ECP (Empty Category Principle) 1st version:
A trace must be governed

*John is illegal [CP [IP t to park here]] (CP is a barrier to government; non-finite Infl isn't a governor)

ECP 2nd version:
A trace must be properly governed (Proper government is government by a lexical head)

*Who do you think [that [t solved the problem]] (t is not properly governed)

Which problem do you think [that [John solved t]] (t is properly governed by solve)

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

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' (not really an instance of government))

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

*Which car did you leave [before Mary fixed t] Subjacency - an 'adjunct island'

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

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

✓How do you think [t [(that) [Mary fixed the car t]]] (Why no "that-trace effect with adjuncts?)

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.

Argument traces are gamma-marked in overt syntax (or we lose the that-trace effect for subjects).

*How do you wonder [when [John said t [t' [Mary solved the problem t]]]]
(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) \[
\text{LF:} \quad \text{CP} \\
\quad \text{who}_1 \quad \text{IP} \\
\quad \text{why}_2 \quad \text{who}_1 \\
\quad t_1 \quad \text{left} \quad t_2 \\
\]
$t_2$ is not properly governed

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

(25) ?*Which car did you leave [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) √Ni xiangxin Lisi mai-le sheme de shuofa 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 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.