

Indian Institute of Technology Madras

Presents

NPTEL

NATIONAL PROGRAMME ON TECHNOLOGY LEARNING

Introduction to Modern Linguistics

Lecture- 2

Design Features of Language

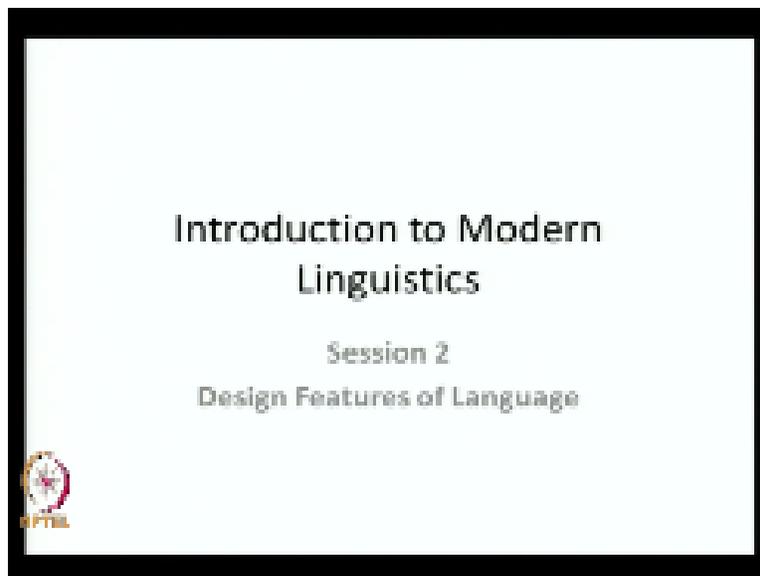
Prof. Shreesh Chaudhary

Dept.of Humanities and Social Sciences

IIT Madras

Good morning please respond again good morning, right welcome to this second class in modern linguistics today we will talk about the unique features.

(Refer Slide Time: 00:31)



Of natural languages in many books this part of the subject is known as design features of language you know how is language how is natural language , designed such that it is a unique medium of communication we will look at some of these features today and in the next few classes okay please try and pay attention, I guess you already know a lot of these things some people call it is almost obvious and I think they are not wrong it is almost obvious it is only that we are looking at that at these features.

In a systematic and in a critical manner okay, are we together are you alright are you comfortable lovely, the first feature language.

(Refer Slide Time: 01:37)

Language is species specific

- **Only human beings have it.**
Ltd Domain/Range of Animal Communication :
Hunger, Security, Sex
Chimp at Georgia State University
<http://www.bbc.co.uk/1/hi/science/feature/400756.stm>
Dolphins at Hawaii Aquarium
<http://kids.usato.rngeographic.com/kids/stories/animalstories/dolphin-language/>
Computer Generated Language

 IPTEL 2010/2011

Shri Venkateswara Institute of Technology Alton

3

You know by language, I mean all natural languages that you and I speak untaught language not computer language not a spy language the language you and I learnt and use after we were born okay, or even before we were born okay, that kind of language we call it natural language or language only this language is unique two human beings no other animals have this language you might be aware of attempts to teach language to parrots have you do you know any parrot do you know any family.

Who keep parrots and teach them language it used to be very popular When I was your age in India it used to be very popular people who teach parrots please parrot or please totaram say Sita Ram, Sita Rama and better to say Sita Ram , Sita Rama a parrot also learned some bad words okay we have a joke about political leaders in BR that a particular political leader had a parrot in his home and whenever if he guest came he said obvious Allah there secure ayah because that is how he Spoke.

These are exaggerations these are it is true that parrots and some other creatures can learn a few words can repeat those few words but no parrot has looked at the cloud and says wow what a wonderful cloud today okay ,or has it written poetry about it or has talked about the weather that will be there tomorrow or that will be there yesterday, there are other creatures you know

dolphins people say we are very intelligent they do talk from what we know today please take it with a pinch of salt.

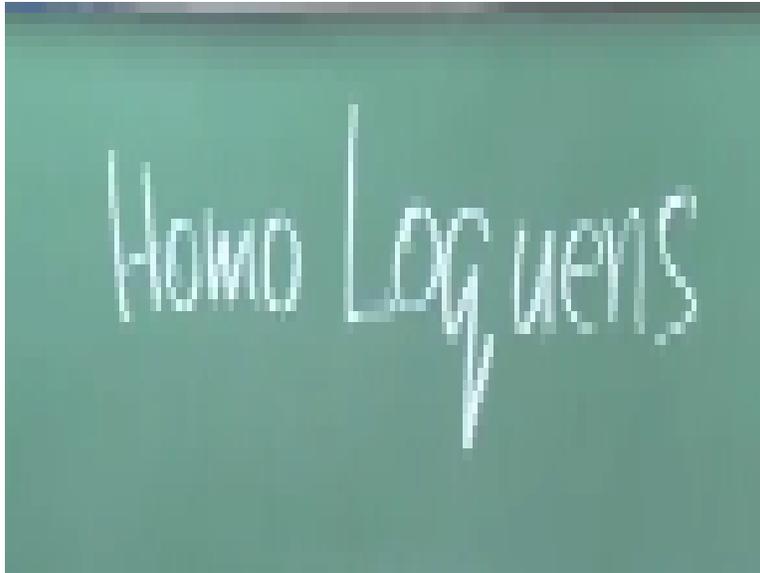
When we say all the human beings have this language we mean in the state of knowledge today we do not know enough every generation if you look at the history of Sciences and there are wonderful books fine time some time to look at the history of Sciences you will find that every generation has believed that wow I have got the ultimate truth.

Now I now know the reality is and the next generation has proved that the earlier generation was wrong, you know we believe that the RT the static the Sun goes round but then somebody came and said the Sun is a static the earth goes round okay these things happen so in the state of knowledge today we believe that only human beings have natural language animals have language of course they also communicate among themselves but they have limited domains they talk about and they have limited range of communication subjects say for example they talk about food or they may talk about security.

They may talk about some other kinds of animal things you know sex hunger fear you know okay but they do not have range like human beings they do not have subjects like human beings they do not have domains kinds of sentences kinds of words their expressions are limited to absolutely few very few subjects and topics and domains okay ,not like us we can talk on subject we can talk off subject we can talk without subject some people actually cannot keep quiet you know they there are compulsive talkers if they are with you they will constantly be talking do you have friends like them anyone say yes or no please all right.

You know there are actually you may note Greek philosophers Greek philosophers called human beings.

(Refer Slide Time: 06:26)



Whom Luke wins speaking animals human beings are talking animals, we are the only ones who can talk there of course have been efforts to train other animals into speaking like I told you about parrots so in some university in the United States of America they spent a couple of billion dollars god bless them and try to teach some language to chimpanzees in the animal psychology department Wow okay and they found that they were had been able to teach the chimpanzee something like a hundred word vocabulary.

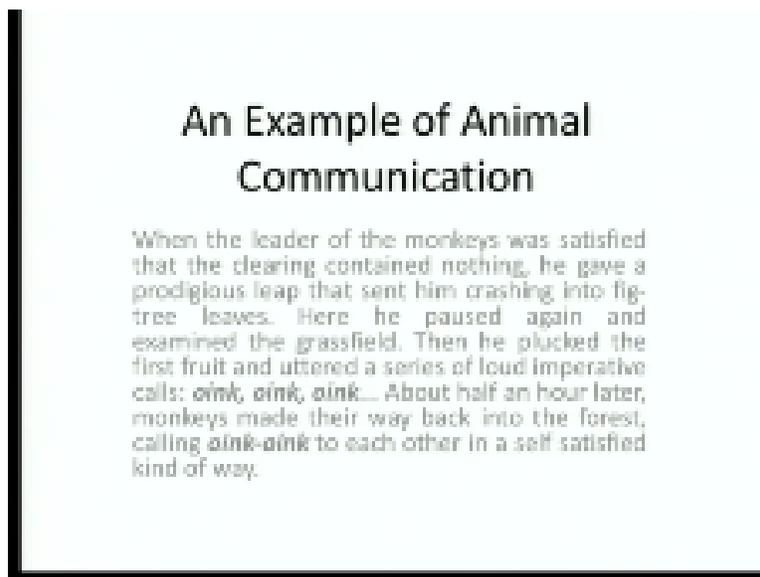
So when they said read the chimpanzee would press a button and point to the red color and when they say bred chimpanzee would press another button and point to the picture of bread if you are interested. I have given work I have given links. I will mail it to you know our class representative and you can check you can read more about how this experiment was designed how this experiment worked and what its limitations are okay, all of these attempts all of these attempts at teaching language to other creatures are like our attempts at flying.

There are people there are human beings who can jump maybe 2 meters or 3 meters I do not exactly remember the Olympic record in high jump or in long jump or there are circus artists who can go from one swing to the other do you think we can call ourselves flying creatures yes or no please we cannot that does not make us flying creature we can swim in water for some time underwater also we can survive for two or three or five minutes at the most okay maybe there are people who can be there for longer.

But can we compete with fish can we call ourselves aquatic creatures water creatures can we are not biologically designed that way so in the current state of knowledge okay if you are interested about dolphins and other aquatic creatures language I have given another link and I will forward it to you can check those links and you can all your own search. I will be very delighted if any one of you can prove that other animals also have the same elaborate language that human beings in the state of knowledge today it seems please note the language is a biological gift to human beings language is a biological gift to human beings.

Just as flying is to birds swimming is to fish other things are to other creatures so God has given us Nature has given us language only human beings have it there are all kinds of language this term is used for many things who use it for computer-generated language a spy language animal language but the language as we know it in our time okay it is unique to human beings look at the examples.

(Refer Slide Time: 10:45)

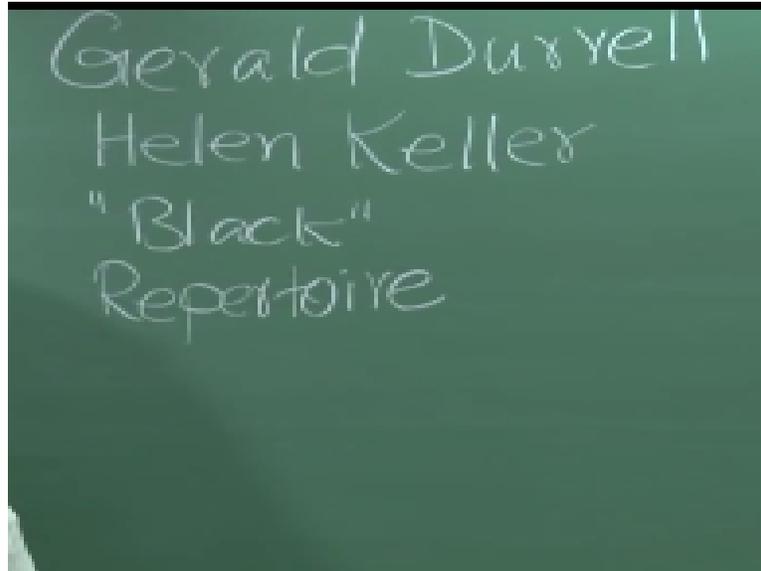


Of some human some animal communication read it can anyone of you please read it aloud yeah can you please slowly and yeah.

You can rise can you please cover my friend that sent him crashing into fig tree leaves here he paused again and examined the grass field then he plucked the first fruit and uttered a series of loud imperative calls oink-oink-oink about half an hour later monkeys made their way back into

the forest coiling. I going to each other in a self-satisfied kind of way okay I have taken this extract from a book on animals is absolutely wonderful book somebody called Gerald Durrell.

(Refer Slide Time: 11:46)



Please write you can Google him and see this book general dark general Darryl's book on. You know animals animal communication animal world it is a wonderful five chapter book costs just about 100 rupees and I guess it is available on the net read some of these things animals also communicate what their communications are limited in this case sorry what is your name yeah pardon me on Rajan I will ask of such a limited memory as unrig read to us this communication is limited to food okay.

They speak once before they start eating and they speak again when they finish eating okay, but while eating they do not say well wow what wonderful food or what rubbish is this what you get in the hostel okay they do not talk like that or can somebody else please read it aloud this is an example from another kind of animal can somebody else.

(Refer Slide Time: 12:57)

Animal Communication

- ...Unlike a lot of the other forest mice and rats, these little creatures were of a quarrelsome disposition and would argue over the food, sitting up on their hind legs and abusing each other in thin, reedy squeaks of squeaks of annoyance...

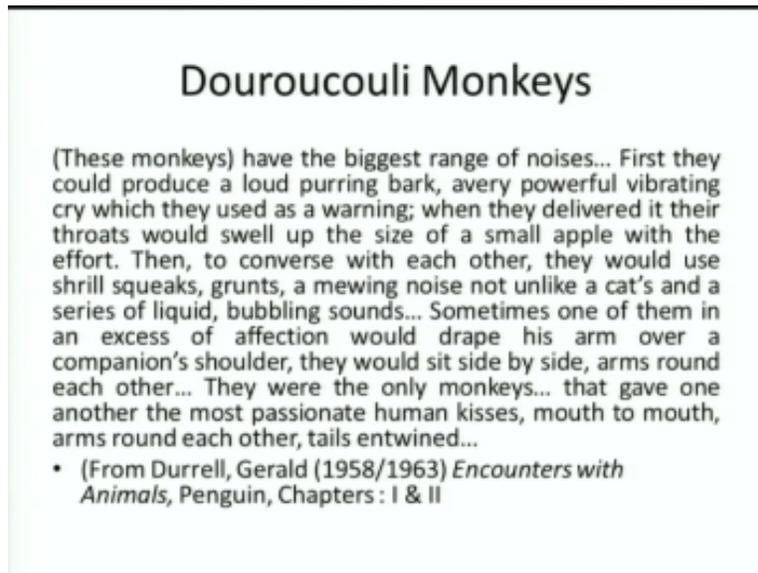
Please stand up and read it aloud to all of us please like on rat read continue stand up and read is it legible to you okay then I stand up take courage come on yes great slowly and loud enough these creatures were of a quarrelsome disposition and would argue over the food sitting up on their hind legs and abusing each other in thin, reedy squeaks of squeaks of annoyance when only one squeaks of a noise you know animals quarrel animals fight they bark at each other they squeak at each other they give certain limited calls

(Refer Slide Time: 13:48)



It seems certain other animals. You know this is the picture of a species a monkey called Douroucoulis monkey is found in the forests of South America okay, Douroucoulis monkeys are supposed to have some rudiments of communication.

(Refer Slide Time: 14:07)



Can somebody else please read this aloud somebody else please this side can you speak a little louder please and then there's items small happen then to converse with each other they would grunts amazing moist not unlike a cat's and a series of liquid opening sound really laughs Oh a companion to do sick cyber side arms around each other never the only monkeys that gave one another the most passionate you know get multimode that is a client thank you know some animals have a little more a little more evolved.

But we do not know of any animal today which has language like human beings okay languages species specific language is also a species.

(Refer Slide Time: 15:27)

Language is species specific

- All human beings have it
- Only human beings have it
- Birds can fly, fish can swim
- Human beings can speak
- Are human beings born talking?

You know all human beings have it and only human beings have it. I will tell you later that language is a species uniform all human beings have it like you know biological features like all human beings have two hands two eyes one nose five fingers some may have six 32 teeth some may have 34 but they are exceptions by and large there is no human being found yet who have well more than two feet two hands particular design a particular gift similarly you know all human beings have it and only human beings have it just as you know birds can fly and fish can swim.

So human beings can speak it is biological gift to them lot of people ask question today are human beings born talking what is your answer how many people believe they are born talking anyone how many people think they are taught raise your hands okay, well opinion today is changing opinion today is overwhelmingly in favor of the view which says that human beings a start learning language even inside their mother's womb by the time the fetus is about said trend over 20 weeks 20 to 24 weeks by the time six months.

You know the child has brain and the child starts picking up language and distinguishing sounds of speech from other sounds it is not conclusive yet but there is an overwhelming body of evidence which suggests this view we do not know it is open to research okay languages species uniform.

(Refer Slide Time: 17:37)

Language is species uniform

- All human beings have language
- Even deaf & mute have language
- Like biological gifts, all have a basic minimum
- No. of words known can vary,
- **Work of Basil Bernstein (1924 - 2000)**
- Restricted & Extended Codes

Just as all birds can fly just as all fish can swim just as all reptiles can crawl so all human beings can speak there are some who through accidents of birth may be born deaf and dumb okay but they also have language. They understand and express themselves in as complex ways as other human beings using language do okay, it is species uniform even deaf and mute have language they write poetry they write books they do paintings do you know of any deaf and mute person.

Who became a celebrity Helen Keller please Helen Keller please Google her and see what she did Helen Keller a girl brought in sorry born in somewhere North America in the United States of America was born deaf and mute but through determined effort and willpower she learned language she wrote books she travels he met people she also came to India if you watched this Hindi film which was done some years ago black okay, this film a Hindi film this was done on the life of Helen Keller more or less some you know artistic adaptation otherwise this was the life of Helen Keller.

So definite also have language they can express themselves except that their expressions are slightly different in method from the way you and I do okay but like all any biological gift all human beings have language now you can say do all of us know the same number of words can everyone write like Tagore or talk like Mahatma Gandhi can everyone write poetry that is another matter that is the use you know can if just as everyone cannot become a champion athlete everyone cannot become a champion wrestler.

That does not mean everyone does not have the same limbs same physiology and same Anatomy be it a wrestler or be it series Chaudhary an ordinary person okay, all of us have the same kind of physiology so number of words that one person knows may differ from the number of words another person knows but the basic ability in language is the same or very similar very similar that is why all of us can understand all other speakers of that language because we share a great deal nearly all the basic that we have in common so number of words can vary there you know there in about 60s and 70s there was an Educational Psychologist a professor in the college of University College of Education London.

Who made and who did an experimental study in London and found that children living in the families of sailors drivers working classes people had fewer words and children coming from upper classes or upper-middle classes had more words he asked them questions like what do you have for breakfast and the children from working classes were able to describe their breakfast quite well but in very few words they just said good bad that did not have elaborate words okay they did not they could not use or today.

It was very delicious though it was not quite as well done as I would like it they made they did not speak so elaborately but they were able to express themselves where our children from the upper classes had larger vocabulary had more words to describe their breakfast because they had greater choice greater exposure etcetera on that basis basil burns time in concluded the some children can have restricted code and some other children can have extended code but interestingly it was found that all children who either restricted code or extended code had this basically all types of words you have a structure words like in and on.

You know prepositions you have is was M R I U everyone had what we call basic words everyone also had words frequently according everyone had the basic sentence types simple compound complex and you know question sentences order command sentences everyone had those things but some people could talk at length others could not talk at length that doesn't mean that basic ability was lacking in anyone so number of words one may know.

(Refer Slide Time: 24:03)

Language is species uniform

- No. of words can vary
- Type of words can not vary
- Content Words, Structure Words
- No. of sentences can vary
- Type of sentences can not vary
- Simple, Sentences, Complex Sentences
- Statement Sentences, Question Sentences

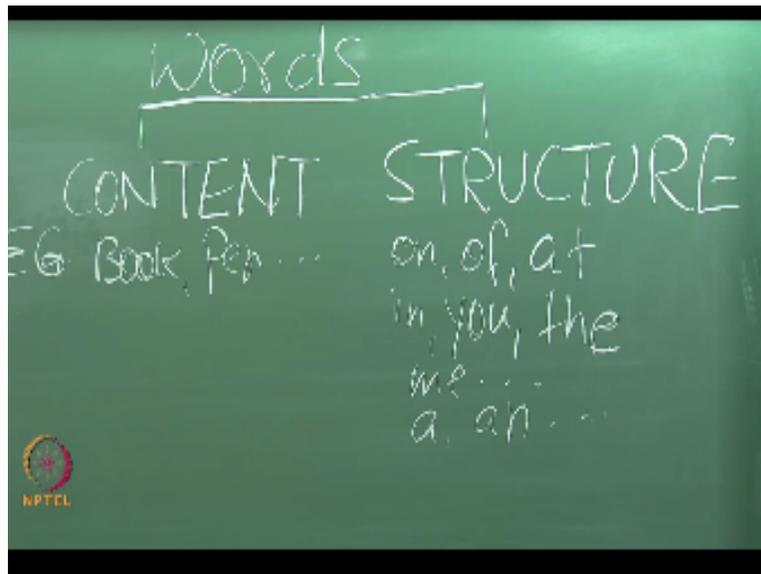
Can vary some people can know more some people can have you know in linguistics we use this term can you pronounce it repertoire it comes from music you know like any play any singer can give you a variety of tunes can sing Carnatic music can sing Hindustani can be classical can be guzzle can be folk okay, can have various kinds of ragas these are considered to be the repertoire it is a French word comes from Latin it means the collection the box where you have a variety of things.

So similarly all of us have a repertoire of language we can have a large number of words we can have relatively limited number of words but everybody has all the basic essential words there is no one are tested so far known so far who has only one pronoun I and U who does not have he and she in your language in Hindi you know we are yet to come across people who have only men or up who do not know about to mwah mara tara the basics of language basic word types basic sentence types basic sound types are there in everyone.

But some people may have more some people may write poetry some people may write books some people may write sciences it really does not mean that only they have language it only means that please write they have an extended repertoire they have a large repertoire some other person in comparison may have a limited repertoire okay, may have only relatively few words but given a chance anybody can talk about anything within their experience okay so type of words do not vary number of words very some people.

May have a large vocabulary others may have a small vocabulary but everyone has prepositions everyone has pronouns everyone has basic words for food clothes security home friendship love and affection basic needs so that you know he or she can express their desires and have them fulfilled or can answer the desires of others and help them fulfill we divide the type of words into two types into two some words are called what is this content what is this everybody please what is this content what is this yeah these are content words and okay.

(Refer Slide Time: 27:38)

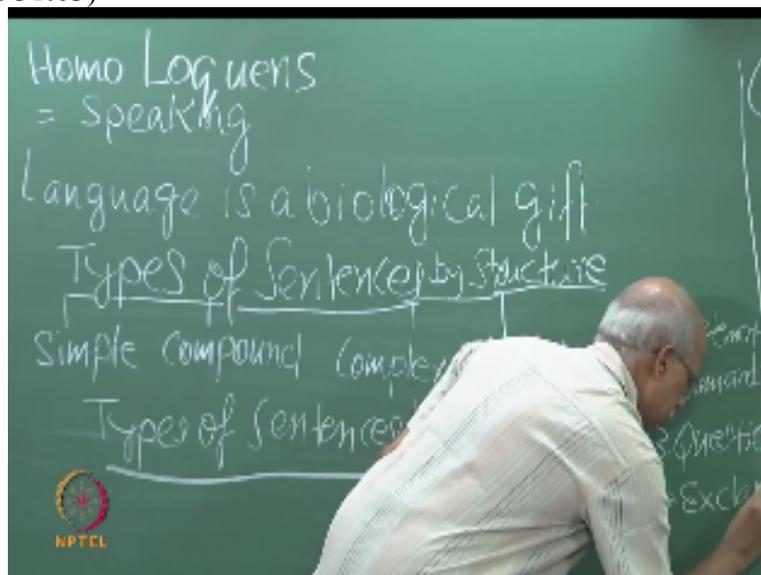


So some words are content words like you know bread fruit mango Bible Shakespeare hostel College some other words our structure words like on at is M are sure words basically nouns verbs not auxiliary verbs not is are you know these are content words they carry meaning they tell you what you want to tell but these meaning carrying words are put together with the help of structure words if those structure words were not there then you know you would not know father or son go father son beat or father son love you would not know.

Who loves whom who beats whom it is the structure words who tell you father loves his son also loves his father okay so then you know you put you put you put them together right so there are content words there are structure words it is true that a lot of people may have a large store of content words are you with me do you understand a lot of people may have a large store of content words in any language but it is not the case that anyone has lot of structure words some others have very few structure words.

Okay whatever difference is there is limited to this type some people may have more some others may have less so for the sentence types there are various types of sentences when on this course we will talk about a structure of sentences or syntax we will see that some people have you know some people can speak more others can speak less but everyone has the same basic structure like everyone else so we say in that sense we say languages species uniform all human beings have the same basic language of course content words and number of sentences can vary but types of sentences do not vary.

(Refer Slide Time: 31:03)



What are the types of sentences there are four kinds of sentences as I have written on the board simple compound complex and mixed all of us have these sentences from the point of view of meaning as well these are the types of sentences by structure we cannot types of sentences by meaning and here also we can have different types sentences that make statement sentences that give commands sentences that ask questions, and sentences, that express wonder exclaims exclamation, so all human beings have all the basic sentence types.

But the number of sentences they speak the number of sentences they write the way they talk can change from people to people we can have simple sentences complex sentences we can have a statement sentences we can have question sentences all members of the species human species have language and they have the same basic stuff as anyone else like any other kind of

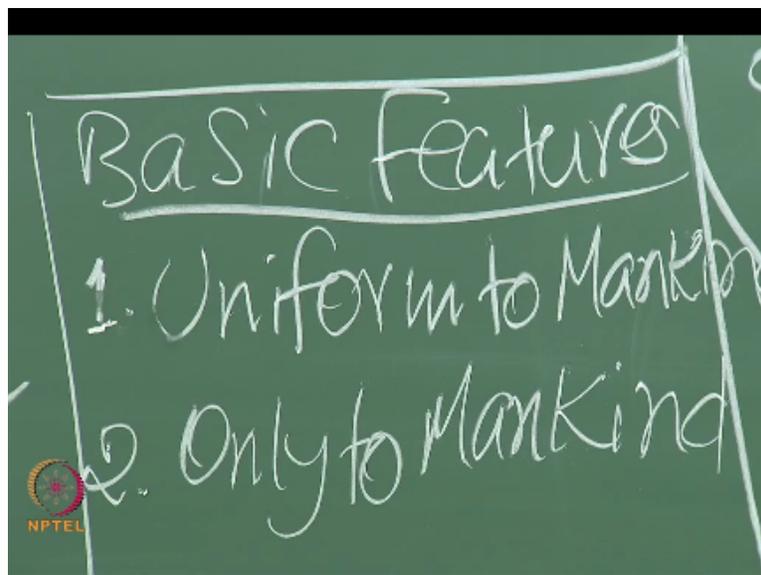
biological gift they have language they all have basic minimum language and it is a species uniform types of sentences.

Do not vary but the number of sentences do vary we can have an occasional poet we can have an occasional writer who can do a variety of sentences who can light lots of pages but if you analyze the types of sentences that are used you will find that they are the same basic types as any other person therefore we conclude that languages species uniform whether rich or poor learn it or illiterate everyone has the same basic types of sentences actually if you look at it a little more carefully you will find that there are people.

Who know in number of languages in what we know as in the English or other community specific languages even those people compared with others who know only one language there are people who know five languages compare them with people who know only one language but if you look at their language you will find that they also have the same basic types they do not have more than anyone else in those five or six or four or three languages that they know again they have acquired simple sentences complex sentences compound sentences.

They have statement sentences question sentences just as the person knowing only one language has so these are the two very basic features of language.

(Refer Slide Time: 26:35)



What are the basic features of language that number one the basic features of language number one it is uniform to mankind all human beings have it regardless of class gender country caste rich a poor fat or thin no matter what all human beings have it and the second feature is it is only to mankind only to mankind other animals do not have language they have communication systems like we saw in the case of durra coolie monkeys you know Dura coolie monkeys can hug each other can pat each other can talk together or like other mice or rats.

They can cuddle with each other or yet another kind of animal they can feed together they can walk together they can go over together but we are yet to know of a monkey who can tell another monkey or we are yet to know of a cat who can tell another cat that the food he took yesterday was tastier or not so tasty as the food today or than the food today they can only talk about the limited context the present here and now it is only human beings who can talk about lot of other things beyond here.

Beyond now most of the animals communication is restricted to there so therefore we do not call that kind of communication language we call it animal communication the language as we know it human is exclusive only to human beings and the other feature is that all human beings have it as I gave you the example of best Bernstein or of a poet some people may have more words some people may have may talk faster or slower may write books may do Sciences.

But they also have the same basic sentence types as human beings have to summarize them we have said that natural languages are distinguished from other features of other forms of communication in these two basic features number one language is uniform to mankind we cannot say ability to paint is uniform to mankind all human beings cannot paint all human beings cannot do.

A sculpture all human beings cannot do is stitching and knitting other abilities are not common no other ability is common to human beings no other skill is common to human beings except the skill of language similarly the other basic ability is it is specific only to mankind no other animal has this ability okay and all human beings just as all birds can fly just as all fish can swim so all human beings can also talk and talk about their basic needs of course there are human differences our voices differ our Styles differ because our experience is different because our genetic inheritance differ.

But the basic ability that all of us can use nouns verbs prepositions articles all of us can talk about our it needs all of us have a structure words all of us have content words that is common to mankind no other ability whether computer languages by language where the singing or painting whether cycling or swimming is common to all human beings in this sense language features are unique thank you tomorrow we will talk about other features.

Online Video Editing /Post Production

K.R.Mahendra Babu

Soju Francis
S. Pradeepa

S. Subash
Camera

Selvam
Robert Joseph
Karthikeyan
Ramkumar
Ramganes
Sathiaraj

Studio Assistants

Krishnakumar
Linuselvan

Saranraj

Animations

Anushree Santhosh
Pradeep Valan .S.L

NPTEL Web & Faculty Assistance Team

Allen Jacob Dinesh
Bharathi Balaji
Deepa Venkatraman

Dianis Bertin
Gayathri
Gurumoorthi

Jason Prasad
Jayanthi

Kamal Ramakrishanan
Lakshmi Priya
Malarvizhi
Manikandasivam
Mohana Sundari

Muthu Kumaran
Naveen Kumar

Palani
Salomi
Senthil
Sridharan
Suriyakumari

Administrative Assistant

Janakiraman .K.S

Video Producers

K.R Ravindranath

Kannan Krishnamurty

IIT Madras Production

Funded by
Department of Higher Education
Ministry of Human Resources Development
Government of India
www.nptel.ac.in
Copyrights Reserved