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Author(s)	Masahiro Kawakami (川上 将広)
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# Remarks on Double Objects — a Syntactic Insight<sup>1</sup>

Masahiro Kawakami

## 1. Introduction

Double object constructions (DOCs) and their alternative, prepositional dative constructions (PDCs), in English show some similarities in terms of their syntactic fashion. Specifically, both constructions have two objects. In DOCs such as example (1), the verb *give* takes two objects, the Goal noun phrase (NP) *Mary* and the Theme NP *a book*, as its complements.

(1) John gave Mary a book. (Double Object Construction)

Alternatively, both objects in (1) are reversed in PDCs, but the complements are the same, as seen in example (2).

(2) John gave a book to Mary. (Prepositional Dative Construction)

In terms of DOCs, Barss and Lasnik (1986) points out that the Theme NP, which is the second object, occupies the binding domain of the Goal NP, which is the first object; however, not vice versa. For instance, the R-expression *John* is available as an antecedent of the anaphor *himself* in (3). This clearly indicates that the Theme NP *himself* is inside of the

binding domain of the Goal NP *John*.<sup>2</sup>

- (3) I showed John<sub>i</sub> himself<sub>i</sub> (in the mirror). (Barss and Lasnik 1986)

In (4), however, the Goal NP seems to be outside of the binding domain of the Theme NP, as the anaphor binding effect fails.

- (4) \*I showed himself<sub>i</sub> John<sub>i</sub> (in the mirror). (Barss and Lasnik 1986)

This asymmetry in (3) and (4) is also grammatically parallel to PDCs. Below, (5) and (6) claim that the first object is structurally higher than the second object, but not vice versa.

- (5) I showed John<sub>i</sub> to himself<sub>i</sub> (in the mirror).  
 (6) \*I showed himself<sub>i</sub> to John<sub>i</sub> (in the mirror).

Based on these views, a variety of possible analyses of DOCs and PDCs have been advanced by Larson (1988), Aoun and Li (1989), Fujita (1996), Takano (1998), and Oba (2005), among others. Moreover, Kayne (1984), Horstein (1995), Harley (1995, 2002), and Harley and Jung (2015) claim that the objects in DOCs form a small clause<sup>3</sup>.

In light of these backgrounds, this study aims to propose an alternative analysis for DOCs and PDCs. We also examine this analysis using some empirical phenomena observed in DOCs and PDCs. The remainder of this article is organized as follows. Section 2 presents our theoretical assumptions and proposals. Section 3 examines the arguments using some empirical data that consists of backward anaphor binding,

scope freezing, and pseudo-gapping. Section 4 summarizes this article and indicates directions for further research.

## 2. Proposals

This section presents an overt object-raising analysis for both DOCs and PDCs. First, note that this article follows *the Uniformity of the Theta Assignment Hypothesis (UTAH)*, advanced by Baker (1988). This work claims that every structure that consists of identical theta-role assigned arguments has an identical original structure, the D-structure, which is within the framework of *the Lectures on Government and Binding*, developed by Chomsky (1981). This is defined in (7) below.

### (7) *The Uniformity of the Theta Assignment Hypothesis*

Identical thematic relationships between items are represented by identical structural relationships between those items at the level of D-structure.

(Baker 1988:46)

In a more current fashion of syntax, this article assumes that *UTAH* is updated as in (8), as *the Minimalist Program* established by Chomsky (1992), in which the notion of “D-structure” has been theoretically eliminated.

### (8) *Uniformity of Theta-Role Assignment Hypothesis* (updated)

Identical thematic relationships between items are represented by identical structural relationships between those items **at the merge level**.

Considering the updated *UTAH*, we first consider DOCs. First, this article proposes that Agr<sup>o</sup>P, which is a functional projection for Case-

checking for objects, developed by Chomsky (1992) and Koizumi (1993, 1995), is assumed. In addition, this projection is structurally sandwiched between verb phrase (VP) shells, which is first proposed by Larson (1988). The Goal NP *Mary* occupies [spec-VP]. In contrast, the Theme NP *a book* is at the end of the structure.<sup>4</sup> The Agent NP merges in [spec-vP]. Below, (9) demonstrates how each argument, *John*, *Mary*, and *a book*, merges.

(9) [<sub>VP</sub> [<sub>NP</sub> John] [<sub>v'</sub> [<sub>v</sub>] [<sub>Agr<sup>o</sup>P</sub> [<sub>Agr<sup>o</sup>'</sub> [<sub>Agr<sup>o</sup></sub>] [<sub>VP</sub> [<sub>NP</sub> Mary] [<sub>v'</sub> [<sub>v</sub> give] [<sub>NP</sub> a book]]]]]]]]].

The derivations of (9) are as follows. First, the Goal NP *Mary* is obligatorily attracted to [spec-Agr<sup>o</sup>P], as the Goal NP must have its Case checked, as shown in (10).

(10) [<sub>VP</sub> [<sub>NP</sub> John] [<sub>v'</sub> [<sub>v</sub>] [<sub>Agr<sup>o</sup>P</sub> [<sub>NP</sub> Mary<sub>i</sub>][<sub>Agr<sup>o</sup>'</sub> [<sub>Agr<sup>o</sup></sub>] [<sub>VP</sub> [<sub>NP</sub> t<sub>i</sub>] [<sub>v'</sub> [<sub>v</sub> give] [<sub>NP</sub> a book]]]]]]]]].

Second, the verb *give* is also triggered to move to [vP-head] via [Agr<sup>o</sup>P-head], following head movement, as in (11).

(11) [<sub>VP</sub> [<sub>NP</sub> John] [<sub>v'</sub> [<sub>v</sub> give<sub>j</sub>] [<sub>Agr<sup>o</sup>P</sub> [<sub>NP</sub> Mary<sub>i</sub>][<sub>Agr<sup>o</sup>'</sub> [<sub>Agr<sup>o</sup></sub> t<sub>j</sub>] [<sub>VP</sub> [<sub>NP</sub> t<sub>i</sub>] [<sub>v'</sub> [<sub>v</sub> t<sub>j</sub>] [<sub>NP</sub> a book]]]]]]]]].<sup>5</sup>

However, in PDCs, the Goal prepositional phrase (PP) *to Mary* occupies [spec-VP], instead of the Goal NP. The Agr<sup>o</sup>P sandwiched between the VP-shells and the lowest Theme NP *a book* is parallel to that of DOCs. Based on the *UTAH* principle, each identical theta-role assigned item, the Agent NP, the Goal NP and the Theme NP, clearly represents the

identical insight of the structure between DOCs and PDCs. This is represented in (12) below.

(12) [<sub>VP</sub> [<sub>NP</sub> John] [<sub>v'</sub> [<sub>v</sub>] [<sub>AgroP</sub> [<sub>Agro'</sub> [<sub>Agro</sub>] [<sub>VP</sub> [<sub>PP</sub> to Mary] [<sub>v'</sub> [<sub>v</sub> give] [<sub>NP</sub> a book]]]]]]].

Unlike in DOCs, the item that is attracted to [<sub>spec-Agr<sup>o</sup>P</sub>] is the Theme NP *a book*. The reason Agr<sup>o</sup> prefers the Theme NP to the NP *Mary* or the Goal PP *to Mary* is that the Case of the NP *Mary*, which is inside of the Goal PP, has been checked by a preposition *to*.<sup>6</sup> Further, PP itself does not need to be checked, as only NP without Case violates *the Case Filter*, which states that every overt NP must be assigned a Case (Chomsky 1981). These are structurally represented in (13).

(13) [<sub>VP</sub> [<sub>NP</sub> John] [<sub>v'</sub> [<sub>v</sub>] [<sub>AgroP</sub> [<sub>NP</sub> a book<sub>i</sub>]<sub>[Agro'</sub> [<sub>Agro</sub>] [<sub>VP</sub> [<sub>PP</sub> to Mary] [<sub>v'</sub> [<sub>v</sub> give] [<sub>NP</sub> *t<sub>i</sub>*]]]]]]].

As is similar in DOCs, the verb *give* moves to [<sub>vP</sub>-head] via [<sub>Agr<sup>o</sup>P</sub>-head] by head movement.

(14) [<sub>VP</sub> [<sub>NP</sub> John] [<sub>v'</sub> [<sub>v</sub> give] [<sub>AgroP</sub> [<sub>NP</sub> a book<sub>i</sub>]<sub>[Agro'</sub> [<sub>Agro</sub> *t<sub>j</sub>*] [<sub>VP</sub> [<sub>PP</sub> to Mary] [<sub>v'</sub> [<sub>v</sub> *t<sub>j</sub>*] [<sub>NP</sub> *t<sub>i</sub>*]]]]]]].

Considering these arguments, each structure exhibits the syntactic fashion that the first object asymmetrically c-commands the second; therefore, the anaphor binding effect reported by Barss and Lasnik (1986), as seen in (3) and (4), is obviously without any problems, similar to what is seen in (10)

and (11). Furthermore, the asymmetrical binding in PDCs seen in (5) and (6) are, according to this analysis, clearly expected in (13) and (14) as well. This article calls this an object-raising analysis. This article also points out that all movements contained in (10)-(14) are obligatory, triggered by each driving force. This respects “economy principle” within the framework of *the Minimalist Program*, which abandons any optional transformations.

In summary, both DOCs and PDCs involve obligatory object-raising to the specific Case-checking position [spec-Agr<sup>o</sup>P]. Further, each phrase in both constructions follows the updated *UTAH* approach. In the object-raising analysis, the aim of object-raising causes some differences in their surface approach. In the next section, we aim to enhance the empirical suitability of this analysis.

### 3. Discussions

#### 3.1 Backward Anaphor Binding

As mentioned in the previous section, the data of an anaphor binding in (3)-(6) clearly shows that the first object asymmetrically c-commands the second object, in DOCs and in PDCs. Fujita (1996), however, discusses the outstanding data; that an anaphor takes its antecedent backwardly if the anaphor is embedded by a larger NP<sup>7</sup> in PDCs, as shown in (15).

(15) ?John introduced each other<sub>i</sub>'s friends to Bill and Mary<sub>i</sub>.<sup>8</sup> (Fujita 1996)

This is rarely possible in DOCs, even if an anaphor is involved.

- (16) \*John introduced each other<sub>i</sub>'s friends Bill and Mary<sub>i</sub>. (Fujita 1996)

Given (15) and (16), this article assumes that any traces in a sentence are available to satisfy *Condition A* of *Binding Theory*.

(17) *Binding Theory*

- (A) An anaphor is bound in its governing category.  
 (B) A pronominal is free in its governing category.  
 (C) An R-expression is free. (Chomsky 1981:188)

Note that, in view of the assumption here, once an anaphor satisfies *Condition A* at any stage of derivations, an anaphor is successfully licensed, even if an anaphor appears backward in a surface sentence.

In light of this, we first consider DOCs. The Goal NP *each other's friends* is in [spec-VP], and the Theme NP *Bill and Mary* is at the end of the structure. In (18), without any movements, the Goal NP *each other's friends* is out of the binding domain of the Theme NP *Bill and Mary*; thus, *Condition A* is not satisfied at this stage.

- (18) [<sub>VP</sub> [<sub>NP</sub> John] [<sub>v'</sub> [<sub>v</sub>] [<sub>AgroP</sub> [<sub>Agro'</sub> [<sub>Agro</sub>] [<sub>VP</sub> [<sub>NP</sub> each other's friends] [<sub>v'</sub> [<sub>v</sub> introduce] [<sub>NP</sub> Bill and Mary]]]]]]].

Following the derivation, the Goal NP moves to [spec-Agr<sup>o</sup>P] for its Case.

- (19) [<sub>VP</sub> [<sub>NP</sub> John] [<sub>v'</sub> [<sub>v</sub>] [<sub>AgroP</sub> [<sub>NP</sub> each other's friends<sub>i</sub>][<sub>Agro'</sub> [<sub>Agro</sub>] [<sub>VP</sub> [<sub>NP</sub> *t<sub>i</sub>*] [<sub>v'</sub> [<sub>v</sub> introduce] [<sub>NP</sub> Bill and Mary]]]]]]].



Given object-raising in (19), neither the structural hierarchy of the Goal NP *each other's friends* nor the Theme NP *Bill and Mary* is ever changed. Because of this, the Goal NP *each other's friends* is never licensed; thus, the backward anaphor binding effect in DOCs like (16) is not allowed.

PDCs before any movements apply are nearly parallel to DOCs'. The Theme NP *each other's friends* is asymmetrically c-commanded by certain items in this structure. At this stage, *Condition A* is successfully satisfied, because the potential antecedent *Bill and Mary* in [spec-Agr<sup>o</sup>P] c-commands the anaphor *each other*, as depicted in (20).<sup>9</sup>

(20) [<sub>VP</sub> [<sub>NP</sub> John] [<sub>v'</sub> [<sub>v</sub>] [<sub>AgroP</sub> [<sub>Agro'</sub> [<sub>Agro</sub>] [<sub>VP</sub> [<sub>PP</sub> to Bill and Mary] [<sub>v'</sub> [<sub>v</sub> introduce] [<sub>NP</sub> each other's friends]]]]]]].

In PDCs, the Theme NP *each other's friends* rather than the Goal PP *to Bill and Mary* moves to [spec-Agr<sup>o</sup>P] for Case reasons. This is described in (21) below.

(21) [<sub>VP</sub> [<sub>NP</sub> John] [<sub>v'</sub> [<sub>v</sub>] [<sub>AgroP</sub> [<sub>NP</sub> each other's friends<sub>i</sub>]<sub>[Agro'</sub> [<sub>Agro</sub>] [<sub>VP</sub> [<sub>PP</sub> to Bill and Mary] [<sub>v'</sub> [<sub>v</sub> introduce] [<sub>NP</sub> t<sub>i</sub>]]]]]]].

Given the *anywhere* theory of *Condition A*, an antecedent and an anaphor appearing backwardly in a surface sentence is not a problem, as *Condition A* has been licensed at the stage of (20).

In summary, this section contends that the Goal NP/PP and the Theme NP in DOCs and PDCs occupy parallel position in the *UTAH* approach. Considering this view, Agr<sup>o</sup> attracts the closest NP that does not have its Case checked; these attracted items are distinct in both

constructions. Specifically, the target of attraction of  $\text{Agr}^o$  is the Goal NP in DOCs and the Theme NP in PDCs. As a result, this distinction allows for backward binding effects in PDCs, but not in in DOCs.

### 3.2 Scope Freezing

Following the standard view of scope relations in English, May (1985) establishes that a variety of quantifiers in a sentence exhibits ambiguity in terms of its interpretation. For instance, (22), which includes multiple quantifiers *someone* and *everyone*, has two interpretations, as illustrated in (23).

(22) Someone loves everyone.

(23) a. some > every  
b. every > some

May (1985) also suggests the following definition as a principle for how a quantifier in a sentence takes scope over the other.

(24) *Scope Principle*

For any occurrence of operators  $O_i$  and  $O_j$  where  $O_i$  c-commands  $O_j$  and  $O_j$  c-commands  $O_i$ ,  $O_i$  and  $O_j$  are free to take on any relative scope relation.

(May 1985)

Considering (24), the judgement that exhibits a scope ambiguity is due to a c-command relation between the quantifiers in a sentence. May's definition of c-command<sup>10</sup> is provided in (25).

(25) A c-commands B iff every node that strongly dominates A strongly dominates B.

According to these views, the scope ambiguity in (23) is accountable, in that both quantifiers *someone* and *everyone* in (23) mutually c-command each other at some stages of its derivation.

Next, we examine DOCs and PDCs. First, PDCs exhibit scope ambiguity between the objects, as shown in (26).

(26) John gave a book to everyone. (a > every, every > a)

In May's (1985) analysis, the sentential ambiguity in (26) demonstrates the fact that the Theme NP *a book* c-commands the Goal PP *to everyone*; moreover, the Goal PP/NP c-commands the Theme NP. Given the object-raising analysis, the Theme NP *a book* is originally merged with the verb *give* at the end of the structure. Note that, at this stage, it is enough for the Goal PP *to everyone* to c-command the Theme NP *a book*; therefore, the interpretation *every > a* has been licensed, as depicted in (27).

(27) [<sub>VP</sub> [<sub>NP</sub> John] [<sub>v'</sub> [<sub>v</sub>] [<sub>AgroP</sub> [<sub>Agro'</sub> [<sub>Agro</sub>] [<sub>VP</sub> [<sub>PP</sub> to everyone] [<sub>v'</sub> [<sub>v</sub> give] [<sub>NP</sub> a book]]]]]]]]].

Furthermore, the Theme NP *a book* rather than the Goal PP *to everyone* moves to [<sub>spec-Agr<sup>o</sup></sub> P] for Case reasons. Given object-raising, the Theme NP *a book* is structurally high enough to c-command the Goal PP *to everyone*; this generates the other interpretation *a > every*, which is represented in (28).

(28) [<sub>VP</sub> [<sub>NP</sub> John] [<sub>v'</sub> [<sub>v</sub>] [<sub>AgroP</sub> [<sub>NP</sub> a book<sub>i</sub>]<sub>[Agro'</sub> [<sub>Agro</sub>] [<sub>VP</sub> [<sub>PP</sub> to everyone] [<sub>v'</sub> [<sub>v</sub> give] [<sub>NP</sub> *t<sub>i</sub>*]]]]]]].

As a result of (27) and (28), PDCs like (26) exhibit two possible interpretations.

In contrast, DOCs show a rigid scope relation, which refers to its surface the [Goal NP- Theme NP] order, unlike PDCs, as exemplified in (29).

(29) John gave someone every book. (some > every, \*every > some)

This strange circumstance, called “scope freezing”, is also straightforwardly accountable within the object-raising analysis. The rigid scope in (29) shows the fact that the Goal NP *someone* is never in the domain of the Theme NP *every book*; thus, the Theme NP *every book* cannot take scope over the Goal NP. The Theme NP *every book* originally merges at the end of the structure; hence, there is no chance for the Theme NP to c-command the Goal NP, as depicted in (30).

(30) [<sub>VP</sub> [<sub>NP</sub> John] [<sub>v'</sub> [<sub>v</sub>] [<sub>AgroP</sub> [<sub>Agro'</sub> [<sub>Agro</sub>] [<sub>VP</sub> [<sub>NP</sub> someone] [<sub>v'</sub> [<sub>v</sub> give] [<sub>NP</sub> every book]]]]]]].

$\text{Agr}^o$  prefers the Goal NP to raise to [<sub>spec-Agr<sup>o</sup>P</sub>] in DOCs within the object-raising analysis; further, the Theme NP is never attracted from its original position. In this consequence, the Theme NP is never out of a c-command domain of the Goal NP through derivations, as shown in (31).

(31) [<sub>VP</sub> [<sub>NP</sub> John] [<sub>v'</sub> [<sub>v</sub>] [<sub>AgroP</sub> [<sub>NP</sub> someone<sub>i</sub>]<sub>[Agro'</sub> [<sub>Agro</sub>] [<sub>VP</sub> [<sub>NP</sub> *t<sub>i</sub>*] [<sub>v'</sub> [<sub>v</sub> give] [<sub>NP</sub>

every book]]]]]]].

This structural circumstance also causes scope freezing on DOCs.

In summary, the standard English ambiguity in a sentence is widely recognized as a consequence of a c-command relationship between quantifiers in terms of May's works. This section extends this legacy to resolve why PDCs show sentential ambiguity between the objects, but DOCs do not. The object-raising analysis clearly captures the c-command relationships among objects in both constructions. Specifically, both objects in PDCs are in a mutual c-command relationship through derivations; however, both objects in DOCs are in an asymmetrical c-command relationship. These differences provide the empirical outcome that (26) contains an ambiguity, but (29) does not.

### 3.3 Pseudo-Gapping

This section addresses how pseudo-gapping applies to DOCs and PDCs. In (32), we see a standard example of pseudo-gapping.

(32) John does not like rice, but he does ~~like~~ beans.<sup>11</sup>

Since Jayaseelan's (1990) works on pseudo-gapping constructions, it has been widely recognized as one of the VP-Ellipses, rather than a single verb ellipsis. The remnant *beans* in (32) moves out of the VP, and this VP is eliminated. According to Jayaseelan, the remnants of pseudo-gapping move out of VP via Heavy NP Shift (HNPS)<sup>12</sup>, meaning that the VP becomes a target of VP-Ellipsis. More recent works discuss what kind of movement(s) dislocate the remnant(s) of pseudo-gapping constructions out

of the eliminated VP.

Lasnik (1999), in contrast, proposes his analysis as an alternative to the standard HNPS analysis. He makes two critical arguments against the HNPS analysis. One of his counterexamples stems from the property of the indirect object in DOCs. Specifically, the indirect object in DOCs is never allowed any A'-movements, as shown in (33).

- (33) a. \*Who<sub>i</sub> did John give *t<sub>i</sub>* a book? (Wh-movement)  
 b. \*[The man]<sub>i</sub>, John gave *t<sub>i</sub>* a book. (Topicalization)  
 c. \*It was [the man]<sub>i</sub> that John gave *t<sub>i</sub>* a book. (It-cleft construction)  
 d. \*John gave *t<sub>i</sub>* a book yesterday [the man who was in his syntax class]<sub>i</sub>.  
 (HNPS)

In Jayaseelan's view, HNPS is responsible for remnant movement; hence, the HNPS of the Goal NP in DOCs as remnant must be prohibited, as indicated in (33d). However, this does not support the HNPS analysis, as examined in (34).

- (34) ?John gave Bill a lot of money, and Mary will **give** Sue ~~a lot of money~~.

The other set of data, which is against the HNPS analysis, states that only a single pattern of pseudo-gapping is available in DOCs. Specifically, let us consider (35)-(37). First, the remnants are restricted to single constituents, but not to multiples.

- (35) \*John gave Bill a lot of money, and Mary will **give** Sue a lot of advice.

Second, the Theme NP in DOCs cannot be a single remnant.

(36) ?\*John gave Bill a lot of money, and Mary will ~~give~~ Bill a lot of advice.

(37) (=34) is only acceptable as a pseudo-gapping construction in DOCs, where the Goal NP is a remnant and the other elements, the verb and the Theme NP, are both eliminated.

(37) ?John gave Bill a lot of money, and Mary will ~~give~~ Sue ~~a lot of money~~.

Based on the above, it is difficult for the HNPS analysis to account for the grammatical distribution in (35)-(37). Alternatively, Lasnik (1999) proposes the A-movement analysis. Within Lasnik's analysis, each NP overtly rises to the closest [spec-AgrP] for Case reasons. He notes that the middle VP is the target of pseudo-gapping. Because these NP movements to each [spec-AgrP] are A-movements rather than A'-movements, (33) and (34) are resolved. Furthermore, the unexpected elements of pseudo-gapping in (35) and (36) are structurally eliminated, if it is assumed that the middle VP is eliminated after the higher NP rises to [spec-Agr<sup>o</sup> P]. This is represented in (38) below.

(38) [<sub>VP1</sub> [<sub>NP</sub> Mary] [<sub>V'</sub> [<sub>V1</sub>] [<sub>AgrP2</sub> [<sub>NP</sub> Sue] [<sub>AgrP'</sub> [<sub>Agr2</sub>] [<sub>VP2</sub> [<sub>NP</sub> ~~*t*<sub>i</sub>~~] [<sub>V'</sub> [<sub>V2</sub>] [<sub>AgrP3</sub> [<sub>NP</sub> ~~a lot of money~~]] [<sub>Agr'</sub> [<sub>Agr3</sub>] [<sub>VP3</sub> [<sub>V'</sub> [<sub>V3</sub> ~~give~~] [<sub>NP</sub> ~~*t*<sub>j</sub>~~]]]]]]]]]]].

Lasnik also points out that PDCs display a similar behavior. In particular, pseudo-gapping with multiple remnants is prohibited.

(39) \*John gave a lot of money to Bill, and Mary will **give** a lot of advice to Sue.

Moreover, the Goal PP as a remnant is prohibited.

(40) ?\*John gave a lot of money to Bill, and Mary will ~~give a lot of money~~ to Sue.

In addition to DOCs, the Theme NP is allowed as a remnant in pseudo-gapping.

(41) ?I didn't give a lot of money to Bill, and Mary will **give** a lot of advice to Bill.

Based on Lasnik's view on PDCs, the Theme NP *a lot of advice* overtly raises to [spec-AgrP<sub>2</sub>]. In addition, the Goal PP *to Bill* raises to [spec-AgrP<sub>3</sub>]. After all requirements of movements of NPs are satisfied, VP-Ellipsis applies to VP<sub>2</sub> in the PF component. This is demonstrated in (42).

(42) [<sub>VP1</sub> [<sub>NP</sub> Mary] [<sub>V'</sub> [<sub>V1</sub>] [<sub>AgrP2</sub> [<sub>NP</sub> a lot of advice] [<sub>AgrP'</sub> [<sub>Agr2</sub>] [<sub>VP2</sub> [<sub>NP</sub> *t<sub>i</sub>*] [<sub>V'</sub> [<sub>V2</sub>] [<sub>AgrP3</sub> [<sub>PP</sub> *to Bill*] [<sub>Agr'</sub> [<sub>Agr3</sub>] [<sub>VP3</sub> [<sub>V'</sub> [<sub>V3</sub> **give**] [<sub>PP</sub> *t<sub>j</sub>*]]]]]]]]]]]]].

Following Lasnik's work, this section extends their statements in a much more economical way, enough to account for the data in Lasnik (1999). First, according to Lasnik's analysis, (38) and (42) contains two AgrPs and three VPs. According to the object-raising analysis, a single Agr<sup>o</sup>P and VP-shells are sufficient to appropriately merge with each



argument in DOCs and PDCs. Let us first consider DOCs. In (43), the Goal NP *Sue* moves to [spec-Agr<sup>o</sup>P] for Case reasons.

(43) [<sub>VP</sub> [<sub>NP</sub> Mary] [<sub>v'</sub> [<sub>v</sub>] [<sub>AgroP</sub> [<sub>NP</sub> Sue<sub>i</sub>][<sub>Agro'</sub> [<sub>Agro</sub>] [<sub>VP</sub> [<sub>NP</sub> *t*<sub>i</sub>] [<sub>v'</sub> [<sub>v</sub> give] [<sub>NP</sub> a lot of money]]]]]]].

At this stage, if we suppose that pseudo-gapping is an ellipsis that eliminates the large/capital VP, the unexpected distinction in (35)-(37) is explicable. Specifically, the VP, which includes the verb *give* and the Theme NP *a lot of money*, is eliminated before head-movement of *give* applies, as depicted in (44).

(44) [<sub>VP</sub> [<sub>NP</sub> Mary] [<sub>v'</sub> [<sub>v</sub>] [<sub>AgroP</sub> [<sub>NP</sub> Sue<sub>i</sub>][<sub>Agro'</sub> [<sub>Agro</sub>] [<sub>VP</sub> [<sub>NP</sub> *t*<sub>i</sub>] [<sub>v'</sub> [<sub>v</sub> give] [<sub>NP</sub> a lot of money]]]]]]].

As a result of (44), the acceptable example in (37), as repeated in (45), is generated without any problems, as the Goal NP *Sue* remains as a remnant after the verb *give* and the Theme NP *a lot of money* are eliminated.

(45) ?John gave Bill a lot of money, and Mary will give Sue a lot of money.

This is, however, structurally impossible for the unacceptable instances in (35) and (36). First, there is no constituent that include a verb *give* but not others. This grammatically excludes (35), as repeated in (46).

(46) \*John gave Bill a lot of money, and Mary will give Sue a lot of advice.

Additionally, the verb *give* and the Goal NP *Sue* but not the Theme NP *a lot of advice* cannot form a constituent at any level of derivations, as in (43) and (44). Thus, (36), as repeated in (47), is excluded.

(47) ?\*John gave Bill a lot of money, and Mary will ~~give~~ ~~Bill~~ a lot of advice.

In PDCs, Agr<sup>o</sup> attracts the Case-less NP to [spec-Agr<sup>o</sup>P] based on the object-raising analysis. In PDCs, the Theme NP is responsible for this, as depicted in (48).

(48) [<sub>VP</sub> [<sub>NP</sub> Mary] [<sub>v'</sub> [<sub>v</sub>] [<sub>AgroP</sub> [<sub>NP</sub> a lot of advice<sub>i</sub>][<sub>Agro'</sub> [<sub>Agro</sub>] [<sub>VP</sub> [<sub>PP</sub> to Bill] [<sub>v'</sub> [<sub>v</sub> give] [<sub>NP</sub> *t<sub>i</sub>*]]]]]]].

Recall that pseudo-gapping applies to the VP before head movement of the verb *give* takes place. This is described in (49).

(49) [<sub>VP</sub> [<sub>NP</sub> Mary] [<sub>v'</sub> [<sub>v</sub>] [<sub>AgroP</sub> [<sub>NP</sub> a lot of advice<sub>i</sub>][<sub>Agro'</sub> [<sub>Agro</sub>] [<sub>VP</sub> [<sub>PP</sub> ~~to Bill~~] [<sub>v'</sub> [<sub>v</sub> ~~give~~] [<sub>NP</sub> *t<sub>i</sub>*]]]]]]].

Consequently, the Theme NP *a lot of advice* is structurally licensed as a remnant in pseudo-gapping. This is clearly captured in (41) and repeated in (50).

(50) ?John gave a lot of money to Bill, and Mary will ~~give~~ a lot of advice ~~to~~ ~~Bill~~.

Furthermore, (49) successfully excludes the ungrammatical instances.

First, (51), which shows multiple remnants, is not allowed, as the Goal PP *to Sue* does not remain.

(51) \*John gave a lot of money to Bill, and Mary will ~~give~~ a lot of advice to Sue.

Moreover, the Goal PP *to Sue* cannot be a single remnant, as in (40) and repeated in (52).

(52) ?\*John gave a lot of money to Bill, and Mary will ~~give a lot of money~~ to Sue.

In summary, this article indicates that the standard HNPS analysis established by Jayaseelan (1990) involves some difficulties with regard to Lasnik's data. Note that the structures in (43) and (44) in DOCs and (48) and (49) in PDCs within the object-raising analysis capture the counterexamples found by Lasnik (1999) against the HNPS analysis, in that (i) a remnant movement is responsible for A-movement, and (ii) the inexplicable instances in (35)-(37) and (45)-(47) are clearly solved in terms of structural reasons. The gist is that the structures under the object-raising analysis are economically more adequate than (38), in light of the current fashion of syntax.

#### 4. Summary and Direction for Further Research

Using an object-raising analysis, this article argues that overt object-raising to the functional specifier position, Agr<sup>o</sup>P, takes place in both DOCs and PDCs. This analysis is supported by three empirical confirmations of

syntactic phenomena on DOCs and PDCs: backward anaphor binding (3.1), scope freezing (3.2), and pseudo-gapping (3.3). The gist of the discussions in this article is that all syntactical phenomena discussed in section 3 are forthrightly accounted for within the object-raising analysis, which assumes a single Agr<sup>o</sup>P and the Larsonian VP-shells. This adheres to *the Principle of Parsimony*, a widely accepted principle in research, as defined in (53).

(53) *The Principle of Parsimony*

Entities should not be multiplied beyond necessity.

Within Minimalism, the object-raising analysis of DOCs and PDCs successfully captures at least three factors in this article, and it might be expanded to more data for the further research.

As is widely recognized, Postal (1974), Lasnik and Saito (1991), and Tanaka (1999), among others, developed a raising to object analysis while researching *believe*-type constructions. In future, I expect that the object-raising analysis will be an universal analysis in English. In particular, *spray*-type constructions are the next challenges in the object-raising analysis.

## Notes

1. I would like to thank two anonymous reviewers of *Osaka Gakuin University Foreign Linguistic and Literary Studies* for comments and criticisms on various aspects of this article. I am responsible for all the remaining errors.
2. According to Barss and Lasnik (1986), not only an anaphor binding, but also a quantifier binding, weak crossover, superiority, and *each*...

*the other* expression, as well as negative polarity are discussed in detail. All these details indicate the conclusion that the Goal NP asymmetrically c-commands the Theme NP in DOCs.

3. This article does not address this theme in detail. See Kawakami (2018) for some empirical evidence that is strongly against the small clause analysis on DOCs.
4. A Theme argument is widely recognized as a bottomed item in a syntactic structure. See Wilkins (1988) and Takano (1998) for this discussion.
5. This structure is not without limitations. We must account for the mechanism of Case-checking of the Theme NP *a book*, as the Theme NP without Case causes a violation of *Case Filter*. One possible reason for this stems from the inheritance of some syntactic features from phase heads, which are the heads of CP and vP, according to *the Complete Functional Complex*. For instance, it might be true that a Case of the Theme NP in DOCs has been checked by an inherited Case feature from a phase head. More discussions on this topic are needed.
6. A preposition is recognized as one of the Case licensors (Chomsky 1981).
7. This is not acceptable if an anaphor stands alone, as exemplified in (1).

(1) \*John introduced each other<sub>i</sub> to Bill and Mary<sub>i</sub>.

An anaphor needs to be inside certain phrases not to directly c-command the Goal PP, which causes a violation of *Condition C*.

8. A forward binding style of (15), of course, gives us a perfect grammaticality.

- (2) John introduced Bill and Mary<sub>i</sub> to each other<sub>i</sub>'s friends.
9. There are some suggestions that a preposition does not disturb a binding domain of NPs.
- (3) John talked to Mary<sub>i</sub> about herself<sub>i</sub>.
- (4) John talked to Bill and Mary<sub>i</sub> about each other<sub>i</sub>.
10. There is also a suggestion that a preposition does not disturb a strong dominating.
- (5) John talked to someone about everyone.
- (some > every, every > some)
11. The strikeouts lines in this section describe the unpronounced materials.
12. Note that the HNPS moves the “heavy” NP (PP) to a sentential final position, as exemplified in (6).
- (6) a. John read [<sub>NP</sub> the book that he bought last week] this morning.  
       b. John read *t* this morning [<sub>NP</sub> the book that he bought last week].

What makes NP “heavy” enough to move depends on the five factors, which are: complex of NP, separability of NP, relative weight of NP, early versus late attachment of NP, and new information that precedes old information. See Ross (1967) for more detailed distributions.

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## 二重目的語の構造的な洞察

川 上 将 広

英語において、単一の動詞に対し複数の目的語を持つ構文は (1) に示される二重目的語構文と (2) に示される与格構文が存在し、その統語的あるいは意味的な類似性から様々な分析が盛んに行われている。

(1) John gave Mary a book.

(2) John gave a book to Mary.

これらの統語構造に関して、Barss and Lasnik (1986) らに始まる先行研究では、一つ目の目的語（二重目的語構文では *Mary*、与格構文では *a book*）が二つ目の目的語（二重目的語構文では *a book*、与格構文では *to Mary*）よりも構造的に高い位置に存在し、この逆の関係はそれぞれの構文において成り立たない事が示されている。すなわち、一つ目の目的語が二つ目の目的語を非対称的に c 統御する統語構造をそれぞれの構文において仮定する必要があり、本稿の出発点はこの非対称的な統語構造の経験的妥当性にある。

第2節は、近年の極小理論に基づき、二重目的語構文、さらに与格構文のそれぞれに対する統語構造の提案を目的とする。本稿の構造的提案においては、Baker (1988) による「主題役付与一様性仮説」と Chomsky (1992) あるいは Koizumi (1993, 1995) で提案された機能範疇 “Agr<sup>o</sup>P” を仮定する。また、これらの仮定に基づき、移動の条件に適した目的語が機能範疇 “Agr<sup>o</sup>P” の指定部へ顕在的かつ義務的な移動をする目的語移動分析を主張し、この目的語移動

の要因としては、名詞の対格付与の義務性であることを示す。

第3節では、第2節で述べた主張の根拠として、二重目的語構文あるいは与格構文に観察される特異的な統語現象をそれぞれ取り上げる。後方的束縛現象 (3.1)、数量詞の作用域 (3.2)、さらに擬似空所化構文 (3.3) の3点による経験的なデータを例とし、本稿の分析がどのように統語構造内で適用されるかについて詳しく議論する。これらの議論から得られる帰結として、本稿の構造的提案が経験的な統語現象を統一的に説明可能であることを示し、この事実は極小理論あるいはオッカムの剃刀理論において、より経済的かつ経験的妥当な説明であることを主張する。

第4節では、本稿の議論をまとめ、筆者の今後の研究展望について述べる。Postal (1974) らの先行研究により、顕在的かつ義務的な目的語移動が *believe-type* 構文で広く分析されているように、他の構文においても顕在的あるいは義務的な目的語移動が適用されることが期待される。