ENG 575: Comparative Syntax — Fall 2008: TUE & FRI 13.30-15.00 (Room A 112)
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(BARE) PHRASE STRUCTURE & LINEARIZATION

X'-THEORY

- ***regularity*** (non-redundant projection patterns)
- ***endocentricity*** (the head projects within each phrase)
- ***binarity*** (each node has no more than two branches)
- ***singlemotherhood*** (any node can be at most one mother)
- ***constituency*** (bar-levels allow for phrase-internal hierarchies)

Functional heads were introduced to put a functional layer on top of each lexical layer.

- specifiers (specifier vs adjunct?), NP → DP (*one*-replacement?), vacuous projections (X'?)

BARE PHRASE STRUCTURE

In a **Bare Phase Structure** (BPS) setting, bar-levels can be determined functionally.

(1) ***Minimal Projection: X^0***
A minimal projection is a lexical item selected from the numeration.

(2) ***Maximal Projection: XP***
A maximal projection is a syntactic object that doesn't project.

(3) ***Intermediate Projection: X'***
An intermediate projection is a syntactic object that is neither an X^0 nor an XP.

Let's look at a **BPS derivation** and the role of **Merge** more closely:

(4) {at, John}
⇧
at ⇔$_{\text{Merge}}$ *John*

(5) {at, {at, John}}
⇧
at ⇔$_{\text{Merge}}$ *John*

(6) {looked, {looked, {at, {at, John}}}}
⇧
{at, {at, John}} ⇔$_{\text{Merge}}$ *looked*

(7) (looked, {Mary, {looked, {looked, {at, {at, John}}}}}
⇧
{looked, {looked, {at, {at, John}}}} ⇔$_{\text{Merge}}$ *Mary*

And we can revive the old **Chomsky-adjunction** in BPS as well (as in (10)):

(8) {hit, {hit, John}}

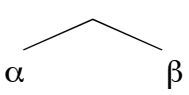
(9) {?, {{hit, {hit, John}}, hard}}

(10) {<hit, hit>, {{hit, {hit, John}}, hard}}

With BPS on the table, we can now **revisit the major properties of X'-Theory**:

- define Merge as a **binary operation** (formal definition pending for the time being)
- **Last Resort** and **local asymmetry** derives endocentricity (purpose and labeling)

(11) a.



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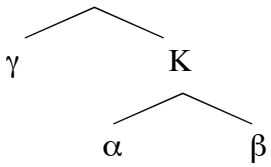
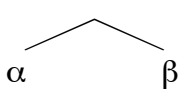


(12) a.



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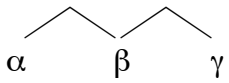


- **Extension** helps with singlemotherhood

THE COPY THEORY OF MOVEMENT

Note that **traces are suspect** in minimalism: **Inclusiveness** disallows the addition of symbols that were not present in the initial numeration into the derivation. However, we can easily reanalyze movement as the following formula: **Move = Copy + Merge**. Let's see how:

(13) a. $[_{TP}$ T $[_{VP}$ arrived $[_{DP}$ a man]]]
b. *Copy DP*: $[_{DP}$ a man]
c. *Merge DP and TP*: $[_{TP}$ $[_{DP}$ a man] $[_{T'}$ T $[_{VP}$ arrived $[_{DP}$ a man]]]]

(14) *A man arrived a man.

(15) N = {arrived$_1$, a$_1$, man$_1$, T$_1$}

The **copy theory of movement** also helps us with **binding issues** — under the reasonable assumption (which is needed anyway) that moved elements may **reconstruct** (see next class):

(16) Which picture of himself did John see?

(17) [[which picture of himself]$_i$ did [John see t_i]]

(18) [[which picture of himself] did [John see [which picture of himself]]]

ISSUES FOR LINEARIZATION

On a very obvious level, languages clearly differ in terms of **word order**:

(19) a. *English:* Norbert [$_{VP}$ **ate** bagels].
b. *Japanese:* Norbert-ga [$_{VP}$ bagels-o **tabeta**].

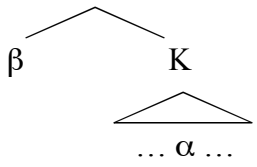
This can be shown to hold on all levels (= for all types of projections) — a **generalization**:

(20) a. X' → **X** Compl
b. X' → Compl **X**

(21) a. XP → Spec **X'**
b. XP → **X'** Spec

One way to come to grips with word order variation and phrase structure is the **LCA**.

(22)



(23) ***C-Command***
α c-commands β iff
(i) α is a sister of β; or
(ii) α is a sister of γ and γ dominates β.

After Kayne (1994, *The Antisymmetry of Syntax*, MIT Press) we can **capture this intuition**:

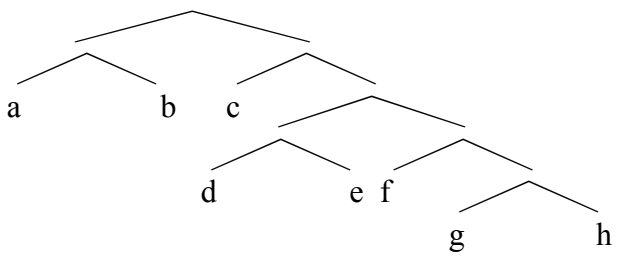
(24) ***Linear Correspondence Axiom (LCA)*** (preliminary version)
A lexical item α precedes a lexical item β iff α asymmetrically c-commands β.

(25) a. Norbert will eat the big bagel.
b. [$_{TP}$ Norbert$_i$ [$_{T'}$ will [$_{VP}$ t$_i$ [$_{V'}$ eat [$_{DP}$ the [$_{NP}$ big [$_{NP}$ bagel]]]]]]]

(26) a. The man from Toledo will visit Mary.
b. [$_{TP}$ [$_{DP}$ the man from Toledo]$_i$ [$_{T'}$ will [$_{VP}$ t$_i$ [$_{V'}$ visit Mary]]]]

(27) ***Linear Correspondence Axiom (LCA)*** (final version)
A lexical item α precedes a lexical item β iff
(i) α asymmetrically c-commands β; or
(ii) an XP dominating α asymmetrically c-commands β.

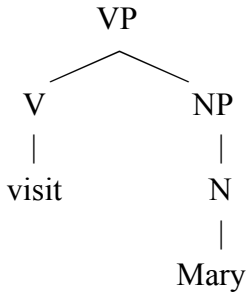
(28)



• if time permits: **Dominance Hypothesis** vs **Precedence Hypothesis**

One consequence of this approach would run **counter to BPS** assumptions:

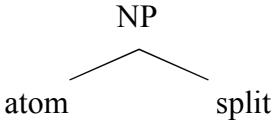
(29)



On the other hand, it does have some nice **empirical consequences**:

(30) a. *an atom split
b. an atom split in three pieces
c. a split atom

(31) a.



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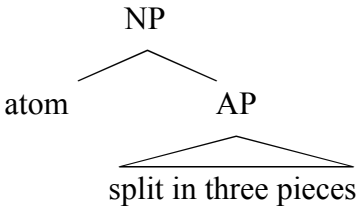
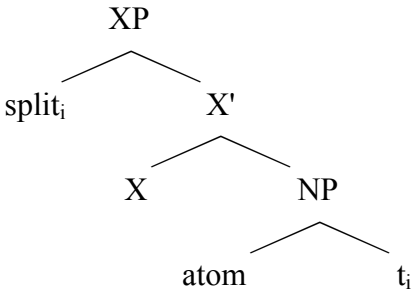


c.



Another piece of evidence in favour of the LCA comes from **weak direct object pronouns**:

(32) a. I like it.
b. $[_{TP}\ I_i\ [_{T'}\ T\ [_{VP}\ t_i\ [_{V'}$ like it]]]]

(33) $[_{TP}\ I_i\ [_{T'}\ T\ [_{VP}\ t_i\ [_{V'}$ #like-it#]]]]

The general insights of the LCA — to **separate precedence (linearization) from dominance (hierarchy)** — have been applied by, for example, Juan Uriagereka ('Multiple Spell-Out', in S.D. Epstein & N. Hornstein (eds.), *Working Minimalism*, MIT Press, 1999) [more next class].