

# Identifying Constituents

Linguistics 222

Feb. 27, 2013

## 1 Tests for Constituency

Inside a sentence, words group together to form **constituents**.

Words may group into constituents in different ways, even within a single sentence.

- (1) Jim kept the car in the garage. (2 readings; “syntactic ambiguity”)
  - a. Jim kept [the car in the garage]. → which one did he keep?
  - b. Jim kept [the car] [in the garage]. → where did he keep it?/what did he keep there?

A number of tests can help us determine whether a given set of words form a constituent.

### 1.1 Sentence Fragment (Q+A) Test

If a string of words can be a sentence fragment (e.g. answer to a Q), they form a constituent.

- (2) Old ladies go to bed very early.
  - a. Who goes to bed very early? ⇒ Old ladies. / \*Old ladies go.
  - b. What do old ladies do? ⇒ Go to bed very early.
  - c. When do old ladies go to bed? ⇒ Very early.
  - d. [Old ladies] [go to bed [very early]]
- (3) Dr. Quinn read a book about elephants.
  - a. What did Dr. Quinn do? ⇒ Read a book about elephants.
  - b. What did Dr. Quinn read? ⇒ A book about elephants. / \*Book about elephants.
  - c. Dr. Quinn [read [a book about elephants]].

### 1.2 Echo Question Test

**Echo questions** are requests for repetition, not for more information.

They contain wh-words, but maintain the canonical word order of the sentence.

The wh-word in an echo question can only stand for a full constituent.

- (4) *Who* goes to bed very early? Old ladies do *what*? Old ladies go to bed *when*?
- (5) a. Dr. Quinn read *what*? \*Dr. Quinn read *what* about elephants?  
 b. BUT: Dr. Quinn read a *what* about elephants? → single words **are** constituents!

### 1.3 Cleft Test

**Cleft** constructions **focus** on a specific part of a sentence by using a distinct word order:

- (6) *It* + BE + [**focused element**] + *that/who* + rest of regular sentence.

A string of words that can appear in the **focus position** is a constituent.

- (7) Professor Plum killed Miss Peacock with a butter knife.  
 a. It was [Professor Plum] who killed Miss Peacock with a butter knife.  
 b. It was [Miss Peacock] that Professor Plum killed with a butter knife.  
 c. It was [with a butter knife] that Professor Plum killed Miss Peacock.  
 d. It was [a butter knife] that Professor Plum killed Miss Peacock with.
- (8) [Professor Plum] killed [Miss Peacock] [with [a butter knife]].

#### 1.3.1 Practice Exercise I: Constituency Tests

Use the specified test to determine whether the underlined words form a constituent or not.

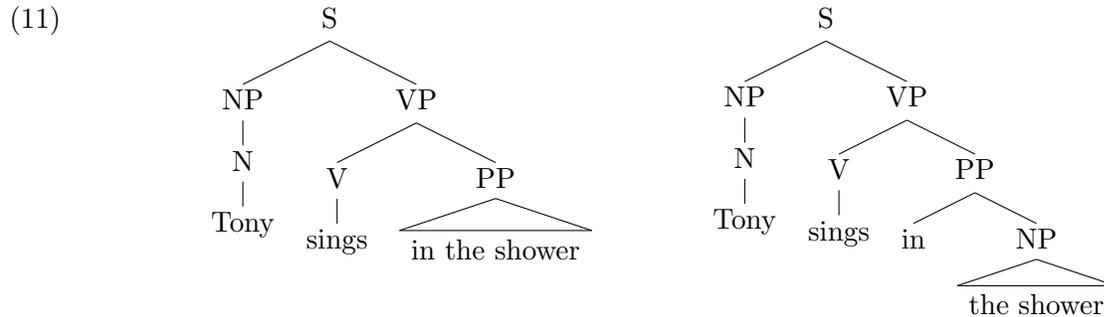
- The cyclist without a helmet was lucky to get home safe. (Sentence fragment/Q+A)
- Most people who own a dog appreciate the green spaces in Vancouver. (Echo Q)
- Most people who own a dog appreciate the green spaces in Vancouver. (Cleft)
- Sandra handed Leah the blue stapler with a smile. (Sentence fragment/Q+A)
- Professor Plum killed Miss Peacock with a butter knife. (Echo Q)
- Dental floss can help with cleaning those hard-to-reach spaces between teeth. (Cleft)

## 2 Representing Structure: Syntactic Trees

One way to represent structure: labelled brackets.

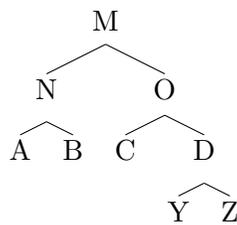
- (9) [<sub>PP</sub> in the shower]
- (10) [<sub>S</sub> [<sub>NP</sub> Tony] [<sub>VP</sub> sings [<sub>PP</sub> in [<sub>NP</sub> the shower ] ] ] ] ← may be nested to show embedding

**Syntactic trees** can represent this same information, in a more visually accessible way:



Notice that each **node** (labelled spot) in the tree corresponds to a constituent! (Try them out.)

### 3 Talking About Trees (and Structural Relations)

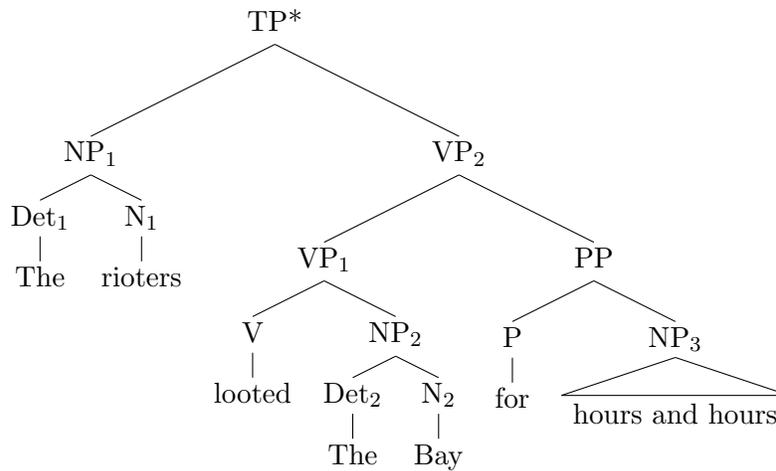


- **Branch:** line connecting two parts of a tree
- **Node:** the beginning/end of a branch (M, N, O, A, B, C, D, Y, Z)
  - phrasal nodes (e.g. NP), lexical nodes (e.g. N), words (e.g. *dogs*)
- **Label:** the name given to a node (here M, N, O, A, B, C, D, Y, Z; cf. NP, VP, PP, AP...)
- **Mother:** the node right above (1 node up) from a given node (M is the mother of N, O)
- **Daughter:** the node right below (1 node down) from a given node (Y, Z are daughters of D)
- **Sister:** 2(+) nodes with the same mother (A + B are sisters; A + C are **not** sisters)
- **Dominate:** be above another node, at any level (O dominates C, D, Y, Z)
- **Immediately dominate:** be right above another node (O immediately dominates C, D)

#### Constituent (new definition):

A set of elements forms a constituent in a tree diagram if (and only if) there is a single node that dominates just these elements, and no other items.

### 3.0.2 Practice Exercise II: Tree Jargon



\*TP = tense phrase = sentence

1. Which nodes does VP<sub>1</sub> dominate?
2. Which nodes does VP<sub>1</sub> immediately dominate?
3. Which node(s) is/are the daughter(s) of TP?
4. Which node(s) is/are the sister(s) of Det<sub>2</sub>?
5. Does *The Bay for hours and hours* form a constituent?
6. Does *looted The Bay* form a constituent?

Note: Complements (e.g. *The Bay*) and adjuncts (e.g. *for hours and hours*) are attached at different levels in a tree! Complements are closer to the head V; adjuncts could be grammatically omitted.

### 3.0.3 Practice Exercise III: Brackets and Trees

Provide labelled brackets and trees for the following phrases.

1. the friend of my brother
2. ran out the door
3. over the river and through the woods