

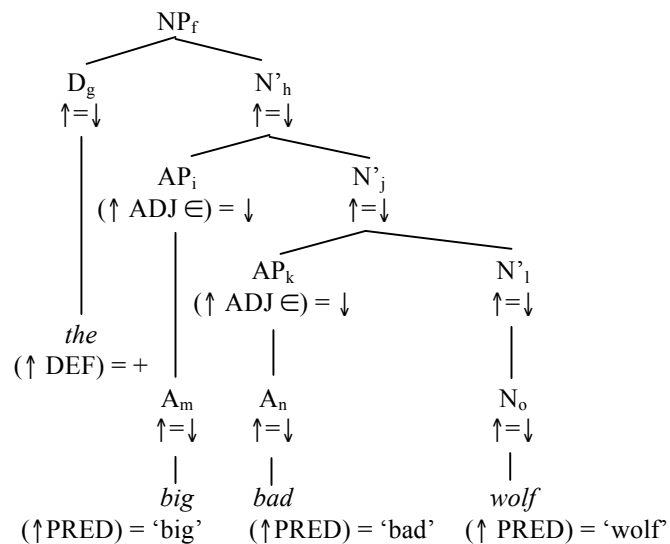
LFG Adjective and Relative Clause Exercise

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This exercise provides practice with the following formal devices:

- set values (designated by equations like $(\uparrow \text{ADJ} \in) = \downarrow$)
- preposition selection with $(\uparrow(\downarrow \text{CASE})) = \downarrow$
- inside-out functional uncertainty (see R8 below)
- gaps (see R8 below)
- constraining equations (the C *that*: $(\uparrow \text{TENSE})$)

I. Set value practice. Following is a c-structure. **Calculate the full f-description and the full f-structure.**



The element symbol '∈' is used as an attribute here. Recall that $(\uparrow \text{ADJ} \in) = \downarrow$ is equivalent to $\downarrow \in (\uparrow \text{ADJ})$.

II. English bound relative clauses.

The bracketed CPs below are **bound relative clauses**. A bound relative clause modifies an N' constituent, to which it adjoins to produce a larger N':

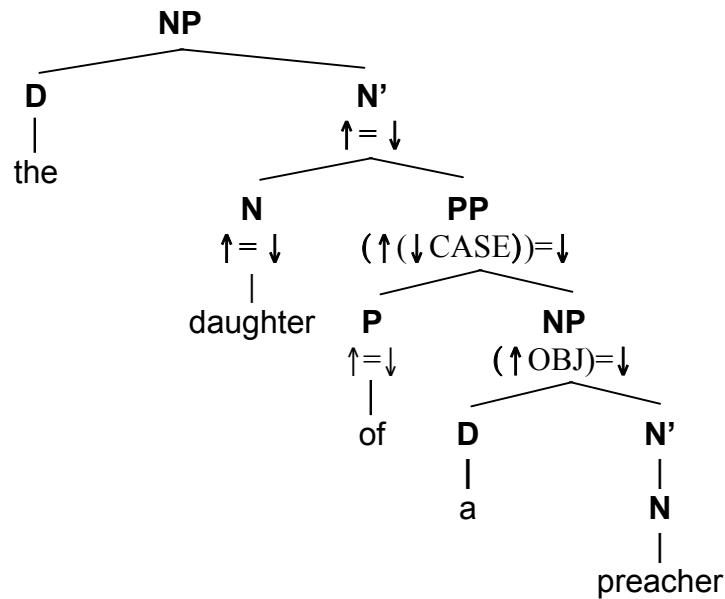
1. the [[boy]_{N'} [who Mary met ___]_{CP}]_{N'}
2. the [[student of physics]_{N'} [who(m) Mary sent an invitation to ___]_{CP}]_{N'}
3. the [[picture of Mary]_{N'} [which Bill thinks that I like ___]_{CP}]_{N'}

Bound relative clauses can usually be paraphrased by filling the gap with an NP consisting of the demonstrative determiner *that* plus the N', using the following pattern:

the boy who Mary met ___ :
 ‘the boy such that Mary met that boy’

the picture of Mary which Bill thinks that I like ___ :
 ‘the picture of Mary such that Bill thinks that I like that picture of Mary’

Now consider these c- and f-structures for the NP *the daughter of a preacher*:



[PRED	'daughter<(\uparrow OBL _{of} OBJ)>']
	DEF	+	
	OBL _{of}	[OBJ [PRED 'preacher']
		[DEF -]
]

The NP below is structurally ambiguous (either (i) ‘the daughter of a preacher such that I think that you met that daughter of a preacher’; or (ii) ‘the daughter of a preacher such that I think that you met that preacher’):

(1) the daughter of a preacher who I think that you met ___

The bound relative clause *who I think that you met* ___ is adjoined to N'. Bound relative clauses can be iterated (e.g. *a man [I met ___] [who Mary kissed ___]*), so the f-structure is an element of a set (see R6 below). The relative pronoun *who* is the TOPIC of the relative clause, which is a CP with no head C. Assuming the grammar below, **give the full c-structure and f-structure** for the first reading of NP (1): (i) ‘the daughter of a preacher such that I think that you met that daughter of a preacher’; and **at least sketch the approximate c- and f-structure** of reading (ii), showing where the bound relative is adjoined. **Assume the grammar on the next page**, which uses Bresnan’s ‘gap’ account of long distance dependencies. There is a gap in the position following the verb *met*.

Phrase structure rules

- R1. $S \rightarrow \begin{matrix} \text{NP} & \text{VP} \\ (\uparrow\text{SUBJ})=\downarrow & \uparrow=\downarrow \end{matrix}$
- R2. $VP \rightarrow \begin{matrix} \text{V} & \text{(NP)} & \text{(CP)} \\ \uparrow=\downarrow & (\uparrow\text{OBJ})=\downarrow & (\uparrow\text{COMP})=\downarrow \end{matrix}$
- R3. $CP \rightarrow \begin{matrix} \text{(NP)} & \text{C}' \\ (\uparrow\text{TOP})=\downarrow & \uparrow=\downarrow \end{matrix}$
- R4. $C' \rightarrow \begin{matrix} \text{(C)} & \text{S} \\ \uparrow=\downarrow & \uparrow=\downarrow \end{matrix}$
- R5. $N' \rightarrow \begin{matrix} \text{N} & \text{(PP)} \\ \uparrow=\downarrow & (\uparrow(\downarrow\text{CASE}))=\downarrow \end{matrix}$
- R6. $N' \rightarrow \begin{matrix} \text{N}' & \text{CP} \\ \uparrow=\downarrow & (\uparrow\text{ADJ} \in) = \downarrow \end{matrix}$
- R7. $NP \rightarrow \begin{matrix} \text{(D)} & \text{N}' \\ \uparrow=\downarrow & \uparrow=\downarrow \end{matrix}$
- R8. $NP \rightarrow \begin{matrix} e \\ ((\text{COMP}^* \text{GF} \uparrow) \text{TOP}) = \uparrow \end{matrix}$

(where $\text{GF} =_{\text{df}} \{ \text{SUBJ}, \text{OBJ}, \text{OBJ}_{\theta}, \text{OBL}_{\theta}, \text{COMP}, \text{XCOMP}, \text{TOP}, \text{FOC}, \text{ADJ}, \text{XADJ} \}$)

Lexicon

- | | | | | | |
|------------------|---|---|--------------|---|---|
| <i>the:</i> | D | ($\uparrow\text{DEF}$) = + | <i>that:</i> | C | ($\uparrow\text{TENSE}$) |
| <i>a:</i> | D | ($\uparrow\text{DEF}$) = - | <i>I:</i> | N | ($\uparrow\text{PRED}$) = 'PRO'
($\uparrow\text{PERS}$) = 1st
($\uparrow\text{NUM}$) = SG |
| <i>of:</i> | P | ($\uparrow\text{CASE}$) = OBL_{of} | <i>you:</i> | N | ($\uparrow\text{PRED}$) = 'PRO'
($\uparrow\text{PERS}$) = 2nd |
| <i>who:</i> | N | ($\uparrow\text{PRED}$) = 'PRO' | | | |
| <i>daughter:</i> | N | ($\uparrow\text{PRED}$) = 'daughter<($\uparrow\text{OBL}_{\text{of}} \text{OBJ}$)>' | | | |
| <i>preacher:</i> | N | ($\uparrow\text{PRED}$) = 'preacher' | | | |
| <i>think:</i> | V | ($\uparrow\text{PRED}$) = 'think<($\uparrow\text{SUBJ}$)($\uparrow\text{COMP}$)>'
($\uparrow\text{TENSE}$) = PRESENT | | | |
| <i>met:</i> | V | ($\uparrow\text{PRED}$) = 'meet<($\uparrow\text{SUBJ}$)($\uparrow\text{OBJ}$)>'
($\uparrow\text{TENSE}$) = PAST | | | |