Principles and Parameters in Natural Language
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Lecture - 02
What is linguistics?
What is Language?

How we learn a language which language do you speak?

Student: Telugu.

How did you learn that?

Student: Mother Tongue at home.

Right, but how?

Student: (Refer Time: 00:29)

We live at home.

Student: yeah.

Right we eat somebody cooks that food does not happen that we just stay at home and eat, how did you learn language Telugu and.

Student: Parents taught me.

Did they really.

Student: I repeated what have they say during my childhood sir.

Are you sure that they taught you.

Student: Yes sir that is what is happen in.

Or other people sure that you were taught these languages that you speak.

Student: Not as we learnt English, but.

Right that that is a good example when you go to school did you all learn English in school?

Student: yes.

Did you learn English at home?

Student: No sir.

I mean little bit here and there, but formally you learnt English in schools right were you taught Telugu the way you were taught English.

Student: No.

No, but which one do you speak more comfortably.

Student: Telugu.

So, does this does this make you wonder sometimes the language that you are not taught formally you speak better than the language that you were taught formally in your school and you paid for that .

Student: sir may be because I think in Telugu.

Student: My brain

Sure all that what you are saying is true I am not debating any one of them though all I am asking you is does this make you wonder sometimes that I paid for something to learn that, then why do I not think in English or if at all I do I am not saying that you do not think in Telugu sorry do not think in English if I think in English why do I still feel more comfortable with Telugu or Tamil or respective languages. You see you understand this question and I am I am not really asking for a serious answer from you, I am only asking you to understand that these are the things we are going to learn how does it happen? That we end up a speaking language.

And more than that when we say language what do you mean by that these are the fundamental objectives of this and little bit more into objectives I am going to go with you when I talk to you about linguistics and language, today just a generic introduction

about the discipline and the object of enquiry remember last time we were discussing that in this discipline.

We study about language and when we study about language that that simply means language is the object of enquiry in this discipline, I remember many of you are from mechanical engineering if someone asks you one simple question what do you study in mechanical engineering in one sentence what will you say .

Student: Engineering is

No.

Student: Nothing.

I common do not do not say that what do you study in mechanical engineering.

Student: Nothing.

In one sentence I know you can speak for an hour, but in one sentence and if you think hard the answer is going to be similar the answer is going to be same from everybody what do you what do you study about.

Student: (Refer Time: 03:46)

That is fine, but what is the mechanical engineering about.
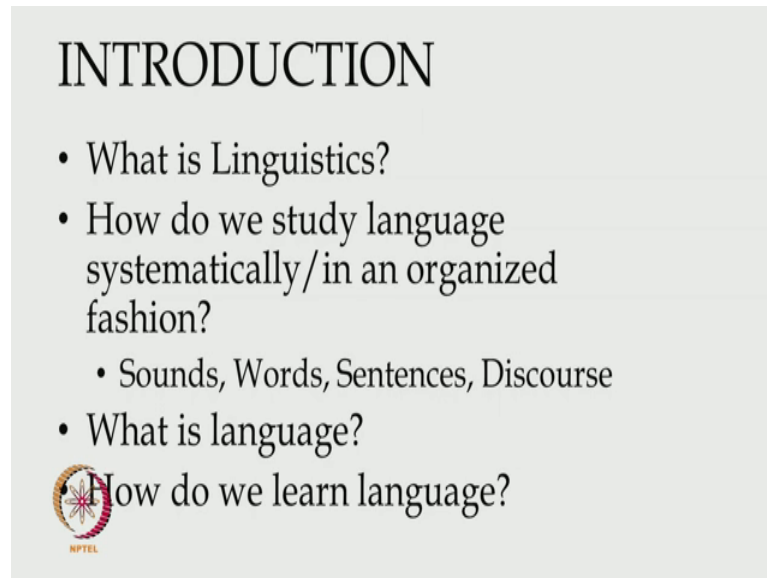
Student: Study of machines.

Study of.

Student: Machines.

Machines right machinery and machines whatever you study is finally, going to collide with and we can we can call that the study of or about machines.

Similarly, whatever we study in this discipline from varieties of perspectives this is about language and then there are several interesting questions like couple of them I just asked you right and more some of them we will discuss today when we move one by one. These are the things that we study more than that I also went through the topics that we

will be covering besides the scheme as soon as your class representative gets ready with the with a Google group and you have a subscribe to that I will post the post the preliminary slice and all these things on that. So, that you have them accessible for you to take a look at all right. So, I already talked to you about Linguistics we discussed this thing as well last time. So, let me say this thing in this discipline.

(Refer Slide Time: 04:59)

We studied language in a systematic way right like you study about machines in a systematic way an and I hope at this stage you understand what we mean by systematic way, we and that is called systematic way, is in an organized way, in a shine in a scientific way and what we look at within language primarily and what we are going to be looking at primarily in this class are sounds words and sentences. And then we will try to understand structure of language at the level of sounds words and sentences all right.

There are there are and I am going to talk to you about what we mean by language and how we learn a language.

See when we when we talk about let me introduce you to a couple of more names that you will hear in this in the in this discipline. Some of the things like we study about sounds and that area of a study is called phonetics and phonology the does it make sense the word it comes from the word phone and phone refers to sounds. So, when we study about sounds that discipline is called fanatics or phonology to be more precise the articulatory system of humans is part of phonetics and when we have final outcome what we know as sounds the study of that is called phonology

Do we understand by articulatory system the vocal apparatus the way we speak language and I will I will talk about that as well shortly. We study about words in the discipline called morphology I am I am going to come to these things in a in not too much details, but in short very soon and then when we move to the level of sentences that particular discipline is called syntax and your this course is particularly located in that. So, we will be talking about sounds and words little bit for us to reach the level from where we can discuss sentences from where we can understand how we come up with sentences.

And then we will spend little bit time on understanding how sentences work in natural languages all right. And then language is not just about sounds, words and sentences it is about meanings. What is it sometimes we say certain sentences and sometimes we mean in mean with those sentences in a literal way and sometimes sentences have more meaning than their literal total. Do you understand this part which is to say lot of times

sentences do not mean only the total of the meaning of words involved in it right an and all of that and more than that everything related to meaning of a sentence and meaning of what we are saying is studied in this discipline called semantics and then as you know language is hugely related to society it is used in society.

We learn language in society; we need a language for society. So, all kinds of intersections between language and society is studied in this discipline called socio linguistics. These are some of the core areas of studies in study of language, core aspects of a study in the study of language and these are the names of some of the disciplines in which we are study about language. And as you know when we put things under category when we look at words, sounds, sentences, meaning, social interactions, such categorizations itself is called a systematic classification a systematic way.

So, when we said in the beginning it is about systematic study that systematic study does not mean too much. It is simply means in a categorized way one by one and in every possible details, then there comes a part of language study which is which is which is also a studied in linguistics and I am going to give you these names just. So, that you are familiar with these things, when we learn about languages with those things like sounds words sentences it is meanings how they mean how words mean something how sentences means something right.

We apply such things to understand certain other things as well, in that case and that type of a study is called applied study and it happens with the study of language as well.

So, when we want to a study a application of language in understanding or designing machines or intelligent or not intelligent machines an interaction of language and computers such things are studied in computational linguistics. How what is the relationship between language and human mind and particularly it is the functioning of mind in greater details is what people study in this area called Neurolinguistics and likewise interactions between human psychology and language and it is relationship of language with psychology is studied in psycholinguistics.

And very lately not really it is what I mean is it is not a recent phenomenon, but it has it is the attention has gone in that directions lately therefore, I said lately people have a started, studying, overlap between human genes and language. Where fundamental question is language located in human genes, because the way we speak only humans speak that way, which is to say other species with life do not speak the way we do if language something is specific to human genes and couple of more questions related to this area is what people are study in this discipline called bio linguistics.

Its not a fashionable term simply it is a very serious very some very serious studies are going on in this area; however, not much is available to establish the connection between human genes and language. So, the and these areas are called applied areas of linguistics where we apply what we know what we call theoretical knowledge or fundamental aspects of a language study in variety of ways to a study different things is what we

know is applied linguistics, I have just mentioned 4 or 5 names there are more lot more for example, when we want to establish historical development of language or how over a period of time language evolved.

Take an example of English all of you when you were studying English or you have a studied something about English, you must have heard names of a Shakespeare. The I am using this famous name just to make sure that everybody knows, if you read English or shakes Shakespearean writings in English is not what how is be and for that matter in the same way the way we you speak Telugu or Tamil or Hindi is not what the way these languages were 200 years ago or for that matter 50 years ago. So, what causes any kind of motivated or unmotivated change in language?

Such things are studied in what we know is historical linguistics and then there are overlaps of these things as well society, history and something else psychology. So, that I do not know what that will be called. So, these names can be coined depending upon what people want to be study and what they mean by that name. So, these names are not that important what we what we need to understand that there are 2 2, but 2 broad aspects of a study of language, in one we study some fundamental basics about language, and we learned learn such those aspects in a systematic way.

Which we refer to them as theoretical linguistics or fundamentals of linguistics and then when we apply such knowledge to is study more understand more we call them applied linguistics and this is this is what we what people do in this area of study which what we call linguistics. A t this stage if I tell you or if I ask you still have time to answer these questions, but if someone asks you what is it that you study in linguistics you think you will be able to say something about that right all right did I should I take that as yes or no.

Student: Yes.

Yes all right very good now let us let us talk little bit about language, which I said is the object of enquiry in their study of this. In the last class a I had asked you this question and I think we are started talking about this what is it? What is language? right and remember I had asked each one of you about your language what you speak? did I did I did I ask this question. So, and we came up with the names of many languages right and if I remember correctly everybody mentioned at least 2 to 3 languages right is that is that

is still correct or has there been any change in that still correct how many what else do you speak other than Telugu.

Student: Telugu, Tamil or English, Hindi.

Yeah see that I think that that is going to be true for most of the people all right then we went to the question difference between what we call language and languages, remember this language and languages. It is an important distinction for us to make, lot of times people use these 2 terms interchangeably. There is absolutely no problem using them interchangeably as long as we understand what we mean by these 2 terms and what was the distinction that we established I think we had talked about that little bit what was the distinction that we had established anybody.

Student: it is an abstract concept of what language means and languages (Refer Time: 17:57) examples like English.

Right good can we describe that in a little bit little bit more obvious terms we had talked about one example also now I remember we talked about an example.

Student: What is a car?

What is a car? When we say car? We do not mean name of a car what is car what does the term car refer to, when somebody tells you do you have a car or asks you do you have a car do they mean do you have a Mercedes what do they mean.

Student: Transport vehicle   .

Transport vehicle or it is it could be more precise.

Student: 4 Wheeler

Something that looks like a car right, but they are not interested in which one right, that is the distinction between language and languages. And the reason why I am giving you this example or for this distinction, for this point is very specific the reason is it is easy for us to understand not just because you are mechanical engineers or electrical engineers or other it is it is very normal for anyone to understand, that there are lots of similarities in all the cars that we see right. For a even if you do not go into the specifics of them if you just take a look at them by looks there are similarities right all you can you can put

all cars that you know about in one category the moment you find something called let say bus.

So, what we are talking about is there are lots of superficial similarities and then there are lots of similarities which are deep rooted when we say car that is similarities among all types of cars. And then again there may not be a lot of deep rooted differences among all of them right, but there are going to be lot of not so visible differences among all of them.

There is there is no point going into the details of their differences, I am just taking it for taking as an assumption that you understand what I what I mean by them. Similar things are applicable to the similarities and differences of languages. So, I begin with this by saying that languages are now I am using the term languages, the names that you are referring to are instances of language and then the moment we hear more names we call them languages. So, languages have lot of similarities among one another at the same time and they may be the though such similarities maybe superficial similarity as well as similarities that are difficult for us to see.

And likewise they have lot of differences among one another, obvious differences and systematic differences among one another, similarities of all the languages is what we referred to as principles of language and such differences that exist we refer to them as parametric differences. So, we can say languages are similar to one another in a systematic way in a principled way not that they are different not in a principled way they are different in a principled way as well, but languages vary from one another around certain parameters this is what why this these 2 terms here in the in the title of this course principles and parameters of natural language.

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I want to give you one quick example of such similarities and differences or rather, let me ask you know more than one language right. Let us talk about Tamil and English or Telugu and English. If someone asks you is there any similarity between Tamil and Tamil and English what will be their answer any similarity between these 2 languages yes and then the next question the obvious question will be what could be one such example of such similarities, how will you answer that question.

Student: (Refer Time: 23:40)

Pretty simple things this only requires you to think little higher, what would be what would be such similarity between 2 languages namely English and Tamil which are substantially very different from one another can you give me one example of that.

Student: Both have a grammar system.

That will be similarity between all the languages all of them have grammar system and we will look at that as well in other words we can say new language exists without a grammar system, that is new lang by grammar system we simply mean a system. It is it is just a notational thing that the system underlying languages or language is called grammar. System underlying language the distinction that we have made between language and languages, system underlying language is called grammar or principle they are the they mean the same thing, we can call it system we can call it, grammar we can

call it, principles they mean the same thing. And there therefore, there could be no language without a system they that is there is no language which is unsystematic all right. So, true there both of them have system underlying them, but if we probably little harder we and we are when we are looking for an example we look for more concrete examples.

Student: (Refer Time: 25:25)

And it that that is not very difficult who speaks Tamil and English both anybody good many people right. So, very difficult to say that.

Student: Sir both are national languages also.

Both are national languages of what.

Student: (Refer Time: 25:45) Sri Lanka, Malaysia.

And that that is fine too let me not dismiss that right away we will we will talk about those national part as well, but right now I am talking about that system of language.

Student: They have similar sentence structures sir.

Similar sentences structure and what would that refer to.

Student: In English we say my name is Rishab in Tamil it is very similar [FL] meaning [FL] refers to my [FL] name and Rishab is Rishab.

So, what he is saying is the way we construct the sentence is very similar in 2 languages. So, when we have a sentence in a sentence there are certain elements of language you must have otherwise there is no sentence, there is no language, and then the differences among the 2 between the 2 are pretty obvious, can you give me an example of a of differences between the 2 as well.

Student: Phonetics

Of course phonetics lot of such differences exist, but since you gave an example about sentences for similarities can you give us give an example.

Student: (Refer Time: 27:11)

From sentences for the differences as well

Student: Subject, object and verb the positions relative positions like in Japanese and in English they are opposite so.

Really.

Student: Yeah in (Refer Time: 27:25)

So, understand what he is talking about, the he is talking about 3 particular elements in any language which is subject, object, and a verb have you heard these terms before subject, object, and verbs again I promise you we will look at the details of these things later, but all he means is and if I am right when I understand him he means is in every sentence.

For example in Tamil there is a particular position of verb and in every sentence of English there is a particular position of verb that is in English verbs are always going to be in the middle of the sentence, that is more precisely verbs are never going to be the final element in a language like English; however, in Tamil, Telugu, Hindi, or any other languages. That you may know how verbs are always going to be the final element that that could be one major striking difference between am I right is this what you wanted to say that is one of the major strike striking differences between these 2 languages.

So, with the help of these 2 examples and I wanted these examples from you and we can talk about hundreds of such similarities and differences, but we will talk about those things later the all I want to show you right now is languages are similar to one another in a principled way they vary from one another in a parametric way. So, when we say there is an underlying system of language that in that sense we are talking about principle and when we are saying that English is a verb medial language, where verbs come in the middle of the sentence and Tamil is a verb final language, where verb is the final element in normal speech. Verb is the final element in a sentence it comes right before the full stop that is called a parameter that is the position of a verb is a parameter to see the differences between languages.

And there are not the parameters are also systemic in such a way then there are only going to be 3 positions and no further permutation or combinations are allowed that is us.

If we are talking about position of a verb in a sentence a verb can only be either in the beginning of your sentence, it can be either in the middle of a sentence or at the end of the sentence all the languages of the world will follow one of the 3 parameters. So, what we are what we mean by a parameter is the position of a verb in a sentence is a parameter; however, these parameters are also systematic in a way that there arent going to be hundreds of parameters along which languages are going to vary. So, think about any language that you know they will definitely fall in between these 3 get it.

So, this is what is called a parameter all right. So, now I hope this definition of language makes more sense to you does it is just written with few words everything about it I have already told you, it is a fascinating human capacity that is the language that we are talking about is about human language and that is what we refer to as natural language. Therefore, I had I have discussed this thing in the last class that there are differences between artificial languages, body language, sign language, but object of enquiry for us the language that we are going to be talking about is what is called natural language that is the languages that we speak language that humans is speak therefore, this definition.

Its a fascinating human capacity and at the same time such a capacity is very powerful and a very complex system complex or not it is it is a system it is not a random thing it is not arbitrary thing and therefore, we learn these things also in a systematic way it is just that we do not know how it happened and I will go into the details of that later. And therefore, I have put this thing here for you to be familiar with this right in the beginning that have you heard the name of plateau must have heard right this was his question which was not really meant for languages, but this has been used in understanding how we learn language right he add a you know philosophers have lots of lot lots of questions of very different types.

So, he had a question how do we know so much given. So, little right and then people studying language namely linguists have used this thing what is known as plateaus problem, in understanding how we learn languages and then I will expand that to you later and this is also referred to as logical problem of language acquisition, that is how does it happen that we end up a speaking a language and this is what I was asking you and I want you to think about that. How did it happen that you started to speaking Telugu or Tamil or somebody is more comfortable with Telugu or more comfortable with Tamil

why did it not happen that use you were speaking French and if there are similarities in all the languages why do we not the speak all the languages .

Student: Because we are surrounded by people who are speaking the same language.

Right absolutely to we are we speak Telugu because you are surrounded by Telugu speaking people and if the reverse of that is also equally powerfully true that if you are not among Telugu speakers; then you will never learn Telugu that is in the way you speak and here when I am saying learning I am talking about children acquiring language. We are not talking about second language learning that is language learning or teaching in a classroom in a at a much later a stage we are talking about first language learning we are talking about children acquiring language .

So, if children learn Telugu this they end up speaking Telugu or Tamil because they are surrounded by Tamil or Telugu speakers and same thing applies for all the languages, I hope you understand I do not need to repeat this thing every time. And equally true that if you are not surrounded by Telugu speakers then you will not a speak Telugu even if you are born from Telugu speaking parents. So, just the fact that you are born in a Telugu family does not make you speak Telugu that is also one of the questions for serious examination by bio linguists.

But that it this has been falsified several times that Tamil child or a Telugu child, if raised somewhere else in French society or English society or any other Hindi society you will be speaking Hindi more comfortably than Telugu or Tamil, how does that happen? What are the factors responsible for that? We will be discussing those things as well and I am raising these questions for you only to think about it. So, when we are talking about these things I would definitely want to hear your inputs not and I do not mean to prove you right or wrong it will be just interesting to see or to discuss and at least for me to see whether you have thought about these things these things are not all right.

Now, so we will we will come to language acquisition in a moment.

This is one mo one more thing related to plateaus problem that I wanted to discuss with you know, this is what Charles Darwin wrote once all of us know Charles Darwin all of us know what he is famous for, and it has huge implications for how we learn language and this also refers to why what is more interesting or which part of language study is more interesting and why the object of enquiry in a scientific research of language is only spoken language. So, read the read this thing carefully man has intrindic intrigic.

Student: Instinctive.

Instinctive tendency to speak as we see in the babbles of our children while no child has instinctive tendency to bake brew or write you understand this. All the 3 things that he is referring to bake brew and write are activities that we do not do instinctively; however, speaking a language is very instinctive and it is very common to find people who do not know how to write or may not know how to write, but they speak language therefore, writing learning to write is never a prerequisite for learning a language and in a more precise way learning a language does not even refer to learning to write get this thing.

However I am not saying that you should one should not learn how to write that is not the point, I am trying to make I am trying to make how learning language is instinctive all right. If we are talking about and when we say instinctive tendency of children and babbling of children of course, we are talking about normal human child, there are there may be some children some babies with some disabilities we are we are not talking about

that part of disabilities all right normal human children have this instinctive tendency to speak they start babbling and about babbles I will talk to you more. So, it is sounds like just like birds learn to fly or fish learn to swim we learn to speak.

It just like we grow up it is. So, mathematical and I mean it in a serious sense when I say. So, mathematical a 5 year old child after 5 more years is going to be 10 there is no miracle, in that right if you do not cut your hair or you do not get your hair cut it is going to grow right same things apply to nails and say it applies to us right we keep growing in our height of course, it does not happen all the time it does not keep happen all the time it is stops after a while. Similarly learning a language it stops after while it does not happen that you keep learning language the way you acquired Telugu or Tamil, if I start living in Hyderabad or Visakhapatnam from today will I learn Telugu some bit of it definitely there is no denial of it.

But I would not be able to learn the same language the way as smaller child learnt by living in Visakhapatnam or Hyderabad or for that matter anywhere else in Andhra Pradesh or Tamilnadu or wherever get the get this point. This is why I want to stop by few more questions and telling you this thing that you know a lot of times people refer to things like stop doing something this is not Childs play, language is really a Childs play this is one such cognitive ability where children perform much better than grown up people rather grown up people cannot perform that way they are grown up people and let me use a strong word here are I do not mean it is in a serious way are biologically incapable of learning.

The way children learn languages get this a this point therefore, in a serious sense language learning it is Childs play how we will look at that later.

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Some Key Questions

• How many languages do you speak?
• How many languages does India speak?
• How many languages are therein the world?
• Do languages have something in common?
• How do languages differ from one another?

So, we come to some more questions for you before we meet tomorrow to discuss some of them and some more questions. We have talked about it how many languages do you speak; everybody speaks 2 to 3 languages right. How many languages do we have in this country any idea how many people do we have in this country.

Student: 1.3 billion.

We have over a billion and when we say over a billion that over is substantial over it is not just 100 here and there right the substantial over right all right, it is not a bad thing let us not be worried about that that is also mathematical that is also normal right all right, but so how many languages do you speak any idea.

Student: 3000

3000.

Student: (Refer Time: 42:38)

You are just saying something right.

Student: It include dialects and tribal languages it might be (Refer Time: 42:44)

Do you hear this question do you hear this answer carefully.

Student: (Refer Time: 42:49)

That an it is an important thing that he is mentioning. So, the moment you ask this question how many languages do you speak or do we speak as the country or the state, it is important to address this question of language and dialect. What is it that we call a language and what is it that we call a dialect and there is another interesting thing is referring to tribal languages, what do we mean by that and I am I am using these terms and I am trying to under this understand these terms only to improve our understanding, what do we mean by tribal languages.

Student: (Refer Time: 43:26) languages spoken by tribes (Refer Time: 43:31) they usually do not have a script (Refer Time: 43:32) spoken (Refer Time: 43:33)

Do you see the do you see this answer does this tell you something, what is this answer tell you that, there is this some there is this particular kind of prerequisite in our understanding that for something to be called language, it must have it is own script right; however, what we refer to as tribal languages is may not have a scripts and very very quickly I am we are we are not winding up these questions we are just opening them up, they these questions do not fall directly within the purview of this course; however, we will definitely address those questions before we move on to something else because these are important questions for us to understand.

So, one more thing from you, what do you think will be the different difference between a language and a dialect what is it that we call a dialect.

Student: Minor variation of the major language.

Minor variation.

Student: From the major language

 All right that sounds good is Telugu a dialect is Telugu a dialect.

Student: (Refer Time: 44:57)

And also I want you to understand they are these terms language and dialect socially loaded are the are these terms I have not discussed this thing with you so far, but I must mention it to you language is also a very important marker of human identity we identify

ourselves with languages sometimes it is a stronger marker of identity than religion therefore, these terms are socially loaded and it is important for anyone to understand these terms in proper perspective.

So, I do want you to think about is the differences between the 2 terms and what do we mean when we say a dialect, I think you have said something important that some variation from main language. Then what is main language and how do we know which one is main language or who will speaks main language and who will speaks variations, how do we know that who know these things or how important are these things. Particularly with reference to what we know about language get the point and I also want this answer from you tomorrow.

How many languages do we how many languages does India speak and let me extend this question further, how many languages people are speak all over the world do you think this is an interesting question of a general knowledge. And if at all we know the number how do we verify that. So, let us start with some of these questions tomorrow and trust me I am not just throwing these questions for tomorrow, I am putting these questions for tomorrow because I want you to take some time to think about these questions and it is not really very important for me to just tell you these answers and move ahead it is important for you to think and then we will do that all right. So, let us stop here we will meet tomorrow at our regular time.

Thank you.