

October 31, 2002

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 **labelled 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)).

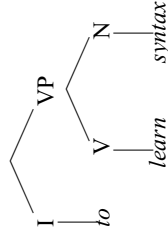
- (5) Teacher: What is your main goal?  
 Students: **To learn syntax**.

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.

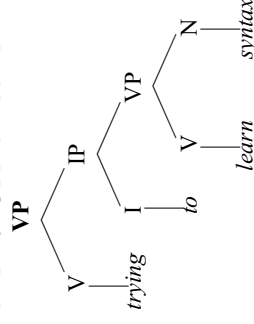


And as we saw in (6b) above this IP can follow a bare V (one that allows an embedded infinitival complement) — consequently, this complex should also form a **constituent** or *phrase of sorts*:

- (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. [<sub>VP</sub> [<sub>V</sub> trying ] [<sub>IP</sub> [<sub>I</sub> to ] [<sub>VP</sub> [<sub>V</sub> learn ] [<sub>N</sub> syntax ] ] ] ]  
 b.



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**.



