his wife another language BB is mother in Punjabi mother is addressed as BB but in Hindi or Urdu BB is wife okay a lot of things can happen.

There is no reason why bottle is called bottle there is no reason why cake is called cake there is no reason why X is called X okay it is arbitrary the connection between meaning you know as Shakespeare famously said call rose by any name do you know this line okay look up Google Shakespeare today you know sometimes you see these are the great gifts of mankind before you are 30 before you are 30 like it is a choice you know this will mean the difference between you and another student before you are 30 you should have read at least one play by Shakespeare at least one play by Kalidasa and Valmiki at least one novel or a story by Tolstoy you know it is like you know great gifts of mankind.

Like Mount Everest like sunrise like sunset these are the gifts of nature okay come back to it the second feature in languages systemic meaning and word may be related arbitrarily we do not know but everything else particularly the structure is structure is systemic languages systematic number two now what do you mean what do you mean when you say something is

systemic you mean two things when something is systemic it means you can write rules about it you can predict you can say this will happen this will not happen you can say this is possible this is not possible so you have units and you have rules look at one simple example in all languages of the world.

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Language is systematic

In English words,
some sounds, such as
pr-, kr-, gr-,
can combine at the beginning: but not at the
end.

Similarly,
-rk, -lk, -nk
can occur at the end, but not at the beginning

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Only certain sounds can come together say for example in English words you can have a word beginning with P R okay you can say prayer priest prove prize you can have a word going with K R you know the sound care letter may be see so you have crushed Creed cruel you can have GR great greed okay but you cannot have a word ending in PR do you have a word ending in PR in English can you think of a word that ends in PR that ends in KR that ends in G R it does not in all languages you know you can do actually.

Please write you can do a term paper on possible sound combinations in Telugu and I will give you 30 on 30 actually I will give you 31 on 30 if you brought good examples and just made a list these sounds are possible at the beginning these are the end nothing else finish I am not asking you to go for complicated you know swim in Vijayawada is Vijayawada going to be part of Telangana or Andhra thank God okay yeah great place you know.

Except you know that they ruined the river there it was the mightiest best river in India the Krishna but anyway you know we will talk about that later okay so you know there are constraints you cannot have anything anywhere you can have only certain combinations at the beginning only certain combinations at the end in English you have words that end in RK give me a word hark Park dark part bark come on give me some more please this side okay right.

But you have no word that begins with RK do you have a word in English which begins with RK I do not know if you do it please tell me you have you can have words in English ending in LK give me milk bulk we would not say chalk because we are talking about speech not writing in chalk L is silent okay so bulk milk hulk sulk hulk walk again nearly silent yeah silk lovely really you know the best that China gave to India right similarly we can rewards ending in NK give me words drank sink tank crank bank again the most important place monk okay.

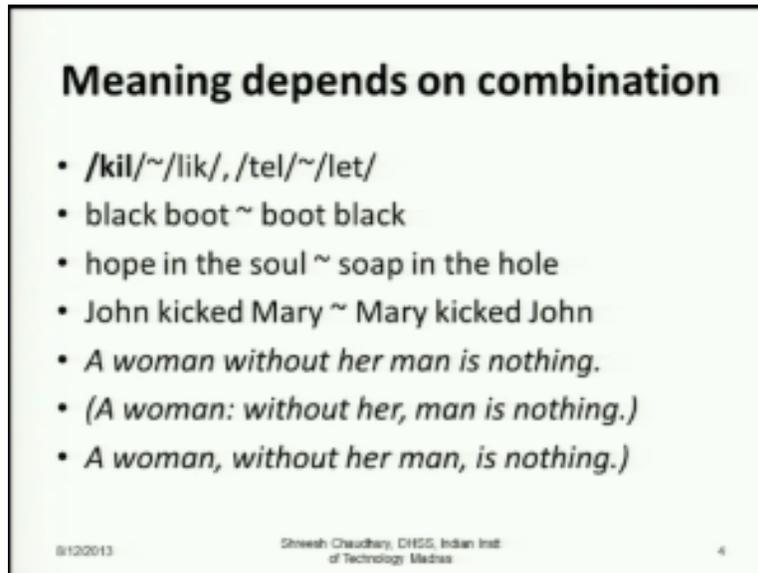
Blink but can you have a word beginning with NK in English these things differ from language to language if you have you heard of a language called Swahili where is it is spoken Africa which part of every guy is a huge thing is like Andhra okay no you can say Eastern Central Africa Nigeria Uganda Kenya Tanzania you see you should also sometimes look at these things these are the markets you these are the people these are the country's communities you have to be friends with okay.

Look at many other countries you know they have huge presence there India during the British time had a presence in Africa but not now China is the dominant player in Africa all roads construction building construction power plants Chinese are building and they are doing a fantastic job that is where the next generation of challenges for structural mechanical aerospace and chemical engineers in this country lie okay.

So learn about them learn about the culture and answer those challenges these are challenging not just of Africa these are the challenges of mankind how can you create high efficiency low cost engineering devices okay so there is language called Swahili where a word can begin with NK okay but not in and in any case see there is some kind of symmetry there is some kind of mirror image all languages have constraints on what is possible in one place but not in another

what is possible in another place but not in one that is what we mean when you say languages systemic there are constraints okay Let us go further let us see.

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Meaning depends on combination

- /kil/~lik/, /tel~/let/
- black boot ~ boot black
- hope in the soul ~ soap in the hole
- John kicked Mary ~ Mary kicked John
- *A woman without her man is nothing.*
- *(A woman: without her, man is nothing.)*
- *A woman, without her man, is nothing.)*

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Meaning also depends on combination when you say when you talk about structural feature when you talk about structural features you have prepositions you have tenses okay how do you pronounce this word preposition how do you pronounce this word preposition you know you have pre positions you have tenses which help you when you see something is systemic that means it has constraints it has rules it has units okay.

Similarly because of these constraints we can say if the meaning is not just the property of words meaning is the property of combination of words look at this thing or combination of units you have KIL sound and LIK the same sounds in the first pair does it mean the same thing yes or no please KIL and LIK look at the screen KIL and LIK you know I am talking of pronunciation not a spelling kill has the same sound LIK has the same sound but do they have the same meaning yes or no because in human languages unlike other languages that we know of meaning is the property not just of units but of the please right combination of units.

The way they combine the same words same sounds same syllables combined differently they will mean different thing okay said tell and let have the same sounds but do they mean the

same thing they do not they have different meanings or words look at the this phrase hope in the soul it comes from church okay we go pray we you know it is temple you know we need Newton said even if there is no God let us invent one because it keeps us from suicide it keeps us from depression it brings us hope that God will rescue us tomorrow.

So hope in the soul they have the same words as soap in the hole but do they mean the same thing do they mean they do not worry about spelling you know worry about pronunciation hope in the soul and soap in the hole okay similar sounds matching words matching sounds do they mean the same thing they do not one talks about prayer church temple the other talks about bathroom cleaning etcetera okay all look at this John kicked Mary bad this should not happen and Mary kicked bad sorry Mary kicked John even bad should not happen but do they mean the same thing.

In one case John will be arrested in the other case Mary will be said Wow well done so you but you know that you know let alone a restaurant let alone law do they mean the same thing say yes or no please let so John kicked Mary and Mary kicked John have the same words but they have drastically different meanings why do they have different meanings please tell me because they are combined differently earlier it is ABC now it is CBA okay.

It can be lots of you know permutations lots of combinations are possible I gave you last week the example of this famous sentence how punctuation how pause can change the meaning when you say a woman without her man is nothing how many men believe that well you will okay a woman without her man is nothing how many men believe that okay I see lots of hands going up you know in other seminars here maybe you are frightened of camera but I ask this question at the research is called a seminar recently there were 400 people at least 300 hands went up.

That a woman without her man is nothing you see the meaning the same words differently combined can give you different meanings it is not the property of other like animal languages it is not the property of you know a lot of other kinds of modes of communication it is in human

languages that units alone do not have meaning units have part of the meaning of course but a lot depends upon how these units are combined how these units are put together.

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Language can be ambiguous

- Baby swallows fly.
[_{Subj.}[Baby swallows]_{pred.}[fly]]
[_{Subj.}[Baby] _{pred.} [swallows fly]]

[[Son][of Pharoah's Daughter]]
[[Son of Pharoah]'s [daughter]]

Flying planes can be dangerous.

Policemen were ordered to stop drinking at mid-night

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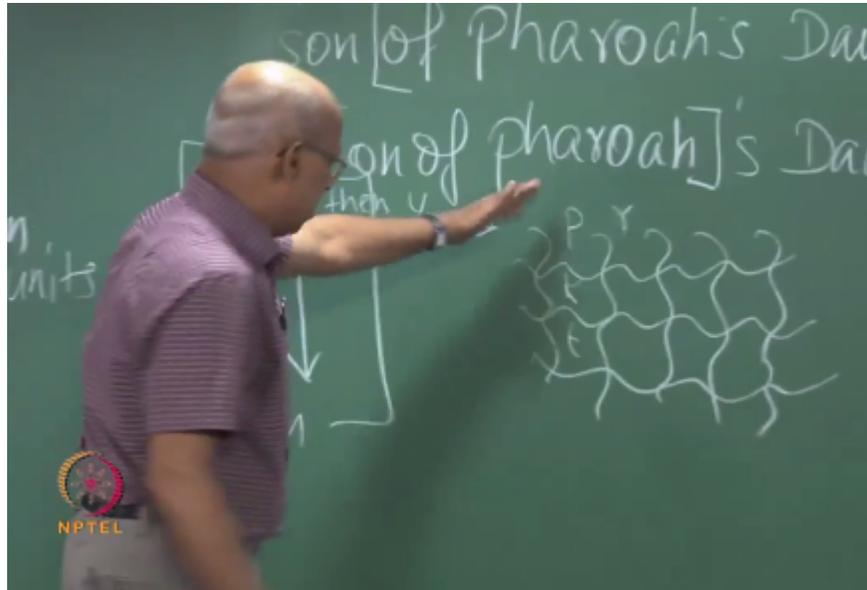
It is because of this structural property that language can also be ambiguous please right these are all structural property it can be ambiguous what do you mean by ambiguous what is the meaning of the word ambiguous it can have more than one meaning not sure do you mean X or do you mean Y okay it can have you know look at this sentence baby swallows fly what does it mean right so if you take baby as the noun are you together now I am talking complex things you will have to be mentally awake not only physically awake okay.

If you if you if you if you mean baby as known then it has one meaning who swallows the fly baby swallow baby eats the fly by mistake of course or baby does not mind okay babies are emancipated creatures do they do a lot of things okay but if baby is an adjective then it has another meaning that is then swallow is a bird and it is not the big swallow but the baby swallow the little swallow the small swallow flies then fly is not a noun now what does it become now it is a verb baby swallows fly.

So you know language can be ambiguous it can give you different kinds of meanings depending upon what you intend that is how poetry is written that is how jokes and puzzles and

a whole lot of interesting thing which are not there on the menu of a restaurant you know which are slightly unpredictable which gives you poetry which give you music happens you know but for these things do not happen look at the next phrase when you say son of Pharaoh's daughter look at this phrase please.

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Son of Pharaoh's daughter who is the grandchild the he or she who is the grandchild is it the son or daughter it is he if you mean it this way sorry pardon me if you mean it this way then this is the grandchild Pharaoh's daughter has a son so Pharaoh is the grandparent daughter is the parent and son is the grandchild but if you mean it this way then who is the grandchild the daughter she is the grandchild because this is the grandparent.

This is the parent and this is the grandchild depend upon what you intend how you mean how you bracket or take a sentence like flying planes can be dangerous visiting relatives can be nuisance okay borrowing friends can be a nuisance you know friends who borrow your mobile phone friends who borrow your money but never returned friends who borrow your cigarette do not buy their own okay they can be annoyed or borrowing friends taking somebody else's friend.

So you know flying planes what do you mean the act of flying the planes or the planes that are already in the sky so you know the ambiguity can come into the sentence because of these things and depends upon how you mean it look at the next sentence policemen words talk were asked were ordered to stop drinking at midnight who was drinking policemen two or three interpretations were are possible policemen were drinking and they were told do not drink somebody else was drinking and policemen were told you boot them and take their drinks away okay.

Or when were with the dead drinking midnight or the order came at midnight what is possible policemen were ordered to a stop drinking at midnight where the order at midnight are where they expected to a stop at midnight allow at other hours the whole lot of ambiguity is possible even ordinary sentences and why is this possible it is possible because please the most you know singular feature the most distinctive unique feature of language even if language did not have anything else if it had this feature the language would be a unique system of unique medium of communication.

The ambiguity comes to language because of the duality of structure please write you know these when we talk about structural features we say it has the capacity for displacement it is systematic it can be ambiguous all this because all this because language has dual structure not just one not just linear you know by Luke dual structure we mean it can be this way okay it can also be this way it has not only linear structure it also has vertical structure okay every time you select a sound say for example.

when you say you take P now S is not possible what is possible after P in English A any vowel some consonants but not K not possible here but K it we take it from a class we take it from a class you either have P or you have K or you have T or you have X or you have Y but not everything so you have one vertical structure okay and you have the other linear structure when you say P you can either take a consonant you can either have a run or you have A or you have a vowel okay take a word take the world okay.

When you say A then after all you can only have something which is countable you cannot say all water can you please yes or no we cannot.

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Language has a duality of structure

Syntagmatic or linear : (a) then (b) →

Paradigmatic or vertical {a} ↓
or
{b}

All the beautiful black roses from Bangalore...

#(s) {p} {y} - -ksts#
{t} {r} - -rp/rt/ri/rk#
{k} {l}
{w}

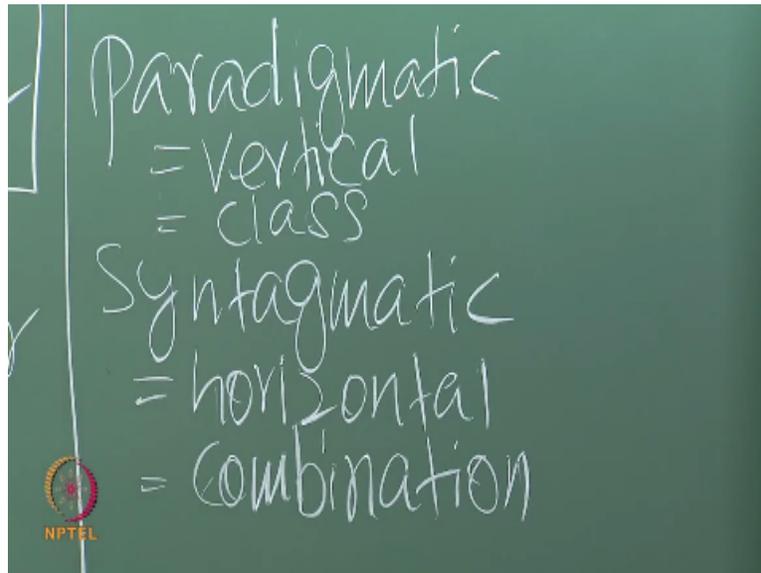
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After we can say book after all we can say boy after a we can say building but if it is and then we can say apple egg elephant okay each choice you we have this kind of a structure if this then that and we have this kind of a structure either this or that okay if X then Y here if X then not Y you make a choice this is called please write this is called a paradigm can you catch it can cut the camera catch it please yeah okay this is called a paradigm a Latin word its class this is the class from each class you take on.

So for example look at the earlier sentence baby swallows fly baby is either a noun or an adjective it cannot be both what do you mean it tell me please do you mean it has not known or do you mean it has an adjective if you mean it has not known then the next word is a verb but if you mean it as an adjective then the next word is a noun so you know these constraints these are Exception list constraints on choices.

And you constantly make every time you speak you make a multi level choice at the level of songs at the level of words at the level of sentences at the level of below sounds you have linear structure if you choose it then Y then Z then this but if you choose X then not Y not Z you make choice from the class and you make choice from the combination okay class related many people call it is right this is called paradigmatic choice I will write it can I write here.

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Linear choices sorry a vertical choices paradigmatic choice you take from a paradigm you take from a class okay paradigmatic choice or vertical choice vertical choice says from each class take only one and then what you choose will determine what comes next but the other choice is called please write same tag matic choice you know same tag linear same tag matic choice or horizontal okay many people call it choice of a class and many people call it choice of combination.

Constantly all along no matter what we speak even if you speak only one word somebody says asks you are you are you free this evening and you say yes it is a whole lot of paradigmatic and integral you know and syntagmatic choice when you say yes it means yes I am free okay when you say no you mean no I am not free what is the syntagmatic paradigmatic choice here it is either yes or please complete it know.

What is the syntagmatic choice yes I am free no I am not free okay the smallest possible sentences or the longest possible sentence no matter how big or small how long a short your utterance the choices are there all across and that is what gives ambiguity if you if you mean son of Pharaoh's daughter is ambiguous this is because what is the relationship of son is this

the head of the phrase if this is the head of the phrase then this is the parent if this is not the head of the phrase then this is not the parent you know.

So you have to decide constantly when you speak and because your mind your brain is so versatile it does not know parent has sat down and has told you today's son you know like you got coaching for JE like we got coaching for a lot of other things nobody sat down and told you today I am going to tell you about paradigmatic choices tomorrow I will tell you or syntagmatic choices no a child and his brain as a child is born or even before the child is born the child observes and finds that all along take any sentence you like okay.

When you say language can be ambiguous then you decide language is a noun after that require an auxiliary verb auxiliary verb can be either can or may you decide to take can but when you say take can then you require another verb you can say can go can be can happen you simply cannot say language can ambiguous can you say that you cannot because a word like can a word like can demand a word like can demand another verb here you can see can go can happen can live can die can fail can pass but you cannot simply say x can IIT.

You can say x can enter IIT x can exit IIT x can destroy IIT x can give great gifts to IIT but when you say can and when you choose an auxiliary verb then except in one or two situations you have to have a main verb but the choice is constantly there can is not the can is not the only auxiliary verb in this class what are the other verbs may might give me my good should shall well would ought must need many in Telugu what are the choices come on may take a minute please.

Write a list of auxiliary force in Telugu do you know Telugu those who know okay in your mother tongue I mean those who know Hindi please write it in Hindi is it that only English has of ordinary verbs of this kind do you have something like can in Hindi hey Annie of course different but something like I do not say exactly you know but you know unit performing the same function was some kaitha ho saktha ha who not cha hee ha ho jana cha hee ha ho sakatha okay.

Yeah so do we have similar elements in your mother tongue please take a minute and write please take a minute and write you can do a term paper on these things please write you can do a term paper on auxiliary or modal auxiliary verbs can code shall hood in your mother tongue okay in all our languages in all natural languages we have these things okay and we constantly make choices.

When you came to IIT you had a flow ma tho medical colledge ja saktha tha hara mujko tho filaments ko jute jana jaye ha ka boring jaga ha okay but anyway because you are you know parents are happy and we need jobs so you know you come take anything if flying planes can be done dangerous if flying is a noun if flying is gerund then planes his object but if flying is the adjective not grounded planes but flying planes grounded planes are not dangerous flying planes can be dangerous they can fall upon you okay.

We have we constantly make choices from the class and once we make these choices here one we see we say can are made then we are also under obligation to take a particular word here after can we told you cannot take a noun can you take a knowledge here can you say I can teach her can you say I can film you cannot say I can film you can say I can see if film I can watch a film I can make a film okay I can hate a film you know you have to have things like that .

So language constantly has a dual structure please read the book I have given you some of these concepts can be difficult for us to understand the first time but not difficult if you give sufficient time or talk to me at length it let us summarize.

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Summary of Design Features of Language - 1

- Language is species specific.
- Language is species uniform.
- Language is culturally transmitted.
- Language has variations.
- Language is vocal.
- Language is open ended.
- Language is arbitrary.

I will stop this unit here the first unit design features of language we talked about lots of features we said languages especially specific what does it mean please only human only he was a biological gift to human beings like flying his to birds swimming is to fish crawling is to reptiles okay next language is species uniform what does it mean only human beings sorry all human beings rich or poor you know je or otherwise IIT Madras or IIT Bombay does not matter okay.

They all have language is culturally transmitted what do you mean we learn it only after we hear it only after we see it used language has variations what does it mean come on please making mistake does not matter there is no punishment changes from place to place yeah it is not the same you know it differs from village to village class to class in India caste to cast the same village to cast is picking two kinds of language is it true of Telugu it is true of tamil it is true of Hindi it is true of mightily it is true you know many languages.

In India we have more cost than class a specific language region to region job to job ok then language is broken it is primarily vocal writing is a representation of language is open ended what do you mean yeah you can add you can lose gain and lose words ok language is arbitrary what do you mean no logical connection between meaning and word and the object correct language is creative you can always say new things in new ways you can make old words mean new things.

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Summary of Design Features of Language -2

- Language is creative.
- Language is systematic (It has units and rules, combinations & permutations, meaning depends on structure & combinations).
- Language has the feature of displacement.
- Language has dual structure.

Language is systematic that means it has units and rules combinations and permutations and meaning depends upon these structures these combinations and permutations language has the feature of displacement what does it mean it can go beyond time and place beyond here and now language has dual structure what do you mean it has a class structure and it has a combination structure paradigmatic and syntagmatic structure wow you are engines lovely this is the test okay.

Name the design feature is applied below even the best of parrots cannot utter a complex sentence or a new world species specific many great poets have come even from backward castes and poorer classes.

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Test

- Name the design feature implied below:
- Even the best of parrots can not utter a complex sentence or a new word.
- Many great poets have come even from backward castes and poor classes.
- “Ton” and “Not” have the same sounds, but not the same meaning.
- “Mother” is called differently in different languages.

Species uniform lovely done and not have the same songs but not the same meaning our combinations lovely really mother is called differently in different languages vary your arbitrary you know meaning as though similarly work out some examples for each of these features I'm going to mail this these PPT slides to you work out these features you will have this as part of your quiz next month okay any questions thanks have a good day please.

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