

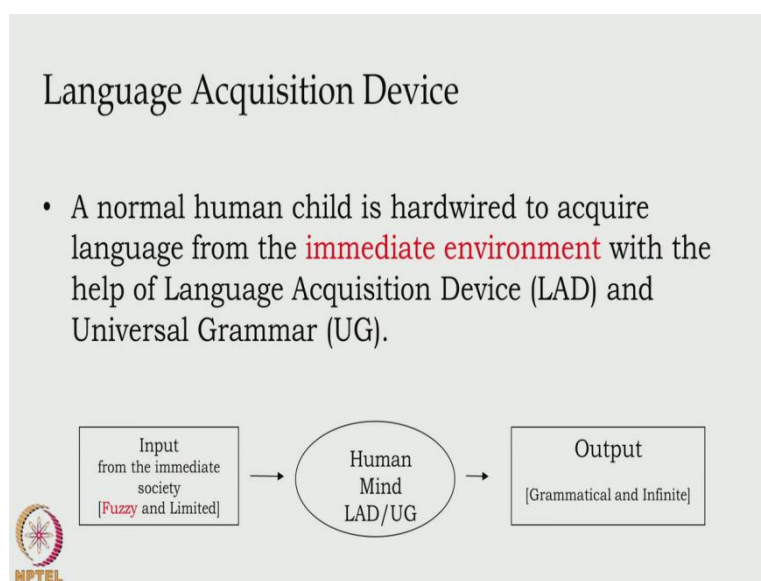
Applied Linguistics
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Lecture 4
Language Acquisition

So far we have seen what is language and what do we do in the whole field of linguistics? So to answer that question based on what you know by now with all kinds of discussions that we have gone through, language is really fascinating human capacity and it is a system in itself. It is not an arbitrary thing, it is natural to us and humans have specific capacity to speak that capacity is ruled governed and it happens to us, okay.

All aspects of language, all kinds of rules operating under language and all aspects meaning whether it is a phenomenon of human mind or whether it is a social phenomenon, whether we are looking at rules of sentences, words and sounds or rules of language used in society. Broadly speaking for 'E' language and 'I' language that is, external language or internal language.

All kinds of aspects related to language that we study is going to be the domain of the discipline called linguistics, this is what we have we have seen so far. We started looking at what is it that happens to us when we end up internalizing this whole phenomena without realising much about it. What is it that, when we say language in a way develops in us, it happens to us it is just like a child grows incrementally, language develops.

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This is exactly what we are looking at; we will look at it in little bit more details and continue looking at some more aspects of it. So this is the particular scheme of language acquisition which is, every human child is born with this capacity to acquire language, okay. There are lots of questions related to it, why do other species not have language. Do they really not have language? Do they not communicate with one another?

There would be lots of questions related to it to this aspect; the moment we start saying every normal human child is born with this capacity to learn a language. To put everything aside right now, all we can say is, A we are not talking about other species and B, we do not know much about other species. And we cannot blame anyone for that because we do not know much about human language, right.

Remember, some of the questions that we raised when we were talking about connections between language and human mind. We really do not know which part of human mind actually functions for language. Neuroscientists with lots of efforts kind of know it sets of specialized set of neurons are responsible for different kinds of activities, but we do not know which sets of neurons are responsible for language.

We do not know whether there is a setup of neurons that is responsible for language or not, okay. So the point is, we do not know much about human language. So if we do not know much about language or communication system of other species, this is not a big surprise. We should but if we do not, what can we do about it? All we can say, we do not know much about other species therefore, we are not talking about them.

We are not saying that they do not have conclusively. However, some linguists, some people studying language can tell you conclusively that they either they do not have, you understand the meaning of “they”. Either other species do not have language or if they do, that system is very limited in its functioning, okay. That is like when dogs bark that has a very limited function that could be integrated in couple of ways.

It is like traffic signal, when we have red lights, it has a particular interpretation and when you have a yellow light, it has a particular interpretation and many have red light it has a particular interpretation, so that that is also a language in a way, but those are limited in it in their function. Similarly, communication systems of other species are probably limited in their function.

But I would like to take a point take a position that we do not know much about that. Therefore, let us not even worry about that. What we know or what researchers have tried to understand what happens to humans, okay. And in that we say, we this is the beginning point, which is of course hypothetical as I have told you last time that human children are born with this capacity. That is that if point number 1.

Point number 2, that capacity is called language acquisition device, which is not a physical device, it is a hypothetical thing and this is what we mean when we say we are born with the capacity to acquire language, so we are born with this language acquisition device. This device happens to have 2 things 2 parts of it; one is principles and the other is parameters.

And languages are structured around these principles and parameters which we are going to unfold and see very soon with various different examples. What else happens to this is, this the the set of principles and parameters together is known as universal grammar. And that universal grammar refers to knowledge of all aspects of language of humans.

That is, all languages of the world could be hypothetically part of that that universal principles of language, which is embedded in language acquisition device. Alright, making sense so far. And then when a child is born, it operates, it functions in a society and by society here we do not mean a much larger society. Whatever the child interacts with and that child acquires the language of only that society.

We have empirical evidence that the child acquires the language of that society. Based on this empirical fact, what again has been proposed that the inputs child receives from that immediate society functions as a trigger to language acquisition device which eventually triggers universal grammar and triggers, when we say trigger, we mean triggers the rules of that language.

That unfold such rules and that unfolding is called acquisition. And then the output is the same language. A child is based on the hypothesis, based on this idea of language acquisition; we can say probably a child will be able to acquire all the languages of the world. Can we say that? However, there has to be a condition for that.

And that condition is, if I speak Telugu only because I grew up in Telugu speaking area, my immediate society was speaking Telugu. If I grew up in a in a society and my society was speaking all the languages of the world, then I will be speaking all the languages of the

world. Only on the basis of that point, it can hypothetically be said that a child will be able to speak all the languages of the world.

And this is not a small claim that this hypothesis this acquisition principle is making. This is very tall claim, the strength of this tall claim is, it is not empirically falsifiable, we cannot falsify this claim. Why?

“Professor- Student conversation starts”

Professor:

Why can we not falsify this claim?

Student:

Because no one has experimented with the tongue, there is no such area also.

“Professor – student conversation ends”

It is not possible for anyone to show particular area it looks; this area speaks all the languages of the world. But children living in that area does not speak all the languages of the world get this. Therefore, it is still not be falsifiable, okay. And on the other hand, we do see that if a child is growing after in areas like Delhi, the child easily speaks Hindi, Punjabi, and let us say, if you look at more specific areas of Delhi.

Certain places like Green Park speak Bangla. So a child growing up in Green park will easily acquire Hindi, Punjabi, Bangla and if the child also interacts with English, they will acquire English. So whatever is the language is around, the child has absolutely no difficulty in acquiring such languages. Therefore, the role of immediate society is very significant for what the child acquires.

And again I want to underline and draw your attention to the fact that children do not acquire Tamil, Telugu, Hindi, and Punjabi. At least they do not know that they are acquiring Tamil, Telugu, Hindi, Punjabi, they are acquiring the language that is spoken to them, okay. And therefore they speak whatever this week, alright good.

Another important aspect of that acquisition is I think we briefly underlined this thing last time when we were discussing this that it is not very, the input is not very sophisticated. Do you understand this, when we say input is not sophisticated? That is, input is not really very

clear. Input is not sufficient, okay. This is what we mean when we say input is Fussy and limited in its quality and quantity both, it is really not clear.

However, when the child starts speaking something, it is perfectly grammatical and infinite. I am going to send you a paper on this particular aspect and I would like you to take a look at it. It is a easy reading by Ray Jackendoff, which takes you to several steps of language acquisition and how child and how child, how a child incrementally starts developing language.

There is a claim in that paper it is part of a book which is about biological foundation of language. In them at, in the timeframe of 18 months to 24, a total strength of vocabulary among children grows from 70 to 100 words to 10,000. 70 to 100 at the at the age of let us say 17 or 18 months. By the end of 24 or it is, there is no hard and fast line of 24, 25, 26, the amount is approximately 10,000.

Does this not sound surprising? So that he brings as evidence that the output through different stages and when we move to a particular stage really becomes infinite. And then it keeps growing and growing to the extent that we do not even know how much we know, how many things we know about language. And then when a child starts speaking, we continue, continue and never stop, that is the meaning of infinite.

“Professor- Student conversation starts”

Professor:

Grammatical simply means, what is the meaning of grammatical here? Can someone say? Can someone tell? What is the meaning of the word grammatical that you in general understand? Anybody?

Student:

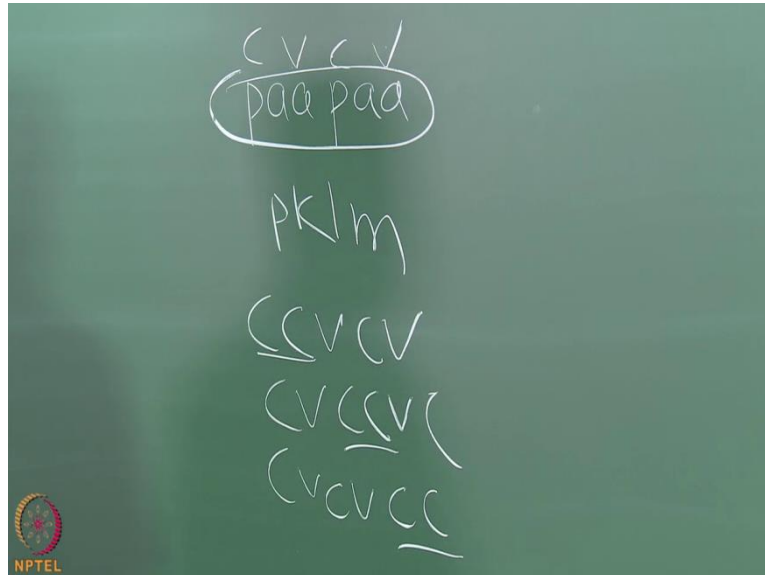
Proper structure for sentences.

Professor:

Proper structure for sentences, good words, right.

“Professor – student conversation ends”

Yes, grammatically here also refers to... You are right, proper structure. But then we need we need to know what is the proper, what is that proper structure. Grammatical here also means acceptable that is, acceptable is commonly agreed between people. So when a child says something, after a certain point we do not say that we do not understand, okay.



You will not find any child saying things like...

What is this word? Anybody? You do not know? Can you say this word at least?

No, do you know why you cannot say this word?

It does not have a vowel, right.

This word does not have a vowel. Now, what I want to tell you is children do not learn, I mean of course they learn “paa paa”, but what they are not learning is, what they are learning is not individual words, what they are figuring out is the underlying pattern of word formation. That is, and again this happens on the basis of this limited input.

As I have told you just now, until the age of 18 months, whatever a child goes through has only a limited vocabulary of let us say 15 to 20 to 30 to 70 words. It jumps exponentially at a particular stage during a particular timeframe. No, that gymnastic is not that important, what is important is, what happens is this. This is clear that you cannot have a word, which does not have a vowel, okay.

What the child also figures out that not everybody is going to be consonant vowel consonant vowel consonant vowel. That is, what the child figures out that there are going to be words, which are going to be like this, where you may have 2 consonants as a cluster in the beginning, the child also figures out that at times, you may have 2 consonant as a cluster somewhere in the middle of a sentence.

And then probably, we may have a cluster at the end of it too. However, again based on the same input, which is for every child of every language of every place on this planet, input remains fuzzy and limited. But on the basis of the same thing, a child figures out that probably, the language that is being spoken around them does not allow a cluster.

The example that I was trying to give you last time was from Punjabi that Punjabi speaking children who acquire Punjabi or growing up in Punjabi speaking areas try to simplify clusters even from the languages, which may have clusters. And therefore, words like “school” becomes “sachool” or they end up saying “sachool”. Word like scooter becomes “sacooter”, get it.

So they have figured it out, get this point that is what I am trying to say that the input is limited, fuzzy, output is grammatical. So the when a child says the word like “paa paa”, it is a perfectly grammatical, grammatically acceptable pattern of word that the child is producing. Right now, we are talking about pattern of grammaticality at the level of word.

But the similar kinds of pattern patterns are visible at every stage, okay. Grammatical also means “sacooter” and this is important for me to underlying to you here that when a Punjabi speaking child says “sacooter”, this is a grammatical pattern for them. Is this making sense to you?

“Professor- Student conversation starts”

Professor:

Why it is a grammatical pattern for them? Because...

Student:

Because it is acceptable in nature.

Professor:

It is acceptable pattern for them, get it.

“Professor – student conversation ends”


Therefore, grammatical does not refers to what I think is right, grammatical also refers to acceptable patterns and then there are overlaps between grammaticality and acceptability, which we will get to some other time, okay. Along with the paper from Ray Jakendoff, which you should read which is a nice reading you should be done, so very interesting reading as well.

You will not stop reading if you are interested in looking at how development takes place. I will also send you the book that has these things in it, *Liliane* Haegeman's book on government and binding theory, which is about principles and parameters, okay. I did not find it in the library website and if it is available, it was showing one copy, but it must be somewhere and I will I will send you the electronic copy.

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LANGUAGE

- Language learning is child's play!
- In learning of the first language children perform better than adults.
- Language is special purpose cognitive ability.



Please keep that copy and not only just keep that, keep reading that as well okay alright. So now moving ahead from here, we have seen these things in the sense that language learning is really not very complicated for children. It happens normally, it happens on its own, it does not take much of effort, that is exactly what we mean by language learning is child's play.

And what I what I do want to understand that there are some keywords that are that are important here, keyword is “effortlessly”. There is no effort that is being put in it, okay. It happens without specific instruction, okay. These are the 2 key points in language learning. When a child is learning a language effortlessly without any instructions based on limited input from the environment, output is infinite and grammatical.


The role of human mind that is, language acquisition device that is, universal grammar and its components as principles and parameters are responsible for this. Before this theory, before this these principles came into existence, people did not pay proper attention to the role of human mind in understanding language in acquiring language, all right okay.

This is why we say, language learning is special type of cognitive ability. This is the things that we have discussed that we learn other kinds of things like singing, swimming, dancing, flying, and various other things when we are grown up therefore, those there is a clear distinction between language and everything else. And on the basis of that, we say language as a specific special purpose cognitive ability, all right.

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Language Acquisition/Learning

- Behaviorism
 - Stimulus - Response
 - Input = Output
 - Language Learning is a matter of habit formation
- Innateness Hypothesis
 - Poverty of stimulus
 - **Imperfect** stimulus, but **perfect** learning
 - Language computation is part of Generative Mechanism



Just know what I told you people did not pay much attention in the acquisition of language and particularly the role of human mind in it, so they simply mean simply believe that we learn through practice and this is referred as stimulus and response. So you hear something that was called stimulus and when you respond to that, learning takes place.

So a child listens to the word “paa paa” and says “paa paa”. It finds out “kaa kaa”, says “kaa kaa”, “maa maa”, says “maa maa” keeps saying these things, you learn this. Now, we are we are not trying to laugh at this thing. We are only saying that this must based on limited observation, this must based on, not much of effort was put into understanding language.

And the simple things which was not looked at was, how is this that output is not equivalent to input, where the proposal from the theory would say, output will be equivalent to input, which is not true at the at the age of 5 and 6, you see the output is infinite. Probably, the child would not have gone through that much of input in 5 years of age, 4 years of age so how is that possible, this was not paid much attention to.

And they believe that it is the matter of habit formation that you keep repeating things you hear things and therefore you learn it. Even now when you when you ask people not of not lot, but in a in a simple way, how do you think we learn language? Lots of things people would say without knowing the term behaviorism or stimulation response, what whatever people are going to tell you is are going to be around these things.

That we listen to them things, we repeat things, we learn from our parents, we learn from learn from people around us. See, huge part of that is true, it is it is not that they are saying

is not true; the only thing that people were not paying attention in this was the role of human mind in it. And therefore, this when people started looking at the role of human mind, that that is called Innateness hypothesis.

Where um you have seen how it how it works and then it becomes really critical thing and therefore, you must have heard, or you must have studied that human mind is different from minds of others species. One of the ways in which it is very it is very different in language that we do not know much about. That is the part of human mind responsible for language learning.

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- With the help of inbuilt Language Acquisition Device (LAD), a complex system and generative capacity miraculously develops.
- This process is fast, effortless, and requires no instruction. It recognizes patterns, develops rule, and generates a perfect system called Language.
- Results into a body of knowledge – ‘Knowledge of Language (KoL)’.



That is which part of it is responsible for language learning is something that we do not know. Now I want to come to this last part, we have we have already covered most of it, so so see, deducting the rules that is, deducting abstract patterns from the available input, right is actually what we mean by language acquisition.

That is I am listening to words and of course I am producing physical words like “paa paa, maa maa and cha cha” and all other words. However, what I what my mind is actually doing is deducing abstract principles of word formation. The capacity to do so is called generative capacity. Get this thing?

So you are you are going to hear this word, you are going to read these words in many chapters when you look at book you are going to find this word generative. And it is important to understand, generative simply means the capacity to deduce to deduct rules.

And then the ability to produce new things on the basis of those rules okay. So if we have other words of this pattern, so what we know is this pattern.

That is, it is an acceptable pattern of word formation, which is “cvcv”. That is a very regular and productive pattern. Once we have once we have acquired that, then we can come up with N number of words through this thing. Every word, every sound that you are going to fit in into this, every set of sounds that you are going to fit here are going to be grammatical and acceptable pattern may not be in one language, but definitely some other language.

“Professor- Student conversation starts”

So can you come up with a word on the pattern of these this, which you may not have heard so far? You are smart engineers, can you do you understand my question? So on the basis of this pattern; can you come up with a word which you think you may not have heard so far?

(())(32:41)

So that is, that will be?

(())(32:48)

Say it loudly, I did not did not hear that.

Zatzan.

You remember, we are not talking about how we write, we are talking about how we say it. So the word will be...

Jaja.

“Zaza, jaja” have you not heard this word before “jaja”? We may not be writing it with x a x a, but the word “ja” means go and “jaja” means something of that sort, right. Everyone have heard that word, you can do much better than that, try it. Something that we may not have heard. Let me keep telling you while you are working on this while on the moment you come up that, raise your hands and I want to get that word.

All I am trying to say that even though you have not heard that what, okay. Even though that word does not mean anything, that is an acceptable word, okay. And it is likely that it is likely that that word will acquire some meaning someday. Not necessarily it will acquire, but it it is a possibility that it will acquire some meaning someday, okay.

Also so so so that that part of word formation tells you that association between the meaning and word is also not really that important. It is just a coincidence that rests of the words that we know have association between the word that is a product of this pattern or this pattern or this pattern or any other pattern and what it refers to. I am I am I am talking about something where I I need your attention, I hope you understand this thing.

That it is a coincidence that connection exists in lot of them. At the same time, it is also possible that for lot of such words, this connection does not exist. That is, there is no object associated with those words however; they are possible words simply because they follow a particular pattern.

However, some sounds that you may be familiar of with, if they if they come out of unacceptable pattern that is neither going to be acceptable as a word and therefore, it is almost negligible as a possibility that that will acquire any kind of association with any object or a or that as a word. I hope this is making sense to you, now I am giving you this example to indicate what I mean by generative capacity.

What I mean by the word generative? The word generative simply means the capacity to deduce to deduct rules, the capacity to understand patterns and the ability to use the pattern for new words, okay. And this is the capacity that is responsible for infiniteness of what we do as language, okay. And that is the capacity which makes distinction between innateness hypothesis and behaviorism.

That in behaviorism, that capacity was missing, that link was missing. I mean, not that people would not learn language the way that that we are learning, people were learning the language same way, it is just that we did not understand, we did not we did not things to say that we are saying about now, okay. People were learning language the same way, it it really did not, and people did not care, whether you call it behaviorism or innateness.

They are learning the same way ever since. It is just that we did not know that how does this happen that we have this infinite capacity to come up with words. The only thing that innateness hypothesis has done is it helps us understand that it is our generative capacity that is responsible for any word any sentence that we may be speaking. In fact, we may also come up with words that may not have any meaning, but maybe acceptable pattern.

Maybe acceptable word, right. I hope this is generative capacity is clear to you, we will we will be giving lots of examples of such thing. You did not come up with a word of that sort?

Okay, if you did not come up with that word, work on that word work on that word, okay which you may you may not have heard and that does not have to be from English or Hindi, that could be some language, okay alright.

And this capacity develops miraculously, I have just given you an example of 18 months to 24 months, I am going to send you a paper, you can see that. So the important claim is, this generative capacity miraculously develops, this is what we mean when we say language happens to us, language develops in us. That is, the capacity to deduct rules is the meaning of language learning and this is the capacity which is responsible for in for infiniteness.

I have told you about the words like effortless and about other things you can see in the second point. This process that is this process of deducting rules is so fast, so effortless that it requires no instructions. This generative capacity recognizing patterns develops rules and generates perfect system called language. This is exactly what I have been underlying so far and I will be giving you more and more examples of these things.

And these things. I am going to come to this pattern very soon when we have looked at sounds, maybe tomorrow we will look at sounds system. Now this whole body of rules okay that we this whole capacity that we know as generative capacity results into bulk of things, which is called knowledge of language. And knowledge of languages is under inverted quotes, which means knowledge of...

When we say knowledge of language in the field of study of language, we do not mean the knowledge of Tamil, Malayalam, English or French. We mean the knowledge of these rules, the knowledge of rules that are responsible for infiniteness, get it. And that rule also means that see we know all those rules. That is, when you learn when you were learning words as a child, you had also figured out these things.

I had figured out these things, every child everybody figures out these things, but if someone tells us how we started learning words, it will not be possible for us to tell them the first I figured out “cvcv” pattern. In fact, we cannot even list all the sounds, forget about abstract rules. So, knowledge of language has this specific thing, which is it is of course it is it is an outcome of universal grammar, universal principles, parameters and all those things.


But this is the specific thing that we need to know about it. It is a specific set of rules that we have internalized long time ago. That is, we know all such rules, but we do not know that we know them okay. If we did not know those rules, then we would not be able we would not be

speaking, get it. But I do not know all those rules, I mean I do not know that I know all of them. It is impossible for any human being to list them.

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Knowledge of Language

- Knowledge of Language grows in human mind.
- KoL consists of the **underlying rules that we know but we do not know that we know them.**
- These underlying rules help generative mechanism of a native speaker speak unheard of sentences and enable them separate grammatical sentences from ungrammatical ones.



That is also part of generative capacity that is exactly what we mean by generative capacity. Look at look at the second point, third point rather here, does it sounds okay to you? Do you agree with this? That these underlying rules help generative mechanism of a native speaker speak unheard of sentences and enable them separate grammatical sentences from ungrammatical ones, right.

So if if someone makes any error anywhere, right. And I am I am not giving you any example because I I want to keep it open for all the languages. So check with your language, someone makes an error, how long does it take for you to figure out that an error has taken place.

So Sandeep right? As I I have asked you, many of many of you understands Hindi, right? And I am giving you a Hindi example because I speak and I understand Hindi. So if I say “Sandeep Jaati hai” is it a good sentence?

No.

An error has occurred, how long did it take you to figure this out?

Instantly.


Instantly.

Instantaneously we do it, right. Now it will be unfair to lots of people if I ask this question to lot of people, so what is the error about? So what is what is wrong with this sentence? That that is an that could be an unfair question because I do not expect every speaker of language to understand significance of grammatical agreement in terms of gender. That is not important, but the fact that an error has occurred takes no time.

That is that is the result generated capacity that is, to separate the grammatical one from ungrammatical sentences within no time, okay. And even if someone is speaking very fast, you keep paying attention to that, if that person keeps making if there are there are there are patterns that are acceptable and someone is saying, you immediately figure out that this person is not a speaker of the language that he is he is speaking.

That is at least not a native speaker of that language. I will I will talk to you about native speakers and what we mean by non-native speakers and native speakers some other time. Right now, I want you to understand these points that I have highlighted for you and also okay I will I will come to that in a moment. So see, look at look at the first point here I know we are running out of time, I will stop in couple of minutes.

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- Linguistic Computation and Human Cognition uses socio-culturally grounded context.
- The knowledge of language that grows in human mind is not an out come of stimulus response; rather it (KoL) is part of generative apparatus as a special kind of cognitive ability.
- KoL has got serious consequences for Language (second) Teaching/Learning and defining language as multilinguality on a continuum.

Linguistic computation and human cognition uses socio-culturally grounded context. There are 3 3 phrases here; linguistic computation, human cognition and socio-culturally grounded context. These are these are not complicated things. I just want you to understand, linguistic computation simply means activating generative mechanism that is, and how we come up with sentences.

How we speak something that is linguistic computation, which is part of human cognition that is, all that computation takes place here and we are not even aware of that that computation when it is going on because at every single point, nobody knows what you are going to say next. That is, I do not have a sentence for the next moment; I come up with the sentence instantaneously, okay.

So these 2 things have great have great coordination between them; human cognition and linguistic computation. However, what is important for someone to be able to speak properly and to function in society with the explicit knowledge of 'E' language is not just these things, but also socially socio culturally grounded context that is, what is appropriate and what is not appropriate.

Remember, the other day I ask you the example, how do we say when someone dies. There are different ways of saying things, one is acceptable and the other may not be. 1 may be appropriate, the other may not be appropriate, right. So what is appropriate is acceptable, what is not appropriate is not acceptable. Now not necessarily, what is not appropriate is ungrammatical, get it.

What may not be appropriate may not be acceptable, but maybe grammatical, so grammaticality is not the only condition for acceptability inappropriateness. When we put the coordination between grammaticality, acceptability and appropriateness that is the part of what we know as socio culturally grounded context. My point here is, first 2 parts to me; linguistic computation and human cognition refers to 'I' language.

Socio culturally grounded context refers to 'E' language. My point here is both are part of generative mechanism. That is, we do not learn about appropriateness and connection between grammaticality, acceptability and inappropriateness separately, they come together. Get this point, it should not be very difficult. Therefore, all of them are part of generative mechanism, all right.

And the knowledge of language that grows in human mind is not an outcome of stimulus response that I just told you that is not part of um part of behaviorism rather, it is part of generative apparatus as a special kind of cognitive ability, okay. And third point is not really that that important for.

I mean it is any important point that knowledge of language has got serious consequences for learning and teaching, where we need to understand what knowledge of language actually

guarantees is that continuum. That why it is difficult to name a language, right which is part of external language. Remember the continuum that we have we have talked about.

Knowledge of language in that continuum is embedded in knowledge of language, so names of languages has external manifestation are our creation, what we know is just language, okay. I will stop here and we will begin talking about sounds tomorrow.