The ECP
November 2007

(1) ECP (Empty Category Principle) 1st version:
   A trace must be governed
(2) *John is illegal [cp[Ip 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. \((t_2 \text{ is antecedent governed by } t_2'); \text{ so it must be the latter the is not properly governed in violation of the ECP.}\)

(19) Further, gamma-marking must be specifically at \textbf{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) \[
\text{LF:} \quad \text{CP} \quad \begin{array}{c}
\text{who}_1 \\
\text{why}_2 \quad \text{who}_1 \\
\text{IP}
\end{array} \\
\begin{array}{c}
\text{t}_1 \\
\text{left} \\
\text{t}_2 \\
\text{t}_2 \text{ is not properly governed}
\end{array}
\]

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

(25) ?*Which car did you leave [before Mary fixed it]

(26) Who left before Mary fixed which car \quad \text{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 \(\theta\)-governs its clausal complement. We put this problem aside here.)

(28) √Ni xiangxin Lisi mai-le sheme de shuofa \quad \text{Chinese you believe Lisi buy-Asp what claim}

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

(30) *Ni xiangxin [[ Lisi weisheme likai] de shuofa \quad \text{Chinese you believe Lisi why leave claim}

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

(32) Mali renwei [[Yuehan weisheme likai]] Mary thinks John why leave "Why does Mary think [John left \(t\)]"

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