

Intro to Language

Do insertion

Background reading:

- CL Ch 5, §3, "Move"
- CL Ch 5, Appendix section on "Using Move"

1. Review and context for this discussion

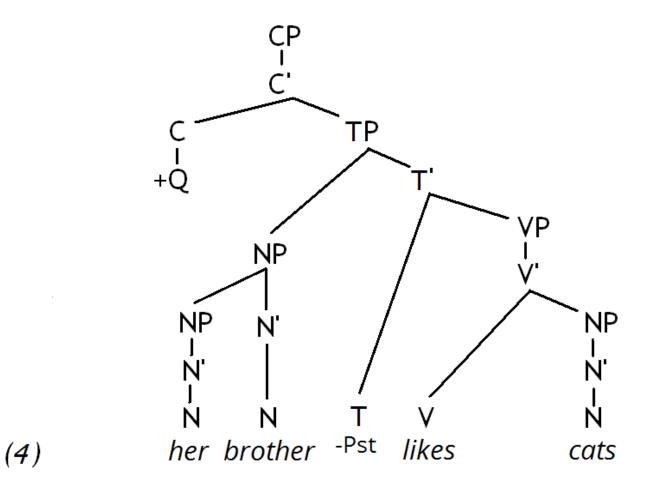
- What do we do when we find sentences for which our model is making the **wrong prediction**?
 - Add or change some aspect of our model in order to make the predictions better
- So far, our syntax model (for English) contains:
 - the **X' schema** (how to combine words into phrases)
 - the **modifier structure** (for 'extra' phrases)
 - **complement options** (chosen by specific heads)
 - **movement rules**, including Inversion (T to C if +Q) and WH Movement (WH phrase to spec of CP)

- How does the grammar of English form a question when there is no modal auxiliary in T?
- Try it: What happens when you make a *yes-no* question from the following sentence?
 - (4) Her brother likes cats.

- How does the grammar of English form a question when there is no modal auxiliary in T?
- Try it: What happens when you make a *yes-no* question from the following sentence?
 - (4) Her brother likes cats.
 - → **Does** her brother like cats?

- What does our model currently predict for a sentence like this?
- Try it:
 - Draw a tree for the **deep structure**
 - Consider whether any **movement rules** are predicted to apply
 - What is in the T position?

• The deep structure (before any movement rules)



• Can the **Inversion** rule apply? What needs to be in C?

- Insight:
 - If the Inversion rule tried to apply here, it would move T to C
 - But the only thing in T is the [-Pst] tense feature, so no words would move to form the question
 - The **does** word seems to appear so that there is an auxiliary in T that can move to C

• **Do Insertion rule** for English (certain other languages have something similar): (not covered in *CL!*)

Insert do into an empty T position

- Mandatory in matrix sentence if +Q
 (except for subject-*wh* questions like 'Who won?';
 we won't consider this exceptional structure further)
- Note that *do* <u>"absorbs" the tense feature</u> (+Pst or -Pst); the verb no longer has tense morphology
 - → This is evidence that there really are tense features in the T position!

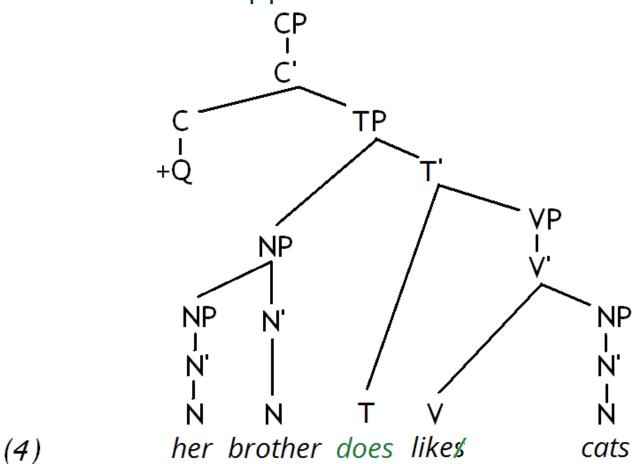
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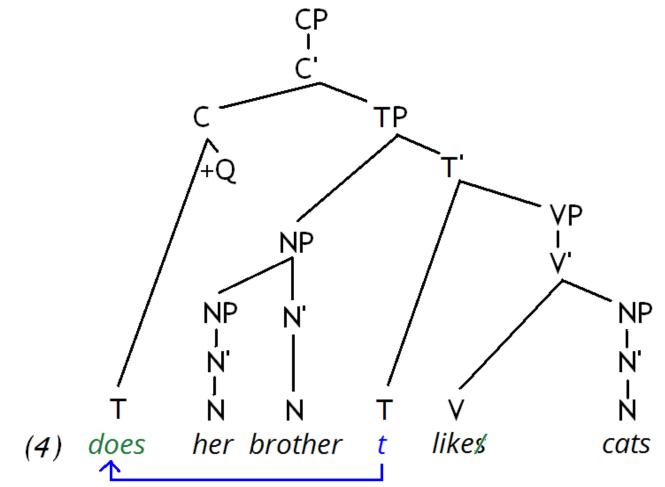
• Try it: Apply *Do* insertion to the deep-structure tree you have just drawn

• After *Do* Insertion has applied:



(Note how the tense feature has been "absorbed" by *do*)

• The surface structure, after *Do* Insertion and Inversion



To think about:

- Can *Do* Insertion apply if a sentence is <u>not</u> +Q?
 - Can we ever see a *do* auxiliary in a **statement**? How does this affect the meaning of the statement?

- What happens when we add **negation** to a sentence with and without a modal?

With: I can play piano. / I can <u>not</u> play piano.

To think about:

- Can *Do* Insertion apply if a sentence is <u>not</u> +Q?
 - Can we ever see a *do* auxiliary in a **statement**? How does this affect the meaning of the statement?
 I do like cats. (You seem to think otherwise.)
 - What happens when we add **negation** to a sentence with and without a modal?

With: I can play piano. / I can <u>not</u> play piano.Without: I like cats. / I do <u>not</u> like cats.