Deep Insights, Broad Perspectives

*Essays in Honor of Mamoru Saito*

Edited by
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Preface

This volume is dedicated to Mamoru Saito. All of the editors were taught linguistics by Mamoru at the University of Connecticut, and have long wished to express appreciation to him. Three years ago, one of the editors noticed that Mamoru was turning sixty in 2013. In Japanese culture, a 60th birthday has particular significance, marking the end of the first cycle of life and the beginning of the second, and we thought that Mamoru's 60th birthday would be the most appropriate opportunity to fulfill our long-held wish, to demonstrate our appreciation not only of his numerous contributions to the field of linguistics, especially syntax, but also of his endless efforts in providing us with opportunities to get together and discuss numerous issues surrounding syntax and its acquisition. Mamoru has worked with all of the contributors over an extended period. Our intention here, however, is to present the volume with particular focus on the past five years, during which we conducted research under a grant from the Japanese ministry of education and science to the Center for Linguistics at Nanzan University for establishment of centers for advanced research (International Collaborative Research Project on Comparative Syntax and Language Acquisition). The contributors are all those associated with this Nanzan project, having worked together for these five years.

The title of this volume, Deep Insights, Broad Perspectives, is a sincere reflection of his research style. As anyone who is familiar with Mamoru's work knows well, his interest extends to almost every aspect of syntax. Even the most superficial inspection shows that he has been working on various movement phenomena including scrambling, wh-movement, topicalization, A-movement, rightward movement, and head-movement, on Case and related topics such as complex predicates and structural relations such as c-command and government, on null arguments and ellipsis like NP-ellipsis, argument ellipsis, and sluicing, on interpretations of quantifiers and wh-phrases, and more recently, on the cartographic analysis of
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ford.
Nakau, Minoru (1980) “Bunfukushi-no Hikaku (The Comparison of Sentential Ad-
verbs),” *Nichi-Eigo Hikaku Koza 2: Bunpo* (Lectures on Japanese-English
Comparative Studies 2: Grammar), ed. by Tetsuya Kunihiro, 157–219, Taishu-
kan, Tokyo.
Kyoiku* 52, 79–90.
Sabel, Joachim (2005) “String-Vacuous Scrambling and the Effects on Output
Condition,” *The Free Word Order Phenomenon: Its Syntactic Sources and Di-
versity*, ed. by Joachim Sabel and Mamoru Saito, 281–333, Mouton de
Gruyter, Berlin.
Saito, Mamoru (1985) *Some Asymmetries in Japanese and Their Theoretical Im-
plications*, Doctoral dissertation, MIT.
Shon, Keun-Won (1995) *Negative Polarity Items, Scope and Economy*, Doctoral
dissertation, University of Connecticut.
Sugisaki, Koji, Yukika Nishimura, Noriko Hattori, Yasushi Inokuchi, Yoshihiro
Nishimura, Mariko Ogawa, Yuji Okazaki, Waro Taki, Shinichi Unoh, Tetsuro
Subject Scrambling: An fNIRS Study,” *Proceedings of the Eighth Tokyo Con-
ference on Psycholinguistics* 8, ed. by Yukio Otsu, 103–120, Hituzi Syobo,
Tokyo.
Takubo, Yukinori (1987) “Togokozo-to Bunmyaku Joho (Syntactic Structure and
Tamaoka, Katsuo, Hiromu Sakai, Jun-ichiro Kawahara, Yayoi Miyaoka, Hyunjung
Lim and Masatoshi Koizumi (2005) “Priority Information Used for the Pro-
cessing of Japanese Sentences: Thematic Roles, Case Particles or Grammati-
cal Functions?” *Journal of Psycholinguistic Research* 34, 273–324.
Chapter 11

Locality and MaxElide in Extraction out of Elided VP

Howard Lasnik and Myung-Kwan Park

1. Introduction

Lasnik (2001) (See also Merchant 2001) notes the apparent failure of island violation repair by VP ellipsis, shown in (1)–(4) below:¹

(1) *They want to hire someone who speaks a Balkan language, but I don’t know which[ \_ ] they do [vp want to hire someone who speaks \_ ]. [complex NP constraint]

(2) *It appears that a certain senator will resign, but which senator[ \_ ] it does [vp appear that \_ will resign] is still a secret. [that-trace]

(3) *Sally asked if somebody was going to fail Syntax One, but I can’t remember who[ \_ ] she did [vp ask if \_ was going to fail Syntax One]. [if-trace]

(4) *She said that a biography of one of the Marx brothers is going to be published this year, but I don’t remember which[ \_ ] she did [vp say that a biography of \_ is going to be published this year]. [subject condition]

Note that all of these are fine with TP-ellipsis/Sluicing:

* We are honored to be able to contribute to this celebration of Mamoru Saito, who has done so much for his students, his colleagues, and his field. We would also like to acknowledge the very helpful suggestions of an anonymous reviewer.

¹ A deletion site is indicated by a single strike-through throughout this paper.
(5) They want to hire someone who speaks a Balkan language, but I don’t know which.

(6) It appears that a certain senator will resign, but which senator is still a secret.

(7) Sally asked if somebody was going to fail Syntax One, but I can’t remember who.

(8) She said that a biography of one of the Marx brothers is going to be published this year, but I don’t remember which.

As Lasnik (2001) also notes, still more peculiar with VP ellipsis is that wh-extraction out of it is severely restricted even when there is no island violation in the first place. Regular wh-movement out of an embedded clause is typically fine and Sluicing is just as good, but VP ellipsis involving wh-movement is bad, as follows:

(9) a. They said they heard about a Balkan language, but I don’t know which Balkan language they said they heard about.
   b. They said they heard about a Balkan language, but I don’t know which Balkan language.
   c. *They said they heard about a Balkan language, but I don’t know which Balkan language; they did [VP say they heard about \( \lambda \)].

Similar behavior is found for extraction out of an object DP:

(10) a. They heard a lecture about a Balkan language, but I don’t know which Balkan language they heard a lecture about.
   b. They heard a lecture about a Balkan language, but I don’t know which Balkan language.
   c. *They heard a lecture about a Balkan language, but I don’t know which Balkan language; they did [VP hear a lecture about \( \lambda \)].

Even short movement of a direct object behaves in a rather similar fashion.

(11) a. They studied a Balkan language but I don’t know which Balkan language they studied.
   b. They studied a Balkan language but I don’t know which Balkan language they studied.
kan language.
c. ??They studied a Balkan language but I don’t know which Balkan language; they did [VP study t]

This paper investigates this peculiar pattern of *wh*-extraction out of an elided VP. We first review Merchant’s (2001, 2008) MaxElide-based account for this phenomenon and find some drawbacks with it. After reformulating Merchant’s notion of MaxElide, we move on to explore how to derive the revised formulation of MaxElide from general principles of grammar such as the parallelism condition on deletion, the chain uniformity condition, etc.


One possibility for accounting for the range of data involving *wh*-extraction out of VP ellipsis we saw in the previous section would be to claim simply that there is a general ban on *wh*-extraction out of VP-ellipsis sites. However, such a claim is too strong, as shown by the following examples, from Merchant (2008: 140):

(12) a. I know what I LIKE and what I DON’T <like t>
    b. I know which books she READ, and which she DIDN’T <read t>
    c. What VP Ellipsis CAN do, and what it CAN’T <do t>

(Johnson (2001))

(13) a. GREEK, you should take; DUTCH, you shouldn’t <take t>
    b. I know which books ABBY read, and which ones BEN did <read t>

(14) a. I think YOU should ride the TALLEST camel, but I don’t know which one PHIL should <ride t>

(Schuyler (2001: (48)))

b. I think you SHOULD adopt one of these puppies, but I can’t predict which one you actually WILL <adopt t>

(Schuyler (2001: (49)))

c. ABBY took GREEK, but I don’t know what language BEN did <take t>

d. We know that Abby DOES speak [Greek, Albanian, and Serbi-
an]|F—we need to find out which languages she DOESN’T <speak-†>!

(Merchant (2001: 115, fn. 5 (ii)))

e. (I know) ABBY wants to take GREEK, but I don’t know what language BEN does \text{<want to take-†>}. 

What distinguishes the examples in (12)–(14) from those in (1)–(4), (9c), (10c) and (11c) is that the VP-ellipsis-containing clause of the former has an element which contrasts with some other element in the antecedent clause, but that of the latter does not. The phenomenon is simple to describe pre-theoretically: Some kind of contrast is required in the cases where VP ellipsis is licit. When such a contrast is absent as in (1)–(4) and (9)–(11), VP ellipsis is not allowed.

In addition to the contrastive focus requirement, as Merchant (2001) and Lasnik (2001) suggest, perhaps there is a ban on eliding less than possible under \textit{wh}-extraction out of VP ellipsis. Merchant (2001, 2008) formulates this ban into an inviolable constraint, MaxElide. In the next section, we will explore the exact nature of this constraint. Informally put, the constraint states that if ellipsis applies in a structure with a \textit{wh}-trace, it targets the largest constituent possible. More accurately, as in (15), it requires that if ellipsis targets an XP containing an A′-trace, XP must not be properly contained in any YP that is a possible target for ellipsis (Merchant (2008: 141)).

(15) MaxElide

Let XP be an elided constituent containing an A′-trace. Let YP be a possible target for ellipsis. YP must not properly contain XP (XP \not\subseteq YP).

The VP ellipsis in the (c) examples of (9)–(11) infringes on MaxElide; in (9c), for example, the VP <say they heard about t> contains a \textit{wh}-trace and the VP is properly contained in the TP <they did say they heard about t>, which, as (9b) shows, is itself a possible target for ellipsis. The possibility for eliding the containing TP, then, blocks elision of any contained VP (likewise for the more deeply embedded VP: \textit{*They said they heard about a Balkan language, but I don't know which they said they did}.

The same reasoning applies to the examples in (1)–(4), in which the elided VP happens to contain an island: each case lacks a contrasting ele-
ment, and the TP containing the elided VP is a possible target for ellipsis (as shown by the Sluicing counterparts in (5)–(8)).

The examples in (12)–(14) differ in precisely this regard. Consider (12): the elided VP is *like t*, which is properly contained in the TP *I don’t like t*. But this containing TP is not a possible target for ellipsis: there is no antecedent which would license elision of the sentential negation. Hence the containing TP is irrelevant to the elision of the VP, MaxElide doesn’t apply, and VP-ellipsis is not disallowed in this case. In other words, if the material outside the VP-ellipsis site contrasts in some way with some other material in the antecedent clause, the contrasting material cannot be elided, and hence no larger constituent will be a possible target for ellipsis. This contrasting material can be in the auxiliary domain (the negation as in (12a–c), (13a) and (14d), the modal as in (14b), and the subject as in (13b), (14a), (14c) and (14e)), or elsewhere external to the VP but internal to the TP (See Schuyler (2001) for further examples and discussion).

### 3. The Dynamics of Wh-extraction out of an Elided VP

Merchant’s (2008) formulation of MaxElide in (15), however, confronts one empirical problem. In his analysis of (12)–(14), if the material outside a VP-ellipsis site contrasts in some way with some other material in the antecedent clause, the former contrasting material cannot be deleted, and hence no larger constituent will be a possible target for deletion. In consequence, MaxElide doesn’t apply, and VP-ellipsis is not deletion in (12)–(14). However, this line of analysis predicts incorrectly that the following examples modeled after (1)–(4) should be acceptable:

16. *ABBY wants to hire someone who speaks a Balkan language, but I don’t know what kind of language, BEN does [VP want to hire someone who speaks t].*

17. *It DID appear that a certain senator had resigned, but which senator, it DOES [VP appear that t resigned] is now hush-hushed.*

18. *ABBY asked if somebody was going to fail Syntax One, but I can’t remember who, BEN did [VP ask if t was going to fail Syntax One].*
(19) *ABBY said that a biography of one of the Marx brothers is going to be published this year, but I don’t remember which; BEN did [vp say that a biography of a is going to be published this year].

The examples in (16)–(19) are almost identical to those in (1)–(4), except that unlike in the latter, in the former the contrasting material occurs outside the VP-ellipsis site. As the containing TP is not a possible target for deletion, these examples would be incorrectly predicted to be fine, just like (12)–(14). In fact, to account for the unacceptability of (16)–(19), Merchant (2008) calls upon not MaxElide, but a newly-proposed locality condition on movement. The upshot of Merchant’s proposal on this is that if locality is not respected, a copy trace is marked with * to record a violation of locality and, by assumption, all the later copy traces of the moving element are also *-marked. Under this conception of locality, what is to blame in (16)–(19) is the *-marked copy trace(s) postulated outside a VP-ellipsis site, more specifically in a VP or TP adjoined position. Note that this line of analysis would seem to predict that the examples in (1)–(4) are more degraded than those in (16)–(19), as the former violate both MaxElide and locality, while the latter violate only locality.

But this prediction is questionable. Beyond this, Merchant’s analysis makes an incorrect prediction about examples like (20) and (21), which are modeled after Lasnik’s examples in (9c) and (10c). The former differ from the latter, in that a contrasting material occurs outside a VP-ellipsis site.

(20) *ABBY said they heard about a Balkan language, but I don’t know what kind of language; BEN did [vp say they heard about a].

(21) *ABBY heard a lecture about a Balkan language, but I don’t know what kind of language; BEN did [vp hear a lecture about a].

As they do not violate locality nor MaxElide, these sentences would be predicted to be fine, contrary to fact.

Since the acceptability of the examples (12)–(14) presumably has to do with something other than the presence of contrasting material outside the
VP-ellipsis site, we instead argue that they are acceptable because *wh*-extraction out of an elided VP involves an initial instance of A-movement. This is what is predicted by the core part of Merchant’s formulation: an elided VP constituent does not contain an A’-trace.\(^2\) It somehow only allows an A-trace within it. In this regard, legitimate *wh*-extraction out of an elided VP can be analyzed as undergoing A-movement first before making additional A’-movements. In other words, as Lasnik (2001) suggests, the first step of A-movement out of an elided VP is taken to be parallel to the movement of a surviving element out of an elided VP in the Pseudogapping construction. We now provide a rationale behind this idea of analyzing the first step of movement out of an elided VP as an instance of A-movement.

Let us start with the general case where an object DP, A, has undergone movement out of the elided VP. The derivation will proceed in the following way.

\[(22) \quad \text{[ellipsis clause ... [...
A... [VP(elided) X\_i y]]]}\]

Following the line of analysis of Fox and Lasnik (2003), suppose that deletion proceeds observing a syntactic parallelism condition. In other

---

\(^2\) Suppose that an A’-trace in this statement is a *wh*-trace left by *wh*-movement. If so, we can conceive of the structure where it does not hold that an elided VP contains an A’-bound *wh*-trace. We regard this structure as one where an elided VP contains (i) an A-trace left by Object Shift (OS), (ii) a trace left by rightward Heavy NP Shift (HNPS), and (iii) a trace left by Quantifier Raising (QR). In fact, all and only these three cases are attested in English as instances of extraction out of an elided VP, as shown below:

(i) a. I know what I LIKE and what I DON’T [VP like-\_i].
   b. ABBY took GREEK, but I don’t know what language\_i BEN did [VP take-\_i]. (OS)

(ii) a. Although John wouldn’t give Bill the book, he would [VP give\_\_i Bill-\_i] the paper.
   b. Although John wouldn’t give the book to Bill, he would [VP give the book\_i to Susan\_i]. (HNPS)

(iii) a. I know which woman FRED will stand near, but I don’t know which woman\_i YOU will [VP stand near-\_i].
   b. Sally will stand near every woman\_i that you will [VP stand near-\_i]. (QR)
words, to license it we also have to take into account the antecedent clause. Generally, there is no movement involved in the antecedent clause of ellipsis, but there is a correlate expression corresponding to the element extracted out of VP in the ellipsis clause.

\[(23) \quad \text{[antecedent clause} \ldots [\text{[VP} \times B \ y]]\] \]

B in (23) is a correlate expression corresponding to A in (22).

The important point to note when we scan (22) and (23) with respect to the parallelism condition on deletion is that there is a discrepancy between the former and the latter: the former involves movement, whereas the latter does not. To resolve this discrepancy, following Fox and Lasnik (2003) (See also Williams (1977), Sag (1976), Pesetsky (1981), and Fiengo and May (1994), among others) we can go one step further to say that a correlate expression in the antecedent clause takes scope at LF, which will be parallel to the wh-dependency in the ellipsis clause. With this conception, (23) will change into (24), as one possibility:

\[(24) \quad \text{[antecedent clause} \ldots \exists f \ \lambda f' \ldots [\text{[VP} \times f'(B) \ y]]\] 
\[
(\lambda f = \text{choice function})
\]

However, a discrepancy still persists between the ellipsis and the antecedent clauses: the wh-expression in the ellipsis clause undergoes successive-cyclic movement, but its correlate expression in the antecedent clause is bound by existential closure. What is at stake now in this comparison between (22) and (24) is intermediate trace(s): the ellipsis clause where wh-movement occurs has them, whereas the antecedent clause does not. To take a minimal assumption, we can go another step further to adopt Chomsky’s (1991, 1995) idea that in the case of an argument DP which undergoes A'-movement, there is an operator-variable pair, which counts as a legitimate object, with other intermediate traces necessarily deleted in LF. This enables us not to worry about any intermediate traces but just to care about the trace that counts as a variable.

In (22) the VP to be elided apparently meets the parallelism condition on deletion with the antecedent VP in (24). However, there is one problem with this application of the condition. That is, A'-movement can be ‘wild’ in theory, making a very long movement. This implies that in scanning whether VP ellipsis meets the parallelism condition, we may
have to examine a domain (far) bigger than the elided VP, as can be seen in (25).

(25) *Mary seems to think that John believes that Abby DOES want to hire someone who speaks a certain Balkan language, but I don’t remember what kind of language; Kevin seems to think that Julia believes that she DOESN’T [VP want to hire someone who speaks ə].

Presumably this would be computationally costly. To address this problem, we propose that the parallelism condition scans only the category immediately dominating the VP to be elided. In this proposal, we are minimally extending the domain for parallelism from the traditional assumption: what counts for parallelism is not just the VP to be elided but the category immediately dominating it that extraction from it can proceed into. Let us call this proposal, in more general terms, the economy requirement for the parallelism condition on deletion (See also Park (2005) for a similar conception of this requirement):

(26) Economy requirement for the parallelism condition on deletion: The parallelism condition on deletion applies only to the category immediately dominating the portion to be elided.

This requirement is a reflection of the hypothesis that in parallel fashion to Move, Delete can also affect a cyclic domain in syntax in regard to the parallelism condition on deletion, first vP and then CP, deleting the complement of their phasal head.

To ensure that the requirement in (26) is enforced properly in the derivation of the elliptical construction, we assume, following ideas of Merchant (2001), that (PF) deletion is triggered by the presence of a feature on a head like v, T, C or D. This feature (E feature, in Merchant’s terms) will have both PF and LF effects in the derivation of the elliptical construction. On the one hand, this feature on the PF side instructs the following complement constituent to be phonologically suppressed or unpronounced. On the other hand, this feature on the LF side instructs the following complement constituent to meet the parallelism condition on deletion with its antecedent constituent. In other words, the former is required to be parallel to the latter in syntax. Otherwise, the derivation
with such an ellipsis-licensing feature leads to LF side failure.

The requirement in (26) amounts to saying that in the antecedent clause a correlate expression takes scope at the periphery of VP, and in the ellipsis clause the wh-expression moving from the elided VP leaves an intermediate trace at its periphery, as schematically represented in (27) and (28):

\[
(27) \quad [\text{ellipsis clause} \ldots A_1 \ldots [\mathit{VP} \, f'_1 \, [\mathit{VP} \, (\mathit{elided}) \, x \, \mathit{\_} \, \mathit{\_} \, y]]] \\
(28) \quad [\text{antecedent clause} \ldots [\mathit{VP} \, \exists f \, \lambda f'_j \, [\mathit{VP} \, x \, f'(B)_j \, y]]]
\]

In this structurally parallel situation in regard to the \( \nu P \) domain, we can say that VP ellipsis straightforwardly meets the parallelism condition on deletion.

One last thing to consider is the intermediate trace at the periphery of VP in the ellipsis clause of (27). As we pointed out above, the legitimate object for an A'-moved argument is the operator-variable pair produced by its movement, which (unlike other traces) is relevant to the parallelism condition on deletion. This has as a consequence that the intermediate trace at [Spec, \( \nu P \)], not the trace inside the VP to be elided, has to be analyzed as a variable; if it were not the tail of an operator-variable chain, the resulting structure would not meet the parallelism condition on deletion that operates in tandem with the requirement in (26). As a working hypothesis, we assume, following Chomsky (1981) and Epstein (1987), that an operator-variable chain terminates with an element in a Case-checking position. This working hypothesis leads us to say that the movement to the periphery of the VP to be elided cannot be A'-movement but must be A-movement for a Case reason. This is why movement out of the VP to be elided is stringently local, contrary to initial expectations. Even though a certain element apparently undergoes movement out of the VP to be elided, it first has to take local A-movement out of the VP to be elided and leave a variable at the periphery of that VP, then proceeding to take A'-movement to a possibly distant target position.

Remember that in our analysis of extraction out of elided VP, we employ the conception of 'legitimate object' formed by A'-moved argument. The new idea we introduce is the requirement in (26). This requirement
is, we suggest, a natural one, in that it reduces computational complexity in scanning for parallelism satisfaction.

The proposal that when extraction takes place out of elided VP it has to leave a variable at its periphery accounts for examples like (9c), repeated here as (29) with more structural elaboration:

\[(29) \text{*They said they heard about a Balkan language, but I don't know which Balkan language, they did} \quad [\text{VP } \text{say—[CP they—heard about—}\text{nil}]]\).

In this representation, the culprit is the intermediate trace at the matrix [Spec, vP] position. This intermediate trace cannot be analyzed as a variable because its chain link with the next lower position straddles the embedded CP, thereby failing to achieve A-movement status. In other words, the intervening embedded CP prevents the intermediate trace at the matrix [Spec, vP] position from being analyzed as the head of an A-chain and thereby as a variable (See Saito and Murasugi (1992) and Saito (1994) for relevant discussion).

4. The Requirement for Contrastive Focus Outside an Elided VP

It was argued in the previous section that the elided VP that a wh-expression is extracted out of is a simple one that does not contain an embedded clause. This behavior follows from fairly widely-accepted ideas such as the parallelism condition on deletion and the chain uniformity condition, together with the newly proposed idea that VP as well as TP is also a domain for the parallelism condition on deletion. In particular, with VP as a domain for parallelism, the chain uniformity condition mandates that wh-extraction out of an elided VP leave a variable at the edge of it, that is, [Spec, vP]. This in turn calls for its initial step of movement out of an elided VP to be an instance of A-movement. In this line of analysis, we can rule out the examples where the extraction out of an elided VP does not count as an instance of A-movement. Likewise, all else equal, we also rule in examples like (12)–(14) where the first step of movement out of the elided VP can be analyzed as a case of A-movement.

In this section we will examine whether the extraction to the edge of an elided VP as an instance of A-movement is responsible for the presence of
apparent contrastive focus outside of it. As pointed out above, the initial step of A-movement out of an elided VP in the course of later wh-movement is exactly parallel to the movement of a surviving element to the edge of an elided VP in the Pseudogapping construction. In this regard, as Lasnik (2001) suggests, it is fair to say that the construction involving wh-extraction out of an elided VP is, in fact, the Pseudogapping construction, provided that we ignore the additional steps of movement after the initial step of A-movement. We then may ask the more specific question of whether the presence of contrastive focus outside an elided VP can be attributed to properties of the Pseudogapping construction per se. In the following we will provide a positive response to this question.

Recall that, as Merchant (2008) notes, contrastive focus falls on a certain expression like the subject DP, the auxiliary verb, or the sentential negation in the TP domain immediately dominating the elided VP that wh-extraction takes place out of. Notably, this distribution of focus in this construction involving wh-extraction out of an elided VP is distinguished from that in the canonical Pseudogapping construction. In the latter, focus is more restrictively put only on a surviving element from an elided VP, as follows (where capital letters indicate contrastive focus):

(30) a. John will select me, and Bill will YOU$_i$ [VP select$_t$].
    b. The DA proved Jones guilty and the Assistant DA will SMITH$_i$
       [VP prove$_t$ guilty].

Therefore, at first sight it seems futile to assimilate the construction involving wh-extraction out of an elided VP to the Pseudogapping construction in regard to focus structure.

However, there is another comparable construction involving Pseudogapping which can be understood to be deletion of a VP after displacing a surviving element out of it. This is the appositive antecedent-contained deletion (ACD) construction, as follows:

(31) a. ?Dulles suspected Philby, who$_i$ ANGLETON did not [VP suspect$_t$]
    b. ?Dulles suspected Philby, who$_i$ ANGLETON did [VP suspect$_t$] as well.

(32) a. ?We spoke to Philby, who$_i$ ANGLETON did not [VP speak$_t$ to$_t$].
b. *We spoke to Philby, who$_i$ ANGLETON did [VP speak$_{t_1}$] as well.

As Lasnik (1993) argues, ACD within the appositive non-restrictive relative clause is Pseudogapping. While a restrictive relative clause can undergo Extraposition (cf. Baltin (1987)), a non-restrictive relative clause is resistant to extraposition, possibly because of the coordinate structure constraint. Hence the operation of extraposition is not effective in resolving the regress problem arising from ACD in the non-restrictive relative clause (Park (1998)). Rather, as Lasnik (1993) argues, Object Shift (OS) of the nominal expression containing the non-restrictive relative clause is instrumental in resolving the regress problem. If that nominal expression is not allowed to undergo OS, the resulting sentence becomes unacceptable, owing, on standard assumptions, to the failure to resolve the regress problem, as follows:

(33) a. *John stood near Mary, who$_i$ Bill did [VP stand$_{t_1}$] as well.
b. *John showed Mary the new teacher, who$_i$ Bill did [VP show$_{Mary-t_1}$] as well.

In (33a), OS, as an instance of A-movement, presumably fails for the same reason that pseudo-passivization does. And in (33b), OS is blocked by Relativized Minimality.

Notably in this appositive ACD construction the subject DP in the relative clause generally carries contrastive focus. However, this is not the only option. As (34) and (35) show, the auxiliary verb can also bear contrastive focus, as follows:

(34) ?Dulles DOES praise Philby, who$_i$ he DID [VP praise$_{t_1}$] as well.
(35) ?You SHOULD praise Philby, who$_i$ you surely WILL [VP praise$_{t_1}$].

It is to be borne in mind that when we remove contrastive focus in (30)–(31) and (34)–(35), these sentences become degraded substantially.

It has been shown that the construction at issue and the non-restrictive ACD construction behave in a parallel fashion in focus structure, in that they both call for contrastive focus on elements like a subject DP and auxiliary verb outside the elided VP. If the TP domain outside it does not
contain contrastive focus, the relevant examples become unacceptable, as follows:

(36) *Dulles is praising Philby, who he has been [vp praising].

(37) *I think you should adopt ONE of these puppies, but I don't know [WHICH one]. you should [vp adopt]. (Schuyler (2001: 27))

Now considering these examples we can draw the following generalization: when VP undergoes deletion as part of Pseudogapping, the TP immediately dominating this Pseudogapped VP contains contrastive focus. In other words, Pseudogapping of VP requires contrastive focus in the TP domain immediately dominating it.

A question arises as to the ultimate structural source of this requirement that contrastive focus be present in the TP domain outside the Pseudogapped VP. (See Kim (1997) for relevant discussion.) We suggest that this contrastive focus stems from the make-up of the ellipsis-licensing little v, an edge feature of which licenses A-movement out of an elided VP and also, as a head governor, licenses elision of the following VP (Lobeck (1995)). To the extent that this suggestion is right, the ellipsis-licensing little v can be associated via available syntactic relations with an element bearing contrastive focus in the TP domain. Suppose that a subject DP is generated in [Spec, vP] position. Then, as it is associated with this little v via Spec-head relation, the former can pick up contrastive focus from the latter. In the case of the auxiliary verb and sentential negation bearing contrastive focus, it is associated with this little v via head-head relation. This is a line of analysis we might pursue, but it will have to await further investigation.

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3 The examples in (36) and (37) are not a minimal pair, as the relative wh-expression is prohibited from receiving focus.

4 It will be shown shortly that canonical VP ellipsis without extraction out of it is not subject to this clausemate requirement for contrastive focus.

5 However, in contrast to a subject one, an object wh-expression moved out of an elided VP is prevented from participating in Spec-head agreement with the little v when the former moves through the Spec of the latter. We assume that this is because its focus checking is preempted by its Case checking which takes priority in order to meet the parallelism condition on ellipsis.
Before leaving this section, it is to be noted that the clausemate requirement for contrastive focus outside an elided VP does not hold in the canonical VP ellipsis construction, as noted by Merchant (2008):

(38) a. Ben knows that she invited Klaus, but her father doesn’t.
b. Ben knows that she invited Klaus, but her father doesn’t know that she did.

In (38) both the larger and the smaller VPs are allowed to be elided. This is, simply put, because the canonical VP ellipsis construction cannot be equated with the Pseudogapping construction. Along the lines of the proposal made above, in the former construction there is no need to activate the ellipsis-licensing little $v$ which triggers contrastive focus outside an elided VP. Hence, either the smaller or the larger VP can undergo deletion.

It is instructive to note that the following sentence behaves in a similar way to the canonical VP ellipsis construction rather than to the construction involving $wh$-extraction out of an elided VP:

(39) a. Someone solved the problem.
b. i. Who?
   ii. Who did?

Merchant (2008) argues that the acceptability of (39bii) follows from the fact that the $wh$-expression $who$ has undergone A-movement; there is no variable within an elided VP, circumventing the application of MaxElide. 6 Likewise, our analysis apparently predicts that there is no difference between (39bii) and (12)–(14). The former and the latter both seemingly involve A-movement out of the VP to be elided.

Closer examination reveals, however, that there is one telling difference between (39bii) and (12)–(14). The latter involve $wh$-extraction out of an elided VP, but the former in fact does not. The $wh$-expression $who$ in the

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6 Takahashi and Fox (2005: 235) note that in the case of derivations involving successive-cyclic A-movement, either higher or lower VP-ellipsis is possible, as in (ia, b):

(i) a. John is likely to attend the party, and Mary is as well.
b. John is likely to attend the party, and Mary is likely to as well.
former is generated in [Spec, vP] outside the elided VP. Then, (39bii) is not an instance of the Pseudogapping construction involving extraction followed by deletion, but an instance of the typical VP ellipsis construction. In this regard, in a parallel fashion with the VP ellipsis construction in (38), the smaller VP or the larger deletable constituent TP can undergo deletion as in (39b).

5. Some Arguments against Extending MaxElide to Nonlocal Sloppy Identity Binding Relation

In this section we will review Takahashi and Fox's (2005) attempt to extend MaxElide to nonlocal sloppy identity binding relation and argue that their attempt is unsuccessful.

As has been widely discussed, the VP-ellipsis construction involving a bound (pronominal) variable is sometimes construed as ambiguous. For instance, the sentence spoken by Speaker B in (40) can be understood either as a statement about John (Speaker B-i, 'strict identity') or as a statement about Bill alone (Speaker B-ii, 'sloppy identity').

(40) a. Speaker A: John admires his professor.
   b. Speaker B: BILL also does [vP admire his professor].
      i. Bill admires John's professor. (strict identity)
      ii. Bill admires Bill's professor. (sloppy identity)

One might suggest that sloppy identity results from a configuration in which a variable is bound not inside but outside the ellipsis constituent (EC) as illustrated in (41).

(41) John [vP admires his professor]. Bill also does [EC admire his professor].

Such an analysis, however, raises questions about the parallelism/identity condition on ellipsis. Sag (1976) and Williams (1977) adopt a rather simple solution, suggesting that ellipsis of EC requires semantic identity with the antecedent constituent (AC). If sloppy identity involved the rep-
resentation in (41), it would not be obvious that the parallelism condition is met.

For this and other reasons, Sag and Williams suggest that the relevant sloppy identity variable is bound by a $\lambda$-operator inside EC, assuming Partee’s (1975) Derived VP Rule, which introduces a $\lambda$-operator at the VP level. Their analysis of sloppy identity is illustrated in (42). Takahashi and Fox call such a variable binding configuration, in which all the variables are bound inside EC, Internal-binding:

(42) Internal-binding
   John $[\text{AC} \lambda x. x \text{ admires } x\text{’s professor}]$
   Bill also does $[\text{EC} \lambda y. y \text{ admires } y\text{’s professor}]$

It is easy to see that Internal-binding in (42) allows AC and EC to be semantically identical. The more general prediction that follows from the proposal made by Sag and Williams is that the variable binding configuration in (43), which Takahashi and Fox (2005) call Re-binding, is never allowed.

(43) Re-binding
   Antecedent Clause: $[\ldots [XP_x \ldots [\text{AC} \ldots x \ldots ]]]$
   Ellipsis Clause: $[\ldots [YP_y \ldots [\text{EC} \ldots y \ldots ]]]$

In Re-binding, variables are bound not by $\lambda$-operators inside EC and AC but by binders outside them.

Sag and Williams note cases where this prediction is achieved. Consider the contrast in (44). While a sloppy interpretation is available for (44a), it is blocked for (44b).

(44) a. John said Mary hit him. Bill did $\emptyset$ too.
   $\emptyset$=said Mary hit John / said Mary hit Bill
   b. John said Mary hit him. Bill said she did $\emptyset$ too.

Specifically, if we assume, following Heim (1997), that the variables in (41) must bear different names, the Sag-Williams parallelism condition will not be satisfied: EC will not be semantically identical to AC.
\( \emptyset = \text{hit John} / \ast \text{hit Bill} \)

However, Evans (1988) puts forth examples like (45a) where the traces in the elided VP and its antecedent VP have different binders outside them. Later, Jacobson (1992) also notes examples like (45b) where the bound pronoun takes as its binder the non-local matrix subject. Both examples in (45) are counterexamples to the Sag-Williams analysis, because a bound variable occurs inside an elided VP, but its binder is not the subject of this VP.

(45) a. You can tell [which parts]\(i\) Partee wrote \(t_i\) and [which parts]\(j\) Bach did [VP write \(t_j\)].  

\((\text{Evans (1988: 125)})\)

b. Everyone hopes that Sally will marry him, but Bill knows that she will \(\emptyset\). \(\emptyset = \text{marry Bill}\)  

\((\text{Hardt (2006: (5)))}\)

Rooth (1992) proposes a new analysis of ellipsis licensing to account for cases like (45a, b). In his analysis, ellipsis is licensed by a parallelism domain (PD) which must include an elided VP, but can be a bigger constituent than the elided VP itself. Rooth’s definition of parallelism furthermore uses a focus-sensitive notion according to which focused constituents are exempted from parallelism. Specifically, Rooth’s analysis requires licensing within a bigger constituent for the sloppy readings in (45a, b). For example, the constituents relevant for licensing in (45a) are indicated in (46), together with the focus on the subject of the second conjunct, which is necessary for parallelism.

(46) You can tell [which parts]\(i\) Partee wrote \(t_i\) and [which parts]\(j\) [Bach]\(_k\) did write \(t_j\).

Rooth’s analysis correctly predicts the possibility of ellipsis in (45), but incorrectly predicts that ellipsis should be licensed for the sloppy interpretation of (44b). Takahashi and Fox (2005) show that this problem can be overcome by adding the following condition that requires ellipsis to be maximized within a parallelism domain.

(47) MaxElide: Elide the biggest deletable constituent reflexively dominated by a PD.  

\((\text{Takahashi and Fox (2005: (21)))}\)

Now the sloppy interpretation of (44b) is correctly ruled out as shown
by representation (48): the minimal PD must include the binder of the sloppy identity pronoun. But then ellipsis is not maximal within this PD, as elision of the bigger constituent [say she hit him] can also be licensed.

(48)  Bill did \( [\text{PD} \lambda x. \text{x say she did hit } x] \)

Takahashi and Fox’s account correctly predicts that the sloppy reading should become available if any of the material in the higher potential ellipsis target is focused and thereby blocks ellipsis, as in (45a, b). Their account, however, confronts at least two problems. One is concerned with whether their concept of a variable is compatible with Merchant’s concept of a variable in his original formulation of MaxElide. The latter is understood as the A’-bound wh-trace left by wh-movement inside an ellipsis site. By contrast, according to Takahashi and Fox the former can be one bound by a \( \lambda \)-operator. The question is whether every entity bound by a \( \lambda \)-operator can be regarded as an A’-bound one. Takahashi and Fox assume that it can be. However, close scrutiny reveals that pronominal variables are syntactically bound by quantificational expressions in A-position. Especially, recall canonical cases of sloppy identity where a VP-internal subject or a regular subject DP in A-position binds a pronominal variable inside an elided VP. Therefore, rather than saying that it is an A’-bound variable, it is fair to say that a pronominal variable is an A-bound one.

The second problem with Takahashi and Fox’s account is that it makes an incorrect empirical prediction. Consider the following sentences:

(49)  A:  Someone\( i \) lost his\( i \) book in the library.
       B:  a.  Who did?
            b.  Who?

(50)  A:  Someone\( i \) told Mary that he\( i \) would volunteer for the work.
       B:  a. (?)Who did?
            b.  Who?

In these sentences, the pronominal variable involves what Takahashi and Fox call Internal-binding. However, the problematic aspect of these sentences is that the highest TP is a deletable PD, which Takahashi and Fox incorrectly predict to undergo obligatory deletion. In our analysis of these examples, they are comparable to (39), where the subject of the (highest) clause is a wh-expression. They do not involve wh-extraction
out of VP. Hence either TP or VP can undergo deletion, fulfilling the prediction.

Furthermore, Sag’s empirical findings have been questioned by Fiengo and May (1994), who put forward examples like (51), showing that sloppy identity does obtain for an embedded object DP even when the smaller embedded VP undergoes deletion:

(51) a. I didn’t know that Bill was a bigamist.
 b. Mary just said he’s married to her, and Sally_i said that he is
    [vp married to her], too. (Fiengo and May (1994: 106, 107))

Hardt (2006) also notes that nonlocal sloppy interpretation is possible in the following example involving smaller VP ellipsis:

(52) Nearly every boy_i said Mary_j hit him_k. But BILL_k DIDn’t say
   she_j did [vp hit him_k].

In the examples of (51) and (52) the sloppy pronoun in the embedded object position can be bound outside the embedded clause. These examples cast some doubt on the empirical grounding of Takahashi and Fox’s analysis based on MaxElide. According to the MaxElide constraint, since it is possible to elide the matrix VP in the second sentence/clause of (51) and (52), it is then necessary to do so. The acceptability of (51) and (52) shows that MaxElide is not at work for nonlocal sloppy identity interpretation.

6. Conclusion

In this paper we have shown that the MaxElide effects, the elision of the biggest deletable constituent, or TP ellipsis over VP ellipsis, follow from the fact that while extraction out of an elided TP is rather free, extraction out of an elided VP is subject to a stringent locality requirement. In particular, with VP as a domain for parallelism on ellipsis, the chain uniformity condition mandates that wh-extraction out of an elided VP leave behind a variable at the [Spec, vP] position. This in turn calls for its initial step of movement out of an elided VP to be an instance of A-movement. In this line of analysis, we can rule out the examples where extraction out of an elided VP cannot count as an instance of A-move-
ment. Likewise, we also rule in the examples where the first step of movement out of the elided VP can be analyzed as a case of A-movement.

Based on this understanding of wh-extraction out of an elided VP, we have suggested that the construction at issue is Pseudogapping, provided that we ignore the additional steps of movement after the initial step of A-movement. To the extent that this analysis is right, contrastive focus in the TP domain immediately dominating an elided VP is ascribed to the properties of the Pseudogapping construction per se. We have noted that the construction involving wh-extraction out of an elided VP is exactly parallel in focus structure to the non-restrictive ACD construction which Lasnik (1993) argues to involve Pseudogapping.

REFERENCES


Saito, Ivan (1976) *Deletion and Logical Form*, Doctoral dissertation, MIT.
Chapter 12

Insights from Japanese Linguistics
for the Study of Sign Languages

Diane Lillo-Martin

1. Introduction

The first time I met Mamoru Saito, I was a graduate student in Linguistics at the University of California, San Diego. It must have been around 1984, and I was studying aspects of the syntax of American Sign Language (ASL), as well as its acquisition. Sandra Chung arranged for a small group of graduate students to go up to the University of California, Irvine, to see a talk presented by Saito, who was already well-known for his contributions to generative syntax. I recall feeling a bit overwhelmed in the presence of greatness at this event, and I remember being impressed by the complexity of the argument and the subtlety of the judgments involved. I knew I would have to understand as much as I could of this man’s research, and indeed, his dissertation and his articles with Howard Lasnik were relied on in my own dissertation.

A few years later, Mamoru joined the faculty at the University of Connecticut, where I was then an Assistant Professor. It was a great pleasure to be in the same department as him, as he always had wise contributions to make regarding departmental decisions as well as conducting highly in-

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