

Grammar 11

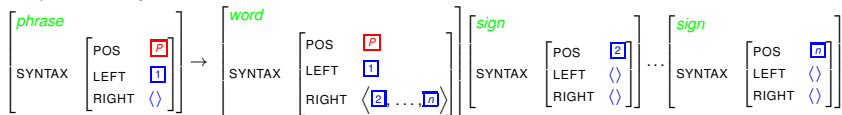
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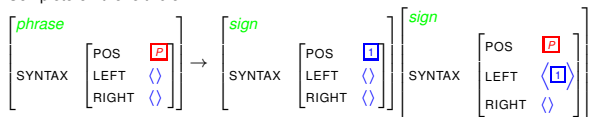
The phrase structure rules of Grammar 10

The rules appear in the order in which they apply, from the bottom of the tree to the top.

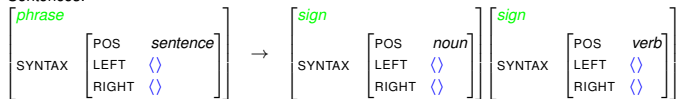
Complete-on-the-right-rule:



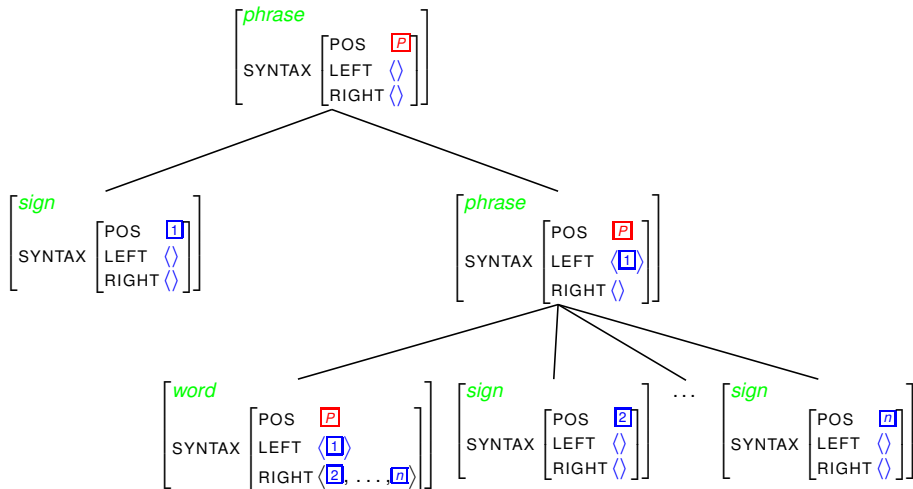
Complete-on-the-left-rule:



Sentences:

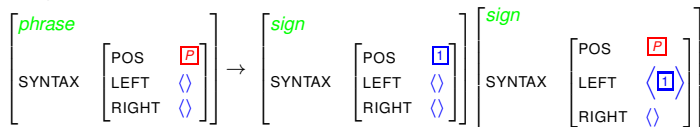


The general structure of phrases

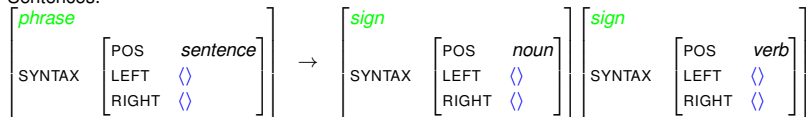


Compare the following two rules

Complete-on-the-left-rule:

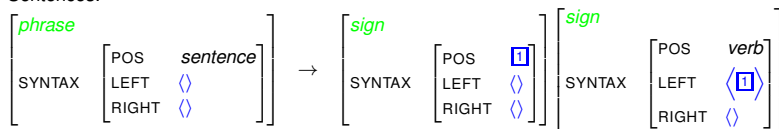


Sentences:



Note: if the verb were looking for a subject to its left, then the sentence rule would look as follows:

Sentences:



Eliminating the sentence rule

Sentences:

$$\left[\begin{array}{c} \text{phrase} \\ \text{SYNTAX} \left[\begin{array}{cc} \text{POS} & \text{sentence} \\ \text{LEFT} & \langle \rangle \\ \text{RIGHT} & \langle \rangle \end{array} \right] \end{array} \right] \rightarrow \left[\begin{array}{c} \text{sign} \\ \text{SYNTAX} \left[\begin{array}{cc} \text{POS} & \boxed{1} \\ \text{LEFT} & \langle \rangle \\ \text{RIGHT} & \langle \rangle \end{array} \right] \end{array} \right] \left[\begin{array}{c} \text{sign} \\ \text{SYNTAX} \left[\begin{array}{cc} \text{POS} & \text{verb} \\ \text{LEFT} & \langle \boxed{1} \rangle \\ \text{RIGHT} & \langle \rangle \end{array} \right] \end{array} \right]$$

Assume further that instead of treating *sentence* as a part of speech, we treat it as a sign that meets the following requirements:

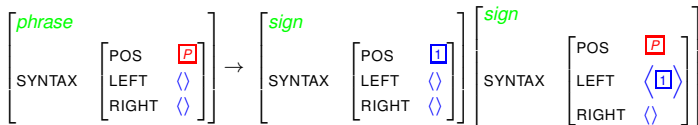
$$\text{Sentence (S)} = \left[\begin{array}{c} \text{phrase} \\ \text{SYNTAX} \left[\begin{array}{cc} \text{POS} & \text{verb} \\ \text{LEFT} & \langle \rangle \\ \text{RIGHT} & \langle \rangle \end{array} \right] \end{array} \right]$$

Then we can change the sentence rule further, as follows:

$$\left[\begin{array}{c} \text{phrase} \\ \text{SYNTAX} \left[\begin{array}{cc} \text{POS} & \boxed{P} \\ \text{LEFT} & \langle \rangle \\ \text{RIGHT} & \langle \rangle \end{array} \right] \end{array} \right] \rightarrow \left[\begin{array}{c} \text{sign} \\ \text{SYNTAX} \left[\begin{array}{cc} \text{POS} & \boxed{1} \\ \text{LEFT} & \langle \rangle \\ \text{RIGHT} & \langle \rangle \end{array} \right] \end{array} \right] \left[\begin{array}{c} \text{sign} \\ \text{SYNTAX} \left[\begin{array}{cc} \text{POS} & \boxed{P} \\ \text{LEFT} & \langle \boxed{1} \rangle \\ \text{RIGHT} & \langle \rangle \end{array} \right] \end{array} \right]$$

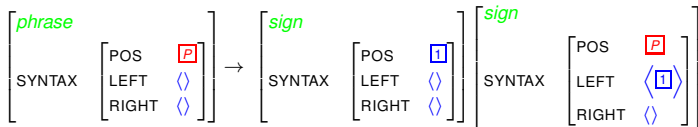
Eliminating the sentence rule

The new sentence rule:



Note: This rule is the Complete-on-the-left rule:

Complete-on-the-left rule:



Conclusion: If verbs look for a subject to their left, then the sentence rule can be eliminated from the grammar!

Arguments that verbs select their subject

- ❶ Subjects are obligatory: every (finite) verb must have one.
- ❷ The subject is semantically dependent on the verb:
 - The terrorist/the bullet killed the president.
 - The terrorist/*the bullet assassinated the president.
- ❸ The verb governs the form of the subject: the subject must have the same person-number features as the verb: *The student snores.* vs. *The students snore.*
- ❹ Some verbs even require particular words as subjects: *It is raining.* vs. **Mary/she is raining.*

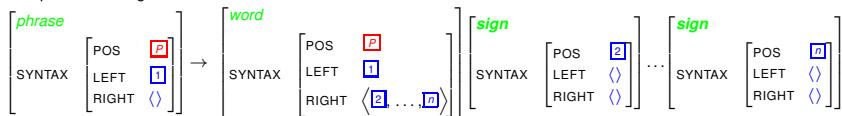
Conclusion: there are good arguments for the claim that verbs select the subject to their left.

Hence: it is well justified to eliminate the sentence rule. Grammar 11 therefore only has two rules, one combining a word with signs to its right and one combining a sign with a single sign on its left.

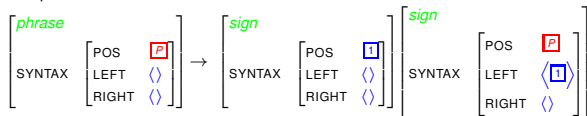
The phrase structure rules of Grammar 11

The rules appear in the order in which they apply, from the bottom of the tree to the top.

Complete-on-the-right-rule:



Complete-on-the-left-rule:



Excercises

- 1 Parse the string “Robin likes Kim”! The tree for this sentence contains two VPs. They differ from each other and have different roles in the structure. Explain what is the same about the two VPs and what is different!
- 2 Parse all the sentential test items of Grammar 10 and convince yourself that we don't need the sentence rule. One rule for completion on the right and one rule for completion on the left are sufficient to handle all test items!