

## 24.900 : Introduction to Linguistics

2/16/05

1. Problem sets are due on Mondays before **9am** (if there is not holiday, etc).
2. Problem set 2 is due Tuesday, 2/22, before 9am.
3. Remember you have two late options. The late problem set is then due on Friday, before 9am, of the week the ps was originally due.
4. Please keep up with the readings from your textbook. We will not be able to cover everything in class. You are responsible for the material in the readings assigned.

- I. Any constraints on the use of *-ant* or *-able* in English derivational morphology?

“Chronicling the times: Productive Lexical Innovations in an English newspaper.” R. Harald Baayen and A. Renouf. 1996. *Language* 72:1, 69-96.

<http://links.jstor.org/sici?sici=0097-8507%28199603%2972%3A1%3CTTPLI%3E2.0.C0%3B2-O>

### II. Syntax (copied from handout 2/14/05)

- Refers to the part of the grammar that represents a speaker’s knowledge of sentences and their structures.

\*\*\*Goals of syntactic inquiry: \*\*\*\*

1. Account for all the grammatical sentences in a language under investigation.

2. Provide the simplest description possible of the syntax.

3. Isolate those features which may be common to all human languages.  
→ Provide an *explanatory* account for language.

a. *Novelty and productivity:*

i. \*House painted student a the.

ii. The student painted a house.

b. *Grammaticality:*

*NB:* Do not confuse being able to understand an utterance even when ill-formed

and ngrammaticality (licensed by the syntax/grammar of a particular language).

**c. Syntactic knowledge:**

-goes beyond our ability to make judgments about grammaticality.

- it accounts for the multiple meanings or *ambiguity* of expressions depending upon the structure we impose on the utterance (just as in morphology).

**Structural Ambiguity (as in the *unbuttonable example from morphology*)**

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New for 2/16/05

**d. Class Exercises:**

**1. For each underlined word, indicate its part of speech (word class) and explain the distributional criteria (how did you make the determination).**

"Beware the Jabberwock, my son!  
The jaws that bite, the claws that catch!  
Beware the Jujub bird, and shun  
The frumious bandersnatch.

He took his vorpals sword in hand:  
Long time the manxone foe he sought-  
So rested he by the tumtum tree  
And stood a while in thought.

**2. NOOTKA (a language spoken in British Columbia, Canada)**

**a. Mamu:k-ma      qu:ʔas-ʔi.**  
**working-Pres      man-def**  
**"The man is working."**

**b. Qu:ʔas-ma      mamu:k-ʔi.**  
**Man-Pres      working-def**  
**"The working one is a man."**

**a. In sent a, is Qu:ʔas a verb or a noun?**

**b. In sent a, is Mamu:k a verb or a noun?**

**c. In sent. b, is Qu:ʔas a ver or a noun?**

**d. In sent. b, is Mamu:k a verb or a noun?**

**What criteria did you use in your determinations?**

**Are semantic criteria involved in determining parts of speech?**

**d. Grammatical relations:**

Our knowledge of syntax also enables us to determine the grammatical relations in a sentence such as *subject* and *direct object* and how they are to be understood.

1. The nurse informed the doctor.
2. The doctor informed the nurse.
3. The doctor was informed by the nurse.
4. ?I promised Henry to buy the car.
5. I promised to buy the car.
6. I reminded Henry to go to MIT.

**e. Syntactic rules of a grammar account for at least the following:**

1. The grammaticality of sentences
2. Word order
3. Hierarchical organization of sentences
4. Grammatical relations such as subject and object
5. Whether different structures have the same meaning or not
6. The creative aspect of language

**f. Phrase Structure and constituents:**

Intuitions that native speakers have about their languages are of two types:

1. Intuitions about sound sequences;
2. Intuitions about whether particular sets of constituents belong to the same category (*Lexical or Functional*).

**I. What is a *constituent*?**

A group of words that function together as a unit:

*The cautious student;*

*in the extraordinarily popular class;*

*yawning continuously;*  
*staring blankly into each other's eyes*  
*\*she looked up the*  
*\*book on*  
*\*on the*

**g. How do we determine constituent structure?**

**1. *The substitution/replacement test:***

*The smallest constituent is a word. Thus if you can replace a group of words with a single word then we know that group forms a constituent.*

- a. *The man from NY* flew only ultra-light planes.
- b. *He* flew only ultra-light planes.

**But, how do we know we are just not leaving off or out optional items when we replace a string of words with a single word? In other words, how do we know we are right? In order to do this, we need to make sure to keep the meaning of the substitution as closely related as possible to the original.**

**None of these tests as you will see is absolute or foolproof.**

**2. *Stand alone/sentence fragment test:***

If the words can **stand alone** in response to a question, then they probably constitute a constituent.

- c. Paul *ate at a really fancy restaurant.*
- d. Paul *ate at* a really fancy restaurant.

If we ask the question, "What did Paul do yesterday afternoon?" we can answer with the italicized words in 2c but not 2d.

- a) Ate at a really fancy restaurant.
- b) \*Ate at.

NB: Neither of these responses is prescriptively correct. Nonetheless, we all have intuitions about which one is better.

### 3. The movement test:

If you can move a group of words around in a sentence, then they are a constituent because you can move them as a unit.

#### a. Preposing (Pseudoclefting):

They stopped [PP at the corner] → [PP At the corner] they stopped.

#### b. Clefting:

He bought a brand new car. → *It* was a brand new car (that) he bought.

#### c. Passive:

The slobbering dog kissed the big boy.  
[The big boy] was kissed by [the slobbering dog.]

### 4. The coordination test:

Coordinate structures are constituents linked by a conjunction like *and* or *or*. Only constituents of the same syntactic category can be conjoined.

- a. *John and the man* went to the store.
- b. \**John and very blue* went to the store.

## WHEN CONSTITUENCY TESTS FAIL!

Bruce loved and Kelly hated the phonology class.

Do the subject and the verb here form a constituent? On the surface it appears that they do.

Constituency can be obscured by other factors having to do with movement, deletion, etc. to be sure that a test is working, you need to apply more than one test of constituency; otherwise, you might end up with a false positive result.

### Class Exercise:

**Are the sequence of words in the square brackets a constituent or not?**

1. Susannah gave [the minivan to Petunia].
2. Clyde got [a Dear John letter from Stacy].
3. Pete and Max are fighting over the bone.
4. He ran up the bill.

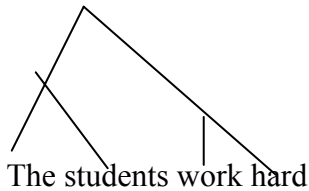
5. He ran up the hill.

II. Hierarchical structure?

-words (constituents) in a sentence are grouped together into successively larger structural units.

- a. (The students work hard.)
- b. ((the students) (work hard))
- c. (((the)(students))((work)(hard)))

As in morphology, the bracketing of constituents can be illustrated in an *inverted tree* structure.



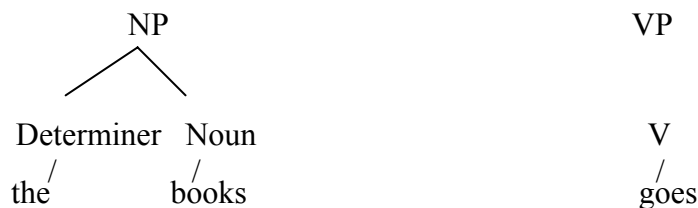
[[The[students[[work[hard]]]]]]

III. Some assertions:

- i. **Sentences** have hierarchical constituent structure.
- ii. Each **constituent** in a sentence belongs to a specific syntactic category.
- iii. The categorical constituent structure of sentences can be represented in the form of a **Phrase Marker: NP, VP, DP, .....**

IV. Structure of Phrase Markers:

- i. **Heads:** Phrases are built around a nucleus called the **head**.  
**Noun Phrase:** head is the noun  
**Verb Phrase:** head is the verb, etc.



Prepositional phrases: in the dome  
Adjectival phrases: very difficult

→ A simple theory of sentence structure:

Combine the notion of constituent, and parts of speech to develop a description of a possible English sentence.

Generalizations about structure are represented in generative grammar by *rules*. These rules generate the “trees” which reflect the hierarchical configurations that underlie the possible sentence structures in a particular language.

These rules are called **Phrase structure rules** because they generate the phrase structure of a sentence.

#### V. Noun Phrases (NPs)

|  |                      |  |
|--|----------------------|--|
| a. <b>XP</b>                             | →                    | <b>XYZ</b>   |
| ↑  | ↑                    | ↑  |
| <b>the label<br/>for the constituent</b> | <b>“consists of”</b> | <b>the elements that make up<br/>the constituent</b> |

**NP → N (an NP is composed of (written as →) an N.**

**What would the tree look like?**

**The box: NP → (D(eterminer)) N**

**The big box: NP → (D) (A) N**

**The big box on the table: NP → (D) (A) N (PP)**

*Write rules for the following phrases:*

**Prepositional phrases:**

**Verb Phrases:**

**Sentences:**

**Draw the tree for the following sentence:**

**The very small boy kissed the platypus.**