

Basic of Language Science

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Lecture 33

Movement of Constituents in Interrogative Sentences

We will continue looking at instances of movement. Yesterday and the day before, we have looked at movement in natural language and its motivation. We started looking at the role of a complementizer phrase that is a CP and then now we want to see while evaluating some of the instances of movement, we are going to look at questions in English in particular and what we know is Wh-movement. Wh refers to question words that are wh words.

This is how a complementizer phrase looks like and important thing to keep in mind about a complementizer phrase is that the head of complementizer phrase which is a complementizer itself C takes the whole IP as its complement and we have seen examples where a whole CP could be part of a IP as a subject, whole CP could be part of VP as a complement of V.

Now, we want to see, wait a minute, we have also seen the role of CP in helping us deal with exceptional case markings, where when a CP comes in a subject position of an IP we see that complementizer exceptionally assigns case to the spec of IP which is the complement of C.

The next thing is we want to see how CP helps us understand, how CP helps us understand question movements and understand questions sentences. To see that we want to look at some of these sentences, we started looking at these sentences.

And then we saw that in, there are primarily two types of question but question sentences, two types of questions in natural language. One is wh-question that is a content question when we ask a question and we need an answer with a content that is called a content question. For example, what did you buy? We need to answer with a content, a pen, a phone, a shirt, a pencil. Therefore, such types of questions are called content questions and some questions like did you buy a phone require an answer in yes or no, which is called a yes-no question.

There could be more types of questions like echo questions, rhetorical questions and tag questions. Tag questions are not listed here. But you can see a lot of different types of questions. We will skip the typology of questions in natural language for the time being. That is not relevant for our discussion here. But we will continue looking at what makes a question sentence and how is formation of a question sentence in natural language theoretically interesting and how does the existing apparatus that is X-bar helps us understand questions. That is the prime concern here, which we want to look at.

So in doing so, we saw yesterday, two things that came up from the two sentences that we were looking at and the two sentences that we were looking at, such as, what did you buy and did you buy your phone? In both the sentences we see there is evidence of fronting of tense and then in one type of question that is content question, you see wh-words, the use of wh-words whereas, no wh-words is used for yes-no type of question. That is clear to everybody, this much we have we have seen. Now, what is the meaning of fronting of tense in a theoretical sense.

We started looking at this and then we say, whether a sentence has present tense or a past tense, whether the tense is visible in a sentence or not visible. Do you understand these things, whether it is visible or not visible? For example, in this type of sentence, where we have a verb like bought, we know that bought is past tense, but do we see any past tense marker on that? It looks like your word and we know that this word contains the past tense marker.

We know it is past tense only when we separate the tense out of it, then we are left with the original form of the word buy and then the tense gets forwarded in the beginning with the support of word like do and do plus past again becomes did and then we get a sentence like did you buy a phone.

Suppose we have a present tense sentence here, we have a sentence I play football. How do I make a question out of this?

Student: () (7:02)

Professor: Either we can have what do you play or do you play football? What do you see here? The fronting is of present tense and the word is do, the word present tense is not even, let me let me show you this thing.

There is a word called do, I started talking about it a little bit yesterday, did not talk much about this. This is a word which is like a verb. Have you seen this word, have you been told about this word, this word as a verb, this means in Hindi anybody? Something like Karna. But in such cases, when we are talking about question words, this word has got no meaning.

When we say, do you play football? Did you buy a phone? The words like do and did have no literal meanings. They are only in the sentence to help tenses. In a sentence like do you play, what we are saying actually is if this is the sentence that we have, if this is the sentence that we have, then here is our present tense and this verb does not have, right now it does not have tense.

Are you with me? Right now it does not have tense because the same tense has come here and therefore this word only has the meaning of tense, not the actual meaning of do and in this case, it is more abstract than the past tense. In the past tense sentence, at least we had a past tense verb. Did you, the sentence is, I bought a phone, then we removed past tense, brought it forward and left the verb, in a present tense sentence I play football. I have a simple sentence: I play football. What is the marker of tense here? Nothing that we have evidence that this is a present tense, but there is no marker as such.

Still we can separate, play and present, still we can separate them and when we separate, this is how we get, this is what we get, see this thing. Now, I also want to draw your attention to the abstraction involved in this kind of study. It is not just that we are trying to understand how a

question word, how a question sentence works in a language like English, but we are also trying to see that a grammatical entity called tense, which is very abstract by itself, can also be touched, we can play with tense as well and see it clearly, no matter how abstract it is.

And that kind of play we see with sentences when we look at them carefully in questions number one, number two, we are also looking at with evidence that several words in a language like English or for that matter any language which is part of language being a principle phenomenon, that every moment every time a lexical item that is a word receives some sort of functional categorization, the word loses its literal meaning, the word does not have any literal meaning and then you see things like these.

We have seen several examples of such things like demonstrative pronouns, such as that, when it becomes a complementizer it has got no meaning. Explicit pronouns like it, when they become a functional word to fulfil the subject position of a sentence it receives, it has no meaning.

When we have a verb like do, it is such a word in a language like English is used to support tense, it has got no meaning and there is a huge list of these things. The important thing is not the list, the important thing is the phenomena that a lexical item may lose its meaning and then become a functional element.

It is not surprising at the same time, it is an evidence for the fact that whatever abstraction involves the human mind works with absolute clarity with no redundancies, no overlap and it still maintains a clear distinction between the terms, the same term used for two different functions still retains total clarity. See the point. Just to give you one more example before I come to the structure of a question sentence is this part, clear. Now, I gave you an example yesterday, where all the question words in Hindi started with which sound?

Student: K

Professor: K sound. Now, look at one more thing and then we return to English question words. You have seen two types of question sentences in English that one is yes-no question and the other is content question and Wh-word is used only for content question. This much is true for a language like Hindi too, I am sure it is true for Tamil, Telugu, Malayalam and all other languages.

The content-question words in a language like Hindi is kaun, kya, kaha, kab. Am I right, kaun, kaha, kya, kab, kaise are the question words in Hindi. I want an answer from you particularly from those who understand the language. How do we make yes-no question words in Hindi. For example, if I have to ask this question in Hindi, how do we ask this question? Do you play football?

Student: (0)(15:25)

Professor: So, the sentence is football khelta hai? That is, what is the question word in this? What is making it a question? You are right. That could be a question, what makes it a question?

Student: Verb.

Professor: Which verb?

Student: Khelega. (())(15:50)

Professor: If I say, I mean what, which part of the verb do you see making the question? I do not see anything making it a question. You may be right, but you need to show me which part of it is a question and I am asking you after an hour and half discussion on this thing. I am trying to show you English questions and I am, I hope you are convinced that tenses are fronted in English.

So, my point is, in English, if I am asked, what makes us make a question sentence? We can convincingly say that, however a sentence may look like, whether it is a content question or a yes-no question. The question process works with fronting of tense. Is this clear to you and that is the answer for English.

I am asking you a sentence from Hindi and how do we make a yes-no question in Hindi. I am not asking you about content questions, because content questions are clear. For example, if someone asks you what is your name? How do we say this sentence in Hindi?

Student: Tumhara naam kya hai?

Professor: Tumhara naam kya hai and the question word kya in that sentence is a question marker. Please also notice that if we have the same sentence in a language like English, the wh-word has to be fronted. So, fronting is the key in a language like English, not only tense becomes, tense gets fronted, but wh-word also gets fronted.

You were asking me, somebody was asking me about this blank space in question number one on your screen. That is the place for an object. Buy is a verb, is a transitive verb or intransitive verb?

Student: Transitive.

Professor: Transitive verb, it must have an object and you do not see an object here, rather what we actually see is that object has been questioned, what we are questioning is the object what do you buy and whatever is the answer to this question, is going to be the object of that verb. Do you understand that? Do you understand this?

So, we can say that the object has been questioned and when the object is questioned with wh-word, which is what along with tense or after the tense, even that gets fronted it cannot stay in the same position. Are you with me? For example, we cannot say an English sentence or can you tell me, did you buy what, can we say this type of sentence? No. Did you buy what is not a good English sentence?

The good English sentences, what did you buy? The point again is, not only a tense gets fronted, but if you have a question word that also gets fronted and I am coming to the question that you see it on the screen, if fronting of a tense takes place or at the same time I can add if the fronting of question word takes place that is if the fronting of both these elements are taking place, in a

question where do they go to, understand by fronting we mean, technically we have a sentence as an IP and if we say it gets out of IP, then where does it go to? There is no place outside IP.

You see the problem in the question. So, we are coming to that in a moment and that is what I am trying to show you, at the same time for you to see the whole question as a principal phenomenon with whatever parameters that are associated with individual languages, there is an underlying principle of question that is working.

So, a parametric variation between Hindi and English is such that in English wh-word needs to be fronted, in Hindi it does not need to be fronted. A question is, what is your name? Can we leave the question word in the middle of the sentence?

Student: Tumhara naam kya hai?

Professor: Tumhara naam kya hai, understand this thing, do you see that? I am sure leaving the question word in the middle of the sentence is possible in all South Asian languages. Now, it becomes a subject of study of a different kind. Why do all South Asian languages behave in a particular way and why is English, so different?

See the question, that is a separate question to answer. But given the facts, given the empirical evidence that you can see, the question right now is English has one kind of pattern, Hindi and other South Asian languages have other kinds of patterns and that is called parametric variation. Moving ahead of parametric variation, what I want you to see is that there is still a principle of question operating in all the languages and at that level of principle, despite the differences at parametric level, there is a principled phenomenon of question operating in all the languages.

So, we can say question words in Hindi stays in the same place and question word in English gets fronted. But if we move one more step looking at Hindi, how do we make the question word in, how do we make a yes-no question in Hindi, about the content question we said, we leave the question word there.

How do we make a yes-no question in Hindi, someone said for this kind of sentence we can say I, first of all, hold on. First of all, let me ask you a question in a systematic way. I play football, how do we say that in Hindi if you understand this.

Student: Mai football khelta hu.

Professor: Mai football kelta hu, very nice. You play football. How do we say that?

Student: Tum football khelte ho.

Professor: Tum football khelte ho. If I have to ask the question, do you play football?

Student: Kya tum football kelte ho. Tum football khelte ho kya.

Professor: Very nice. So, he is saying kya tum football khelte ho and you are saying tum football khelte ho kya, are there other ways of saying the same thing?

Student: Tum football khelte ho.

Professor: You understand this question? One can also say and let me also say, Tum football khelte ho. Is this a question? If I tell you this sentence, Tum football khelte ho. That is a question to you. How do we know this is a question, how do, hold on, when I ask you, how do you know? We all answered that this is a question. By how is the question for the human mind?

Tum football khelte ho, let me say the two sentences to you and then you be the judge of these two sentences. Tum football khelte ho is a normal declarative sentence. Tum football khelte ho is a question. What is the difference between the two sentences? Technically, if you write them on the board there is no difference. So, what is making that sentence a question? Any idea?

Student: Based on the different words.

Professor: The stress on different words, that is technically called intonation, that is alright, the word is not that important. What do we want to say in a spoken language like Hindi, if we put rising intonation on the verb that converts the sentence into a question, rising intonation on the word converts the sentence into question.

If you remember from the very beginning we have been talking about and we have made an assumption that the object of investigation in the whole field of natural language is a spoken language and these are the things that become clearer, when we are looking at a spoken language. Tum football khelte ho, you are putting the rising intonation on the word khelte ho, that is what makes it sound like a question, which type of question?

Student: Yes-no question

Professor: Yes-no question only. So, rising intonation does not make it both types of questions. See the clear pattern and the way it works in the human mind. Even the rising intonation is making it just one type of question. Now, there was another sentence which your friend said kya tum football khelte ho, the sentence is kya tum football khelte ho, which type of question is this?

Student: Yes-no question.

Professor: Yes-no question, right. This is a yes-no question. Do you see anything uncomfortable in the sentence, Yes or no?

Student: Yes.

Professor: Yes, what is uncomfortable. It has a question, it has a question word kya, kya is a word which is a content question word, but still it works as a yes-no question marker. In the interest of time, I had more time to show you, I can take you down through inventory of sentences in Hindi, which I invite you to look at by yourself, the question, one question word kya from the whole inventory of question words, which are Hindi, what are Hindi question words again, can you give me some gone?

Kya, kuan, kaise, kaha all kinds of question words from the whole inventory of question words, take one out which is kya and that question word has got two functions. One is the content

question. When it comes in a sentence like what is your name? I am sorry, the Hindi sentences tumhara naam kya hai, then it is a content question word.

When it occurs in front of the question, in front of the sentence every time, kya tum football khelte ho, kya tum ghar ja rahe ho, kya tum so rahe ho every time you put it in the beginning of the sentence, it converts the sentence into yes-no question marker. Yes-no question sentence that is one question word kya taken out of the whole inventory functions as yes-no question marker in Hindi.

See this thing and when it is, when it comes in the beginning of the sentence, you would agree with me that in such a situation, this is not a content question word. Take the same sentence kya tum football khelte ho, does the word kya in this Hindi sentence have the meaning of what, does it have a meaning of what, it does not. This is how languages work with their own patterns. So, what are the, now we see two patterns of yes-no question markers in Hindi. What are the two patterns?

Student: Either rising intonation.

Professor: Rising intonation of the verb.

Student: Or the sentence with kya.

Professor: Or the sentence starts with kya and look at one more, one more point which takes you towards the principle of economy, to give.

I want to remind you about something, here is a sentence, go home. What is the subject here? You. We have seen that the subject of all sentences of this type is you. Therefore, as a very strong matter of the principle of economy languages do not allow surfacing of that kind of a word. See this thing, because in all Hindi question words, in all Hindi yes-no questions. The question word kya comes only in the beginning.

So, for a native speaker of Hindi that is redundant. Therefore, it is allowed in the language to drop the question word. When, I am trying to show you the similarity between two patterns of yes-no questions in Hindi. One pattern is the use of the word Kya. The other is rising intonation, there is a similarity between the two. They are not really two distinct patterns.

The pattern is because the question word kya, only one question would kya and always comes in the beginning of the sentence. So, it is possible to drop it. Principle of economy in natural language forces us to drop that, see how it works. How even contradictions are resolved in the human mind.

There is a principle of economy working in language in a very strong way. Which tells you if there is a pattern, then why do you need it? Understand the point, drop it, when we drop it. What is the problem? The problem is then the sentence is looking like a declarative sentence. I have a question kya tum football khelte ho and I am forced to drop the word kya, then I am left with the sentence. Tum football khelte ho.

Now it is not clear whether it is a declarative sentence or a question sentence. So, we need to make a distinction between declarative and question. To make such a distinction, rising intonation helps and resolves the problem. Rising intonation is a supra-segmental feature, which is less expensive over not following the principle of economy.

Understand this and that is how it operates in the human mind. I hope this is making sense to you, this is clear to you. Are the Hindi questions only what I have discussed clear to you. There is a set of content question words in Hindi too, all of them begin with K. The difference between Hindi and English content questions is in English all the content questions, words also get fronted, in Hindi content question words can stay in the same place.

The two, when we look at two types of questions in Hindi and English. Yes-no question in Hindi works with the question word kya and in such a situation, the question word kya becomes a functional word. It does not have any content in it, it does not have any meaning in it. Once it becomes the content question word, I am sorry, once it becomes a functional word and it always comes in the beginning of the sentence to make a yes-no question.

Following the principle of economy, it can be dropped and then to make the distinction between a declarative sentence and the question sentence, the rising intonation helps. This is how the two types of questions work in Hindi. Now, I do not want to go further in details of Hindi to show you how the fronting of questions works in Hindi.

Remember, what we are saying about question words in English, question sentences in English. What are we saying? That for English both types of questions, fronting of tense is important. Fronting of tense is important in all languages, it's just that someone needs to show you how fronting of tense operates in Hindi that will be a little bit too much for me now.

So, let me show you what we started with and I hope this the description of Hindi helps you understand what we understand by parametric variation, and then what is called underlying principle of question that operates in all the languages and besides we keep seeing underlying principles operating like principle of economy and then no redundancies and all kinds of things.

No ambiguity and no redundancy are also two such principles that operate in language all the time, which in turn depends on who you are talking to, if you are talking to a linguist, they will tell you no, I just want to stick to question, to sentences. If you are talking to someone who looks at language, from the perspective of looking at the human mind, they will tell you, these are the evidence, these are the different pieces of evidence for you to tell how the human mind works with no redundancy simplicity and in what kind of principled way.

Now, let us try to answer this question. How does this funding really work? Any, before I answer this thing, any question about Hindi question words or anything that we have discussed so far?

Student: Sir in yes-no questions fronting of tense is always.

Professor: Are you talking about English or Hindi?

Student: English.

Professor: In both, the fronting of the question will always be there. Just look at that.

Student: But sir, if the question is are you going home, so sir go has not lost its tense.

Professor: Go has not lost its tense?

Student: Tense.

Professor: Which is what.

Student: Present continuous.

Professor: The tense is just present, continuous is what aspect. So, we are not saying fronting of aspects, we are saying funding of tense and in that sentence, what is the marker of tense? If you if I have a sentence, you are going, you are going home? This is a present tense and it has a continuous aspect marker. What shows tense and shows continuous aspect?

Student: Continuous is ing.

Professor: Ing on the verb. Very nice and tense?

Student: Are.

Professor: Are. Now you have a question sentence, are you going home? Do you see getting fronted. It is a robust principle. It never lets you down and also it shows you a clear dichotomy between tense and aspect. So, if someone tells you present continuous is a tense, here is the evidence to show, they are two different things.

If the present continuous word is an example of tense, then both of them will be moving outside. It is not, only tense moves out and I am glad you talked about that sentence. Because so far I have been working with the sentences with do and did. You look at the sentences with was, were, am, are, is, all these are markers of tense and they become abundantly clear in question sentences when they all get fronted and when you have a sentence with is, or am, was, were, in such cases you do not need do.

You do not need the help of the word do. Because in such cases, those markers of tenses are independent words by themselves. The only purpose of that kind of a word is to retain tense. So, again, you can see one more thing now, that all the time we have been told, these are auxiliary verbs, helping words and what not all kinds of names have been given to such kinds of verbs.

I do not want to change, I do not want to wipe out everything that you may have learned and write something new. All I want to do is I want you to see things clearly. Even if you call them auxiliary verbs and I am sure you will agree with me that I am never stuck with names. I am never asking you to change one name and put another name that is labelling. That does not help too much.

What helps is whether we call such kinds of words a tense marker or auxiliary verb or helping verb or God knows what other names are, they still mean the same thing. They are the tense

markers and they become evident abundantly clear in these kinds of sentences. So, to understand several other things, we need to look at question words and question words. Question sentences are not only question sentences, they are going to help us understand more. Clear? So, let us, anything else? No, in that case, let us move. We have a nice looking sentence like I bought a pen, is this the structure for that sentence? Clear everybody.

Now, if this is the structure of the, I have been telling you the tense gets out, tense gets, tense moves, tense gets fronted, these are the words I have been using, if it gets fronted, where does it go to? You see that, there is a problem and then we do not stop here, we are saying sometimes the NP a pen which is the complement of the word but can also be questioned and the word is what did I buy?

See the point, which is if I go back to the sentence what did you buy, the word what is appearing even beyond the tense. So, we not only need to find a place for tense, we also need to find a place for other elements in a question word. So, apparently, what becomes clear to us looking at a question sentence and this is a structure that a question sentence cannot be contained within IP. An IP cannot, IP is not sufficient for a question sentence. Then what is, what can help us understand this?

Student: () (42:35)

Professor: That is where we go and we say the answer lies in CP. The answer lies in CP, where we have C and IP. Then I am not drawing the whole sentence. This is just for you to see. Here is our I and here is our VP and here is our NP. So, when I moves the idea is it goes to the C position and can I ask you this question? Why would it go to the C position?

When it, when it gets out of its own place and it gets fronted? The new thing I am adding explaining the question sentence it gets to see, why would that happen? Anybody, that is, my question is located in what is the similarity between I and C? I think I have reduced the question like anything now.

Is this a head? Is this a head? Both are heads of their phrases. So, when a head gets out, it can only go to another head position and then when you question this kind of thing, a pen in a sentence like, what did you buy? We question this NP and this moves out and goes to the specifier position and then you have a sentence like what did you buy?

Remember, this space is empty, not deleted, empty, because something has moved out of here. Likewise, this space is empty, not deleted, something has moved out of here. At a surface level, when we speak a sentence, we do not speak with an empty place. But conceptually, you can see that there is clear evidence that these places are empty.

So, now (you) I am drawing your attention to two things, not only I want you to see these things as evidence for movement. At the same time, I want you to see that when things move, it leaves its traces behind, when things move, they leave their traces behind and this is why you have seen the empty space in a sentence when we were, when we had what did you buy?

Of course, we do not speak with empty spaces, but that space is available when we are looking at the underlying structure of these sentences, clear? So with this, we are looking at, we finished a

discussion on wh-movement, question words, question sentences, we not only looked at underlying motivations for movement in natural language, we saw examples of sentences which cannot be accounted for unless we bring in movement.

And movement helps us account for abundant data in natural language and simplify them in a principled way that whether we are talking about, yes-no question or a content question. Both of them have similarities. Of course, they have differences, but there is a similarity between the two and then this kind of apparatus of X-bar scheme helps us understand the underlying structure of sentences like these which are question sentences.

It helps us understand the principle of economy, it helps us understand how it, how the human mind operates and then how language can provide sufficient examples for how these things operate in the human mind, okay we stop here and we will talk about the rest of the things tomorrow.