Additional Material on Rightward Scrambling as Rightward Remnant Movement

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1. The Linear Correspondence Axiom (LCA)

Ref.: Kayne (1994)

(1) *Linear ordering* of terminal symbols (L):
- a. transitive: $\forall$x,y: <x,y> $\in$ L $\wedge$ <y,z> $\in$ L $\rightarrow$ <x,z> $\in$ L
- b. total: $\forall$x,y: <x,y> $\in$ L $\vee$ <y,x> $\in$ L
- c. antisymmetric: $\forall$x,y: $\neg$(<x,y> $\in$ L $\wedge$ <y,x> $\in$ L)

(2)
- a. D = dominance relation between non-terminal symbols
- b. d = dominance relation between non-terminal and terminal symbols
- c. d(X) = set of terminal symbols that are dominated by a non-terminal X (the 'image' of X under d)
- d. d<X,Y> (image of non-terminal <X,Y> under d) = {<a,b>}: a $\in$ d(X) $\wedge$ b $\in$ d(Y)
- e. Let S be a set of ordered pairs <X_i,Y_i> (0<i<n). Then: d(S) = $\bigcup$ for all i (0<i<n) of d(<X_i,Y_i>)

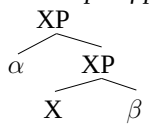
(3)
- a. A = {<X_j,Y_j>}, such that for each j: X_j c-commands Y_j asymmetrically
- b. T = set of terminal symbols of a phrase structure tree P

(4) *Linear Correspondence Axiom* (LCA; Kayne (1994)):
d(A) is a linear ordering of T.

(5) *Consequences*:
- a. A head precedes its complement (β).
- b. A specifier (α) must formally qualify as an adjunct. It is unique and precdes its head.

(6) *Assumption about adjuncts and c-command*:
- a. A category can consist of several *segments*: adjunction.
- b. X c-commands Y iff X and Y are categories and X excludes Y and every category that dominates X dominates Y.

(7) *The shape of phrases under Kayne's LCA*:



Difference between Kayne (1994) and Chomsky (1995):

- Kayne's original LCA restricts possible phrase markers.
- Chomsky's version of the LCA restricts possible linearizations of a priori unordered phrase markers at PF

2. Barss' Generalization

Ref.: Barss (1986)

(8) *Barss' Generalization*:
Reconstruction of α to its trace β is blocked if α does not c-command β at S-structure.

(9) [$_{DP_1}$ Some young lady seems t'_1 to be likely t_1 to dance with [$_{DP_3}$ every senator]
- a. $\exists > \forall$: possible
- b. $\forall > \exists$: possible

(10) [$_{AP_2}$ How likely t_1 to dance with [$_{DP_3}$ every senator]] does [$_{DP_1}$ some young lady] seem to be t_2 ?
- a. $\exists > \forall$: possible
- b. *$\forall > \exists$: impossible

(11) *Topicalization of DP vs. topicalization of remnant VP in German*:
- a. [$_{DP_2}$ Jedes Buch] hat sie [$_{DP_1}$ einem Studenten] t_2 gegeben
  $\forall > \exists$, $\exists > \forall$
- b. [$_{VP_3}$ [$_{DP_1}$ Jedem Studenten] t_2 gegeben] hat sie [$_{DP_2}$ ein Buch] t_3
  *$\forall > \exists$, $\exists > \forall$

Analysis in Heck & Assmann (2012):
(i) Scope requires c-command at LF.
(ii) Scope reversal requires reconstruction at LF; traces do not suffice for interpretation (but show possible reconstruction sites).
(iii) The Strict Cycle Condition (Chomsky (1973)) constrains LF operations: Within the current cyclic domain α, no operation may exclusively affect positions within another cyclic domain β thta is dominated by α.

3. Weak Crossover

(12) *Strong Crossover*:
*Who$_1$ does he$_1$ like t_1 ?

(13) *Weak Crossover*:
- a. ?*[$_{DP_1}$ Which boy] does [$_{DP_2}$ his$_1$ mother] like t_1 ?
- b. [$_{DP_1}$ John], [$_{DP_2}$ his$_1$ mother] likes t_1

Standard assumption:
Accounting for Strong Crossover is easy (e.g., by invoking Principle C); accounting for Weak Crossover (where the incriminating coindexed pronoun does not c-command the trace of the moved item) is not.

Observation:
The Weak Crossover Constraint only shows up with pronouns that must be interpreted as bound variables.

(14) *Condition on Bound Variable Pronouns* (Heim (1989), Reinhart (1983), Mahajan (1990)): A bound variable pronoun must be co-indexed with a c-commanding A-position at S-structure.

(15) *Raising feeds CBVP satisfaction*:
$[_{DP_1}$ Every boy] seems to $[_{DP_2}$ his_1 mother] t_1 to be intelligent]

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