

# LING 20 Homework 8

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## Problem 1

The sentences in (1) are from Swedish, a Germanic language spoken in Sweden and Finland.

(1)

- En svensk kvinna måste köpa en bokhylla med fyra hyllor  
a. a Swedish woman must buy a bookshelf with four shelves  
'A Swedish woman must buy a bookshelf with four shelves'

- Kvinna-n heter Lena  
b. woman-the is.named Lena  
'The woman is named Lena'

- Lena gick till IKEA på fredagskväll-en  
c. Lena went to IKEA on Friday.evening-the  
'Lena went to IKEA on Friday evening'

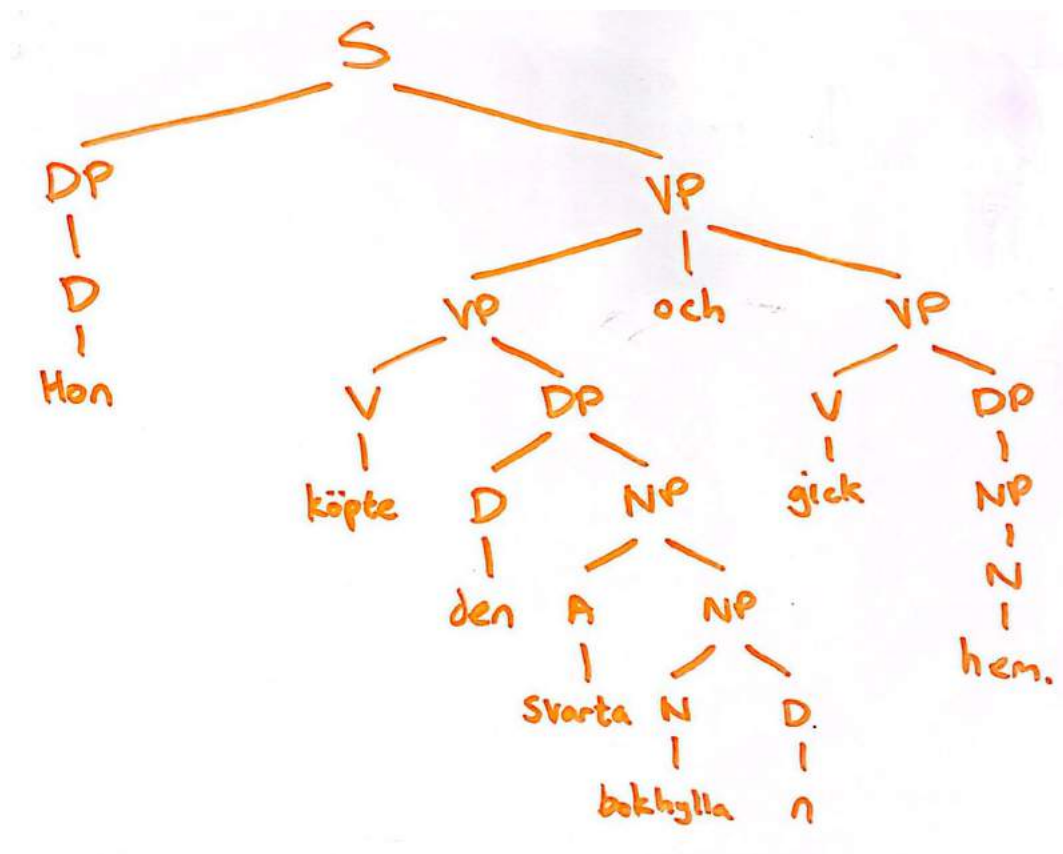
- Hon köpte den svarta bokhylla-n och gick hem  
d. she bought the black bookshelf-the and went home  
'She bought the black bookshelf and went home'

- Hon kan fatta de instruktioner  
e. she can understand the instructions  
'She can understand the instructions'

a) Please develop a complete set of phrase-structure rules that produces these sentences. Treat every morpheme indicated in the data as a separate lexical item, i.e. separate terminal nodes. For example, in (1b), *kvinna-n* should be treated as being made up of two nodes, but *heter* only one. Your phrase-structure rules should be as similar as possible to the ones we have for English.

$S \rightarrow DP (Aux) VP$      $NP \rightarrow N (D)$   
 $DP \rightarrow (D) NP$      $PP \rightarrow P DP$   
 $DP \rightarrow D$      $VP \rightarrow V (DP)$   
 $NP \rightarrow A NP$      $VP \rightarrow VP PP$   
 $NP \rightarrow NP PP$      $\alpha \rightarrow \alpha \text{ och } \alpha$

b) Using your phrase-structure rules for Swedish, please provide the syntactic tree for the sentence in (1d).



## Problem 2

The sentences in (2) are from Finnish, a Uralic language spoken in Finland and Sweden. Note that Finnish does not have equivalents of English *the* and *a(n)*.

(2)

- Lapsi söi voileivän eilen  
a. child ate sandwich yesterday  
'The child ate a sandwich yesterday'
- Anna luki kiehtovan kirjan kauniin puun alla  
b. Anna read intriguing book pretty tree under  
'Anna read an intriguing book under the pretty tree'
- Liisa on nähnyt elokuvan  
c. Liisa has watched movie  
'Liisa has watched the movie'
- Jukka meni vajan takaa talon eteen  
d. Jukka went shed from.behind house to.in.front.of  
'Jukka went from behind the shed to in front of the house'

**a) Please develop a complete set of phrase-structure rules that produces these sentences. Your phrase-structure rules should be as similar as possible to the ones we have for English.**

$S \rightarrow NP (Aux) VP$   
 $NP \rightarrow A NP$   
 $NP \rightarrow N$   
 $PP \rightarrow NP P$   
 $VP \rightarrow V (NP)$   
 $VP \rightarrow VP PP$   
 $VP \rightarrow VP Adv$

**b) What is unexpected about Finnish word order given the word-order correlations from Greenberg that we saw in class?**

Finnish seems to exhibit instances of both a head-initial word order ( $VP \rightarrow VP PP$ ) and a head-final word order ( $PP \rightarrow NP P$ ).

## Problem 3

Consider the following sentence:

(3) Alex is sometimes late.

The sentence in (3) seems to lead to the inference that “it is not the case that Alex is always late”. That is, *sometimes* seems to imply *not always*.

**a) Please show that this inference is an implicature by using both of the diagnostics for implicatures: Cancellability and Reinforceability.**

Alex is sometimes late. He’s always late.

⇒ this inference satisfies cancellability, as this sentence is logically sound.

Alex is sometimes late. But he’s not always late.

⇒ this inference satisfies reinforceability, as this sentence is logically sound.

**b) Please give a step-by-step walk-through of the Gricean reasoning that gives rise to the inference in (3).**

- It is stated that Alex is sometimes late
- We assume the sentence follows the Maxim of Quantity, and therefore, enough information is given, but not too much
- Since we know that enough information is given, we know that since Alex is sometimes late, there must exist situations in which Alex is not late, otherwise the sentence would have said *always*
- Therefore, it is implied Alex is not always late