

The Thematic and Syntactic Structure of the Verbs of Commanding and Permitting

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1 Introduction

Consider the following two present-day English sentences including a ditransitive matrix verb and a *to*-infinitival clause.

- (1)a. Susan persuaded him to go to the party.
- b. Susan permitted him to go to the party.

According to traditional generative grammar, the sentences are both given the same syntactic structure as shown in (2).

- (2) Susan persuaded/permitted [him] [PRO to go to the party]

The first complement (*him*) is analyzed as an indirect object and the second complement (i.e., the infinitival clause) as a direct object. The subject position of the infinitival clause is assumed to be filled by PRO, which refers to the same person as the indirect object, hence Object Control.

Although both of the ditransitive verbs appear to have the same syntactic structure, they show opposite behaviors with regard to nominalization. When the verb *persuade* is nominalized and the preposition *of* is inserted in front of the indirect object, as in (3b), the resulting sentence is grammatical. In contrast, when the sentence including *permit* is nominalized in the same way as (3b), the resulting sentence turns out to be ungrammatical, as in (3d).

- (3)a. Susan persuaded him to give her the money.
- b. Susan's persuasion of him to give her the money was very skillful.
- c. The commander permitted his men to torture the captive soldiers.
- d. *The commander was sentenced to 3 years imprisonment for permission of his men to torture the captive soldiers.

It will be shown in Section 2 that the contrast between the verbs of commanding and permitting and the verbs of persuading and urging can be accounted for based on the analysis of infinitival constructions in Old English (OE) given in Los (2005) in collaboration with Myers' Generalization. In Section 3, after pointing out an apparent problem with Los's analysis of the verbs of commanding and permitting, it will be argued that this problem can be solved according to the notion *equidistance* proposed in Chomsky (2000, 2001).

2 Nominalization of Ditransitive Verbs and Their Thematic and Syntactic Structures

2.1 Thematic Difference between the Verbs of Commanding and Permitting and the Verbs of Persuading and Urging

Based on OE data, Los (2005) argues that the verbs of commanding and permitting have a thematic structure of AGENT, RECIPIENT and THEME, as shown in (4).

- (4) Susan permitted [him] [PRO to go to the party]
Agent = [Susan]
RECIPIENT = [him]
THEME = [PRO to go to the party]

On the other hand, she argues that the verbs of persuading and urging have a thematic structure of AGENT, THEME and GOAL, as shown in (5).

- (5) Susan persuaded [him] [PRO to go to the party]
Agent = [Susan]
THEME = [him]
GOAL = [PRO to go to the party]

The OE sentences on which she bases her argument are shown below.

- (6)a. *ða ðincg ðe ic bebeode eow to gehealdenne.* <ÆCHom II, 21 181.47>
those things that I order you_{DAT} to hold
'those things that I order you to hold'
- b. *On hwilcum godum tihst þu us to gelyfenne?* <ÆLS (George) 148>
in which gods urgest thou us_{ACC} to believe
'Which gods do you urge us to believe in?'

The commanding/permitting verb *order* in (6a) assigns the indirect object a dative Case, and the persuading/urging verb *urge* in (6b) assigns it an accusative Case.

2.2 Pesetsky's (1995) analysis of Double Object Constructions

2.2.1 Myers' Generalization

There are many words whose verbal and nominal forms are the same in English. For example, while an English word "*comment*" functions as a noun in (7a), the same word also functions as a verb in (7b).

- (7)a. He made helpful comments on my work.
b. He commented on everyone's work.

In the case of the word *comment*, the verb is assumed to be derived from the noun by adding a null (or zero) category-changing affix to the noun, which is known as zero derivation.

- (8) comment_{NOUN} + null verbalizing affix \emptyset → [comment- \emptyset]_{VERB}

The words in (9) are given in Myers (1984) as some examples of zero-derived verbs.

- (9) comment, climax, triumph, document, compliment, tango, discipline, shadow, herald, experiment, balance, burrow, pillory, monkey, contract, tutor, censor, sorrow

The interesting characteristic of these zero-derived elements is that they cannot undergo any additional derivational procedures. Although the nominalizing or adjectivalizing affixes such as *-ant* or *-ive* can be added to verbs, as in *accountant*, *protestant*, *active*, *selective* and so on, these affixes cannot be added to verbs zero-derived from nouns, as in **commentant*, **commentive*, **experimentant*, **experimentive*. Based on these facts, the following generalization is proposed in Myers (1984).

- (10) Myers' Generalization:

...if zero derivation is a kind of inflection, we predict that no zero-derived word could appear inside a derivational suffix, i.e. no such suffix could be added to a zero-derived word. (Myers 1984:62)

A zero-derived element which hosts a derivational affix as shown in (11b) is excluded because the zero affix \emptyset appears inside a derivational suffix *-ant* in violation of Myers' Generalization.

- (11)a. $\text{comment}_{\text{NOUN}} + \text{null verbalizing affix } \emptyset \rightarrow [\text{comment-}\emptyset]_{\text{VERB}}$
 b. $[\text{comment-}\emptyset]_{\text{VERB}} + \text{-ant}_{\text{NOUN}} \rightarrow *[\text{comment-}\emptyset\text{-ant}]_{\text{NOUN}}$

2.2.2 Pesetsky's (1995) Zero Morpheme *G*

The ditransitive (or double object) verbs have the two different subcategorization frames, as shown below.

- (12)a. Bill gave a book to Sue. [*to*-object structure]
 b. Bill gave Sue a book. [double object structure]

In the case of (12a), it is traditionally assumed that the direct object (*a book*) is given an accusative Case by the verb and the second object (*Sue*) by the preposition *to*. On the other hand, Pesetsky (1995) argues that in (12b) the first indirect object *Sue* is Case-marked by the verb and the second object is Case-marked by a null Case-assigning element *G*.

- (13) Bill gave Sue [G a book]

The null preposition *G* is assumed to be an affix and it must move from its base-generated position to the higher verb, as in (14)

- (14) Bill gave+G Sue [t a book]

The phenomenon in which a prepositional affix is attached to a higher (or governing) verb is not rare. The phenomenon is common in some languages such as Chichewa, and it is examined in detail and analyzed as preposition incorporation in Baker (1988). Some Chichewa examples are shown below. (SP=subject agreement prefix, PAST=past tense, ASP=aspect or mood marker)

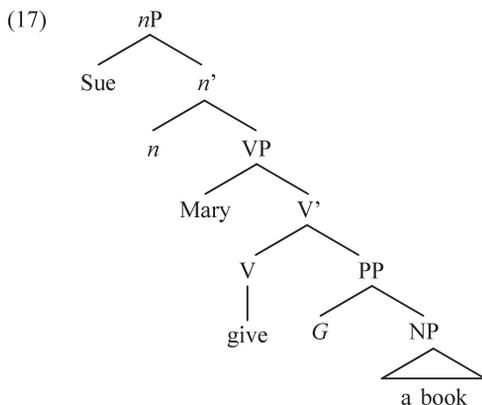
- (15)a. Mbidzi zi-na-perkek-a msampha kwa nkhandwe.
zebras SP-PAST-hand-ASP trap to fox
'The zebras handed the trap to the fox.'
- b. Mbidzi zi-na-perkek-er-a nkhandwe msampha.
zebras SP-PAST-hand-to-ASP fox trap
'The zebras handed the trap to the fox.'

Kwa in (15a) is a standard preposition. When a prepositional affix *-ir/er* occurs, it must move to attach to a verb root as in (15b).

Since a double object structure with the null preposition *G* always involves zero affixation to *V*, we expect further derivational procedures to be inhibited according to Myers' Generalization. The expectation is proved to be true by the following data, which are observed in Kayne (1984).

- (16)a. *Sue's gift of Mary (of) a book
b. *John's assignment of Mary (of) a hard sonata
c. *Bill's rental of Sue (of) an apartment

(16a) is, for example, assumed to have the following underlying structure.



In (17), *G* is first raised into *V*, and [give+*G*] is derived. It is next raised into the nominalizing affix *n*, and [[give+*G*]+*n*] is derived. Since [give+*G*] is a zero-derived form, [[give+*G*]+*n*] violates Myers' Generalization.

In contrast, nominalization of *to*-object structures is possible. It follows from Myers' Generalization because the nouns in (18), which are derived without raising the preposition *to*, are not zero-derived nominal.

- (18)a. Sue's gift of a book to Mary
 b. John's assignment of a hard sonata to Mary
 c. Bill's rental of an apartment to Sue

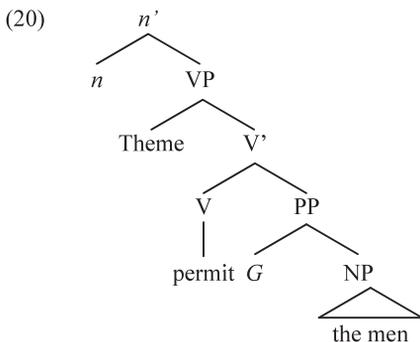
Although it is favorable for our argument to assume that the null proposition *G* in English ditransitive constructions which is proposed in Pesetsky (1995) is similar to a prepositional affix in Chichewa ditransitive constructions discussed in Baker (1988), there is a crucial difference between Pesetsky's analysis and Baker's analysis. In the former analysis, it is assumed that *to*-object structures and double object structures have different underlying syntactic structures, as shown below.

- (19) Bill gave a book [to Sue] [*to*-object structure]
 Bill gave Sue [G a book] [double object structure]

In the latter analysis, on the other hand, *to*-object structures and double object structures have the same underlying syntactic structure, and double object structures are derived from *to*-object structures by preposition incorporation. Although there is some ongoing controversy concerning dative alternations, let us adopt Baker's analysis without discussion at the moment since it facilitates our analysis of the nominalization of ditransitive verbs. Hence, it is assumed in what follows that the null preposition *G* in English is a null affixal counterpart of the regular independent preposition *to*. When the null preposition *G* occurs in place of *to*, double object structures are obligatorily derived.

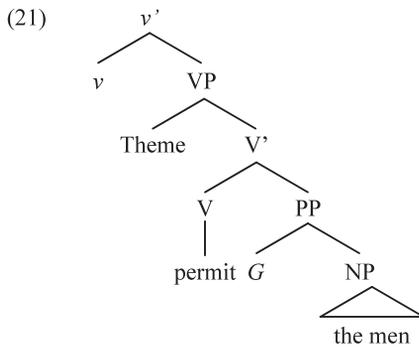
2.3 Nominalization of the verbs of commanding and permitting

Now let us examine how the ungrammaticality of (3d), which is analyzed as (20), is properly predicted according to the proposed analysis.



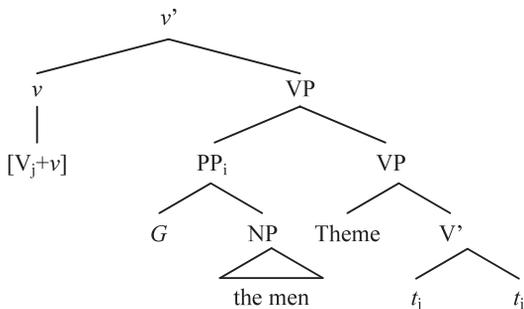
In (20), *G* is first raised into *V*, and [permit+*G*] is derived. [permit+*G*] is next raised into *n*, and [[permit+*G*]+*n*] is derived. Since [permit+*G*] is a zero-derived form, adding *n* to [permit+*G*] runs counter to Myers' Generalization.

Although the proposed analysis can properly exclude the nominalization of the verbs of commanding and permitting, it would wrongly predict that (3c) should be ungrammatical if *v* occurs in place of *n* in (20).



In (21), *G* is first raised into *V*, then, [permit+*G*] moves to attach to the upper *v*. The newly formed verb after these processes is represented as [[permit+*G*]+*v*]. Since a derivational affix *v* is added to the zero-derived form, [[permit+*G*]+*v*] is considered ill-formed, as [[permit+*G*]+*n*] is. Then, there should be another way to derive the grammatical example (3c) from (21). Suppose that instead of raising *G* into the immediately governing head *V*, the prepositional phrase *PP* is first moved and adjoined to the lower *VP*, as shown in (22).

(22)



After moving the lower V to the upper v , G is incorporated into the complex verb $[V+v]$ and $[[V+v]+G]$ is derived. Since G does not appear inside the complex verb $[V+v]$, $[[V+v]+G]$ is not in violation of Myers' Generalization.¹⁾

Before wrapping up this section, let us turn to the grammaticality of (3b), which is an example of nominalization of the verbs of persuading and urging. Since these verbs do not have double object constructions, it seems plausible to assume that they are given the underlying vP structure as in (23).

(23) $[_{vP} NP_{(=Agent)} [_{v'} v [_{VP} NP_{(=Theme)} [_{V'} V CP_{(=Goal)}]]]]]$

Since the null preposition G never appears in this structure, nominalization is completed by simply raising V into a nominalizing head n if it is generated in place of v .

In conclusion, based on the assumptions that the verbs of commanding and permitting project the underlying vP structure as in (24a), and that the preposition G which is the null counterpart of the preposition *to* must be incorporated, it is argued that nominalization derived from (24b) is prevented by the presence of G because $[V+G]+n$ violates Myers' Generalization.

(24)a. $[_{vP} NP_{(=Agent)} [_{v'} v [_{VP} NP_{(=Theme)} [_{V'} V [_{PP} G NP_{(=Recipient)}]]]]]]]$

b. $[_{nP} [_{n'} n [_{VP} NP_{(=Theme)} [_{V'} V [_{PP} G NP_{(=Recipient)}]]]]]]]$

3 Syntactic Structures of Double Object Constructions

3.1 Subcategorization Frames of the Verbs of Commanding and Permitting in OE

As shown in Section 2, the verbs of commanding and permitting in OE have a thematic structure of AGENT, RECIPIENT and THEME, that is, a three-place thematic structure. Although RECIPIENT is always expressed by a dative NP, GOAL can be expressed in three different ways.

- | | | |
|------|----------------------|----------------------|
| (25) | RECIPIENT | THEME |
| | [NP _{dat}] | [NP _{acc}] |
| | [NP _{dat}] | [subjunctive clause] |
| | [NP _{dat}] | [to-VP] |

In the first subcategorization frame in (25), THEME is expressed by an accusative NP. It is expressed by a subjunctive clause in the second frame and by a *to*-infinitive in the third frame. Three examples corresponding to these subcategorization frames are shown below. (26c) is the same example as (6a).

- (26)a. Seocum mannum, and cildum, we ne bebeodað nan
 Sick men_{DAT}, and children_{DAT}, we not order no
 fæsten <HomM 7 23>
 fast
 ‘we do not order sick people and children to fast.’
- b. Astih eft adune. and bebeod ðam folce þæt
 Go afterwards down and order the people_{DAT} that
 heora nan ðam munte ne
 of-them none the mountain not
 genealæce <ÆCHom II, 12 .1 113.130>
 approach_{SUBJ}
 ‘Go down afterwards and order the people not to approach the mountain’

- c. ða ðincg ðe ic bebeode eow to
 those things that I order you_{DAT} to
 gehealdenne <ÆCHom II, 21 181.47>
 hold
 ‘those things that I order you to hold’

In addition to the three-place subcategorization frames, it is argued in Los (2005) that the verbs of commanding and permitting have a thematic structure of AGENT and THEME, that is, a two-place thematic structure, and that THEME is expressed by a bare-infinitival clause or Small Clause.

- (27) THEME
 [NP_{acc} VP]
 [NP_{acc} Pred]

Each example in (28) represents one of the two subcategorization frames. The noteworthy fact about the subcategorization frames is that the NP subject of the bare-infinitival clause and Small Clause is assigned an accusative Case as in Exceptional Case Marking (ECM) constructions in present-day English.

- (28)a. Nu ic bebeode beacen ætywan, wundor geweorðan on wera
 Now I order portent_{ACC} appear_{INF}, miracle_{ACC} happen_{INF} on men
 gemange <And 727>
 among
 ‘now I order a portent to appear, a miracle to happen among men’
- b. Fæder ic bebeode minne gast on þinre handa <LK (WSCp) 23.46>
 Father I order my spirit_{ACC} in your hands
 ‘Father, into your hands I commend my spirit’

Although Los's argument that THEME in a two-place thematic structure can be expressed by a bare-infinitival ECM clause seems plausible, it is not without a problem. If THEME can be expressed by a bare-infinitival ECM clause, why is the construction in (29), (in which THEME in a three-place thematic structure is expressed by a bare-infinitival ECM clause), never attested in OE?

- (29) RECIPIENT THEME
 *[NP_{dat}] [NP_{acc} VP]

We will argue in section 3.2 that the absence of the syntactic construction like (29) is never accidental but follows from the proposed theoretical analysis of the syntactic structure of the double object constructions and Universal Grammar (UG).

3.2 Double Object Constructions and Case

We have argued in section 2.5 that the double object constructions are derived by incorporating the null preposition *G* after adjoining the entire PP to the lower VP, as shown in (22). Suppose that the dative Case feature which the preposition *G* has is passed down to the newly derived complex verb and that the verb assigns the Case to the indirect object in OE. Then, how does the direct object generated in the specifier position of the lower VP receive an accusative Case? Since the light verb *v* has the ability to assign an accusative Case, nothing special needs to be said if nothing intervenes in the case-assigning relation between *v* and the direct object. In Chomsky (2000), it is argued that when a phrase is c-commanded by a case-assigning element (called a probe), it is selected as a goal and assigned a Case by the probe on the condition that the phrase is closest to the probe. Since the indirect object is c-commanded by *v* and is closest to *v*, the Case-assigning relation between the direct object and *v* is blocked by the indirect object according to the strict interpretation of 'closest.' This problem is solved by the Equidistance Principle proposed in Chomsky (2000, 2001).

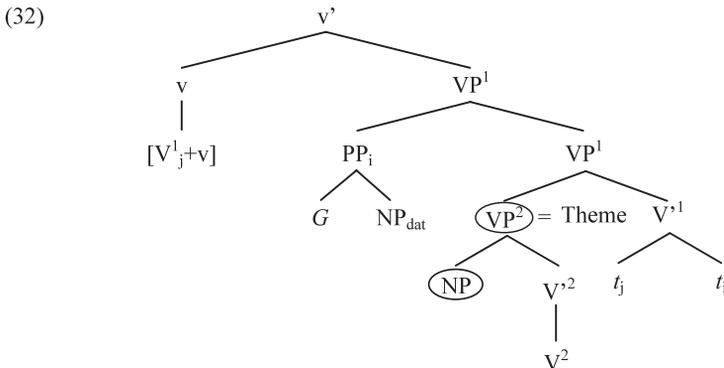
(30) Terms of the edge of HP are equidistant from probe P.

In the VP of (22), the adjoined indirect object and the in-situ direct object (=Theme) are both the edge of VP, and consequently they are equidistant from the probe v , which selects the direct object as its goal, assigning it an accusative Case.

Since it is argued in this paper that the verbs of commanding and permitting have the same syntactic derivation as the double object verbs, the grammaticality of (31a), in which RECIPIENT is expressed by a dative NP and THEME is expressed by an accusative NP, can be accounted for straightforwardly. Then, what is it that causes the difference in grammaticality between (31a) and (31b)?

- (31) RECIPIENT THEME
- a. [NP_{dat}] [NP_{acc}]
- b. *[NP_{dat}] [NP_{acc} VP]

As argued above, when THEME is expressed by the direct object NP, the direct object and the indirect object are equidistant from v since both of them are the edge of VP. In case of (31b), in contrast, NP which needs to enter into the case-assigning relation with v does not independently occur in the edge (= specifier) position of the matrix VP¹, but it is contained in a bare-infinitival clause VP², as shown below.



Since the case-assigning relation between NP in VP² and *v* is blocked by the indirect object, which is closest to *v*, NP in VP² cannot be assigned any Case, hence the ill-formedness of (31b).

4 Concluding Remarks

It has been argued in this paper that the contrast between the verbs of commanding and permitting and the verbs of persuading and urging can be accounted for based on Los (2005) in collaboration with Pesetsky's (1995) analysis, which is in turn based on Myers' Generalization. In this section, after pointing out a problem which Pesetsky's (1995) existing analysis appears to face, a solution to the problem will be proposed.

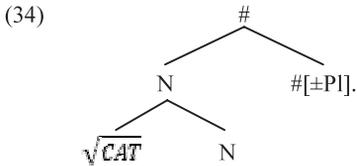
The problem with Pesetsky's analysis concerns its apparent incompatibility with Myers' Generalization. 'A zero-derived word' mentioned in Myers' Generalization in (10) consists of a base element and a category-changing affix. In Myers (1984), no other inflectional affixes than category-changing affixes are referred to as zero derivation. On the other hand, the preposition *G* proposed in Pesetsky (1995) is not a category-changing affix at all. When it is moved and added to the higher verb, the verbal status of the verb is never changed to another category. How can the problem be dealt with? In order to solve this problem, let us adopt Categorization Assumption, proposed in Embick and Noyer (2007).

(33) Categorization Assumption

Roots cannot appear without being categorized; Roots are categorized by combining with category-defining functional heads.

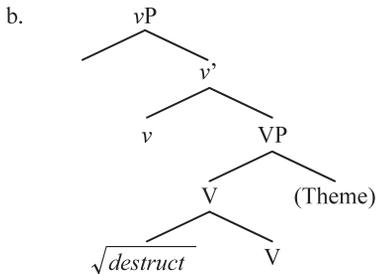
It is proposed in Embick and Noyer that the basic inventory of syntactic items (called terminals) is divided into abstract morphemes and Roots. While abstract morphemes are composed exclusively of non-phonetic features, such as [Past] or [pl], Roots are

sequences of complexes of phonological features, including items such as \sqrt{CAT} , \sqrt{OX} , or \sqrt{SIT} . According to their proposals, nouns such as *cat* are structurally composed of a Root and a nominalizing head N and a $[\pm PI]$.

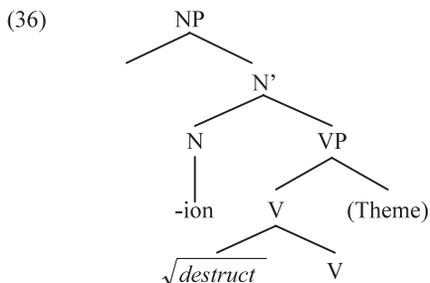


Based on Categorization Assumption, the transitive VP as in (35a) is assumed to have the syntactic structure as in (35b), in which the lower VP is composed of a Root and a verbalizing head V.

(35)a. John destroyed the city.

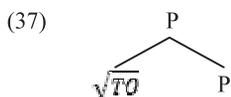


In the case of a derived nominal, such as *destruction*, since the nominalizing head *-ion* itself is a category-defining functional head, it is directly merged with VP, as shown in (36).

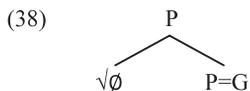


Since category-changing affixes referred to in Myers (1984) correspond to category-defining functional heads, both the nominalizing zero affix \emptyset and the verbalizing zero affix \emptyset are regarded as category-defining functional heads.

Let us assume here that prepositional phrases (=PP) are also composed of a Root and a category-defining functional head P, as shown below.



Since the preposition *G* does not have phonological features, it is not implausible to consider it to be a kind of category-defining functional head, as shown below.



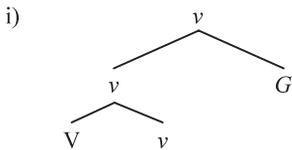
Since the preposition *G* has finished its role as a category-defining functional head when it is merged with a Root $\sqrt{\emptyset}$, it can't change the verbal status of the verb when it is adjoined to the verb.

In conclusion, it is argued in this section that Pesetsky's analysis is not incompatible with Myers' Generalization if the preposition *G* is considered to be a

category-defining head as the nominalizing zero affix and the verbalizing zero affix are.

Notes

1) Since the head of the newly formed $[[V+v]+G]$ is v , not G , and $[V+v]$ is not structurally placed inside G , as shown below, it is assumed here that the newly formed structure does not violate Myers' Generalization if $[V+v]$ is considered to be a zero-derived form.



If Myers' Generalization is crucially related to a category-defining head, as argued in Section 4, it is plausible to claim that a light verb v , which is not a category-defining head, is exempted from the application of Myers' Generalization.

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