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Clause reduction, clause permeability, and their syntactic effects: A selective history

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I. Pruning

(1) Delete any embedded node S which does not branch (i.e. which directly dominates only NP or VP). Ross (1969b) <Later, Ross calls this 'pruning'.> <<The limitation to embedded S is so that the deletion of the S node won't take place in imperatives like "Come here". I'm actually not sure, though, why pruning would be problematic here.>>

(2) Ross's initial motivation stems from early analyses in which modifiers of nouns arise from relative clauses, via reduction.

(3) Thus, 'his' and 'yellow' in 'his yellow cat' are each dominated by S nodes internal to the NP. Ross argues that this is counter-intuitive and that there are syntactic processes that go astray if these are Ss.

(4) For example, there is a process extraposing relative clauses out of indefinite NPs:

(5) (a) Someone who was heavy must have slept in this bed.
(b) Someone must have slept in this bed who was heavy.

(6) But once the relative clause is reduced, it can no longer extrapose

(7) (a) Someone heavy must have slept in this bed.
(b) *Someone must have slept in this bed heavy.

(8) Assuming, with Ross, that the extraposition rule specifically mentions S, (7)b shows that 'heavy' has ceased being an S.

(9) Note that this result requires that pruning necessarily apply before extraposition in a derivation. But, Ross claims, this is not a stipulated rule ordering. Rather, "whenever some configuration of rules produces a node S which does not branch, rule [(1)] operates and deletes that node." p.289

(10) Ross (1969b) also argues that the process of Particle Separation responsible for related pairs like that in (11) is sensitive to 'complex NPs' (those which contain an S). (Ross takes (11)a to be more basic.)

(11) (a) Mary called up John (b) Mary called John up

(12) PARTICLE SEPARATION:

X V	– *Prt*	– *NP*	– *Y*	(obligatory if 3 is a pronoun)
1	2	3	4 ⇒	(blocks if 3 is "complex")
1	0	3	2 4	(optional otherwise)

<The pronoun property was observed by Chomsky (1955).>

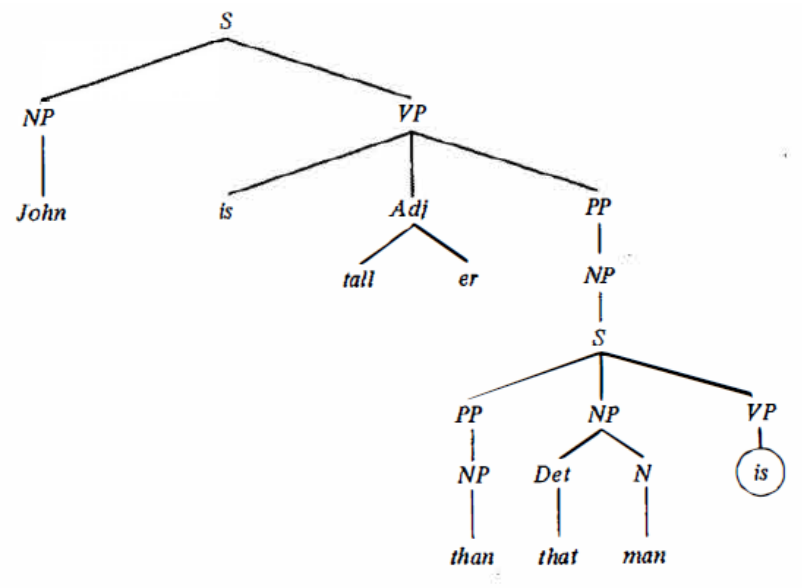
(13) (a) *Mary called up him
(b) Mary called him up

(14) (a) He dreamed a really tough problem up.
(b) *He dreamed a problem which was really tough up. (Complex NP)

(15) Ross argues that in (14)a, pruning must have taken place, removing the S node assumed to have dominated 'tough', thus allowing 'up' to move via (12).

(16) (a) John is taller than that man (is).
(b) He is a man who John is taller than __.
(c)*He is a man who John is taller than __ is.

(17)



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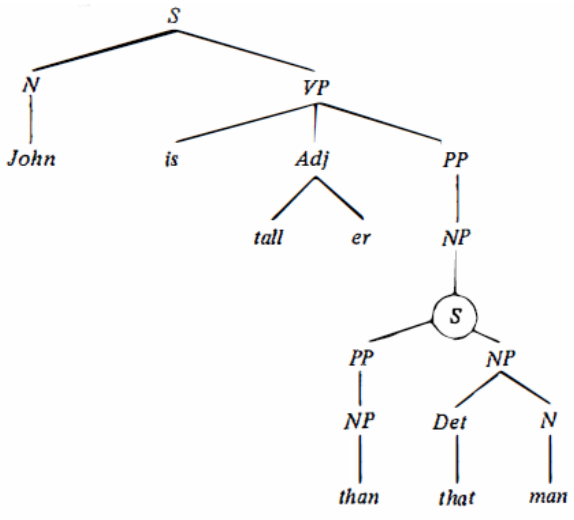

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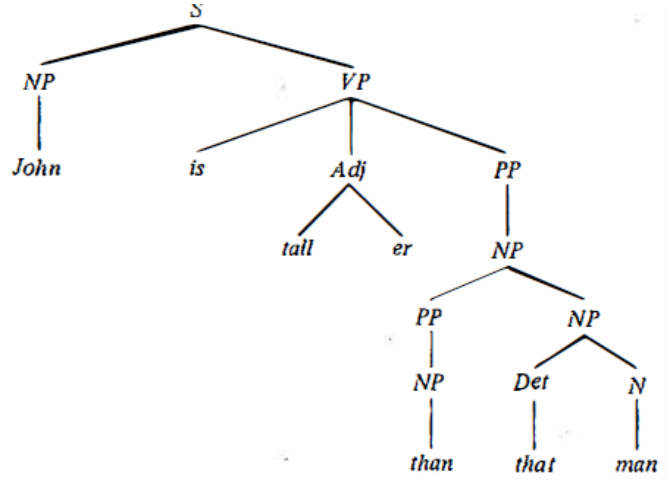


(20) Pruning revised: An embedded node S is deleted unless it immediately dominates VP and some other constituent.

(21) A general metarule ... deletes nonterminal nodes which do not dominate any lexical items.

(22) First ever statement of the *that-trace* effect

A NP which is the subject of an embedded S (that is, a NP which is directly dominated by a node S other than the topmost node S) may not be relativized (i.e. moved to the front of the sentence) unless it is the first constituent of the sentence of which it is the subject.

(23) Once we have pruning, (22) successfully distinguishes between (16)b and (16)c. Momentarily, we will look at a more interesting account, by Perlmutter (1968), of *that*-trace effects and their interaction with pruning.

(24) Perlmutter (1968) makes important use of S-pruning in the earliest account of the correlation between pro-drop and absence of *that*-trace effects.

(25) Perlmutter first observes that there are languages, like French and English, that generally require overt subjects of clauses, and that generally disallow extraction of a subject over a complementizer.

(26) *Avons travaillé toute la journée.
'(We) worked all day long.'

(27) Á qui a-t-il dit que Nicole a donné le grisbi?
'Who did he say that Nicole gave the loot to?'

(28) *Qui a-t-il dit que s'est évanoui?
'Who did he say (that) fainted?'

(29) On the other hand, in languages like Spanish and Italian, null subjects are allowed as is extraction of a subject over a complementizer.

(30) Remos trabajado todo el día.
'(We) have worked all day.'
(31) ¿Quién dijiste que salitó temprano?
'Who did you say that left early?

(32) He proposes a parameterized filter, which captures the effects of Ross's (22), but goes further to cover null subjects as well:

> Any sentence other than an Imperative in which there is an S that does not contain a subject in surface structure is ungrammatical.

(33) As Perlmutter points out, this also explains why French type languages, in contrast with Spanish type ones, have obligatory expletive subjects, when no other subject is available.
(34) Il pleut.
'It's raining.'
Il fait beau temps.
'It's nice weather out.'
Il est évident que l'impérialisme suédois est à bout de souffle.
'It is clear that Swedish imperialism is on its last legs.'
(35) Llueve.
'It's raining.'
Hace buen tiempo.
'It's nice weather out.'
Es evidente que no pasarán.
'It is clear that they won't get through.'

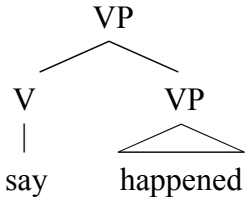
(36) In fact, as Perlmutter observes, not only do Spanish type languages not require expletive subjects, they don't even allow them. This latter fact is not yet accounted for.

(37) The assumed basic phrase structure for S is something like
S → Comp NP VP
(38) Ruling out the relevant Comp-t sentences in French is straightforward, and the same for English. Both have the parametrized surface filter.

(39) Slightly trickier is the case of English subject extraction in the absence of a complementizer:
(40) ✓What did he say [__ happened]
(41) Why isn't the embedded clause in violation of (32)?

(42) Perlmutter attributes this to pruning. His first statement is:
(43) "... when *that* is deleted , the S-node above the embedded sentence is pruned away."
(44) He then suggests a revision, in the direction of Ross's conception of pruning:
(45) An S node that does not branch is pruned. Deletion of *that* along with extraction of the subject results in an S node that doesn't branch.
(46) The VP of (40) becomes:

(47)



(48) Since the embedded clause is no longer a sentence, (32) is rendered irrelevant.

(49) A bit of a puzzle arises at this point. As I mentioned earlier, Perlmutter indicates that his proposal accounts, among other things, for the obligatoriness of pleonastic subjects in English:

(50) *(There) is a daffodil under the pillow

(51) With no apparent complementizer, why couldn't this sentence be pruned? One might propose limiting pruning to embedded clauses, as in Ross's original proposal. But the problem emerges even in embedded clauses:

(52) Mary said *(there) is a daffodil under the pillow

(53) Similarly for null/deleted referential subject pronouns, as in the analogues of the Spanish example above, whether embedded or not:

(54) *(We said) have worked all day

(55) Norbert Hornstein, in an August 14, 2016 posting on his blog, points out the identical problem for a recent attempt by Chomsky in terms of properties of labeling to unify the two phenomena Perlmutter was concerned with:

(56) " ... deleting a *that* does not license null subjects ... "

(57) Nick Huang (personal communication) has an interesting suggestion: Have Perlmutter's filter apply not at surface structure, but rather at the end of each cycle.

(58) Notice that the possibility of *that* deletion depends on certain properties of the matrix clause, for example whether passive takes place, and what sort of verb the matrix clause has:

(59) Everyone believes (that) Mary is a genius
That/*∅ Mary is a genius is believed

(60) Mary said (that) John is a jerk
Mary chortled *(that) John is a jerk

(61) So it is reasonable to assume that deletion of *that* operates on the matrix cycle.
Then if null subjects are already missing on their own cycle, Perlmutter's filter will still be efficacious, operating at the end of the embedded cycle.

(62) The grammaticality of subject extraction when *that* has been deleted is trickier, given modern assumptions about WH-movement, but less so on the assumptions of the '60's.

(63) Under the modern (i.e., post Chomsky (1973)) assumption of successive cyclic movement, at the end of the embedded cycle, the WH would have fronted, but, by hypothesis, the *that* still remains.

(64) Consider the derivation of "Who did he say fainted?" The structure at the end of the embedded clausal cycle is:

(65) ... [who that __ fainted]

(66) And this is evidently in violation of the hypothesized cyclic version of Perlmutter's filter.
(67) However, under the standard assumption at that time, movement is invariably one fell swoop. Thus, the structure at the end of the embedded cycle would be:
(68) ... [that who fainted]
(69) This is obviously in accord with the filter. In the next cycle, *that* will delete and *who* will move, leaving no violation at the end of this cycle either, the desired result.

(70) Interestingly, Perlmutter (1971) provides an argument that the relevant constraint must be a surface structure filter (hence, though this is not an explicit part of Perlmutter's discussion, **not** a cyclic filter; Perlmutter is explicitly arguing against Ross's constraint (22), which constrains the application of movement rules).
(71) Perlmutter first presents an example where complementizer deletion is not possible:
(72) Sarah worked for six months in order *(**for**) that man to be able to buy a car
(73) the car that Sarah worked for six months in order **for** that man to be able to buy __
*the man that Sarah worked for six months in order (**for**) __ to be able to buy a car
(74) Then Perlmutter points out that "A transformation that deletes an embedded S after the subject has been moved out of it would provide us with a crucial test between ..." a surface filter and a Ross-style constraint on transformational operation [OR a cyclic filter].
(75) Following the Ross (1969a) account of Sluicing, Perlmutter provides just such a test. Ross analyzes Sluicing as WH-movement followed by deletion of the residual S. [See, among many others, Merchant (2001) and Lasnik (2001) for more modern arguments for just such an account.]
(76) Marge is head over heels in love with someone, but I don't know who ~~[Marge is bead over heels in love with __]~~
(77) And Ross observes that Sluicing ameliorates certain violations, for instance:
(78) Irv and someone were dancing together, but I don't know who ~~[*Irv and __ were dancing together]~~ [Coordinate Structure Constraint]
(79) Consider now an example involving WH-movement of a subject across a complementizer:
(80) *Sarah worked for six months in .order for someone to be able to buy a car, but I don't know who Sarah worked for six months in order for __ to be able to buy a car.
(81) Perlmutter observes that if the relevant constraint blocks the movement itself, it should persist even after Sluicing. Likewise, we can see that the same should happen if the constraint applies cyclically (a possibility that was seen as necessary earlier to block null subjects in English type languages).
(82) Yet, we do get 'repair' by Sluicing:
(83) Sarah worked for six months in .order for someone to be able to buy a car, but I don't know who ~~[Sarah worked for six months in order for __ to be able to buy a car]~~
(84) The *for* clause here is (part of) an adjunct, but the same facts obtain with a complement:
(85) It is important for someone to buy a car, but I don't know who (*it is important for __ to buy a car)
(86) I am eager for someone to buy a car, but I won't tell you who (*I am eager for __ to buy a car)

(87) It should be noted that Ross's original cases of island violation repair actually raise the same difficulty, as Ross notes, since for Ross, island violations are constraints on movement (just as his *that*-trace constraint is).

(88) Ross's solution is a 'global' rule, i.e, one that can look at multiple points in a derivation:

(89) "If a node is moved out of its island, an ungrammatical sentence will result. If the island forming node does not appear in surface structure, violations of lesser severity will (in general) ensue."

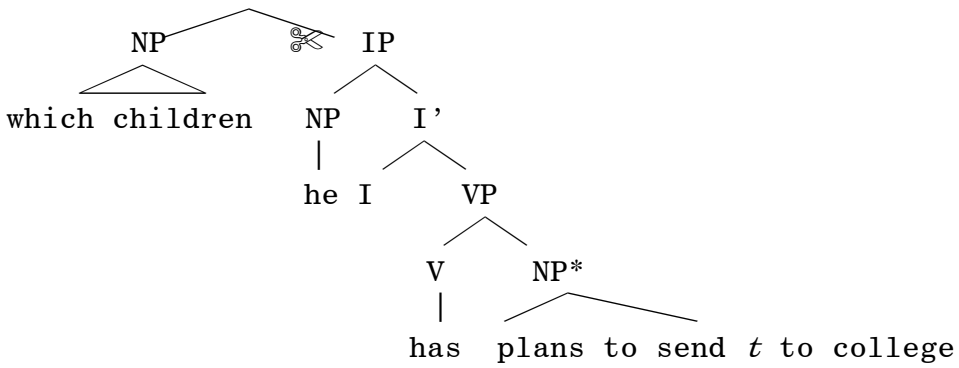
(90) (89), though, seems more like the description of the phenomenon than an explanation.

(91) Chomsky (1972) reconsiders the phenomenon of island repair. Chomsky rejects global derivational constraints, and suggests [see also Baker and Brame (1972) and, for an opposing view, Lakoff (1970), Lakoff (1972)] that * (# in Chomsky's presentation) is assigned to an island when it is crossed by a movement operation (the complex NP in (94)). An output condition forbidding * in surface structures accounts for the deviance of standard island violations. This is abstractly parallel to Perlmutter's alternative to Ross's treatment of *that*-trace effects.

(92) Chomsky's example: <It involves an extremely weak island, a topic we might return to.>

(93) a (*)I don't know which children he has plans to send to college
b He has plans to send some of his children to college, but I don't know which ones
Chomsky (1972)

(94) I don't know CP <Shown with more modern clause labels>



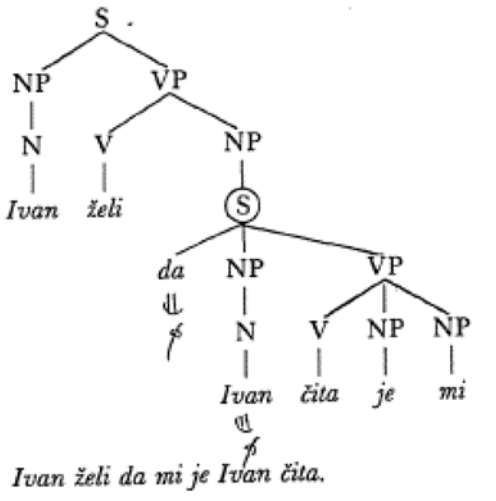
Another pruning phenomenon

(95) Ross attributes to Browne (1966) the observation that in Serbo-Croatian, clitics move to second position in their own clause, and not into any higher clause.

(96) But under circumstances of what Ross dubs Equi NP Deletion (nowadays usually analyzed as infinitival control complementation) the clitic climbs up to a position preceding the **matrix** verb (such as *željeti* [want]).

(97)

Ivan želi da Ivan čita je mi.
Ivan wanted that Ivan read it to me.
'Ivan wanted Ivan to read it to me.'



(98) When Equi operates, the circled S node of the clausal complement of *željeti* would be pruned, and, as Ross argues, Browne's observation can be accommodated.

(99) *Ivan mi je želi čitati.*

Ivan wanted to read it to me.

(100) Slightly later, Rivero (1970) makes a parallel argument for Spanish.

(101) "Clitic pronouns in Spanish are moved to a pre-verbal position unless the verb is in the infinitive or in the gerund, in which case they may remain in post- verbal position"

(102) (a) Compré un abrigo
'I bought a coat.'
(b) Lo compré
'I bought it.'

(103) (a) Voy a comprar un abrigo
'I am going to buy a coat.'
(b) Voy a comprarlo
(c) Lo voy a comprar
'I am going to buy it.'

(104) (a) Estoy comprando un abrigo
'I am buying a coat.'
(b) Estoy comprándolo
(c) Lo estoy comprando
'I am buying it'

(105) Clitics cannot raise across a sentence boundary:

(106) (a) Quiero que estés haciéndomelo
(b) Quiero que me lo estés haciendo
(c) *Me lo quiero [que estes haciendo]
'I want you to be doing it for me.'

(107) " the S-node of the embedded clause must be pruned once Equi-NP Deletion has applied. When the rule does not apply... no S-nodes are deleted, and the clitics cannot be moved out of the subordinate clause. ... the changes implied by Equi- NP Deletion allow the clitics to move upward, out of the subordinate clause, to the highest verb in the tree."

(108) (a) Quiero estar haciéndomelo

(109) (b) Quiero estármelo haciendo
(c) Me lo quiero estar haciendo
'I want to be doing it for myself.'

(110) This is all in line with Ross's proposal that 'upward bounding' must be available for the statement of transformational rules. Some rules are restricted to relating positions that are in the very same clause. And the concept of a clause-mate restriction was quite standard at the time, in fact, pretty much universally accepted until Chomsky (1973).

II. The Chomsky (1973) alternative to (certain) clause-mate restrictions

(111) Within classic generative theorizing of the 1950's, 1960's and early 1970's, many processes and relations were thought to obey a 'clause-mate' restriction. That is, no process or relation of this class could involve X and Y if X and Y were separated by a clause boundary. On this point of view, the following phenomena constituted strong evidence for a process of 'subject raising to object position', or a kind of 'restructuring', in what later came to be called Exceptional Case Marking (ECM) constructions. (And, as in the accounts of pruning above, the relevant process removes the finiteness of the complement as well.)

Passive

(112) (a) Jack believed Joan
(b) Joan was believed __ (by Jack)

(113) (a) Jack believed Joan to be famous
(b) Joan was believed __ to be famous (by Jack)

Reflexive

(114) Jack_i believed himself_i

(115) Jack_i believed himself_i to be immoral

Reciprocal

(116) They_i believed each other_i

(117) They_i believed each other_i to be honest

Pronominal disjoint reference

(118) *John_i believes him_i

(119) *John_i believes him_i to be a genius

Compare:

(120) *Joan was believed __ was famous (by Jack)
(121) *Jack$i$ believed himself$i$ was immoral
(122) *They$i$ believed each other$i$ were honest
(123) ✓John$i$ believes he$i$ is a genius

(124) Chomsky (1973) advanced a different perspective on such phenomena, arguing that the relevant structural issue is not **whether** there is a clause boundary separating the two NPs, but rather **what sort** of clause boundary there is. An infinitival clause boundary is in the pertinent sense weaker than a finite clause boundary. This was the Tensed Sentence Condition (TSC).

(125) **Tensed Sentence Condition TSC**
No rule can involve X, Y in the structure
...X...[$_{\alpha}$ ...Y...]...
where α is a tensed sentence

(126) (125) straightforwardly handles the passive, reflexice, reciprocal, and disjoint reference patterns seen just above.

BUT it doesn't fully capture clause-mate phenomena.

(127) (a) Jack believed Joan to admire Susan
(b) *Susan was believed Joan to admire __ (by Jack)
(128) *Jack believes Susan to admire himself
(129) *They believe Susan to admire each other
(130) ✓Jack$i$ believes Susan to admire him$i$

(131) This necessitated one additional constraint:

(132) **Specified Subject Condition SSC**
No rule can involve X, Y in the structure
...X...[$_{\alpha}$...Z...-WYV...]...
where Z is the specified subject of WYV in α

(133) *Jack believes [$_{\alpha}$ Susan to admire himself]
X Z Y

(134) *Susan* in (133) is a 'specified subject'. There are other sorts of specified subjects as well, and, for Chomsky (1973), the notion is relativized to choice of X:

(135) Z is a **specified subject** with respect to X if it is not 'controlled' by X. (If Z is lexically specified, it is not controlled at all. PRO is controlled in the standard sense. Trace is controlled by its antecedent. When a subject is controlled by X, it is transparent for relations across it between X and Y.)

(136) (a) *They appealed to John$_i$ [PRO$_i$ to like each other]
X Z Y
(b) John appealed to them$_i$ [PRO$_i$ to like each other]
X Y
(In (b), PRO is controlled by X, so is not a Z)

(137) (a) *John$_i$ appeared to them [$\underline{t}_i$ to like each other]
X Z Y
(138) (b) They$_i$ appeared to John [$\underline{t}_i$ to like each other]
X Y

(139) To sum up so far, Chomsky's TSC plus SSC block all relations between non-clause-mates X and Y EXCEPT when Y is the subject of a non-finite clause OR is a non-subject of a non-finite clause whose subject is 'controlled' by X. So it is a slight weakening of the older clause-mate condition.

(140) Three observations:
(a) This theory does some of what pruning did in earlier frameworks, but without any actual pruning. Interestingly, Postal (1974) also questions pruning, but none-the-less strongly rejects the Chomsky (1973) approach, insisting on subject raising to object position. More on Postal to follow.
(b) The clause-mate approach requires a taxonomy of rules. Some rules obey the condition (passive, reflexive, reciprocal, disjoint reference, ...), others don't (subject raising!, WH-movement, ...)
(c) One can easily imagine a simpler version of SSC (call it SSC') whereby ALL subjects count as Z, an obvious simplification in several respects. I turn to this now.

A simple case:
(141) John wants [PRO to criticize himself]
X Y SSC account
(142) John wants [PRO to criticize himself]
X Y SSC' account

(143) For Chomsky (1973), controllable categories (PRO and trace) can count as Z for relations blocking them as seen above. They can also be Y (items taking X as antecedent). The trace in passive can be so analyzed, and PRO surely can.
(144) John wants [PRO to leave]
X Y
(145) Now notice that we evidently don't need to relate *John* to *himself* across the non-specified subject PRO. Rather, we can take PRO as the antecedent of *himself*, and *John* as the antecedent of PRO. Under plausible (and virtually necessary) assumptions, this will give the desired result that *John* and *himself* are coreferential.
(146) SSC is now simplified in that no reference to (135) is required any longer. Further, an unstated stipulation is eliminated: that while trace and PRO can be Y and Z, they can never be X.

(147) This stipulation has no a priori plausibility. And there is evidence that it cannot be correct:

(148) Which men does Mary think [Susan said [t will like each other]]

(a)	X		Y	**NO WAY!**
(b)		X	Y	✓

(149) No matter how fancy we try to make the definition of 'specified subject', *Which men* in (148) cannot possibly be the direct antecedent of *each other*.

(150) This would seem to settle the matter. Except that Lasnik (1994) observes that there exist certain phenomena that do seem to implicate subject transparency.

(151) Consider the following example, from Higginbotham (1980):

(152) They want [PRO to visit each other]

(153) Higginbotham notes that this example is easily paraphrasable as:

(154) Each of them wants to visit the other

(155) That this interpretation is not the same as 'They want that each of them visit the other' suggests that the matrix subject can, in fact, be the antecedent of the embedded *each other*, in accord with SSC but not SSC'. Much more on such readings and relations to follow.

(156) Quicoli (1976) analyzes clitic climbing in Portuguese and uses the Chomsky (1973) framework to account for its clause boundedness.

(157) A pronominal object in an infinitival clause may appear attached to the infinitive or to the higher verb:

(158) (a) O medico queria examinar-nos.
(b) O medico queria nos examinar
(c) O medico nos queria examinar.
'The doctor wanted to examine us.'

(159) And a pronominal subject of an infinitive is attached as a clitic to the verb in the main sentence:

(160) Zeca nos viu sair.
Zeca us saw leave
'Zeca saw us leave.'

(161) As with the other cases of clitic movement we have seen, climbing out of a finite clause is not possible:

(162) (a) Zeca viu que nos saimos.
'Zeca saw that we left.'
(b) *Zeca nos viu que saimos.
Zeca us saw that left

(163) Marta viu que o garoto apanhou a bola.
'Martha saw that the boy caught the ball.'

(164) (a) Marta viu que o garoto a apanhou
Martha saw that the boy it-fem. caught
(b)*Marta a viu que o garoto apanhou.
Martha it-fem. saw that the boy caught

(165) “Clitics cannot be extracted from finite (‘tensed’) clauses.”
(166) “This restriction on clitic-movement constitutes ... a special instance of a more general condition on the functioning of grammatical rules, namely the ‘Tensed-S Condition’ proposed by Chomsky”

(167) (a) Paulo viu [o especialista examinar la]
(b) Paulo viu o especialista examina-la
‘Paulo saw the specialist examine her.’
(168) *Paulo a viu o especialista examinar.
Paulo her saw the specialist examine
(169) “Clitics cannot be extracted out of a clause over a lexically specified subject.”
(170) “The restriction ... constitutes but a special case of the more general ‘Specified Subject Condition’ proposed by Chomsky”

(171) (a) O homem [que Maria viu [*t* examinar nos]] sumiu
The man [who Mary saw [*t* examine us]] disappeared
(b) •O homem que Maria nos viu examinar sumiu.
The man who Mary us saw examine disappeared

(172) Traces count as specified subjects (just as argued by Chomsky (1973)). “Since ... there is a ‘specified subject’ – namely, trace *t* – in the embedded clause, the Specified Subject Condition will correctly block application of Clitic-Movement”

(173) Similarly for questions:
(174) *Quem$_i$ Maria nos viu [t_i examinar __]?
Who Mary us saw examine?
‘Who did Mary see examine us?’

(175) And for raising:
(176) O medico parece [*t* ter examinado la]
The doctor seems [*t* have examined her]
O medico parece [*t* te-la examinado __]
*O medico a parece [*t* ter examinado __]

(177) *Bruno a persuadiu o medico [PRO a informar __ sobre o resultado]
Bruno her persuaded the doctor to inform about the results
(178) PRO counts as specified subject (just as argued by Chomsky (1973)). “the verb in the matrix clause satisfies the term X of [(132)]; PRO satisfies the term Z and the pronoun *la* ‘her’ satisfies the term Y. Since ... X (i.e., the verb in the matrix sentence) does not control Z, we should expect this subcase of the Specified Subject Condition to uniformly prevent Clitic-Movement from extracting the pronoun from the embedded sentences.”
(179) *Promise* (a ‘subject control’ ditransitive verb) patterns with *persuade* (an ‘object control’ ditransitive verb) in this respect:
(180) *O medico a prometeu a Bruno [PRO informar sobre o resultado __].
The doctor her promised to Bruno to inform about the results
(181) Once again SSC gives the correct result. The analysis is identical.

BUT

(182) Clitic climbing now shouldn't be possible at all out of a control clause. Yet we have clearly seen that it IS possible in Serbo-Croatian and Spanish. And it is likewise possible in Portuguese (at least certain dialects, the ones that still have clitics at all):

(183) ✓O medico nos queria [PRO examinar __]
The doctor us wants to examine

(184) The PRO assumed to be the subject of the complement clause is controlled by the matrix subject, and not by whatever the position is that the clitic has moved to. This should violate SSC.

(185) Quicoli proposes that these good cases of climbing do not involve PRO, but rather, the theoretical ancestor of PRO: Equi NP deletion (as in the Ross and Rivero discussions we began with).

(186) (a) Bad cases like (177) and (180) do involve PRO, which acts as a specified subject blocking climbing.
(b) But good ones like (183) have no subject at all according to Quicoli, the subject having been deleted by EQUI:

(187) O medico nos queria [examiner __]

(188) EQUI had passed out of fashion by the late 1960's as linguists began to seriously explore the semantics of quantifiers. A significant semantic asymmetry emerged:

(189) 'John wants to leave' means that John wants that John leave

BUT

(190) 'Everyone wants to leave' does NOT mean that everyone wants that everyone leave.

(191) This led to the postulation of the silent element PRO, which has a reflexive type of meaning, and the rejection of the identity deletion treatment.

(192) Unsurprisingly, quantifiers in Portuguese have just the same property. So now we have a prediction. A sentence like (183) but with a quantificational subject should not allow clitic climbing, since it couldn't support identity deletion of the embedded subject.

(193) But that prediction is incorrect:

(194) ✓Todos os medicos nos queriam examinar
All the doctors us wanted.pl examine

(195) A possible way to salvage Quicoli's hybrid account: Chomsky and Lasnik (1977) propose that (some) EQUI constructions do indeed involve deletion, but not **identity** deletion. Rather, what is deleted is a reflexive element. Under this proposal, (194) ceases to be problematic.

(196) Quicoli argues that the EQUI/PRO distinction also accounts for another asymmetry between control verbs that allow clitic climbing (e.g. *querer* "to want") and control verbs that do not (e.g. *persuadir* "to persuade", *promoter* "to promise).

(197) According to Quicoli, "with *persuadir* [to persuade] and *prometer* [to promise] the complement subject must be "obligatorily controlled" by an NP in the higher sentence whereas, in the case of *querer*, "control" is optional." [considering only non-finite clauses: infinitives clauses and subjunctive clauses]

(198) Quicoli also observes that infinitives and subjunctive complements with querer "to want" are in "complementary distribution." While subject control occurs only with infinitive complements, non controlled subjects occur only in subjunctive complements.

(199) a. O medico queria que eu a informasse. [embedded subjunctive, non control. subj.]
the doctor wanted that I her informed
"The doctor want me to inform her."

(200) b. *O medico$_1$ queria que ele$_1$ a informasse. [embedded subjunctive, controlled subject]
The doctor$_1$ wanted that he$_1$ her informed

(201) a. *O medico queria Bruno informa-la. [embedded infinitive, non controlled subject]
The doctor wanted Bruno to inform her

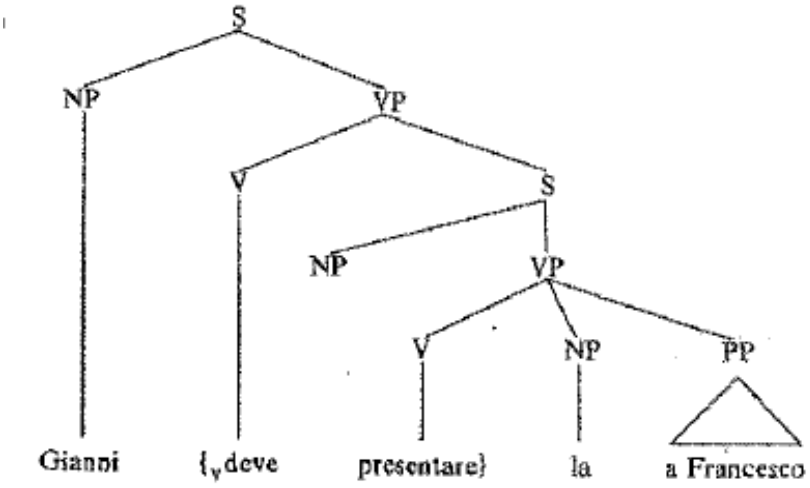
(202) b. O medico queria informa-la. [embedded infinitive, controlled subject]
The doctor wanted to inform her
"The doctor wanted to inform her."

(203) In the case of *querer* "to want", infinitive morphology tracks the control interpretation, associated with EQUI.

(204) In case of verbs like *persuadir* "to persuade" and *prometer* "to promise" (which are obligatory control in similar environments), on the other hand, there is no evidence and therefore no need for a deletion rule.

(205) Rizzi (1978), like Quicoli (1976), rejects clause-mate conditions on specific transformations in favor of TSC and SSC. But instead of Quicoli's use of EQUI to allow clitic climbing, Rizzi proposes a rule of restructuring in Italian, which, like earlier pruning theories, eliminates the S separating the clitic from its climbed position.

(206)



(207) (a) Gianni [$_V$ deve presentare] la a Francesco.
(b) Gianni la deve presentare a Francesco.

(208) Restructuring combines the main verb and embedded verb into a unit, "a single verbal complex, hence automatically transforming the underlying bisentential structure into a simple sentence."

(209) If restructuring does not take place, SSC blocks clitic climbing.

(210) Though the clitic climbing pattern in Italian is quite similar to that in Portuguese, Rizzi argues that Quicoli's approach fails, at least for Italian.

(211) Rizzi shows that Quicoli's analysis is at the same time too permissive and too restrictive for Italian.

(212) Prediction made by Quicoli's analysis: "A clitic pronoun can be extracted from the complement of a Control verb if and only if this verb takes infinitival complements in complementary distribution with subjunctive sentential complements (i.e. governs Equi deletion)."

(213) *Detestare* "to hate" (among other verbs) takes infinitival complements in complementary distribution with subjunctive complements, but doesn't allow clitic climbing:

(214) (a) Mario detestava che Piero la incontrasse.
"Mario hated that Piero her should meet __."
(b) *Mario$_1$ detestava che (lui$_1$) la incontrasse.
"Mario$_1$ hated that he$_1$ her should meet"
(c) Mario detestava incontrarla.
"Mario hated (for himself) to meet her."
(d) *Mario la detestava incontrare.
"Mario her hated (for himself) to meet __."

(215) *Correre* "to run" allows clitic climbing but requires obligatory control:

(216) (a) *Mario e corso (a) che Piero lo chiamasse alle cinque.
Mario has run (to) that Piero him call for ___at five
(b) Mario e corso a chiamarlo alle cinque.
"Mario has run to call for him at five."
(c) Mario lo e corso a chiamare alle cinque.
"Mario him has run to call for __ at five."

(217) A third problem raised against Quicoli's analysis has to do with traces of NP movement.

(218) Traces of NP movement do not block clitic climbing in Italian as would be predicted by Quicoli's analysis.
(a) Mari e monti gli devono essere stati promessi invano, a giudicare dal suo comportamento.
"Heaven and earth to him must have been promised __ in vain, if we consider his behavior."

(219) In this example the matrix subject is part of an embedded clausal idiom and therefore the sentence must have been derived via NP movement and cannot be derived by EQUI or PRO.

III. **Postal (1974)'s 'quasi-clauses'**

(220) Postal offers another kind of alternative to pruning:

(221) "... instead of previous ideas about pruning, an embedded clause becomes a member of the quasi-clause category if it loses its subject NP through the action of cyclic rules. It is then suggested that clause boundaries that are quasi-clause boundaries are not as strong a barrier to grammatical processes as full clause boundaries."

(222) One case involves
(a) what Ross (1967) called Complex NP Shift (CNPS), a rule that moves NPs with certain internal syntactic complexity rightwards
(b) Ross's (1967) discovery that rightward-moving rules are upward bounded (what Grosu (1973) dubbed the Right Roof Constraint).

(223) (a) Arthur proved [[$_{CNP}$ that subclass of Mu-grammars in which all rules precede themselves] are recursive] on the basis of Beanworthy's Lemma.
(b) *Arthur proved [__ are recursive] on the basis of Beanworthy's Lemma [that subclassof Mu-grammars in which all rules precede themselves]

(224) Postal then attributes to Perlmutter a new argument for subject raising to object position. Thematic subjects of infinitives can undergo CNPS.

(225) (a) Arthur proved Mu-grammars to be recursive on the basis of Beanworthy's Lemma.
(b) Arthur proved [to be recursive] on the basis of Beanworthy's Lemma [that subclass of Mu-grammars in which all rules precede themselves]

(226) Initially, then, this seems to implicate raising.
(227) However, Postal points out that Witten (1972) shows that sometimes even **objects** of infinitival complements can undergo CNPS to the right of matrix clause elements:

(228) (a) I have wanted [to know exactly what happened to Rosa Luxemburg] for many years
(b) I have wanted [to know __] for many years [$_{CNP}$ exactly what happened to Rosa Luxemburg]

(229) Thus, we need it to be true that as a result of EQUI, the embedded clause boundary becomes weaker than a normal clause boundary. Pruning could give this result, but Postal, instead, opts for quasi-clause. The embedded infinitive is still a clause, but a weak one. In some ways, this is reminiscent of the Chomsky (1973) approach to clause-boundedness.

(230) (a) I have expected [that Bob would find the treasure] since 1939
(b) *I have expected [that Bob would find __]since 1939 [$_{CNP}$ the treasure said to have been buried on that island]
(231) (a) I have expected [to find the treasure] since 1939
(b) I have expected [to find] since 1939 [$_{CNP}$ the treasure said to have been buried on that island]
(232) (a) I have wanted [Bob to know exactly what happened to Rosa Luxemburg] for many years
(b) *I have wanted [Bob to know __] for many years [$_{CNP}$ exactly what happened to Rosa Luxemburg]

More cases implicating quasi-clausehood

(233) As observed by Kuno and Robinson (1972), for many speakers there is a clause-mate restriction on multiple interrogation:

(234) Tell me who kissed who
vs.
(235) *Tell me who thought Joan kissed who

(236) Tell me who convinced who that it was time to leave
vs.
(237) *Tell me who convinced Joan (that) Bob kissed who

(238) (a) *Who is taller than who is?
(b) Who is taller than who?

(239) In passing, there is another argument for raising:
(240) (a) *Who believes (that) who is guilty?
(b) Who believes who to be guilty?

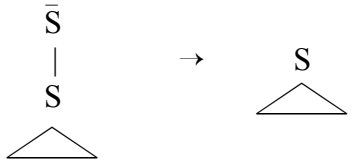
(241) ✓Who wants to marry who?
(242) Again, either pruning or quasi-clausehood could give this result.
(243) (✓)Who wants Bob to marry who?
(244) For this kind of case, Postal again claims that raising is involved, so pruning could give the correct result, on the assumption that removing a subject wither by EQUI or by raising triggers pruning.
BUT
(245) (a) *I want Bill to shoot myself.
(b) *Joan believes us to have deceived herself
(246) Reflexivization, according to Postal, requires clause-mates. Under pruning, that requirement would be satisfied, incorrectly allowing the examples.
Conversely
(247) Postal's Inclusion Constraint (the ancestor of RI in Chomsky 1973 and Condition B in Chomsky (1981)), which also is constrained to involve only clause-mates, would incorrectly be violated under pruning:
(248) (a) *We helped me
(b) ✓We want Bill to help me
(c) ✓We believe him to hate me

(249) Postal's conclusion:
(a) There is no pruning.
(b) Eliminating the subject of a non-finite clause, by raising or EQUI, gives it quasi-clause status.
(c) Some rules obey a clause-mate constraint (passive, reflexivzation, Inclusion Constraint, ...)
(d) Other rules obey the weaker quasi clause-mate constraint (multiple WH, CNPS, ...)

IV. $\bar{S}$-deletion

(250) Chomsky (1981) - LGB - also had a need for a distinction between full clauses and diminished clauses. In LGB, all clauses are, in deep structure (DS), $\bar{S}$, which is opaque to many relations. But sometimes full clauses are reduced to mere S via '$\bar{S}$-deletion'.

(251)



(252) This was crucial for government, blocked by $\bar{S}$, but permitted through S, implicated in all of the following

(253) a. ECM (i) Mary believed [$_S$ him to own a car] vs. (ii) *Mary tried [$_{\bar{S}}$ [$_S$ him to own a car]]
b. ECP (i) Mary was believed [$_S$ *t* to own a car] vs. (ii) *Mary was tried [$_{\bar{S}}$ [$_S$ *t* to own a car]]
c. Condition A Mary believes [$_S$ herself to be a genius]
d. Condition B *Mary$_i$ believes [$_S$ her$_i$ to be a genius]
e. PRO (i) *Mary believed [$_S$ PRO to be early] vs. (ii) Mary tried [$_{\bar{S}}$ [$_S$ PRO to be early]]

(254) According to LGB, all maximal projections (so $\bar{S}$, but not S) block government, and government is involved in the licensing of lexical NPs (in terms of Case theory) and of traces (ECP), and is part of the definition of Governing Category (GC), which determines possible binding relations of anaphors, or pronouns, and of PRO, which Chomsky takes to be both a pronoun and an anaphor.

(255) For ECM, the theory of Case states that α, a Case assigner, assigns Case to β only if α governs β.

(256) α governs β only if every maximal projection dominating α also dominates β, and conversely. (α and β are 'maximal projection mates', to coin a term.)

(257) For (253)ai, once the $\bar{S}$ node is eliminated, 'believe' governs 'him', and being a Case assigner, it assigns Case to 'him'. In (253)aii, the complement of 'try' retains its $\bar{S}$, so 'try' fails to govern 'him'. As there is no other Case assigner available, we have a Case Filter violation.

(258) ECP says a trace must be properly governed. In LGB, that entails that it must be governed. In (253)bi, as a consequence of $\bar{S}$-deletion, 'believe' governs the trace. bii is somewhat less straightforward. In bii'Try' fails to govern the trace here, hence cannot properly govern it, and there are no other potential proper governors (but see below for a qualification).

(259) (253)c,d involve the LGB Binding Theory
a. Condition A: An anaphor must be bound in its Governing Category (GC)
b. Condition B: A pronoun must be free in its GC
c. The GC of α is the minimal XP containing α, a governor of α, and ...

(260) In (253)c, the GC for 'herself' is the matrix clause; there is no governor in the embedded clause. [Here is one of the qualifications I alluded to just above: LGB stipulates that non-finite Infl is not a governor, even though finite Infl, crucially, is.] The rest of the definition of GC also turns out to be satisfied by the matrix clause in this instance, so Condition A is satisfied.

(261) In (253)d, by precisely the same line of reasoning, Condition B is violated.

(262) (253)e is even more interesting. LGB claims that PRO is a pronoun **and** an anaphor. So it must satisfy both Condition A and Condition B. But the two conditions are (nearly) contradictory.

(263) *Mary likes PRO There are two logically possible representations:
(a) Mary$_i$ likes PRO$_j$ * by Condition A
(b) Mary$_i$ likes PRO$_i$ * by Condition B

(264) So why is PRO ever possible? Crucially, Conditions A and B are intended as conditionals: If α has a GC, then ...
(265) If α has no GC, then it vacuously satisfies Conditions A and B. (Recall the truth table for material implication. If the antecedent is false, the entire conditional statement is true, whether the consequent is true or false.)
(266) And LGB carefully defines things so that the only way not to have a GC is not to be governed. We thus deduce the "PRO Theorem" - PRO must be ungoverned. Two qualifications, though. One, mentioned a little earlier is that non-finite Infl is not a governor. A second, not mentioned in LGB, is that null complementizer is not a governor (crucial since $\bar{S} \rightarrow$ Comp S).

(267) Here's how $\bar{S}$-deletion works, according to a suggestion late in LGB:
(268) "... there is an optional rule replacing an $\bar{S}$ boundary by an S boundary ..." p.303
(269) Then, when COMP is missing, we have ... $[_S\ [_S$ ...]] ...
(270) Chomsky observes that this reduces to ... $[_S$ ...] ... "in the restrictive theory of Lasnik and Kupin (1977)" [i.e., because that theory is set theoretic. The same result would obtain in the framework of Chomsky (1955) for the same reason.]

(271) Or, as at least hinted earlier in the book, $\bar{S}$-deletion is simply deletion of the node. That would seem a rather curious deletion operation, certainly unlike ellipsis, which deletes an entire constituent, not just the node labeling it.
(272) But there is actually substantial early precedent for this kind of process, including the pruning operation we looked at earlier.

V. More quasi-clause effects

Gapping
(273) John read books and Mary ~~read~~ magazines
(274) John wanted to read books and Mary ~~wanted to read~~ magazines
(275) *John wanted Bill to read books and Mary ~~wanted Bill to read~~ magazines
(276) *John thinks that Bill will see Susan and Harry ~~thinks that Bill will see~~ Mary

Multiple Sluicing
(277) Someone talked about syntax, but I don't know who ~~talked about syntax~~ 'Sluicing', Ross (1969a)
(278) Mary talked about something, but I don't know about what ~~Mary talked~~
(279) Someone talked about something
?but I don't know who about what
(280) *Someone talked about something but I don't know who about what talked
(281) Someone wanted [__ to talk about something]
?but I don't know who about what
(282) Someone wanted [Mary to talk about something]
*but I don't know who about what
(283) A certain boy decided [__ to talk to a certain girl]
I forget which boy to which girl Barrie (2005)

(284) *Each professor said [Susan was working on a different one of these topics], but I can't remember which on which one [Jason Merchant, personal communication]

Tough Movement and its kin

(285) a. This book is difficult [PRO to read __]
b. This book is difficult [PRO to convince people [PRO to read __]]
c. ?*This book is difficult [PRO to convince people (anyone) [that Mary ought to read _]

(286) a. This book is too valuable for James to lend __ to Maria
b. This book is too valuable for James [PRO to claim to have lent __ to Maria
c. *This book is too valuable for James to claim [that Karen lent __ to Maria Grano and Lasnik (In press)
d. This book is too valuable for James to want [PRO to lend __ to Maria]
e. ?*This book is too valuable for James to want [Susan to lend __ to Maria]

VI. Quasi-clauses and wh-islands?

(287) Chomsky (1964b) observed that embedded questions disallow extraction from them, and formulated a constraint that had the effect of excluding such cases. A version of the constraint came to be called the WH-island constraint.

(288) *What$_i$ did he wonder [where$_j$ [John put t$_i$ t$_j$]] [Chomsky's ex. I assume coreference is not intended between 'he' and 'John' as that would violate an independent constraint on pronoun-antecedent relations.] [I have, anachronistically, added traces for clarity.]

(289) Ross (1967) explicitly rejected this constraint of Chomsky's arguing that it is too strong, though he conceded that Chomsky's example is, indeed, unacceptable.

(290)

He told me about a book which I can't figure out	whether to buy or not.
	how to read.
	where to obtain.
	what to do about.

(291) This seems to be the familiar control clause exemption, one of Postal's major configurations. In fact Ross pointed out that these involve infinitival embedded questions, but didn't venture a hypothesis about why that should make a difference.

(292) One might ask whether the relevant factor is that in such infinitives the subject is controlled (perhaps as in some version of SSC) or that it is null.

(293) Fukui and Speas (1986) propose that the PRO subject of an infinitival clause can remain in Spec of VP, and need not raise to Spec of IP. Thus, such a clause generally will lack a Spec entirely. Given this, on their theory of phrase structure, that clause will not be a full XP. If only full XPs can ever be barriers, the weakening observed will follow.

(294) A possible test case: An infinitive with an uncontrolled ('arbitrary') PRO subject.

(295) a. It is unclear [how [PRO to solve some problem]]
b. What problem is it unclear [how [PRO to solve *t*]]

(296) This seems just about as good as Ross's examples, so a null subject does weaken a clause, regardless of whether that subject is bound (controlled).

(297) Rizzi (1980) pointed out another set of exceptions to the WH-island constraint, ultimately arguing that WH-movement in Italian is slightly less local than in English (a 'bounding node' parameter, with S the relevant clausal bounding node in English and $\bar{S}$ the one in Italian). (According to Rizzi there is an interfering factor with questions, so his examples involve relativization, which, as Ross (1967) showed, obeys all the same constraints as wh-interrogation.) (I have added the 'pro' subjects in Rizzi's examples. 'pro' was the designation proposed by Chomsky (1982) for the null subject of finite clauses in so-called pro-drop languages.) (Note that the pro subjects in these examples are not controlled in any sense.)

(298) a. Il solo incarico [che$_i$ [pro non sapevi [a chi$_j$ [pro avrebbero affidato t_i t_j]]]] è poi finito proprio a te.
"The only charge that you didn't know to whom they would entrust has been entrusted exactly to you."
b. Tuo fratello, [a cui$_i$ [pro mi domando [che storie$_j$ [pro abbiano raccontato t_j t_i]]]], era molto preoccupato.
"Your brother, to whom I wonder which stories they told, was very troubled."
c. La nuova idea di Giorgio, [di cui$_i$ [pro immagino [che cosa$_j$ [pro pensi t_i, t_j]]]diverrà presto di pubblico dominio.
"Giorgio's new idea, of which I imagine what you think, will soon become known to everybody."

(299) In about 1986, Juan Uriagereka pointed out to me the (obvious in retrospect) fact that all of Rizzi's examples have null subjects. I have not had the opportunity to check parallel examples with overt subjects in Italian, but Uriagereka indicates that Spanish seems very similar to Italian with respect to Rizzi's examples, and that overt subjects do, indeed, make the sentences less acceptable.

(300) Uriagereka (1988) suggests that not just null subjects of infinitivals (PRO) remain in situ, but even null subjects of finite clauses (pro) do as well. Then, by the logic of Fukui and Speas (1986), such a finite IP will not be a full XP. Thus, we possibly have an additional kind of quasi-clause.

VII. A new kind of quasi-clause

(301) We just saw Ross's examples of porous infinitival embedded questions. But they were not the only counterexamples to Chomsky's constraint. He also gave:

(302) Which books did he tell you $\begin{matrix} \text{why} \\ \text{?whether} \\ \text{??when} \end{matrix}$ he wanted to read

[The annotations are Ross's. To my ear all three of these are reasonably acceptable **with the embedded subject interpreted as bound.**]

(303) Now we will examine a variety of quasi-clause phenomena and find the expected pattern (porous embedded infinitives with PRO subjects), but also the surprising pattern that embedded **finite** clauses are also porous when they have bound subjects. Many of these

latter cases have been noted in the literature, but usually in footnotes, and never until Grano and Lasnik (In press) in any systematic fashion.

→Quantifier Scope Interaction FoQ]

(304) At least one student fooled each of the professors
(305) At least one student has tried to fool each of the professors Kayne (1998)
(306) At least one student saw each of these new books
(307) At least one student has asked to see each of these new books Kayne (1998)

The surprise:

(308) At least one man/some man$_i$ thinks he$_i$'s in love with each of these women
each > at least one possible Kayne (1998)
(309) At least one man/some man thinks Bill's in love with each of these women.
each > at least one not possible

→Gapping

(310) John read books and Mary ~~read~~ magazines
(311) John wanted [__ to read books] and Mary ~~wanted [__ to read~~ magazines]
(312) *John wanted Bill to read books and Mary ~~wanted [Bill to read~~ magazines]
(313) *John thinks [that Bill will see Susan] and Harry ~~thinks [that Bill will see~~ Mary]

The surprise:

(314) ?John thinks that he will see Susan and Harry ~~thinks that he will see~~ Mary
[Nishigauchi (1998), attributed to an anonymous reviewer]
(315) "... the clausemate restriction on Gapping is alleviated by an intervening pronoun."
(316) John$_i$ thinks that he$_i$ will see Susan and Harry$_j$ ~~thinks that he$_j$/$_i$ will see~~ Mary
(317) *John thinks [that I will see Susan] and [Harry ~~thinks that I will see~~ Mary]
(318) *John thinks [that you will see Susan] and [Harry ~~thinks that you will see~~ Mary]
(319) In particular, the alleviation requires a **bound** pronoun.

(320) João começou a ler livros e Maria ~~começou a ler~~ revistas [Brazilian Portuguese]
João began to read books and Maria magazines
(321) *João disse que Pedro lê livros e Maria ~~disse que Pedro lê~~ revistas
João said that Pedro reads books and Maria magazines
(322) João$_i$ disse que pro$_i$ lê livros e Maria$_j$ ~~disse que pro$_j$ lê~~ revistas
João said that reads books and Maria magazines
(323) ?João$_i$ disse que ele$_i$ lê livros e Maria$_j$ ~~disse que ele$_j$ lê~~ revistas
João said that Pedro reads books and Maria magazines

→Reciprocal Binding

(324) John and Mary visited each other
(325) John and Mary want [__ to visit each other]
This sentence can have a 'long' reading, with the semantic antecedent of 'each other' the subject of 'want':
'Each wants to visit the other' Higginbotham (1980)

(326) They decided [__ to keep each other's comments confidential]
Can mean: 'Each of them decided to keep the other's comments confidential' (a 'long reading') Heim et al. (1991)
(327) *John and Mary want [Bill to visit each other]
[If this were good, it would mean John and Mary each want Bill to visit the other.]
(328) *John and Mary thought that Susan loved each other <would = Each of John and Mary thought that Susan loved the other.>

The surprise:

(329) John and Mary think they like each other
(330) a. John and Mary think they (that is, John and Mary) like each other.
→b. John thinks that he likes Mary and Mary thinks that she likes John
(331) *John and Mary think that I like each other (would = Each of John and Mary thinks that I like the other.)

→Multiple Sluicing

(332) Someone talked about something
?but I don't know who about what
(333) Someone wanted to talk about something
?but I don't know who about what
(334) Someone wanted Mary to talk about something
*but I don't know who about what
(335) A certain boy decided to talk to a certain girl
I forget which boy to which girl Barrie (2005)
(336) *Each professor said Susan was working on a different one of these topics, but I can't remember which on which one

The surprise:

(337) ?Each professor$_i$ said he$_i$ was working on a different one of these topics, but I can't remember which on which one [Lasnik (2013), from Jason Merchant, personal communication]
(338) A certain boy$_i$ said he$_i$ would talk to a certain girl
I forget which boy to which girl Barrie (2005)

→**Extraposition** ("Complex NP Shift") [particularly germane given the Lasnik (2013) account of (apparent) multiple Sluicing as involving Wh-movement of the first remnant but Extraposition of the second]

(339) a. Arthur proved [[$_{CNP}$ that subclass of Mu-grammars in which all rules precede themselves] are recursive] on the basis of Beanworthy's Lemma.
b. *Arthur proved [__ are recursive] on the basis of Beanworthy's Lemma [that subclass of Mu-grammars in which all rules precede themselves] Postal (1974)
(340) a. I have wanted [to know exactly what happened to Rosa Luxemburg] for many years
b. I have wanted [to know __] for many years [$_{CNP}$ exactly what happened to Rosa Luxemburg] Postal (1974)

(341) a. I have wanted [Bob to know exactly what happened to Rosa Luxemburg] for many years
b. *I have wanted [Bob to know __] for many years [$_{CNP}$ exactly what happened to Rosa Luxemburg] Postal (1974)

The surprise:

(342) The absent-minded professor$_i$ will say [that {he$_i$/*Lucy}'s working __], if you press him, on a new molecular compound for flubber [Jason Merchant, personal communication]

→Tough Movement and its kin

(343) a. This book is difficult [PRO to read __]
b. This book is difficult [PRO to convince people [PRO to read __]]
c. ?*This book is difficult [PRO to convince people (anyone) [that Mary ought to read _]]

The surprise:

d. This book is difficult [PRO to convince people (anyone) [that they ought to read __]] Chomsky (1981)

(344) a. This book is too valuable for James to lend to Maria
b. This book is too valuable for James to claim to have lent to Maria
d. *This book is too valuable for James to claim that Karen lent to Maria

The surprise:

c. ?This book is too valuable for James$_i$ to claim that he$_i$ lent to Maria Grano and Lasnik (In press)

→Multiple Interrogation (some speakers) Kuno and Robinson (1972), Postal (1974)

(345) Who kissed who
(346) *Who thought [Joan kissed who]
(347) Who convinced who that it was time to leave
(348) *Who convinced Joan [(that) Bob kissed who]
(349) ✓Who wants [__ to marry who]?
(350) *Which man claims that Kevin lent Jill which magazine?

The surprise:

(351) ?Which man$_i$ claims that he$_i$ lent Jill which magazine? Grano and Lasnik (In press)

(352) a. Quem$_i$ disse que pro$_i$ lê que jornal? Portuguese
who said that reads what journal
b. ??Quem$_i$ disse que ele$_i$ lê que jornal?
who said that he reads what journal
c. *Quem disse que Pedro lê que jornal?
who said that Pedro reads what journal

(353) a. ¿Quién$_i$ dice que pro$_i$ lee qué revista? Spanish
who says that reads which magazine
b. ? ¿Quién$_i$ dice que él$_i$ lee qué revista?
who says that he reads which magazine
c. ?* ¿Quién dice que Pedro lee qué revista?
who says that Pedro reads which magazine

(354) a. 我 想知道 哪个 男生 喜欢 哪个 女生。 Mandarin (some speakers)
wo xiangzhidao na-ge nansheng xihuan na-ge nüsheng.
I want-know which-CL boy like which-CL girl
'I want to know which boy$_1$ likes which girl.

b. * 我 想知道 哪个 男生 说 李四 喜欢 哪个 女生。
wo xiangzhidao na-ge nansheng shuo Lisi xihuan na-ge nüsheng.
I want-know which-CL boy say Lisi like which-CL girl
'I want to know which boy$_1$ said Lisi likes which girl.

c. ?我 想知道 哪个 男生 说 (自己) 喜欢 哪个 女生。
wo xiangzhidao na-ge nansheng shuo ziji xihuan na-ge nüsheng.
I want-know which-CL boy say self like which-CL girl
'I want to know which boy$_1$ said (he$_1$) likes which girl.'

(355) Thus, for many phenomena in a variety of languages a null subject keeps a clausal domain open, while for others, a bound subject has this effect. Ultimately this might tell us something about the proper definition of 'phase'. For the latter case, Grano and Lasnik (In press) venture a preliminary proposal (presented in abbreviated form in my Guangdong University of Foreign Studies lecture this week).

(356) One last remark is in order though. One of the early instances of clause porousness, in this presentation and in the development of generative grammar, involved clitic-climbing. But clitic-climbing never shows the bound pronominal subject effect or the null subject of finite clause effect. To the best of my knowledge, no language allows clitic-climbing out of a finite clause, no matter what its subject is. Evidently, as argued by Postal (1974), while some processes are permitted across quasi-clause boundaries, others are blocked by **all** clause boundaries. We are then led to either classic pruning for clitic-climbing, or the reinterpretation of pruning as 'restructuring' by Rizzi (1978). As has so often happened in the development of generative grammar, the resurrection of old ideas can be very useful.

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