The ECP
November, 2020

(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; null C 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')
    OR
    ii. α binds β and β is subjacent to α     ('antecedent government')

(8) *Who do you think [_{CP} t’ [ that [_{IP} t solved the problem]]]
(9) Either that somehow blocks antecedent government
    or
    that somehow turns C’ into a barrier for antecedent government (or turns C’ into a
    bounding node, but only for ECP).

(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; and maybe ECP causes extreme badness.)
(12) Similarly for all islands: extraction of an adjunct in violation of Subjacency always
    yields crashingly bad results.

(13) Chomsky (1986) modification of Lasnik and Saito (1984): A trace that is not properly
     governed is marked *.

<<(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 ECP-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 ECP-marked in overt syntax (or we lose the that-trace effect for
     subjects).>>

(17)a  *How do you wonder [when₁ [John said t₁ [ t₂ [ Mary solved the problem t₂]]]]
    vs.
    b ??What problem do you wonder [when₁ [John said t₁ [ t₂ [ Mary solved 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) Chomsky's proposal, from lectures in the mid-1980's: "Adjuncts must be fully represented". That is, following Lasnik and Saito, intermediate traces can be deleted. BUT (Chomsky’s innovation) all the traces in the chain of a moved adjunct must remain.

(20) *Who left why vs. ✓Who bought what

(21) Suppose, following Huang, that all WH-phrases move eventually, creating an adjunction structure in this instance.

(22)
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      DS
   |    Transformations (including WH-movement)
      SS
      |    Transformations (including WH-movement)
      PF      LF

(23) LF: CP LF: CP

who\(_1\)

why\(_2\)

\(t_1\)

left

\(t_2\)

✓

who\(_1\)

what\(_2\)

\(t_1\)

bought

\(t_2\)

✓

✓

(24) *Who \(t_1\) said [ [ John left why]]

(25) Either ‘why’ covertly moves in one fell swoop, resulting in an initial trace that is *-marked. OR it moves first to the lower Spec of CP (which is fine) and then to the higher one, adjoining to ‘who’, leaving a *-marked intermediate trace.

(26) Again, intermediate traces must be properly governed.

(27) ?*Which car did you leave [before Mary fixed \(t\)]

(28) Who left [before Mary fixed which car]

(29) Subjacency doesn't constrain LF movement. (Huang)

(30) ?*What do you believe the claim that Lisi bought \(t\) (Subjacency: 'Complex NP constraint).

(31) ✓Ni xiangxin Lisi mai-le sheme de shuofa Chinese (a “WH-in situ” language)
you believe Lisi buy-Asp what claim

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

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

(34) ??What\(_1\) do [you wonder [why\(_2\) [Lisi bought \(t_1\) \(t_2\)]]] (Subjacency: 'WH-island constraint')
(35)  *Why₂ do [you wonder [what₁ [Lisi bought t₁ t₂]]]

(36)  ni  xiang-xhidao [Lisi weisheme mai-le sheme] Huang
you wonder Lisi why bought what

(37)  OK LF (36) can have the indicated interpretation.

\[\text{[s'\{comp sheme₁, s Lisi t₂ mai-le t₁\}]}\]
\text{\hspace{1cm}‘what is the reason x such that you wonder why Lisi bought x’}

(38)  * LF (36) cannot have the indicated interpretation.

\[\text{[s'\{comp weisheme₂, s ni xiang-zhidao \{s'\{comp sheme₁\}\}\}]}\]
\text{\hspace{1cm}‘what is the thing x such that you wonder why Lisi bought x’}

(39)  And similarly for all islands. This is by far the most powerful argument I know for covert movement (though it remains unclear why covert movement doesn’t have to obey Subjacency).

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

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