

Basic of Language Science

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Lecture 31

Movement (Displacement of Constituents) in Natural Language

What does it mean, when we say movement and particularly in the context of language. Movement means?

Student: () (00:30)

Professor: Movement of elements from one place to the other. That is displacement of elements from one place to the other. Then the question is what do we mean by one place to the other. We mean from one looking at the X-bar scheme from its original position that is the place where it originates to some other position. Then the question comes up: how can we be so sure about that and how can we say so, that things really get displaced from one position to the other position.

Is there evidence for that and if there is any evidence then there are motivations for that. There are compelling reasons why we want to say that things move from one place to the other. These are the questions that we are going to look at, of course, with evidence.

Now, like I told you movement means an element in one place goes to the other and we can only say so with compelling evidence with conceptually motivated requirements. What could be such a requirement and how can we say so.

We have been looking at so far several kinds of structures. There I can talk about each one of them, but very briefly I want to tell you about the phrases that we have seen so far. Each phrase has the same structure, that is a phrase has a specifier and a complement besides its own head and the head has three layers, there are three layers in a phrase, one is the lexical layer, the other is intermediate layer and then there is maximal projection.

We have been looking at such a thing so far and from everything that we know, a simple sentence like this John likes pizza in the evening, this is a structure and this is a grammatical sentence and we know how this sentence works by now, do we. So, for lately, what we have seen is, lately, what we have seen is, there are some heads, which assign cases to its complement and then, we have also seen that such an account is also essential for a sentence to be grammatical.

Namely, the verb like, the verb as a head assigns accusative case to its complement pizza and P as a head assigns accusative case to its complement and NP, the evening, I have not expanded

the evening and I have not put a specifier position in the PP. But there is no change. Everything else is intact and then we see the NP in the specifier position of IP gets a nominative case through I, which is through tense or the features under I under the notion of M-command and then it gets a nominative case we have seen this.

So, this looks like a nice looking sentence, we know most of the things by now, to say this sentence is grammatical, that is, it fulfils all the requirements of being a sentence. From now onwards I want to show you some motivations for movement.

We know this thing that I is the head of a sentence and I retains bundle of features in it. Some such features are agreement, tense and aspect. Let me draw your attention to the first reason for this. No, I mean one more step before we see the first reason for this. First reason for the movement, the question was raised is why do not we have each feature separated. What is the reason for putting three very significant entities in a sentence under one bundle?

See the point, since there is no such compelling reason to put them together, please see the line of argument since there is no compelling reason to put everything together, the argument for separating them was put in place. Once they were separated, then there was no existence of what we call IP.

There could be reasons for why tense must precede agreement or agreement must precede tense there may be reasons for that, but then there is no reason for IP. So, I want you to see with clarity that the existence of IP is significant in X-bar scheme only when we are talking about I as a head and I retaining a bundle of features. See this thing on both the sides.

Now, before we look at both the sides again, see one more thing with clarity. I, the specifier of IP retains subject and the complement of I retains predicate looks good. Then the problem is when we separate them together. We see the expansion of functional elements in language, expansion of functional elements in language.

After separating the two, we also see that the functional elements have their own layer and then the lexical layer begins. The question is where does the subject NP go to? After it is, after IP is dispensed with? Where do we put the NP which we call subject? See the question. That is the first problem.

After expansion of I. Now just because we do not have a space for subject NP is not the reason for not expanding I. You do not have space for I spec IP. That is a different problem. But that cannot be the reason for not expanding I. Because the argument is whether you expand them or not, this is how they look like. Are you with me in this argument? Yes, no. Yes.

Now, next point. If there is no space for subject NP after the expansion, that is we do not know where to put subject NP in this structure so far. One of the reasons for that is some canonically speaking and looking at a sentence in a traditional way, we have seen subject being outside the predicate, subject being outside the predicate.

So, we do want to retain that notion, that subject must be outside the predicate, because I will tell you why, but we want to retain that outside. Therefore, we are wondering where to put it.

However, after the expansion of the proposal was made by Richard Larsen, that probably subject also originates within VP.

That is in the specifier position of the VP, we have a space available for the subject. Do you see that thing in this structure? If we go ahead with the argument of Richard Larsen that it, this argument has a name and that is called VP internal subject hypothesis. VP internal subject hypothesis, the moment you say this thing, VP internal subject hypothesis, researchers of linguistic theory will immediately tell you the name Richard Larsen, because that guy is famous for this one contribution.

It was a major intervention in the theory that Richard Larsen came up with. If we try to put it anywhere else other than VP, then we are saying a lexical element, a lexical NP in a sentence, it stays somewhere in the functional domain. That is the danger. That was the motivation behind Richard Larson's saying that the subject originates inside VP. Are we okay?

However, Richard Larson nicely solved the problem of two different layers, functional layer and lexical layer, but that hypothesis landed us into a difficulty, which is the difficulty is, anybody can see the difficulty? Now the difficulty is we kind of say that the subject is inside the predicate, the subject is inside the predicate then if it is stayed inside the predicate, then how does it agree? How does that work?

Canonically we have been looking at stuff like this subject, sorry, sentence NP VP, this is predicate, this is subject and what connects these two is agreement and the role of tense is significant. So, if we say that this NP is inside VP, then how do we account for the role of these things? That was the problem Larson's hypothesis landed in.

However, we must give it proper credit, that it separated, functional layer from the lexical layer and that it was a nice, nice looking thing. This is one of the reasons, one of the first motivations for movement and this is where you see that its, this is where you can see that an element literally moves outside.

So, Larson further proposes, further proposes that the subject NP originates within VP, but does not remain within VP all the time, what it really does is it originates inside the VP at the deepest structure and then it moves outside and goes to the specifier position of AGRP to the specifier position of AGRP, the reason why it goes to the specifier position of AGRP is because it needs to do this thing, it needs to take care of agreement and it is subject which agrees, which takes care of agreement, which you have been seen so far that the agreement takes place with subject NP.

So, the subject NP must be within the local domain of AGRP and then the way it agrees it takes care of agreement is the head and a spec within the two within their same domain takes care of agreement under the notion of a spec head relationship. Do you see here I have tried to put singular there in the spec AGRP and this NP John is singular, they match together and then the sentence becomes grammatical.

So, the point is that, at a logical level the argument originates within VP and then moves upward to the spec AGRP one can question, why do we need to sell it? Why cannot we simply say that it stays outside? It is in the spec of AGRP? Understand this thing, one can ask this question, why

do we need to bring movement in it? We can simply say that the subject is in this spec position AGRP and it agrees there and everything is fine. What is the problem with that? I have just discussed that problem with you.

Student: () (17:53)

Professor: It then, then we end up saying, then we end up saying that subject is in the functional domain. That is also not conceptually acceptable, that lexical NP stays in the functional domain. So, they have to restate separately at a deep structure, lexical NPs in the lexical domain, functional elements in the functional domain.

Student: () (18:20) When we say, when we are writing IP.

Professor: I am coming, I am coming to that, hold on. I am coming. Do you see that, do you see the problem, it cannot originate in the functional domain, it must originate in the lexical domain. But it cannot stay all the time there because it would not be able to maintain agreement. That is the first motivation for movement and first evidence that this NP cannot really stay here. It has to move outside and goes in this spec AGRP.

I am coming to your question in a moment. I do not mean to bring in too many, too many technical details right now, because we are talking about movement and I only want to show you a couple of compelling reasons for movement. But it will be worth mentioning here that this movement is, movement gets complicated little later.

The proposal is, some people have proposed, you have seen M-command and barrier and all those things. There are problems with the movement also. So, some people will argue that how can you allow an NP to jump that far? Do these maximum projections have anything to do with that? Then the proposal was made that it moves stepwise, which was called successive cyclic movement. But those are not important things for us right now to handle.

I am only bringing this thing in this discussion so that it makes a little bit more sense. But all I expect from you now is to understand that this is a motivation, this is a reason, there is a reason for subject NP to originate within VP and then equally compelling reason is available for the subject NP to move outside that and bringing in the whole idea of movement takes care of separation from functional domain to the lexical domain and also takes care of the agreement between subject and this and this canonical structure is also retained.

Under no fancy idea, we can dismiss this point because this is the sentence. Of course, the problem is, this does not tell us much. This does not help us understand how a subject NP gets a nominative case. How an object gets an objective case. It does not help us much. But this is the sentence and in order to explain more, we do not want to lose originality. Do you see that? It does so far everything. Now, the question that you were raising? What was your question? Please repeat it again.

Student: I have always been writing the...

Professor: Loudly, loudly,

Student: We always wrote the NP in the specifier position of IP, which was in a function layer, so why are we bothered now that the NP is not a lexical layer.

Professor: Understand his question. What he is saying is, when we were talking about IP, where do we have our subject NP? In the spec position of IP and it is a wonderful question that whether you expand I or put them in a contracted way, that is the inflection. So, even with the IP, the subject NP is the functional domain or at least it is beyond the functional domain. That is your question, why do we want that kind of a situation?

Perfectly good reason for that is the reason for more expansion of I and that is the reason behind Richard Larson's proposal that it cannot stay there. We have, what we have been doing with IP is not really conceptually motivated, there are problems with IP. Someone can question this point as well, we have just questioned that, but why do we need to go to separation of all that, when IP is working nicely, we had to put some patches in it or M-command we had to put a barrier we see but still it was fine. Why do we need to separate them?

The reason is this, that we have spec, we have subject NP in the functional domain, which it cannot stay, where it cannot stay. There is no conceptually motivating reason for allowing a subject to originate in a functional domain. Therefore, it has to originate within the VP, understand the thing, so that is the reason.

Student: (0)(23:47) why cannot we just say that the subject is originating in the spec position of VP and it is moving to the spec position of IP.

Professor: We can say that and that will mean exactly what we are saying. Understand what he is saying. We can say even with IP we can say the subject originates with spec VP and then after originating within the subject VP it goes to a spec position of IP. If it goes to a spec position of IP again, what it is, what is the reason for its movement?

Because it needs to be under the spec head domain of agreement, that is I. It must be under the spec head domain of I and spec of IP. So, that will be the reason for it to move. Again, the motivation of movement is intact. See the point. You were absolutely right. It will still be fine. But why do you want to retain IP?

What the question comes out of your proposal is why do we want to retain IP, when we can we have no compelling reason to put agreement, tense and aspect together and even if we separate them and as long as we see subject originating downstairs and then moving up word, then there are more reasons to dispense with IP. So, these are the reasons for separating every feature allowing them to head their own phases motivations for expansion being intact, subject originating inside the VP for both and then moving outside. There are, I mean these arguments are connected. See this thing, any other questions anybody has any other.

Student: (0)(26:03)

Professor: Exactly.

Student: Then can we say the other way?

Professor: No, it has been established that and there are more things that I need to show you, it has been established that movement takes place only upward. Downward movement is not conceptually motivating, is not allowed in the, in our understanding of how language works in human mind that has been established and I am sure I should have mentioned this thing before, because and I did not mention it so far, because I have just started talking about movement and you are not going to see any single evidence, any single instance of movement, which is downward, all the movement is going to be upward.

That is another, that is also a reason why once I was asked this question, why not lexical layer is higher than the functional layer. These questions may sound silly, stupid, but they are not. They are very nice, nice questions. You see the question? The question is, why do we want to begin with AGRP? Why not VP and then do everything else and then put the functional layer downward?

That is not possible, that is also not possible, because the functional elements are the significant part of a sentence which become head. See the strength of the proposal of IP. There was no strength in that proposal also. It ran into difficulty, where little Richard Larsen questions, why subject in the lexical, why subject in the functional domain?

That is a valid question. But that does not rule out its strength, the strength was, the strength of IP is it clearly shows that the abstract categories, abstract elements are the head of a sentence. Subject in their spec position and predicate in the complement position, that was the strength of the proposal of IP.

There were two problems with this that were proposed. First was why everything was bundled. The moment the question, these questions are raised, you must have conceptual answers for them. If someone could answer this question, then the next proposal is dismissed. As long as we have no answer, why everything together, this exists. Because each one of the features like agreement, tense and aspect are entitled to have their own phrases. So, that stays.

The second problem that this ran into is why, whether we separate the agreement, tense and aspect or not, the subject appears to be in the functional domain, either in this proposal or in the, this proposal, it appears to be in the functional domain. So, there are reasons for subjects to be in the lexical reason, lexical domain, that was fine. But we cannot allow it to remain there.

Because if we allow it to remain there, then this is out. We run into this problem. So, in order to retain the agreement of the subject, we need to allow movement, allow for movement and this is what I have been trying to tell you that I am trying to show you as evidence for movement.

This is just one, I am going to show you more. But this is just one motivation. One reason why we can say elements from one position to the other positions at a deep structure when we are discussing I language is possible. That is the, that is the argument and that is what we are trying to see. Anything else?

Student: () (30:17), I complement () (30:23).

Professor: I have put it this way and then I have put the red line.

Student: So, what is that I there, is it nothing.

Professor: I am trying to show you that whatever you see upward is not existing, that is what has to go, if we start with AGRP, then we have to leave the whole idea of IP, this is why I have put it there. That is what has to go, then we have a sentence from here and to begin with we cannot say the subject is in the spec position of AGRP.

Because, again the same problem, how can it be in the functional domain, then we are not solving anything we are just and we cannot expand things just for fancy stuff. Again we have the subject in the functional domain. So, we have to say the subject originates here and then it must move because it needs to take care of agreement. So, for the purpose of agreement, movement is a required operation. Anybody? It sounds a little bit complicated, a little bit tricky, but then it has a rationale behind it.

And these are some of the motivations for movement, first is a lexical NP, we have already discussed them, but it helps if you look at them in one place, a lexical NP appears to be in the functional layer features in I is a bundle. So, we need to take care of these two things, every single thing must be fully projected.

That is AGR, TP, and ASP must be fully projected and there appears, once we do that, then there appears to be a problem explaining nominative case assignment and it is and it involves adding patches to the existing theoretical apparatus. See this thing, the fact that we are unable to provide one argument, one I do not know how to put it.

See with the IP and case assignment, we have to say two different things for nominative and accusative cases. We have to say two different things. The fact that we have to say two different things is making it weak. So, the point here is, why to retain something that is weak. Why not strive for something which will be similar for both that is accusative case assignment, a nominative case assignment, I am not showing you more in this structure.

After separation of AGRP and TP and all that the argument is case assignment does not work the way we have seen with IP, case assignment works in a different way and right now, we do not need to go there. So, the problem of case assignment has two different arguments for one for nominative and one for accusative is gone. So, that is also a reason for separating all the features totally from one another and then allowing the subject to originate in the VP.

And then finally, sometimes the spec of IP, where IP is a complement appears to receive accusative cases and has to be handled separately. That is about ECM, remember exceptional case marking yesterday. So, we are not only saying we have two different ways for marking nominative and accusative cases, we are also saying that those two different ways are also not enough.

We may have to allow some more concessions sometimes. The argument is how many concessions can we allow, that the theory looks very weak with IP. So, so far, the one compelling reason to keep IP intact that we see is just this one.

It shows agreement, tense and aspect as the head of the sentence. That is it. Everything else seems to be, everything else appears to be making this whole theory weak. Now, I want to leave

it here. But as a word of caution, before I move ahead with the more examples of movement, I must tell you that the next proposal, which is after IP is also not full proof is not, is not really solving all the issues. That is just for us to keep in mind.

It is not that there were problems with the earlier proposal and now there are no problems. That is not the case. It is just better. Now, have we talked about CP, so far? Something called CP, did I mention this thing to you? Which is called a complementizer phrase. So, now I am going to show you at least one example of movement. Let me see if I get that far.

If you look at CP, it seems like and for the time being I am also going back to IP, keeping in mind that we know the differences, we know the motivations, but we are putting the bundle together and moving ahead with it. However, you were free to change IP to AGRP will not make any difference, just for the sake of simplicity, I am retaining the argument, the proposal of IP.

With this structure, I only want you to see that CP is also a functional category, CP is also a functional domain and C as the head of CP has IP as its complement. Clear? Do you agree and do you understand when I say, C is a functional category. Yes, no? If yes, then please give me an example.

Student: (())(37:12)

Professor: Yeah, that is a complementizer, so something like this. Let me see if I have an example.

So, let me go ahead and then I will answer this question, what was the question that I was trying to answer, why C is a functional category? I will show you that. So, let me move ahead and see, CP maybe in the subject position sometimes that is you have seen, what have you seen in the subject positions of a sentence so far, mostly we have seen what an NP like John or Mary or something.

Sometimes we can, we see elements bigger than chunk bigger than NP in the subject position or we can see something. So, that will be an IP also a CP may be allowed in a subject with. So, look at the example here. We saw this sentence last time, this type of sentence last time also.

For him to go to Delhi is difficult, for her to laugh is difficult. For her to love is actually a CP, I will go to the expansion of this thing, little later. So, in that CP, when we say for, so the whole thing is an IP, for her to laugh is difficult is an IP. Within that IP for her to laugh is a CP and within that CP her to laugh is an IP what type of IP?

Student: Infinite.

Professor: Infinite IP, non-finite IP that we saw yesterday, I want him to go. Him to go type of IP, her to laugh is an IP which becomes the complement of C in the CP and then that CP is part of the, is in the subject position of the bigger IP. See the structure, any difficulty.

Now, before, again before I discuss why CP is a functional category. Let me tell you what I want you to understand. A CP can be in the subject position. A CP can also be in the object position

and a CP by itself can take an IP as a complement, keeping all these things in mind, we are only trying to say, trying to give something in support of recursiveness in the language.

The fact that the longest possible sentence has not been spoken and will never be spoken we can say so, only on the basis of recursiveness in the language. See that point, many disciplines talk about this longest possible sentence is not possible. But however long a sentence may be, the X-bar scheme explains it.

Therefore, X-bar scheme is argued to be a conceptual device in the human mind and the argument is stated further that it helps us simplify a complicated position. Therefore, one can argue that the human mind actually likes simplicity. Now, a lot of discipline will tell you that the human mind likes simplicity. In other words, the human mind does not like redundancies. But all such disciplines can only make this slogan. None of them have any evidence in support of that.

The support for saying no redundancy in the human mind comes only through language. See my point. Now, give me two more minutes. So, do you see here that a CP is a complement of the VP? Do you see that with clarity? In a sentence, John knew that Mary did not drink. That is a sentence which is an IP? What is the verb of the sentence? No and that verb is a transitive or intransitive verb.

Student: Transitive.

Professor: Transitive verb. So, what did John know?

Student: That Mary did not drink.

Professor: That Mary did not drink and many did not drink is an IP. If Mary did not drink is an IP, then that Mary did not drink is definitely more than IP and this is what we say as more than IP is a CP. Therefore, IP is always going to be more than, CP is always going to be more than IP and it could be part of an IP or a CP could take an IP as its part. This is what allows us recursiveness in the language.

It is not a chicken and egg story. It is not a chicken and egg type of thing. It is not circular. It is just recursive. Now, one more point here and this is where, where I would stop for today. When we say that Mary did not drink. I do not remember but I think I have talked about this, that that is a complementizer, that here is not a demonstrative pronoun.

Now, it is a device in human language, that same lexical item, same lexical item may have two different purposes, two different functions and I am particularly saying two different functions and I am not saying two different meanings. Because, take the example of that. It may have two different functions.

One is a demonstrative pronoun. When we say that boy, that house, that computer, that has in those phrases, that is a demonstrative pronoun, which has a function, which has a demonstrative function. In this kind of an example, it has a complementizer function and the moment it becomes anything other than demonstrative. It does not have any meaning. Does this have any meaning here? It does not have any lexical meaning. The fact that a word loses its lexical meaning becomes a functional element, complementizer.

Any functional element will never have a lexical meaning. This is why tense, we interpret tenses present time, past time, future time, but by itself, it does not have any meaning. All functional elements have no lexical meaning and since C that in the C position does not have any lexical meaning, you tell me check it with anyone that Mary did not know, that Mary did not bring in that sentence, what is the meaning of that?

One needs to know things that we are discussing to answer that question, I am not, by any means, I am not trying to say that nobody, no one knows these things and we are discussing some wonder of the world. People have this, people have found these things, I am not the one who found this thing. People have found these things quite some time ago. But these are very nice looking explanations that show two elements, how the same element may have two different functions.

And look at my argument, once again, the reason why same element is allowed to have two different functions is because it is the product of human mind and we know very well, or at least that becomes an evidence for us to believe that human mind makes no mistakes, creates no ambiguity, does not create redundancies. The fact that it does not like redundancies, it can still do away with the same element for two functions.

That is also evidence for saying the human mind does not like redundancies and it still has no problems. We need to figure these things out. That there is one that has demonstrative function and there is another that does not have any meaning and is a functional element, we need to figure these things out. But the human mind has figured these things out already. It is not that you are learning English here, for the first time, you know English, you have been writing these things, you have been speaking these things very well.

Your brain never gave you any headache. It never asked you a question. Do you know this? Did it ask you ever? Do you notice things? It does not ask you anything. It functions very nicely and it functions with what we know now. So, please keep relating I have told you earlier also, that we may not have time during other discussions to talk about knowledge of language, principle of economy, how human mind does not like redundancies, these are the examples of those things and therefore, a deeper investigation into language gives us a better understanding of human mind.

So, I just want to give you a question before we discuss something next time. We are meeting next time on Tuesday, before we discuss this on Tuesday. How do we understand these sentences? Again, these are very simple sentences, question sentences. I bought a phone and the question. So, if there is a question, what did you buy? A possible answer could be I bought a phone. I thought, I will be able to handle this question, these things today. This shows us another evidence for the movement. So, we will have to stop here in the interest of time.