

Grammar 3

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Phrase structure rules

For sentences:

$$\begin{bmatrix} \textit{phrase} \\ \text{SYNTAX} \quad \textit{sentence} \end{bmatrix} \rightarrow \begin{bmatrix} \textit{word} \\ \text{SYNTAX} \quad \textit{noun} \end{bmatrix} \begin{bmatrix} \textcolor{red}{\textit{word}} \\ \text{SYNTAX} \quad \textit{verb} \end{bmatrix}$$

$$\begin{bmatrix} \textit{phrase} \\ \text{SYNTAX} \quad \textit{sentence} \end{bmatrix} \rightarrow \begin{bmatrix} \textit{word} \\ \text{SYNTAX} \quad \textit{noun} \end{bmatrix} \begin{bmatrix} \textcolor{red}{\textit{phrase}} \\ \text{SYNTAX} \quad \textit{verb} \end{bmatrix}$$

For verb phrases:

$$\begin{bmatrix} \textcolor{red}{\textit{phrase}} \\ \text{SYNTAX} \quad \textit{verb} \end{bmatrix} \rightarrow \begin{bmatrix} \textit{word} \\ \text{SYNTAX} \quad \textit{verb} \end{bmatrix} \begin{bmatrix} \textit{word} \\ \text{SYNTAX} \quad \textit{noun} \end{bmatrix}$$

Excercises

- 1 Parse all the test items of Grammar 3!
- 2 Explain why “kim” and “smokes” only parse as words and not also as phrases!
- 3 Which rules are used to make the top node of test items (6) and (10)? Why?
- 4 Explain why the grammar makes the correct prediction for test items (14) and (15)!
- 5 Explain why the grammar accepts test items (16) and (17), even though these strings of words are ungrammatical in English!
- 6 What is missing from Grammar 3 to make the correct prediction for test items (16) and (17)?