

Minimalizing Movement

Howard Lasnik
University of Connecticut
lasnik@sp.uconn.edu

I. Three theories of Last Resort

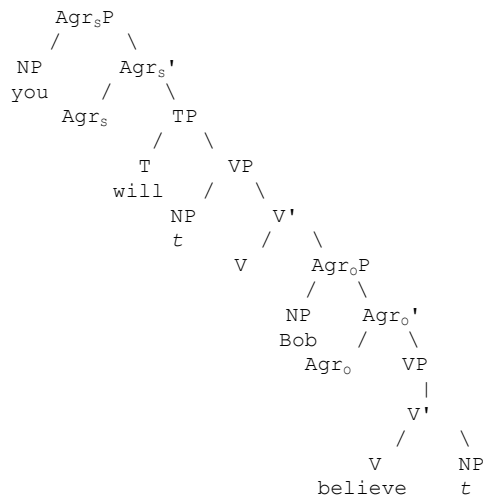
- (1) *John is likely [t will win]
- (2) "Last Resort": Items move only if they have to, a move towards simplicity in derivations. [In modern form, the idea goes back to Chomsky (1981). Interestingly, the antecedents of the idea, like those of many Minimalist ideas, are quite old: "...an obvious decision is to consider minimization of the optional part of the grammar to be the major factor in reducing complexity." Chomsky (1958)]
- (3) 'Greed': Movement of α to β must be for the satisfaction of formal requirements of α . Chomsky (1993), Chomsky (1994)
- (4) One such formal requirement is that 'uninterpretable' features be deleted under proximity to appropriate matching features.
- (5) John in (1) had no need to move. All its requirements are satisfied in the lower clause.
- (6) BUT, if finite Infl has a nominative Case feature that it must discharge, and if John has already checked (and deleted) its Case in the lower clause, then matrix Infl in (1) will never get rid of its uninterpretable Case feature. Greed is redundant here.
- (7) John is believed [t to be likely [t to be arrested t]]
- (8) There is very strong evidence, especially from binding theory, that A-movement successive cyclically moves an NP through every intervening Spec of IP. There is also very good reason to believe that the EPP is valid.
- (9) What features of John itself could possibly demand to be checked in every subject position it passes through? It is phenomena of this type that require a computationally complex global property of Greed. The derivation has to see that a step of movement will ULTIMATELY lead to some benefit for the moving item.
- (10) 'Enlightened Self Interest': Movement of α to β must be for the satisfaction of formal requirements of α or β . Lasnik (1995a), Lasnik (1995b) [both reprinted in Lasnik (1999)]

- (11) Infl has an EPP requirement, demanding that it have a Spec. Successive cyclic A-movement is driven at each step by the requirements of an Infl.
- (12) 'Suicidal Greed': Movement of α to β must be for the satisfaction of some requirement of β . Chomsky (1995)
- (13) This eliminates some computational complexity. The relevant defect of an item is identified and rectified immediately.

II. Three Theories of Feature Strength

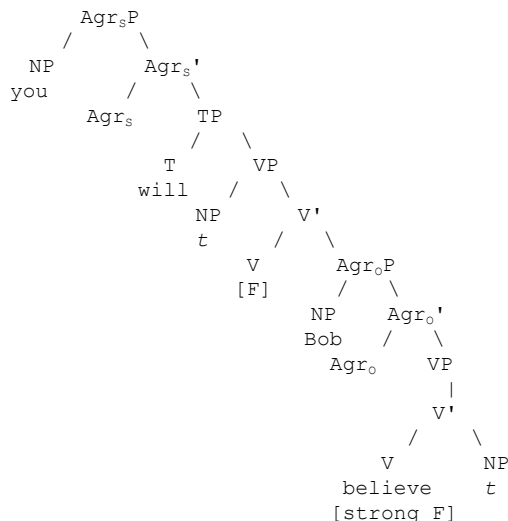
- (17) Procrastinate: LF movement is preferred to overt movement.
- (14) When movement is overt, it must have been forced to operate 'early' by some special requirement. Chomsky (1993;1994;1995) codes this requirement into 'strong features'.
- (15) **A** A strong feature that is not checked in overt syntax causes a derivation to crash at PF. Chomsky (1993)
- B** A strong feature that is not checked (and eliminated) in overt syntax causes a derivation to crash at LF. Chomsky (1994)
- C** A strong feature must be eliminated (almost) immediately upon its introduction into the phrase marker. Chomsky (1995)
- (16) Ellipsis provides potential evidence for (**A**), if it is, as suggested by Chomsky and Lasnik (1993), a PF deletion process. Though, as we will see, this raises the specter of computational complexity again.
- (17) Two instances: first Pseudogapping then Sluicing.
- (18) a If you don't believe me, you will \emptyset the weatherman
b I rolled up a newspaper, and Lynn did \emptyset a magazine
c Kathy likes astronomy, but she doesn't \emptyset meteorology
Levin (1978)
- (19) a The DA proved Jones guilty and the Assistant DA will ~~prove~~ Smith ~~guilty~~
b ?John gave Bill a lot of money, and Mary will ~~give~~ Susan ~~a lot of money~~
- (20) You might not believe me but you will Bob
- (21) NP-raising to Spec of Agr₀ ('Object Shift') is overt in English. [Koizumi (1993), Koizumi (1993) developing ideas of Johnson (1991)]
- (22) Pseudogapping as overt raising to Spec of Agr₀ followed by deletion of VP. [Lasnik (1995d)]

(23)



(24) *You will Bob believe

(25)



(26) Suppose the strong feature driving V-raising resides in the lexical V rather than in the higher 'shell' V. The strong feature of the verb must **either** be checked by overt raising to the shell V **or** be contained in an ellipsis site. PF deletion could eliminate the unchecked strong feature. Notice, though, that this seems incompatible with Suicidal Greed.

(27) Sluicing - WH-Movement followed by deletion of IP

(abstracting away from 'split Infl' details). [Ross (1969), Saito and Murasugi (1990), Lobeck (1990)]

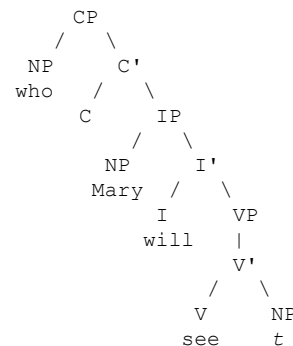
(28)

Speaker A: Mary will see someone.
Speaker B: I wonder who ~~Mary will see~~.

(29)

Speaker A: Mary will see someone.
Speaker B: Who ~~Mary will see~~?

(30)



(31)

*Who Mary will see?

(32)

Who will Mary see?

(33)

Suppose that in a matrix interrogative, it is Infl that has a strong feature, rather than C. The strong feature of Infl must **either** be checked by overt raising to the interrogative C **or** be contained in an ellipsis site. PF deletion could eliminate the unchecked strong feature. Again, this works nicely but seems incompatible with Suicidal Greed.

(34)

There is a possible alternative analysis, based on the Chomsky (1995) theory of pied-piping, particularly as explicated by Ochi (1997), Ochi (1999).

(35)

"For the most part - perhaps completely - it is properties of the phonological component that require pied-piping. Isolated features and other scattered parts of words may not be subject to its rules, in which case the derivation is canceled; or the derivation might proceed to PF with elements that are 'unpronounceable,' violating FI." Chomsky (1995, p.262)

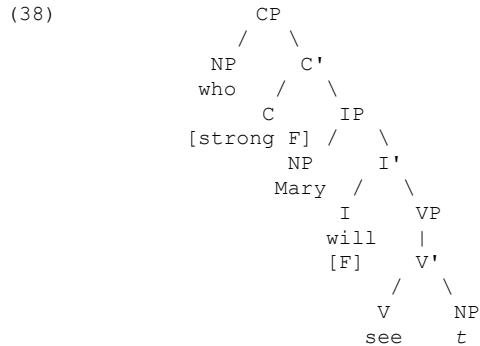
(36)

" Just how broadly considerations of PF convergence might extend is unclear, pending better understanding of morphology and the internal structure of phrases. Note that such considerations could permit raising without pied-piping even overtly, depending on morphological structure..." (Chomsky 1995, p.264)

(37)

Matrix interrogative C might then contain the strong feature, with the matching feature of Infl raising

overtly to check it. This leaves behind a phonologically defective Infl, which will cause a PF crash unless either pied-piping or deletion of a category containing that Infl (Sluicing) takes place.



(39) Similarly for the feature driving overt V-raising: it could be a strong feature of the **higher** V. Once the matching feature of the lower lexical V is 'attracted', the lower V becomes defective. A PF crash will be avoided if either pied-piping or deletion of a category containing the lower V (VP Deletion = Pseudogapping in the relevant instances) takes place.

III. Three Theories of Covert Movement

(40)a There is/*are a man here
b There are/*is men here

(41) There is a man here S-structure

(42) A man is *t* here LF Chomsky (1986)

(43) BUT Lasnik and Saito (1991), den Dikken (1995)

(44)a Some linguists seem to each other [*t* to have been given good job offers]

b *There seem to each other [*t* to have been some linguists given good job offers]

(45)a No good linguistic theories seem to any philosophers [*t* to have been formulated]

b *There seem to any philosophers [*t* to have been no good linguistic theories formulated]

(46)a Some defendant_i seems to his_i lawyer [*t* to have been at the scene]

b *There seems to his_i lawyer [*t* to have been some defendant_i at the scene]

(47) "The operation Move...seeks to raise just F." Chomsky (1995)

(48) When movement is covert, hence only of formal features,

the referential and quantificational properties needed to create new binding and scope configurations are left behind, so no such new configurations are created. Lasnik (1995c), Lasnik (In press) (somewhat extending a proposal of Chomsky (1995))

(49) All else equal, movement should never be of an entire syntactic category, but only of its formal features.

(50) As already discussed, PF requirements will normally force movement of a category containing the formal features, via a sort of pied-piping, under the assumption that a bare feature (or set of features) is an ill-formed PF object.

(51) For LF movement, on the other hand, pied-piping will normally not be necessary, hence, by economy, will not even be possible. Only the formal features will move, and they will move exactly to the heads that have matching features. [Procrastinate now becomes a true economy principle; moving less material is more economical than moving more.] In a standard existential sentence like (52), then, the associate someone does not actually move to there.

(52) There is someone here

(52) The movement of features in this case is driven by the unchecked Φ -features of Agr, there lacking agreement features of its own.

(53) Chomsky (2000) presents a different, even more minimal, theory of covert operations, one that provides an alternative treatment for the binding and licensing paradigms above.

(54) "In MP, Agree is analyzed in terms of feature-movement (Attract)...Here we...dispense with Attract...Checking reduces to deletion under matching..." Chomsky (2000)

(55) "There is a single cycle; all operations are cyclic. Within narrow syntax, operations that have or lack phonetic effects are interspersed. There is no distinct LF component within narrow syntax...Agree alone, not combined with Merge in the operation Move, can precede overt operations, contrary to the assumptions of MP and related work." Chomsky (2000)

(56) The complementarity between normally obligatory movement and ellipsis receives a rather straightforward account in terms of feature movement, as seen in the discussion of Sluicing and Pseudogapping. It is not clear how this would be expressed if feature movement were eliminated from the theory in favor of long distance agreement. The most minimal theory of covert movement might not be the correct one.

References

- Chomsky, Noam. 1958. A transformational approach to syntax. In *Proceedings of the Third Texas conference on problems of linguistic analysis in English*, ed. Archibald A. Hill, 124-158. University of Texas Press, University of Texas, Austin. [Reprinted in *The structure of language: Readings in the philosophy of language*, eds Jerry A. Fodor and Jerrold J. Katz, 211-245. Englewood Cliffs, N. J.: Prentice-Hall, 1964].
- Chomsky, Noam. 1981. *Lectures on government and binding*. Dordrecht: Foris.
- Chomsky, Noam. 1986. *Knowledge of language*. New York: Praeger.
- Chomsky, Noam. 1993. A minimalist program for linguistic theory. In *The view from Building 20: Essays in linguistics in honor of Sylvain Bromberger*, ed. Kenneth Hale and Samuel J. Keyser, 1-52. Cambridge, Mass.: MIT Press. Reprinted in Noam Chomsky, *The minimalist program*, Cambridge, Mass.: MIT Press (1995).
- Chomsky, Noam. 1994. Bare phrase structure. MIT occasional papers in linguistics 5. MITWPL, Department of Linguistics and Philosophy, MIT, Cambridge, Mass. [Also published in Campos and Kempchinsky (1995) and Webelhuth (1995).]
- Chomsky, Noam. 1995. Categories and transformations. In *The minimalist program*, 219-394. Cambridge, Mass.: MIT Press.
- 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.
- den Dikken, Marcel. 1995. Binding, expletives, and levels. *Linguistic Inquiry* 26: 347-354.
- Johnson, Kyle. 1991. Object positions. *Natural Language and Linguistic Theory* 9: 577-636.
- Koizumi, Masatoshi. 1993. Object agreement phrases and the split VP hypothesis. In *Papers on Case and Agreement I: MIT working papers in linguistics* 18, 99-148.
- Lasnik, Howard. 1995a. Case and expletives revisited: On Greed and other human failings. *Linguistic Inquiry* 26: 615-633.
- Lasnik, Howard. 1995b. Last resort. In *Minimalism and linguistic theory*, ed. Shosuke Haraguchi and Michio Funaki, 1-32. Tokyo: Hituzi Syobo.
- Lasnik, Howard. 1995c. Last resort and attract F. In *Proceedings of the Sixth Annual Meeting of the Formal Linguistics Society of Mid-America*, ed. Leslie Gabriele, Debra Hardison, and Robert Westmoreland, 62-81. Indiana University, Bloomington, In. Distributed by the Indiana University Linguistic Club.
- Lasnik, Howard. 1995d. A note on pseudogapping. In *Papers on minimalist syntax, MIT working papers in linguistics* 27, 143-163.
- Lasnik, Howard. 1999. *Minimalist analysis*. Oxford: Blackwell.
- Lasnik, Howard. In press. Feature movement or agreement at a distance? In *Remnant movement, F-Movement and the T-model*, ed. Artemis Alexiadou, Elena Anagnostopoulou, Sjef Barbiers, and Hans-Martin Gaertner. Amsterdam: John Benjamins.
- Lasnik, Howard, and Mamoru Saito. 1991. On the subject of infinitives. In *Papers from the 27th Regional Meeting of the Chicago Linguistic Society, Part I: The general session*, ed. Lise M. Dobrin, Lynn Nichols, and Rosa M. Rodriguez, 324-343. Chicago Linguistic Society, University of Chicago, Chicago, Ill.
- Lobeck, Anne. 1990. Functional heads as proper governors. In *Proceedings of North Eastern Linguistic Society 20*, 348-362. GLSA, University of Massachusetts, Amherst
- Ochi, Masao. 1997. Move or Attract?: Attract F and the pied-piping chain.
- Ochi, Masao. 1999. Some consequences of Attract F. *Lingua* 109: 81-107.
- 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.
- Saito, Mamoru, and Keiko Murasugi. 1990. N'-deletion in Japanese. In *University of Connecticut working papers in linguistics* 3, 87-107.