

Don't feed your movements when you shift your objects^{*}

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Abstract: The paper provides a new argument for Chomsky's (2008) parallel movement hypothesis, which eliminates traditional A-A' movement feeding relations, based on quantifier float in Icelandic object shift constructions and shows that the mechanism in question provides a tool for teasing apart different analyses of Icelandic object shift. In particular, it provides an argument that the landing site of Icelandic object shift is higher than SpecvP/SpecAgroP.

Keywords: object shift, parallel movement, quantifier float, Icelandic, A-A' movement feeding, Phase-Impenetrability Condition

0. Introduction

Until recently, it has been standardly assumed that constructions like (1) involve A-movement of the wh-phrase from the object position to the subject position, followed by wh-movement to SpecCP.¹

(1) Who was arrested?

However, Chomsky (2008) proposes a new treatment of such constructions (see also Hiraiwa 2005). According to Chomsky, instead of A-movement feeding wh-movement, (1) involves two separate movements from the deep object position.

Roughly, *who* moves to SpecTP from the object position, and it also moves to SpecCP from the object position, with the two movements proceeding in parallel and with only the highest copy pronounced. The parallel movement hypothesis has a significant impact on the way structure building proceeds. For one thing, the change in the timing of movement it introduces eliminates A-A' movement feeding in examples like (1). In this paper I provide additional evidence for the no feeding analysis and show that the analysis provides a tool for teasing apart different analyses of object shift in Icelandic. I will show this in section 2 of the paper. In section 1 I go over several arguments for the no feeding analysis, showing that the analysis has considerable empirical motivation.²

1. Don't feed your movements

McCloskey (2000) shows that, in contrast to standard English,

West Ulster English (WUE) allows quantifier float (Q-float) under wh-movement based on examples like (2).³

(2) What do you think [_{CP} (all) that he'll say [_{CP} (all) that we should buy (all)]]?

Consider now the following examples from McCloskey (2000).

(3) Who_i was arrested all t_i in Duke Street?

(4) *They_i were arrested all t_i last night.

Although WUE allows (3) it behaves like Standard English in that it disallows (4). Notice first that the contrast between (3) and (4) provides evidence that local subject questions do involve wh-movement: if *who* in (3) were to remain in SpecTP, we could not make a distinction between this example and (4). However, this cannot be the end of the story. If *who* were to move to SpecTP prior to moving to SpecCP in (3) it seems that it would still be impossible to account for the grammaticality of the construction, given that (4) is unacceptable. When it comes to the floating of *all*, (3) and (4) would be identical: *all* would be stranded by movement from the object position to SpecTP in both examples. To make a difference between the two

examples, McCloskey (2000) (see also Bošković 2004a) therefore suggests that the *wh*-phrase in (3) moves directly to SpecCP, the underlying assumption being that *wh*-movement, but not movement to SpecTP, can float *all* in the position in question (see Bošković 2004a and Fitzpatrick 2006 for different accounts of why this is the case, an issue that goes beyond the scope of this paper). A question that arises under this analysis is how the standard requirement that the SpecTP position be filled in English is satisfied in (3) if *who* moves directly to SpecCP. Before discussing McCloskey's answer to the question (for an alternative analysis see Bošković 2004a), let us see how he prevents *who* from moving to SpecTP in (3). McCloskey suggests that Q-float involves a step in which the NP the Q modifies moves to SpecDP, the Q being located in D. The movement yields the order NP Q within the DP. When the NP in SpecDP is a *wh*-phrase, D acquires the +*wh*-feature from it so that SpecDP counts as an A'-position. The *wh*-phrase (*who* in (3)) then cannot move to SpecTP, since this would involve improper movement. Rather, it moves directly to SpecCP. How is the requirement that forces overt movement to SpecTP satisfied in (3)? McCloskey suggests that overt movement is preferable to Agree, the mechanism which allows feature-checking at a distance without actual movement.

However, when a requirement cannot be satisfied without a violation through movement, satisfying it through Agree, i.e. without movement, becomes possible. In the case in question, features of T cannot be satisfied through movement since this would result in improper movement. Therefore, features of T can be satisfied without movement via Agree. (It is implied either that the EPP is a featural requirement or that there is no EPP. The analysis is inconsistent with Chomsky's 2001 filled Spec requirement view of the EPP.)

It seems that under this analysis we should always be able to get around a violation caused by overt movement by doing Agree. E.g., we should be able to get around the Left Branch Condition effect and the *that*-trace effect, where overt movement causes a violation (see (5)), by doing feature checking via Agree, i.e. without movement (which means leaving the relevant element in situ, as in (6), which is impossible).

(5) a. *Whose_i did you see t_i books?

b. *Who_i do you think that t_i left?

(6) a. *You saw whose books?

b. *You think that who left?

As noted in Hiraiwa (2005), the parallel movement hypothesis allows us to preserve McCloskey's direct movement to SpecCP analysis of (3), which is necessary to make a distinction between (3) and (4), and at the same time easily answers the question of how the standard filled SpecTP requirement is satisfied in (3) (which we saw above ended up raising a problem for McCloskey's analysis). Under the parallel movement analysis, *who* in (3) moves directly to SpecCP, as desired, but it also moves to SpecTP, so that the filled SpecTP requirement is satisfied. Most importantly, since there is no feeding relation between the A and the A' movement in question, *all* in (3) is not floated under movement to SpecTP, which must be disallowed given the ungrammaticality of (4). The major accomplishment of the parallel movement analysis is that it enables us to fill the lower A-position in spite of the absence of a feeding relation between the movement of the NP that fills this position and the movement of this NP to a higher A'-position.

Chomsky (2008) observes that there is a difference in the grammaticality status between extraction out of subjects that are generated as external arguments and subjects that are generated in object position, and shows that the difference can be accounted for under the parallel movement analysis of such

examples. Under this analysis, wh-movement takes place directly from the θ -position of the relevant arguments.

Chomsky then capitalizes on the fact that (7b), but not (7a), involves wh-movement from object position, which we independently know is allowed (7c).

- (7) a. *It was the car (not the truck) of which the driver caused a scandal.
- b. It was the car (not the truck) of which the driver was found.
- c. It was the car (not the truck) of which they found the driver.

(Chomsky 2008)

Chomsky (2008) observes that certain Icelandic data discussed by Holmberg and Hróarsdóttir (2003) (see also Hiraiwa 2005) also provide evidence for the parallel movement analysis. Consider (8).⁴

(8) a. Það virðist/*virðast einhverjum manni
 EXPL seems/seem some man.DAT
 [hestarnir vera seinir]
 the-horses.NOM be slow

‘It seems to some man that the horses are slow.’

b. Mér virðast t_{NP} [hestarnir vera seinir]
 me.DAT seem.PL the-horses.NOM be slow

c. Hvaða manni veist þú að virðist/*virðast
 which man.DAT know you that seems/seem
 t_{wh} [hestarnir vera seinir]
 the-horses be slow

‘To which man do you know that the horses seem to be slow?’

(Holmberg and Hróarsdóttir 2003)

d. Hverjum mundi/??mundu hafa virst
 who.DAT would.3SG/would.3PL have seemed
 t_{wh} [hestarnir vera seinir]
 the-horses.NOM be slow

‘To whom would it have seemed that the horses are slow?’

(Nomura 2005)

(8a) shows that lexical experiencers block agreement with a lower nominative NP (the verb must have the default 3sg.

form). An NP-trace does not induce a blocking effect, as shown by (8b). Holmberg and Hróarsdóttir (2003) interpret examples like (8c-d) as indicating that a wh-trace does induce a blocking effect. Notice, however, that if the experiencer in (8c-d) were to move to SpecTP before undergoing wh-movement, the intervening element would be an NP-trace. (8c-d) should then pattern with (8b). To account for (8c-d), Holmberg and Hróarsdóttir (2003) suggest that the wh-phrase does not, in fact, undergo movement to SpecTP in (8c-d). Rather, it must move directly to SpecCP, hence the blocking effect. (The intervening trace is then a wh-trace.) As noted in Chomsky (2008), the parallel movement hypothesis can be straightforwardly applied to the Icelandic data under consideration.⁵ The wh-phrase moves to both SpecTP (satisfying the EPP) and SpecCP from its base position in (8c-d). As a result, the trace left in the base position must count as a wh- as well as an A-trace. It's A'-property apparently suffices to induce a blocking effect.

2. Icelandic object shift

I now turn to object shift in Icelandic. Consider the following data involving Q-float.

(9) a. Ég las bækurnar ekki allar.

I read the-books not all

b. *bækurnar sem Jón keypti ekki allar

the-books that Jon bought not all

‘the books which Jon didn’t buy all of’

(Déprez 1989)

(9a) is an example involving object shift, which shows Q-float is possible under object shift. On the other hand, (9b) shows that, in contrast to WUE, Icelandic does not allow Q-float under movement to SpecCP (more precisely relativization in the case at hand. Note that WUE allows Q-float under relativization, see Fitzpatrick 2006.)

Consider now (9b) more closely. Nomura (2005) observes that examples like (9b) involve an object shift context.⁶ We would then expect the relevant NP to be able to undergo object shift prior to undergoing relativization. Given that object shift licenses Q-float, Q-float should then be licensed in (9b). In other words, under the standard analysis the ungrammaticality of (9b) is surprising since the quantifier is floated under the object shift movement (which then feeds relativization), just as in (9a). The data under consideration seem to be an obvious candidate for a parallel movement

analysis. Under this analysis, wh-movement and object shift in (9b) take place from the same position, in particular, the position in which *all* is floated – there is no feeding relation between the two. If object shift does not feed wh-movement, the above problem can be resolved since the relevant trace is a trace of both wh-movement and the object shift movement. We can then easily account for (9b) if, as in most languages, a floating quantifier in Icelandic cannot modify a trace that even ambiguously counts as a wh-trace (see here fn. 3. In other words, if a trace is created by movement to SpecCP, it cannot be modified by a floating quantifier.)⁷

Notice also that under neutral intonation, topicalization patterns with relativization in disallowing Q-float, so that the point made above with respect to (9b) can be extended to (10).

- (10) *Bækurnar keypti Jón ekki allar.
 the-books bought Jon not all
 ‘All the books, Jon didn’t buy.’

Now, there is a controversy regarding the landing site of Icelandic object shift. The majority of the literature assumes that the final landing site of Icelandic object shift is the accusative Case position, namely SpecvP (SpecAgroP in a

framework that assumes Agr Phrases). Under this analysis, the relevant part of (9a) has the structure in (11), with the quantifier floated in the θ -position of the object, and *ekki* adjoined to VP.

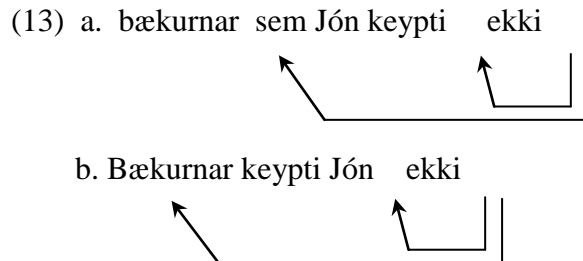
(11) [_{VP} bækurnar [_{VP} ekki [_{VP}[_{V'} allar]]]

On the other hand, Bošković (1997, 2004a,b), Chomsky (1999), Hiraiwa (2001), and Svenonius (2001, 2002), among others, argue that Icelandic object shift involves movement to a position above SpecvP/SpecAgrP. I will assume here Bošković's (2004a,b) implementation of this analysis, where it is argued that the floating quantifier in (9) is located in SpecvP (position through which the relevant NP passes), with *ekki* adjoined to vP (see Bošković 2004a,b for relevant discussion; note that it is argued in Bošković 2004a that floating *allar* in a lower position would in fact lead to a violation of licensing conditions on Q-float⁸). The relevant part of (9a) then has the structure in (12).⁹

(12) bækurnar [_{VP} ekki [_{VP} allar [_{V'}[_{VP}]]]]

I will now consider how the structures in (11) and (12) fare with respect to the parallel movement analysis, on which wh-

movement and object shift both take place from the position in which *allar* is located. Before comparing the two accounts, let me emphasize that I take the data in (9)-(10) to provide evidence for the parallel movement analysis of object shift/wh-movement “interaction”. This means that even acceptable examples involving such interaction should be treated in terms of parallel movement. This, for example, holds for (13), given Diesing’s (1996) arguments (see also Bobaljik 1995) that object shift is obligatory in object shift contexts (i.e. with definite NPs).



Let us now try to tease apart the structures (11)-(12) by using the parallel movement analysis of object shift/wh-movement “interaction”. (Recall that *allar* merely indicates the launching site of parallel movement, which, as discussed above, takes place in (9b)-(10) as well as (13).) It turns out that the analysis cannot be applied to the structure in (11). If we were to apply the analysis to this structure, the relevant NP would

simultaneously undergo object shift and wh-movement from the deep object position. However, the problem is that wh-movement from the complement position of the verb is blocked by Chomsky's (2000, 2001) Phase-Impenetrability Condition (PIC), which says that only the edge of a phase is accessible for movement outside of a phase. Since vP is a phase, C cannot target an object within the VP complement of the vP phase head.

Turning now to the structure in (12), the parallel movement hypothesis can be easily applied to this structure. Here, the object first moves to the Spec of the vP phase. The relevant NP then simultaneously undergoes object shift and wh-movement from this position. Since the position is located at the edge of the vP phase, wh-movement does not violate the PIC on this derivation.¹⁰ We then have here an argument that the analysis on which the final landing site of Icelandic object shift is higher than vP/AgroP is superior to the analysis on which Icelandic object shift lands in SpecvP/SpecAgroP.

In conclusion, I have provided a new argument for the parallel movement hypothesis based on Icelandic object shift. I have also shown that the parallel movement analysis enables us to tease apart two different approaches to Icelandic object shift. In particular, it provides evidence that the landing site of

Icelandic object shift is higher than SpecvP/SpecAgrP.

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¹The last step has been somewhat controversial. However, recent literature (see An 2007, Boeckx 2003, and Pesetsky and Torrego 2001) provides very strong evidence for the existence of vacuous wh-movement in local subject questions (see the discussion below for another argument to this effect). At any rate, what is important for our purposes is that the example is standardly assumed to involve movement to SpecTP.

²Following Chomsky (2008), I will implement the no feeding analysis in terms of parallel movement. The reader is referred to Bošković (2008) for an alternative way of implementing the no feeding analysis as well as evidence in favor of the alternative. I will not be comparing the two analyses in this paper.

³In what follows, I will be assuming Sportiche's (1988) stranding analysis of Q-float. The reader should bear this in mind. Under Sportiche's analysis, *what* and *all* in (2) start as a constituent. *What* then moves away stranding *all*. This means that there is a trace of *what* next to *all*, with which *all* forms a constituent. Below, for ease of exposition I will often say that a floating quantifier modifies/cannot modify a trace in this scenario. However, the reader should not attach deep meaning

to the term modify here. This simply means that movement that leaves behind the trace in question can/cannot strand a quantifier, whatever the reason for this is (the quantifier always forms a constituent with a trace under Sportiche's account).

⁴Not all speakers share the judgments reported by Holmberg and Hróarsdóttir (2003); see Sigurðsson and Holmberg (in press) for relevant discussion.

⁵The following discussion slightly modifies Chomsky's analysis. What matters for Chomsky is that only a part of the experiencer A-chain intervenes between T and the nominative NP in (8b), while the complete (trivial) experiencer A-chain intervenes in (8c-d).

⁶For original discussion, see Diesing (1986), where object shift is roughly characterized by definiteness/non-focus interpretation. An anonymous reviewer notes that it is actually not completely clear that (9b) satisfies the semantic conditions on object shift under the Vergnaud (1974)/Kayne (1994) raising analysis of relativization, which, however, I do not adopt here. At any rate, this potentially interfering factor does not arise with respect to the topicalization example in (10) below.

Note that there is a debate in the literature regarding the final landing site of Icelandic object shift. At this point I am using the terms object shift and object position neutrally,

without committing myself to a particular analysis. The issue will be discussed in detail below.

⁷I leave open here what is responsible for the apparent crosslinguistic variation with respect to the possibility of a floating quantifier modifying a trace left behind by wh-movement (i.e. movement to SpecCP). In doing so, I follow McCloskey (2000) and other relevant literature, which also leaves the issue open. (Another, possibly related question is why the modifying-a-wh-trace option is apparently very rare crosslinguistically. From a crosslinguistic point of view, Icelandic is actually well-behaved, WUE being a rare exception.)

Notice that one could try to account for (9b) under the object shift-feeding-relativization analysis (i.e. without parallel movement) by assuming that in languages like Icelandic and Standard English, which do not allow floating quantifiers to modify a trace left by wh-movement, a floating quantifier cannot be c-commanded by an A'-trace of the host DP (the A'-trace would be the trace left by relativization from the object shift position). However, this would not work because of constructions like (i), where under the feeding movement analysis the wh-trace in SpecTP c-commands *all*. The same point can be made with respect to Icelandic (ii).

(i) Which books must have all been bought?

(ii) bækurnar sem hafa allar verið keyptar

the-books that have all been bought

Notice that under the no feeding analysis, both wh-movement/relativization and movement to SpecTP take place from the deep object position in (i-ii), with movement to SpecTP proceeding successive cyclically, stranding the quantifier in an intermediate position. (Following Bošković 2002, 2007, Boeckx 2003, and Chomsky 2008, I assume that there is no feature checking in intermediate positions.

Anticipating the discussion below, notice that there are no phases between the deep object position and SpecCP.)

⁸The licensing conditions are incompatible with the movement-to-SpecvP analysis from (11), but are fully compatible with the movement-above-vP analysis, under the structure in (12).

⁹For ease of exposition I will continue to use the term object shift although it is not really appropriate under the movement above SpecvP/SpecAgroP analysis. There are many arguments in the literature that English objects move to SpecAgroP/SpecvP overtly (see, for example, Boeckx and Hornstein 2005, Bošković 1997, 2002, 2004a, 2007, Epstein

and Seely 2006, Johnson 1991, Koizumi 1995, Lasnik 1999, McCloskey 2000, Runner 1998, Ura 1993). Under the movement above SpecvP/SpecAgroP analysis, *bækurnar* in (12) also undergoes this movement, which is an instance of regular EPP/Case-driven A-movement, and then proceeds to move to a higher position. It is this latter movement (which English lacks) that is referred to as object shift under the movement above SpecvP/SpecAgroP analysis (this is also what is responsible for the semantic effects noted by Diesing 1996). As discussed in Holmberg and Platzack (1995), the movement in question differs from both standard A-movement and standard A'-movement. For example, as Holmberg and Platzack quite conclusively show, it cannot result in anaphor binding (I am referring here to the final (not intermediate) landing site of *bækurnar* in (12)), but it also cannot license a parasitic gap and is insensitive to weak cross-over effects. What is important for our purposes is that the movement in question is not wh-movement, which seems clear.

¹⁰Since, given the PIC, it is not possible to move out of vP without moving to SpecvP, parallel movement for wh-movement and object shift would take place only from the phasal edge position, SpecvP. Strictly speaking, it is then not quite true that there is never any feeding relation between

movements—movement to the phasal edge, SpecvP, feeds both object shift and wh-movement. Making the relevant distinction (when there is a feeding relation, and when there isn't) is rather straightforward, given the relevance of phases/phasal edge for the feeding movement case.

References

- An, Duk-Ho (2007). 'Clauses in non-canonical positions in PF', *Syntax* 10: 38-79.
- Bobaljik, Jonathan (1995). *Morphosyntax: The syntax of verbal inflection*. Doctoral dissertation, MIT, Cambridge, Mass.
- Boeckx, Cedric (2003). *Islands and chains: Resumption as stranding*. Amsterdam: John Benjamins.
- Boeckx, Cedric, and Norbert Hornstein (2005). 'A gap in the ECM paradigm', *Linguistic Inquiry* 36: 437-441.
- Bošković, Željko (1997). *The syntax of nonfinite complementation: An economy approach*. Cambridge, Mass.: MIT Press.
- Bošković, Željko (2002). 'A-movement and the EPP', *Syntax* 5: 167-218.
- Bošković, Željko (2004a). 'Be careful where you float your quantifiers', *Natural Language and Linguistic Theory* 22: 681-742.
- Bošković, Željko (2004b). 'Object shift and the clause/PP

-
- parallelism hypothesis', in *Proceedings of the West Coast Conference on Formal Linguistics 23*.
Sommerville, Mass.: Cascadilla Press, 99-112.
- Bošković, Željko (2007). 'On the locality and motivation of Move and Agree: An even more minimal theory', *Linguistic Inquiry* 38: 589-644.
- Bošković, Željko (2008). 'On successive cyclic movement and the freezing effect of feature checking', in Hartmann, J., V. Hegedüs, and H. van Riemsdijk (eds.), *Sounds of silence: Empty elements in syntax and phonology*. Amsterdam: Elsevier North Holland, 195-233
- Chomsky, Noam (2000). 'Minimalist inquiries', in Martin R., D. Michaels, and J. Uriagereka (eds.), *Step by step: Essays on minimalist syntax in honor of Howard Lasnik*. Cambridge, Mass.: MIT Press, 89-155.
- Chomsky, Noam (2001). 'Derivation by phase', in M. Kenstowicz (ed.), *Ken Hale: A life in language*. Cambridge, Mass.: MIT Press, 1-52.
- Chomsky, Noam (2008). 'On phases', in Freidin R, C. P. Otero, and M. L. Zubizarreta (eds.), *Foundational issues in linguistic theory: Essays in honor of Jean Roger Vergnaud*. MIT Press: Cambridge, Mass., 133-166.
- Déprez, Viviane (1989). On the typology of syntactic positions

-
- and the nature of chains. Doctoral dissertation, MIT, Cambridge, Mass.
- Diesing, Molly (1996). 'Semantic variables and object shift', in Thráinsson H., S. D. Epstein, and S. Peter (eds.), *Studies in comparative Germanic syntax*. Dordrecht: Kluwer, 66-84.
- Epstein, Samuel David and Daniel Seely (2006). *Derivations in Minimalism: Exploring the elimination of A-chains and the EPP*. Cambridge: Cambridge University Press.
- Fitzpatrick, Justin (2006). 'Two types of floating quantifiers and their A/A-bar properties', in *Proceedings of the North East Linguistic Society* 36. GLSA, University of Massachusetts, Amherst, 253-265.
- Hiraiwa, Ken (2001). 'EPP and object shift in Scandinavian', in *Proceedings of the 20th West Coast Conference on Formal Linguistics*. Somerville, Mass: Cascadilla Press, 290-303
- Hiraiwa, Ken (2005). Dimensions of symmetry in syntax: Agreement and clausal architecture. Doctoral dissertation, MIT, Cambridge, Mass.
- Holmberg, Anders, and Christer Platzack (1995). *The role of inflection in Scandinavian syntax*. Oxford: Oxford University Press.

-
- Holmberg, Anders and Thorbjörg Hróarsdóttir (2003).
‘Agreement and movement in Icelandic raising constructions’, *Lingua* 113: 997-1019.
- Johnson, Kyle (1991). ‘Object positions’, *Natural Language and Linguistic Theory* 9: 577-636.
- Kayne, Richard (1994). *The antisymmetry of syntax*.
Cambridge, Mass.: MIT Press.
- Koizumi, Masatoshi (1995). Phrase structure in minimalist syntax. Doctoral dissertation, MIT, Cambridge, Mass.
- Lasnik, Howard (1999). *Minimalist analysis*. Oxford:
Blackwell.
- McCloskey, James (2000). ‘Quantifier float and wh-movement in an Irish English’, *Linguistic Inquiry* 31: 57-84.
- Nomura, Masashi (2005). Nominative case and AGREE(ment).
Doctoral dissertation, University of Connecticut, Storrs.
- Pesetsky, David, and Esther Torrego (2001). ‘T-to-C movement: Causes and consequences’, in M. Kenstowicz (ed.), *Ken Hale: A life in language*.
Cambridge, Mass.: MIT Press, 355-426.
- Runner, Jeffrey (1998). *Noun phrase licensing and interpretation*. New York: Garland Publications.
- Sigurðsson, Halldór Ármann, and Anders Holmberg (in press). ‘Icelandic dative intervention’, in Roberta D'Alessandro

-
- et al. (eds.), *Agreement restrictions*. Berlin: Mouton de Gruyter.
- Sportiche, Dominique (1988). 'A theory of floating quantifiers and its corollaries for constituent structure', *Linguistic Inquiry* 19: 425-449.
- Svenonius, Peter (2001). 'On object shift, scrambling, and the PIC', in Guerzoni E. and O. Matushansky (eds.), *MIT Working Papers in Linguistics* 39. MITWPL, Department of Linguistics and Philosophy, MIT, Cambridge, Mass., 267-289.
- Svenonius, Peter (2002). 'Subject positions and the placement of adverbials', in P. Svenonius (ed.), *Subjects, expletives, and the EPP*. Oxford: Oxford University Press, 199-240.
- Ura, Hiroyuki (1993). 'On feature-checking for *wh*-traces', in Bobaljik J. D. and C. Phillips (eds.), *Papers on Case and Agreement I - MIT Working Papers in Linguistics* 18. MITWPL, Department of Linguistics and Philosophy, MIT, Cambridge, Mass., 215-242.
- Vergnaud, Jean-Roger (1974). French relative clauses. Doctoral dissertation, MIT, Cambridge, Mass.