The ECP
November, 2014

(1) ECP (Empty Category Principle) 1st version:
A trace must be governed
(2) *John is illegal [CP t to park here] (CP is a barrier to government; non-finite Infl isn't a governor)

(3) ECP 2nd version:
A trace must be properly governed (Proper government is government by a lexical head)
(4) *Who do you think [that t solved the problem] (t is not properly governed)
(5) Which problem do you think [that [John solved t]] (t is properly governed by solve)

(6) Who do you think [ t [ t solved the problem]] (t is not lexically governed)
(7) α properly governs β if
   i. α governs β and α is lexical ('lexical government')
   ii. α binds β and β is (zero) subjacent to α ('antecedent government')

(8) *Who do you think [CP t [C' that [IP t solved the problem]]]
(9) Either that somehow blocks antecedent government
    or
    that somehow turns C' into a barrier for antecedent government

(10) *Which car did you leave [before Mary fixed t] Subjacency - an 'adjunct island'
(11) *How did you leave [before Mary fixed the car t] (t is not properly governed, so the ex. violates both Subjacency and the ECP)
(12) Similarly for all islands: extraction of an adjunct in violation of Subjacency always yields crashingly bad results.

(13) Lasnik and Saito technology: A trace that is properly governed is marked +γ; one that is not is marked -γ. The ECP says *[-γ]

(14) ✓How do you think [ t [(that) [ Mary fixed the car t]]] (Why no "that"-trace effect with adjuncts?)
(15) Lasnik and Saito proposal: Adjunct traces are not gamma-marked in overt syntax (maybe because they aren't present yet). In LF (as in overt syntax) that can be deleted.
(16) Argument traces are gamma-marked in overt syntax (or we lose the that-trace effect for subjects).

(17) *How2 do you wonder [when1 [John said t1 [ t2' [ Mary solved the problem t2]]]]
(18) Intermediate traces must be properly governed. \( (t_2 \) is antecedent governed by \( t_2' \); so it
must be the latter the is not properly governed in violation of the ECP.)

(19) Further, gamma-marking must be specifically at levels. If \( t_2' \) could properly govern \( t_2 \)
and then delete, (17) would be a 'mere' Subjacency violation.

(20) Chomsky's version of this, from the mid-1980's: "Adjuncts must be fully represented".
That is, all the traces in the chain of the moved adjunct must remain.

(21) *Who left why

(22) Suppose all WH-phrases move eventually, creating an adjunction structure.

(23) LF:  
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CP
\( \begin{array}{c}
\text{who}_1 \\
\text{why}_2 \\
\text{who}_1 \\
\end{array} \) \\
IP \\
t_1 \ \
t_2
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t_2 is not properly governed

(24) *Who \( t_1 \) said \([ [ \text{John left why} \] \]
Again, intermediate traces must be properly
governed.

(25) ??*Which car did you leave \([ \text{before Mary fixed } t \] \)

(26) Who left before Mary fixed which car  Subjacency doesn't constrain LF movement. (Huang)

(27) ??*What do you believe the claim that Lisi bought \( t \)  (Subjacency: 'Complex NP
constraint'. There is actually a difficult puzzle here, since by the core Barriers theory,
there will actually not be any barriers, assuming that a head N \( \theta \)-governs its clausal
complement. We put this problem aside here.)

(28) \( \checkmark \) Ni xiangxin Lisi mai-le sheme de shuofa Chinese
you believe Lisi buy-Asp what claim

(29) *Why do you believe \([ \text{the claim } [ \text{that } Lisi left } t \] \]

(30) *Ni xiangxin [[ Lisi weisheme likai] de shuofa Chinese
you believe Lisi why leave claim

(31) ??What \( t_1 \) do \([ \text{you wonder } [\text{why}_2 [Lisi bought } t_1 \ t_2] \] \)  'WH-island constraint'

(32) *Why \( t_2 \) do \([ \text{you wonder } [\text{what}_1 [Lisi bought } t_1 \ t_2] \] \)

(33) ni xiang-xhidao [Lisi weisheme mai-le sheme] Huang
you wonder Lisi why bought what
(34) OK LF (33) can have the indicated interpretation.

\[
[s'[^{\text{COMP sheme}_1}_2] [s ni xiang-zhidao [s[^{\text{COMP weisheme}_2}_2]]] [s Lisi t_2 mai-le t_1]]
\]

‘what is the thing \(x\) such that you wonder why Lisi bought \(x\)’

(35) * LF (33) cannot have the indicated interpretation.

\[
[s'[^{\text{COMP weisheme}_2}_2] [s ni xiang-zhidao [s[^{\text{COMP sheme}_1}_1]]] [s Lisi t_2 mai-le t_1]]
\]

‘what is the reason \(x\) such that you wonder what Lisi bought for \(x\),

(36) And similarly for all islands. This is by far the most powerful argument I know for covert movement.

(37) Mali renwei [[Yuehan weisheme likai]]

Mary thinks John why leave

"Why does Mary think [John left \(t\)]"

(38) Long distance interpretation (hence movement) of adjuncts is fine when there is no island.