Ling 610

The ECP

November, 2021

(1) ECP (Empty Category Principle) 1st version: [ECP was introduced by Chomsky (1981)]
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; null C isn't a governor)

<<(3) ECP 2nd version (extending ECP to '*that*-trace' effects. Not hugely successful, as we will see. And (10) didn't give the right result for movement of adjuncts, which doesn't show '*that*-trace' effects):
A trace must be *properly* governed (Proper government is government by a **lexical** head, V, N, A, P)

(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) Which book do you think [that [Mary talked about *t*]] (*t* is properly governed by *about*)

(7) Who do you think [*t*' [*t* solved the problem]] (*t* is not lexically governed)

(8) 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')

(9) *Who do you think [$_{CP}$ *t*' [$_{C'}$ that [$_{IP}$ *t* solved the problem]]]

(10) 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).

(11) Adjunct problem with (10): ✓How do you think that Mary solved the problem

(12) So we will put aside '*that*-trace' effects and (10), but keep (8), which turns out to work very well for an argument/adjunct asymmetry Jim Huang investigated and which is outlined below.>>

(13) ?*Which car did you leave [before Mary fixed *t*] Subjacency - an 'adjunct island'; not being the complement of a lexical head, an adjunct is a barrier.

(14) *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/or maybe ECP causes extreme badness. In a language with overt WH-movement, it's hard to tease apart these two possibilities.)

(15) Similarly for all islands: extraction of an adjunct in violation of Subjacency always yields crashingly bad results.

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

(17)a *How$_2$ do [$_{IP}$ you wonder [$_{CP}$ when$_1$ [$_{IP}$ John said t_1 [$_{CP}$ t_2' [$_{IP}$ Mary solved the problem t_2]]]]]
vs. *
b ??What problem$_2$ do [$_{IP}$ you wonder [$_{CP}$ when$_1$ [$_{IP}$ John said t_1 [$_{CP}$ t_2' [$_{IP}$ Mary solved t_2]]]]
*

(18) Crucially, **even 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. <It must be the case that t_2 is properly governed or we could never even get "How did Mary solve the problem".>

(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. So the *-marked trace in (15)b can be deleted, but not the one in (15)a. [I summarize in the ECP Part2 HO Chomsky's (1991) attempt to deduce this stipulated difference.] So (15b) is a 'mere' Subjacency violation, but (15a) also violates the ECP (regarded as an LF filter).

(20) *Why do you believe [the claim [$\underset{*}{t}$' that [Lisi left t]]]

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

(22) *Weisheme* doesn't look or sound like it has moved. It is "in situ". But Jim Huang (1981/82; 1982) argued that it actually HAS moved, but in a way invisible to PF. The traces left by this "covert" movement are subject to the ECP, just like those in (18)

(23) This is possible in the GB organization of the grammar:

(24)

DS
|
SS

Transformations (including WH-movement)

\+ Transformations (including WH-movement)

PF LF

(25) Huang also argued that the WHs-in -situ in multiple questions in languages like English also undergo covert movement:

(26) a. *Who left why vs. b. ✓Who bought what

(27) Suppose, following Huang, that all WH-phrases move eventually, creating an adjunction structure in this instance, since CP, Spec is already occupied.

(28) a. LF:

CP
; ?
who_1 IP
why_2 who_1 .
t_1 left t_2
✓ *

b. LF:

CP
; ?
who_3 IP
$what_4$ who_3 .
t_3 bought t_4
✓ ✓

(29) In (26b) t_3 is antecedent governed by the who_3 complex and t_4 is lexically governed by *bought*.

(30) In (26a) t_1 is again antecedent governed by the who_1 complex. But t_2 is not properly governed at all (since why_2 does not c-command it).

(31) *Who$_1$ t_1 said [[John left why]]

(32) 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.

(33) Again, even intermediate traces must be properly governed.

(34) *Why$_2$ do [you wonder [what$_1$ [Lisi bought t_1 t_2]]]

(35) t_2 is not properly governed. Though it is bound by *Why*$_2$, it is not subjacent to it.

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

(37) * LF (36) cannot have the indicated interpretation. The trace of *weisheme*, t_2, is not properly governed in the LF that would yield this interpretation.

(38) And far the $[_{S'}[_{COMP}\ \text{weisheme}_2]_2\ [_S\ \text{ni xiang-zhidao}\ [_{S'}[_{COMP}\ \text{sheme}_1]_1\ [_S\ \text{Lisi}\ t_2\ \text{mai-le}\ t_1]]]]$ 'what is the reason x such that you wonder what Lisi bought for x, similarly for **all** islands. This is by most powerful argument I know for covert movement. If there were no movement, there would be no traces and the ECP wouldn't be relevant.

(39) ✓Mali renwei [[Yuehan weisheme likai]]
Mary thinks John why leave
"Why does Mary think [*t*' [John left *t*]]"

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

(41) While, as I said, the ECP locality effect we have seen on WH adjuncts in situ is a very powerful argument for covert movement, we don't, according to Huang and many (but not all) others, find 'pure' Subjacency effects. **Arguments** in situ inside islands do not have the same totally unacceptable status (and some report them as fine, in multiple questions in English, and in even simple WH-questions in Chinese):

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

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

(44) Given facts like these, Huang claims (stipulates really) that Subjacency doesn't constrain LF movement.

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

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

(47) ?*What$_1$ do [you wonder [why$_2$ [Lisi bought t_1 t_2]]] (Subjacency: 'WH-island constraint' effect)

(48)

[$_{S'}$[$_{COMP}$ sheme$_1$]$_1$ [$_S$ ni xiang-zhidao [$_{S'}$[$_{COMP}$ weisheme$_2$]$_2$
[$_S$ Lisi t_2 mai-le t_1]]]]
'what is the thing x such that you wonder why Lisi bought x'

(49) OK LF (46) can have the indicated interpretation.

(50) This leaves one big question: Why **doesn't** covert movement obey Subjacency (for speakers who find argument WHs in situ inside islands fine)? One possibility is that Subjacency violations cause some sort of **PF** damage to a structure. Given the "inverted Y" model in (22), covert movement can't have any effect on PF, so, in particular, can't cause PF damage.

(51) A discovery by Ross (1969) makes this PF approach rather plausible. Ross showed that deletion, which is most likely a PF process, ameliorates Subjacency violations. Several of his examples were presented in the Brief Historical Overview of Subjacency/Islands handout. Here is one of Ross's examples (with anachronistic traces and CP/IP categories):

(52) a. *She kissed a man who bit one of my friends, but Tom doesn't realize [$_{CP}$ [which one of my friends]$_1$ [$_{IP}$ she kissed [$_{NP}$ a man [$_{CP}$ who$_2$ [$_{IP}$ t_2 bit t_1]]]]]

b. She kissed a man who bit one of my friends, but Tom doesn't realize [$_{CP}$ [which one of my friends]$_1$ ~~[$_{IP}$ she kissed [$_{NP}$ a man [$_{CP}$ who$_2$ [$_{IP}$ t_2 bit t_1]]]]~~]

(53) Uriagereka (1999) and Fox and Pesetsky (2003) give approaches to many Subjacency effects that specifically implicate PF problems (in particular, problems with the linearization which, according to Chomsky, turns a 'mobile' into a structured string).

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