

May 15, 2003

CLASS 3: Categories and Phrases

Categorial constituent structure

Finally, syntax proper: **the study of the structure of sentences**. Sentences can of *varying length*, and indeed sentences are made up of internal structure, **phrases**. We will see that all sentences are phrases — though not all phrases are sentences. Before we get there, let's go through some basic phrases and see how they are built by incrementally putting words together.

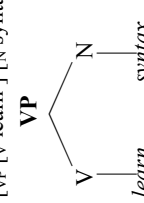
The reply to the question in (1) can be used as a (fragmented or elided) sentence.

- (1) Teacher: What do you want to do?
 Students: **Learn syntax**.

In fact, this phrase must be a **verb phrase**, as the evidence in (2) and (3) suggests.

- (2) a. What do you want to do? — **Learn** (something or other). (bare V)
 b. You *should* **learn syntax**. (after Aux/I_{fin})
 c. You need *to* **learn syntax**. (after *to*/I_{inf})
- (3) a. * What do you want to do? — (learn/teach/abandon...) **Syntax**. (*bare N)
 b. * **Learn syntax is fun**. (*as subject)
 c. * I *like* **learn syntax**. (*after main V)

The **labeled bracketing** for our phrase is that in (4a): a **V** and an **N**, and both form a phrase, a **categorial constituent structure**. From this we can establish the **VP** as in (4a) — occurring in environments where verbal phrases can appear — or, better showing *hierarchical information*, in (4b), the famous syntax **tree diagram: precedence (linearity) and dominance (hierarchy)**.

- (4) a. [_{VP} [_V learn] [_N syntax]]
 b.
- 
- ```

graph TD
 VP[VP] --- V[V]
 VP --- N[N]
 V --- learn[learn]
 N --- syntax[syntax]

```

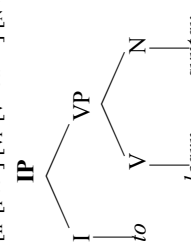
This VP can be extended by **merging** another (appropriate) element, such as *to* (cf. (2c)).

- (5) Teacher: What is your main goal?  
 Students: **To learn syntax**.

The boldfaced phrase in (5) is also a **constituent**, but not a **VP**. The data in (6)-(8) show some *typical environments* of these types of phrase, as opposed to a VP.

- (6) a. \* You **should / can / will** [ to learn syntax ]. (\*after Aux)  
 b. You **ought / want / intend** [ to learn syntax ]. (after V)
- (7) a. [ To learn syntax ] **is fun**. (as subject?)  
 b. **It is fun** [ to learn syntax ]. (diff. from NP)
- (8) a. \* [ Learn syntax ] **is fun**. / **It is fun** [ learn syntax ]. (VP ≠ subject)  
 b. [ Syntax ] **is fun**. / \***It is fun** [ syntax ]. (NP = subject)

As we established last week, the infinitival particle *to* is best categorized as an **I-element (Infl or inflection)**, and the simplest structure in terms of *merging* we can imagine is the **IP** in (9a)/(9b):

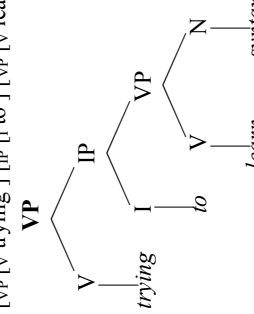
- (9) a. [<sub>IP</sub> [<sub>I</sub> to ] [<sub>VP</sub> [<sub>V</sub> learn ] [<sub>N</sub> syntax ] ] ]  
 b.
- 
- ```

graph TD
    IP[IP] --- I[I]
    IP --- VP[VP]
    I --- to[to]
    VP --- V[V]
    VP --- N[N]
    V --- learn[learn]
    N --- syntax[syntax]
    
```

And as we saw in (6b) above this IP can follow a bare V (one that allows an embedded infinitival complement) — consequently, this complex should also form a **constituent** or *phrase of sorts*:

- (10) Teacher: What are you doing?
 Students: **Trying to learn syntax**.

The **null hypothesis** is to take *trying* to be a V, forming with IP yet another **VP**, as in (11).

- (11) a. [_{VP} [_V trying] [_{IP} [_I to] [_{VP} [_V learn] [_N syntax]]]]
 b.
- 
- ```

graph TD
 VP1[VP] --- V1[V]
 VP1 --- IP[IP]
 V1 --- trying[trying]
 IP --- I[I]
 IP --- VP2[VP]
 I --- to[to]
 VP2 --- V2[V]
 VP2 --- N[N]
 V2 --- learn[learn]
 N --- syntax[syntax]

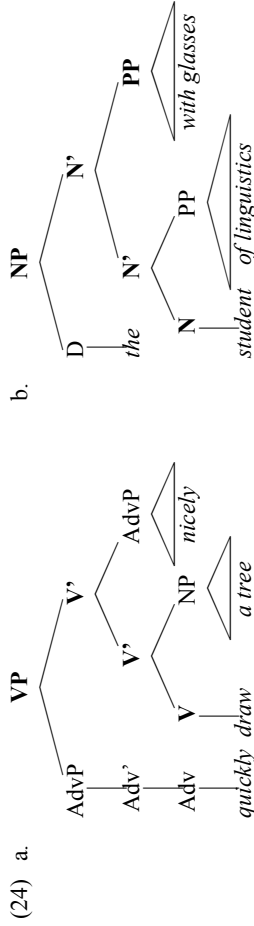
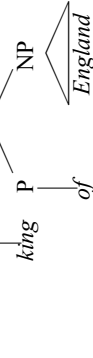
```

But unlike with the case above, we can't simply add another *I*-element, as in (12):

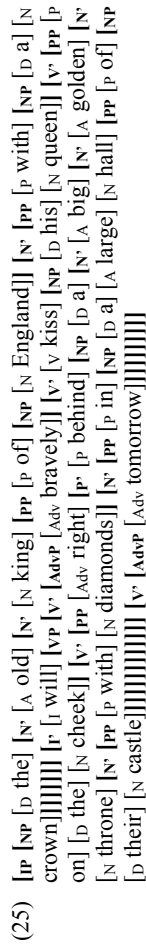
- (12) Teacher: What are you doing now?  
 Students: \* **To / Are trying to learn syntax**.



(22) is the basic **X'-schema**, which we will discuss in detail next week. Let's first look at some simple phrases, (23), and some more complex ones, including (and illustrating) **adjuncts**, (24).



Let's now work together through a really complex structure (*phrases only partially included*):



**Constituency tests**

**Constituents** have a number of properties. Some of these properties are **common to all constituents**, others are **category-specific**. Going through these properties *systematically* gives us a *metric to determine constituency*, through **constituency tests**. Here are some largely for **NP**:

**Movement: Clefting** (from *The students drew a great tree*.)

- (26) a. It was [ a great tree ] that the students drew.
- b. \* It was [ drew a great tree ] that the students.

**Movement: Pseudoclefting** (from *The queen likes the king of England*.)

- (27) a. [ The king of England ] is who the queen likes.
- b. \* [ The king ] is who the queen likes of England.

**Movement: Topicalization** (from *The students enjoy generative syntax very much*.)

- (28) a. [ Generative syntax ], the students enjoy very much.
- b. \* [ Generative syntax very much ], the students enjoy.

**Movement: Passivization** (from *Joy fed Miss Emma wonderful cat treats*.)

- (29) a. [ Miss Emma ] was fed wonderful cat treats (by Joy).
- b. \* [ Miss Emma wonderful cat treats ] was fed (by Joy).

**Substitution / Pro-forms** (from *The real king of England with a crown kissed the queen*.)

- (30) a. [ He ] kissed the queen.
- b. \* [ He ] [ of Sweden ] kissed the queen.
- c. ... and the [ fake ] [ one ] [ without a crown ] kissed [ their princess ].

**Coordination (Conjunction)**

- (31) a. [ The students ] and [ the teacher ] draw trees on the blackboard.
- b. \* [ The students ] and [ with the teacher ] draw trees on the blackboard.

**Homework: Exercise 3**

- A. Go thoroughly over pp. 61-66 of chapter 3 of Radford (1997) — again!
- B. Also read the additional material in the *Handapparat* (Bhatt 2001 & Carnie 2001).
- C. Prepare next class by **reading closely the remaining pages of chapter 3**.
- D. Do the **exercises 1-4** on the separate homework-sheet.
- E. **Exercise V** in Radford: p. 77 (see “Model answer for 1” but ignore features).

**References**

Bhatt, Rajesh. 2001. *Syntax 380L* hand-outs. University of Texas, Austin: Dept. of Linguistics.  
 Carnie, Andrew. 2001. *Syntax. A Generative Introduction*. Oxford: Blackwell.

**Additional readings on English phrase structure** [ I put these pages in the *Handapparat* ]

Haegeman, Liliane & Jacqueline Guéron. 1999. *English Grammar. A Generative Perspective*. Oxford: Blackwell. [pp. 45-73]  
 Radford, Andrew. 1988. *Transformational Grammar. A First Course*. Cambridge: Cambridge University Press. [The entire chapter 2 is relevant background reading if you have difficulties.]  
 Radford, Andrew. 1997. *Syntactic Theory and the Structure of English: A Minimalist Approach*. Cambridge: Cambridge University Press. [pp. 86-110; this is the “Red Radford”]