

November 28, 2002

- NB: We spent considerable (and valuable) time on phrase structure, so that the syllabus is slightly out of tune
- in class 4, we were still concerned with the *hand-out from class 3* plus the Bhat- & Carnie-readings
 - in classes 5 and 6, we then dealt with the *hand-out from class 4* (plus the additional readings)
 - this is class 7 — and we cover the material originally conceived for classes 5 and 6

CLASS 5: C-Command and Binding

An important structural relationship

Some of you took a stab at the homework involving **negative polarity items** (NPIs), where the task was to figure out the appropriate structural relationship between an NPI and the negative element, which must obligatorily occur in sentences containing NPIs, as the NPI-licenser.

- (1) a. I **didn't** have a **red cent**.
 b. * I had a **red cent**.
 c. I did **not** have a **red cent**.
 d. * A **red cent** was **not** found in the box.

As Carnie (2001: 85) says, “[t]here are *two possible answers* consistent with this data” (my emphasis, — KKG). One is **precedence**: the negative element has to precede the NPI. However, this relationship is a bit vague, or not very exact: it would also apply to negative expressions deeper embedded inside a constituent, thus preceding the NPI, but still lead to ungrammaticality:

- (2) a. The man **didn't** have a **red cent**.
 b. * The man that **didn't** sleep did have a **red cent**.

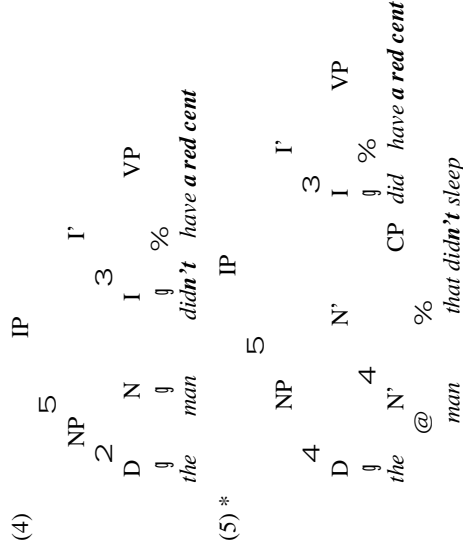
Just looking at the *string of words* that make up a sentence is thus not enough (though, as Carnie suggests, it works with the data in (1)). We must look at the *finer structure of the sentence*.

- (3) a. [IP [NP The man] [r **didn't** [VP have a **red cent**]]]]
 b. * [IP [NP The man that **didn't** sleep] [r did [VP have a **red cent**]]]]

The other possibility is a bit stricter than precedence by taking structural relations into account: **c(ontstituent)-command**. A c-command relation between one element α (“antecedent”) in the phrase marker and another element β (“dependant”) holds if α 's **command path** contains β . For our purposes, a command path of α is everything dominated by the first node that dominates α (i.e. the node that **immediately dominates** α), except α itself and its descendants.

In other words:

Go one node up and consider everything that is contained on the path down the other side.
 (Can you see the benefits of **binary branching**?)



• $n't$ (the negative expression) is α , the antecedent
 • a *red cent* (the NPI) is β , the dependant
 • in (4), α c-commands β : the NPI is licensed
 • in (5), α doesn't c-command β : the NPI is not licensed

NB: Familiarize yourselves with this notation!

One property of this more restricted licensing condition for NPIs (where an NPI is a dependant and a negative element the antecedent) is that it occurs elsewhere in the grammar. Consider:

- (6) a. **John** likes **himself**.
 b. John_i likes himself.
 c. * John_i likes himself_i.
 d. John_i likes himself_{i/*k}.

First, just like NPIs, an **anaphor needs an antecedent**, an element that identifies them:

- (7) a. **Him** read the book?! No way! (He's blind.)
 b. * **Himself** read the book?! No way! (He's blind.)

This antecedent **binds the anaphor locally** and **must agree in phi-features**:

- (8) a. **Mary**_i likes herself_i / *himself_i . [gender]
 b. **They**_i like themselves_i / *himself_i. [number]
 c. **I**_i like myself_i / *yourself_i. [person]
- (9) a. **You**_i like yourself_i.
 b. **You**_i like yourselves_i.

Finally, **precedence is clearly not enough** to bind an anaphor:

- (10) a. **Linguists**_i feel good about themselves_i.
 b. [**Students of linguistics**]_i feel good about themselves_i.
 c. * [Friends of [**students of linguistics**]_i]_i feel good about themselves_i.
- (11) a. [**Friends of** [**students of linguistics**]]_i feel good about themselves_i.
 b. [IP [NP ...]_k ...]_i [r I [VP ... anaphor_{i/*k} ...]]]

CLASS 6: Empty Categories

No subject or an empty subject?

Are the following two sentences somehow **related** to each other or completely **different**?

- (12) a. I would like you to learn syntax.
b. I would like to learn syntax.

More than on the intuitive level, they seem to be **very related** to each other: the main clause is identical, and the complement of the verb *like* is a clause in both cases. The “only” difference seems to be the nature of the **subject of the embedded (complement) clause** — in one case, it’s **overt** (phonetically pronounced) and in the other **covert** (“null” or “empty” — not pronounced).

If this first pass of an analysis is on the right track, the **structure** must be something like this:

- (13) a. [_{IP} I would like [_{IP} you to learn syntax]].
b. [_{IP} I would like [_{IP} \emptyset to learn syntax]].

We can make clear that \emptyset is the subject of the embedded clauses by paraphrasing the sentences:

- (14) a. [_{IP} **I** would like it if [_{IP} **you** learned syntax]].
b. [_{IP} **I** would like it if [_{IP} **I** learned syntax]].

How do we make sure that ‘ \emptyset ’ is **interpreted** as ‘I’? Is there something **more general**?

- (15) a. **We** don’t want [\emptyset to upset them].
b. **They** demand [\emptyset to take charge].
c. **She** is sorry [\emptyset to have left you].
d. **The guy we all like** promised [\emptyset to come to the party].

It looks like in all these cases, the **interpretation of ‘ \emptyset ’** in the subject position of the embedded clause is **identical to the subject** of the main clause. In other words, the interpretation of \emptyset is **controlled** by the matrix subject. The matrix subject is the **controller**, \emptyset the **controllee**.

In more technical terms, we call the controlled empty/null/covert subject (“controllee”) **PRO**, and the controlling overt subject (“controller”) the **antecedent**. So, just like an NPI or anaphor, PRO needs an antecedent to be licensed. And just like those guys it needs to be a licit antecedent.

Properties of PRO

It’s one thing to posit an empty (PRO) subject. It’s another to test this hypothesis. We would feel much better about it if PRO really behaved “just like a subject.” And it does. Take **paraphrases**:

- (16) a. The guy promised [_{IP} PRO to come to the party].
b. The guy promised [_{IP} he will come to the party].
c. The guy promised that [_{IP} he will come to the party].

As we saw above, **reflexives** need a local antecedent; the overt matrix subject isn’t local enough:

- (17) a. The students want [**the teacher**, to express **himself**; better].
b. * **The students**; want [the teacher to express **themselves**; better].
c. The teacher wants [**PRO**, to better **himself**;].

Just like elsewhere, predicate nominals have to **agree** with the covert, local subject (PRO):

- (18) a. The students want [**the teacher** to be a linguist / *linguists].
b. The teacher wants [**his students** to be *a linguist / linguists].
(19) a. They want [**PRO** to be *a linguist / linguists].
b. **He** wants [**PRO** to be a linguist / *linguists].

Overt subjects need Case (nominative in finite, accusative/objective case in non-finite contexts). Could we posit a distinct **null Case** which is checked/licensed by the infinitival *to* for PRO?

- (20) a. **He** *tells* [**them** to draw trees].
b. It would be a good exercise [*for them* to draw trees].
c. * [**Them** to draw trees] would be a good exercise.

Covert PRO is different from overt subjects of infinitival clauses. Control constructions differ from so-called **Exceptional Case-marking (ECM)** structures in the **active/passive asymmetry**:

- (21) a. The teacher had promised [**PRO** to cancel a class].
b. It had been promised [**PRO** to cancel a class].
(22) a. The students believed [**him** to cancel a class].
b. * It had been believed [**him** to cancel a class].

A second difference is **adverbial modification**:

- (23) a. The teacher **really** tried [PRO to teach syntax].
b. The teacher tried **hard** [PRO to teach syntax].
(24) a. The students **sincerely** believed [him to cancel a class].
b. * The students believed **sincerely** [him to cancel a class].

Homework: Exercise 7

- A. Go over pp. 82-88 of **chapter 4** of Radford (1997) again!
B. Prepare next class by thoroughly reading the rest of **chapter 4**!
C. **Exercise VIII** in Radford: pp. 102f.
D. Given what we said about reflexive anaphors, how reciprocal anaphors like *each other* fit into the picture? Try to find relevant data that show that *each other* behaves just like *-self* or very differently (consider possible antecedents and local binding relations as above).