Argument asymmetries and *v*P

Previously: 10 constituency tests

Last week: Constituency tests as a window into hierarchical structure; structure-building

1 9 NP asymmetries[1]

Given two NPs, how can we tell their relative height? (Underlining = coreference)

1. Binding Condition C:

   R-expressions (NPs that are not pronouns) cannot _____.

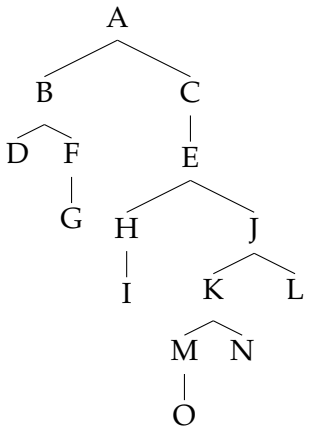
   (1) a. * He/John likes John.
   b. His/John's mother likes John.
   c. The rumor about him/John upset John.

   (2) a. * He/John thinks Mary likes John.
   b. His/John's mother thinks Mary likes John.

   (3) a. * John likes him.
   b. John thinks Mary likes him.

In particular, Condition C (and other asymmetries below) appear to be sensitive to the relationship of *c-command*:

(4) **C-command** (originally by Tanya Reinhart; formulation here from Adger 2003:117):
A node A c-commands a node B if and only if A's sister either:
   a. is B, or
   b. contains B.



[1]Based on a handout by Jason Merchant.

2. Binding Condition A:

   Reflexive (*-self*) and *reciprocal* pronouns (*each other*) must be _____ by their *antecedent* within _____.

   (5) a. John likes himself.

   b. * Himself likes John.

   (6) a. John and Mary like each other.

   b. * Each other likes John and Mary.

   c. John and Mary like the pictures of each other.

   (7) a. * John thinks Mary likes himself.

   b. * John and Mary think Bill likes each other.

   (8) Reflexives in some languages do not have this locality restriction: (Mandarin)

   Li taitai renwei [laoshi xihuan ziji-de xiaohai].
   Li madam think teacher like self-GEN child

   'Mrs. Li thinks the teacher likes *self*'s child.'

3. Binding Condition B:

   Regular pronouns must be _____ within _____.

   (9) a. * John likes him.

   b. John likes [his parents].

   c. John thinks [Mary likes him].

4. Quantifier-pronoun binding:

   Pronouns whose reference changes depending on some other, quantificational NP (*bound pronouns*), must be below the quantificational NP.

   (10) a. Every/No school pays its students.

   b. * Its students like every/no school.

   c. * The review of every book upset its author.

5. NPI licensing:

   Certain phrases like *anyone/anything/any NP* are called *Negative Polarity Items* (NPIs) and must have a higher, negative NP (or negation).[2]

   (11) a. No one saw anything.

   b. * Anyone saw nothing.

[2]There are other licensors too: take EL4203 Semantics next semester. There are also uses of *any* which do not require negation, but often occur with modals, as in *John will/can eat anything*. These are called *Free Choice Items* and we won't discuss them here. (Some languages are more helpful than English and use different words for NPIs and FCIs.)

6. Each...the other:

(12) a. Each boy hit the other (boy).

b. * The other (boy) hit each (boy).

(13) a. Each boy claimed that the other boy broke the window.

b. * The other boy claimed that each boy broke the window.

Movement asymmetries:

7. Strong crossover (SCO): (Postal, 1971)

(14) a. Which guy praised himself?

b. * Which guy did he praise ___?

8. Weak crossover (WCO): (Postal, 1971)

(15) a. Which guy praised his boss?

b. ?? Which guy did [his boss] praise ___?

9. Superiority: (Kuno and Robinson, 1972)

(16) a. Who said what?

b. * What did who say ___?

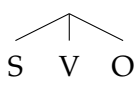
(17) a. Who do you think ___ said what?

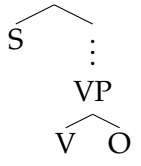
b. * What do you think who said ___?

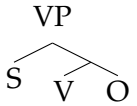
Exercise: 1. Write sentence with at least two NPs; 2. Exchange with friend; 3. Use at least three tests to see which NP is higher.

These NP asymmetries above show that subjects are consistently higher than objects: in particular, subjects c-command objects and objects do not c-command subjects. This supports our idea that there is a constituent containing V and the object, but not the subject:

(18) **Because the subject c-commands the object, but not the opposite:**

a. * 

b. ✓ 

c. ✓ 

2 Non-configurationality

Unlike English, some other languages have very free word order. Where are subjects and objects in such languages?

(19) **Free(er) word order in Warlpiri (Pama-Nyungan; Australia) (Simpson, 1983, p. 140):**

a. Kurdu-ngku ka-ju nya-nyi ngaju.
child-ERG PRES-OBJ:1SG see-NONPAST me-ABS
'The child sees me.' S AUX V O

b. Kurdu-ngku ka-ju ngaju nya-nyi. S AUX O V

c. Nya-nyi ka-ju kurdu-ngku ngaju. V AUX S O

d. Nya-nyi ka-ju ngaju kurdu-ngku. V AUX O S

e. Ngaju ka-ju nya-nyi kurdu-ngku. O AUX V S

f. Ngaju ka-ju kurdu-ngku nya-nyi. O AUX S V

- ERG = ergative case (transitive subject)
- ABS = absolutive case (transitive object or intransitive subject)
- OBJ:1SG = object agreement
- PERL = perlative case (a case for certain locations)

Warlpiri and other languages with very free word order have been called *non-configurational* (Hale, 1983). In particular, they seem to challenge the idea that subjects and objects are in an asymmetric structural relationship.

(20) **Condition A:**

a. Purlka-jarra-rlu ka-pala-nyanu nya-nyi.
old.man-DUAL-ERG pres.impf-SUBJ:3DUAL-REFLEX see-NONPAST
'The two old men are looking at each other' (Simpson, 1991, p. 163)

b. * Purlka-jarra ka-nyanu-palangu nya-nyi.
old.man-DUAL PRES.IMPF-REFLEX-OBJ:3DUAL see-NONPAST
Intended: 'Each other are looking at the old men.' (Legate, 2001, 2002)

(21) **Condition B:**

a. * Jakamarra-rlu ka-(nyanu) nyanungu paka-rni.
Jakamarra-ERG PRES.IMPF-(REFLEX) him hit-NONPAST
Intended: 'Jakamarra is hitting him.' (Simpson, 1991, p. 170)

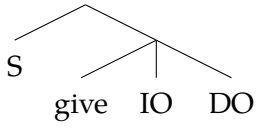
b. Japanangka-rlu-nyanu yirra-rnu mulukunpa nyanungu-wana.
Japanangka-ERG-REFLEX put-NONPAST bottle 3-PERL
'Japanangka set the bottle down beside him.' (Simpson, 1991, p. 171)

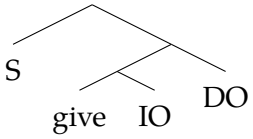
But evidence from WCO and Condition C is less conclusive. See Legate (2001, 2002) for more discussion.

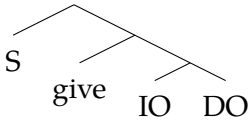
3 Ditransitives

(22) I gave [$_{NP}$ John] [$_{NP}$ a picture].

John is the indirect object (IO)/*goal*; *a picture* is the direct object (DO)/*theme*

(23) a. 

b. 

c. 

The NP asymmetries above are useful for determining the relative heights of the direct and indirect objects: (data from Barss and Lasnik 1986)

(24) a. I showed John/him himself (in the mirror).

b. * I showed himself John (in the mirror).

(25) a. I showed every friend of mine his photograph.

b. * I showed its trainer every lion.

(26) a. I denied no worker his paycheck.

b. * I sent its reviewer every book.

(27) a. Which boy did you show ___ [his reflection] in the mirror?

b. * Which lion did you show [its trainer] ___?

(28) a. Who did you give ___ what?

b. * What did you give who ___?

(29) a. I gave each man the other's watch.

b. * I gave the other's trainer each lion.

(30) a. I gave no one anything.

b. * I gave anyone nothing.

How can we build (23c)? Recall that Merge must be driven by selectional features:

(31) **Merge**(α, β):

For any syntactic objects α, β, where α bears an unchecked selectional feature F, and β bears a matching categorial feature, call α the head and

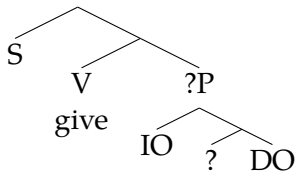
a. let F be checked (written ~~F~~),

b. let $\gamma = \alpha \cap \overline{\Im}$, where $\overline{\Im}$ is the set of all unchecked non-inflectional features,[3] and

c. return $\overset{\gamma}{\underset{\alpha \quad \beta}{\wedge}}$. Here we call γ the label (or projection).

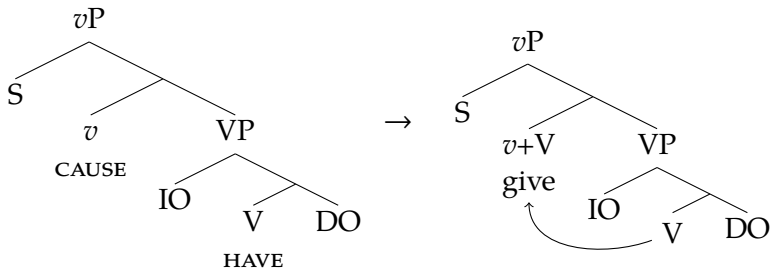
[3] In other words, all category features project, all unchecked selectional features project, and no inflectional features project. Inflectional features are therefore found only on heads, never on projections. (At this point, all features are non-inflectional.)

(32) **The basic idea:**



But intuitively, *give* selects for its objects, DO and IO.

(33) **A solution (Larson, 1988): V selects for the DO and IO and moves to *v*:**



(34) *give* = CAUSE + HAVE

a. HAVE (later pronounced as *give*): [V; uN, uN]

b. *v* (CAUSE): [*v*; uN] ("little v")

(35) **Hierarchy of projections (Adger, 2003, p. 135):**

Every clause has *v* > V.

How do we know which argument has which interpretation?

(36) **Uniformity of Thematic Alignment Hypothesis (UTAH Adger, 2003, p. 138, from Baker 1988):**

Identical *thematic relationships* between predicates and their arguments are represented syntactically by identical structural relationships when items are Merged.

Examples:

a. Specifier of *v*P: Agent

b. Complement of V: Theme (direct object)

c. Specifier of VP: Goal (indirect object)

Exercise: Ditransitive verbs can also introduce arguments in the form "DO to IO":

(37) John gave [$_{NP=DO}$ a book] [$_{PP=IO}$ to Mary].

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