**APPREACHING FOUNDATIONAL ISSUES IN LINGUISTIC THEORY FROM RECONSTRUCTION AND ELLIPSIS**

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This review article examines two phenomena—reconstruction and ellipsis—discussed in articles selected from the above volume. Capitalizing on an independently motivated process of counter-cyclic Merger, the current article sketches an alternative analysis of the (anti)reconstruction effects in Welsh relative clauses discussed in Rouveret’s article in this volume and explores its consequences. Building on the observations in Williams’ article, also in this volume, we also see various ellipsis facts that can be analyzed as involving a particular type of variable binding dependency. Based on those facts, we consider the nature of a condition that is relevant for licensing ellipsis. The first half of the article is allocated to the presentation of brief reviews regarding some of the articles that are directly or indirectly related to the two topics above.*

*Keywords:* (anti)reconstruction, binding, counter-cyclic Merger, ellipsis, variables

1. Introduction

This volume is a collection of articles in honor of Jean-Roger Vergnaud. Since the 1970s, Vergnaud has made major contributions to the development of linguistic theory. His inquiry, which ranges over several subfields of linguistics, has been highly influential and has suggested far-reaching consequences for key aspects of linguistic theory. The volume brings together a

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collection of studies inspired by Vergnaud’s achievements in one way or another, and is a must-read for anyone who is interested in foundational issues in linguistic theory. It contains various proposals, speculations, and questions for further linguistic research, but perhaps most interestingly includes a personal letter from Vergnaud to Chomsky and Lasnik as chapter 1 of the volume. This famous letter, in which Vergnaud commented on the first draft of Chomsky and Lasnik (1977), had a profound impact on the establishment of the modern Case theory, but it was not easily accessible before.

The volume consists of two sections: syntax and phonology. The former section includes ten articles in addition to Vergnaud’s letter, and the latter section, two articles. For lack of space, it is impossible to do justice to all of the articles. The following articles are not included in the present review, but are listed here for interested readers’ reference: “Uninterpretable Features Are Incompatible in Morphology with Other Minimalist Postulates” by M. Rita Manzini and Leonardo M. Savoia, “Parallel Nominal and Verbal Projections” by Karine Megerdoomian, “Clause Structure and the Syntax of Verbless Sentences” by Elabbas Benmamoun, “Identity Avoidance: OCP Effects in Swiss Relatives” by Henk van Riemsdijk, “Some Preliminary Comparative Remarks on French and Italian Definite Articles” by Richard S. Kayne, “Reduplication” by Morris Halle, and “The Logic of Contrast” by B. Elan Dresher.

In the next section, I present brief reviews of four articles that directly or indirectly bear on two topics that I discuss in section 3: reconstruction and ellipsis. Utilizing an independently motivated process of counter-cyclic Merger that I proposed in Takahashi (2006), I sketch an alternative analysis of the (anti)reconstruction effects in Welsh relative clauses, which are discussed in Alain Rouveret’s article, and explore some consequences of the alternative analysis. I then turn to a review of Edwin E. Williams’ article about ellipsis in English. Building on Williams’ observation, we see various ellipsis facts that can be analyzed as having a particular type of variable binding dependency. I present the characterization of such facts that Danny Fox and I proposed in Takahashi and Fox (2005) and discuss the nature of a condition that is relevant for licensing ellipsis.

2. Topics in Linguistic Theory


Lasnik’s article offers an excellent overview concerning the history of
the development of the Case theory over the past four decades. It is devoted to the discussion of two issues pertaining to the nature of the Case Filter, which prohibits certain types of NPs from lacking Case (Chomsky (1980)). In the first place, Lasnik investigates what elements are subject to this Case requirement. Considering a wide range of cases, which include control, ECM (Exceptional Case Marking), A/A'-movement, and expletives, he presents the taxonomy in (1).

(1) **Items that obey the Case Filter**  
- Argumental lexical NPs, PRO, 
- WH-traces, Expletives, 
- Clauses (nominal)  
**Items that ignore the Case Filter**  
- Clauses (non nominal), (NP traces), 
- Everything else  

(Lasnik (under review: 34))

Secondly, Lasnik explores the question of whether the Case Filter is an LF requirement or a PF one. It was originally considered to apply to only phonologically overt NPs, and thus viewed as a PF requirement of some sort. However, it was later reformulated so as to cover the Case requirement of phonologically covert NPs, such as PRO and WH-traces, and this revision led us to the proposal that it was motivated by considerations associated with LF: Case makes an element visible for θ-role assignment (Chomsky (1981)). This view, however, may be challenged by issues associated with expletives and clausal complements.

While Lasnik does not propose a principled reason why the Case Filter holds, he presents an interesting fact that appears to favor the PF motivation for the filter. Let us first consider the fact that certain types of predicates taking an infinitival complement only allow for an A'-trace in their ECM subject position, as in (2) (Postal (1974)).

(2) a. *I alleged John to be a fool. 
b. ?John, I alleged to be a fool. (Lasnik (under review: 34))

One possible explanation of (2) is that in order to receive Case, an ECM subject of this type of predicate must be in a higher position than an ECM subject of an “ordinary” ECM predicate and the A'-moved subject in (2b) stops at such a position on its way to the final landing site (see Bošković (1997) and Kayne (1984)). Given this, (2a) is ruled out as a violation of the Case Filter. Particularly remarkable is that ellipsis, a PF process, ameliorates a violation of the Case Filter. (Angle brackets are used to indicate elided material.)

(3) John, I alleged to be a fool. Mary did <allege John to be a fool> too. (Lasnik (under review: 34))

He takes this fact to be evidence for the PF motivation for the Case Filter, leaving open a further question of why phonologically empty elements must
also meet the PF-motivated filter.¹

2.2. Noam Chomsky’s Article: “On Phases”

Since phases were first proposed in Chomsky (2000), it has been shown that they bear a core role in syntactic computation, and that by making reference to their properties, various phenomena and aspects of the syntactic computation can be recast in more principled ways (see Chomsky (2000, 2001, 2004, 2007) and references cited therein). As suggested by the title of the article, Chomsky (under review) explores further properties of phases and their ramifications for linguistic theory. Here I would like to focus on reviewing the idea that all operations apply at the phase level (see also Chomsky (2007)).

Following his earlier proposal, Chomsky assumes that CP and v*P are phases, where v* is a functional head that combines with transitive predicates (but not with unaccusative/passive ones). He also reiterates his earlier suggestion that TP does not qualify as a phase, even though T is widely assumed to trigger agreement and subject raising. He argues that an Agree-feature (i.e. φ-features) is inherited from C, the phase head, by T and that this is the reason for the apparent phaselike properties of T. To illustrate this proposal and related ideas, let us consider (4). In this case, when the phase head C merges with TP, an Agree-feature, which is inherited from C by T, probes the wh-phrase who_k and it moves to the Spec of TP.² Furthermore, an edge feature of C raises who_k to the Spec of CP. Along the lines of the proposal that all operations take place at the phase level, these two operations are argued to apply in parallel.

\[(4)\]  
\[a. \text{Who saw John?}
\]
\[b. \text{[CP who_i C [TP who_j T [v*P who_k v* [VP saw John]]]]}\]

¹ There seems to be an alternative analysis of (3). To handle Pseudogapping like in (ia), Lasnik (1999b) proposes that Object Shift can take place in ellipsis contexts in a manner that is otherwise impossible, as illustrated in (ib) (see also Takahashi (2004) for relevant discussion).

\[(i)\]  
\[a. \text{John will select me, and Bill will you.}
\]
\[b. \text{[Bill will [XP you_1 <select t_1>]]}\]

If we assume that this type of Object Shift moves the object to a position where it can receive Case in (3) and a constituent that dominates the shifted object (i.e. a constituent that corresponds to XP in (ib)) is elided, the fact in (3) might not provide support for the PF view of the filter.

² This kind of feature inheritance is considered a general property of phase heads. Thus, an Agree-feature of v* is assumed to be inherited by V, which invokes Object Shift.
One striking aspect of the derivation in (4b) is that the \textit{wh}-phrase undergoes movement from the Spec of v*P, but not from the Spec of TP. Chomsky presents an interesting argument in favor of this claim. Let us first consider a familiar contrast between (5) and (6). The sentences in (5) are ruled out as a violation of the SIC (Subject Island Constraint), which prohibits extraction out of a subject. On the other hand, extraction out of a constituent in the complement of V is possible, as in (6).

5a. *It was the CAR (not the TRUCK) of which [the \{driver, picture\} caused a scandal].  

5b. *Of which car did [the \{driver, picture\} cause a scandal]?  

(Chomsky (under review: 147))

6a. It was the CAR (not the TRUCK) of which [they found the \{driver, picture\}].

6b. Of which car did [they find the \{driver, picture\}]?

(Chomsky (under review: 147))

Particularly remarkable is the fact that a violation of the SIC is circumvented in (7), where a \textit{wh}-phrase actually moves out of a subject, just as in (5).

7a. It was the CAR (not the TRUCK) of which [the \{driver, picture\} was found].

7b. Of which car was [the \{driver, picture\} awarded a prize]?  

(Chomsky (under review: 147))

The structural difference between (6)–(7) and (5) that may determine the source of their contrast lies in the difference in their underlying structure. In (8a) and (8b), which are the base structures of (7) and (6), respectively, the constituent that occupies the Spec of TP at the surface representation originates in the complement of V. However, this constituent resides in the Spec of v*P in (8c), which is posited for (5).

8a. [vP v [found [the \{driver, picture\} of which]]]

8b. [v*P they v* [found [the \{driver, picture\} of which]]]

8c. [v*P [the \{driver, picture\} of which] v* [caused a scandal]]

Noting this difference, Chomsky suggests a new characterization of the SIC: an item embedded within a constituent in the lower phase is not allowed to be extracted.\(^3\) The contrast between (5) and (7) now follows. There is a phase boundary between C and the \textit{wh}-phrase in (8c), while there is no such boundary in (8a), because v is associated with a passive predicate. In (6),

\(^3\) It is argued that this prohibition can be derived from phase-based locality considerations. Note also that a constituent in the lower phase can be extracted, as evidenced by the fact that an entire constituent in the Spec of v*P can move to the Spec of TP.
wh-movement is unproblematic. This is because the wh-phrase first moves to the edge of v*, which is a position accessible to C. Note that this kind of movement is not feasible in (5) because the wh-phrase occupies the Spec of v*P and hence is outside of the search domain of v*. The facts above can be taken as support for the claims that C does not probe a wh-phrase in the Spec of TP and that T is not a phase head. If C probed the wh-phrase in the Spec of TP, there would be no structural difference that could distinguish (6)–(7) from (5). Moreover, if T were a phase head and could by itself provoke operations, such as movement of a subject, before C is merged with TP, it would again be impossible to capture the facts above.

Let us next turn to evidence for Chomsky’s approach to the SIC. This approach predicts that if there is no phase boundary between a probe and a goal, the effect of an SIC violation would not be manifested, even when some element is extracted out of an EA (external argument). This prediction is borne out by the grammatical cases in (9), which involve extraction out of an EA.

(9) a. It is the CAR (not the TRUCK) of which [the {driver, picture} is likely to cause a scandal].
   
   b. Of which car is [the {driver, picture} likely to cause a scandal]? (Chomsky (under review: 153))

Chomsky argues that an edge feature of C probes the wh-phrase in the Spec of the intermediate TP in these cases. Crucially, there is no phase boundary that intervenes between C and the wh-phrase in the Spec of the intermediate TP, as shown in (10). While an Agree-feature raises the EA to the Spec of the highest TP, the wh-phrase in that position is invisible to C because all the features of the EA have been valued there.

(10) \[ CP C [ TP T is likely [ TP [the {driver, picture} of which] to [ v*P t1 v* [cause a scandal]]] ] ]

This claim is further corroborated by the ECM case in (11). It is claimed that a relevant feature probes the wh-phrase in the Spec of the infinitival TP before the ECM subject moves to the Spec of VP, where it is invisible (see fn. 2 for the driving force for raising to object).

(11) Of which car did they believe the {driver, picture} to have caused a scandal? (Chomsky (under review: 153))

The proposed analysis of (9) and (11) has an important consequence for subject raising: there should be no intermediate landing site to which an EA can move between its base-generated position and the Spec of a local TP. Otherwise, (5) would incorrectly be predicted to be grammatical, on a par with (9) and (11).
Chomsky’s approach to the SIC invites us to investigate the further question of whether the effects under the rubric of the Condition on Extraction Domain can be reduced to general properties of the phase-based syntactic computation (Huang (1982)).

2.3. Cedric Boeckx and Norbert Hornstein’s Article: “Superiority, Reconstruction, and Islands”

Recent developments in syntactic theory have made it possible to elucidate two extensively investigated phenomena in revealing and elegant ways: superiority and reconstruction. A superiority effect has recently been considered to be exhibited when movement violates an economy condition (such as Shortest Move, the Minimal Link Condition, and Attract Closest). A reconstruction effect has been shown to follow naturally as a consequence of the movement mechanism: the copy theory of movement.

However, Aoun and Li (2003) provide facts from LA (Lebanese Arabic) that may be taken as a challenge to these analyses of the phenomena. In LA, extraction sites both inside and outside of an island can be occupied by an RP (resumptive pronoun). While a moved element can be interpreted in a position occupied by an RP outside of an island, it cannot be interpreted in a position occupied by an RP inside an island, as in (12). The absence of a reconstruction effect in (12) appears to suggest that a wh-dependency across an island boundary is not created by movement. (12) *ʔayya ṭaḥlib min ṭulaab-ay, ṭənasatṭo laʔinno koll which student among students-her pleased.2P heat because every mʕallme, ḥatnaʔ-ii?
teacher.FS will.3FS.choose-him
‘[Which of her students] were you pleased because [every teacher], would choose him?’ (Aoun and Li (2003: 16))

Aoun and Li also observe that in LA, a superiority effect is found in wh-questions accompanying an RP in non-island contexts. This can be viewed as an indication that such wh-questions are formed by movement. These facts lead us to predict that a superiority effect would not be detected if an RP is within an island because a movement operation that violates the economy condition is not involved in such a case, as suggested by the lack of a reconstruction effect in (12). However, this prediction is not borne out by (13).
(13) *miin ŋenbasą̄to laʔinno saami ŋarraf miin ŋəl-e?
who pleased.2PL because Sami introduced whom to-him
‘Who, were you pleased because Sami introduced who to him?’
(Aoun and Li (2003: 19))

Boeckx and Hornstein develop an analysis of this puzzling fact using Boeckx’s (2003) approach to RPs. Boeckx argues that an RP and a wh-phrase form a constituent in the base structure and the RP is stranded as a result of the movement of the wh-phrase, as illustrated in (14).

(14) [Wh [C^0 [... [... [DP RP ʔ_{wh}] ...]]]]
This approach immediately explains the presence of a superiority effect in island contexts, as in (13). Observing the close relationship between “A”-agreement and island effects, Boeckx attributes the circumvention of an island condition violation in the context of resumptive chains to the agreement properties peculiar to resumption. Building on these claims, they suggest two promising analyses of the impossibility of reconstruction into a position within an island: one that relates it to the distinctive agreement properties of resumption and another that derives it from linearization considerations.

It has often been claimed that the presence of a movement dependency does not entail the availability of a relevant reconstruction effect (see e.g. Boeckx (2001) and Lasnik (1999a)) and the facts from LA can be taken to reinforce this claim. In section 3.1, I discuss in more detail the relationship between movement and reconstructability and one possible approach to account for why the entailment above does not hold.

2.4. Joseph Aoun and Yen-hui Audrey Li’s Article: “Ellipsis and Missing Objects”

Null objects in East Asian languages have attracted considerable attention because they raise various interesting questions. Among others, particularly interesting are the questions of how missing objects are derived (i.e., whether they are produced by object ellipsis or by VP-ellipsis together with verb raising) and why they are not permitted in English. Aoun and Li explore these questions from the viewpoint of ellipsis facts in Mandarin Chinese.

Aoun and Li argue that what is phonologically empty in the missing object construction (in their term, the V construction) is not a VP that dominates an object. Evidence comes from the fact that an adjunct in an antecedent clause cannot be interpreted as part of an EC (elided constituent), as in (15a) (see Oku (1998) for the same fact in Japanese). This fact remains puzzling if the EC in this construction is a VP, because there is no clear reason why a VP that contains an adjunct cannot serve as an antecedent for
an elided VP. Indeed, such a VP can qualify as an antecedent in English VP-ellipsis. They propose the generalization that elided material can contain only elements that are subcategorized by a relevant head that is sister to an ellipsis site. This proposal is corroborated by the fact that an adjunct in an antecedent clause can be interpreted as part of missing material from a related case in (15b), which is referred to as the Aux construction. The category subcategorized by an Aux is a VP, which may or may not involve an adjunct.

(15) a. wo jian-guo ta san-ci; tamen ye jian-guo.
   I see-Asp him three times they also see-Asp
   ‘I have seen him three times, they have seen <him>, too.’

   b. wo yao tanwang ta san-ci; tamen ye yao.
   I will visit him three-times they also will
   ‘I will visit him three times, they will <visit him three
   times>, too.’ (Aoun and Li (under review: 253, 255))

To capture this generalization, Aoun and Li claim that an empty category occupies an ellipsis site throughout the derivation in elliptical constructions. It only has a categorial feature that satisfies a subcategorization property of a relevant head. The semantic content of the empty element is recovered from its antecedent. The claim that missing material involves only a categorial feature is supported by the fact that object relativization is incompatible with the Aux construction, as in (16).

(16) ta bu hui qu de xuexiao gen women bu hui
   he not will attend De school and we not will
   *(qu) de xuexiao shi yiyang de.
   attend De school be same De
   ‘The school that he will not attend is the same as the school we
   will not <attend>.’ (Aoun and Li (under review: 261))

As for the cross-linguistic variation in the availability of missing objects, Aoun and Li attribute it to the difference in the requirement on the overt realization of Case. They argue that in English, Case must be manifested on an overt lexical item, while in Mandarin Chinese, it does not have to be.

In section 3.2, we will discuss two approaches to formulating a condition relevant for ellipsis licensing. The impossibility of missing objects in English is not expected under either of the approaches. Thus, it is necessary to impose other requirements on ellipsis licensing, as Aoun and Li do, in order to account for the cross-linguistic variation in the availability of missing objects. See fn. 22 for some speculation about this issue.
3. Topics in Reconstruction and Ellipsis

3.1. Alain Rouveret’s Article: “Phasal Agreement and Reconstruction”

3.1.1. A Review of the Article

Since Vergnaud’s (1974) seminal work, much attention has been paid to the exploration of syntactic structure of RCs (relative clauses). The arguments accumulated in the past literature appear to converge on the view that it is necessary to postulate multiple structures for RCs within a single language as well as across languages (Aoun and Li (2003), Bhatt (2002), Carlson (1977), Hulsey and Sauerland (2006), and Sauerland (1998), among others). Rouveret (under review) presents additional evidence from Welsh RCs for this line of reasoning. In Welsh, when a local subject or object is relativized, the relativization site is marked with a gap, as in (17); otherwise, it is occupied by an RP, as in (18). These two kinds of RCs will be referred to as GRs (Gap Relatives) and RRs (Resumptive Relatives), respectively.

(17) a. y llong a werthodd y dyn
the boat REL sold the man
‘The boat that the man sold’

b. y dynion a ddaeth
the men REL came-3SG
‘The men that came’

(Rouveret (under review: 170))

(18) a. y dyn y siaradasoch chwi ag ef
the man C spoke you with him
‘The man that you spoke with’

b. y dyn y gwn y gwêl Wyn ef
the man C I-know C sees Wyn him
‘The man that I know that Wyn sees’

(Rouveret (under review: 170))

The distribution of RPs in Welsh RCs can be explained in terms of locality: if a relativization site is a position from which nothing can move, it must be filled with an RP; otherwise, no element occupies the relativization site.

Building on this characterization of the two kinds of RCs, Rouveret proposes that GRs are analyzed as having a head-raising structure where a head noun (e.g. boat in (17a)) moves to the Spec of CP within an RC. In contrast, such movement is not involved in the derivation of RRs (cf., Boeckx (2003) and Boeckx and Hornstein (under review)). Instead, an RP and the topmost C of an RC enter into an Agree relation mediated via intervening phase heads and the RP is bound by a null operator base-generated in the
Spec of CP. Together with the copy theory of movement, the raising analysis allows us to capture the presence of a reconstruction effect in GRs. In (19), the empty pronoun in the subject position of the RC (represented as pro in (19)) is prohibited from being coreferential with the name within the head noun.

(19) *Yn ddiweddar, dygwyd [darlun o Siôn] a pro$_1$
recently was-stolen picture of Siôn
roddasai i Mair.
had-given to Mair
‘Recently was stolen a picture of Siôn that he$_1$ had given to Mair.’ (Rouveret (under review: 181))

Under the current assumptions, such coreference is ruled out as a Condition C violation because the empty pronoun c-commands the name inside a lower copy of the head noun left behind by movement of the head noun.

Given the absence of a relevant movement dependency, we expect no reconstruction effect to be observed in RRs. Contrary to this expectation, head noun may be optionally interpreted within RCs in an RR. First, unlike in GRs, a violation of Condition C is circumvented in RRs, as in (20a). This antireconstruction effect naturally follows from the non-movement analysis of RRs. Secondly, a pronoun inside a head noun can be bound by a QP (quantifier phrase) inside an RC in an RR, as in (20b). Since a pronoun is bound by a QP only when it is interpreted within the scope of the QP, the availability of the bound variable reading in (20b) can be taken to indicate that a head noun can undergo reconstruction into an RC in an RR, which could in turn be taken as suggesting that head nouns indeed move RC-internally in RRs.

(20) a. Yn ddiweddar, dygwyd [darlun o Siôn]$_j$ yr oedd
recently was-stolen picture of Siôn that was
ef$_i$ wedi ei$_j$ roddi i Mair.
he PERF it give to Mair
‘Recently was stolen a picture of Siôn, that he$_i$ had given to Mair.’

b. Mae gan Siôn [farn ar ei$_i$ lyfr]$_j$ y mae
is with Siôn opinion about his book C is
[pob awdur]$_i$ yn ei$_j$ pharchu.
each author PROG it respect
‘Siôn has an opinion about his$_i$ book that [each author]$_j$ respects.’ (Rouveret (under review: 181, 182))

To handle this optional reconstruction effect in a way compatible with the
non-movement analysis of RRs, Rouveret exploits the idea that pronouns are definite descriptions where the NP-complement is identical to its antecedent, and also that when the NP-complement of a definite determiner is elided, the determiner is spelled out as a pronoun (see Elbourne (2001) and references cited therein for these ideas). By extending these ideas to an analysis of RPs, it is argued that the RP in (20b) should be parsed as having the representation in (21a) at LF. Under this assumption, the derivation in (21b) is postulated for the RC in (20b). In this structure, the relevant pronoun is successfully bound by the QP, even though movement of the head noun is not posited in RRs.

(21) a. \[D [NP opinion [about his book]]\]
   b. \[C [OP C [TP [each author] respects [D [NP opinion about his book]]]]\]

This analysis of RPs is further elaborated in order to accommodate the circumvention of a Condition C violation in RRs. Rouveret assumes that the complement of a noun can optionally be represented in the internal structure of RPs. Thus, the RP in (20a) can be analyzed as either (22a) or (22b).

(22) a. \[D [NP picture [of Siôn]]\]
   b. \[D [NP picture]\]

While a Condition C violation is induced if (22a) is chosen, its obviation is correctly predicted by adopting the alternative structure in (22b). The fact that scope reconstruction feeds Condition C lends further support to this analysis of the optional reconstruction. In (23), if the pronoun her is interpreted as a variable bound by the QP each mother, the pronoun he cannot be coreferential with the DP the teacher.

(23) *[barn [yr athro]i ar ei j mab]k y gŵyr ef; i y opinion the teacher on her son that knows he that mae [ pob mam]i yn ei k pharchu is each mother PROG it respect
   ‘The teacher’s opinion of her son that he knows that [each mother] respects’ (Rouveret (under review: 185))

To derive the bound variable interpretation of the pronoun, the internal structure of the RP is required to include the complement of the noun, as in (24a), but at the same time, a Condition C violation is brought about by this structure. On the other hand, the alternative structure in (24b) does

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4 Rouveret argues that some principle similar to Chomsky’s (1993) Preference Principle regulates whether or not the complement of a noun is embodied in the internal structure of RPs.
not give rise to a Condition C violation, but it disallows the pronoun to be bound by the QP. Thus, (23) is ungrammatical under the relevant reading.

(24)  a. [DP D [NP opinion of the teacher on her son]]
    b. [DP D [NP opinion]]

In the next section, I develop an alternative approach to the (anti)reconstruction effects observed in Welsh GRs and RRs, which makes essential use of an independently motivated process of counter-cyclic Merger.

3.1.2. An Alternative Analysis: A Wholesale Late Merger Approach to Welsh RRs

The aspect of Rouveret’s analysis that I would like to scrutinize in this section lies in his claim that RRs are not formed by movement of a head noun. As discussed above, the non-movement analysis is argued to be supported by the absence of a Condition C violation. However, a violation of Condition C is known to sometimes be circumvented even in cases in which a relevant movement dependency is widely assumed to be present. For example, no Condition C violation is observed in English restrictive RCs, as in (25a). The parallel between Welsh RRs and English RCs goes even further. A reconstruction effect is also observed, as in (25b), and moreover, scope reconstruction feeds Condition C, as well, as in (25c).

(25)  a. In pictures of Ali which he lent to us, he is shaking hands with the president. (Safir (1999: 597))
    b. The book on her desk that [every professor] liked best concerned model theory.
    c. *The letters by John to her that he told [every girl] to burn were published. (Sauerland (1998: 63, 71))

To set the stage for an alternative analysis, I will first discuss one possible approach to the optional reconstruction effect in English RCs. It has been claimed that in order to account for the facts in (25), it is necessary to postulate two different structures for RCs: a matching structure and a raising structure (see Sauerland (1998) and references cited therein). In the matching structure, null operator movement takes place within an RC and a head noun is merged external to the RC, as shown in (26a). Consequently, no Condition C violation arises under this structure. In the raising struc-

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5 Indeed, Sauerland (1998) claims that a lexically full-fledged head noun undergoes movement in this structure and that a Condition C violation is obviated due to independent properties of grammar. However, a null operator movement analysis will do for our purposes.
ture, a head noun moves within an RC, as illustrated in (26b). A reconstruction effect can be derived from this structure, as we have discussed above. Since a single RC cannot be parsed as having both the matching and the raising structures simultaneously, the ungrammaticality of (25c) is explained.

(26) the picture that John likes
   a. Matching structure: \[DP \text{the} \ [\text{CP OP}_1 \text{that} \ [\text{TP John likes} \ \text{OP}_1]]\]
   b. Raising structure: \[DP \text{the} \ [\text{CP} \ [\text{OP picture}_1 \text{that} \ [\text{TP John likes} \ \text{OP picture}_1]]]]\]

Unfortunately, this kind of analysis does not appear to be applicable to the optional reconstruction effect in Welsh RRs. If the obviation of a Condition C violation in RRs is explained by adopting the matching structure, it is necessary to assume that this structure is not available to GRs, which induce a Condition C violation. However, it is not clear at this point why this must be the case. Thus, I take this point to indicate that the matching structure is unavailable to any type of Welsh RC. Below, I suggest that both GRs and RRs are invariably analyzed as involving the raising structure, but an independently motivated process of counter-cyclic Merger makes it possible to manufacture a structure that is very close to the matching structure in the sense that the lexical content of a head noun is not represented in structurally lower positions within an RC. Moreover, such a structure is claimed to be available only to RRs.

In addition to English restrictive RCs, there is another syntactic circumstance under which a moved constituent optionally undergoes reconstruction: A-movement in English. The availability of a bound variable reading in (27a) shows that A-moved constituents exhibit a reconstruction effect. However, reconstruction is not mandatory for A-movement because Condition C is not violated in (27b), where a relevant name is included in an A-moved DP (Chomsky (1993) and Fox (1999b)).

(27) a. [Someone from his class] seems to [every professor] to be a genius.
   b. [Every argument that John is a genius] seems to him to be flawless. (Fox (1999b: 192, 161))

This similarity between English A-movement and RRs prompts me to make

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6 The raising analysis of RCs has been formalized in different ways (see, e.g. Åfarli (1994), Bhatt (2002), Bianchi (2000), Hulsey and Sauerland (2006), Kayne (1994), Schachter (1973), and Vergnaud (1974)).
an attempt to develop an alternative analysis of the (anti)reconstruction effects in Welsh RR by utilizing the analysis of the A-movement facts that I proposed in Takahashi (2006) (see also Takahashi (2010) and Takahashi and Hulsey (2009)). I argued that all instances of movement must leave behind a lexically full-fledged copy of a moved item in conformity with the copy theory of movement. However, when counter-cyclic Merger, which was first proposed by Lebeaux (1988) and further elaborated by Bhatt and Pancheva (2004), Fox (2002), Fox and Nissenbaum (1999), and Lebeaux (2009), is applied in a particular fashion, we get the impression that movement fails to leave behind a copy of a moved element.

To introduce my proposal, let me first discuss Lebeaux’s theory of counter-cyclic Merger. As illustrated in (28), A’-movement does not bleed Condition C when a relevant name is within the complement of a moved element, while it does when a relevant name is within an adjunct that modifies a moved element (Fox (1999b), Freidin (1986), Lebeaux (1988), and van Riemsdijk and Williams (1981)).

(28)  
  a. ??/*Which argument [that John is a genius] did he believe?  
  b. Which argument [that John made] did he believe?  

(Fox (1999b: 164))

To explain (28b), Lebeaux proposes that adjuncts can be introduced into a structure counter-cyclically, as in (29). In this structure, Condition C is not violated because there is no occurrence of the name in the c-command domain of the pronoun (Chomsky (1993)).

(29)  
[CP [which argument [that John made]]] did [TP he believe [which argument]]

Lebeaux also claims that counter-cyclic Merger is not applicable to complements due to Chomsky’s (1981) Projection Principle, which requires the subcategorization property of lexical items to be satisfied throughout the derivation. Therefore, a Condition C violation cannot be circumvented in cases like (28a). Notice that Lebeaux’s theory does not capture the obviation of a Condition C violation in A-movement because A-movement bleeds Condition C, even when a relevant name is inside the complement of a moved element, as in (27b).

Building on Fox’s (2002) idea that counter-cyclic Merger is applicable whenever a resulting representation is interpretable at the semantic component, I claimed that in addition to adjuncts, the restrictor/NP-complement of a determiner/operator is allowed to be counter-cyclically merged with the moved determiner/operator. The application of this operation, which is referred to as WLM (wholesale late Merger), plays an essential role in
deriving the fact that A-movement manifests the optional reconstruction effect. The possibility of WLM is one reason why we are led to think that the presence of a movement dependency does not entail the availability of a relevant reconstruction effect.

The derivational steps in (30) illustrate how a violation of Condition C is circumvented in (27b). In the first place, only the determiner every is base-generated and it then undergoes successive-cyclic movement. When the determiner moves to a position that is outside of the c-command domain of the pronoun him, the restrictor of the determiner is merged with it, as in (30c). Note that all instances of movement adhere to the copy theory of movement, but there is no copy of the name that is c-commanded by the pronoun, which complies with Condition C. I also claimed that the lower copies of the determiner in (30c) are converted into interpretable objects by a mechanism that is independently necessary for interpreting copies—Fox’s (2002) Trace Conversion in (31) (see Elbourne (2005) and Sauerland (1998) for related proposals). The lower copies of the determiner in (30c) lack a restrictor/NP-complement and hence are uninterpretable as they stand. However, Variable Insertion in (31a) puts a predicate that serves as a restrictor/NP-complement (i.e. $\lambda y (y = x)$ in (31a)) into the lower copies of the determiner. The application of Trace Conversion to the structure in (30c) results in the representation in (30d), which is compositionally interpretable.

(30) a. [[every] flawless] $\rightarrow$ successive-cyclic movement of a determiner
   b. [[every] seems to him$_i$ [[every] to be [[every] flawless]] $\rightarrow$ WLM
   c. [[every [argument that John$_i$ is a genius]] seems to him$_i$ [[every] to be [[every] flawless]] $\rightarrow$ Trace Conversion
   d. [[every [argument that John$_i$ is a genius]] $\lambda$x. seems to him$_i$ [[the x] $\lambda$y. to be [[the y] flawless]]

7 Note that WLM would not be permitted under Lebeaux’s approach because a restrictor/NP-complement is regarded as the complement of a determiner/operator.

8 As one can see in (30), an application of WLM is obligatory. In other words, if the derivation is completed at the stage illustrated in (30b), where WLM has not applied, the output structure is illegitimate. An anonymous reviewer raised the question of why such a structure is illicit. The reason for this is that the structure in (30b) is uninterpretable. Since Trace Conversion is assumed to apply only to lower copies, the highest copy of the determiner, which does not involve a restrictor/NP-complement, remains as an uninterpretable object.

9 I assume that movement induces an insertion of a $\lambda$-operator right below a moved element (Heim and Kratzer (1998)).
(31) Trace Conversion
   a. Variable Insertion: Det (Pred) → Det [(Pred) λy(y = x)]
   b. Determiner Replacement: Det [(Pred) λy(y = x)] → the [(Pred) λy(y = x)] (adapted from Fox (2002: 67))

It is clear that if an entire DP structure is generated in an underlying structure, an A-moved constituent can be interpreted in a position structurally lower than its surface position, as in (27a). This approach also captures the fact that scope reconstruction feeds Condition C in A-movement contexts, as in (32). To yield the narrow scope reading of the subject QP relative to seem, the restrictor/NP-complement of the determiner must be merged with it in a position below seem and hence below the pronoun him. However, this timing of Merger ends up creating a structure that causes a Condition C violation.

(32) [A student of David,'s] seems to him, to be at the party.
   (∃>seem; *seem>∃) (Fox (1999b: 197))

We are now in a position to suggest an alternative analysis of the (anti) reconstruction effects observed in Welsh RCs. Let me first lay out my assumptions about Welsh RPs. In line with Rouveret’s analysis, I assume that RPs are overt incarnations of determiners whose restrictor/NP-complements are phonologically missing. I also assume, following Boeckx (2003) and Boeckx and Hornstein (under review), that movement is involved in the formation of a dependency in which an RP and its binder partake. However, such a dependency is established in a different way from Boeckx’s analysis. I suggest that the lowest copy of a determiner/operator must be spelled out as an RP when it lacks a restrictor/NP-complement due to an application of WLM.10 Given this conception of RPs, the derivation in (33b) can be postulated for the RR in (33a), where a Condition C violation is circumvented. In (33b), only a null operator is generated in the base structure and it successive-cyclically moves to the Spec of CP. In this position, the restrictor/NP-complement picture of Siôn is merged with the operator. The lowest copy of the operator is spelled out as the pronoun ef. Since there is no copy of the name in the c-command domain of the pronoun in this struc-

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10 One qualification is in order here. Rouveret observes that a resumptive element can be realized as an agreement marker and a possessive clitic as well as an independent pronoun in RRs. I assume that the suggested analysis can be extended to cover these different manifestations of resumptive elements. However, it only applies to resumptive items under structural circumstances where no island boundary intervenes between RPs and their binder.
ture, Condition C is not violated.\textsuperscript{11}

(33) a. Yn ddiweddar, dygwyd [darlun o Siôn\textsubscript{i}] yr oedd ef\textsubscript{i} recently was-stolen picture of Siôn that was he wedi ei\textsubscript{j} roddi i Mair. PERF it give to Mair

‘Recently was stolen a picture of Siôn, that he had given to Mair.’

b. [DP a [CP [OP [NP picture of Siôn\textsubscript{i}]]\textsubscript{1} that [TP he\textsubscript{i} had given [OP]\textsubscript{1} to Mair]]

Note that this kind of derivation is not available to GRs because RPs do not appear in these constructions. Since WLM is not applicable in GRs and the raising structure is the sole structure available to Welsh RCs, a violation of Condition C is inevitable in GRs.

Let us now turn to the reconstruction effect in RRs. I suggest that the difference between RRs that show a reconstruction effect and those that do not can be attributed to a difference in the timing of an application of WLM. To account for the availability of the bound variable reading in (34a), I argue that WLM is applied when an operator lands at the vP-adjoined position (i.e. v*P-adjoined position in Chomsky (under review)), as in (34b). Since the copy of the pronoun in the vP-adjoined position is within the scope of the QP, it can be used to yield the bound variable reading.

(34) a. Mae gan Siôn [farn ar ei\textsubscript{i} lyfr\textsubscript{j}] y mae is with Siôn opinion about his book C is [pob awdur\textsubscript{i} yn ei\textsubscript{j} pharchu. each author PROG it respect

‘Siôn has an opinion about his i book that [each author\textsubscript{i}] respects.’

b. [DP an [CP [OP [NP opinion about his\textsubscript{i} book]]\textsubscript{1} that [TP [each author\textsubscript{i} [vP [OP [NP opinion about his\textsubscript{i} book]]\textsubscript{1} [vP t\textsubscript{i} respects [OP]\textsubscript{1}]]]]]]]

The fact that scope reconstruction feeds Condition C in RRs, as in (35),

\textsuperscript{11} Note that the circumvention of a Condition C violation in (33a) is not expected under Lebeaux’s theory of counter-cyclic Merger because the name is within the complement of the noun. Owing this idea to Jean-Roger Vergnaud (personal communication), Rouveret (under review: fn. 31) mentions a possible alternative analysis of (33a), in which the complement of a noun can be counter-cyclically merged with the noun under the assumption that the complement of a noun is considered an adjunct. As Rouveret points out, under this alternative analysis, it is necessary to understand why a Condition C violation is not always circumvented in A’-movement contexts.
is explained in exactly the same way as the A-movement fact in (32). In order for the pronoun to be bound by the QP, the restrictor/NP-complement of the operator must be merged with the operator within the scope of the QP. However, such a Merger operation creates a structure that ends up violating Condition C.

\[(35) \ast \{\text{barn [yr athro]}_i \text{ ar ei}_j \text{ mab}\}_k \text{ y g\text{\'{w}yr ef}_i \text{ y opinion the teacher on her son that knows he that mae [pob mam]}_j \text{ yn ei}_k \text{ pharchu is each mother PROG it respect} \}

‘The teacher’s opinion of her son that he knows that [each mother] respects’

Before closing this section, let me note that the application of WLM is ruled out in certain syntactic environments. We have seen that A’-movement does not bleed Condition C if a relevant name is within the complement of an A’-moved element, as in (28a), which is repeated here as (36a). Notice that if WLM is feasible in the formation of an A’-movement dependency, we cannot capture this fact, as illustrated in (36b).

\[(36) \begin{align*}
\text{a. ??/\ast Which argument [that John}_i \text{ is a genius]} \text{ did he}_i \text{ believe?} \\
\text{b. [CP [DP which [NP argument that John}_i \text{ is a genius]]}_i \text{ did [TP he}_i \text{ believe [which]_i]]}
\end{align*}
\]

I claimed that the illegitimacy of WLM in A’-movement contexts mainly results from its property of being moved from a Case position to a non-Case position. Assuming that both a noun and a determiner demand Case and that Case is assigned only to elements that are c-commanded by a relevant Case assigning head, I argued that the derivation in (36b) is excluded, because the restrictor/NP-complement is introduced into the structure in a position outside of the c-command domain of the relevant Case assigner v and hence it cannot receive Case.\(^{12}\) Note now that the relevant movement

\(^{12}\) Two remarks are in order here. In the first place, in contrast to A’-movement, A-movement is movement from a non-Case position to a Case position. Thus, there are potentially intermediate landing sites in which WLM is applicable within the c-command domain of a relevant Case assigner. In (30), WLM is exercised when the determiner lands at an adjoined position of the matrix VP, which is a position above the relevant pronoun, but below the relevant Case assigning head (see Takahashi (2006) and Takahashi and Hulsey (2009) for further discussion).

Secondly, the present account of the illegitimacy of WLM in (36a) predicts that an application of WLM becomes legitimate even in A’-movement contexts if the restrictor/NP-complement of a determiner/operator is an element that does not need Case. See Takahashi (2010) and Takahashi and Hulsey (2009) for the claim that this prediction is borne out.
dependency involved in the derivation of RCs is also created by movement from a Case position to a non-Case position. Given this, why is an application of WLM licit in RCs? One speculation is that in RC contexts, the restrictor/NP-complement that is counter-cyclically introduced in the Spec of CP might be able to receive Case from a Case assigner that is external to an RC. 13 It might also be interesting to explore whether Lasnik’s (under review) idea that the Case Filter is motivated by PF considerations would help shed any light on the discrepancy between A'-movement and RC cases with respect to the legitimacy of WLM.

3.1.3. Consequences of the WLM Approach

To illustrate one virtue of the WLM approach, let us consider Rouveret’s analysis of the obviation of a Condition C violation in the RR in (37a). It is claimed that this fact is explained by assuming that the NP picture, which does not involve a complement, can be deleted in the RP position under identity with the CP-external antecedent NP picture, which does have the complement, as shown in (37b).

(37) a. Yn ddiweddar, dygwyd [darlun o Siôn] yr oedd ef i recently was-stolen picture of Siôn that was he wedi ei roddi i Mair.
PERF it give to Mair
‘Recently was stolen a picture of Siôn that he i had given to Mair.’

b. [DP a [picture [of Siôn]j] [CP OP j that [he i had given [DP D <picture>]j to Mair]]

This assumption suggests that ellipsis is licensed, even when the complementation properties of an EC and its putative antecedent are different. However, this is not the case. This point can be demonstrated by the fact that the EC in (38) can be interpreted as the one in (38a), but not as

13 This speculation raises two important questions. First, why is a counter-cyclically introduced NP unable to be assigned Case by a structurally higher Case assigner, even when a relevant wh-question clause is embedded under an additional structure? Secondly, is there any evidence in Welsh that indicates that some derivation analogous to (ib) can be postulated for (ia)? In (ib), WLM is applied in both the matrix clause and the RC. Derivations of this sort are expected to be impossible because the relevant NP cannot receive Case from any Case-assigning head.

(i) a. Which book that John bought did Mary read?
   b. [CP [DP which [CP [OP [NP book]1 that [TP John read [OP]1]]]2 did [TP Mary read [which]2]]]
the one in (38b).

(38) John likes every picture of Mary, and Bill does, too.
   a. EC = like every picture of Mary
   b. *EC = like every picture

The WLM approach does not require this assumption in order to handle (37a).

Let us now turn to two notable issues raised by the WLM approach. The first issue bears on the distribution of RPs in Welsh RCs. In Rouveret’s characterization of RPs, they appear in a relatization site if it is a position from which no element can move. This simple relationship between the distribution of RPs and locality does not appear to be maintained under the WLM approach because it presumes that some type of movement takes place in both GRs and RRs. Why is an RP unable to appear when a local subject or object is relativized? Why is a gap prohibited when a relativization site is a position from which no item can be extracted? Boeckx and Hornstein’s (under review) proposal would be directly relevant in investigating these questions. As discussed above, they also assume, following Boeckx (2003), that when an extraction site is occupied by an RP, it is possible to move an element out of a domain from which nothing can move otherwise. Moreover, we might be able to find a key to resolving these questions in Chomsky’s (under review) proposal regarding the SIC, which leads us to explore properties of some island constraints from a different angle.

The second issue is associated with Rouveret’s observation that the lexical content of an antecedent of an RP is interpreted only in the position occupied by the RP. In (39), if the lexical content of the antecedent of the RP could be interpreted in a position that is considered an intermediate landing site of movement (e.g. in the embedded CP-adjoined position, as in (40)), the sentence in question would be grammatical under the relevant reading.

(39) *barn yr athro, ar ei mab y gwyr [pob mam],
   opinion the teacher on her son that knows each mother
   y mae ef yn ei chuddio
   that is he PROG it conceal

   ‘The teacher’s opinion on her son that [each mother] knows that he conceals’
   (Rouveret (under review: 186))

(40) the teacher’s opinion on her son that [[each mother] knows
   [CP checks that [he conceals *]]]

Indeed, reconstruction into an intermediate landing site is shown to be possible in movement cases.
(41) a. [Which (of the) paper(s) that he gave to [Ms. Brown]] did [every student] hope that she will read? (Fox (1999b: 173))

b. [CP [which (of the) paper(s) that he gave to [Ms. Brown]] did [[every student] hope [CP ✔ that [she will read *]]]]

Consequently, Rouveret takes the fact in (39) to be compelling evidence for the claim that an RP and a head noun are not related via movement. This fact remains puzzling under the WLM analysis, because it is not clear why WLM is not applicable when a null operator stops at an intermediate landing site.

These issues are among the questions raised by the WLM approach and they need to be addressed in order for this approach to be a serious alternative to Rouveret’s analysis. However, I leave a further exploration of these issues to future research.

3.2. Edwin E. Williams’ Article: “Tokenism and Identity in Anaphora”

3.2.1. A Review of the Article

For ellipsis of an EC to be licensed, it has been claimed that there must exist a linguistic expression in the discourse that bears a certain relationship to the EC. Since Sag’s (1976) and Williams’ (1977) influential works on ellipsis, a variety of proposals have been put forward regarding what is the relationship that may license ellipsis (see Fiengo and May (1994), Fox (1999a), Hardt (1993), Merchant (2001, 2008a), and Rooth (1992), among others). Williams (under review) claims that the relationship should be defined as the identity of an EC and another constituent in the discourse (the identity approach), arguing against one possible alternative idea that the relevant relationship is parallelism (the parallelism approach). Indeed, a wide range of evidence in support of the identity approach has been presented in the past literature. As an illustration of one such example, let us consider the contrast in (42) (Sag (1976) and Williams (1977)). In (42a), since the traces/variables left behind by operator movement are free within the EC and its putative AntC (antecedent constituent) and are bound by different binders, the two VPs cannot count as identical and hence VP-ellipsis is not licensed. In contrast, if the variables are bound within the two relevant constituents, as in (42b), they can be regarded as identical, which licenses ellipsis.

(42) a. *John is hard OP1 to [talk to t1] but Mary isn’t hard OP2 to <talk to t2>.

b. John is [hard OP1 to talk to t1] but Mary isn’t <hard OP2 to talk to t2>.
The generalization that emerges from the identity approach can be encapsulated as follows. In ellipsis, an EC and its putative AntC cannot contain variables that are free within them and are bound by binders outside of them. To put it graphically, the configuration in (43), which is called Re-binding in Takahashi and Fox (2005), is predicted to be impossible.

(43) Re-binding

Antecedent Clause: \[\ldots [XP_x \ldots [\text{AntC} \ldots x \ldots]]\]

Ellipsis Clause: \[\ldots [YP_y \ldots \langle\text{EC} \ldots y \ldots\rangle]\]

As we will discuss in the next section, this generalization follows from the identity approach, but not from the parallelism approach because parallelism is a weaker relationship than identity. However, various counterexamples to this generalization have also been pointed out. Williams (under review) investigates three kinds of counterexamples: ACD (antecedent-contained deletion), inverse scope readings, and a particular type of sloppy identity interpretation of pronouns, and makes an attempt to explain these challenges in a way compatible with the identity approach.\(^{14}\)

Let us first discuss ACD, which is exemplified in (44a). In this construction, an EC appears to be contained by its putative AntC. A common procedure for resolving this antecedent-containment relation is to resort to QR (see e.g. Kennedy (1997) and Larson and May (1990)). Given QR, (44a) can be assigned the structure in (44b), where the EC is no longer contained by the AntC.

(44) a. John likes every book that Mary does <like \(t_1\)>

b. \[[\text{every book} [\text{OP}_1 \text{that} [\text{Mary does} <\text{like} \(t_1\)>]]_2 \text{[John [likes} \(t_2\)]}\]

Note, however, that this kind of analysis is problematic with the identity approach because the structure in (44b) is an instance of Re-binding, yet (44a) is grammatical.

Williams suggests that it is possible to postulate an alternative structure for ACD. The basic idea of Williams’ proposal can be illustrated by the structure in (45), where the variables in the RC and in the matrix clause are co-bound by the same QP (see Heim (1997) and Williams (1994) for proposals about how to derive structures of this sort). Since the two variables are regarded as identical in (45), the EC can bear an identity relationship

\(^{14}\) We will discuss issues pertaining to sloppy identity interpretations of pronouns in the next section.
with the matrix VP.\textsuperscript{15}

(45) \[
[[[\text{every book}], \text{that Mary does } <\text{like } t_i>] [\text{John } [\text{likes } t_i]]]
\]

To the extent that an analysis like (45) is tenable, ACD does not involve a Re-binding configuration and is compatible with the identity approach.

Another challenge to the identity approach that Williams investigates is concerned with Hirschbühler’s (1982) observation that an object QP can take scope over a subject QP in VP-ellipsis, as in (46a). If the object wide scope reading is derived from the representations in (46b), in which the objects move out of the EC and its putative AntC, the availability of this reading poses a problem for the identity approach. The problem is of the same sort as ACD. The representations in (46b) constitute a Re-binding configuration.

(46) a. A Canadian flag stood in front of every embassy, and an American flag did \textless \text{stand in front of every embassy} \textgreater
too. (\exists > \forall; \forall > \exists)

b. \[
[\text{every embassy}_1 [\text{a Canadian flag } [\text{VP stood in front of } t_1]]]
[\text{every embassy}_2 [\text{an American flag did } <\text{stand in front of } t_2>]]
\]

Williams develops a way to yield the reading under discussion without invoking movement of an object QP out of a VP. As in (47a), it is assumed that an object only moves to the VP-adjoined position, which is still within an EC and an AntC in VP-ellipsis. His analysis consists of two additional assumptions. First, indefinites can denote predicative meanings. Secondly, the meaning of the VP in (47a) can be represented as either (47b) or (47c). The meanings in (47b) and (47c) contribute to producing the subject wide scope and the object wide scope readings, respectively.

(47) a. \[
[\text{VP } [\text{every embassy}_1; [\text{VP stood in front of } t_1]]]
\]

b. \[
\lambda x (\text{every embassy}_y (x \text{ stood in front of } y))
\]

c. \[
\lambda P ((\text{every embassy}_y \exists x (P x \land [x \text{ stood in front of } y])))
\]

The postulation of the representation in (47a) makes Hirschbühler’s observation compatible with the identity approach in that it produces the relevant reading while avoiding a Re-binding configuration.

Williams presents a very interesting argument in favor of this analysis. The facts in (48) suggest that an object wide scope reading is possible only when ellipsis applies to a VP headed by a verb that selects a relevant subject QP as its argument.

\textsuperscript{15} The two variables in (45) are identified as identical by \textit{Tokenism} within Williams’ framework.
(48)  a. At least one doctor tried to get me to arrest every patient, and at least one nurse did to try to get me to arrest every patient too. (\(\exists > \forall; \forall > \exists\))

b. At least one doctor tried to get me to arrest every patient, and at least one nurse tried to get me to <arrest every patient> as well. (\(\exists > \forall; *\forall > \exists\))

(Williams (under review: 286))

This generalization is captured by his analysis. To derive the object wide scope reading in (48), the object QP must adjoin to the matrix VP, as in (49a), and the resulting VP must denote the meaning in (49b).

(49)  a. \([VP [every patient]]_1 [VP tried to get me to arrest t_1]]\)

b. \(\lambda P (\text{[every patient}_y \exists x (Px \land [x tried to get me to arrest y]))}\)

If the matrix VP is not elided, as in (48b), it follows that the objects move out of the EC and its putative AntC. Since such movements constitute a Re-binding configuration, the object wide scope reading is unavailable in (48b).

In the next section, I scrutinize the generalization that Re-binding is never allowed and discuss Takahashi and Fox’s (2005) proposal that it is indeed allowed, but its permissibility is constrained.

3.2.2. An Alternative Approach: MaxElide

To further explore the nature of the relationship relevant for ellipsis licensing, let us consider sloppy identity readings of pronouns. As mentioned above, the identity approach does not allow for Re-binding under any circumstances. Given this, we are led to the generalization that when a pronoun receives a sloppy identity reading, its understood antecedent must be a constituent that is sister to an EC (Sag (1976) and Williams (1977)). In such cases, we can assume that a relevant variable is bound within the EC due to an inserted \(\lambda\)-operator, as illustrated in (50a).\(^{16}\) In contrast, if the understood antecedent is a constituent that is not sister to an EC, it is impossible for a relevant variable to be bound inside the EC, as in (50b). Since this structure, which is analyzed as a Re-binding configuration, does not meet the identity requirement, the sloppy identity reading is ruled out.

(50)  a. John, said Mary hit him, and

BILL also did <say Mary hit him>.

(BILL also did <\(\lambda x. x\) say Mary hit x>)

\(^{16}\) Focus-marked material is indicated by capital letters.
b. *John, said Mary hit him, and
    BILLj also said she did <hit himj>.
    (BILL also λx. x said she did <λy. y hit x>)
    (adapted from Sag (1976: 131))

The contrast in (50) does not follow from the parallelism approach straightforwardly. To appreciate this point, I adopt Takahashi and Fox’s (2005) rendition of a Rooth-type theory of ellipsis licensing and parallelism (Rooth (1992)).

(51) For ellipsis of EC to be licensed, there must exist a constituent which reflexively dominates EC and satisfies the parallelism condition in (52).\(^{17},^{18}\)

A constituent of this sort is referred to as a PD (Parallelism Domain) in Takahashi and Fox.

(52) Parallelism

PD satisfies the parallelism condition if PD is *semantically identical to AC (another constituent), modulo focus marked constituents.*

PD is semantically identical to AC modulo focus marked constituents, if there is a focus alternative to PD, PD\(_{\text{Alt}}\), such that for every assignment function, g, \([PD_{\text{Alt}}]^{g} = [AC]^{g}\).

PD\(_{\text{Alt}}\) is an alternative to PD if PD\(_{\text{Alt}}\) can be derived from PD by replacing focus marked constituents with their alternatives.

(Takahashi and Fox (2005: 229))

Under this implementation of the parallelism approach, the λ-predicate introduced by λx can qualify as a PD in both (50a) and (50b). Therefore, the sloppy identity reading in (50b) is incorrectly predicted to be grammatical. Consequently, the contrast in (50) prima facie appears to support the identity approach.

However, there are also cases that can be taken as counterexamples to the above-mentioned generalization about the availability of sloppy identity readings (Fiengo and May (1994), Jacobson (1992), and Rooth (1992)). One

\(^{17}\) XP reflexively dominates YP if XP dominates YP or XP = YP.

\(^{18}\) An anonymous reviewer raised the question of whether it is possible to derive the parallelism requirement for ellipsis licensing from other properties of grammar. It has been claimed that this requirement follows from an independently needed theory of focus interpretation (Rooth (1992)). Regardless of whether ellipsis is involved or not, if some material is focus-marked in a sentence α, there must exist an antecedent sentence that is a focus alternative to α (see (52) for an exposition of focus alternatives). Since some overt material is focus-marked in a sentence that dominates an EC, ellipsis is subject to the parallelism requirement. See Rooth (1992) for more detailed discussion.
such counterexample is presented in (53), where the relevant variable is
clearly unbound within the EC.

\[
(53) \quad \text{John argued that Mary hit him, but}
\]
\[
\text{BILL} j \text{DENIED that she did } \langle \text{hit him} j \rangle.
\]
\[
(\text{BILL } \lambda x. x \text{DENIED that she did } \langle \lambda y. y \text{hit } x \rangle)
\]

(Takahashi and Fox (2005: 226))

On the basis of this and other facts, it is argued in Takahashi and Fox that
Re-binding is indeed allowed, but the permissibility of Re-binding configura-
tions is constrained. The difference between (50b) and (53) that motivates
this constraint lies in the fact that focus-marked material intervenes between
the relevant variable and the \( \lambda \)-operator that binds it in (53), but there is no
such element in (50b). Building on Merchant’s (2008b) related proposal,
Takahashi and Fox claim that MaxElide in (54) is the constraint that en-
ables us to distinguish grammatical and ungrammatical Re-binding cases
(see Takahashi and Fox (2005) for reasons why the formulation of MaxElide
needs to make reference to PD and cannot simply be a constraint that maxi-
mizes the size of an EC).

\[
(54) \quad \text{MaxElide: Elide the biggest deletable constituent reflexively
dominated by PD.} \quad \text{(Takahashi and Fox (2005: 229))}
\]

With this constraint, let us consider (50) and (53) again. In all of these
cases, the matrix VP is the smallest constituent that can be considered a PD,
as shown in (55). MaxElide is violated in (50b) because the embedded VP,
which is not the biggest deletable constituent within the PD, is deleted, as
shown by the possibility of eliding the matrix VP in (50a).\(^{19}\) In contrast,
MaxElide is not violated in (53), even though the embedded VP is elided
similarly to (50b). This is so because the embedded VP is the biggest de-
letable constituent due to the presence of the intervening focus-marked ma-
terial, which cannot be deleted.

\[
(55) \quad \begin{align*}
\text{a. BILL also } & [\text{VP/ PD } \lambda x. x \text{ said she } [\text{VP } \lambda y. y \text{hit } x]] \\
\text{b. BILL } & [\text{VP/ PD } \lambda x. x \text{ DENIED that she } [\text{VP } \lambda y. y \text{hit } x]]
\end{align*}
\]

It is also argued in Takahashi and Fox that Williams’ scope facts in (48),
\[19\] If we can postulate for (50b) the representations in (i), where the variables within
the EC and its putative AntC involve the same variable name, the EC itself can qualify
as a PD. If this were possible, we would incorrectly predict that a violation of MaxElide
would be circumvented in (50b) because the biggest deletable constituent is actually elid-
ed. However, this kind of representation is assumed to be blocked by Heim’s (1997) No
Meaningless Coindexation.

\[
(\text{i) John } \lambda x. x \text{ said Mary } [\text{hit } x]
\]
\[
\text{BILL also } \lambda x. x \text{ said she did } \langle \text{PD } \text{hit } x \rangle
\]
repeated here as (56), can be regarded as an effect of MaxElide.20

(56)  
   a. At least one doctor tried to get me to arrest every patient,  
       and at least one nurse did <try to get me to arrest every pa- 
       tient> too.  (∃>∀; ∀>∃)
   
   b. At least one doctor tried to get me to arrest every patient,  
       and at least one nurse tried to get me to <arrest every pa- 
       tient> as well.  (∃>∀; *∀>∃)

In the structure in (57) postulated for the object wide scope reading in (56),  
the λ-predicate introduced by λx is the smallest constituent that can be taken  
as a PD. Thus, MaxElide forces us to delete the matrix VP, which is what  
is elided in (56a), but not in (56b).

(57)  
    [every patient [PD λx. [at least one nurse [VP tried to get me to  
    [VP arrest x]]]]]

This alternative analysis is claimed to be corroborated by the fact that if  
there is intervening focus-marked material, an object wide scope reading be- 
comes available, even though an embedded VP is elided, as in (58). This  
fact is explained in exactly the same way as with (53).

(58) A doctor tried to arrest every patient, and a NURSE MANAGED  
to <arrest every patient>.  (∃>∀; ∀>∃)

(Takahashi and Fox (2005: 232))

In this section, we saw Takahashi and Fox’s claim that Re-binding  
is permitted, but its permissibility is constrained by MaxElide. The distribu- 
tion of legitimate Re-binding cases is captured by the parallelism approach,  
together with MaxElide. The fact that Re-binding is allowed under certain  
circumstances is not expected under the identity approach and hence this  
constitutes a serious challenge to it.21, 22

21 An anonymous reviewer suggested that the identity approach is conceptually superior  
to the parallelism approach because it restricts possible ellipsis cases more severely than  
the parallelism approach. However, as far as I can tell, this conceptual argument is em-  
pirically untenable. The claim that Re-binding is allowed at least under certain circum-  
cstances has been supported by various types of facts, some of which we do not discuss  
Rooth (1992), Sauerland (1998), Schuyler (2001), and Takahashi and Fox (2005), among  
others). However, it could be interesting to explore whether and how grammatical Re-  
binding cases that are not investigated in Williams’ article can be explained in a way  
compatible with the identity approach.
22 As touched on at the end of section 2.4, the fact that English does not allow for miss-  
ing objects is not explained, regardless of whether the licensing relationship is stated in  
terms of identity or parallelism. It is well-known that only a certain type of head can li-
There are further issues that cannot be discussed in detail here. First, Williams actually discusses sloppy identity cases that can be analyzed as involving Re-binding and develops a focus-based analysis of such cases, which is compatible with the identity approach. It remains to be seen whether such an analysis can be carried over to all the cases covered by the parallelism approach supplemented with MaxElide. Secondly, he presents the facts in (59) as evidence for the identity approach. In fact, they are correctly predicted to be ungrammatical by the identity approach, but not by the parallelism approach. Moreover, MaxElide does not come into play in these cases.

(59) a. *John read every book and I saw the book that Sam did <read>.
   b. *The man who I like killed the man who Mary doesn’t <like>. (Williams (under review: 279, 280))

However, the sentences in (60) have been reported to be grammatical, even though, as far as I can see, they are structurally the same in relevant regards as (59a) and (59b), respectively.

(60) a. John was supposed to read several books this semester. But the only one that he actually did <read> was The Brother Karamazov. (Jacobson (1992: 195))
   b. The cities Mary visited are near the lakes Bill did <visit>. (Sauerland (1998: 138))

If indeed these sentences are grammatical, what factor lies behind the contrast between (59) and (60) is a question that needs to be addressed in future research.

4. Concluding Remarks

Like other topics discussed in the volume under review, reconstruction and ellipsis are phenomena that have been extensively investigated in the literature because they directly bear on foundational issues in linguistic theory: reconstruction has illuminated aspects of the movement mechanism, cense ellipsis of its complement (see Lobeck (1995)). From this perspective, one possible approach to the English observation is to assume that V is not a head that can license ellipsis of its complement. The possibility of null objects in Mandarin Chinese discussed in Aoun and Li (under review) would be explained by assuming that V is an ellipsis licensing head in this language. One important issue raised by this speculative approach is the question of what property of heads is relevant for qualifying them as ellipsis licensing heads.
and ellipsis poses the important question of how we can recover intuitively available meanings from omitted expressions. The majority of the current review article is devoted to the presentation of one possible approach to the (anti)reconstruction effects in Welsh RRs discussed in Rouveret’s article, and Takahashi and Fox’s characterization of the facts discussed in Williams’ article. Capitalizing on WLM, I suggested that if the restrictor/NP-complement of a determiner/operator is counter-cyclically merged with the determiner/operator, the lowest copy of the determiner/operator is spelled out as an RP and that the difference between RRs that show a reconstruction effect and those that do not can be ascribed to their difference in the timing of the application of WLM. In addition, we saw that Re-binding is allowed, but its permissibility is constrained by MaxElide, which requires us to maximize the size of an ellipsis site under a PD, and I observed that this fact supports the parallelism approach. It is my hope that the suggestions and questions discussed in the present article will facilitate further exploration of these phenomena.

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