Object Scrambling on the Edge:
Evidence for VP as a Spell-out Domain

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1. Introduction

The idea that syntactic structure undergoes cyclic Spell-out has been pursued in a number of studies (Uriagereka 1999, Chomsky 2000, 2001, Nissenbaum 2000, Fox and Pesetsky 2005, inter alia). It has been controversial, however, what should be considered as a unit of cyclic Spell-out. Chomsky proposes that phases must be "propositions": namely, v*P and CP. Others, however, argue that Spell-out may also apply to other maximal categories such as VP and PP (McGinnis 2001, Abels 2003, Fox and Pesetsky 2005, Lee-Schoenfeld 2005, inter alia). In this paper, I provide further evidence for the latter hypothesis. Specifically, building on the claim that scrambling is constrained by Cyclic Linearization (Ko 2005, 2007), I propose that so-called weak phases (VPs) must undergo cyclic Spell-out, just as strong phases (v*Ps and CP). In particular, I show that object scrambling is restricted by cyclic Spell-out of the VP domain, and that its interactions with secondary resultative predicates and the aspectual adverb 'again' in Korean and Japanese can be explained by the current proposal.

2. Puzzles

In Korean and Japanese, the object may strand an object-oriented numeral quantifier (NQ) across the subject, as shown in (1a) and (2a). In contrast, the subject cannot strand a subject-oriented NQ across the object, as shown in (1b) and (2b) (Park and Sohn 1993, Gill 2001, Kang 2002, Ko 2007 for Korean; Haig 1980, Kuroda 1983, Saito 1985, Miyagawa 1989, Fujita 1994 for Japanese, among others; cf. Miyagawa and Arikawa 2004, and Hoji and Ishii 2005 for judgment variations).[1]

(1)   a.   **Maykcwu-lul**   John-i   **sey-pyeng**   masi-ess-ta
           Beer-Acc   John-Nom   3-Cl$_{bottle}$ drink-Past-Dec
           'John drank three bottles of beer.' [Korean: K]
      b.   ***Haksayng-tul-i**   maykcwu-lul   **sey-myeng**   masi-ess-ta
            Student-Pl-Nom   beer-Acc   3-Cl$_{person}$ drink-Past-Dec
           'Three students drank beer.' [K]

(2)   a.   **Hon-o**   gakusei-ga   **go-satu**   katta
           Book-Acc   student-Nom   5-Cl$_{book}$ bought
           'Students bought five books.' [Japanese: J]
      b.   ***Gakusei-ga**   sake-o   **san-nin**   nonda
            Student-Nom   sake-Acc   3-Cl$_{people}$ drank
           'Three students drank sake.' [J]

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[1] For clarification, (1b) and (2b) become less degraded when focus is imposed on the NQ (Kang 2002, Miyagawa and Arikawa 2004). In this paper, I deal with the paradigms without focus on NQs (in an out-of-the-blue context). In Ko (2005), I have argued that focused NQs have a different underlying structure from non-focused NQs, which contributes to the improvement in grammaticality of (1b) and (2b). See Ko (2005: appendix 4B) for details.

This contrast has been taken as evidence for the claim that object scrambling may occur rather freely, in contrast to subject scrambling. In particular, the object in (1a) and (2a) may scramble over the subject and strand the object-oriented NQ (NQ_{obj}). The subject in (1b) and (2b), on the other hand, cannot undergo scrambling over the object and strand the subject-oriented NQ (NQ_{subj}) (Saito 1985; cf. Ko 2005, 2007 for further discussion of restrictions on subject scrambling).

It is important to note, however, that object scrambling does not take place freely. As shown in (3) and (4), the NI-marked resultative predicate in Japanese cannot intervene between the object and the object-oriented NQ.[2] If the object may undergo scrambling over the NI-predicate, we would expect that the object may strand the NQ in (3b) and (4b), contrary to the facts.

(3) a. **Kuruma-o   ni-dai**   John-ga   makka-ni   nutta
         Car-Acc   2-Cl   John-Nom   red-NI   painted
         'John painted two cars red.' [J]
     b. *John-ga   **kuruma-o**   makka-ni   **ni-dai**   nutta
         John-Nom   car-Acc   red-NI   2-Cl   painted
         'John painted two cars red.' [J] (Takezawa 1993, S. Miyagawa, p.c.)

(4) a. **Kodomo-o   san-nin**   John-ga   rippa-ni   sodateta
         Children-Acc 3-Cl   John-Nom   admirable-NI raised
         'John raised three children to be admirable.' [J] (S. Miyagawa, p.c.)
     b. *John-ga   **kodomo-o**   rippa-ni   **san-nin**   sodateta
         John-Nom   children-Acc   admirable-NI 3-Cl   raised
         'John raised three children to be admirable.' [J] (Takezawa 1993, S. Miyagawa, p.c.)

The ungrammaticality of (3b) and (4b) becomes even more puzzling when we consider the fact that the NI-predicate may undergo scrambling, as shown in (5). If both the object and the NI-predicate may scramble, there is no obvious reason why the ordering in (3b) and (4b) cannot be derived.[3]

(5) Massiro-ni$_1$ Mary-ga [John-ga   kabe-o   t$_1$ nutta   to]   itta
     White-NI   Mary-Nom [John-Nom   wall-Acc   painted   C]   said
     'Mary said that John painted the wall white.' (Takezawa 1993, footnote 13)

In this paper, I attempt to provide a unified account for the restrictions in subject scrambling and object scrambling seen above. In particular, I propose that the distribution of the subject and the object and their NQs follows from a property of the edge of a Spell-out domain – which I call the Edge Generalization (EG). In section 3, I show that the Edge Generalization is a consequence of PF-syntax mapping (Cyclic Linearization, Fox and Pesetsky 2005) and a locality condition on movement (Chomsky 2000, 2001). In section 4, I argue that both *v*P and VP undergo cyclic Spell-out, and that the restrictions on subject scrambling and object scrambling can be understood as instances of the EG in the *v*P and VP domain. In section 5, I provide further evidence for cyclic Spell-out of VP from the scope of the aspectual adverb 'again' and object scrambling.

3. Proposal: Edge generalization and cyclic spell-out of *v*P and VP

Fox and Pesetsky (2005) argue that certain syntactic units created in a derivation constitute Spell-out domains, and that *Cyclic Linearization* applies to the Spell-out domains. In particular, information

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[2] To the best of my knowledge, Korean lacks such resultative constructions as (3b) and (4b) (for instance, Korean resultative –*key* phrases may intervene between the object and the NQ). I leave it for further research why Japanese and Korean behave differently with respect to resultative constructions.

[3] Takezawa (1993) argues that (3b) and (4b) are ungrammatical because the NI-resultative predicate must be base-generated below the object and the object-oriented NQ, as in (ib). Under this proposal, however, it is unclear how the derivation (ii) where the object and the NI-predicate undergo scrambling can be ruled out.

(i) a. * (NP-ga) [$_{VP}$ NP-o   X-ni   NQ$_{obj}$ V]
     b. √ (NP-ga)   [$_{VP}$ NP-o   NQ$_{obj}$ X-ni   V]
(ii) [NP-ga   NP-o$_1$ X–ni$_2$ [$_{VP}$ t$_1$ NQ$_{obj}$ t$_2$ V]]

concerning linear precedence of the specifiers, the complement, and the head of the Spell-out domain is shipped to PF at cyclic Spell-out (cf. Chomsky 2001 for the *phase* system).[4]

Linearization Information, once established, is never deleted in the course of derivation. Under this proposal, the linear ordering of syntactic units may be affected by Merge and Move within a Spell-out domain, but is fixed once for all after Spell-out. Hence, to avoid ordering contradictions at PF, ordering statements between the lower Spell-out domains and higher Spell-out domains must be consistent with each other.

The theory of cyclic linearization makes two important predictions concerning orderings of syntactic units. First, as Fox and Pesetsky (2005) extensively discuss, movement out of complement domains would be allowed only when the orderings of the complement domain are preserved. In particular, in configurations like (6a), ZP may move out of the Spell-out domain αP only when YP also moves and continues to precede ZP in the higher domains (see Fox and Pesetsky 2005 for arguments based on Object Shift in Scandinavian languages).[5]

Second, under cyclic linearization, we predict that movement out of the edge is allowed only when the orderings of the edge are preserved. In the configuration (6b) where multiple specifiers are merged on the edge of a Spell-out domain αP, XP and YP must preserve their relative orderings after Spell-out of αP. Thus, YP may move out of αP only when XP also moves and continues to precede YP in the higher domains.

(6)   **Order Preservation**
a. $[_{αP} \quad\quad\quad [α \quad YP \quad ZP]]$: YP<ZP order needs to be preserved in the higher domains.
b. $[_{αP} \; XP \; YP \; [α \quad\quad\quad ZP]]$: XP<YP order needs to be preserved in the higher domains.

I propose that a solution to the puzzles at hand can be derived from the prediction (6) in conjunction with a locality condition on scrambling. Building on Ko (2005, 2007), I argue that scrambling is a feature-driven movement triggered by a probe-goal search (cf. Grewendorf and Sabel 1999, Miyagawa 2001, Kitahara 2002). Adopting Chomsky (2000, 2001), I argue that a probe can search a goal only in its c-command domain (cf. Rezac 2003, Richards 2004). Under this view, scrambling may occur only when the probe (the trigger for scrambling) c-commands the scrambling element.

The theory of cyclic linearization and a condition on probe-goal search in scrambling lead us to predict a peculiar ordering restriction at syntactic edges, stated in (7). A pictorial description is given in (8).

(7)   **Edge Generalization (EG)**
        If X and Y are dominated by a specifier (non-complement) γP of a Spell-out domain αP, X and Y cannot be separated by a αP-internal element Z that is not dominated by γP.

As depicted in (8), if X and Y are externally merged in the Spec of αP as a constituent, their domain-mate Z either precedes X and Y (via movement), or follows both of them. Since elements within the specifier γP are not in the search domain of α, X and Y cannot be attracted by α. Hence, X and Y cannot move over Z within αP. Consequently, within αP, X and Y cannot be separated by Z. If αP is a Spell-out domain, the orderings at αP must be preserved in the higher domains due to cyclic linearization. Hence, the edge elements, X and Y are not separable by their domain-mate Z in higher domains, either.

In the next section, I show that the restriction on scrambling seen above are instances of the EG. In particular, the restriction on subject scrambling is captured by the claim that *v*P undergoes cyclic Spell-out. The restriction on object scrambling is captured by the claim that VP undergoes cyclic Spell-out.

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[4] Both Fox and Pesetsky (2005) and Chomsky (2001) propose that certain domains undergo cyclic Spell-out, but the two proposals differ from each other in their details. In this paper, I adopt Fox and Pesetsky's Spell-out system.
[5] "YP<ZP" indicates that YP precedes ZP (see Fox and Pesetsky 2005 for a formal description of ordering statements).
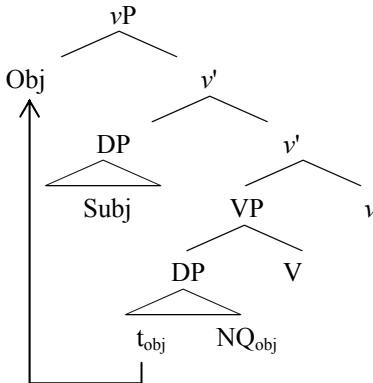
(8)   *[X ... Z ... Y]

αP
α'
Z   α'
γP   α'
X   Y   βP   α
Z
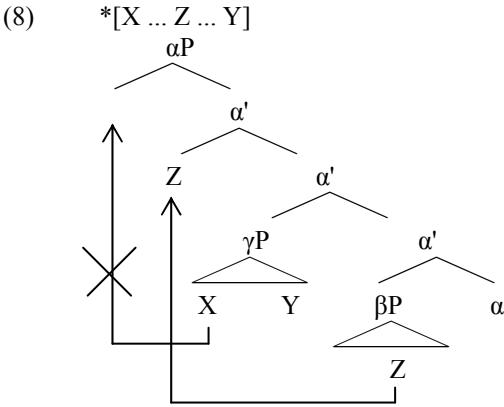
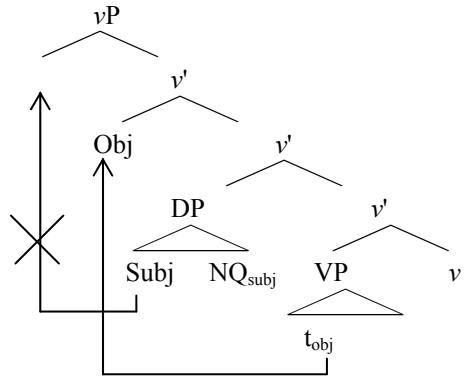## 4. Analysis

4.1. Subject scrambling and spell-out of vP

In section 2, we have seen that the subject cannot strand its NQ across the object whereas the object may strand its NQ across the subject [(1)-(2)]. This asymmetry between the subject and the object is straightforwardly explained as an instance of the EG.

Consider first the grammatical cases: object scrambling in (1a) and (2a). As described in (9), the head v (with EPP) may probe the object in its c-command domain so that the object may undergo scrambling to the outer specifier of v over the subject. After object scrambling, vP is spelled out, and the ordering O<S<NQ_{obj} is established at PF. Since the object may scramble within vP by a probe-goal search of v, the object may strand its NQ_{obj} across the subject within vP. This ordering at vP is preserved in the higher domain CP in (1a) and (2a). Hence, the grammaticality of (1a) and (2a) is expected.

(9)   **√Object scrambling within vP**   (10)   ***Subject scrambling within vP**

vP
Obj   v'
DP   v'
Subj   VP   v
DP   V
t_{obj} NQ_{obj}

vP
v'
Obj   v'
DP   v'
Subj NQ_{subj} VP   v
t_{obj}

Compare (9) with (10), which describes the ungrammatical cases: subject scrambling in (1b) and (2b). As shown in (10), the object may precede the subject via vP-scrambling. The subject, however, cannot undergo vP-scrambling. Since the subject is in the specifier of vP, the subject is not in the search domain of v. Hence, v cannot probe the subject for scrambling and the subject is immobile within vP. Consequently, the ordering S<O<NQ_{subj} cannot be created within vP. After Spell-out of vP, the orderings at vP (including the orderings on its edge) must be preserved in the higher domains. Thus, the ordering S<O<NQ_{subj} cannot be created in the higher domains, either.[6]

In short, the subject and the NQ_{subj} may both follow the object or precede the object, but they are not separable by the object within vP given the c-command condition on a probe-goal search. Since cyclic Spell-out of vP forces elements in vP to preserve their relative orderings, we expect that the

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[6] This account predicts that the subject can be probed by a higher head such as T and may move over elements externally merged higher than vP. In Ko (2007), I have shown that this is indeed the case. The subject may move over a vP-external adverb such as 'yesterday' and 'fortunately' and strand its NQ (see Ko 2007 for examples).

ordering S<O<NQ$_{subj}$ cannot be created in the higher domains, either. On this view, the restriction on subject scrambling is an instantiation of the EG in (7) where the Spell-out domain corresponds to vP.[7]

4.2. Object scrambling and spell-out of VP

Let us now turn to illicit object scrambling, exemplified in (3)-(4). I argue that the restrictions on object scrambling are explained in the same way as the restrictions on subject scrambling. In particular, I hypothesize that every Θ-role-assigning head is a Spell-out head. VP undergoes cyclic Spell-out, just like vP and CP (cf. Chomsky 2001, McGinnis 2001, Abels 2003, Fox and Pesetsky 2005, Lee-Schoenfeld 2005, inter alia). The status of a specifier and complement is determined derivationally (Chomsky 1995). Hence, the object may be considered as a specifier of VP if there is an element externally merged with V before the object merges (Larson 1988, Baker 2004, among others).

Under this proposal, we predict that the object merged on the edge of the VP will behave exactly the same way as the subject merged on the edge of vP with respect to its domain-mate. In particular, the object and the NQ$_{obj}$ on the edge cannot be separated by their VP domain-mates. I argue that this is indeed the case for (3)-(4).

Consider first the base-generation position of the object and NI-resultative predicates. As illustrated in (11)-(12), NI-resultative predicates may modify the object, but not the subject of transitive verbs. Observing the facts in (11)-(12), Takezawa (1993) argues that the NI-predicate in Japanese is base-generated within VP. In particular, Takezawa proposes the structure in (13) for resultative constructions, and argues that the NI-predicate may modify the object, but not the subject because the NI-predicate may mutually c-command the object within VP, but not the subject in IP (cf. Miyagawa 1989).

(11) John-ga   **aisukuriimu-o**   **kotikoti-ni**   kooraseta
      John-Nom   ice cream-Acc   solid-NI   froze
      'John froze the ice cream solid.' (object-oriented resultative) [J]

(12) ***John-ga**   teeburu-o   **kirei-ni**   huita
       John-Nom   table-Acc   clean-NI   wiped
       'John wiped the table in his clean state.' (subject-oriented resultative) [J]
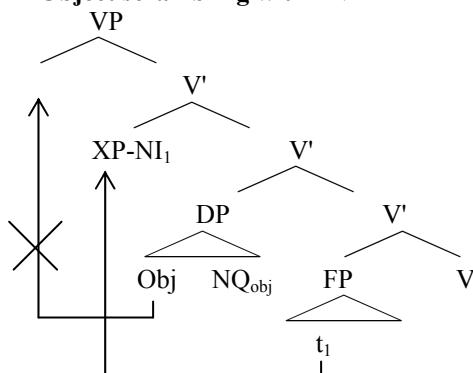   (N.B. (12) is grammatical when *kireini* modifies the object *teeburu-o*)

(13)   [$_{IP}$ Subj [$_{VP}$ O   X-*ni*   V]]

Adapting Takezawa (1993) to make it compatible with the vP-internal subject hypothesis (Kitagawa 1986, Kuroda 1988, Koopman and Sportiche 1991, among others), I argue that the NI-resultative predicate is base-generated within VP, but crucially it merges with V before the object merges, modifying the result status of the event.[8] As depicted in (14), if the NI-resultative predicate is base-generated within VP, the ungrammaticality of (3b) and (4b) can be understood as an instance of the EG in the VP domain.

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[7] The ungrammaticality of (1b) and (2b) was also explained by Ko (2007), but the current proposal under the EG provides a more abstract way of capturing the data – which makes it possible to account for subject scrambling and object scrambling in a parallel way.

[8] Under (14), we cannot directly adopt Takezawa's account for (11)-(12) since XP-NI does not c-command the object in the underlying structure. To accommodate the contrasts between (11) and (12), I tentatively assume that a resultative predicate may modify an argument under mutual m-command in the underlying structure. I leave it open how to explain (11)-(12) without m-command.

(14)   ***Object scrambling within VP**

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                    VP
                    /\
                   /  V'
                  /  /\
               XP-NI₁  V'
                  /   /\
                 /  DP   V'
                /  / \   /\
              Obj  NQ_obj FP    V
                         /\
                        t₁
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More specifically, the head V c-commands the NI-predicate and thus the NI-predicate may undergo scrambling to the outer specifier of V over the object. Crucially, however, the object cannot undergo VP-scrambling (cf. (9) for *v*P-scrambling of the object). Since the object is merged in the edge of VP, V cannot probe the object. Hence, the object cannot undergo scrambling within VP. Consequently, the object and its NQ may both follow the NI-predicate (after VP-scrambling of NI-predicate) or precede it (without VP-scrambling of NI-predicate). The object and its NQ, however, cannot be separated by the NI-predicate within VP. If VP is a Spell-out domain, as hypothesized, the orderings in the VP domain must be preserved in the higher domains. Thus, we expect that the ordering O<XP-NI<NQ_obj would not be created in the higher domains, either. Hence, the ungrammaticality of (3b) and (4b) follows.

On this view, single scrambling of a NI-predicate in (5) is allowed without a problem. As in (14), the NI-predicate may scramble to the outer specifier of V. As long as the NI-predicate continues to precede VP-internal elements, it may undergo further movement out of VP. This is indeed the case in (5).

5. Further prediction

The current proposal makes a further prediction concerning object scrambling and scopally ambiguous aspectual adverbs within VP. As described in (15), *tasi* 'again' in Korean is ambiguous between a repetitive and restitutive reading. The ambiguity in (15) can be understood by different base-positions of the adverb 'again'. More specifically, the repetitive reading 'again' is merged outside VP, but the restitutive reading 'again' is merged below V modifying the result status of the event 'open' (Ko 2005; a proposal adapted from Von Stechow 1996 and Beck and Johnson 2004).

(15)   Sally-ka   ku mwun-ul   *tasi*   yel-ess-ta
         Sally-Nom   that door-Acc   again   open-Past-Dec
         'Sally opened that door, and she had done that before.' (*repetitive*)
         'Sally opened that door, and the door had been in the state of being open before.' (*restitutive*)

If 'again' sentences are ambiguous due to multiple merge positions of 'again', we predict that the floating NQ constructions can disambiguate their meanings. In particular, we expect that the object and the NQ_obj may be separated by the repetitive 'again', but not by restitutive 'again'.

As in the case of the NI-resultative predicate in (14), the restitutive 'again' merged below V may precede or follow the object and the NQ_obj, but it cannot intervene between them (another instance of the EG in the VP domain). The repetitive 'again', on the other hand, may intervene between the object and the NQ_obj. Since the repetitive 'again' is merged outside VP, it does not establish any orderings with respect to the object or the NQ_obj within VP. In the higher domain *v*P, the repetitive 'again' is externally merged, and the object may undergo *v*P-scrambling over the repetitive 'again' by probe-goal search of *v* (cf. (9)). Hence, the new ordering, O<repetitive 'again'<NQ_obj can be established at PF after Spell-out of *v*P.

The Korean examples in (16) show that the prediction is borne out. When the object and the NQ_obj are separated by 'again', as in (16a), the sentence only retains the repetitive reading, as predicted. The

same fact holds with Japanese *mata* 'again', as shown in (17). Hence, I argue that the account for (16) may extend to Japanese (17).

(16) a. Nay-ka **eyspuleyso kikyey-lul** *tasi* **han-tay** sao-l-kkeyyo
         I-Nom   espresso   machine-Acc   again   1-Cl   buy-Fut-Promise
         'I will buy an espresso machine again.' (*?restitutive reading, √repetitive reading)

   b.   Nay-ka **eyspuleyso kikyey-lul** **han-tay** *tasi* sao-l-kkeyyo
         I-Nom   espresso   machine-Acc   1-Cl   again   buy-Fut-Promise
         'I will buy an espresso machine again.' (√restitutive reading, √repetitive reading)

(17) a. ?*Kondo-wa   boku-ga   **pizza-o**   *mata*   **hitotu** tyuumon-su-ru yo
         This.time-Top I-Nom   pizza-Acc   again   one   order-do-Pres. Assertive
         'This time, I will order a pizza again.' (?*restitutive reading, √repetitive reading)

   b.   Kondo-wa   boku-ga   **pizza-o**   **hitotu** *mata* tyuumon-su-ru yo
         This.time-Top I-Nom   pizza-Acc   one   again   order-do-Pres. Assertive
         'This time, I will order a pizza again.' (√repetitive reading, √restitutive reading)
         (N. Hasegawa, p.c.)

6. Conclusion

In this paper, we have seen that object scrambling is not free, but restricted in a way parallel to subject scrambling. The object and its NQ on the VP edge cannot be separated by their VP domain-mates, just as the subject and its NQ on the *v*P edge cannot be separated by their *v*P domain-mates. I have argued that the ordering restrictions in scrambling are instantiations of the Edge Generalization – a property predicted from cyclic linearization and a probe-goal search in movement. The current proposal provides further evidence for the claim that both *v*P and VP undergo cyclic Spell-out. It also argues for the claim that scrambling is triggered by a probe-goal search, just like other types of feature-driven movement.

References

Abels, Klaus. 2003. Successive cyclicity, anti-locality, and adposition stranding. Doctoral dissertation, University of Connecticut, Storrs.

Baker, Mark. 2004. *Lexical Categories: Verbs, Nouns, and Adjectives*. Cambridge Studies in Linguistics 102, Cambridge: Cambridge University Press.

Beck, Sigrid, and Kyle Johnson. 2004. Double objects again. *Linguistic Inquiry* 35: 97-124.

Chomsky, Noam. 1995. *The Minimalist Program*. Cambridge, MA: MIT Press.

Chomsky, Noam. 2000. Minimalist inquiries. In *Step by Step: Essays on Minimalism in Honor of Howard Lasnik*, ed. Roger Martin, David Michaels, and Juan Uriagereka, 89-155. Cambridge, MA: MIT Press.

Chomsky, Noam. 2001. Derivation by phase. In *Ken Hale: A Life in Language,* ed. Michael Kenstowicz, 1-52. Cambridge, MA: MIT Press.

Fox, Danny, and David Pesetsky. 2005. Cyclic Linearization of syntactic structure. In *Object Shift,* ed. Katalin É. Kiss. Special issue of *Theoretical Linguistics* 31(1-2): 1-46.

Fujita, Naoya. 1994. On the nature of modification: A study of floating quantifiers and related constructions. Doctoral dissertation, University of Rochester, Rochester, NY.

Gill, Kook-Hee. 2001. Floating Quantifiers, case and scrambling. In *Harvard Studies in Korean Linguistics 9*, 328-337. Seoul, Korea: Hanshin Publishing Company.

Grewendorf, Günther, and Joachim Sabel. 1999. Scrambling in German and Japanese: Adjunction versus multiple specifiers. *Natural Language and Linguistic Theory* 17: 1-65.

Haig, John. 1980. Some observations on quantifier floating in Japanese. *Linguistics* 18: 1065-1083.

Hoji, Hajime, and Yasuo Ishii. 2005. What gets mapped to the tripartite structure of quantification in Japanese. In *Proceedings of WCCFL 23*, ed. Benjamin Schmeiser et al., 346-359. Somerville, MA: Cascadilla Press.

Kang Beom-Mo. 2002. Categories and meanings of Korean floating quantifiers – with some references to Japanese. *Journal of East Asian Linguistics* 11: 375-398.

Kitagawa, Yoshihisa. 1986. Subjects in Japanese and English. Doctoral dissertation, University of Massachusetts, Amherst, MA.

Kitahara, Hisatsugu. 2002. Scrambling, case, and interpretability. In *Derivation and Explanation in the Minimalist Program*, ed. Samuel David Epstein and T. Daniel Seely, 167-183. Malden, MA: Blackwell Publishing.

Ko, Heejeong. 2005. Syntactic edges and linearization. Doctoral dissertation, MIT, Cambridge, MA.

Ko, Heejeong. 2007. Asymmetries in scrambling and cyclic linearization. *Linguistic Inquiry* 38(1): 49-83.

Koopman, Hilda, and Dominique Sportiche. 1991. The position of subjects. *Lingua* 85: 211-258.

Kuroda, S.-Y. 1983. What can Japanese say about government and binding? In *Proceedings of WCCFL 2*, ed. Michael Barlow et al., 153-164. Stanford, CA: Stanford Linguistics Association, Stanford University.

Kuroda, S.-Y. 1988. Whether we agree or not: A comparative syntax of English and Japanese. *Lingvisticae Investigationes* 12: 1-47.

Larson, Richard. 1988. On the double object construction. *Linguistic Inquiry* 19: 335-392.

Lee-Schoenfeld, Vera. 2005. Beyond coherence: The syntax of opacity in German. Doctoral dissertation, University of California, Santa Cruz, CA.

McGinnis, Martha. 2001. Phases and the syntax of applicatives. In *Proceedings of NELS 31*, ed. Minjoo Kim and Uri Strauss, 333-349. Amherst: University of Massachusetts, GLSA.

Martin, Samuel. E. 1992. *A Korean Reference Grammar*. Rutland, VT: Charles E. Tuttle.

Miyagawa, Shigeru. 1989. *Structure and Case Marking in Japanese.* San Diego, CA: Academic Press.

Miyagawa, Shigeru. 2001. The EPP, scrambling, and *wh*-in-situ. In *Ken Hale*: *A Life in Language*, ed. Michael Kenstowicz, 293-338. Cambridge, MA: MIT Press.

Miyagawa, Shigeru, and Koji Arikawa. 2004. Locality in syntax and floated numeral quantifiers. Ms., MIT, Cambridge, MA, and St. Andrew University, Osaka, Japan.

Nissenbaum, Jon. 2000. Investigations of covert phrase movement. Doctoral dissertation, MIT, Cambridge, MA.

Park, Myung-Kwan, and Keun-Won Sohn. 1993. Floating quantifiers, scrambling, and the ECP. In *Japanese/Korean Linguistics* 3, ed. Soonja Choi, 187-203. Stanford, CA: CSLI.

Saito, Mamoru. 1985. Some asymmetries in Japanese and their theoretical implications. Doctoral dissertation, MIT, Cambridge, MA.

Rezac, Milan. 2003. The fine structure of cyclic Agree. *Syntax* 6: 156-182.

Richards, Norvin. 2004. Against bans on lowering. *Linguistic Inquiry* 35: 453-463.

Takezawa, Koichi. 1993. Secondary predication and locative/goal phrases. In *Japanese Syntax in Comparative Grammar,* ed. Nobuko Hasegawa, 45-87. Tokyo: Kurosio.

Uriagereka, Juan. 1999. Multiple spell-out. In *Working Minimalism*, ed. S. Epstein and N. Hornstein, 251-282. Cambridge, MA: MIT Press.

von Stechow, Arnim. 1996. The different readings of *wieder* "again": A structural account. *Journal of Semantics* 13: 87-138.

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