The Missing Features of Alternants after Spell-Out*

Chong-Taek Yu
(Chonbuk Sanup University)

Yu, Chong-Taek. 1997. **The Missing Features of Alternants after Spell-Out.** *Linguistics*, 5-2, 1-19. An alternant of *for* with FF, PF and SF (= full features) $\Phi_{(forFPSF)}$ assigns governed Case (GC) to PRO and a lexical infinitive subject before Spell-Out (S-O). The missing SF of *for* and both missing SF and PF of $\Phi_{(forFPSF)}$ vanish like bubbles after S-O, meeting the condition of inclusiveness. An alternant of a PL *to* $\Phi_{(toFPSF)}$ misses SF and PF after S-O, and an alternant of a complementizer (comp.) *that* $\Phi_{(thatFPSF)}$ does so. The missing features disappear without leaving any traces. It seems that all the lexical items and alternants never miss their FF in the computational system. **(Chonbuk Sanup University)**

1. Introduction

First of all, Chomsky (1995) assumes that a perfect language should meet the condition of inclusiveness: any structure formed by the computation is constituted of elements already present in the lexical items selected for numeration (N).

Secondly, he assumes that the condition of inclusiveness holds of the computation from N to LF. Standard theories take it to be radically false for the computation to PF. For example, the deletion operation (Delete α) marks some objects as "invisible at the interface."

Although he argues that a deleted material is ignored at the interface, it is still accessible in the computational system, meeting the condition of inclusiveness.. In this paper we will show that all the missing SF and PF vanish like bubbles without leaving any traces after S-O.

*이 논문은 전북산업대학교 교내학술 연구조성비에 의해 연구되었음.

2. The missing features of alternants

As suggested in Chomsky (1965), Delete α observes the Recoverability Condition.[1] The condition can apply to the syntactic operations such as imperative transformation, agent deletion, VP deletion — gapping,[2] and *wh*-deletion. It can also apply to the syntactic operation such as comp. (*for* or *that*) deletion in an embedded infinitive or declarative clause.

Strictly speaking, most of syntactic theories take a deleted material to be a mere missing constituent, whereas Attract-F theory takes it to be an alternant Φ selected from lexicon (Lex): an alternant is a variant form that exists in alternation with a lexical item (LI) in Lex. The existence of alternants in Lex makes us believe that an N including an LI is radically different from another N including its alternant. In fact, Chomsky (1995) assumes that the operation Merge must be overt with a single exception: covert insertion of an item α (Φ) lacking phonological feature, necessarily at the root:

(1) a. [Φ John left]
b.*[that John left]

Since a declarative comp. C (here Φ) is one of the force indicators, it must be present for interpretation at the C-I interface. Yu (1996a) furthermore suggests that it should be a phonologically null alternant of *that* as feature-checkee. We will now specify the properties of three kinds of alternants in functional categories.

2.1. An alternant of a complementizer *for*

Old English (OE) has two types of infinitives — simple infinitive and inflected infinitive. The latter is always preceded by a preposition (prep.) *tō*, representing the dative case.[3]

---

1. As mentioned in Radford (1981), only elements which do not have semantic content can be deleted. Confer Chomsky (1981) and Chomsky & Lasnik (1977).

2. Delete α includes gapping which deletes a non-constituent in a coordinate sentence. See Ross (1967), Jackendoff (1971).

Let us first look at the semantic change of a comp. *for* used in Middle English (ME) and Modern English (ModE) works:

(2) a. *For te* bineomen us euch bitellunge, a3ein him of ure luve, þet he se deore bohte. ···12c, *Ancrene Wisse*, Ⅲ, 107.
(In order to deprive us of each excuse, (and) him of our love again, he thus bought it dearly.)

b. 3if him list *for to* laike þenne loke we mowen, ...
···14c, *Piers Plowman*, 2, 172.
(If it pleases him to play, then we may look, ...)

c. *For hom to* lere gode þewes, And *for to* leten hore unþewes, he mi3te bet sitte stille.
···1189-1216, *The Owl and Nightingale*, Ⅵ, 1017-8.
(For them to learn good moral habits, And to abandon their bad habits, he might better sit still.)

d. Birds, Beasts, Fishes, which *it* was unlawful *for to* bring in at the foredoor. ···1674, the trans. of *Scheffer's Lapland*, 84.
(Birds, Beasts, Fishes, which it was unlawful to bring in at the front door.)

e. Having only put off its present glory *for to* rise finally to a more happy state.
···1774, A. Adams in *F.Q. Adam's Fam, Lett*, (1876) 41.
(Having only put off its present glory to rise finally to a more happy state.)

As illustrated in Mossē (1975), *for te(= to)* in (2a) is first used with an idea of purpose in the sense of "in order to" , or "for the purpose o f." From the end of the 13th century, there is no longer any difference

3. The OE simple infinitive without *tō* adds an inflectional ending *-an* to its stem. It is used in the nominative-accusative (nom.-acc.) case. The OE nom.-acc. is the source of (now less frequent) simple infinitive, as in the acc.-with-infinitive and infinitive-subject constructions. On the contrary, the inflected infinitive with *tō* adds an inflectional ending *-enne*, or *-anne* to its stem. It is almost used in adverbial, adjectival, or substantial relation to a preceding word. See Cassidy and Ringler (1971), Diamond (1970), Moore, Knott and Hulbert (1955), the *Oxford English Dictionary* (OED) and Yu (1994, 1996a,1996b).

of meaning between *to* and *for to*, and by the way of reciprocity, just as *to* is used for purpose, *for to* in (2b) is used where no purpose is involved. Such an infinitive subject as *for to laike* seems to be first formed in the ME period. And a [for NP to VP] construction seems to be later formed in the same period.[4] In case of (2c), an infinitive subject PRO must be selected from Lex for the second infinitive construction *for to leten*,[5] since PRO refers to *hom* (them). As the result, the construction really yields a derivational structure *for PRO to leten* at LF. An ModE infinitive construction [for PRO to VP] in (2d) often occurs merely for [Φ PRO to VP], finally forming an [it~for PRO to VP] construction. The infinitive construction [for PRO to VP] in (2e) is used in adverbial relation, indicating the object of an action. To sum up, an infinitive comp. *for* in ME is not only used with an idea of purpose, but also it is used where no purpose is involved. It seems that a comp. *for* is first used as Case-assigner of PRO in 12th century. We therefore assume that a comp. *for* before PRO in ME reduces to an alternant of *for* with FF, PF and SF $\Phi_{(forFPSF)}$ in ModE, which misses its own SF and PF after S-O.[6] That is, $\Phi_{(forFPSF)}$ is a Case-assigner of PRO with full features in overt syntax:

(3) An alternant of *for* with full features $\Phi_{(forFPSF)}$ assigns GC to PRO before S-O.

We have another synchronic evidence that $\Phi_{(forFPSF)}$ is the variant of *for*. There are certain dialects, e.g. Ozark English that permits [for PRO to] sequences, as in ME. Let us take examples from Chomsky &

4. An infinitive as subject is still rather unusual in ME. It grew up from the interchange of position between the subject and the verbal part of the predicate in phrases with the verb *to be*, or with impersonal verbs: We find at first, for instance, *Hit nere noȝt forloren For te kniȝti Child Horn* 'It would not be a loss to knight Child Horn' and, by permutation we proceed to, *to byholde hit was great joy* 'to behold it was (a) great joy.' See Mossé (1975).

5. A possible origin of this use of [for + to + VP] may lie in the construction [for + object + to + VP]. Exceptionally, in the 13th century, *for* without *to* is formed before infinitives. See Mossé (1975) and Yu (1994).

6. Henry (1992) assumes, essentially following Chomsky (1989), that items which do not enter into semantic interpretation at LF do not leave traces, and that *for* is such an item.

Lasnik (1977) which require the deletion of *for* in Standard English:

(4) a. Are you here [for PRO to] fish?
b. It is wrong [for PRO to] do that.
c. These sheep are [for PRO to] sell.

Here all the sentences permit [for PRO to] sequences. According to them, it is because the dialect lacks the filter *[for-to]. These examples, of course, show that a comp. *for* in Ozark English Case-assigns GC to PRO still now just as $\Phi_{(forFPSF)}$ in Standard English does.

Let us examine some ModE infinitive complement-clauses:

(5) a. We'd *prefer for* John to leave.
b. We'd *prefer* John to leave.
c. We'd *prefer* to leave.
d. We *try for* John to go to church.
e.*We *try* John to go to church.
f.*We *believe for* John to be honest.
g. We *believe* John to be honest.

(6) a. We *want* very much *for* Bill to win.
b.*We *want for* Bill to win.
c. We *want* Bill to win.
d. We *want* (very much) to win.

A comp. *for* in (5a-b) is optionally selected from Lex, since it is adjacent to a matrix verb ***prefer***. However, the verb in (5c) doesn't select *for* but $\Phi_{(forFPSF)}$ as Case-assigner of PRO. A verb *try* in (5d) is always adjacent to a comp. *for* like (5a) when it merges with an infinitive complement-clause including a lexical subject. A sentence (5e) is unconvergent, since there is not a comp. *for* before an infinitive subject. Contrary to (5e), a verb ***believe*** in (5f-g) is never adjacent to a comp. *for* when it merges with an infinitive complement-clause including a lexical subject. It is that, as assumed in Yu (1996a, b), the infinitive complement-clause is not a DP-clause but an INFP-clause.[7]

7. A *want*-type verb selects an infinitive complement-clause which differs

Let us in turn take a careful look at (6a-d). Only a sentence (6b) is unconvergent, since the comp. *for* which is adjacent to a verb *want* must be deleted after S-O. If a comp. *for.* is deleted as in (5b) and (6c), the derivation will meet the Bare Output Condition (BOC) as well as Full Interpretation (FI) convergence. A verb *want* in (6d) seems to select $\Phi_{(forFPSF)}$ from Lex for an N. As pointed out in Postal (1974), we assume that a verb *want* (or *desire*) selects an alternant of *for* with full features $\Phi_{(forFPSF)}$ immediately before a lexical infinitive subject:

(7) An alternant of *for* with full features $\Phi_{(forFPSF)}$ optionally assigns GC to a lexical infinitive subject before S-O.

Once a comp. $\Phi_{(forFPSF)}$ assigns GC to a lexical infinitive subject, it misses PF and SF after S-O. It behaves itself like a lexical comp. *for* before S-O, but only FF remains at LF. Whether a comp. *for* is visible or invisible at PF, it must be a mere sign without SF.[8] We finally assume that all the missing features vanish like bubbles after S-O. That is, the missing SF of *for*, and both missing SF and PF of $\Phi_{(forFPSF)}$ disappear, meeting the condition of inclusiveness.

Let us turn to the partial feature-checking structures of (6a) and (6c-d):

(8) a. We want very much $[_{DP}\ [_{CP}\ [_{C'}\ [C^{OMAX}$ for C$]\ [_{INFP}$ Bill$_i$ $[_{INF'}\ [_{INF}{}^{0MAX}$ to INF$]\ [_{InfP}$ t_i win$]]]]]]$[9]

b. We want $[_{DP}\ [_{CP}\ [_{C'}\ [C^{OMAX}\ \Phi_{(forFPSF)}$ C$]\ [_{INFP}$ Bill$_i$ $[_{INF'}\ [_{INF}{}^{OMAX}$ to INF$]\ [_{InfP}$ t_i win$]]]]]]$

c. We want (very much) $[_{DP}\ [_{CP}\ [_{C'}\ [C^{OMAX}\ \Phi_{(forFPSF)}$ C$]\ [_{INFP}$ PRO$_i$ $[_{INF'}\ [_{INF}{}^{OMAX}$ to INF$]\ [_{InfP}$ t_i win$]]]]]]$

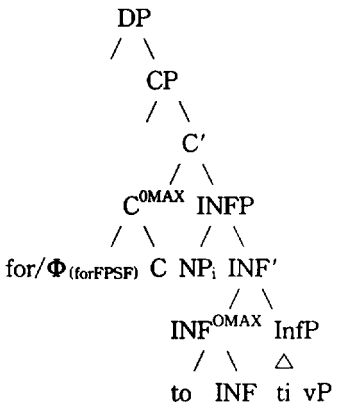
---

from a *believe*-type verb. The former selects a DP-clause, whereas the latter selects only an infinite phrase INFP.

8. The prep. *for* doesn't has any lexical meaning, inducing an infinite clause. See Mossé (1975) and van Ek & Robat (1984).

9. If an embedded clause has the D-feature to satisfy the EPP-feature of T like NP, it can be a DP. If not, it is a CP. For example, a sentential subject, and object are both DPs. See Yu (1995).

(9)



As assumed in Yu (1996b), INFP in (8-9) is an infinite phrase, and INF its head. And INF^{0MAX} is a maximal zero-level projection of INF as two-segment category. INF checks off its infinite phrase merging (IPM)-feature against the infinite phrase (INP)-feature of a prepositional link (PL) *to*,[10] whereas Inf covertly checks off its infinitive phrase merging (Ipm)-feature against the infinitive phrase (Inp)-feature of a null-φ verb with no suffix. A comp. *for* or its alternant $\Phi_{(forFPSF)}$ assigns GC to an infinitive subject. Strictly speaking, a comp. *for* is a GC marker like a prep. For example, a comp. *for* in (8a) assigns GC to *Bill*, whereas $\Phi_{(forFPSF)}$ in (8b) and (8c) assigns GC to *Bill* or PRO respectively. We therefore assume following Chomsky (1995) and Yu (1995) that for/$\Phi_{(forFPSF)}$ has a noninterrogative phrase- (NOP-)feature to check off against the noninterrogative phrase merging- (NOM-)feature (= [-Q]-feature) of a head C, and that, in case $\Phi_{(forFPSF)}$ is selected from Lex for an N in an interrogative infinitive construction, a *wh*-word checks off its interrogative phrase- (INT-)feature against the interrogative phrase merging- (INM-)feature (= [+Q]-feature) of C.[11] Here C^{0MAX} is a maximal zero-level projection of C as two-segment category. To sum up, a head C has an optional INM- ([+Q]-)feature in

10. A prep. *to* becomes at last the ordinary link expressing any prepositional relation in which an infinitive stands to a preceding verb, adjective, or substantive.

11. Kayne (1981) posits three noninterrogative infinitive complementizers in English: for, Φ and *e*.

addition to an essential NOM- ([-Q]-)feature: the INM- ([+Q]-)feature is checked off against the INT-feature of a *wh*-word and the NOM-([-Q]-)feature against the NOP-feature of $\Phi_{(forFPSF)}$. A comp *for* or $\Phi_{(forFPSF)}$ assigns GC to an infinitive subject before S-O, and then the missing SF of *for,* or SF and PF of $\Phi_{(forFPSF)}$ disappear leaving without any traces after S-O. They never enter into either PF or LF.

2.2. An alternant of a prepositional link *to*

The OE and ME inflected infinitives are used only as the dative, always preceded by a prep. *tō(te, to).* The prep. *tō* before the dative infinitive has the same meaning and the use as before the ordinary substantives. But, in the process of time, this obvious sense of the prep. reduces to a prepositional link (PL) *to.* Let us in turn examine the missing feature of a PL *to* and its feature-checking structure:

(10) a. Kwilum þa leohtan scylda *biop* beteran *tō forlætenne.*
···c. 457, K. Ælf., *Pa.*
(Sometimes to let alone the slight sin is better.)
b. Forþon *hit* is god godne *tō herianne* ···
···c. 890, the translation of Bæda's Hist, *Pref.*, (1890) 2.
(From then on, it is a good thing to praise ···)
c. *To herkene* Goddis word is more than *to offre* the ynnere fatnesse of rammes ···1380, Wyclif I, *Sam*, XV, 22.
(To hearken to God's word is more than to offer the inner fat of rams.)
d. He ondred þyder *tō faranne.*
···c. 1000, *Ags. Gosp., Matt.* i, 20.
(He feared to go there.)
e. Heo hath a mury mouth *to* mele.
···c. 1310, in Wright, *Lyric P.*, (Percy Soc.) 34.
(She has a merry mouth to speak.)
f. He sought *to slay* Moses. ···1611, *Bible, Exod.*, ii, 15.
(He sought [$_{DP}$ [$_{CP}$ [$_{C}^{OMAX}$ $\Phi_{(forFPSF)}$ C] [$_{INFP}$ PRO$_i$ [$_{INF'}$ [$_{INF}^{OMAX}$ to INF] [$_{InfP}$ t$_i$ slay Moses]]]]])
g. He has a son *to* educate.

…c. 1771, Smollett, Humph. Cl., 26 Oct.
(He has a son [$_{CP}$ [$_{C'}$ $\Phi_{(forFPSF)}$ [$_{INFP}$ PRO$_i$ [$_{INF'}$ [$_{INF}$^{0MAX} to INF] [$_{InfP}$ ti educate]]]]]

An OE prep. *tō* in (10a) is used with an infinitive in substantival relation. As pointed out in Mossē (1975), an infinitive as subject *tō forlæ tenne* (= to let alone) interchanges a subject position with a complement *þa leohtan scylda* (= the slight sin) in a phrase with a *be*-verb *bioþ*. An OE formal subject *hit*(= it) in (10b) is newly inserted into a sentence, introducing an infinitive as real subject. The ME prep. *to* in (10c) is used with the infinitive which is a direct subject, and the OE prep. *tō* in (10d) is used the infinitive which is a direct object. An ME prep. *to* in (10e) expresses possibility or potential action with an infinitive in adjectival relation, but it does not express its original meaning. The ModE *to* in (10f) is also used with the infinitive which is a direct object. An ModE prep. *to* in (10g) expresses intention or appointment with an infinitive in adjectival relation, but it does not express its original meaning like (10e). Each prep. *tō(to)* in (10a-d) and (10f) which is used with a substantive infinitive is originally a mere sign of an infinitive without any meaning of its own. A prep. *to* in (10e) which is used with an adjectival infinitive ultimately reduces to a mere sign of infinitive like (10g). We finally come to an assumption that there is a crucial syntactic difference between OE prep. *tō* or ME prep. *to* in (10a-e) and ModE prep. *to* in (10f-g): the former is a prep. with or without a missing SF after S-O, whereas the latter is a PL to miss SF after S-O. As illustrated in (10f-g), a PL *to* checks off its INP-feature against the IPM-feature of INF, missing SF without leaving any traces after S-O.

Let us in turn look at the feature-checking structure of a PL *to* with SF even after S-O:

(11) a. Monige cwomon *tō* bicgenne þa ðing.
…c 890, the translation of *Bæda's Hist.* II. i., (1890), 96.
(Many people came to buy the things.)
b. We made sail *to* return to Perim.
…1890, Chamb. *Frnl.*, 28 June, 408/ I

(We made sail [$_{CP}$ [$_{C'}$ [$_{C}{}^{0MAX}$ $\Phi_{(forFPSF)}$ C] [$_{INFP}$ PRO$_i$ [$_{INF'}$ [$_{INF}{}^{0MAX}$ to INF] [$_{InfP}$ ti return to Perim]]]]]

An OE prep. *tō* in (11a) is used with an infinitive in adverbial relation, indicating purpose or intention. Here the prep. *tō* (= in order to) is dependent on a verb of motion *cwomon* (= came). An ModE prep. *to* in (11b) indicates purpose or intention with an infinitive in adverbial relation, too. In short, a prep. *to* used with an infinitive in adverbial relation has not completely missed its SF from OE to ModE.[12] As illustrated in (11a-b), a prep. *to* is now a PL with full features to check off its INP-feature against the IPM-feature of INF.

Let us turn to the missing features of a PL *to* in an infinitive complement-clause preceded by a *help*-verb:

(12) a. But who shal *helpe* me now *for to* compleyne.
…1430, Lydg., *Compl. Bl Knt.* xxvi.
(But who shall help me now to complain?)
b. I would fain stay and *help* thee tend him.
…1852, M. Anorld, *Empedodes on Etna* I. i.
(I would fain stay and help you tend him.)

(13) a. Mary helped John *(to)* find his things.
b. Mary FF$_i$ helped [$_{INFP}$ John$_{(ti)}$ [$_{INF'}$ [$_{INF}{}^{OMAX}$ to INF] [$_{InfP}$ t$_i$ find his things]]]
c. Mary FF$_i$ helped [$_{INFP}$ John$_{(ti)}$ [$_{INF'}$ [$_{INF}{}^{OMAX}$ $\Phi_{(toFPSF)}$ INF] [$_{InfP}$ t$_i$ find his things]]]

An ME verb *helpe* in (12a) is used with a dative infinitive complement, so that a prep. *to* is always placed before the infinitive. The prep. is a mere sign of an infinitive without any meaning of its own, missing SF after S-O. According to the OED, a prep. *to* with an infinitive is often omitted from 16th century. That is true, since an ModE prep. *to* in (12b) is omitted immediately before a bare infinitive *tender*. If the prep. *to* is invisible at the interface, it should be an alternant of *to* to miss SF after S-O. Therefore, the feature-checking structure of (13a) can be

12. See Jesperson (1956), the *OED*, Yu (1994, 1996a).

either (13b) or (13c). A prep. *to* in (13b) is a PL to miss SF after S-O, whereas a PL in (13c) is $\Phi_{(toFPSF)}$ to miss SF and PF after it.

As examined in (12-13), a prep. *to* is never omitted in OE and ME dative infinitive constructions, since it has a certain meaning of its own. On the contrary, a prep. *to* in (13) is often omitted in ModE infinitive constructions leaving $\Phi_{(toFPSF)}$ in its place, since it is a mere sign of an infinitive.

There is another example which optionally selects $\Phi_{(toFPSF)}$ from Lex for an N:

(14) a. All he did was *(to) answer* your question.
b. All he did was $[_{DP}\ [_{CP}\ [_{C'}\ [C^{0MAX}\ \Phi_{(forFPSF)}\ C]\ [_{INFP}\ PRO_i\ [_{INF'}\ [_{INF}{}^{OMAX}$ to INF] $[_{InfP}\ t_i$ answer your question]]]]]]
c. All he did was $[_{DP}\ [_{CP}\ [_{C'}\ [C^{0MAX}\ \Phi_{(forFPSF)}\ C]\ [_{INFP}\ PRO_i\ [_{INF'}\ [_{INF}{}^{OMAX}\ \Phi_{(toFPSF)}$ INF] $[_{InfP}\ t_i$ answer your question]]]]]]

A(n) *(to)*-infinitive in (14) is originally a simple infinitive without *tō (to)* which is a nom. complement in late OE or early ME period.[13] It means that the prep. *to* is a mere sign of an infinitive, as in (10) and (12). It is now a PL to miss SF after S-O, so that the feature-checking structure of (14a) can be either (14b) or (14c). A PL in (14c) is an alternant of *to* with full features $\Phi_{(toFPSF)}$, whose missing SF and PF disappear without any traces after S-O.

Let us turn to the feature-checking structure of an acc.-with-infinitive construction merging with a perceptive or causative verb.:

(15) a. þa *sæʒon* & *herdon* <u>fela men feole</u> huntes hunten.

13. The use of the infinitive with *to* in place of the simple infinitive, helped by the phonetic decay and loss of inflections and the need of some marks to distinguish the infinitive from other parts of verbs and from the cognate substantive, increased rapidly during the late OE and early ME period, with the result that in ModE the infinitive with *to* is ordinary form, the simple infinitive surviving only in particular connections, where it is very intimately connected with the preceding verb. To a certain extent, therefore, i.e.. when the infinitive is the subject or direct object, *to* has lost all its meaning, and become a mere sign or prefix of the infinitive. But after intransitive verb, or the passive voice, *to* is still the prep. Besides, the infinitive complement of a linking verb is originally in the nom. case. See the *OED*, and Diamond (1970).

…1154, OE. *Chron.* an., 1127, (Laud MS.) ad. fin.
(thus (I) saw and heard many men fell hunter's game.)

b. The kinges Moder *made* him duelle.
…1390, Gower, *Conf.* I .,202.
(The king's Mother made him duel.)

c. I could *see* the diamond twinkle on his pretty hand.
…1862, Thackeray, *Philip* iii.
(I could see [$_{INFP}$ the diamond [$_{INF'}$ [$_{INF}$^{OMAX} $\Phi_{(toFPSF)}$ INF] [$_{InfP}$ t_i twinkle on his pretty hand]]])

(16) a. He was one of those folks who *are let* to go abroad.
…1713, Steel, *Englishm*, No. 17, 186.

b. Mr. Motteux has *been heard* to say it more than once.
…1716, Addison, Frecholder, No. 11 (Seager).

c. The two statements can hardly *be made* to agree.
…1896, A. E. Housman, *Shropshire Lad*, XXXiii.
(The two statements$_i$ can hardly be made [$_{INFP}$ t_i [$_{INF'}$ [$_{INF}$^{OMAX} to INF] [$_{InfP}$ t_i agree]]]]]

ME perceptive verbs *sæʒon & herdon* (= *saw* and *heard* in ModE) in (15a) merge with an acc.-with-infinitive construction *fela men feole*.[14] The acc.-with-infinitive construction consists of an acc. NP and acc. infinitive. If it is split into two parts, one is an acc. NP *fela men* (= *many men* in ModE) and the other is an acc. infinitive *feole* (= *fell* in ModE) without a prep. *tō*. An ME causative verb *made* in (15b) merges with *him duelle*. An acc. infinitive *duelle* (= *duel* in ModE) is never preceded by a prep. *tō*, as in (15a). Although an ModE perceptive verb *see* merges with the same acc.-with-infinitive construction as ME perceptive and causative verbs do, the former's derivational structure completely differs from the latter's one. It is that an ModE perceptive or causative verb merges with an infinite phrase — INFP— immediately dominating a bare-infinitive. A head INF in (15c) checks off its

14. The simple infinitive is used in the so-called acc.-with-infinitive construction: *sche bad alle oþre go* 'she bade all the others go,' *Why wuld þey nat suffre hym lybe* 'Why would they not let him live.' The simple infinitive, without *to*, remains after the auxiliaries of tense, mood, periphrasis, some verbs of causing, some verbs of perception, etc. See Mossé (1975) and the *OED*.

IPM-feature against the INP-feature of $\Phi_{(toFPSF)}$ to miss SF and PF after S-O. It never selects a PL *to* when an ModE perceptive or causative verb is used in the active. Contrary to (15), an ModE perceptive or causative verb in (16) merges with an infinitive construction with a PL *to*— *to go* in (16a), *to say* in (16b) and *to agree* in (16c)— when it is used in the passive. The fact shows us that a PL $\Phi_{(toFPSF)}$ to miss SF and PF after S-O in the active reversely changes to a PL *to* with full features after it in the passive. For example, a PL *to* in (16c) expresses 'agreement' in adverbial relation with an infinitive *agree* as if it were *tō* before the dative infinitive in OE and ME.

2.3. An alternant of a complementizer *that*

So far, we have examined the alternants of a complementizer *for* and a PL *to,* and their feature-checking structures. Let us now look at the structure of CP both diachronically and synchronically:[15]

(17) a. And in myn herte to wondren I bigan [$_{CP}$ what that] he was. ···1386, Chaucer, *Can. Ycom. Prol & T.* 17.
(And in my heart, I began to wonder what he was.)

b. Ech man loke [$_{CP}$ whether that] I ly.
···c 1395, *Plowman's T*, 834.
(Each man looks whether I lie down.)

c. [$_{CP}$ When that] the crown ··· shall bind the brows Of my unnatural brother.
···a 1814, Spaniards Ⅳ. i . in *New Brit. Theatre* Ⅲ. 234.

d. I woaß ned *wann daß* d Xavea kummt. ···Bavarian
(I know not *when that* the Xavier comes.)
<I don't know when Xavier will come.>

e. Jeg forfalte Jan *hvem som* var kommet. ···Norwegian
(I asked Jan *who that* had come.)
<I asked Jan who had come.>

f. Ik weten niet *wien dat* Jan gezeen heet. ···Flemish

15. See the *OED* and Radford (1988).

(I know not *whom that* John seen has.)
<I don't know whom John has seen.>

g. *Cén bhem a* phósfadh sé? ···Irish
(*Which woman that* would-marry he?)
<Which woman would he marry?>

Apart from OE, each ME comp. *that* in (17a-b) is often used with a dependent interrogative, or conjunctive subordinant respectively. Even in ModE, a comp. *that* is used with a conjunctive subordinant like (17c).[16] The fact shows us that the CP of an English dependent finite-clause consists of a *wh*-word and a comp. *that*. Modern Bavarian in (17d), Norwegian in (17e), Flemish in (17f), and Irish in (17g) also show us that the CP of a dependent, or independent finite clause consists of a *wh*-word and a comp. *that*. We therefore assume that the CP of a finite clause universally consists of (a *wh*-word and) a comp.

According to the OED, a comp. *that* which introduces a dependent substantive-clause is originally a demonstrative pronoun, but its meaning completely disappears when it is used with a relative or conjunctive subordinant.[17] As the result, it is now a mere conjunctive particle of a finite clause which always misses SF, and very frequently PF:

(18) a. þu seist < > ich fleo bihinde bure;
···1189-1216, *The Owl and the Nightingale*, 957.
(You say I fly behind (a) dwelling;)

b. We were sorry < > you couldn't come.

---

16. As illustrated in Mossé (1975), Relative or conjunctive subordinants are often re-enforced by *þat* or *as*: *how that, whan that, which that, which as, whaym þat, if that, though þat, sith þat, after þat, bycause þat, also soone as þat,* etc.

17. The use of *that* is generally held to have arisen out of the demonstrative pronoun pointing to the clause which it introduces. Confer. (1) He once lived here: we all know *thát*; (2) That (now *this*) we all know: he once lived here; (3) We all know that (or *this*): he once lived here; (4) We all know *thàt* he once lived here; (5) We all know he once lived here. In 1, 2, 3 *that* is a demonstrative pronoun in apposition to the statement 'he once lived here' ; in 4 it has sunk into a conjunctive particle, and (like the relative pronoun) has become stressless; in 5 it has disappeared, and 'he once lived here' appears as the direct object of 'we know.'

…1847, Tennyson, *Princess*, Ⅶ. 281.

c. We were sorry [$_{CP}$ [$_{C'}$ [$_{C}^{0MAX}$ $\Phi_{(thatFPSF)}$ C] [$_{TP}$ you$_i$ couldn't t_i come]]]

d. We were sorry [$_{CP}$ [$_{C'}$ [$_{C}^{0MAX}$ that C] [$_{TP}$ you$_i$ couldn't t_i come]]]

A comp. *that* is omitted in ME and ModE periods, as illustrated in (18a-b). The feature-checking structure of (18b) is (18c) when a comp. *that* is omitted, or (18d) when it is not. And the head of CP C in a finite sentence has NOM-feature (= [-Q]-feature) to check off against the NOP-feature of a comp. *that* or an alternant of *that* with full features $\Phi_{(thatFPSF)}$. A comp. *that* or $\Phi_{(thatFPSF)}$ can be selected from Lex for an N when it merges with a head C. A comp. $\Phi_{(thatFPSF)}$ in (18c) misses both SF and PF after S-O, whereas *that* in (18d) misses only SF after it.

Let us look at the feature-checking structures of interrogative finite and infinitive complement-clauses:

(19) a. I don't know *what* to do.
b.*I don't know *what for* him to do.
c. I don't know *what* has happened.
d.*I don't know *what that* has happened.
e. Do you know *what* has happened?
f.**What* do you know has happened?
g.*Do you think *what* has happened?
h.**What* do you think *that* has happened?
i. *What* do you think has happened?

(20) a. I don't know [$_{DP}$ [$_{CP}$ what$_j$ [$_{C'}$ [$_{C}^{0MAX}$ $\Phi_{(forFPSF)}$ C] [$_{INFP}$ PRO$_i$ [$_{INF'}$ [$_{INF}^{0MAX}$ to INF] [$_{InfP}$ t_i do t_j]]]]]]

b. Do you know [$_{DP}$ [$_{CP}$ what$_i$ [$_{C'}$ [$_{C}^{0MAX}$ $\Phi_{(thatFPSF)}$ C] [$_{TP}$ t_i has happened]]]]

c. [$_{CP}$ what$_i$ [$_{C'}$ [$_{C}^{0MAX}$ do$_k$ $\Phi_{(thatFPSF)}$ C] [$_{TP}$ you$_j$ t_k t_j think]]] [$_{DP}$ [$_{CP}$ t_i [$_{C'}$ [$_{C}^{0MAX}$ $\Phi_{(thatFPSF)}$ C] [$_{TP}$ has t_i happened]]]]

Sentences (19a), (c). (e) and (i) are convergent, but the others are unconvergent. If CP consists of two lexical items except for a *do*-verb

at LF, the derivation will crash without fail. The fact makes us assume that a head C in an interrogative sentence checks off its INM- and NOM-features against the INT- and NOP-features of a lexical *wh*-word and an alternant of *for* or *that* respectively. For example, an unconvergent derivation (19h) shows us that a lexical *wh*-word first lands at the [Spec, CP] of a complement clause. In other words, it shows us that a *wh*-word never lands at the [Spec, CP] of a main clause at one time. A head C in (20a), which has [±Q]-features in an interrogative sentence, checks off its NOM-([-Q]-)feature against the NOP-feature of $\Phi_{(forFPSF)}$, and then INM-([+Q]-)feature against the INT-feature of a *wh*-word *what*. A head C in (21b), which has [± Q]-features in an interrogative sentence, checks off its NOM-([-Q]-)feature against the NOP-feature of $\Phi_{(thatFPSF)}$, and then INM-([+Q]-)feature against the INT-feature of a *wh*-word *what*. In (20), the complementizer $\Phi_{(thatFPSF)}$ misses SF and PF, whereas $\Phi_{(forFPSF)}$ misses SF after S-O. In case of (20c), a head C in a complement clause behaves itself like a head C in (20b), but a head C in a main clause, which has [±Q]-features in an interrogative sentence,[18] checks off its NOM- ([-Q]-)feature against the NOP-feature of $\Phi_{(thatFPSF)}$, and then INM- ([+Q]-)feature against the INT-feature of *what*. It seems that only a head C with [±Q]-features in a main clause selects both VP projecting a *think*-verb and an interrogative complement-clause CP. As shown in (20c), the INT-feature of a *wh*-word, which is a categorial feature, can be checked off more than once against another the INM-([+Q]-)feature of C. Let us leave the peculiarity of a head C open for the time being.

3. Conclusion

A comp. *for* is first used as Case-assigner of PRO in the 12th

18. Chomsky (1995) proposes that declarative C is a null variant inserted covertly in a root clause. It never appears overtly. The natural conclusion is that C is necessary on grounds of economy, if we assume that Procrastinate holds of Merge as well as Move. According to Watanabe (1996), finite clauses are headed by the comp. *that* or by the (phonologically null) zero comp. The comp. in infinitival clauses is either zero or *for*.

century. It reduces to an alternant of *for* with FF, PF and SF (=full features) $\Phi_{(forFPSF)}$ before PRO in ModE, which assigns GC to PRO in overt syntax. A verb *want* optionally selects $\Phi_{(forFPSF)}$ which assigns GC to a lexical infinitive subject in overt syntax, too. The SF of *for*, or both SF and PF of $\Phi_{(forFPSF)}$ vanish like bubbles without leaving any traces after S-O, meeting the condition of inclusiveness. We assume that complementizers *for* and $\Phi_{(forFPSF)}$ check off their NOP-feature against the NOM-feature (= [-Q]-feature) of C, and that, in case $\Phi_{(forFPSF)}$ is selected from Lex for the N of an interrogative infinitive construction, an attracted *wh*-word checks off its INT-feature against the INM-feature (= [+Q]-feature) of C. That is, a head of CP C can optionally checks off INM- ([+Q]-)feature after it checks off NOM-([-Q]-)feature.

An ModE PL *to* before a substantive or adjectival infinitive misses SF after S-O. On the contrary, a PL *to* used with an infinitive in adverbial relation has not completely missed its SF from OE to ModE. It checks off its INP-feature against the IPM-feature of INF. When a verb *help* is used with an infinitive complement, a prep. before the infinitive is either a PL *to* which misses SF after S-O, or a PL $\Phi_{(toFPSF)}$ which misses SF and PF after it. When an ModE *to*-infinitive stems from a late OE or early ME simple infinitive which is a nominative complement, a PL *to* is often omitted leaving $\Phi_{(toFPSF)}$ in its place. An ModE perceptive or causative verb merges with an infinitive construction preceded by a PL *to* when it is used in the passive. That is, a PL $\Phi_{(toFPSF)}$ in the active reversely changes to a PL *to* with full features in the passive. Besides, a head C which has [±Q]-features in an interrogative sentence checks off its NOM-([-Q]-)feature against the NOP-feature of $\Phi_{(thatFPSF)}$, and then INM- ([+Q]-)feature against the INT-feature of an attracted *wh*-word. The INT-feature of a *wh*-word, which is a categorial feature, can be checked off more than once against another INM- ([+Q]-)feature of C.

We conclude that complementizers *for* and *that*, and a PL *to* in functional categories almost miss SF after S-O, whereas their alternants miss both PF and SF after it. At the moment the missing features disappear without leaving any traces. It seems that all the lexical items and alternants never miss their FF in the computational system.

References

양동휘. 1996. 최소이론의 전망. 서울: 한국문화사.

유종택. 1994. "The IP Structure of Infinitives," 논문집 (인문사회학 편) 제16집, 전북산업대학교

유종택. 1995. "On the Feature-Checking of Embedded Clauses," 언어학 제3권, 대한언어학회.

유종택. 1996a. "Feature-Checking in Infinitive Constructions," 영어영문학 제20권 1호, 한국영어영문학회 전북지회.

유종택. 1996b. "The Selectional Features of an Infinite Phrase," 언어학 제4권, 대한언어학회.

윤만근. 1996. 생성통사론. 서울: 한국문화사.

Abraham, W. et al. 1996. "Introduction," in W. Abraham et al, eds., *Minimal Ideas,* John Benjamins Publishing Co., Amsterdam, The Netherlands.

Cassidy, F. G. and R. N. Ringler. 1971. *Bright's Old English.* Holt, Rinehart and Winston Inc., New York.

Chomsky, N. 1965. *Aspects of the Theory of Syntax.* MIT Press, Cambridge, Massachusetts.

Chomsky, N. 1981. *Lectures on Government and Binding.* Foris, Dordrecht.

Chomsky, N. 1989. "Some Notes on Economy of Derivation and Representation," *MIT Working Papers in Linguistics* 10.

Chomsky, N. 1995. *The Minimalist Program,* MIT Press, Cambridge, Massachusetts.

Chomsky, N. and Lasnik. 1977. "Filters and Control," *Linguistic Inquiry* 8.

Diamond, R. E. 1970. *Old English.* Wayne State University Press, Detroit.

Ek, J. A. van, N. J. Robat. 1984. *The Student's Grammar of English,* Basil Blackwell, Oxford.

Henry, A 1992. "*Infinitives in a For-To Dialect,*" *Natural Language and Linguistic Theory* 10.

Jackendoff, R. S. 1971. "Gapping and Related Rules," *Linguistic Inquiry* 2.

Jesperson, O. 1956. *Essentials of English Grammar.* George Allen and Unwin Ltd. London.

Kayne, R. S. 1981. "ECP Extension," *Linguistic Inquiry* 12.

Moore, S., T. A. Knott, and J. R. Hulbert. 1965. *The Elements of Old English.* The George Wahr Publishing Co., Ann Arbor, Michigan.

Mossé, F. 1975. *A Handbook of Middle English.* The Johns Hopkins University Press, Baltimore, Maryland.

Postal, P. M. 1974. *On Raising.* MIT Press, Cambridge, New York.

Redford, A. 1988. *Transformational Grammar*. Cambridge University Press, Cambridge, New York.

Ross, J. R. 1967. *Constraints on Variables in Syntax*. Doctoral Dissertation, MIT Press, Cambridge, Massachusetts.

Watanabe, A. 1996. *Case Absorption and WH-Agreement*, Kluwer Academic Publishers, Dordrecht, The Netherlands.

Department of English
Chonbuk Sanup University
727, Wolha-ri, Impi
Kunsan 573-718, Korea