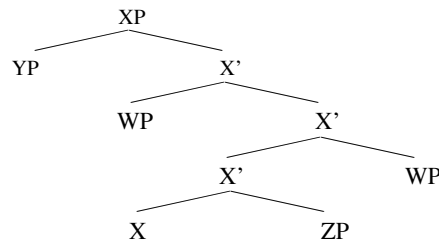


Ling 315, Lecture Notes. Wed 4 April 2007.

1. X-bar Theory. X-bar theory is a theory of phrase structure according to which phrases conform to the following schema, where X ranges over V, N, A, P, etc.:



This schema can be equivalently represented with the following PS Rules:

$XP \rightarrow (YP) X'$ $X' \rightarrow WP X$ $X' \rightarrow X' WP$ $X' \rightarrow X ZP$

Every XP has at least X' as its daughter, and every X' has at least X as its daughter.

X is the head of XP. Heads are obligatory.

ZP is the complement of X. Complements are sister to X, daughter to X'.
The presence of a complement depends on the c-selectional features of the head.

YP is the specifier of XP. Specifiers are sister to X', and daughter to XP.
Specifiers are generally optional.

WP is an adjunct of XP. Adjuncts are sister to X', and daughter to XP.
Adjuncts are always optional.

The specifier of NP is D.
The specifier of VP is NP.
The specifier of AP is Deg.
The specifier of PP is PAdv.
The specifier of TP is the landing site for A-Movement.
The specifier of CP is the landing site for A'-Movement

- (1) We hoped for the best; our hope for the best; hopeful for the best
- (2) they destroyed the city at midnight; their destruction of the city at midnight

2. Current Class Grammar.

i. Lexicon

N → *kittens*-[N; Pl], *kitten*-[N; Sg], *destruction*-[N; Sg; (uP)], ...

V → *disappear*-[V; uPl], *mangle*-[V; uPl; uN], ...

A → *happy*-[A; (uP)]; *fond*-[A; uP], ...

P → *out*-[P; (uN)]; *of*-[P; uN], ...

T → *might*-[T], *will*-[T], *have*-[T], *to*-[T], ...

C → *that*-[C; uS], *whether*-[C; uS], *if*-[C; uS], *for*-[C; uS], ...

Neg → *not*-[Neg], ...

Q → *all*-[Q], *both*-[Q], ...

D → *the*-[D]; *these*-[D; uPl], *this*-[D; uSg], *my*-[D; Sg, 1st, Gen], ...

Deg → *more*-[Deg]; *less*-[Deg], ... PAdv → *right*-[PAdv], ...

AAAdv → *very*-[Deg]; *so*-[Deg], *too*-[Deg], ...

Adv → *always*-[Adv], *often*-[Adv], ...

Pron → *I*-[N; Sg, 1st, Nom], *me*-[N; 1st, Acc], ...

ProN' → *one*-[N] ProP' → *there*-[P], *then*-[P]

ProA' → *so*-[A] ProV' → *do that*-[V]

Conj → *and*-[Conj], *or*-[Conj], *but*-[Conj]...

ii. Phrase Structure Rules

Phrases for N, V, A, P, C, T, Neg all conform to the following schema:

$XP \rightarrow YP X'$ $X' \rightarrow X' WP$ $X' \rightarrow WP X'$ $X' \rightarrow X ZP$

English is both head-initial, and specifier-initial. Remaining rules not covered by the X-bar Schema include:

NP → Pronoun P' → Pro-P' A' → Pro-A' V' → Pro-V'

XP → XP Conj XP VP → NegP VP

iii. Transformations. Transformations (i) are obligatory unless stated otherwise, (ii) apply in the following order, and (iii) apply to embedded clauses before matrix clauses.

That-Deletion (Optional).

Elide the C *that* when it heads a verb's CP complement.

V-to-T Movement.

When T dominates only a suffix, raise V to the closest T.

Condition: Applies only to main verb *be*.

T-to-C Movement.

Raise T to the closest C.

VP Ellipsis (Optional).

Elide a VP if identical to a VP in preceding discourse.

Tense Hopping.

When T dominates only a suffix, lower T to the closest V.

Condition: T may not cross Neg.

Do-Support.

When T dominates only a suffix, insert the dummy aux *do*.

A Movement (=NP Movement). Move an XP to the specifier of T.

A-bar Movement (=Topicalization, Wh-Movement)

Move a phrase to the specifier of CP.

Condition: No movement out of islands.

Condition: Subject to the *Doubly Filled Comp Filter*.

Condition: Subject to the *Comp-trace Effect*.

Islands: *The Complex NP Island Constraint*. A CP sister to an N is an island.

The Sentential Subject Island Constraint. A CP subject is an island.

The Wh-Island Constraint. A CP introduced by a *wh*-word is an island.

*The Coordinate Structure Island Constraint**. A single conjunct of a coordinate structure is an island.

**Across-the-board (ATB) Movement*. Movement out of both conjuncts of a coordinate structure is an exception to the Coordinate Structure Island Constraint.

iv. Other Principles

The EPP (Extended Projection Principle). The specifier of TP must be occupied.

Projection. The head of a phrase projects its features up to the phrasal level.

Full Interpretation. The structure to which the semantic interface rules apply contains no uninterpretable features.

Checking. Uninterpretable features must be checked; once checked, they delete.

Checking under Sisterhood. An uninterpretable **c-selectional** or **inflectional** feature on a syntactic object Y is checked when Y is sister to another syntactic object Z that bears a **matching** feature.

Stray Affix Filter. An affix must combine with a stem under a common head node before the pronunciation rules apply.

Doubly Filled Comp Filter. A *wh*-phrase may not be sister to a C occupied by an overt complementizer.

Comp-trace Effect. A lexically filled C node cannot immediately precede a trace.

Coreferentiality Hypothesis. For two expressions to be coreferential, they must bear the same PHI-features.

v. Binding Theory

Principle A: A reflexive must be bound in its minimal CP.

Principle B: A pronoun cannot be bound in its minimal CP.

Principle C: An r-expression cannot be bound.

Definitions:

A *binds* B iff A c-commands B and A and B are co-referential.

A node A *c-commands* a node B iff A's sister either is B, or contains B.

An *antecedent* is an expression a pronoun or reflexive depends on for its reference.

An *R-expression* is an expression that refers to some entity.

3. Homework Review/Practice.

Provide derivations for the following examples:

- (3) The kittens all slept.
- (4) The kittens are both in the bed.
- (5) There are squirrels in the bed.

There-existentials can be taken to reflect the DS word order of a sentence:

- (6) There sometimes appeared/*smiled a witch in the mirror.

CP subjects always alternate with an expletive *it* subject:

- (7) That the world is flat seems right to some people.
- (8) It seems right to some people that the world is flat.
- (9) That you would leave surprised them.
- (10) It surprised them that you would leave.
- (11) That Sue was late mattered to Sally.
- (12) It mattered to Sally that Sue was late.

We can hypothesize that CP subjects always start out as a complement to V (or some other head) at D.S., and rise to spec of TP via A-Movement.

How to account for the (b) examples of the following (from the HW):

- (13) a. I did not wish [that you would leave].
b. I did not wish [for you to leave].
- (14) a. It might surprise them [that you would leave].
b. It might surprise them [for you to leave].
- (15) a. [That the kittens would all leave] might surprise them.
b. [For the kittens to all leave] might surprise them.

4. Complements vs. Adjuncts.

Practice with complements and adjuncts:

- (16) a. the student [of linguistics] [with long hair]
b. *the student [with long hair] [of linguistics]
- (17) a. Mayumi put her trash [in the closet] [on the Friday before this one.]
b. *Mayumi put her trash [on the Friday before this one] [in the closet].

Main ways in which complements and adjuncts differ:

- Complements are sister to the head (X).
Adjuncts are sister to a bar-level (X').
- Complements precede adjuncts.
- Complements are selected for by the head; adjuncts are not.
- Complements occur only once; adjuncts can iterate.

5. More on infinitives.

- (18) a. I did not wish [that you would leave].
b. I did not wish [for you to leave].
- (19) I did not wish [for you to leave].
- (20) I did not wish [to leave].
- (21) I was excited [that you might leave].
- (22) I was excited [for you to leave].
- (23) I was excited [to leave].
- (24) It is likely [that something will happen].
- (25) It is likely [for something to happen].
- (26) Something is likely to happen.
- (27) *It was not excited for you to leave. (Where *it* is an expletive.)
- (28) *It was not excited to leave.
- (29) *It did not wish that you would leave.
- (30) *It did not wish for you to leave.