Grammatical knowledge

1 Knowledge of language

In very simple terms, we can think of language as a mapping between *sound (sign)* and *meaning*.

(1) **Three questions (Chomsky, 1986):**

a. *Competence:* What constitutes knowledge of language?

b. *Acquisition:* How is this knowledge acquired?

c. *Performance:* How is knowledge of language put to use?

In this class, we focus on the first question of *Competence*.

- Knowledge of language, here, refers to the unconscious knowledge of competent speakers, not (necessarily) learned, prescriptive rules. Consider:

(2) a. ✓ fan-fucking-tastic, abso-fucking-lutely, Cali-fucking-fornia

b. * fanta-fucking-stic, absolute-fucking-ly, Ca-fucking-lifornia, Califor-fucking-nia

- *Performance* of language can be limited by extra-linguistic considerations of memory, attention, etc. Consider:

(3) a. I looked the number up. (Adger, 2003: 3–4)

b. ? I looked the number that you picked out up.

c. ??? I looked the number that you picked out by random by using a needle and a phonebook up.

- Knowledge of a language is relativized to different language varieties and, ultimately, to individual speakers. We refer to the "mental grammar" of an individual speaker as an *I(nternal)-language*, as opposed to the external social norm for communication, the *E(xternal)-language*.

2 So what do we know?

Consider the (literal) **bag of words**. Some lessons:

- Sentences can be grammatical without making sense.
- Certain groups of words pattern together, based on their *categories*: N, V, P, A, Adv, ...

(4) _____ was unexpected.

(5) John expects _____ to do the homework.

(6) Every _____ wantan mee in Penang is delicious.

(7) Mary is always _____.

(8) _____ came to class on time.

(9) There is a turtle _____.

(10) We all rely _____.

- In addition, syntax is sensitive to certain *features* of words.
  - On nouns: *φ-features:* person, number, gender (class); *case*
  - On verbs: *φ*-features, tense, ...

  More on features next week (and in *Core Syntax* chapter 2).

2.1 Constituency

Words in sentences are organized into smaller chunks, which we call *constituents*. Here are **9 tests** to test whether subsentence *B* in *A* is a constituent or not.

(11) $\overbrace{\text{John was } \underbrace{\text{surprised to win the prize}}_{\text{B}}.}^{\text{A}}$

1. Substitution/replacement test:

   Can *B* be replaced by a pronoun? (Or other pro-form, such as *one*, *there*, *then*, *do so/that*...)

2. Ellipsis/deletion test:

   Can *B* be left out? Test: "*A* − *B*"

3. Coordination test:

   For *C* of the same category as *B*, can *B* be replaced by "*B* and *C*" inside *A*?

4. Movement/topicalization test:

   Can *B* be moved to the beginning of the sentence? Test: "*B*, *A* − *B*"

5. Clefting test:

   Test: "It is *B* that *A* − *B*."

6. Pseudoclefting test:

   Test: "What/where/... $A - B$ is B."

7. Negative stripping test:

   For C of the same category as B, test: "A, not C" (with emphasis on B in A)

8. Fragment answer test:

   Can we form a question Q such that, if we answer answer "Q" with "B," it means "A."

9. Parentheticals test: (see McCawley, 1982)

   If B is at the left or right edge of the sentence, can it be separated by *of course*, *according to John*, *naturally*, *surprisingly*, *I think*, ...

Note: Each of these constituency tests have their own limitations!

Other evidence: hyperlinks in web text often (but not always!) are constituents.

(12) `http://metafilter.com/85556/`:
October's focus on breast cancer is a curvy pink double-edged sword and those in the fight agree.

Exercises:

(13) That bottle of water might have cracked open. (Adger, 2003)

(14) You should drive down to Changi beach sometime.

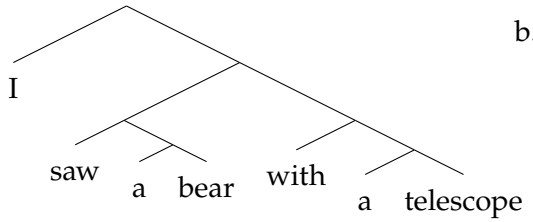
(15) Two men were arrested for a scuffle that was partially caused by mobile game Pokemon Go. *Straits Times* August 16, 2016

(16) I saw a bear with a telescope.

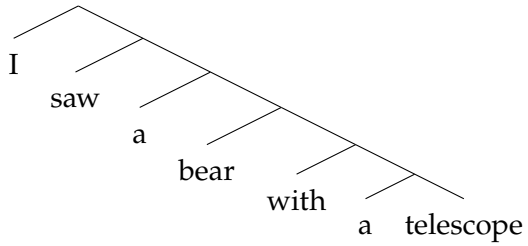
2.2 Trees

Once we know how a sentence is organized into constituents, we can draw (upside-down) *tree* diagrams to show these relationships:

(17) a.



b.



Each "node" in the tree is a claim that everything it contains (under it) is a constituent.
More on trees next week.

2.3 Features, heads, phrases

Just like individual words, constituents (or *phrases* or *projections* — more next week) have categories and features. Where do they come from?

- Every phrase has a *head*; the category of a constituent is the category of its head.
- We refer to phrases headed by category *X* as *X*-Phrases or XP: NP, VP, PP, AP, etc.
- More generally, features from the head *projects* to the phrase that it heads, making the entire XP behave, in some sense, like its head X.

References

Adger, David. 2003. *Core syntax: A minimalist approach*. Oxford University Press.

Chomsky, Noam. 1986. *Knowledge of language: Its nature, origin, and use*. Praeger.

McCawley, James D. 1982. Parentheticals and discontinuous constituent structure. *Linguistic Inquiry* 13:91–106.