**Principles and Parameters in Natural Language**
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**Lecture - 38**
**Structure of Language and Negation**

So, let us begin with what we have to do today you see we have been discussing several theoretical aspects for the study of language, we started with principles and sets of parameters and we saw how they work. Then we started looking at the aspects of principles and parameters that is this whole theoretical approach is a collection of several modules.

And then we looked at some of those modules separately like x bar theory, theta theory, case theory, binding theory, that is called anaphoric relations and several other things in total, you see as a note here I must tell you the whole approach of principles and parameters is also known as modular approach. It was coming up developing simultaneously with computers revolution in the world not only revolutions in cognitive science, but computer revolutions in the world. I am sure I do not need to go into details to tell you the a comparison or anything else about computers that the kind of small machines we have 20 years ago, or maybe 30 years, or definitely 40 years ago big size machines did not have that much capacity to perform several tasks, several actions.

And that is an accepted fact that is a historical thing as we know and as you also know now machines are also very much modular we can take what I mean by modular is very simple. And then I will come back to language we can take one part of machine fix it and put it together and then the machine works right. So, for a machine to work we do not need to disrupt everything else am I right when I say this is a modular approach.

Similar things where experimented with language that if we are only looking at case we need to look at just case and several other theoretical apparatus to this to explain how it works and while discussing case we do not need to bring in anaphoric relations and then we do not need to bring in movement and everything, some claim that the modular approach just like the multi tasking of machines developed through cognitive revolution. And looking at the capacity of human mind to perform several tasks at a time, machines were designed to perform several tasks at a time it is been claimed not very emphatically

these are the inferences to great extent and some mild claims that looking at the such developing and building upon such capacities modularity in machines were also developed.

We do not have to be religious or fanatic about these things, some people claim the other way around because modularity of machines were developing at the same time people looked at modularity of several theoretical aspects explaining language. We still do not know whether language really works in a modular way in human mind, we know how it works to a great extent. We know how to explain several aspects of language, but we do not really know whether it really works in a modular fashion or in some other way that would be too tall a claim.

So, that was just a side note which is a cross reference to cognitive revolutions and then applications to machines. Now coming back as you can see the title of what I am going to discuss with you, but the idea is to talk to you about a particular aspect of linguistic theory and see how it helps us explain an aspect of South Asian language, how does that work and that will give us an idea of how to look at our own languages, I mean we know in a very short class.

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So far ...
– Linguistic Theory/Study of the Form of Language

Today ...

– We want to look at examples of how the study of the form of language help us understand the structure of South Asian language.
– We will look at the example of negation and negative polarity items in Hindi.
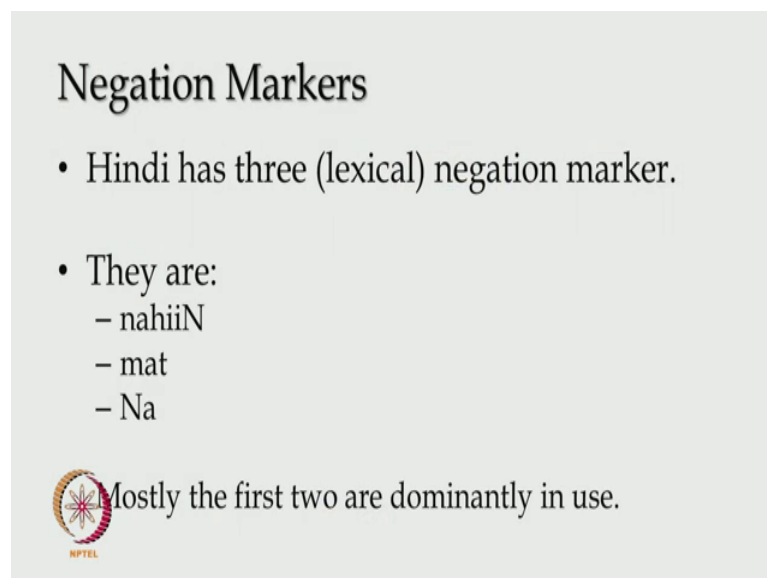
We have been able to look at the theoretical modules and several theoretical aspects, but we did not get enough time to look at Hindi data, or Tamil data, or Telugu data, or Malayalam data, to see how they work besides SOV and VSO and some generic things.

This is what I want to do at least for today and probably it will need to give a conclusive shape it will need one more hour, see how this how this works, do you get the idea what we want to do and for that I have chosen negation and there are two reasons for negation a I have personally worked on negation and I understand how it works at least in one language. My idea is to work on the negative aspects of, not the negative aspects in terms of negative negation of other languages how negation functions in other South Asian languages that is my idea, but that is a different story.

I want to take some examples from negatives or negation sentences from Hindi and show you how it works and see if it helps us apply the theoretical concepts that we have learnt at least to some extent.

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So, see very simple.

Student: Sir.

So, far we should not have any difficulty there are three negative markers in Hindi they are words like [FL] and [FL] out of the three-two of them are most frequently used that is [FL] and [FL] and [FL]. I am not saying [FL] is not an important one, but sometimes it is it goes with [FL] sometimes it is close to [FL] basically it is a short form of [FL] and so these are the 3 words that is not very interesting that is interesting only for the purpose of recognizing a negation word. Most of the, not most availability of negation is a universal

phenomena of language there is no language in the world which does not have a device to indicate negation it is a universal phenomena.

Now, how a language expresses it is negation becomes parametric in for example, in some languages negation may be a word like [FL] or [FL] in some languages it may be a marker on the verb or some other word. In some languages it may surface in some other way we do not have data available of for classification of negation words across languages.

But before I move I again want to underline 2 points negation as a phenomena is universal feature of human languages that is 1, number 2 how they get represented in a language is parametric. Let us begin from once we agree or we can claim or we are in a position to claim about a phenomena being universal then it does not remain theoretically challenging for linguists it fits in a particular pattern and then works nicely; what becomes more challenging is the moment we see some parametric things coming in only then you will need to look at them in order to classify them further or explain them further.

Let us start with a parametric approach when I said there are two at least two broad ways of negations are facing in languages one is in a word as a word the other is as a marker on some other word. Let me draw your attention to two things with these two broad categorization when they are a word they are a lexical item right and when they are a marker on some other word then it is a morphological item you want to understand what a mean by morphological item. The moment it becomes morphological it becomes semi syntactic that is morpho-syntactic these are just the terms. And I want you to understand these terms very coolly calmly they are not complicated terms the and when it is a word it becomes a lexical item, what is the main issue here, the main issue is negation a lexical thing or is it a syntactic thing in other words is it a functional thing that is the broader question when we get into abstraction of negation.

When people saw negation as a word it is very easy to get tempted to make a generalization that it is a lexical item what is the problem with this, but when you get in touch with other languages. And see no it is not that simple sometimes it is on the sometimes it is such a marker on something else sometimes it is in fixed with verbs it must not be only a lexical unit.

And even though it is a lexical unit what it is abstract representation is it does do they belong to the lexical layer of a sentence or to the functional layer, that is becomes a broad question at the abstract level where we need to explain this theoretically. Now you can see I can remind you since while I am discussing negation in Hindi you can keep looking at negation of English which I will cross refer time to time and then I invite you to keep in mind and see how negation works in Tamil, Telugu and other languages that you speak see how it works. At least for Tamil I understand that sometimes it appears as a marker on the verb also writes, it is not always the word what is the negation word in Tamil.

Student: (Refer Time: 14:01) [FL].

[FL] right it is spoken differently in different parts, but [FL] not every time this remains a negation word for example, when someone says I do not want tea how do we say that.

Student: [FL].

So, where is [FL].

Student: [FL] is I do not want.

So, do you see what I am trying to say it say it is on the verb and there is no negation word that I am sorry I am not saying no negation word it appears in a different form right

sometimes hold on the; that is all was my point the other point that I am trying to make is negation most of the time is stays around verb. And again at this stage it should not be a surprising thing for you that it is stays around the verb. And here are the conclusions that we can draw from it is location around the verb if you are asked to talk about the most significant part of a sentence what is it.

Student: (Refer Time: 15:24)

I mean every part is important in it is own way, but what is the most important part.

Student: Verb.

Why verb why not subject Sandeep is saying why verb.

Student: (Refer Time: 15:35) cannot exists without the (Refer Time: 15:36).

That is ok, but why verb is more important than subject.

Student: Because it is the one that is agreeing with the subjects.

Not just because of that see now your answers should be more precise because it hosts all other information, it hosts abstract informations, it can keep tense, it can keep aspect, it can retain agreement features in terms of masculine, feminine, singular, plural. It is like a powerhouse. Therefore, it is the most important part of a sentence and if the negation stays around the verb it should not be a surprising thing the fact that negation stays around the verb makes us investigate it even more carefully is it part of lexical layer or functional layer get the thing.

That is one and the fact that sometimes it appears on the verb as a marker in some language at even if it appears as a marker on the verb in one language of the world it gives us more than enough evidence to investigate it further whether or not it is a functional category get it that is the what we are basically getting at number one before I come one more particular aspect about negation. The fact that it stays around the around the verb most of the time in many languages or in most of the languages it precedes the verb.

However, in some languages it may follow the verb too sometimes it follows the verb in Tamil I am sure it will follow verbs in Telugu, Malayalam and other languages too in

Indo Aryan languages as well Bangla is one such example where it follows the verb. Whereas, in most of the Indo Aryan languages it precedes the verb get the get the point and the effect on of a negation on a sentence is such that the moment it negates the verb. It negates the entire sentence which also underlines significance of a verb that in order to negate the entire sentence you only need to negate the verb.

So, when you say something like what was the Tamil sentence with [FL] I let say, I do not want tea right in this sentence, we have 3 aspects subject, object and verb.

Student: And verb.

Negation has very little to do with subject it is not negating subject it has very little to do with the object it is not negating the object it is only negating the verb and then the sentence becomes negative which underlies this thing underlines the significance of both negation and the verb and the relationship between negation and verb. So, having said that can I without getting into too much of details I want you to pay attention to the conclusion part of this, that unlike other functional elements negation appears to be a lexical unit, what do we mean when I say unlike other elements other functional elements for example, tense for example, aspect agreement markers these are clearly morpho-syntactic features of verb on the verb of a sentence and they hardly appear as a full word.

However, negation most of the time in many Indo Aryan languages and in lot of a Dravidian languages and other languages of the world seem to appear as a lexical unit. Therefore, it seems very easy for us to believe that it might be a lexical item. However, it is located in the functional layer even though it is a word in many languages it still is part of functional layer and it heads it is own phrase which we are going to see in a minute for the time being.

1. Raajuu dillii  nahiiN/*mat jayegaa
   Raaju   Dehi neg          go-fut-masc-sg
   'Raju will not go to Delhi.'

2. Dilli    mat/nahiiN jaao
   Delhi  neg      go-imp (-fin)
   'Do not go to Delhi.'

Let me quickly show you a sentence these are two Hindi sentences I just need to make two points, but I need you to look at these two sentences very carefully if you are writing a sentence of your language or any language other than English. Then this is how you need to write a sentence first with the transcription then there is an error that the r in Raju should have been smaller one in the first sentence and, d in Delhi in the second sentence that is an error.
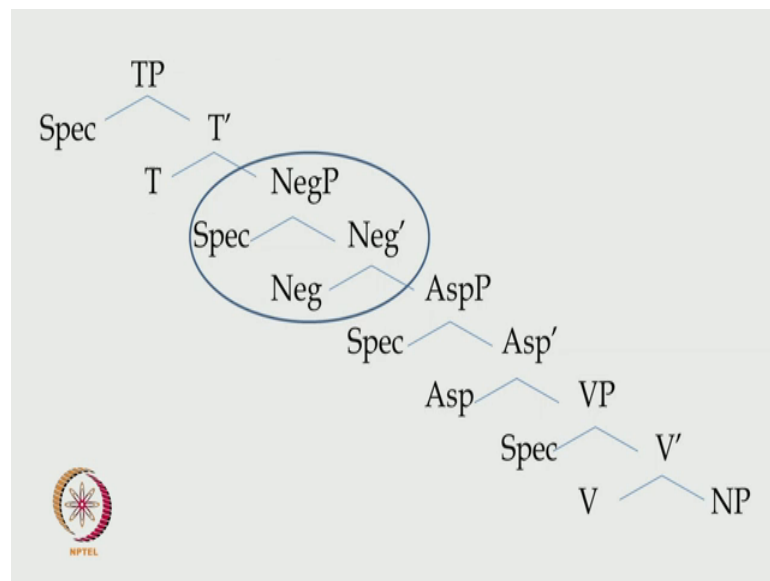
That is a phonetic transcription then word by word glossing what these words mean to the possible extent and then finally, meaning of the sentence in English this is the convention to write a sentence. So, that anyone who does not even know the language can find out what the sentence is, how does it read, and what is it that you are trying to highlight in that sentence.

So, just two points that I want to make here the word [FL] in the first sentence, look at the word [FL] in the first sentence it is right before the verb negating the entire sentence; however, in the first sentence the use of the negation marker [FL] is not allowed in the second sentence it is. So, which one is more generic negation marker clearly [FL] has a restrictive environment to appear which is it appears only in imperative sentences. And now for imperative sentences you can say two more sentences that these are non finite sentences right the tense less sentences and only in those sentences [FL] appears as a negation marker, whereas [FL] is a more generic negation marker in a language like

Hindi and this categorical this distinction between two negative markers is feature of most of the South Asian languages at least.

So, some sort of this categorization will be available in all the languages that we speak I just leave you to check that all right I need to move to a different point is that clear and then we have already talked about how it works.

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Let me show you what I mean by functional layer and if I had more time to get into more details to show you why I am asking if I had more time I will talk to in a about that in a moment, do you see this structure looks familiar right whether we start a note here whether we start this structure with an I P or A T P or an A G R P either way and I hope you understand what I mean when I say A G R P, T P, or I P in different frameworks here are the conclusions negation is always part of functional layer .

If we go into the details of that what we find is it is located below T P and above aspect phrase that is the point which I want to make in a very strong way and there is evidence available for this in natural language, this is why I was saying if I had more time to show you how actually this evidence comes and here let me try briefly and see if it works is it clear to you that it heads it is on phrase which is Neg P and you understand the structure of a phrase very well it will have a spec, it will have a head and then it will have a complement and then what follows is aspect phrase. This becomes clearer only when you

get into the details of the functional layer as long as you are staying with I P still you know that 10 negation phrase appears before V P.

V P is the point from where we start lexical layer is this making sense to people in general that is alright now let me try very briefly to talk about the evidence which supports this, for the purpose of this class I can simply make this a inform you about this and move, but I do want to talk about that. So, that you see it in a convincing way, you see I talked to you about the position of negation in a sentence, what is the position of negation in a sentence.

Student: Around verb (Refer Time: 26:17)

Around the verb mostly preceding the verb and then it negates the verb, negation may I occur elsewhere also in the sentence, else it may occur elsewhere in the sentence too for example, I can give you one Hindi example I do not have it on this screen, but I can say and you can understand, I can say [FL] do you hear the sentence clearly [FL]. Where is the place of negation in this sentence is it around the verb no, where is it and an I am not asking in terms of the structure, I am asking only in terms that it is not around the verb, what is the meaning of that sentence, if some of you understand Hindi what is the meaning of that sentence [FL] what do we, what does one want to say with that sentence.

Student: I would not go to Delhi someone else will go.

I would not go to Delhi someone else will go right now where is this someone else will go coming from we are not saying that.

Student: (Refer Time: 27:56)

Where is this coming from, first of all do you see that sentence clearly and what he saying is right that the sentence actually gives you the reading more importantly that I will not go I mean someone else will go is the message where is this message someone else coming from.

Student: Maybe, because the negation word is placed right down with the subject.

That is true, but then what is the effect of that the effect is when it is not around the verb it is a different kind of negation, see when it is around the verb it is called sentential

negation. Which means it negates the entire sentence when it is not near the verb please see that sentence carefully the verb is not negated, the sentence is not about not going, the sentence is about not me someone else will go to Delhi not me.
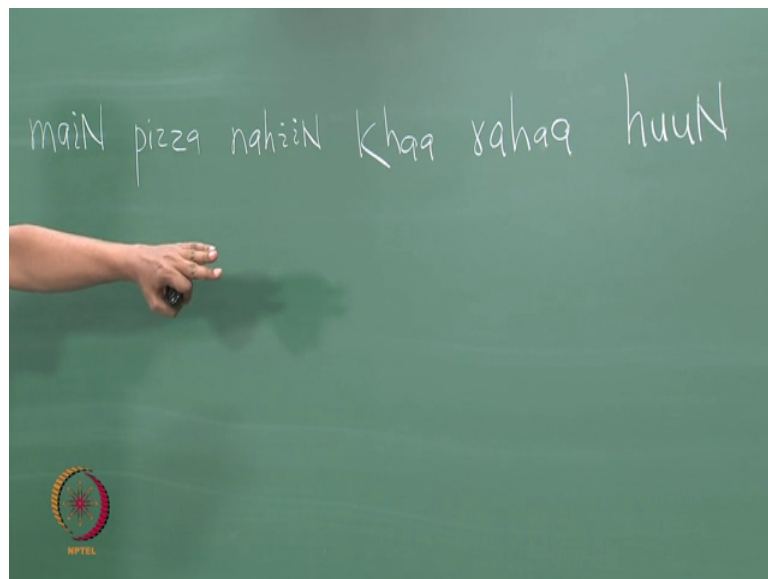
That is to say if it is not around the verb then it negates only the part that it follows, listen to this carefully in the example that I have given you the example comes from an in Hindi an in many other Indo Aryan languages and Dravidian languages too when negation is not around the verb it does not negate the verb. Therefore, it does not negate the whole sentence and in such a case it negates only the part that it follows. Such a negation is called constituent negation that is it negates only that constituent [FL] meaning someone else not me will go to Delhi. So, will go to Delhi is not negated clear therefore, this meaning is coming from someone else will go, got this.

So, with this I introduce to you the phenomena called constituent negation and it is contrast with sentential negation, let me exploit these phenomena to give you to bring evidence in support of what I am saying. Look at the verb look at the following sentence how do we say in Hindi I am not eating pizza.
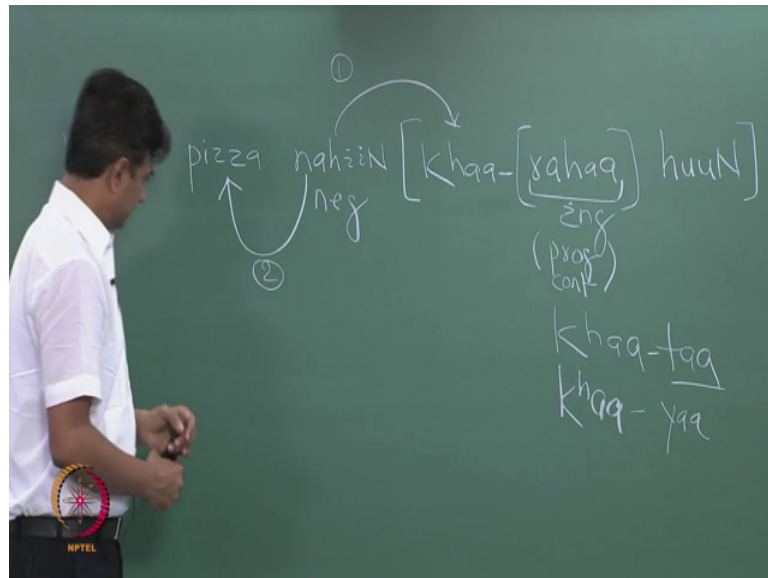
Student: [FL].

[FL] [FL] see these thing see this thing let me use the board for a moment here is the point that.

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I am trying to make [FL] pizza [FL] clear I will write the glosses only for the parts that I need what is the verb is the negation right before the verb in this sentence, this is the verb that we have that is the whole verbal complex.

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And the negation word precedes this thing right and this is what I was trying to tell you if this negation was here right then the sentence has a different meaning [FL] pizza [FL] the sentence has a different meaning understand this, I am only talking about the parts that is relevant for us I leave it for you to apply these things how these ambiguities are resolved by human mind without us being confused about anything at all.

If this is the case now look at this sentence as it is this sentence usually means I am not eating pizza which means in the primary reading number 1, it negates the whole verb therefore, it gives us that reading will you believe it if I tell you the sentence is ambiguous in Hindi in it is secondary reading this negation may also negate pizza listen to this carefully [FL] also negate pizza just like if it was available here it would have negated this one.

So, by the virtue of being here which is not only before the verb, but around the object too, it might negate the object as well, when it is negating the object then the meaning is different meaning is not sentential negation the meaning is [FL] pizza [FL] and you can hear this thing in the spoken language as well [FL] in this sentence which is not a clear declarative sentence you can hear that I am talking about I am not pizza eating something

else just like not me someone else, not eating not pizza eating something else is the reading in the secondary part do you agree with this. Therefore, one can say this sentence could be ambiguous and again please underline the part that you may be surprised today, but you know this that the sentence was ambiguous and our minds do not have any confusion at all whenever we say these things alright, this was the fun part for you to see.

Let us see the syntactically significant part; I wanted you to see this fun part because when negation is not verbal negation, when the negation is not a sentential negation, rather it is a constituent's negation in that case whether it is a functional category or a lexical category is a different matter for discussion. Negation is a functional category it belongs to the functional layer only when we are talking about sentential negation that is syntactic aspect of negation when it negates the entire verb.

Therefore, it negates the entire sentence. Look at this in Hindi in a language like Hindi this part of the verb is the only marker of aspect which roughly translates at as Ing, eating agree roughly translates at Ing which is also called progressive aspect marker or continuous aspect marker these are the terms for this is an aspect it is a continuous aspect marker or progressive aspect marker which means that some something is in progress that is the process of eat is in continuity.

This is the only verb only aspect marker in Hindi which comes as a full word, do you understand what I mean by full word that is as a lexical unit in other cases aspect markers in Hindi become a marker on the verb right how do I say I eat pizza.

Student: [FL].

[FL] right here is what I mean in that case we have to say [FL] this part right and [FL] this is an aspect marker and when we say this is an aspect marker this is the verb route an aspect marker this does not come as a independent word, how do we say I ate a pizza.
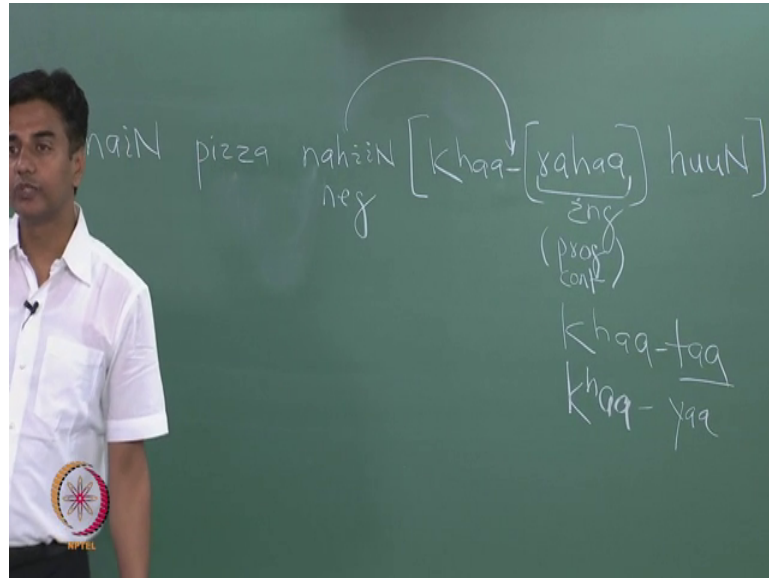
Student: [FL].

[FL] right [FL] in that case we have [FL] and something of that these are not independent words do you see this point these are not independent words the only thing that comes as independent word is Ing get this thing now look at the negation now. If you

understand this parts the point that I am trying to make now take the negation I can delete some parts of it to reduce problems.

Now we are done with it is interpretations, we are talking about sentential negation only reading number one [FL] not eating were not is negating eating.

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It is possible, here it is preceding the whole verb it is possible to scramble negative word there is it possible when I say when I ask you this question is it possible what I mean is the sentence still grammatical if we scramble the word there [FL] is it, understand this still it is ambiguous keep in mind it is still ambiguous when we say [FL] it can negate the whole (Refer Time: 40:10) whole verb and it can also negate just this part not the rest of it see this thing.

Now, when what is the ambiguity there when someone says [FL].

Student: (Refer Time: 40:29).

I am not.

Student: I might be doing something.

I might be doing something else with it.

Student: (Refer Time: 40:33).

I am just buying it, carrying it, making it, doing anything not eat that is the ambiguity part all right, keeping that in mind it is possible to bring the negation word here and in this in the second reading it is a negates it is a sentence negation marker get it. Now listen this is the point that I am trying to relate to what to the structure that you have here it is possible to bring the negation word here, but it is not possible to bring the negation word here [FL] it is not possible and it is definitely not possible to bring it any further [FL] see the point this is I am giving you a very rough sort of example to make the point that I have on the screen. It is this is the tense marker: this is the aspect marker right it is above the aspect marker below the tense marker.

If we try to put our finger on the fishy nature of a functional category for it is exact location in the functional layer it appears from such an example coming from Hindi that it is located below T P and above aspect phrase. Some people can claim what difference does it make. Obviously, it does not make any difference as long as we are not talking about the expansion of functional layer it makes a hell lot of a difference about the location of a functional element the moment we talk about the expansion of it. We need to know the hierarchical nature of the availability or the appearance of a particular functional element in the functional layer.

And even one example from any language of this sort is good enough to establish what we are trying to do theoretical, as long as we do not have a counter example to show to we do not have a counter example to dismiss this claim this one example is good enough to establish a theoretical point get this thing is this point clear to some of you I do not want to get into too many details of the sentence about it is tense, aspect. However, I did it in a way go ahead if you have a question.

Student: Is this sort of word only for languages like Hindi.

No

Student: (Refer Time: 43:39) only

When we talk about this we got this thing we got the evidence from Hindi once we made the claim this applies to all the languages.

Student: Sir what about sentence like sleeping is not good then that not ways coming after then means it is sleeping that I n g is the aspect.

Right

Student: Is there is the tense and after that it is coming is not in between.

No that is not the problem for English that is a predicative adjective in English first, the second thing is it is possible see English is SVO language, see when you have a I had given one example of English tense there was a when we were discussing give me give me two more minutes and then we will stop, when we are discussing tense in English in order to show that tense can really be separated from the verb right, there are two structures to look at one is questions where we know that only tense has to be extracted and fronted right, did you buy a phone.

Right if we are not looking at the question structure then if you put a negation when you negate a sentence then you need to extract the tense. So, if I say I eat pizza how do I negate it.

Student: I not eat.

I.

Student: I mean not eat

No.

Student: I do not eat.

I do not eat pizza why are we bringing where is this do coming from and what is this do, why do we not say I not eat pizza what is wrong with that sentence.

Student: Tense.

That is the now you can see that is the marker of tense, for occurrence of negation in English it needs to extract tense out of verb tense precedes negation and then negation occurs right before the verb. In a sentence like is not good it is not violating anything it is tense is proceeding it is a matter of coincidence that in such a sentence because of predicative adjective tense marker and the verb both are the same that is an auxiliary

marker, but it is a regular phenomena for language like English the tense has to be extracted in order to negate a sentence. It applies in all tenses the example that you gave was an example of a future tense in that we have a clear auxiliary will not eat, but try negating a past tense sentence, I ate a pizza. How do we say that?

Student: I did not eat pizza.

I did not, did not is the contracted form of did not, I did not eat a pizza we need to extract tense out and then negation comes in. See this is also an argument why some people use this as an example for functional layer; I am sorry we need to stop- functional layer sorry lexical layer. Remind me about this I will talk to this is very interesting phenomena the more you get into abstraction, the more you try to see them separately.

We stop and we discuss this some other time that is later.