

**Basics of Language Science**  
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**Lecture 39**  
**Negation in the Structure of Language**

So, let us begin with what we have to do today. 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.

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 the computer 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 in details to tell you the 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, so 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, 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 were experimented with language that if we are only looking at case, we need to look at just case and several other theoretical apparatuses to explain how it works and while discussing case, we do not need to bring in an anaphoric relation and then we do not need to bring in movement and everything. Some claim that the modular approach, just like the multitasking of machines, developed through cognitive revolution and looking at the capacity of the 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 inferences to great extent in some milder 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 I claim, so that was just a side note, which is a cross reference to cognitive revolutions and then applications to machines.

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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.



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, I know in a very short class we have been able to look at theoretical modules and several theoretical aspects, but we did not get enough time to look at Hindi data or Tamil data, Telugu data or Malayalam data to see how they work besides SOV and VSO and some generic things, so this is what I want to do at least for today and probably it will need to give it a conclusive shape, it will need one more hour, see how this work, so 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 work done 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. So, I want to take some examples from negatives, negation sentences from Hindi and show you how it works and see if it helps us apply the theoretical concepts that we have learned, at least to some extent.

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## Negation Markers

- Hindi has three (lexical) negation marker.
- They are:
  - nahiiN
  - mat
  - Na



Mostly the first two are dominantly in use.

So, see very simple so far, we should not have any difficulty there are three negative markers in Hindi they are words like, nahiin, mat and Na. Out of the three, two of them are most frequently used: nahiin and mat. I am not saying Na is not an important one, but sometimes it goes with nahiin, sometimes it is close to mat, basically it is a short form of nahiin. And so, these are the three 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 phenomenon of language there is no language in the world, which does not have a device to indicate negation, it is a universal phenomenon.

Now, how a language expresses its negation becomes parametric. For example, in some languages, negation may be a word like nahiin or mat 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 for classification of negation words across languages. But before I move, I again want to underline two points. Negation as a phenomenon is a universal feature of human languages that is one. Number two, how they get represented in a language is parametric.

Now, let us begin from once we agree or we can claim or we are in a position to claim about a phenomenon 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.

So, let us start with a parametric approach, when I said there are at least two broad ways of negation surfacing in languages, one is in a word as a word, the other is as a marker on some other word, now let me draw your attention to two things with these two-broad categorizations. When they are a word, they are a lexical item and when they are a marker on some other word, then it is a morphological item, understand what I 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 and when it is a word, it becomes a lexical item, so what is the main issue here?

The main issue is, 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 see 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, no, no, it is not that simple, sometimes it is on, the sometimes it is as 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 is its abstract representation, is it, does, do they belong to the lexical layer of a sentence or to the functional layer? That 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, it is not always the word, what is the negation verb in Tamil?

Student: Illai.

Professor: Illai, it is spoken differently in different parts, but Illai not every time this remains the negation word for example, when someone says, I do not want tea, how do we say that?

Student: Enakku tenir ventam.

Professor: Where is illai?

Student: Ventam means, I do not want.

Professor: Do you see what I am trying to say, it is on the verb and there is no negation word, I am not saying no negation word it appears in a different form, sometimes, so that is all was my point.

The other point that I am trying to make is negation most of the time it stays around verb and again, at this stage it should not be a surprising thing for you, that it stays around the verb and here are the conclusions that we can draw from its location around the verb if you are asked to talk about the most significant part of a sentence, what is it? I mean, every part is important in its own way, but what is the most important?

Student: Verb.

Professor: Why verb, why not subject Sandeep is saying, why verb?

Student: Sentence cannot exist without the verb.

Professor: But why is the verb more important than subject?

Student: Because, it is the one that is agreeing with the subject.

Professor: Not just because of that, now your answers should be more precise, because it hosts all other information, it hosts abstract information it can keep tense, it can keep aspect, it can retain agreement features in terms of masculine, feminine, singular or plural, so 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 investigated 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 and 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 what we are basically getting it number one and before I come one more particular aspect about negation, the fact that it stays 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 point and the effect of negation on a sentence is such that, the moment it negates the verb, it negates the entire sentence, which also underlines the 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 (()) (18:12), let us say, I do not want tea.


In this sentence, we have three aspects; subject, object and verb. Negation has very little to do with subject, it is not negating subject, it has very little to do with the object is not negating the object, it is only negating the verb and then the sentence becomes negative, which underlines the significance of both negation and the verb and the relationship between negation and verb, so having said that, without getting into too much of details. I want you to pay attention to the conclusion part of this.

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## Negation in Structure

- Where is negation located in the structure of a sentence?
  - Is negation located in the lexical layer?
  - Is it in the functional layer?

Answer:  
Unlike other functional elements, negation appears to be a lexical unit, however, evidence suggest that negation is located in the functional layer of the structure, and heads its own phrase?



That unlike other functional elements, the negation appears to be a lexical unit, what do we mean when I say unlike 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 a lot of 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 has its own phrase, which we are going to see in a minute.

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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.'



For the time being, let me just, 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.

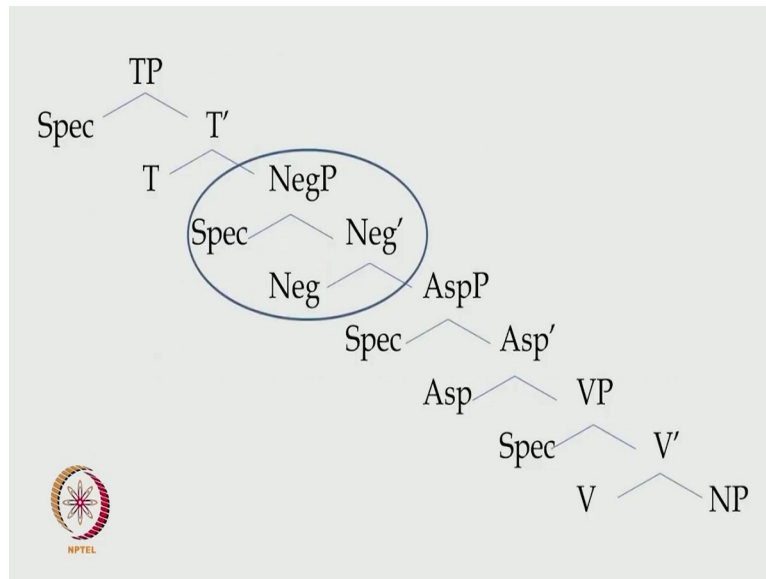
First, with the transcription, that there is an error that the R in Raajuu should have been smaller one in the first sentence and so D in Delli in the second sentence, that is an error, so that is the phonetic transcription, then word by word glossing, what these word mean to the possible extent and 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 it reads and what it is that you are trying to highlight in that sentence. So, just two points that I want to make here, the word nahiiN in the first sentence, look at the word nahiiN 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 'mat' is not allowed, in the second sentence, it is alright.

So, which one is more of a generic negation marker? Clearly nahiiN, 'mat' 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.

The tenseless sentences and only in those sentences, 'mat' appears as a negation marker whereas, nahiiN is a more generic negation marker in a language like Hindi and this categorical distinction between two negative markers is a 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, 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 you about that in a moment. Do you see this structure, it looks familiar? A note here, whether we start this structure with an IP or a TP or an AgrP either way and I hope you understand what I mean, when I say AgrP, TP or IP 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 TP and above aspect reach, that is the point which I wanted 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 its own phrase, which is NegP 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 IP still you know that the negation phrase appears before VP, so VP is the point from where we start the lexical layer, is this making sense to people in general? 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, inform you about this and move, but I do want to talk about that, so that you see it in a convincing way. I talked to you about the position of negation in a sentence, what is the position of negation in a sentence?

Student: Around the verb.

Professor: Around the verb, mostly preceding the verb and then it negates the verb, negation may 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 the screen but I can say and you can understand I can say, Main nahiin Dilli jaunga, do you hear this sentence?

Main nahiin Dilli jaunga, where is the place of negation in this sentence, is it around the verb? No. Where is it? 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, some of you understand Hindi, what is the meaning of that sentence, main nahiin Dilli jaunga, what does one want to say with that sentence?

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

Professor: I would not go to Delhi, someone else will go. Now where is this someone else will go coming from, we are not saying that, where is this coming from? First of all, do you see that sentence clearly and what he is saying is right, that the sentence actually gives you the reading, more importantly, that I will not go, someone else will go is the message, where is this message someone else coming from?

Student: Maybe because the negation word is placed right after the subject.

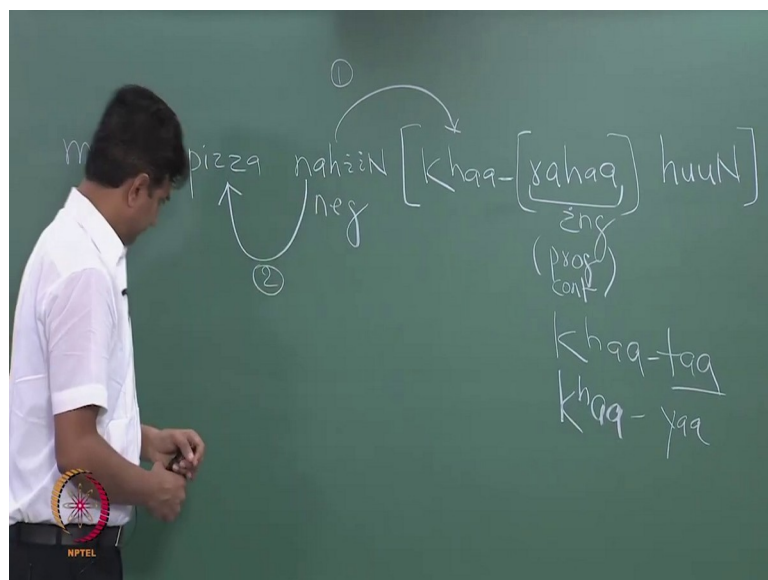
Professor: That is true, but then what is the effect of that? The effect is when it is not around the verb it is a different kind of negation. See, when it is around the verb it is called sentential negation which means, it negates the entire sentence, when it is not near the verb, please see that sentence carefully.

The verb is not negated, the sentence is not about not going, the sentence is about not me, someone else will go 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 Hindi and in Hindi and in many other Indo-Aryan languages in Darwinian 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. Main nahiin Delhi jaunga, 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 who will go, got this.

So, with this I introduce to you the phenomena called constituent negation and its contrast with sentential negation, let me exploit this phenomenon to give you to bring in evidence, in support of what I am saying, look at the verb, look at the sentence following, the following sentence; how do we say in Hindi, I am not eating pizza? Main pizza nahiin khaa raha huun, see this thing, let me use the board for a moment.

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Here is the point that I am trying to make, main pizza nahiin khaa rahaa huun, 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?

Student: Yes.



Professor: Yes, this is the verb that we have, that is the whole verbal complex and the negation word precedes this thing. And this is what I was trying to tell you, if this negation was here, then the sentence has a different meaning, main nahiin pizza khaa raha huun, the sentence has a different meaning, understand this?

I am only talking about the parts that are relevant for us. I leave it for you to apply these things to how these ambiguities are resolved by the 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 one, 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 its secondary reading, this negation may also negate pizza, listen to this carefully, may 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 main pizza nahiin khaa raha huun, and you can hear this thing in this spoken language as well, main pizza nahiin khaa raha huun, 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 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 this sentence was ambiguous and our minds do not have any confusion at all whenever we say these things. Now, this was the fun part for you to see, let us see the syntactically significant part now.

So, I wanted you to see this fun part, because when negation is not a verbal negation, when the negation is not a sentential negation, rather it is a constituent negation, in that case, whether it is a functional category or a lexical category is a different matter for discussing 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, clear?

Look at this, in Hindi, in a language like Hindi this part of the verb is the only marker of aspect which roughly translates that as ing, et, roughly translates it ing which is also called progressive aspect marker or continuous aspect marker these are the terms for this, this is an aspect it is a continuous aspect marker or progressive aspect marker which means, that 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 the full word that is as a lexical unit, in other cases aspect markers in Hindi become a marker on the verb, how do I say, I eat pizza?

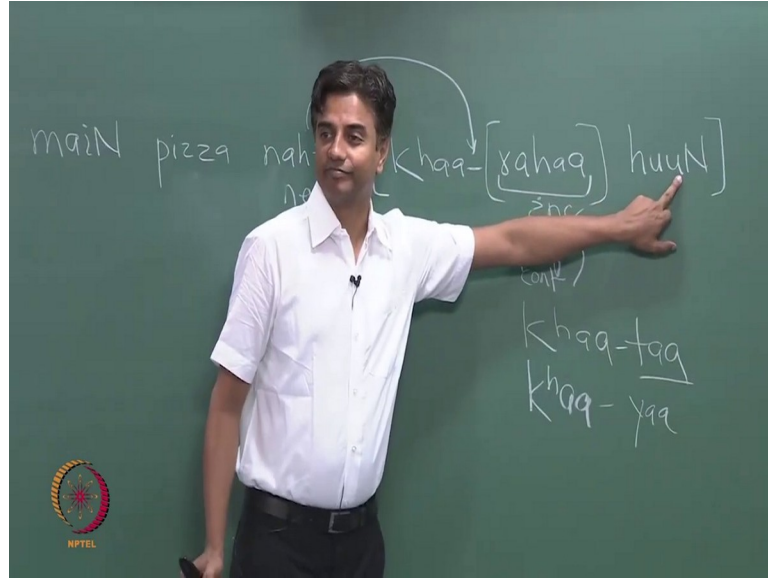
Student: Main pizza khaa taa huun

Professor: Khata hu, here is what I mean, in that case we have to say khaa this part and taa this is an aspect marker and when we say this is an aspect marker, this is the verb root an aspect marker this does not come as an independent word, how do we say I ate a pizza?

Student: (())(38:08)

Professor: Khaya, in that case we have khaa 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 an independent word is ing, get this thing now, look at the negation now, so if you understand this part that is the point that I am trying to make. Now, take the negation, I can delete some parts of it to reduce problems, so now we are done with its interpretations, now we are talking about sentential negation only.

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Reading number one, main pizza nahīn khaa raha hu, not eating, where not is negating eating, it is possible, so here it is preceding the whole verb, it is possible to scramble negative word there, is it possible, when I ask you this question, is it possible, what I mean is the sentence still grammatical, if we scramble the word there, main pizza khaa nahīn raha huun, is it okay? Understand this?

Still, it is ambiguous, keep in mind, it is still ambiguous when we say, main pizza khaa nahīn raha huun, it can negate the whole verb and it can also negate just this part, not the rest of it, see the thing? Now, what is the ambiguity there, when someone says, main pizza khaa nahīn raha huun

Student: (())(40:28)

Professor: I am not.

Student: I might be doing something else with it.

Professor: I might be doing something else with it, I am just buying it, carrying it, making it, doing anything, not eating, that is the ambiguity part. So, keeping that in mind, it is possible to bring the negation word here and in the second reading, it is a sentential negation marker. Now, listen this is the point that I am trying to relate 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.

Main pizza khaa raha nahīn huun, it is not possible and it is definitely not possible to bring it any further, main pizza khaa raha huun nahīn, 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, this is the tense marker this is the aspect marker, 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 its exact location in the functional layer, it appears from such an example coming from Hindi, that it is located below TP 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 theoretically. As long as 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 its tense aspect, however, I did it in a way, go ahead, if you have a question.

Student: Is this sort of rule only for languages like Hindi?

Professor: No, 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 sentences like, sleeping is not good. Then that not is coming after the sentence, means it is sleeping, that -ing is the aspect, the tense and after that it is coming, it is not in between?

Professor: No, that is not the problem for English, it 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 tense in English in order to show that tense can really be separated from the verb, there are two structures to look at, one is questions, where we know that only tense has to be extracted and fronted; did you buy a phone? 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 will not eat?

Professor: I? No, no, no.

Students: I do not eat pizza.

Professor: I do not eat pizza, why are we bringing, where is this do come from and what is this do, why do we not say: I not eat pizza, what is wrong with that sentence?

Student: Tense.

Professor: That is the, now you can see that is the marker of tense, so 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.

So, in a sentence like, 'is not good', it is not violating anything, its 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 phenomenon of a language like English. That 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 had a clear auxiliary will, 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.

Professor: I did not, didn't is the contracted form of did not, so I did not eat a pizza, we need to extract tense out and then negation comes in. So, see this is also an argument why some people use this as an example for functional layer, we need to stop, sorry, lexical layer remind me about this, I will talk to you, 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.