The character of island conditions

Thoughts inspired by contemporary linguistic theory

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1 Preliminaries: If all you have is Merge, ...

- (1) Hypothesis: Merge α (Boeckx 2010/In progress, based on Chomsky 2004)
- (2) "[Narrow Syntax] is based on the free operation Merge" (p. 110)
- (3) "[The Strong Minimalist Thesis] entails that Merge of α , β is unconstrained, therefore either *external* or *internal*." (p. 110)
- (4) "[If Merge is unconstrained,] derivations cannot be failure-proof ("Crash-free")" (p. 112)
- (5) "failures at the interface do not cause the derivation to crash; such structures yield deviant interpretations of a great many kinds" (p. 111)

- (6) We want the interfaces to have the chance to filter out deviant outputs, for the sort of deviance that characterize such outputs cannot be defined internal to Narrow Syntax. The latter is only required to generate interface-legible outputs, it cannot, and should not be asked to, guarantee anything more (see also Ott (2010)).
- (7) All apparent constraints on Merge (incl. constraints on Move, "islands") must therefore reduce to interface constraints; back to Miller and Chomsky (1963), Chomsky and Lasnik (1977).
- (8) Turning the minimalist predicament into an advantage: Modular *vs.* interface-thinking
- (9) Minimalism. Sure, but which one?
- (10) "Occasionally you see these entirely conceptual papers and I'm not a big fan of them, because I just don't think our field is ready for them, maybe physics is, I don't know much about physics, but linguistics certainly isn't ready for entirely conceptual arguments. I think we still have to rely a lot on empirical evidence." (Lasnik, 2002, 323)
- (11) "... the all too infrequent pleasure of seeing the theory choose the analysis" (Kayne, 1994, 132)
- (12) "My concerns are not about Minimalism as a program. On the contrary, I subscribe to the overall goal to construct a theory that makes grammar look as perfect as possible and that relegates as much as it can to "third factor" principles. My dissatisfaction is about how this program is carried out in practice. Others disagree, but my personal feeling is that little *theoretical* progress has been made since the 1980s. I emphasize *theoretical*, because empirically speaking the progress has been impressive. One can hardly think of any topic nowadays of which it cannot be said that there is a wealth of literature about it." (Koster, 2010)
- (13) Minimalism-Schminimalism (Boeckx, 2010/In progress)
- (14) General feeling:(i) Locality was GB's pet subject and success story

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(ii) Locality is MP's blindspot

- (15) (Needless to say?) I disagree, for various reasons:
 - a. (GB and MP are not in opposition)
 - b. GB accounts (all the way back to Ross (1967), Chomsky (1973)) uncovered fascinating regularities, but didn't really go "beyond explanatory adequacy". It's not even clear that they cut the nature of locality at its joints (island repair, CED-discrepancies, etc.). Much of the GB work was cartographic in nature.
 - c. There are insightful (and partially converging) accounts of locality effects in MP:
 - (i) Richards (2001), Boeckx (2003, 2008b), Rizzi (2006), Rizzi and Shlonsky (2007) on the EPP and freezing
 - (ii) Hornstein and Nunes (2008), Chomsky (2004), Boeckx (2008b), Stepanov (2007) on the Adjunct Condition and the derivational invisibility of Pair-Merge structures
 - (iii) Uriagereka (1999b), Fox and Pesetsky (2005), Lasnik (2001), Merchant (2001), Hornstein et al. (2007) on islands and PF (linearization)
 - (iv) Rizzi (2004), Starke (2001), Boeckx and Jeong (2004) on Minimality and autosegmental-like feature structures

All of these made possible by MP's attention to economy, features, and essential properties like labeling

Moreover, one of the best GB accounts — Rizzi (1990) — was actually MP in disguise:
 "the basic and appealing intuition that lies behind the principle

of Relativized Minimality is [...] that the operation [of movement] should always try to construct 'the shortest link'." (Chomsky and Lasnik, 1991, 89) (17) A useful reminder:

[...] [i]n the particular case I am talking about the theories are *exactly* equivalent. [...] Psychologically they are different because they are completely unequivalent when you are trying to guess new laws. (Feynman, 1965, 47)

(18) Minimalist worry:

(i) As Rizzi (1990, 1) had already told us, "Minimality is a partial theory of locality". The elegant economy account behind Relativized Minimality does not straightforwardly extend to CED-phenomena.

(ii) Big Problem, because (sadly) for many, MP = economy and features

(iii) So ... back to the comfort of old: "[phases] yield a strong form of subjacency" (Chomsky, 2000, 108)

BUT:

(iv) Old chestnut:

"In the current theory [Phase Theory – CB], all phase-boundaryinducing heads can have P-features. A head with a P-feature can attract elements with unsatisfied uninterpretable features to its specifier, with the result that the P-feature is checked by the attractee, and the attractee is in a position from which it can move further to satisfy its uninterpretable feature (and thus prevent the derivation from crashing). The problem that arises by this proposal is that now nothing should be an island if all strong phases allow movement out of them (due to P-features)." (Ceplova, 2001, 2-3)

(v) Familiar tempation:

"[we should look for] a possibility of restricting the distribution of P-features that depends on structural position of the category, a possibility reminiscent of L-marking in Chomsky (1986)" (Ceplova, 2001)

Similarly:

"Phases are still wanting as a theory of locality; they clearly do

not make for very good islands, precisely because they are designed to be escapable, via the phase edge (see also Boeckx & Grohmann 2007 on this point). What is required to bring phases up to the level of descriptive adequacy attained by barriers in GB, then, is a theory of precisely when the phase edge (specifier region) is and is not available (i.e. able to be projected). Müller [2010] is an important step in this direction." (Richards, To appear)

- (19) Such accounts forget that perhaps the most radical difference in research strategy between GB and MP is the rise of "interface thinking", as opposed to modularity.
- (20) Features are nano-modules. We need to look for interface-driven accounts.
- (21) Careful to avoid the opposite temptation: "there is nothing syntactic about islands; it's all discourse, or pragmatics, or ..."
 (Goldberg (2006), Erteschik-Shir (1973, 2007))
- (22) The example to follow is Miller and Chomsky (1963) (see also Bever (1970)): how instructions provided by Narrow Syntax, packaged in a specific way, are processed within the computational limits of the performance systems (see also Chomsky and Lasnik (1977))

2 Things we have (not yet fully?) learned

- (23) It is standard to use "Islands" as a diagnostic for movement (cf. Chomsky (1977, 86)), but:
- (24) The operation *Agree* a nonmovement operation is constrained by Minimality (Chomsky 2000, Boeckx 2008a, among many others).
- (25) Agree also cannot reach into 'opaque' domains (Boeckx 2003)
 - a. Displaced subjects can't be probed
 - b. (true) Adjuncts can't be probed

(26) Since Move/Remerge is (by default) parasitic on Agree (Chomsky 2000), Move/Remerge will be constrained by Minimality, and is expected to give rise to CED-effects

In light of this, consider:

- (27) a. *Qui il dit qui \langle qui \rangle a vue Marie? (Fr.)
 who he said that.AGR has seen Marie
 'Who has he said saw Marie?'
 - b. Qui il dit que Jean a vu (qui)?
 who he said that Jean has seen
 'Who has he said that Jean saw?'
- (28) a. *Nori buruzko sortu zitusten aurreko asteko istiluek who about.of create aux last week scandals zurrumurruak? (*Basque*) rumors
 'Who have last week's scandals caused rumors about?' (Uriagereka (1998, 395))
 - b. Who did you see friends of $\langle who \rangle$?
- (29) a. *Quanti abbia scritto [(quanti) libri] Maria? (*It.*) how.many has written books Maria 'How many books did Maria write?'
 - b. Quanti libri abbia scritto Maria?
- Quanti abbia scritto [(quanti) di libri] Maria?
 how.many has written of books Maria
 'How many of the books did Maria read?'
- (31) a. Quanto sono [(quanto) alti]? how are.3PL old 'How old are they?'
 b. *Quanti alti sono? (Moro (2000, 50))

For many more examples, see Boeckx (2003, 38ff.); see also Donati (2006, 36) on 'the freezing effect of agreement.'

- (32) In fact, we should have known this all along: "Chopping rules are subject to [island] constraints; copying rules are not." Ross (1967, 257)
- (33) Islandhood is a much more dynamic, relativized property (like \overline{X} -relations; see already Fukui 1986). There is no consistently strong island (see Postal (1998), Boeckx (2003), Lasnik (2005)).
- (34) Different domains count as opaque in different languages; it makes sense to look for features that vary cross-linguistically and that may induce islandhood. If parameters aren't syntactic (Boeckx (2011, 2010)), islands can't be syntactic either.
- (35) Remarkable degree of convergence in a minimalist context: whatever islandhood is, it cannot follow from Merge. This does not mean that islandhood is not part of FLN (which includes the mapping from NS to SEM and PHON). Although a few constraints on variables may be part of FLB/Conceptual Structure (e.g., the Coordinate Structure Constraint, understood as a Parallelism Requirement), it strikes me as implausible to think that all of them may be.

3 What exactly is the problem with CED environments?

- (36) Imagine a world where features don't matter, where movement is not greedy, ...
- (37) Necessarily:
 - a. Cartographies, hierarchies $(\theta, fseq, ...)$, and other configurational properties traditionally ascribed to NS must be recaptured in a more emergentist, interactionist fashion (see Hale and Keyser 1993, 2002; more recently, Fortuny 2008, Boeckx 2008b, Nilsen 2003). This must be true of locality effects as well (islands as configurations)
 - b. Some other properties must be outsourced completely

- (38) There is, however, one important sense in which such freerunning Merge machine must be supplemented with another mechanism to provide informative outputs to the external systems (cf. Boeckx (2010/In progress)): short of providing LIs with specific modes of presentation, the external systems would be offered a giant set of undifferentiated lexical units. Such a set would arguably not be sufficient to capture even the most basic facts about s- and c-selection, θ -assignment, prosodic grouping, etc.
- (39) (Some) phases are required to provide informative outputs to the interfaces (Boeckx (2010/In progress))
- (40) Conjecture: Islands are grammatical conspiracies; they arise when a series of independently licit properties are forced to coexist in the course of a derivation (anti-modularity).

3.1 The conspiracy = The dislike for ambiguity

- (41) Principle of Unambiguous Chain (Boeckx (2003, 13))
 A Chain may contain at most one strong feature checking occurrence
- (42) Auxiliary hypothesis (see also Richards 2001):
 A strong feature checking occurrence serves as an instruction to the PHON interface to pronounce the displaced element (*and all the elements it contains*) in that position.
- (43) Assumption: PHON must receive unambiguous instructions about which occurrence of a chain to pronounce
- (44) Only one occurrence of an element can be pronounced (*pace* Nunes 2004)
- (45) a. *John seems [that $\langle John \rangle$ is sick]
 - b. *Who did John say [that $\langle who \rangle$ is sick]
 - c. *Who did [pictures of $\langle who \rangle$] [$\langle pictures of who \rangle$ annoy Mary]?

- (46) a. Who did John see $\langle who \rangle$?
 - b. Who did John see [pictures of $\langle who \rangle$]?
- (47) Who did John arrive [after Bill saw $\langle who \rangle$]?
- (48) Adjoined structures are uniformly associated with strong occurrences
- (49) This approach predicts no island-effects if the offending strong occurrence is deleted or resumed
- (50) Islands as PHON-mapping phenomena; see also Merchant 2001, Hornstein, Lasnik, and Uriagereka 2007
- (51) Given Agree ({case/agreement}-checking at a distance), what constitutes a "strong feature checking occurrence"?
- (52) An occurrence (other than the base position) sandwiched between two probing-heads (Boeckx 2008b)
- (53) Generalized *that-t*-filter: $\begin{bmatrix} CP & C_{\phi} & [TP & XP & T_{\phi} \dots & [\langle XP \rangle \dots]] \end{bmatrix}$
- (54) Movement of XP 'forced' by minimality considerations (all other occurrences can be treated as non-featuredriven/intermediate traces; Boeckx (2008d)) (Note: This is the 'EPP;' Boeckx (2010/In progress))
- (55) a. $C_{\phi} \dots T_{\phi} \dots XP_{\phi}$ b. $\alpha \succ \beta \succ \gamma$
- (56) In Boeckx (2008b) I related (41) to the idea that chains are like projections, they only allow for one unambiguous maximal projection
- (57) Being unlabeled, structures created by adjunction necessarily lead to ambiguous paths (cf. Kayne 1984)
- (58) Given (56), freezing effects need no longer be treated in exclusively PHON-terms (see also Rizzi and Shlonsky 2007)
- (59) In retrospect, the situation characterized by (52) is the result of *Feature-inheritance* (Chomsky 2008, 2007)

- (60) A strong phase (P*) bearing *u*F forces immediate transfer of its complement (Richards 2007); in effect, P* enforces Chomsky's 2000 version of the Phase Impenetrability Condition
- (61) *Phase Impenetrability Condition* (PIC₁; Chomsky 2000, 108) Spell-Out the Complement of Ph(ase) as soon as Ph is completed
- (62) Hypothesis: The interface systems regard a chain CH as closed if the portion transferred contains multiple occurrences of an element ϵ , and one of which is a checking site (a sister of a head having inherited *u*F from P* (a sort of 'Earliness condition' on chain-formation)

(63)
$$\left[_{CP} C_{\phi} \right] \left[_{TP} XP T_{\phi} \dots \left[\left\langle XP \right\rangle \dots v \right] \right] \dots \right]$$

- (64) $[\operatorname{XP} v_{\phi} [V_P \operatorname{V} \langle \operatorname{XP} \rangle] \dots]$
- (65) Adjunction is Pair-Merge (Chomsky 2004)
- (66) $\langle \alpha, \beta \rangle$: β transferred upon adjoining to α (Raposo 2002), i.e., PIC₁
- (67) Specifically, for Pair Merge, the effect of PIC₂ is PIC₁ (assuming adjunction is always to a phase head; see Boeckx 2010/In progress)
- (68) *Phase Impenetrability Condition* (PIC₂; Chomsky 2001, 14) Spell-Out the Complement of Ph(ase)₁ as soon as Ph₂ is merged
- (69) Pair-Merge \approx Pair of Probing heads ((52)); both enforce PIC₁, both require immediate transfer of their complements
- (70) Note again that, unless we assume that transfer is only to PHON, the effects of PIC_1 will also hold at SEM
- (71) It's not (just) about PF: Truswell (2007)
- (72) a. What did John drive Mary crazy [working on t]?
 - b. What did John die [working on *t*]?
 - c. *What does John drink coffee [working on *t*]?
- (73) The Single Event Condition (Truswell, 2007):

An A'-dependency is legitimate only if the minimal constituent containing the head and foot of the chain describes a single event

(74) The Single Event Condition is checked cyclically (Truswell, 2007)

3.2 Interim summary

(75) (Strong) Islands: Akin to a garden-path effect; reminiscent of Chomsky (1965, 14)

[w]e might assume, for example, that the perceptual device has a stock of analytic procedures available to it, one corresponding to each kind of phrase, and that it is organized in such a way that it is unable (or finds it difficult) to utilize a procedure ϕ while it is in the course of executing ϕ .

(76) Better than:

One possibility for accounting for the fact that deletion of the island rescues the the sluice from ungrammaticality is to posit that the PF interface cannot parse crossed island nodes. One way of formalizing this, following in essence Chomsky (1972b), is to assume that crossed island nodes are marked with some PF-uninterpretable feature, call it *. (Merchant, 2008, 137)

4 Repair: No!; Resume: Yes!

- (77) Islandhood is not an NS notion; 'island repair' isn't, either.
- (78) a. Resumption
 - b. Ellipsis
 - c. *Wh*-in situ
 - d. Pied-piping

4.1 Resumption as stranding

- (79) RP and its antecedent are Merge-mates (Boeckx 2003, Aoun, Choueiri, and Hornstein 2001):
 [(D;DP/PP) [D RP] [DP/PP Op]]
- (80) RP takes care of the A-chain formation requirement; its DP/PPmerge-partner takes care of the \overline{A} -chain requirement
- (81) [Phase [**Op** [... [$\langle Op \rangle$ [Phase [**D**_{RP}] [... [$\langle D; Op \rangle$ [Phase]]]]]]]

4.2 *Wh*-in situ as reverse resumption

- (82) $[\langle DP/PP;D \rangle \ [DP/PP \text{ indeterminate-'wh' ...] } [D Op]]$ (see already Demirdache 1991; see also Watanabe 1992, Tsai 1994)
- (83) No island effect (except with true adjuncts, where resumption is unavailable)

4.3 Pied-piping without percolation

- (84) Instances of Pied-piping are really instances of *Wh*-in situ (Boeckx 2008b, Cable 2007)
- (85) $[Force_P Force_Q [\dots [\langle Q; [X_P \dots wh \dots] \rangle]]]$ (Cable 2007)
- (86) a. If Q-insertion takes place via adjunction (Pair Merge), 'stranding' (i.e., *wh*-in situ) takes place
 - b. If Q-insertion takes place via 'complementation' (Set Merge), pied-piping takes place (Cable 2007)
- (87) Optionality of pied-piping reduces to different merge-sites for Q
- (88) 'Secondary movement' of *wh* is due to an Agree-relation between Q and *wh* (parameter)

4.4 Ellipsis as covert resumption

- (89) Sluicing data (Ross 1969, Merchant 2001, Lasnik 2001, 2005) provide *prima facie* evidence for a PHON-oriented approach to island-effects
- (90) Wang (In press):
 - a. John made the claim that Fido bit someone, but I didn't hear who John made the claim that Fido bit (who)
 - b. John made the claim that Fido bit someone, but I didn't hear who John made the claim that Fido bit [*pro* (who)]
- (91) *Agnes wondered how John managed to cook, but it is not clear hat food Agnes wondered how John managed to cook
- (92) Merchant's 2001 arguments against a resumption strategy:
 - a. Case morphology
 - (i) Who/*Whose did the police say that finding *his* car took all morning
 - (ii) The police said that finding someone's car took all morning, but I can't remember whose/*who
 - b. Lack of resumptive pronouns in some languages
 - c. Functional readings of *wh*-remnants
 - d. Preposition-stranding generalization
- (93) a. The case morphology on RP forces default case morphology on its antecedent
 - b. Lack of *overt* resumptive pronouns in some languages (see Kennedy and Lidz 2001)
 - c. RP pro need not be definite
 - d. Are we sure it holds? And why should it?

5 Concluding remarks

- (94) Island effects are not part of Narrow Syntax, but part of FLN
- (95) Island effects arise due to the specific format of instructions

sent to the interfaces (both SEM and PHON); specifically, they are a side-effect of PIC_1 , a side effect of cyclic mapping (cf. Uriagereka 1999b,a): they are "spandrels"

(96) Locality restrictions are not modular, they necessarily are interaction effects. This is good news for interface-oriented minimalism.

References

- Aoun, J., L. Choueiri, and N. Hornstein. 2001. Resumption, movement, and derivational economy. *Linguistic Inquiry* 32:371–403.
- Bever, T.G. 1970. The cognitive basis for linguistic structures. In *Cognition and the development of language*, ed. J. R. Hayes, 279–362. New York: Wiley.
- Boeckx, C. 2003. Islands and chains. Amsterdam: John Benjamins.
- Boeckx, C. 2008a. Aspects of the syntax of agreement. London: Routledge.
- Boeckx, C. 2008b. Bare syntax. Oxford: Oxford University Press.
- Boeckx, C. 2008c. Islands. *Language and Linguistics Compass* 2:151–167.
- Boeckx, C. 2008d. Understanding Minimalist Syntax: Lessons from Locality in Long-distance Dependencies. Oxford: Blackwell.
- Boeckx, C. 2010. What Principles & Parameters Got Wrong. Ms., ICREA & Universitat Autònoma de Barcelona. [Written version of Talk given at the Workshop on Variation in the Minimalist Framework, Barcelona, January 2010.].
- Boeckx, C. 2010/In progress. Elementary syntactic structures. Ms., ICREA-UAB. [Part A, "Defeating lexiconcentrism" available at http://ling.auf.net/lingBuzz/001130.].
- Boeckx, C. 2011. Approaching parameters from below. In *The biolinguistic enterprise: New perspectives on the evolution and nature of the human language faculty*, ed. A.-M. Di Sciullo and C. Boeckx, 205–221. Oxford: Oxford University Press.

Boeckx, C. In press. *Syntactic Islands*. Cambridge: Cambridge University Press.

- Boeckx, C., and Y. Jeong. 2004. The fine structure of intervention in syntax. In *Issues in Current Linguistic Theory: A Festschrift for Hong Bae Lee*, ed. C. Kwon and W. Lee, 83–116. Seoul: Kyungchin. Reprinted in Boeckx, C. 2008. *Aspects of the syntax of agreement*, pp. 162–182. London: Routledge.
- Cable, S. 2007. The grammar of Q. Doctoral Dissertation, MIT.
- Ceplova, M. 2001. Minimalist islands. Ms., MIT.
- Chomsky, N. 1965. *Aspects of the theory of syntax*. Cambridge, Mass.: MIT Press.
- Chomsky, N. 1973. Conditions on transformations. In A Festschrift for Morris Halle, ed. S. Anderson and P. Kiparsky, 232–286. New York: Holt, Rinehart and Winston.
- Chomsky, N. 1977. On wh-movement. In *Formal syntax*, ed. P. Culicover, T. Wasow, and A. Akmajian, 71–132. New York: Academic Press.
- Chomsky, N. 1986. Barriers. Cambridge, Mass.: MIT Press.
- Chomsky, N. 2000. Minimalist inquiries: the framework. In *Step by step: Essays on minimalist syntax in honor of Howard Lasnik*, ed. R. Martin, D. Michaels, and J. Uriagereka, 89–155. Cambridge, Mass.: MIT Press.
- Chomsky, N. 2001. Derivation by phase. In *Ken Hale: A Life in Language*, ed. M. Kenstowicz, 1–52. Cambridge, Mass.: MIT Press.
- Chomsky, N. 2004. Beyond explanatory adequacy. In *Structures and beyond*, ed. A. Belletti, 104–131. New York: Oxford University Press.
- Chomsky, N. 2007. Approaching UG from below. In *Interfaces* + *recursion* = *language*? *Chomsky's minimalism and the view from semantics*, ed. U. Sauerland and H.-M. Gärtner, 1–30. Mouton de Gruyter.
- Chomsky, N. 2008. On phases. In *Foundational issues in linguistics*, ed. C. Otero, R. Freidin, and M.-L. Zubizarreta, 133–166. Cambridge, Mass.: MIT Press.
- Chomsky, N., and H. Lasnik. 1977. Filters and Control. *Linguistic Inquiry* 8:425–504.

- Chomsky, N., and H. Lasnik. 1991. The theory of principles and parameters. In *Syntax: An international handbook of contemporary research*, ed. J. Jacobs, A. von Stechow, W. Sternefeld, and T. Vannemann, 506–569. Berlin: Walter de Gruyter. Reprinted in Noam Chomsky (1995), *The Minimalist Program*, Cambridge, Mass.: MIT Press, 13–127.
- Demirdache, H.K. 1991. Resumptive chains in restrictive relatives, appositives and dislocation structures. Doctoral Dissertation, MIT.
- Donati, C. 2006. On wh-head-movement. In *Wh-movement: Moving on*, ed. L. Cheng and N. Corver, 21–46. Cambridge, Mass.: MIT Press.
- Erteschik-Shir, N. 1973. On the nature of island constraints. Doctoral Dissertation, MIT.
- Erteschik-Shir, N. 2007. *Information structure*. Oxford: Oxford University Press.
- Feynman, R. 1965. *The character of physical law*. Cambridge, Mass.: MIT Press.
- Fortuny, J. 2008. *The emergence of order in syntax*. Amsterdam: John Benjamins.
- Fox, D., and D. Pesetsky. 2005. Cyclic linearization of syntactic structure. *Theoretical Linguistics* 31:1–45.
- Fukui, N. 1986. A theory of category projection and its applications. Doctoral Dissertation, MIT.
- Goldberg, A.E. 2006. Constructions at Work: The Nature of Generalization in Language. Oxford: Oxford University Press.
- Hale, K., and S. J. Keyser. 1993. On argument structure and the lexical expression of grammatical relations. In *The view from Building 20: Essays in Linguistics in honor of Sylvain Bromberger*, ed. K. Hale and S. J. Keyser, 53–110. Cambridge, Mass.: MIT Press.
- Hale, K., and S. J. Keyser. 2002. *Prolegomenon to a theory of argument structure*. Cambridge, Mass.: MIT Press.
- Hornstein, N., H. Lasnik, and J. Uriagereka. 2007. The dynamics of islands: Speculations on the locality of movement. *Linguistic Analysis* 33:149–175.
- Hornstein, N., and J. Nunes. 2008. Some thoughts on adjunction. *Biolinguistics* 2:57–86.

- Kayne, R.S. 1984. *Connectedness and binary branching*. Dordrecht: Foris.
- Kayne, R.S. 1994. *The antisymmetry of syntax*. Cambridge, Mass.: MIT Press.
- Kennedy, C., and J. Lidz. 2001. A (covert) long distance anaphor in english. In *Proceedings of the 20th west coast conference on formal linguistics*, 318–331. Somerville, Mass.: Cascadilla Press.
- Koster, J. 2010. Language and tools. Ms., Universiteit Groningen.
- Lasnik, H. 2001. When can you save a structure by destroying it? In *Proceedings of NELS 31*, 301–320. Amherst, Mass.: GLSA.
- Lasnik, H. 2002. "All I ever wanted to be was a teacher!" An interview conducted by L. Cheng and R. Sybesma. *Glot International* 6:320–328.
- Lasnik, H. 2005. Review of Jason Merchant, *the syntax of silence*. *Language* 81:259–265.
- Merchant, J. 2001. *The syntax of silence: sluicing, islands, and identity in ellipsis.* Oxford: Oxford University Press.
- Merchant, J. 2008. Cambridge university press. In *Topics in ellipsis*, ed. K. Johnson, 132–153. Cambridge: Cambridge University Press.
- Miller, G., and N. Chomsky. 1963. Finitary models of language users. In *Handbook of mathematical psychology*, ed. R. D. Luce, R. Bush, and E. Galanter, 419–491. New York: Wiley.
- Moro, A. 2000. Dynamic antisymmetry. Cambridge, Mass.: MIT Press.
- Müller, G. 2010. On deriving CED effects from the PIC. *Linguistic Inquiry* 41:35–82.
- Nilsen, Ø. 2003. Eliminating positions. Doctoral Dissertation, Universiteit Utrecht.
- Nunes, J. 2004. *Linearization of chains and sideward movement*. Cambridge, Mass.: MIT Press.
- Ott, D. 2010. Acceptability, grammaticality, and UG. In *Derivational simplicity in minimalist syntax*, ed. M. Putnam, 89–104. Amsterdam: John Benjamins.
- Postal, P. M. 1998. *Three investigations of extraction*. Cambridge, Mass.: MIT Press.

- Raposo, E. 2002. Nominal gaps with prepositional modifiers in Portuguese and Spanish: A case for Quick Spell-Out. *Cuadernos de Lingüística del I. U. Ortega y Gasset* 9:127–144.
- Richards, M. 2007. On feature inheritance: An argument from the phase impenetrability condition. *Linguistic Inquiry* 38:563–572.
- Richards, M. To appear. Minimalism. In Syntax: An International Handbook. 2nd edition., ed. T. Kiss and A. Alexiadou, Handbooks of Linguistics and Communication Science. Berlin/New York: de Gruyter.
- Richards, N. 2001. *Movement in language: interactions and architectures.* Oxford: Oxford University Press.
- Rizzi, L. 1990. Relativized minimality. Cambridge, Mass.: MIT Press.
- Rizzi, L. 2004. Locality and left periphery. In *Structures and beyond*, ed. A. Belletti, volume 3, 223–251. Oxford: Oxford University Press.
- Rizzi, L. 2006. On the Form of Chains: Criterial Positions and ECP Effects. In *Wh-movement: Moving on*, ed. L. Cheng and N. Corver, 97–133. Cambridge, Mass.: Mit Press.
- Rizzi, L., and U. Shlonsky. 2007. Strategies of subject extraction. In *Interfaces* + *recursion* = *language? Chomsky's minimalism and the view from semantics*, ed. U. Sauerland and H.-M. Gärtner, 115–160. Mouton de Gruyter.
- Ross, J. R. 1967. Constraints on variables in syntax. Doctoral Dissertation, MIT.
- Ross, J. R. 1969. Guess who? In *Chicago Linguistics Society*, ed. Robert I. Binnick, Alice Davison, Georgia M. Green, and Jerry L. Morgan, 252–286. Chicago, Illinois.
- Starke, M. 2001. Move Dissolves into Merge. Doctoral Dissertation, Université de Genève.
- Stepanov, A. 2007. The End of CED? Minimalism and Extraction Domains. *Syntax* 10:80–126.
- Truswell, R. 2007. Locality of Wh-movement and the Individuation of Events. Doctoral Dissertation, University College London.
- Tsai, W.T.D. 1994. On economizing the theory of A'-dependencies. Doctoral Dissertation, MIT.
- Uriagereka, J. 1998. Rhyme and reason: An introduction to minimalist

syntax. Cambridge, Mass.: MIT Press.

- Uriagereka, J. 1999a. Minimal restrictions on Basque movement. *Natural Language and Linguistic Theory* 17:403–444.
- Uriagereka, J. 1999b. Multiple Spell-Out. In *Working minimalism*, ed. S. D. Epstein and N. Hornstein, 251–282. Cambridge, Mass.: MIT Press.
- Wang, A. In press. Sluicing and resumption. In *Proceedings of NELS* 37. Amherst, Mass.: GLSA.
- Watanabe, Akira. 1992. Subjacency and S-structure movement of whin-situ. *Journal of East Asian Linguistics* 1:255–291.