

Lexical-Functional Grammar exercise #1

Consider the following grammar:

Phrase structure rules:

$S \rightarrow$ (NP) (VP)
(\uparrow SUBJ) = \downarrow \uparrow = \downarrow

$NP \rightarrow$ (Det) (N)
 \uparrow = \downarrow \uparrow = \downarrow

$VP \rightarrow$ (V) (NP)
 \uparrow = \downarrow (\uparrow OBJ) = \downarrow

Lexical entries:

the Det (\uparrow DEF) = +

a Det (\uparrow DEF) = -
(\uparrow NUM) = SG

sees V (\uparrow PRED) = 'see<(\uparrow SUBJ)(\uparrow OBJ)>'
(\uparrow TENSE) = PRES
(\uparrow SUBJ NUM) = SG
(\uparrow SUBJ PERS) = 3rd

Mary N (\uparrow PRED) = 'Mary'

boy N (\uparrow PRED) = 'boy'
(\uparrow NUM) = SG

1. (a) Draw the **c-structure** tree for the sentence *Mary sees the boy*. Be sure to include the functional annotations (equations) on the nodes.
(b) Put numbers on the c-structure nodes in the tree and instantiate the meta-variables in the f-annotations for the rules used (this gives you an **f-description**).
(c) Construct the **f-structure**, based on the f-description.

2. (a) Add to this grammar a new lexical entry for the word *boys*.
(b) Show how this new grammar, together with the axiom of **Uniqueness**, rules out the ungrammatical NP **a boys*, and the ungrammatical sentence **The boys sees Mary*.