

**Basics of Language Science**  
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**Lecture 17**  
**Grammaticality versus Acceptability**

We have looked at two types of categories, that is, one is lexical category and the other is functional category. Lexical categories are words in sentences and you can see those categories. They have their physical appearances and then we looked at functional categories and we saw that some of such categories have their physical appearances and some of them do not have.

It is not that all of them that are agreement features like number, person and gender and tense, aspects and some more will never appear and it is also not true that if they appear once, they are going to appear all the time. So, the same thing may appear sometimes and may not appear at other times. Is this much making sense to everybody, are you with me so far?

And then we have seen examples of all these things like if we have a word, let us say a proper name. The marker of gender is not visible on that. For example, if you have a name like Raju or Sandeep, there is no visibility of gender on that. However, sometimes you may see or you may assign certain markers, a gender marker on a word like ladka or pankha or kamara. At the same time, you can look at other words like seb, ghar, if we are talking about Hindi, then such nouns do not categorically show their gender markers.

At the same time, when we looked at tense in a language like English or for that matter other languages too, if you have a simple sentence like I am a doctor or I am a student, you have a tense marker, you have a word that you can attest as tense marker at the same time when you say other things like I eat pizza or I live in Chennai, I like movies. In such sentences, the gender, tense are not categorically visible and we have seen examples of these things. The point is, there are several points to keep in mind. First alone lexical words do not make words.

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## Sentence

- How do we make a sentence?
- Are sentences random collection of words?
- If not, what are the required components of a sentence?



So, when we make statements like this that you have on the screen like, are sentences collection of random words? The answer to such questions is expectedly no. If not, then what are the required components of a sentence? When we talk about required components, what we mean is we are talking about some visible, invisible interplay of functional categories. That is the point we are trying to make. And those are things which make sentences. This is why sometimes you may have a pretty long sentence and still could be called just one sentence and you may have just a word go or come, or sit could also be a sentence because they fulfill the requirements that we expect functional categories in a sentence to fulfill. Clear?

We also saw that there are some sentences which do not have tense at all like when we say a sentence like come. This sentence does not have tense on it. These are called tenseless sentences. And with the examples of sentences with tense, sentences with visible tenses, sentences with invisible tenses and sentences which do not have tense, we have seen that all such things and by all such things, I mean tense and aspects and then when we combine the interplay or the role of agreement features in a sentence, when we put everything together, we see that all such activities take place around verbs in a sentence.

Therefore, verbs are called powerhouse in a sentence that is everything is controlled by verbs. Therefore, verbs are the most significant lexical part of a sentence. Remember when we talked about sentences for the first time and even now, I gave you an example, we established that if we

say just go that constitutes a sentence. You may put 200 words together, if there is no verb and no agreement taking place, they do not make a sentence. This is the reason why it works that way.

So, can I take it at this time that we understand certain, we understand the role of different types of operations and different types of relationships between lexical categories in a sentence. Can we take this much right now?

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## Negation

- Mainly two negative markers: **nahiiN** and **mat**:

5. raajuu    skuul    **nahiiN**/**\*mat** jaayegaa  
Raju    school    neg    go-FUT-M.S.  
'Raju will not go to school.'

6. **mat**/**nahiiN** jaao  
neg    go-IMP  
'Don't go (please).'



We have already looked at the types of, two types of negation and I wanted you to see this with the, I wanted you to look at these examples in 5 and 6 just to refresh your memory that these things help us establish whether a sentence has tense or not because a particular type of negation marker can occur only with the tenseless sentences, namely mat. We have looked at some Tamil examples and I am sure you must have thought about examples of some other languages as well.

There are certain other things where we did not come, but I can tell you while moving ahead, but I need to move to some other point about a sentence today. However, this point is going to be crucial a little later and I will establish why I am showing you these sentences. But can you please take a look at these sentences carefully?

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## Negation

7. aap-ne kahaa aap aais-kriim khariidenge  
you-erg said you ice-cream buy-fut  
'You said you will buy ice-cream.'

8. maiN-ne kab kahaa  
I-erg when said  
'When did I say?'  
Imp: I did not say so.

9. maiN-ne kahaaN kahaa  
I-erg where said  
'Where did I say?'  
Imp: I did not say so.



Professor: Even those who do not speak Hindi could understand these sentences. Please take a look at them carefully. What is the first sentence, Sandeep? You speak loudly. What is the first sentence?

Student: Aapne kahaa aap aais kriim khariidenge.

Professor: Aapne kahaa aap aais kriim khariidenge. What does this mean?

Student: You said you will buy an ice-cream.

Professor: You said you will buy an ice-cream. What is the reply in sentence 8?

Student: Main ne kab kahaa?

Professor: Main ne kab kahaa? What does this sentence literally mean? When did I say? But, what am I supposed to understand out of this? What is the implication of this?

Student: I did not say it.

Professor: I did not say so.

Student: Or I do not remember saying that.

Professor: Or I do not remember saying that. The point is when you see the reply and the reply is main ne kab kahaa. Do you see any negative element in the sentence? If at all the sentence is a

question sentence. When did I say so? And remember this is not about Hindi alone. The same thing applies in English. When you say when did I say so means I did not say so. A question sentence gives you negative reading. Not necessarily a question sentence is going to give you negative reading all the time, but in a context a question sentence gives a clear negative reading where there is no negation word in the sentence.

When someone says come, does it mean do not come. If you want to tell someone do not come, then you have to say do not come. That is, you have to use the negative word. Now look at this sentence, there is no negative word and it means no. And again, I will remind you, like I have promised you, I will keep reminding you about these things. It is not something new that I am telling. I mean, I may be saying something that you are looking at in a context for the first time, but it is not that you do not know these. You say these things many times. Do not we say such things? And if you look at the sentence in 9, it is not just about one question word when. You can use several types of question words and still, the meaning is negative.

Even when we say use the question word where, where did I say or where did I say so? Means I did not say that. I just want you to look at the implications of replies and what such question sentences are capable of. What is the implication involved in such answers?

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## Syntax

- Syntax is the study of the rules governing the way words are combined to form sentences.

- \*garden the in
- \*table on
- \*Children are



playing

Now I will talk about a little bit more about these implications a little later. Now there is one more thing, which I wanted to discuss before I come to the definition of syntax. So, there are two

things in a sentence. Two things that are important. One is the verb and the other is what agrees with the verb, subject, we can call that roughly subject. We have seen in the last couple of classes that sometimes subjects may be something which we do not usually think could be a subject, that is, we have a different notion of a subject in our mind. However, when we take a look at a sentence, take a careful look at a sentence, we realize that the actual subject is something else and this actual or non-actual business begins only when we keep in mind that subjects are the elements that agree with the verb.

I am trying my best to talk about these complicated issues in simple terms, I am trying my best not to use too technical terminology for these things. Am I still making sense to you? So, looking at the same phenomena, we derive that nouns that end up agreeing with verbs are subjects in one form of their definition. So, we talked about subject and verb. Have you heard the word predicate? What does this mean to you when someone says predicate?

Student: The rest part of the sentence.

Professor: Rest part of the sentence. Which rest part? I mean leaving what?

Student: Sentence minus subject.

Professor: Sentence minus?

Student: Subject.

Professor: That is, you want to say subject minus sentence or sentence minus subject everything is a verb. And everybody understands this thing? Have you heard this thing or you have read this somewhere?

Student: I thought like that.

Professor: You thought like that. Good. And that is true. Subject minus everything else is predicate. This is a nice definition, but we need to understand the implication of this definition, which is subject is not part of predicate. Please keep that thing in mind, we will come back to this thing. And this particular assumption or description has a huge role to play in many things that we are going to discuss.

So, you can see now, at least at this point why agreement has to take place between subject and the verb. That is one element from within the predicate and one element outside the predicate and you have just established that because the subject is not part of the predicate, therefore, it has to agree only with the subject. See that. So now we know terms like subjects, verbs, and predicates. At the same point before I move out of curiosity, I want to check about one more term, which is objects.

Have we heard about that? Subject, objects and verbs, we have been talking about them. We have just introduced a new term predicate and I am so happy that you understand the notion of predicate. How about objects? Anybody?

Student: What is a sentence referring to?

Professor: What is a sentence referring to? It is a little bit vague.

Student: On which the work is being done.

Professor: What? Loudly.

Student: Yeah. The thing on which the action is being done.

Professor: Something that the action is being done on will be object. This sounds like very textbook type of definition. I want you to expand them in such a way that people could understand without books and all that. But you are too close. We just need to say a little bit more. So, hold on with these definitions. Where is the object located? Is it part of the predicate or outside the predicate?

Student: Part of the predicate.

Professor: Part of the predicate. Now it follows from what you just said. If predicate is everything except the subject, then the object has to be part of the predicate. No surprises here. And if it is part of the predicate, then we come to these actions and all these things little later. If it is part of the predicate, it is around the verb and in still simpler terms, we can say objects are more closely related to verbs, that is, the existence of an object depends on the nature of the verb. Whether an object will be allowed in a sentence or not, by allowed I mean whether an object will be required in a sentence or not, depends on the nature of the verb.

And again, with this, we will need to talk about what we mean by the nature of verbs. So, hang on to that. A little bit more on the relationship between subjects and predicates, relationship between verbs and their objects and nature of verbs, we discuss a little later. Let me talk about something that I want to introduce to you and then bring in those notions and move forward together.

As you know, we started to understand principles and parameters of natural language. So far things that we have been discussing, they are part of principles and parameters in the sense that a nice background of such helps us understand how principles and parameters play in language? How principles and parameters really work in language? Understand? We have been able to understand in a better way notion of things like knowledge of language and principles of economy.

We can understand the notion of knowledge of language only when we understand how we acquire language and before we understand how we acquire language; it is imperative for us to know what it is that we acquire. How does it really work beginning from how we begin speaking sounds and then how they work together in a word? Understand this?

So, this is why we have spent a little bit time on such things. What I want to say, this is not an apology to why we have spent so much time on that. This is just to bring you at this point to appreciate more of what we are going to be discussing. Point number two, we can appreciate an understanding of principles and parameters more at the level of sentences. So now we are at the level of sentences. Now we understand what we know about sentences so far. The things that we have established about sentences. I do not mean to repeat them again.

Such an understanding in short is called syntax, which is again it is a set of rules operating at the level of sentences. So, principles and parameters are visible more apparently at the level of sentences and this is what we are going to be looking at from now onwards. And again, for understanding such principles and how they operate, it is important to understand the relationship between subjects and objects and the moment we want to understand relationships between subjects and objects, we first need to know what subjects and objects are.

The more clarity you have about these things, the better appreciation of these things develops now onwards. So, look at these things.



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## Syntax

- Syntax is the study of the rules governing the way words are combined to form sentences.

– \*garden the in

– \*table on

– \*Children are



playing

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These are fragments. Are not they? And even the star marks before these fragments indicate that they are not a good combination of fragments. Star represents ungrammaticality or unacceptability in this study of language. So everywhere now onwards, you are going to see a star either before a word or before a small fragment or before the entire sentence, which means it is not an acceptable sentence. So, see these fragments are not acceptable, not good. If I ask you the question why, it is pretty simple to answer.

They are not in the right order. This is what we want to discuss: what is the right order and how do we know about the right order? How elements must be put in a particular order is part of principles and parameters that determine that, which is, the first one must be, how are we going to remove the stars from there?

Student: In the garden.

Professor: In the garden. Why? That is the parametric adjustment of English. That in a language like English, and I am saying English because I do not want to say more things about it. In a language like English, an element which we call preposition must precede the noun. So, we must say in the garden. Then the question is if we say in garden the still not a good string. Can we say the in garden? Still not a good string. So not good strings tell us what?

Student: Wrong syntax.

Professor: Wrong syntax, but more than that what does this tell us? That is the conclusion of that, but what it tells us that the proximity between the and garden is a required fact, is a required proximity for this string to be grammatical. Anything or nothing can interrupt that proximity. The moment you interrupt that proximity, you are going to result in ungrammaticality. So, what governs this proximity? That is why such proximity is so required? Such rules are what we call syntax.

Any question, any difficulty? And the same applies in the rest of the examples too. This is one sentence, fragments of one sentence and if we put it, it is not a complicated sentence, all of us know this sentence.

If you put it, how do we put it so that the sentence will be grammatical?

Student: Children are playing in the garden.

Student: Children are playing on the table in the garden.

Professor: Children are playing on the table in the garden. This sentence may not be a great sentence, still you can ask your questions about certain meanings that are semantic aspects of the sentence. How could several children play on a table in the garden? But it could be possible. They could be playing something which is possible for five children to play on a table. That is a possibility.

However, making them ungrammatical in smaller fragments help us understand the requirement of proximity of their elements. So, it is not a coincidence that we arrange words in a particular order in a particular language. And when we are looking at the order of words in a sentence, only the order of verb is not important. Of course, that is important in the sense that verbs in a language like English must be in the middle of the sentence. That is, English is not a verb final language and it must be in the middle of the sentence.

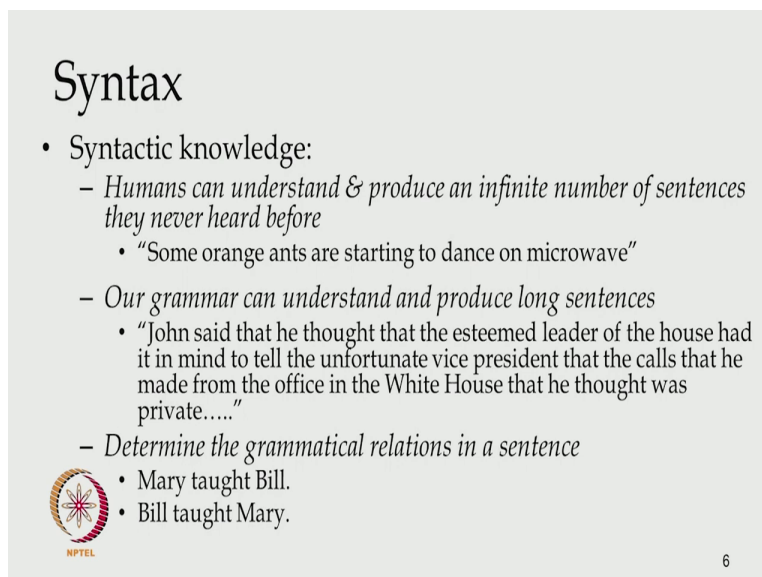
Actually, now we can say it in a better way. We can say the verbs must precede the object or objects must follow the verbs in English. Therefore, they become verb medial language. Our language is verb final. The moment we say verb final, it means objects must precede the verb. It is just the mirror image relationship between or mirror image difference between English and

Hindi. Verbs follow in English, sorry verbs follow objects in our languages, verbs precede their objects in English.

Same thing applies to prepositions. Prepositions precede nouns in English. **Prepositions** follow nouns in our languages and many such languages. Such are parametric variations and they are not the only parametric variations. They are the parametric variation at the level of arrangement of words. We will talk about more of them. But is this much clear that besides verbs other elements also require proximity. Some of the elements can allow disruption in their proximity and some are not going to allow.


Again, we will look at all these things a little later. So that is about syntax.

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**Syntax**

- Syntactic knowledge:
  - *Humans can understand & produce an infinite number of sentences they never heard before*
    - “Some orange ants are starting to dance on microwave”
  - *Our grammar can understand and produce long sentences*
    - “John said that he thought that the esteemed leader of the house had it in mind to tell the unfortunate vice president that the calls that he made from the office in the White House that he thought was private.....”
  - *Determine the grammatical relations in a sentence*
    - Mary taught Bill.
    - Bill taught Mary.

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What does syntactic knowledge mean? Syntactic knowledge very closely refers to what we have been talking about knowledge of language or at least syntactic knowledge is also part of knowledge of language. But what does this mean in particular? Look at it. The first thing is that it guarantees us that we can understand and produce an infinite number of sentences that we have never heard before. We have this capacity.

What is the most fundamental property of a sentence we have just seen? Most fundamental of a sentence. Of course, there are elements and everything.

Student: Agreement.

Professor: Agreement. Just one simple feature guarantees infinite sentences. As long as your agreements are taken care of, you can keep producing sentences and there is no limit on that. We can produce or we can understand an infinitely long sentence. Not only we can produce, we can understand an infinitely long sentence.

Full stops define a sentence and it is possible that you may have to leave that open. You have seen the smallest sentence. Smaller sentence possible and a smallest sentence possible, but we do not know a long sentence. It could be literally infinitely long. The fact that we call it infinitely long assures you that you are never going to get an example of that. You can try and you see the example. This is just an example. You can make a sentence of your own. That is the point.

Also, such rules that is syntactic knowledge determines the relationship between sentences and just now we talked about this and I told you that we will talk about subjects and objects and verbs a little more with reference to the nature of verbs later, but look at this. The verb is the same in the two sentences, the last two sentences. Are not they? And nouns are also almost similar. What is the difference in these two sentences then? Meaning wise, these two sentences are completely different. They are the same set of people and the same verb. What causes the difference in the meaning then?

Student: The arrangement of words.

Professor: Arrangement. We referred to that as the arrangement of words because that is visible. What is not visible to us is the relationship between verb and the subject and verb and its object, which is Mary in number 1 is a subject, Mary in number 2 is the object. Therefore, the difference in the meaning and whatever the meaning these two sentences give us. That is lexical items are going to be grammatically related with verbs and grammatical relations are called subjects and objects. A word by itself is not inherently a subject or an object. A word or a noun becomes a subject or object in a sentence. A word, maybe a subject in one sentence, could be or could not be an object in the other one.

So, these two terms like I asked you in the beginning. Have you heard these terms? You have heard these terms, but additionally I want you to know that these two terms mean grammatical relationship in a sentence. It is like human beings. One person could be brother, uncle, father or

if we are talking about women, mother, sister, all kinds of relationships could be attested, but depends on with reference to what? So, these are part of what we say syntactic knowledge.

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## Independence of Syntax

- A sentence with clear syntax but no meaning:
  - Colorless green ideas sleep furiously.
  - A dog was reading a newspaper in the library.
  - I gave the question to dancing flies.
  - \*Furiously sleep ideas green colorless.
  - \*Reading dog newspaper was library in.
  - \*flies dancing questions I gave to.
- Sentences are composed of units that are combined by rules. These rules explain how speakers store infinite knowledge in brain.



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There is one more point which I want you to know in order to understand syntax which is called independence of syntax. It is called independence of syntax. If you just look at these examples, you can understand what we mean by independence of syntax. Do you see these examples?

Look at the first example. Have you heard this sentence before? First sentence colorless green ideas sleep furiously. This is one sentence which is completely meaningless and probably this is the only meaningless sentence which has been discussed in the study of language more than the meaningful sentences. Every time you talk about the independence of syntax, this sentence comes up.

We can do the same thing with the other two sentences as well. The rest of the two sentences tell you almost similar stuff. What it means is you can have a clear syntax, but still no meaning. A sentence that is a good-looking sentence, what do you mean by a good-looking sentence?

Student: Grammatical.

Professor: A grammatical sentence, acceptable sentence may not have any meaning. Do these sentences have any meaning? They are completely grammatical. Are not they? Colorless green ideas sleep furiously. There is nothing wrong grammatically with this sentence. A dog was

reading a newspaper in the library. A completely grammatical sentence. Have you seen this ever? You may have seen such things in films, but have you seen these things ever? No. Have you said this sentence before until now? No. But is this not a good sentence?

Refer back to just what we have seen on the slides. We have the ability to understand sentences that we have never said before or we have never heard before. That is the capability which is making you understand these sentences. I gave the question to dancing flies. It is not difficult to come up with these sentences. All you want to do is what? You are trying to retain the grammaticality of the sentence, but you are trying to remove the meaning from there.

In normal speech when we speak, when we interact in societies that are called E-language. Remember? If you are talking about the difference between I-language and E-language, then the role of independence of syntax is important. In E-language, independence of syntax does not have much meaning. You made the point. E-language will tell you, okay, fine, establish that syntax is independent, which is independent of what? Independent of its semantics. That is independent of its meaning.

In other words, not necessarily a sentence which is grammatical must be meaningful also. Therefore, if someone tells you meaning is arbitrarily assigned to sentences. This is what is the proof of that. The meaning is not something which makes a sentence grammatical. You can say this is meaningless. This does not mean anything. You must have heard these things several times this does not mean anything. But nobody says that thing ungrammatically.

So, independence of syntax simply means the meaning is not a required component of a sentence to be grammatical. However, keep the word of caution in your mind that these things, these sentences may not be good in E-language, that is, we can make our point with these things, but people do not speak these sentences.

Suppose you meet with your friends in the evening and you tell him even in the context, you know what I saw a dog reading a newspaper in the library. What is going to happen? If you say this thing to five different people, they will make different kinds of conclusions about you. Has this person gone really mad or is he trying to spread some rumors? All kinds of people will make all kinds of conclusions. So, these things have a different meaning in E-language.

So right now, we are not talking about E-language. And at this point, I should also bring in the syntax and its properties that is syntactic knowledge and the other aspect of it, which is independence of syntax. All these things and whatever you are going to see more, their grammatical relations, their principles, they are all part of I-language. And therefore, in generative grammar, which follows from Chomsky in syntax, he only talks about I-language and he makes it abundantly clear that the language that I am discussing has nothing to do with the language in the real world that is E-language. Get my point?

Now the strings in blue just distorted strings, therefore ungrammatical. They are not ungrammatical because they are not meaningful. So again, this establishes that we must have sentences combined by rules that is the proximity of elements is the outcome of certain rules. The position of a post position, the position of a determiner, whether an element is going to allow a determiner or not, all these things are going to be rule-governed. And such rules are going to tell you that how we store may not be the right word. How we have language in our mind? That is the language in our mind is not in the form of either fragments or sentences.

This also establishes that language is not stored as sentences. Language is an outcome of rules and that rule is called generative rule, which is an outcome of generative capacity. We do not have words and we do not have sentences made, readymade sentences to be used. Remember I have asked you these questions, do we plan every day that we are going to speak 200 sentences today. Imagine how difficult life could be.

How many assignments do you have to submit every day? Sometimes nothing. You may have just a quiz. Imagine how our life is going to be if we have to make a list of 200 sentences every night before we go to sleep that we are going to speak tomorrow. Imagine a life. Probably we cannot imagine such a life. Then if we are to study, how do we speak or how do we say so many things? This is an example of that.

Also, I have shown you or at least we have discussed that the human brain is empty. Nobody has found any evidence in it. There has been a huge attempt to study the human mind from a variety of perspectives. Not that they are not significant or anything. Rules of language or the study of language throws serious light on how the human mind works. That is at least, these things retrospectively tells you that the human mind comes up with language with application of rules

and those rules are finite in nature. Remember I am not saying finite in number. Those rules are finite in nature, but they have infinite capacity.

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## Generative Grammar

- Noam Chomsky 1950s
- *Generative* = a very explicit system of rules specifying what combinations of basic elements result in well-formed sentences.
- Defines the syntactic structure of a language.



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Finally, this is how generative grammar is defined. 1950 onwards, this came into existence and it simply means a very explicit system of rules specifying what combinations of basic elements result in well-formed sentences. Defines the syntactic structure of a language. So, the structure underlying sentences is called syntactic structure. We are going to see more of it from now onwards, that is when we say more of it, now we are not going to be looking at the structure of sentences per se, we are going to see the structure of these underlying rules.

Can you keep this in mind? Not the structure of sentences per se, that is, we will be looking at sentences, but not really the relationship between words or choice of lexical items or for example choice of a particular rule. We are going to be looking at with the help of examples the underlying structure of syntactic rules, which in turn become fundamental principles of language and we are going to begin with several components of it.

The first is x-bar theory which is, how do we guarantee that lexical items require proximity and how they are related with one another and how it is captured with application of rules in the human mind. We are going to be looking at that. That we begin from Thursday. Thank you.