

Locality and Quasi-Locality: Old and New Approaches to ‘Clause-mate’ Phenomena

Howard Lasnik
University of Maryland
lasnik@umd.edu

- (1) The - students - like - books - about - syntax
- (2) [[The students] [like [books [about syntax]]]]
- (3) One of the most fundamental properties of human languages: Sentences have structure. They aren’t simply strings of words (or morphemes, or phones).
- (4) This property is amply illustrated by its interaction with another fundamental property: displacement (i.e., the situation where some expression is pronounced in one place in the sentence, but semantically understood in another). The portions of a sentence that can be displaced (‘moved’) are structural units - sub-structures of the whole structure:
- (5) a. Books about syntax, the students like __ ‘Topicalization’
b. *Like books, the students __ about syntax
c. *Books about, the students like __ syntax
etc.
- (6) This is one instance of what Noam Chomsky has called *structure dependence*.
- (7) Structure is also implicated in constraints on relations between two positions in a sentence (displacement being one such; there are plenty of others).
- (8) We have seen Topicalization. Interrogation also involves movement (in this case, movement of the direct object and of the auxiliary verb. Here, I am most interested in the former):
- (9) a. John will put the book on the table
b. What will John put __ on the table
- (10) A declarative can occur embedded inside a larger sentence:
- (11) Mary thinks [(that) John will put the book on the table]
- (12) When this happens, interrogative movement is generally still possible, even though the distance (both structurally and linearly) is long:
- (13) What_i does Mary think (that) John will put on the table ___i <The subscripts indicate the item that moved and the position from which it moved>
- (14) In the 1960's, this kind of movement was sometimes called ‘unbounded’, but Chomsky (1964) noticed that there are certain constraints on it. (And in the classic work on the topic, Ross (1967) pointed out many more configurations that block movement. He called these configurations ‘islands’.)
- (15) An interrogative can, like a declarative be embedded in a larger sentence:

- (32) a. Compré un abrigo
'I bought a coat.'
b. Lo compré
'I bought it.'
- (33) BUT clitics cannot raise across a sentence boundary:
- (34) 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.'
- (35) However, a now familiar exemption arises: When the embedded sentence is non-finite, and lacks an overt subject, 'clitic-climbing' is possible:
- (36) a. Quiero estar haciéndomelo
b. Quiero estármelo haciendo
c. Me lo quiero estar haciendo
'I want to be doing it for myself.'
- (37) Rivero, following a proposal of Ross's about similar phenomena in Serbo-Croatian, says that once the overt subject is eliminated (by a process called Equi-NP Deletion), the embedded sentence loses its finiteness, and even its syntactic status as a clause. In Ross's metaphor, the S node is 'pruned'. With the S-node gone, there is no barrier to clitic-climbing.
- (38) Quicoli (1976) discusses a similar pattern found in some dialects of Portuguese (those that still have clitics; I am told that many don't anymore).
- (39) As with the other cases of clitic movement we have seen, climbing out of a finite clause is not possible. This is a consequence of the Chomsky (1973) Tensed Sentence Condition (TSC).
- (40) a. Zeca viu que nos saímos.
'Zeca saw that we left.'
b. *Zeca nos viu que saímos.
Zeca us saw that left
- (41) Marta viu que o garoto apanhou a bola.
'Martha saw that the boy caught the ball.'
- (42) 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
- (43) Also as in Spanish, clitics can climb out of a non-finite clause lacking an overt subject.
- (44) a. O medico queria examinar-nos.
b. O medico queria nos examinar
c. O medico nos queria examinar.
'The doctor wanted to examine us.'
- (45) Following Chomsky (1973), Quicoli argues against a clause-mate account, and in favor of the SSC and TSC instead. However, as he notes, the SSC would block the clitic

climbing observed in (44) since the clitic (Y) moves to a position (X) that does NOT control Chomsky's hypothesized null subject PRO (i.e., X is not the subject of the main sentence). Hence, in a hybrid of old and new, Quicoli proposes that the subject of the infinitival actually undergoes Equi NP deletion in such cases. There being no subject at all, there is no 'specified subject' to block the movement.

- (46) Postal (1974) discusses a number of clause-mate type phenomena. He rejects the then prevalent pruning view, arguing, instead, that under certain circumstances a full clause becomes a weaker 'quasi-clause'. Infinitives lacking overt subjects are one instance of a quasi-clause he discusses. In principle, there could be others.
- (47) Some relations that were thought to be blocked by any clause boundary are not blocked by quasi-clause boundaries.
- (48) An infinitival clause lacking an overt subject might be a quasi-clause because it has no subject at all (Postal's approach and, in essence, Quicoli's). Or there might be a subject, PRO, that, by virtue of being controlled, renders the clause a quasi-clause (a version of Chomsky's SSC).

More quasi-clause effects (and a surprise)

Reciprocal Binding

- (49) John and Mary visited each other
- (50) John and Mary want [___ to visit each other]
This sentence can, possibly must, have a 'long' reading, with the semantic antecedent of 'each other' the subject of 'want':
'Each wants to visit the other' Higginbotham (1980)
- (51) 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)
- (52) This is the kind of case alluded to in (27) where the simpler alternative to SSC doesn't work.
- (53) *John and Mary want [Bill to visit each other]
The surprise:
- (54) John and Mary thought [they loved each other]
- (55) a. John and Mary thought they (that is, John and Mary) loved each other <short reading OK>
→ b. John thought that he loved Mary and Mary thought that she loved John <long reading OK. Surprising because the long antecedent is outside a **finite** clause>
- (56) *John and Mary thought that Susan loved each other <would = Each of John and Mary thought that I loved the other.>
- (57) *John and Mary thought that I loved each other
- (58) It appears that some normally very local relations X,Y are possible even across a finite clause, when the subject of that clause is a bound pronoun, a previously unexplored type of quasi-clause.

Gapping

- (59) John read books and Mary read magazines
(60) John wanted to read books and Mary ~~wanted to read~~ magazines
(61) *John wanted Bill to read books and Mary ~~wanted Bill to read~~ magazines
(62) *John thinks that Bill will see Susan and Harry ~~thinks that Bill will see~~ Mary
(63) ?John thinks that he will see Susan and Harry ~~thinks that he will see~~ Mary
[Nishigauchi (1998), attributed to an anonymous reviewer]
(64) "... the clausemate restriction on Gapping is alleviated by an intervening pronoun."
(65) John_i thinks that he_i will see Susan and Harry_j ~~thinks that he_j will see~~ Mary
(66) *John thinks that I will see Susan and Harry ~~thinks that I will see~~ Mary
(67) In particular, the alleviation requires a **bound** pronoun.

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

- (68) Who kissed who
(69) *Who thought [Joan kissed who]
(70) Who convinced who that it was time to leave
(71) *Who convinced Joan [(that) Bob kissed who]
(72) ✓Who wants [___ to marry who]?
(73) a. *Which man claims that Kevin lent Jill which magazine?
b. ?Which man claims that he lent Jill which magazine? Grano and Lasnik (2016)
(74) 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
(75) 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

Multiple Sluicing

- (76) Someone talked about syntax, but I don't know who ~~talked about syntax~~ 'Sluicing',
Ross (1969)
(77) Mary talked about something, but I don't know about what ~~Mary talked~~
(78) Someone talked about something
?but I don't know who about what
(79) Someone wanted [___ to talk about something]
?but I don't know who about what
(80) Someone wanted [Mary to talk about something]
*but I don't know who about what

- (93) a. Clause-mate phenomena are constrained by ‘phases’ in the sense of Chomsky (1999) and much subsequent work.
 b. The Phase Impenetrability Constraint is operative here. C(omplementizer) is a phase head. The complement of a phase head, T(ense)P in this case, is sealed off.
 c. Bound pronouns can be introduced into a structure with unvalued agreement features, which will be valued when the antecedent is introduced into the structure. [A modification of an idea due to Kratzer (2009); Chomsky (1955) had already proposed that bound pronouns are lexically different from free ones.]
 d. Unvalued features in the complement of a phase head keep a phase open. [A version of an idea considered by Chomsky (2000), though not ultimately adopted there]
- (94) What about a bound **non**-subject? So far, the behavior should be the same, but it seems not to be. A few examples follow. (For the third and fourth of these, the relative judgments were strongly confirmed by an experiment reported in Grano and Lasnik (2016), as was the sharp improvement indicated above provided by a bound subject for these two phenomena.)

Gapping

- (95) a. ?Joe_i claims [that he_i reads books] and Tim_j ~~claims [that he_j reads articles]~~
 b. *Joe_i claims [that Bill gave him_i books] and Tim_j ~~claims [that Bill gave him_j articles]~~
 c. *Joe_i claims [that [his_i daughter] reads books] and Tim_j ~~claims [that [his_j daughter] reads articles]~~

Multiple Sluicing

- (96) a. ?A certain professor said [he would tell the students about a certain book], but I forget which professor about which book
 b. *A certain professor said [the students asked him about a certain book], but I forget which professor about which book
 c. *A certain professor said [his students asked about a certain book], but I forget which professor about which book

Multiple interrogation

- (97) a. ?Which man claims that he lent Jill which magazine?
 b. *Which man claims that Jill lent him which magazine?
 c. *Which man claims that his father lent Jill which magazine?

Too/Enough Movement

- (98) a. ?This shirt is too expensive for Barbara to claim that she bought for Mike
 b. *This shirt is too expensive for Barbara to claim that Mike bought for her
 c. *This shirt is too expensive for Barbara to claim that her father bought for Mike
- (99) → Apparently only bound **subject** creates the bound pronoun loophole.
- (100) Grano and Lasnik (2016), based on a suggestion of Hisa Kitahara, propose that it is specifically the **head** (T in this case) of the complement of a phase head whose agreement features are relevant. But T gets its agreement features from the subject. And, by hypothesis, the subject, if a bound pronoun, lacks agreement features until its antecedent is introduced into the structure. Thus, the phase remains open until then.

- (101) A bound **non**-subject will not have this effect, since T only gets its agreement features from subject.
- (102) 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. 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.
- (103) Or, as Faulkner said in Requiem for a Nun, “The past is never dead. It's not even past.”

References

- Barrie, Michael. 2005. Control and wh-infinitivals. *New Horizons in the Grammar of Raising and Control*. Harvard University.
- Chomsky, Noam. 1955. The logical structure of linguistic theory. Ms. Harvard University, Cambridge, Mass. and MIT, Cambridge, Mass., .[Revised 1956 version published in part by Plenum, New York, 1975; University of Chicago Press, Chicago, 1985].
- Chomsky, Noam. 1964. *Current issues in linguistic theory*. The Hague: Mouton.
- Chomsky, Noam. 1973. Conditions on transformations. In *A festschrift for Morris Halle*, ed. Stephen Anderson and Paul Kiparsky, 232-286. New York: Holt, Rinehart and Winston.
- Chomsky, Noam. 1981. *Lectures on government and binding*. Dordrecht: Foris.
- Chomsky, Noam. 1999. Derivation by phase. In *MIT Occasional Papers in Linguistics* 18.
- Chomsky, Noam. 2000. Minimalist inquiries: the framework. In *Step by step: Essays on minimalist syntax in honor of Howard Lasnik*, ed. Roger Martin, David Michaels, and Juan Uriagereka, 89-155. Cambridge, Mass.: MIT Press.
- Grano, Thomas and Howard Lasnik. 2016. How to neutralize a finite clause boundary: Phase Theory and the grammar of bound pronouns. Ms. Indiana University and the University of Maryland,
- Grosu, Alexander. 1973. On the status of the so-called right roof constraint. *Language* 49: 294-311.
- Heim, Irene, Howard Lasnik and Robert May. 1991. Reciprocity and plurality. *Linguistic Inquiry* 22: 63-101.
- Higginbotham, James. 1980. Reciprocal interpretation. *Journal of Linguistic Research* 1: 97-117.
- Kratzer, Angelika. 2009. Making a pronoun: Fake indexicals as windows into the properties of pronouns. *Linguistic Inquiry* 40: 187-237.
- Kuno, Susumu and Jane J. Robinson. 1972. Multiple wh-questions. *Linguistic Inquiry* 3: 463-487.
- Lasnik, Howard. 2013. Multiple Sluicing in English? *Syntax* 16.
- Merchant, Jason. 2001. *The syntax of silence: Sluicing, islands, and the theory of ellipsis*. Oxford: Oxford University Press.
- Nishigauchi, Taisuke. 1998. 'Multiple Sluicing' in Japanese and the functional nature of wh-phrases. *Journal of East Asian Linguistics* 7: 121-152.

- Postal, Paul M. 1974. *On raising: One rule of English grammar and its theoretical implications*. Cambridge, Mass.: MIT Press.
- Quicoli, A. Carlos. 1976. Conditions on clitic movement in Portuguese. *Linguistic Analysis* 2: 199-223.
- Rivero, Maria-Luisa. 1970. A Surface Structure constraint on negation in Spanish. *Language* 40: 640-666.
- Rizzi, Luigi. 1978. A restructuring rule in Italian syntax. In *Recent transformational studies in European languages*, ed. Samuel Jay Keyser. Cambridge, Mass.: MIT Press.
- Ross, John Robert. 1967. *Constraints on variables in syntax*. Doctoral dissertation, MIT, Cambridge, Mass. Published as *Infinite syntax!* Norwood, N.J.: Ablex (1986).
- Ross, John Robert. 1969. Guess who? In *Papers from the Fifth Regional Meeting of the Chicago Linguistic Society*, ed. Robert I. Binnick, Alice Davison, Georgia M. Green, and Jerry L. Morgan, 252-286. Chicago Linguistic Society, University of Chicago, Chicago, Ill.

Locality is a key concept not only in linguistic theorizing, but in explaining pattern of acquisition and patterns of recovery in garden path sentences, as well. If syntax relates sound and meaning over an infinite domain, syntactic dependencies and operations must be restricted in such a way to apply over limited, finite domains in order to be detectable at all (although of course they may be allowed to iterate indefinitely). The theory of what these finite domains are and how they relate to the fundamentally unbounded nature of syntax is the theory of locality. The papers in this collection (30) Another phenomenon classically described in clause-mate terms: "clitic-climbing". (31) Rivero (1970) points out that generally clitic pronouns in Spanish are moved to a pre-verbal position. Hence, in a hybrid of old and new, Quicoli proposes that the subject of the infinitival actually undergoes NP deletion in such cases. There being no subject at all, there is no "specified subject" to block the movement. (46) Postal (1974) discusses a number of clause-mate type phenomena. He rejects the then prevalent pruning view, arguing, instead, that under certain circumstances a full clause becomes a weaker "quasi-clause". Infinitives lacking overt subjects are one instance of a quasi-clause he discusses. In principle, there could be others.