

## **Basic of Language Science**

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**Lecture 29**

**Structural Case**

So, we will continue looking at cases. So, what we have seen so far as far as case is concerned is that case is a property of a sentence, that is, we talk about case only when we are talking about a sentence, in a sentence, there could be different noun phrases, at least one in the subject position. Maybe two, one in the subject position and one in the object position and maybe more.

So, when we have a situation, where we have three or more NPs in a sentence, here is how it works NP number one in the subject position, if possible NP number two in the object position that is object of a transitive verb which happens to be the complement position of the head of a VP clear.

Third, if we have, or fourth or maybe more could be in the complement position of a P that is head of P being head of a PP, may have some NPs in the complement position. So, these are the, these are some of the probable positions where we may have some NPs. The point is each one of these NPs get a case only when they are in some or the other position in a sentence.

Then the question comes up is, if cases are realised on NP, sometimes we see some sort of change in the form of the NP, particularly when the NP is a pronoun and we do not see many changes when the NP is a lexical noun, like a proper name or something. If we see a change in the noun or noun phrase, then we call it morphological case marking. If we do not see anything, then we call it an abstract case on it.

But even the bigger point is when it is a property of a sentence and cases get realised on NPs, whether morphologically or in abstract form only when they are part of a sentence, then the question conceptually motivated question for us to understand there must be something happening in the sentence, only then they get in get cases. What is so specific about an NP being in a sentence that they receive cases, that is the crucial question for anyone to understand.

So, we take examples of accusative case and nominative case, we talked about them yesterday that nominative cases are mostly realised in subject positions and accusative cases are realised in object positions and therefore, sometimes they are also called objective case and we have many more cases, we have seen a list of them yesterday, but right now I want to revisit and talk to you about the conceptual issue.

What does, what do these NPs go through in a sentence? What happens to a noun phrase in a sentence that they receive cases and in response to that, we have seen yesterday and to repeat that again, that when NPs are part of a phrase, the head of that phrase assigns case to those in NP.

For example, in a sentence like this, where we have John plays football in the playground, we have three NPs, John, football and playground, we are saying the NP football is in the complement position of the head V. Therefore, head V assigns accusative case to this NP and the NP, the playground is in the complement position of the PP of the head of the PP P, therefore the head P assigns accusative case to its complement the football.

Student: Playground.

Professor: I am sorry, the playground. Therefore, these NPs are case marked and marking of case is an essential aspect of a sentence. Because if NPs are not properly case marked, then they are not going to be allowed in a sentence and therefore, the sentence may be ungrammatical. You have seen some examples yesterday.

If we see, if we say John likes she, instead of John likes her, the reason why sentence John likes she is not grammatical is because she has a nominative, is a form of a nominative case and being in the accusative case position, it should take the form of accusative case and therefore the sentence is ungrammatical.

The point is, if NPs are not case marked, then they will lead the sentence to ungrammatical. Therefore, cases appear to be an essential aspect of a sentence. Then we looked at two more concepts, when we say hence assign accusative case, we added something more and we said, hence assign cases when they govern, they are complements and we defined how they govern, they are complements.

What was the notion of government? We will talk about that, they must govern and they must C-command at the same time, where C-command means constituent command and we again repeat, verbs and post-positions for the accusative case marking are governors, because they are, they could be heads.

This is what we have been discussing so far that there are three NPs, these NPs we did not talk about John, John being the subject of this sentence, NP being in the subject position gets a nominative case. So, we have John in nominative case, football and playground with accusative cases and we are saying V and P assign accusative cases to these NPs. We have already discussed this thing. So far not saying what you want on the previous slide?

Student: So, the nominative case is always realised in?

Professor: Nominative case is always realised in?

Student: Object.

Professor: Subject position.

Student: Subject and for object it is always accusative.

Professor: For objects mostly it is accusative and accusative cases will be assigned also by P to its complement in a PP. Like in the playground, the preposition in a science accusative case to its complement the playground.

So, I am coming to the government and C-command again in a moment. We discussed that yesterday, but we do want to look at it once more before we discuss things further, but or for that matter, let us look at that for a moment I have it in a different order.

So, a government, the process of government means A governs B, if A is a governor that is a head and A C-commands B. Whereas C-command states that A, C-commands B if and only if A does not dominate B, if a node is dominating something low then that is not C-commanding the lower node.

In order for any element to C-command the other one, it must not be in dominance relation and the first branching node dominating A must also dominate B. This restriction and I want you to understand this in this context, the only reason why first branching node, the idea of first branching node is being brought in, is because we do not want, we want C-command relation to be local. We want the C-command relation to be local. I have discussed this with you, but let me talk about this once again.

All we are saying is, we have these things already. I am sure you understand these things now very well, clear for everybody. So, what we are saying is in this kind of situation V as a head assigns accusative case to this NP and we want to say it assigns accusative case, because it governs its complement.

Now, add the idea that we have had, we have seen before, what we want to say in generic terms with the idea of government is the presence or absence of this NP is contingent upon this head, it is the nature of this head, which will or will not allow an NP in this position. Understand this thing.

What do I mean when I say the nature of this head, we mean if it is a transitive verb, then it will allow if it is not a transitive verb, then it will not allow anything in this position, both are equally important. Please understand. Allowing an NP here or not allowing an NP here both are equally important, because when this head is intransitive, it will force this position to be empty, but it will not allow anything else here.

Therefore, it is conceptually the nature of a head is equally important in both, whether an NP is present or absent. Therefore, in a slightly more fashionable and technical term, we are saying this head governs this position and what we are saying, what we are talking about is this position and it so happens that in this kind of position, we have an NP.

Then we do, we also want to say that, fine it governs because it is a head, but we want to put more restriction on that, in the sense that, this head must also C-command this and we are trying to restrict C-command locally. We are saying A C-commands B, if A does not dominate B, does this node, dominate this one.

If you remember, I do not have that slide with me, if you remember the dominance relationship this one dominates this one, this one dominates this one and every other node dominates this NP, but not this one, not this one. Now, we say fine, this node does not c-command this one.

Therefore, we want to add the first branching node, first branching node dominating A must also dominate B. So, the first branching node that dominates this one also dominates this one. Therefore, all we want to say is this relationship has to be very local, when we are talking about C-command we are not talking about everything else.

Therefore, under the notion of government and C-command we talk about assignment of accusative case to the NP in the complement witnesses. Are we so far?

Student: (())(16:30)

Professor: Louder.

Student: It is C-command is kind of kind of like precedence but under the same node, is it?

Professor: C-commanding is like precedence? Yes. So, this node, this element has to precede the element that it C commands.

Student: But Locally.

Professor: But locally, because they must be both must be dominated by the first branching node that dominates this one must also dominate this one. So, see it is possible to say that part I will discuss later, but is that clear, so far. I do not want to mix too many things here. It is important for us to understand this much with clarity, because what I am going to say now is going to distort this picture a little bit and then you have to face that turbulence to see that even though it is distorting the picture, it is not actually distorting the picture. So, is it this much clear.

Now, hear me out carefully. Because I do not want to play any tricks. Let us look at the notion of principles and parameters as theory, what we have always been saying that once something becomes theoretical, we are talking about assignment of cases, it should work same way for everything, if assignment of accusative case works in a particular way, then the assignment of nominating case should also work in the same way, only then we are talking about theory of case assignment understand this.

So, a principled way of looking at a theoretical point is when a rule applies across the board in the same fashion. Now, no disagreement here. So, what we would want is, we will we would want the same constraints to apply for nominative case assignment also, there is no point changing much or anything, when we as a head assigns accusative case to its complement, something must assign nominative case to this position and we are saying see, look at the points this NP is the subject of the sentence. This NP is not the complement of anything, is this the complement of anything? No. This is the specifier of what?

Student: (())(19:49)

Professor: Of IP. Therefore, as given this structure, it is not the complement of anything, but it has to get a nominative case, do you see the contradiction, we have said hence assign cases. We do not want to change anything, if we change then we are going to make the point weaker. So, in order to keep theoretical strength in a principled way, we want to retain the idea that some head assigns case to this thing. So, we are going to say, I as the head of IP assigns a nominative case to this position.

This is what I meant when I said we are going to see a little bit of turbulence. So, hold on and see this magic. We are going to say, I assigns a nominative case to the subject NP in the specifier position of the IP. Looks okay so far. If we are saying so, we are retaining one part at least we are saying, what are we retaining? We are saying heads assign cases, retained heads we are also retaining the heads are governors. Heads govern the NP that it assigns cases. What is it that is not working here?

Student: (())(21:46)

Professor: It does not seem to be C-commanding, it does not seem to be governing. You are right, there seems to be some problem with the C command. So, we want to say it does not seem to be governing the NP when we say it, we mean the head I does not seem to be governing the NP in the specifier position, in the sense that I does not appear to be C-commanding the NP.

Because of the idea of C-command, what did we say, the first branching node dominating I write must also dominate the NP, if that was taken care of, then we are not violating anything. But here the first branching node dominating I does not dominate the NP in their specifier position. I know, you understand and you can see these things through, but I still want to take you at a minimum speed limit.

See this is one of the weaknesses of this theory that we are talking about. This is one of the weaknesses of this theory. That is whatever patch we are going to add to make this theory work is adding sort of weakness. Understand this thing. It is like fixing some bugs in a robust programming, the more patches you add, the weaker it becomes.

Therefore, it is one of the one of the patches which is going to make it bigger. Nonetheless, it is still going to preserve the larger concept, the larger idea. So, I am giving you the patch in the beginning, as admitted fact for the theory, but see how it works. So, we are so, so one way, there are first of all, I must tell you, without going much into details, that this problem, do you see the, does everybody see the problem, that the problem is we are unable to account for this case assignment under the notion of, under the existing notion of C-command. That is the problem.

Anytime a problem comes up in a theory that gives birth to many different proposals, many different people will try to solve the problem with different kinds of proposals. So, this is what we are trying to avoid right now, we do not have to go to that level of discussing every single proposal now.

But what I want to say is that all those proposals are in the direction to solve this problem. One of the proposals, which came up way too early. When I say way too early, what I mean is at the time when this was not expanded. Remember, I, it has so many things in it, like tense agreement

and aspect. When we separate them, the story becomes a little bit different. We will try to see how far we go, in the next few days.

Because all that proposal, all those proposals are not really relevant for us to go into their details. However, what is important for us to understand is that given this structure, one of the proposals that was given to solve this problem is the following. What do you think one can do here? You definitely have to add something in the notion of C-command.

Only, we do not want to change that. We do not want to change anything with heads assigning cases. We do not want to change much about heads being governor, we only want to change a little bit about C-command that we want to add something, so that it is still C-commands the NP, but that will be a little bit too much.

So, what people did they said no, we want to, we want to add, we will leave the C-command the way it is, because it will be too much of too much of manipulations, we want to say something more than C-command, which is we want to bring in the notion of M-command. So, they brought in the idea of M command and look at that, you have already seen the, you have already seen how C-command works.

Now look at M-command on the same screen, in contrast. So, M-command says that there is not much of a change, it simply says A does not dominate B and every A that is every X dominating every X that dominates A also dominates B and X, where X is a maximal projection Let us be let us take this thing slowly. What do we call a maximal projection in this structure? What do you see? What is a maximal projection, maximal projections are the phrasal levels, look at this.

When we started looking at a phase I told you that there is a V which is a lexical level then we have an intermediate level, V-bar and then we had a VP, are we familiar with these three levels, VP V-bar and V. Same way it works for every other phrase NP, N bar and N. So, this is the level of, this is the lexical level and this is maximal level, maximal projection, a phrase does not project beyond this, a phrase does not go anywhere beyond this, this is why this level is called maximal level or maximal projection.

So, in this structure what are maximal projections IP, VP, NP. Now, we want to say, we want to talk about this? We are saying, this itself is a maximal projection, but for this which maximal projection dominates this IP. Look at that part of the definition A does not dominate B.

We want to say that this does not dominate this one. But we do want to say that every maximal projection that dominates this one, also dominates this one, is that the case. The maximal projection dominating its head is going to be IP. Then, the maximum projection, the same maximum predicts and dominates this one as well.

Therefore, this patch is called the notion of M-command, which you can guess means maximal command. Now under the notion of M-command, we preserve the idea that this head assigns nominative case to this NP and then we say government works this way, we are just adding one more step to the government without changing much, we are saying this node must be a governor, which must be a governor and this node must M-command this thing and the maximal projections are barrier for the government. I do want you to understand this part as well because what I am going to say further will have implications for this.

What does this point mean maximal projections are barriers to governments, what it means is this head, look at the screen and the board together everybody this head maximally commands this NP, because they are all part of this, they are all part of the same maximal projection.

We do want to retain the notion of locality also, that we do not want to say things go beyond local area, if that if we leave that open then we would end up saying that this node M-commands this one. So, we want to say because, see this I will end up M-commanding V or anything below because the maximal projection that dominates I also dominates V. See the point. Maximal projection that dominates I, is what IP and maximal projection dominating I also dominates V. So, under that notion I would end up M-commanding everything else.

Student: ( ) (32:38)

Professor: Hold on. Before we go to the, yeah the first maximal projection dominating this one should dominate this one, the first maximal projection dominating this one is IP, then the IP also dominates this one. So, we want to, we want to put one more barrier to that, saying that the maximum projections are a barrier to government, which means if there is a maximum projection intervening somewhere, such as VP then this maximal projection will not allow this I to intervene itself.

VP is a maximal projection, this kind of barrier that maximal projections are a barrier to government says, I does not govern anything inside this VP. Therefore, this patch and heads are governors that we are not changing anything this much okay. Now, do you see the trick? Do you see the patch, this is to save a particular theoretical point for the assignment of case by adding this much, we are going to save the notion of save the process of case assignment. That is true, but what is the cost?

Student: ( ) (34:16)

Professor: The cost is, it is something a bit more expensive that we are bringing the whole one new notion which is the notion of M-command which takes care of just one little problem which is assignment of cases to subjects. See this thing, we are bringing in a very expensive thing. When we say expensive, we mean theoretically expensive things to save or to deal with, to save the structure and to deal with it, assignment of cases to subjects, assignment of nominative case to subject.

We have to bring this notion, because if we do not then we will end up bringing conflicting things, and end up saying conflicting things which will be, we will have to say accusative case assignment works in a different way, nominative case assignment works in a different way.

So, if you compare the cost, if you do the cost analysis, it seems like bringing in a patch is less expensive than keeping two different processes in place. Therefore, it is still less expensive, but not denying that this is a patch and is making the theory weak, understand, everybody, really, yes good.

Student: ( ) (36:06).

Professor: Louder.

Student: In the definition of M-command, we are saying that the X is the first maximal projection, is it? is it or is it any maximal projection.

Professor: You want me to, previous slide? Yeah, X is the maximal projection, we are not saying X is the first maximal projection.

Student: If we put it as a first maximal projection, then would not that solve the problem?

Professor: No. That would not solve the problem because even when we say first maximal projection, I think you are still confused about that I was trying to tell you see, why are we bringing the notion of M-command, we are bringing in the notion of M-command to take care of assignment of case to the subject position, subject position happens to be their specifier position of IP.

So, even if we say first branching, first maximal projection dominating I, dominates this one. We are still going to, the implication of that will be the first maximal projection dominating spec of IP is going to dominate everything anyway. Because there is nothing above this, see if we had a problem here and we said maximum projection, first maximum projection dominating V, then we are trying to say we are excluding I. But, if we are bringing in the notion of first maximal projection here, then we are not solving anything.

Student: So, it does not matter.

Professor: It does not matter whether we say first or not exactly, that does not help us. So, we are going to. So, they leave it just like it is a maximal projection. But by saying that, we are still if we do not add this third point that the maximum projections barrier to government, if we do not add that, then we are going to say I is C-commanding this NP also, sorry I is M-commanding this NP also, why because the first maximal projects and dominating this I also dominates this NP.

So, then the point is that how are you saying that this head is on his accusative case to this, why not this? This head also assigns the accusative case to this, to put a restriction on that because one head can only assign case to one N. So, we can add all that also, but that does not save the structure, to save this structure we are adding that maximum projections are barriers.

Therefore, for this one to govern this one or this one is not going to be possible. Therefore, we add that this kind of thing is a barrier. So, the governing domain for I remains only IP, the governing domain for V, remains only VP, this is called locality constraint. Like I have been telling you without underestimating your capabilities or anything, I am only trying to put things simpler, so that we do not lose the focus of what we are doing.

Student: (())(39:58) in our sentence, actual sentence.

Professor: What do we mean by the government in actual sentences?

Student: (())(40:05) You are saying theoretically that I do not simply but how? (())(40:09).

Professor: How it works in a, see we are definitely saying, we are definitely saying that I governs VP also, we are only saying that by putting in the constraint that maximal projections are



barriers, I does not govern in the sense of assignment of cases to any of the components of VP. But we do want to say that I governs VP because VP is the complement of I.

Student: ( ) (40:54)

Professor: In case of case assignment, it will have no I will have no role to do anything within VP, but VP is the complement of I.

Student: ( ) (41:05) I governing NP.

Professor: Yes.

Student: How do you justify that?

Professor: That is because I is a head, I is a head and I M-commands this NP, look at the notion of M-command. It is a head, because it is a head it is governor also and the first maximal projection dominating I it governs this NP that is a spec IP under the notion of M command, what does M command tell us the first maximal projection dominating this one also dominates this one.

Student: ( ) (41:50) example where I assigns case to the subject and that is visible.

Professor: No, that is never, nominated cases are never visible.

Professor: ( ) (42:01).

Professor: His car, give me his car?

Student: Is red in colour.

Professor: Is red in colour. What we really, what he was saying that we have an NP, we have an IP. What I am going to show you that will not work. But let me show you that, why and how, this is I. This is or present or anything, which we simply say this is a finite I, remember finiteness from yesterday, this is a finite I. His car is red, is the sentence that we are working on.

What is the NP? His car. Look at this, this is the spec of NP. Then we have N and then you have car. Do you see this NP. This is a specifier position and this is your N and this is, here is your his, and here is car. See the thing now, since I have not discussed with you the spec head agreement and spec head relationship so far. It will be difficult for me to say more here. But under what I have discussed with you, I want to say that for this I to assign, but just in case to this aspect position is not possible.

Why? I am saying for this I to assign an accusative case is not possible, can you explain looking at this thing, why? Because this I does not M-command this thing, you see this thing that this NP, this maximal projection is going to be the barrier for M-commanding this I. So, this patch that the maximum projections are going to be a barrier.

Student: Is only going to work for nominative cases.

Professor: Is only going to work for nominative cases, which are not visible and I have been telling you since yesterday that lexical NPs like John, Mary are not going to show up or for that matter in Hindi put any name or anything like computer, kursi, these are not going to show morphologically a nominative case. But conceptually, I M-commands the spec of IP. That is all. Go ahead, if you have any further difficulty I can talk about that.

Student: Like you gave the example of the (45:53) whole clause was used as a subject.

Professor: As a subject, yes. So, the whole clause gets a nominative case. Like this whole NP gets a nominative case. His car, the whole NP is the nominative case. Has the nominative case abstract, in an abstract way. But how does his get genitive case or possessive case is a different story.

That is this story within this domain, within the domain of NP and which comes under the notion of a spec agreement. It is a different story altogether. So, I see the point, it is not that I do not see the point. My limitation is I have not talked to you so much, to address that, you are absolutely right, when I gave you the example that, for John to go to Delhi is not possible or is possible in that sentence for John to go to Delhi the whole clause is a sentence, is a non-finite sentence, but is the subject of the bigger finite clause.

The whole clause gets a nominative case, but then the question is how does for, if we have the same sentence, then do you want me to, do you want me to take you to that sentence. Let me let me show you.

This was a sentence for him to go to Delhi. The whole clause is a non-finite clause. We are saying how did him get an accusative case here. Him, we will leave a little bit more time to come to that, how did it get in short what I said yesterday, the for gives it an accusative case. Therefore, the presence of for is important in that clause. So, we cannot have the clause like him to go to Delhi is impossible.

We cannot have that, we must have for because we need to ensure we need to guarantee that there is a governor, there is a head which assigns accusative case to him, but all this story of assigning accusative case is within the.

Student: (48:28) governing him like it is making some changes.

Professor: Sure.

Student: But, in that case, the M-command thing it is not like (48:36) like a nominative is an abstract case.

Professor: See there are two things too.

Student: To construct a new notion like M-command. Because anyway there is no change when anything appears in the nominative case.

Professor: True. Absolutely right. In this case, we have for which is a head, which is a head, it is a clear head, a lexical head, which assigns accusative case, what you are asking is, how does this

I assign a nominative case to this? It is just a science conceptually, it does not show up, in a physical form, it does not show up.

Student: You were discussing the idea that how that NP notion arises from the VP itself.

Professor: I am coming to that, I am coming to that also. So, once I finish the, I finished the point of, once I finish the point of government and M-command, I was going to come to that.

What I am going to say for that and this was the exact point where I was going to go before your question.

See, the point is now that understand that there is a weakness in this theory and my position is not to hide that weakness from you, in fact my job is to show you that positions very clearly, show you the position that there is a weakness in the theory and just now, I told you that the moment the weakness comes up and moment a problem comes up, there are so many proposals, to solve that weakness and problem.

The expansion of I is also originating from that, number one and the idea that the subject probably does not really originate in the position of spec IP. Because if we allow subjects to originate in the position of a spec IP, then we have to add a patch and if we allow it to originate in the spec position of VP probably things are going to be different. So, there has to be a compelling motivating reason for anyone to say that we, that subjects do not originate in a spec IP.

And the reasons are, the first reason is anything beyond this I, particularly with the expansion of this thing is a functional layer. How does a lexical item like John or anything in the subject position become part of a functional layer, it should be part of the lexical layer. The second thing is, there is a problem with the nominative case assignment, keeping these things in mind probably I spec of IP does not have the subject position.

This is a theoretical point, now, if we do not have any physical evidence to show that, it is just a theoretical point that one has to understand that on the basis of these things, the proposal was given that probably subject originates here, but saying that one has to show how does that point solve the problem of this case assignment without adding any patch, you see the point and to go to that is a little bit too much for you at this time, which is not underestimating your capacity to understand this, you can definitely understand this.

But that takes us, so right now, I have just added one notion of barriers, I have only discussed with you in a very, I know we are running out of time, we will stop in a minute, I have only discussed with you the idea of locality, have you heard this word locality when I was discussing that, that we want to keep things local, I have added the idea of barrier.

Then to understand this thing beyond the process of case assignment that I have shown you so far, we will have to go to something called minimality. Keeping the three things intact locality, minimality and barrier we will be able to understand how the alternative method of case assignment works. But right up front without going into that I must tell you that they also have patches, which again means that these things have not been worked out in such a way that we can show these things as a principal method, this is what is called science.

This is what is called that these things are still under process, under renovation. Let us put a generic terminology. Now, I have shown you one patch. But I want you to, I wanted you to show, I wanted you to see one more patch in this thing. I just want you to take a sentence today. Think about it. The idea was to look at that right away today, but we would not be able to do it. I want you to think about these sentences if you think you understand what we have discussed so far.

I want you to look at two sentences, one you already have, for him to go to Delhi is not possible, for him to go to Delhi is not possible, I want you to draw the structure and see how the assignment of cases work to different NPs and how do we save whatever we have said so far. Same kind of thing in a different sentence.

First two sentences, I want John to go, I want him to go. This kind of sentence is a problem for what we have discussed so far and therefore, this is the, you see the heading exceptional case marking. Therefore, a new thing has to be said about it. So, please draw the structure of these two sentences and see how it works., I will show you this thing tomorrow. Thank you.