

WH question transformation

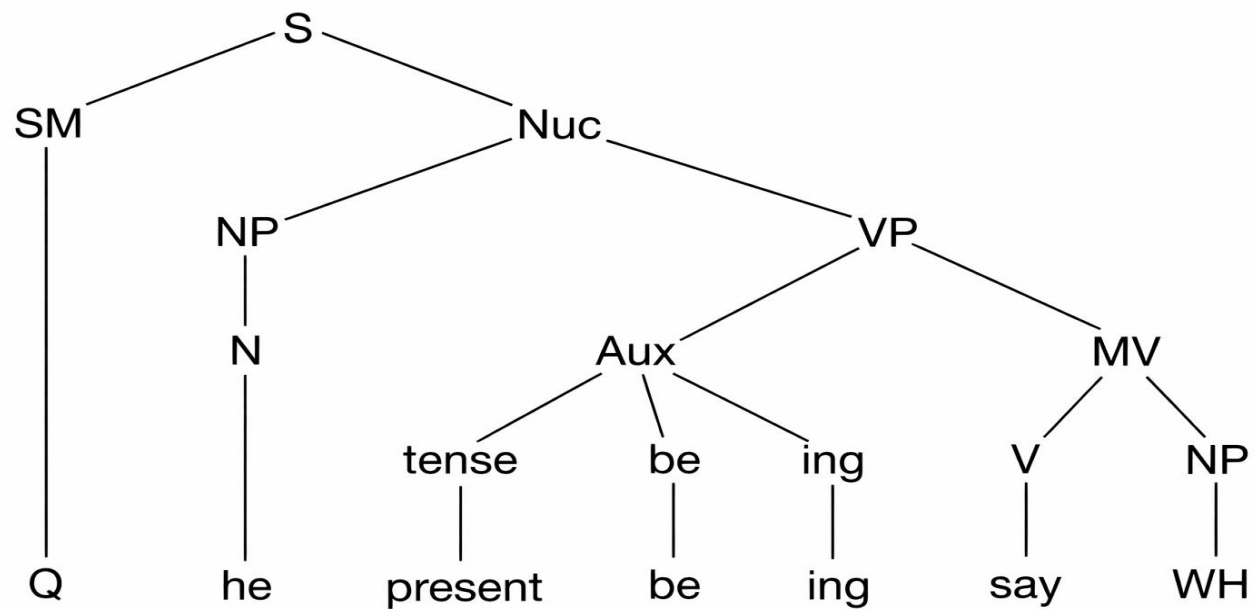
- In TGG, there are RULES as in page 27 and PROCESSES of transformation i.e. WH transformation.
- These processes may exist together in a sentence
- The order of processes is as follows:
 - 1- Imperative
 - 2- Negative
 - 3- Yes\No Q
 - 4- Wh-Q
 - 5- Do

- The case of WH questions is actually a case of **substitution**

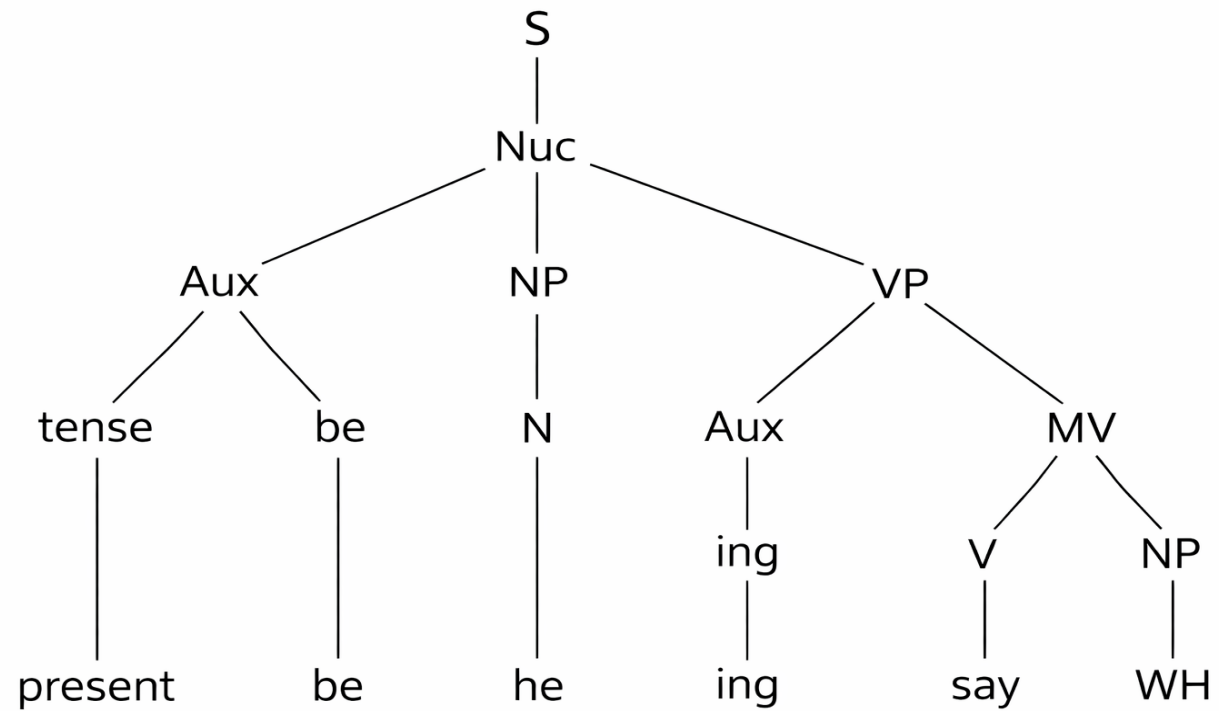
What is he saying? Is derived from **Q he is saying something** or more preferably

Q he is saying NP-WH

Q NP+present+be+ing+v+NP-WH



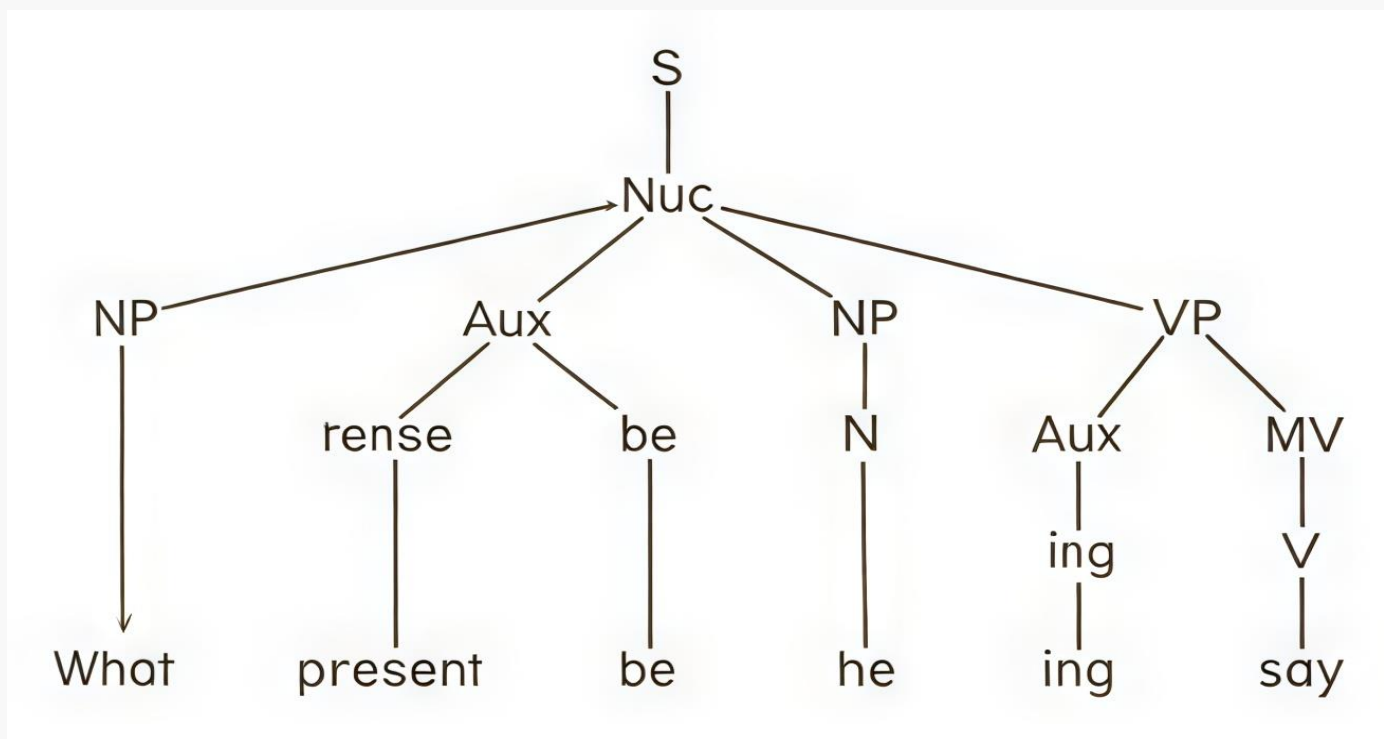
- After applying the **yes-no transformation** we get the intermediate structure
Is he saying NP-WH?
Present+be+NP+ing+V+NP-WH



- The WH transformation then shifts the NP with WH attached to it to the beginning of the sentence and **substitutes what**.

Substitution → NP-WH+be+NP+ing+V

Q NP + Present + be + ing + V + NP-WH



Result: What is he saying?

Consider Pages 56 and 57 for the other WH question words

Notice the process in the following sentences. The ones on the left are intermediate structures that have undergone the yes/no transformation; those on the right have had the WH transformation applied to them:

- | | |
|--------------------------------|-------------------------------|
| 1. are you reading NP-WH | What are you reading? |
| 2. has she torn NP-WH | What has she torn? |
| 3. were you giving it to NP-WH | Who(m) were you giving it to? |

A noun phrase that has WH attached to it is replaced by **what** or **who** and moved to the beginning of the sentence.

If the noun phrase with WH-attachment is the object of a preposition, either the whole prepositional phrase or just the noun phrase may be moved. The choice is entirely stylistic, **What are you writing with?** being less formal than **With what are you writing?** We can express this transformation this way:

$$X + (\text{Prep}) \text{ NP-WH} + Y \Rightarrow (\text{Prep}) \left\{ \begin{array}{c} \text{who} \\ \text{what} \end{array} \right\} X + Y$$

In the structure *are you reading NP-WH now*, *X* is everything before the noun phrase (*are you reading*) and *Y* is everything after it (*now*). Either *X* or *Y* may be nothing, as in *Are you reading NP-WH*, *Y* is nothing.

As we have stated the rule, there is no way of knowing whether *Q you saw NP-WH* will become *What did you see?* or *Whom did you see?* This choice between *who* and *what* depends on whether the NP has the feature [+ human] or not. The deep structure will attach to the NP not just WH, but also [+ human] or [– human]. The lexicon will give *who* as [+ human] and *what* as [– human].

But noun phrases are not the only structures that may have WH attachment. We may find it on an adverbial of place, as in *Where are you going?* which derives from *are you going Adv-p-WH*. Various adverbials may have WH attachment; the interrogatives that replace them are listed below, along with a possible answer:

<i>Adverbial</i>	<i>Replacement</i>	<i>Answer</i>
place (Adv-p)	where	there; in the yard
time (Adv-t)	when	then; tomorrow
manner (Adv-m)	how	carefully; with care
reason (Adv-r)	why	because of her; for me

In addition to noun phrases and adverbials, determiners may have WH attachment. *Whose* replaces a possessive (*my*, *his*, *John's*, etc.); *which* (and sometimes *what*) replaces possessives or demonstratives. The WH transformational rule may be summarized as follows:

$$\begin{array}{c} X \\ \left[\begin{array}{l} \text{Adv-p-WH} \\ \text{Adv-t-WH} \\ \text{Adv-m-WH} \\ \text{Adv-r-WH} \\ \\ \text{Det-WH} + \text{N} \\ \\ (\text{Prep}) \text{ NP-WH} \end{array} \right] \end{array} \Rightarrow \begin{array}{c} Y \\ \left[\begin{array}{l} \text{where} \\ \text{when} \\ \text{how} \\ \text{why} \\ \left\{ \begin{array}{l} \text{whose} \\ \text{which} \\ \text{what} \end{array} \right\} + \text{N} \\ \\ (\text{Prep}) \left\{ \begin{array}{l} \text{who} \\ \text{what} \end{array} \right\} \end{array} \right] \end{array} X + Y$$