
analytical methods in morphology and syntax

assignment #5: constituent structure

Due Friday, July 25th, in class.

Name: _____

exercise 0: midterm questions (10 points)

Please write two short-answer or “fill-in-the-blank” questions for the final quiz relating to the material for this week. Please do not submit multiple choice or true/false questions. The answers to your questions should come from the text or class discussions, and should not involve any problem solving of the sort required in the written assignments. Don't forget to provide the correct answer to your question. Two sample questions follow – please do not submit a question that resembles either of these. They are provided just to give you an idea of the *kind* of question that is needed. Full credit will be given for good questions that meet all of these criteria, whether or not we actually use them on the quiz.

Sample question #1: Name the two main tests for constituency. Give a definition and an example of one of them.

The two main tests for constituency are “movement” and “substitution.” Movement refers to the fact that constituents move together, whereas non-constituents do not:

“Under the bed scurried the cat,” but not “*Under scurried the cat the bed.”

Sample question #2: Describe why the following English sentence is ambiguous:

“Colleen wrote an article on Michael’s forehead.”

This sentence is ambiguous in at least two ways. First, the word “article” is semantically ambiguous - it may refer to a word that belongs to the grammatical word class of articles (“a” or “the”) or it could refer to a story for a newspaper or magazine. Secondly, this sentence is structurally ambiguous in that the prepositional phrase “on Michael’s forehead” may be connected to the verb phrase, in which case Michael’s forehead is the location of the act of writing the article. Alternatively, the PP may be within the object noun phrase, in which case the article that Colleen wrote is about Michael’s forehead (in this case I believe the “word class” definition of “article” would be excluded).

exercise 5.1: phrase structure analysis (20 points)

Tom Payne

A. Assign word class labels to all the words in the following clauses, according to their categorization in the lexicon of Toy English given in the text.

B. Enclose all the phrases in brackets. This includes NPs, VPs and PPs. Remember that phrases can occur within other phrases.

The first clause has been done for you:

- [DET N] [V [DET ADJ N]]
a. The dog watched a pretty cat.
- b. She saw a man on a moving sidewalk.
- c. A television on an ugly table is unusual.
- d. The television is on pretty sidewalks.
- e. The cat and the dog chased the television with a telescope.
- f. The dog with the telescope is an unusual dog.
- g. Sick cats escape pretty sidewalks.
- h. They moved the man and the unusual ugly telescope.
- i. She is moving a television.

exercise 5.2: Toy Tree Diagrams (20 points)

Tom Payne

1. Draw a constituent structure tree for the following Toy English sentence:

The ugly dog watched the pretty cat on the television.

2. The following Toy English clause is structurally ambiguous. Draw two constituent structure trees, one for each of the possible structures that underly this sentence:

She saw a man with a telescope.

She saw a man with a telescope.

3. Give three additional sentences that are grammatical in Toy English:

4. Using the lexicon of Toy English given above, give three strings that are not grammatical:

exercise 5.4: Ewe phrase structure (20 points)

From Yule, 1998

Use these rules to write out at least six well-formed Ewe sentences:

Phrase structure rules:

$S \rightarrow NP VP$

$NP \rightarrow N (DET)$

$VP \rightarrow V NP$

Lexicon:

| Nouns | DETerminers | Verbs |
|-------|-------------|-------|
|-------|-------------|-------|

| | | |
|-----|----|----|
| oge | ye | xa |
|-----|----|----|

| | | |
|-----|----|----|
| ika | la | vo |
|-----|----|----|

amu

exercise 5.6: Constituency (20 points)

Tom Payne

A. Bracket the noun phrases, and underline the verb phrases in the following excerpt (from "The Ice Palace," by F. Scott Fitzgerald). Remember that there may be multiple embeddings, i.e., phrases within other phrases.

The sunlight dripped over the house like golden
paint over an art jar, and the freckling shadows
here and there only intensified the rigour of the
bath of light.

B. Circle the "head" of the following noun phrases:

- a. the Queen of England's crown
- b. a bunch of flowers
- c. a lot of apples
- d. the attorney general of the United States
- e. a sensitive but not too brilliant boy friend
- f. a decorated camel-litter, which carried the daughters of the sheikh
- g. a hole in the wall
- h. a tall, spare, weatherbeaten man of few words
- i. the tribal equivalent of regimental colours
- j. a large number of people
- k. one of my best friends
- l. the entrance to the building

extra credit: exercise 5.13: Shugnan (up to 5 extra credit points)

Original Linguistic Olympics puzzle by M.E. Alexeev

adapted by Tom Payne

Here are some noun phrases in Shugnan and their translations into English:

1. kuzaa hats 'jar of water'
2. chalak zimaadj 'bucket of dirt'
3. tambal byuyun 'beard of a lazybones'
4. biig dyuyunaa 'pot of corn'
5. kuzaa gjev 'lid of a jar'
6. beechoraa zimaadj 'dirt of a beggar'

A. What language family does Shugnan belong to, and where is it spoken?

B. Translate into Shugnan:

'bucket of water'

'corn of a beggar'

'jar of a lazybones'

C. What determines the order of genitive and head noun in Shugnan?