Focus and Particle Constructions[*]

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Lee, Wonbin. 2004. **Focus and Particle Constructions.** *Korean Journal of English Language and Linguistics* 4-2, 195-227. This paper concerns the issue related to the focus phenomena with a particular reference to the two alternating orders (continuous vs. discontinuous orders) in particle constructions in English. To explain the alternation of word order in particle constructions, I will argue that the choice of word order is closely related to the focus property of the object DPs. Following Drubig (2003), I will assume that focus-feature is taken to be a syntactic feature assigned freely to a lexical head in the process of the mapping into Lexical Array (LA) from the lexicon (LEX). I argue that the focus-marked object DP cannot move out of its focus domain and thus the continuous order is derived. In the case of non-focus-marked object DP, however, the object DP moves out of VP in order to receive an appropriate interpretation. As a result, the discontinuous order is derived.

Key Words: particle, focus-feature, focus domain, lexical array

1. Introduction

In this paper, I will investigate the particle construction in English with a particular emphasis on the relative order between the complement DP and particle, and show such an order is derived in terms of focus. In the continuous order, the particle appears adjacent to the verb and precedes the DP complement,

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as in (1).

(1)   a. John wiped off the table.
        b. John looked up the information.

In the discontinuous[1] order, however, the particle follows the DP object, as in (2).

(2)   a. John wiped the table off.
        b. John looked the information up.

In the sections that follow, I will briefly review the previous approaches to the particle constructions and argue that particle forms a complex verbal head with verb, rather than a single head independently. Showing that the alternation of word order in particle constructions is not free, I will argue that the choice of the word order is determined by the focus property of the complement DPs and derive the relevant order in the proposed theory of focus domain.

2. Previous Analyses for Particle Constructions

2.1. Particle as an Independent Head

Among many researchers (cf. Aarts 1989, den Dikken 1995, Svenonius 1996, among others), there has been a tendency to regard particle as an independent head forming Small Clause (SC) with the complement DPs at least since Kayne (1985). Kayne (1985) and den Dikken (1995) argue that the structure of particle construction (3) is parallel to that of the SCs like (4) in some respects.

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[1] I borrowed the term "continuous-discontinuous" order from Dehe (2003).

(3) John looked the information up.

(4) John considered Bill honest.

First, it is impossible to nominalize the verbs in the discontinuous order of particle constructions, just as SC has no derived nominal counterpart, as shown in (5) and (6).

(5)   a. John considered Bill honest.
       b. *John's consideration of Bill honest

(6)   a. They looked the information up.
       b. *Their looking the information up.
                                    (Kayne 1985:102)

Second, the extraction out of the DPs is not allowed in both SC and the discontinuous order of the particle constructions.

(7)   a. They considered the brother of John a fool.
       b. *Who$_i$ did they consider [[the brother of t$_i$] a fool]?

(8)   a. They looked the information about the event up.
       b. *What$_i$ did they look [[the information about t$_i$] up]?
                                    (den Dikken 1995:42)

Drawing on these data, they propose the generalization that particle has its own lexical projection, the head of a small clause. In these approaches, the discontinuous order of particle constructions, as in (9a), is canonical. The basic structure of (9a) is depicted as in (9b):

(9)   a. They looked the information up.

         b. [TP They [VP looked [SC the information up]]]

As shown above, the discontinuous order is the underlying one. The continuous counterpart in (10a) is derived by the rightward movement of the DP *the information*, yielding the structure like (10b).

(10)   a. They looked up the information.

         b. [TP They [VP looked [SC t_i up] [DP the information]$_i$]]

So far, we have seen that the continuous order of particle constructions is derived from the discontinuous order by the extraposition of the postverbal DP. If this line of reasoning were on the right track, the extraction out of the extraposed DPs would not be possible in the continuous particle constructions, contrary to fact.

(11)   Who$_i$ did John look up [a picture of t_i]?

In (11), the *wh*-phrase *who* is extracted from the extraposed DP *a picture of who* as shown in the following structure.

(12)   [CP Who$_i$ did John look t_k up [DP a picture of t_i]$_k$]

In (12), the *wh*-phrase *who* is extracted from the extraposed DP [DP a picture of t]. Such an extraction out of the extraposed DPs, however, is generally blocked, as shown in (13).

(13)   *[What kind of animals]$_i$ did John send t_k to Mary [DP an expensive book about t_i]$_k$?

Thus, the idea that the continuous order is derived from the

discontinuous order of the particle constructions is conceptually wrong.

In addition to the conceptual problem above, there are many counter-examples observed against the fact that particle constructions behave in the same way as SC constructions. First, as pointed out in Dehe (2003), SCs are generally paraphrased by *to*-infinitival *to be*, as shown in (14).

(14)   a. I consider [sc John a fool].
       b. I consider [TP John to be a fool].

However, the paraphrase relation of this sort does not hold in the case of particle constructions:

(15)   a. He looked the information up.
       b. *He looked the information to be up.

Second, SCs can be replaced by a pro-form such as pronoun *it* or a *wh*-element *what* in echo questions, whereas [DP Particle] complex in the particle constructions cannot.

(16)   a. Alexandra proved [sc the theory false].
       b. Alexandra proved it.
       c. Alexandra proved what?

(17)   a. He looked [the information up].
       b. *He looked it.
       c. *He looked what?   (Dehe 2003:20)

We have so far seen that SC analyses for particle constructions are problematic on conceptual and empirical grounds. Conceptually, SC analyses cannot explain the availability of the extraction out of the DP complement in the continuous order of

particle constructions since [V-Particle-DP] order is derived by the extraposition of the postverbal DP. Empirically, [$_{SC}$ DP Particle] complex does not behave in the same way as SC constructions in some respects.

2.2. Verb-Particle as a Complex Head

We have seen in the previous section that the particle forms an independent element with the postverbal DP. In this section, I will introduce an approach in which the verb and particle are considered to form a single complex head (cf. Johnson 1991, Koizumi 1993).

Johnson (1991) provides some evidence for the assumption that verb and particle form a single lexical head together. First, the verb-particle complex can undergo nominalization, as shown in (18).

(18)   a. Mickcy's *looking up* of the reference.
       b. Their *calling out* of his name is heart-wrenching.
                                         (Johnson 1991:590)

Second, adjective participles can be derived from the verb-particle complex as in (19).

(19)   a. The dance seemed *called off*.
       b. The relationship seemed *broken up*.
       c. the *dusted off* table.   (Johnson 1991:590)

Third, the verb-particle complex can be used in the middle verb constructions as in (20).

(20)   a. Bridges *blow up* easily.
   b. His car *breaks down* easily.   (Johnson 1991:590)

Fourth, particle cannot be stranded in gapping constructions, as shown in (21a) and (21b), but rather the whole complex must be involved in the gapping constructions as in (21c).

(21)   a. *Gary looked up Sam's number, and Mittie ____ up my number.
       b. *Gary looked Sam's number up, and Mittie ____ my number up.
       c. Gary looked up Sam's number, and Mittie ____ my number.   (Johnson 1991:590)

Finally, the verb-particle complex can coordinate with the simplex verbs as in (22).

(22)   a. I [brought out] and [aired] the flag.
       b. He [picked up] and [threw] the ball.
       c. She [made up] and [told] the story.
       d. She [brought up] and [spoiled] her children.
       e. She [put up] and [entertained] her friends.
                                              (Bolinger 1971:167)

Along the line with the arguments given above, I will assume that particle forms a verbal complex head together with verb, as shown below.

(23)   V
            /   \
         V   particle
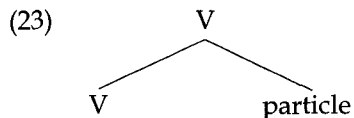
3. Particle Constructions and Focus

In this section, I will address the following two questions: (i)

What is the factor in determining the two alternating order in particle constructions?; (ii) In a certain context, why is that only one of the orders is preferred? From now on, I will try to find the answers to the questions raised above.

It has been proposed that the relative word order between the particle and the object DP in particle constructions reflects the informational status of the object DPs by many researchers (cf. Erades 1961, Bolinger 1971, Svenonius 1996, Dehe 2003, among others). According to Erades (1961), the object DP in the continuous order introduces new information into the sentence. He illustrates the following sentence as an argument that the object DP with new information (namely, focused DP) appears in the sentence final position.

(24)   We'll make up a parcel for them ... On the morning of
        Christmas Eve together we made the parcel up.
                                                (Erades 1961:58)

In the first sentence in (24), the object DP *a parcel* brings in new information and thus appears in the continuous order. However, when it reappears in the sentence, as in *the parcel* in the second part, it appears in the discontinuous order since the object DP *the parcel* is not new any longer in the sentence.

Bolinger (1971) also notes that the informational property of the object DP is closely related to the choice of word order in particle constructions.

(25)   I knew that the school board contemplated throwing out
        Spanish in order to throw out ME.
                                                (Bolinger 1979: 39)

In (25), the pronoun *ME* is not used as anaphoric, but rather it brings new information into the sentence. Unlike the case of the

unstressed pronoun, a stressed pronoun is informationally new and thus it appears in the continuous order in particle constructions.[2]

Thus, we can expect the choice of word order in particle constructions like (26) below in terms of the informational status of the object DP.

(26)   a. Mickey looked it up.
       b. *Mickey look up it.
       c. Betsy threw it out.
       d. *Betsy threw out it.
       e. Brent dusted it off.
       f. *Brent dusted off it.

As shown in (26), the unstressed pronouns cannot occur in the continuous order since they are used as anaphoric (i.e., they refer back to known entities) and thus their content is not new in the sentence. In contrast, when the pronoun is stressed or deictically used, the continuous order is more natural.

(27)   a. Micky made out THEM to be liars!
       b. *Micky made THEM out to be liars!

(28)   a. Micky made out that to be false.
       b. *Micky made that out to be false.   [deictic use]
                                    (Johnson 1991: 595)

Another piece of supporting evidence is found in the following examples:

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[2]Fraser (1976), Svenonius (1996), and many others suggest that the stress pattern determines the choice of the word order and the continuous word order is obligatory when the object DP has a pitch accent. The intonation of the sentence places on the element which is informationally new in general.

(29)   Q: How are Turid and Ingrid going to get here?
       A: a. I'll pick the girl up.
           b. ?I'll pick up the girl.

(30)   Q: Who will you pick up?
       A: a. ?I will pick the girl up.
           b. I will pick up the girl.   (Svenonius 1996:53)

(31)   Q: What happened to the cat?
       A: Someone locked the cat in.

(32)   Q: Who/what did you lock in?
       A: I locked in the cat.   (Dehé 2003:87)

If the object DP has been mentioned before in the discourse or
can be inferred from the preceding context, the discontinuous
order is preferred as shown in (29) and (31), whereas the
continuous order is preferred in the cases where the object DP
introduces new information into the discourse as shown in (30)
and (32).

Based on the observation above, I will generalize the principle
of the word order of particle constructions as follows:

(33)   Focus property of the object DP determines the choice
       of word order in particle constructions in English.

We have so far seen that the informational property of the DP
object determines the word order in particle constructions. When
the object DP is already mentioned in the discourse or sentence,
the continuous order is preferred. On the contrary, the
continuous order is preferred when the object DP introduces
new information into the discourse or sentence.

4. Grammar of Focus

In this section, I will briefly consider the previous proposals about the notion of focus and its role in the grammar.

4.1. The Notion of Focus

In general, the notion of focus is a kind of pragmatic concept to denote the information which is first introduced into the sentence. In terms of information structure of the sentence, the concept of focus is defined as "new" information which has the opposite informational status to the term "given" or "presupposition."[3] Since the focus as a new information approach was first introduced by Halliday (1967b), the term 'focus' has been regarded as a synonym for new information, and the term 'presupposition' given information in the literature (cf. Chomsky 1972, Jackendoff 1972, Diesing 1992, Winkler 1997, among others).

Focus is assigned to the element with the discourse status "new" as well as with the prominent accent. The focus-marked elements are observed in the answer forms of the *wh*-questions since they are newly introduced into the sentence, as shown in (34)-(37).

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[3]Jackendoff (1972) partitions the content of a sentence into focus and presupposition.

(i) "Focus of a sentence" denotes the information in the sentence that is assumed by the speaker not to be shared by him and the hearer, and "presupposition of a sentence" denotes the information in the sentence that is assumed by the speaker to be shared by him and the hearer.
                                                                    (Jackendoff 1972:230)

The focus of a sentence is not shared by the speaker and the hearer since it is new, while the presupposition of a sentence denotes the information which is shared by the speaker and the hearer since it is given or old.

(34)   a. Who painted the wall yesterday?

        b. [John]F painted the wall yesterday.

(35)   a. What did John do to the wall yesterday?

        b. John [painted]F the wall yesterday.

(36)   a. What did John paint yesterday?

        b. John painted [the wall]F yesterday.

(37)   a. When did John paint the wall?

        b. John painted the wall [yesterday]F.

In the examples (34) through (37), the F-marked elements are the answers to the corresponding *wh*-questions, and they identify the elements which have not been mentioned before. Thus, *Jóhn* in (34), *páinted* in (35), *the wáll* in (36), and *yésterday* in (37) constitute the focus of the sentence (i.e., new information), whereas the remaining parts, which have already been mentioned in the sentences, comprise the presuppositional parts of the sentence (which are assigned the status of given or old information).

To summarize, focus is a kind of emphasis, by which the speaker marks a part of a message as something that he or she wishes to be interpreted as informative. Thus, focus assigns the structural function 'new' to a constituent in a sentence, while the remainder has the function 'given' or 'presupposed'.

4.2. Focus as a Syntactic Feature

It was Jackendoff (1972) who first introduced the notion of focus into the syntactic literature. He departs from the view that focus is a reflex of the pitch accent of the sentence and regards focus as a syntactic feature. He proposes that the division of the

content into presupposition and focus is reflected in the syntactic structure of the sentence via focus assignment.

(38) Focus Assignment

In a sentence S, with otherwise determined Semantic Representation SR, the semantic material associated with surface structure nodes determined by F is the Focus of S. Substitute an appropriate semantic variable x for Focus in SR to form the function $Presupp_s(x)$.

(Jackendoff 1972:247)

In his approach, focus is understood as a syntactic feature that is assigned at S-structure. The focus feature F is independently assigned to a constituent via Focus Assignment (38), without resort to the information of the pitch accent of the constituent. The focus-annotated S-structure can then be mapped both onto the level of PF and onto the level of LF to provide information for the phonological and semantic interpretation. Phonological rules assign pitch accent to the constituent with focus. Interpretive rules of the semantic component assign an interpretation to the focus-marked constituent.

Since Jackendoff (1972), it has been assumed that the focus feature constructs the focus structure that feeds into PF and LF by many researchers (cf. Ladd 1980, Culicover and Rochemont 1983, Selkirk 1984, Rochemont 1986, Cinque 1993, Winkler 1997, Drubig 2003, among many others). Following their proposals, I will assume that focus functions as a syntactic feature which provides the information to the performance systems: sensorimotor system and system of thoughts.

5. Focus Assignment Process

In this section, I will propose Focus Assignment Process in the

computation of grammar and show how focus feature operates in the computational system. The proposed model of the grammar represented below is based on the minimalist theory of Chomsky (2000, 2001a,b). In Chomsky's model, universal grammar (UG) consists of a set of features. A certain set of features selected from the universal feature set F forms a lexicon (LEX) of a particular language. To derive a linguistic expression efficiently, lexical items are selected from the lexicon and form a lexical array (LA). I will propose that focus feature is assigned to the lexical item, in the process of the selected item mapping into LA from LEX.

5.1. Focus Assignment and Its Projection

At this point, I will show how focus feature is assigned to a constituent and the focus-marked constituent licenses its focus to the other elements in the process of the structure building operation Merge.

As I proposed above, focus feature is assigned to the lexical head mapping into LA from LEX.

(39) Assign Focus[4)
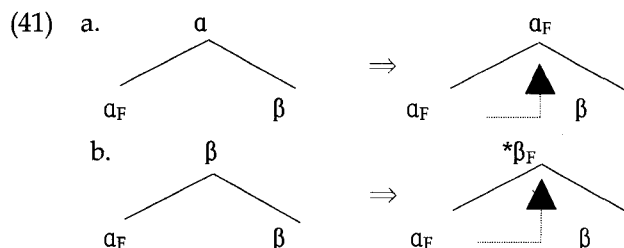   Assign Focus to the lexical head when necessary.

The focus assigned head percolates its focus into its projection by the following focus licensing process (40) when the operation Merge constructs a newly formed syntactic object.

(40)   a. If a is [+focus], then the projection of a is [+focus].
       b. If β is [+focus] and β is an internal argument of a

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[4]As an anonymous reviewer points out, focus assignment is not confined to the lexical head only. In fact, a whole sentence can be assigned focus in some cases. The process of this sort is closely related to the discourse factor, rather than the syntactic one. I will leave this as a pending issue at the moment.

contained in the projection of α, then α is [+focus].

(40a) defines the focus-percolation from the head to its projection. This process proceeds as follows:

(41) a.

$$\alpha \qquad\qquad \Rightarrow \qquad\qquad \alpha_F$$

$$\alpha_F \qquad\qquad \beta \qquad\qquad\qquad \alpha_F \qquad\qquad \beta$$

  b.

$$\beta \qquad\qquad \Rightarrow \qquad\qquad *\beta_F$$

$$\alpha_F \qquad\qquad \beta \qquad\qquad\qquad \alpha_F \qquad\qquad \beta$$

When a focus-marked element α merges with a non-focus-marked element β into a single syntactic object, the focus feature of α percolates into the projection just in case α is projected, as shown in (41a) above. Otherwise, the focus feature of α fails to percolate into the projection, as shown in (41b) above.

In addition to the focus-percolation process depicted in (41), (40b) defines focus-inheritance process which is associated with the relation between the predicate and its internal argument. For instance, when V and the focus marked DP merge and form VP, V inherits the focus feature from its internal argument DP, as shown in (42).

(42)

$$VP \qquad\qquad \Rightarrow \qquad\qquad VP_F$$

$$V \qquad\qquad DP_F \qquad\qquad\qquad V_F \qquad\qquad DP_F$$
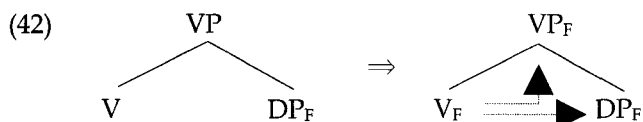
Furthermore, the focus-marked V can percolate the focus-feature into the projection VP by the focus-percolation process.

We have so far seen that focus feature can be transferred from the focus-marked head by the two focus licensing process: focus

percolation into its projection on the one, and focus inheritance of the head from its internal argument on the other. In the following section, I will consider how the domain of focus is derived on the basis of the focus licensing process proposed above.

5.2. Deriving Focus Domain

It has long been observed that there is an asymmetry between the subject and the object with regard to the domains of focus in the literature (cf. Selkirk 1984, Rochemont 1986, Drubig 2003, among others).

(43)   a. Who invited the nurse?
       b. [John]$_F$ invited the nurse.

(44)   a. Who did John invite ?
       b. John [$_{VP}$ invited [$_{DP}$ the [NURSE]$_F$]$_F$]$_F$.

As shown in (43) and (44), the subject *John* has a focus projection independently of VP, whereas the focus-marked object DP is within the focus domain of VP.

In this section, I will examine how the difference between the subject and the object is derived in the proposed system above. Let us first look at the case of the focus-marked object and consider how the focus-marked object DP in (45b) extends its focus domain to the VP.

(45)   a. Who did John invite?
       b. John [$_{VP}$ invited [$_{DP}$ the [NURSE]$_F$]$_F$]$_F$.

At the first step of the derivation, the focus-marked NP *nurse* merges with D, forming (46a).

(46) a. DP
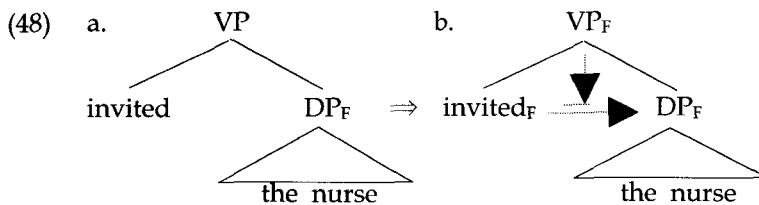   the   nurse_F

b. DP
    the_F ──▶ nurse_F
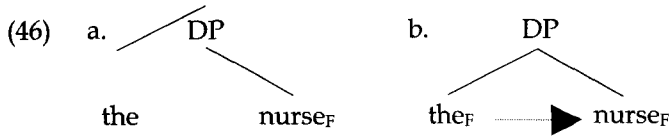
After forming structure (46a), the focus feature of *nurse* percolates into D as a result of N-to-D raising,[5] yielding (46b). The focus marking of D percolates the focus into its projection DP by the focus-percolation process, as shown in (47).

(47) DP_F
      the_F ──▼── nurse_F
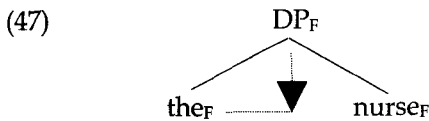
When the verb *invited* and DP *the nurse* merge and form VP, focus inheritance process applies to the VP, as shown in (48).

(48) a. VP
          invited   DP_F
                     the nurse

⇒

b. VP_F
    invited_F ──▼▶ DP_F
                  the nurse

The focus-feature of the verb *invited* inherits from DP and percolates into its projection VP. The focus-marked VP in (48b) functions as the domain of the focus-marked DP *the nurse*.

The focus inheritance process depicted in (48) above has the advantage of explaining the pitch accent alternations in the following sentences:

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[5] In this paper, I will assume that the noun head N raises to D to determine their referential property, following Longobardi (2001). If the focus-marked N raises to D, the whole DP receives a focus interpretation. On the other hand, if non-focus-marked N raises to D, the whole DP receives a presuppositional interpretation.

(49)   a. Who has Mary been seeing?
       b. Who has Mary been seeing?

                                  (Rochemont 1978:55)

In the literature of focus, many researchers assume that the
wh-phrase always functions as focus of the sentence, as shown in
(49a) (cf. Rochemont 1986). However, the *wh*-questions like (49b)
constitute a difficulty for this assumption in the sense that the
*wh*-phrase in (49b) does not bear the main stress of the sentence.

The unwanted situation above is resolved in my proposal. The
main verb *seeing* in (49) inherits the focus-feature from its
internal argument *who*. Thus, the main verb *seeing* can be
assigned a pitch accent by the nuclear stress rule like (50) at PF.

(50)   Assign an accent to the rightmost lexical category (in a
       [+focus]constituent) in S.   (Winkler 1997:206)

In contrast to the focus-marked object DPs, the focus-marked
subject DPs cannot affect the terms in the sisterhood with the
subject DPs. In other words, the focus marked subject DP cannot
license its focus to its sister node, but the subject DP carries
independent prominence alone. Let us consider the following
examples:

(51)   a. Who invited the nurse?
       b. [John]$_F$ invited the nurse.

After forming v', the subject DP *John* with focus merges with v',
as shown in (52).

(52) vP

John$_F$ v'

v VP

invited   DP

the nurse
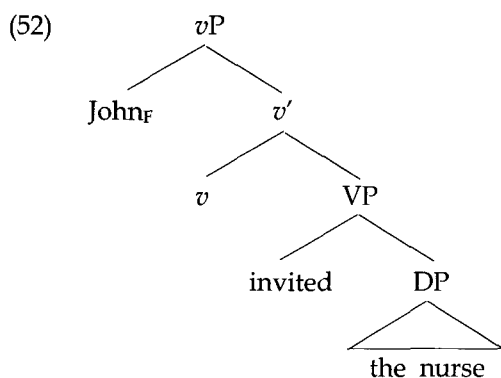
In (52), the focus-marked subject *John$_F$* cannot percolate or transfer its focus feature to its sister or its dominating projection since the subject is in the external domain of vP[6]).

In summary, we have so far dissused that the two DPs in the sentence, the subject DPs and the object DPs, have a different behavior in terms of focus licensing process. The difference between the subject DPs and the object DPs is summarized in terms of focus domain, as follows:

(53)   a. The subject DP has an independent focus domain.

    b. The object DP has VP as its focus domain.

5.3. Domain of Focus and Its Consequences

In the preceding section, I have argued that the focus-marked object DP forms its focus domain by the focus licensing process. In this section, I will show how the focus-marked DP is related to its focus domain in terms of its semantic interpretation.

It has been argued that there is a strict correspondence between the syntactic structure of the DP and its semantic interpretation. Diesing's (1992) mapping hypothesis is one of the prominent proposals attempting to derive such a relation.

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[6]Rochemont (1986) also claims that the subject cannot transmit the focus feature to VP in general, since it is not contained within VP.

Diesing (1992:9) divides a sentence into two parts: restrictive clause and nuclear scope, as shown in (54).

(54) Mapping Hypothesis

```
                IP
              /    \
         Spec        I'          ← restrictive clause
                   /   \
                  I     VP
                      /    \
                  Spec       V'
  nuclear scope →           /   \
                           V     XP
```
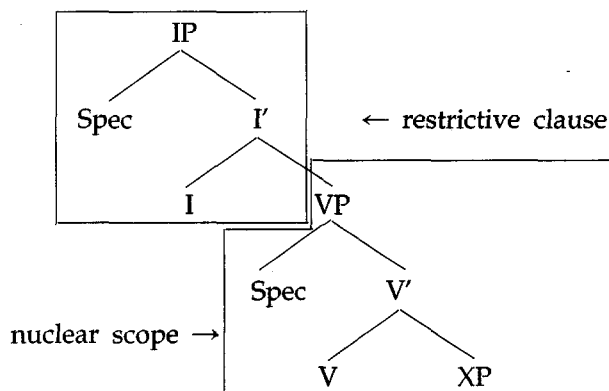
The relation between the syntactic representation and the semantic representation takes the form of a mapping procedure that splits the syntactic tree into two parts.[7] The two parts of the sentence are then mapped into two major parts of the logical representation, the restrictive clause and the nuclear scope, as shown in (55).

(55) Mapping Hypothesis
      Material from VP is mapped into the nuclear scope.
      Material from IP is mapped into a restrictive clause.
                                              (Diesing 1992:10)

It follows that the mapping hypothesis in (55) that the subjects appearing in the Spec of IP at LF are mapped into the restrictive clause and provide a presuppositional or generic reading of the subjects, while the subjects appearing in the Spec of VP at LF are mapped into the nuclear scope, where they

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[7]The tree splitting mechanism takes place at LF.
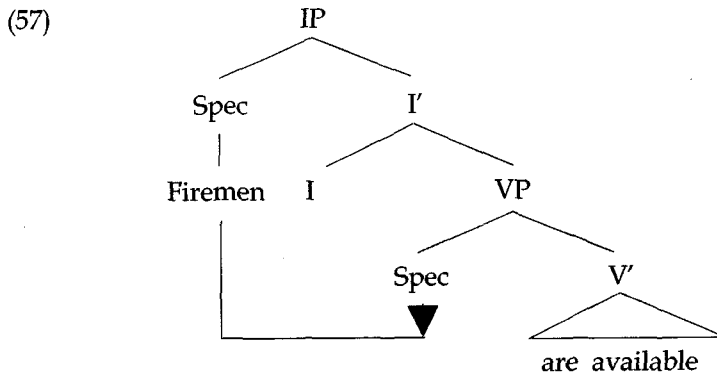
allow an existential reading.

Diesing argues that focus assignment and intonation are of decisive importance to the mapping procedure between syntactic structure and logical representation since they can directly influence the interpretation of bare plural subjects. If the subject *firemen* receives the focus feature, as in (56a), an existential reading is preferred; however, focusing of the predicate *available*, as in (56b), leads to the generic reading of the bare plural subject.

(56)   a. Fíremen are availbale.
        b. Firemen are avåilable.

Based on these data, Diesing proposes the generalization that the focus part of a sentence corresponds to the nuclear scope of the logical representation, while the unfocused portion corresponds to the restrictive clause (cf. Diesing 1992:50).

I basically assume Diesing's idea that a focus-marked material maps into the nuclear scope domain, i.e., VP, just in the case of the object DPs. In the case of the subject DPs, however, her claim is in conflict with my assumptions that the subject DPs bear independent prominence and syntactic behaviour.

In Diesing's account, the focus-marked subject *firemen* in (56a) should be lowered into the Spec of VP to receive its appropriate interpretation, as shown in (57).

(57)

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                        IP
                  ┌──────┴──────┐
                Spec           I'
                  │        ┌────┴────┐
               Firemen  I          VP
                        │      ┌────┴────┐
                        │    Spec       V'
                        │     ▼      ┌───┴───┐
                        └───────     are available
```

Diesing's lowering mechanism above seems to have a merit to capture the semantic partition between presuppositional and non-presuppositional distinctions between (56a) and (56b). However, it is not clear to me that the focused subject DPs should be lowered into the Spec of VP to be mapped into the nuclear scope at LF. In fact, it is unnatural that the subject DPs go together with the whole VP as a single focus unit, as shown in (58).

(58)   a. What's been happening?
        b. [JOHNSON died]$_F$
        c. [JOHNson DIED]$_F$
        d. *[Johnson DIED]$_F$ (Selkirk 1995:559)

According to Selkirk, the utterance in (58b) is appropriate "out-of-the-blue" response to (58a), or may be embedded in the sentence frame "I was thinking that [......]$_F$." (58c) is also possible with identical focus-marking on the subject and on the verb. However, the interesting point is that (58d) is not necessary. The unavailability of (58d) suggests that the subject DPs cannot go with the VP as a single focus unit. If they can both form a single focus constituent, the pitch accent is assigned to the rightmost lexical category, i.e., *DIED* as in (58d), by NSR, as

repeated here in (59).

(59) Assign an accent to the rightmost lexical category (in a
[+focus] constituent) in S.

Thus, Diesing's account that the focus-marked subject DP should
be lowered into the Spec of VP is empirically wrong.

In addition to the empirical problem with Diesing's account,
the lowering account of the subject DP induces a computational
complexity of the computation of the grammar. As discussed in
the literature (cf. Collins 1997, Chomsky 2000, 2001a,b), UG seeks
to reduce the "search" space for computation in order to reduce
the computational burden. All the derivations must be derived
by the local determinability conditions. Thus, the operations
causing the computational complexity, such as look-ahead,
back-tracking, lowering operations, should be abandoned in the
grammar of the language.

However, such an operation as lowering is not required for
explaining the focus interpretation of the subject DPs in my
framework. As I discussed in section 5.2, the focus-marked
subject DP forms an independent focus domain. That is, the
subject DP cannot affect other constituents or extend its focus
feature into the wider domain. The subject DP does not need to
be lowered into the Domain of VP, since VP is not the focus
domain of the subject DP. Accordingly, the subject DP bears its
own focus property at the surface position.

In the case of the focus-marked object DP, on the other hand,
its focus domain is extended to the VP. Thus, the focus-marked
object DP cannot move out of the VP since its focus domain is
defined as VP. As Diesing (1992) argues, the following
Antecedent Contained Deletion (ACD) constructions[8] support the

---

[8]ACD constructions have been regarded as a kind of VP-ellipsis in the
literature. As is well-known, VP-ellipsis is allowed just in case the

claim that the focus-marked DP cannot move out of VP at LF.

(60)   a. I [$_{VP1}$ read [$_{DP}$ every book that you did [$_{VP2}$ e]]].
       b. I [$_{VP1}$ read [$_{DP}$ each book that you did [$_{VP2}$ e]]].
       c. I [$_{VP1}$ read [$_{DP}$ most books that you did [$_{VP2}$ e]]].

(61)   a. *?I [$_{VP1}$ read [$_{DP}$ many books that you did [$_{VP2}$ e]]].
       b. *I [$_{VP1}$ read [$_{DP}$ few books that you did [$_{VP2}$ e]]].
       c. *I [$_{VP1}$ read [$_{DP}$ two books that you did [$_{VP2}$ e]]].
       d. *I [$_{VP1}$ read [$_{DP}$ books that you did [$_{VP2}$ e]]].

                                        (Diesing 1992:71)

Diesing argues that the grammatical difference between (60) and
(61) results from the availability of Quantifier Raising (QR).
According to Diesing's Mapping Hypothesis, strong quantifiers,
such as *every*, *each*, *most*, etc., as in (60), induce QR, whereas

---

elided VP meets the so-called parallelism requirement.

(i) An elided VP must be identical to an antecedent VP at LF.

In the following sentence in (ii), the VP$_2$ has the same structure as
that of the antecedent VP$_1$ since VP$_2$ can be elided under the condition
that the elided VP$_2$ is identical to the antecedent VP$_1$. Thus, (ii) has the
structure like (iii).

(ii) John [$_{VP1}$ likes every boy Mary does [$_{VP2}$ e]]
(iii) John [$_{VP}$ likes every boy Mary does [$_{VP}$ likes every boy Mary
     does [$_{VP}$ likes every boy Mary does [$_{VP}$ ....]]]]

As shown in (iii), the infinite regressive problem occurs. To resolve
the infinite regressive problem with ACD, May (1985) proposes the
whole quantified DP [$_{DP}$ every boy Mary does [$_{VP}$ e]] undergoes QR and
adjoins to IP at LF, as shown in (iv).

(iv) [$_{IP}$ [$_{DP}$ every boy Mary does [$_{VP}$ e]] [$_{IP}$ John [$_{VP1}$ likes t$_i$]]

The infinite regressive problem does not arise in the structure (iv) since
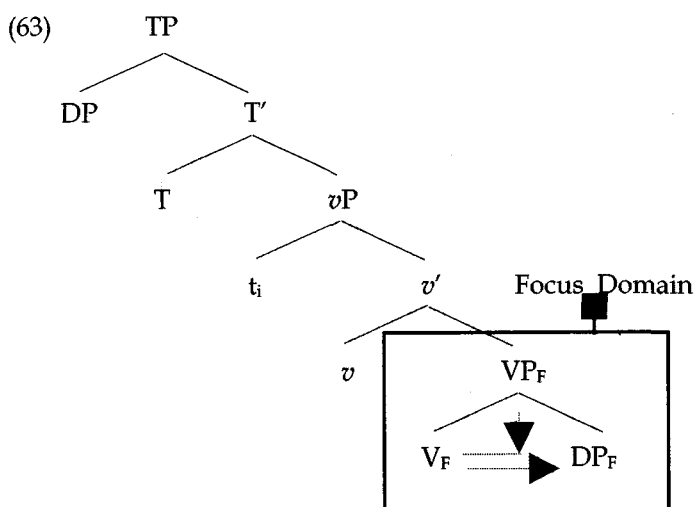the elided VP is not contained in the antecedent VP.

weak quantifers, such as *many, few, two,* etc, as in (61), do not.
She further assumes that the notion of presupposition[9] is the
deciding factor of the application of QR. In other words, strong
quantifiers have presuppositional meaning and thus they move
out of VP, whereas weak quantifiers have non-presuppositional
meaning and hence they remain in situ within VP.

Along the lines with the arguments above, I generalize the
facts related to focus as follows:

(62)   a. The focus-marked object DP remains in situ within
           VP, whereas the given or presuppositional material
         moves out of VP to receive an appropriate
           interpretation (i.e., specificity, topic, etc.).
       b. The focus-marked subject DP forms an independent
           focus domain. Thus, lowering into the VP domain is
           not allowed.

Following Jackendoff's dichotomy, I divide the sentence into two
parts: presupposition and focus. The division of this sort is
derived from the syntactic structure of focus domain. In the case
of the focus-marked object DP, the division comes about from
the structure below. VP is a focus part of the sentence, and the
remaining part is a presuppositional part of the sentence.

---

[9]In this paper, I assume that focus is a deciding factor which
determines the option of the movement operation. As I discussed in
section 4, the notion of presupposition is an opposite term to focus.

(63)   TP

```
        TP
       /  \
     DP    T'
          /  \
         T    vP
             /  \
           t_i   v'     Focus Domain
                / \        ▪
               v   VP_F
                  /  \
                V_F → DP_F
```
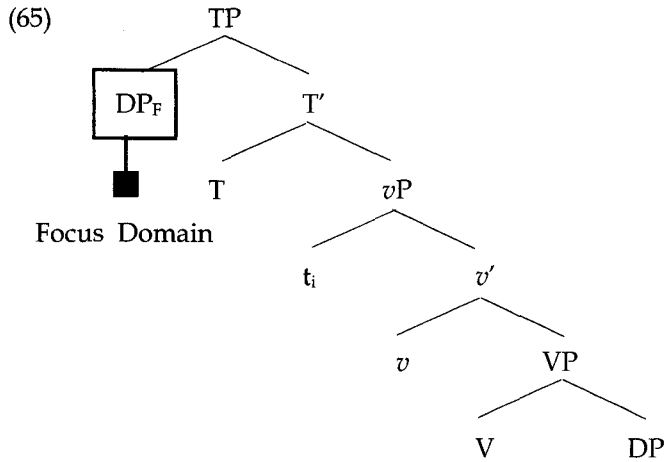
As discussed in section 5.1, V inherits the focus-feature of the object DP and percolates into its projection. The focus-marked VP functions as the focus domain of the focus-marked object DP in the sense that the focus-marked DP cannot move out of VP, as in the examples (61) above. Based on the characteristics of the focus domain, I propose the following focus preserving principle:

(64)   Focus Preserving Principle
       Focus property must be preserved throughout the derivation.

In the case of the focus-marked subject DP, however, the focus marked subject DP cannot form a focus domain, as shown in (65) below. In (65), the focus marked subject DP alone constitutes a focus part of the sentence and the remaining parts are the presuppositional ones.

(65)

```
                        TP
              ┌──────────┴────────┐
          ┌───────┐            T'
          │ DP_F  │         ┌───┴─────┐
          └───┬───┘         T        vP
              ■         ┌────────┴────────┐
        Focus Domain   t_i              v'
                                    ┌─────┴──────┐
                                    v           VP
                                            ┌────┴─────┐
                                            V         DP
```

As discussed above, the focus-marked subject carries its own focus property independently. Thus, the focus-marked subject DP can move to the Spec of TP from the Spec of vP.
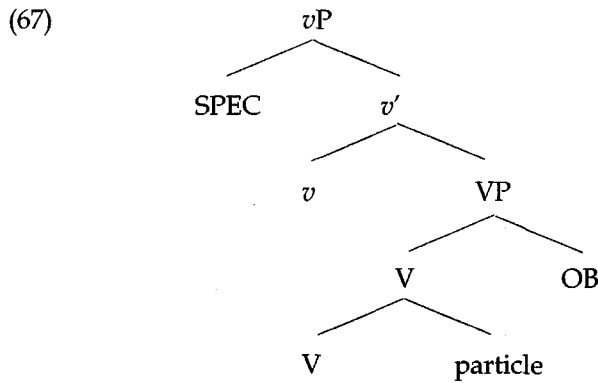
6. Deriving Word Order in Particle Constructions

In the section above, I argued that focus-feature is assigned to the element with the discourse status "new" in the mapping into LA from LEX. I also argued that the object DP has the following syntactic property with regard to focus.

(66) Focus-marked DP objects remain in situ within VP, whereas given or presuppositional DP objects move out of VP to receive an appropriate interpretation (i.e., specificity, topic, etc.)[10]

---

[10]There are two types of focus proposed in the literature: presentational focus and contrastive focus. In this paper, I am mainly concerned with the presentational focus. Unlike the presentational focus, contrastive focus is argued to have a different syntactic behavior—the contrastive focus-marked element must move to the appropriate site (i.e., the Spec of FocP) or be within the domain of its focus operator so that it can receive the interpretation properly (see Drubig 2003). As an

From now on, I will show how the choice of word order in particle constructions is determined from the generalization above. Following Johnson (1991) and Koizumi (1993), I assume that verb and particle forms a single head as shown below.

(67)

```
                        vP
                   ┌────────┴────────┐
                 SPEC               v′
                            ┌────────┴────────┐
                            v               VP
                                      ┌───────┴───────┐
                                      V             OB
                                ┌─────┴─────┐
                                V        particle
```

Let us consider how the following particle constructions are derived:
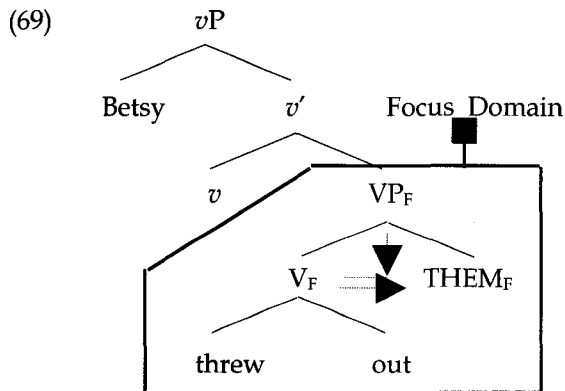
(68)   a. Betsy threw out THEM!
        b. *Betsy threw THEM out!

---

anonymous reviewer points out, such a claim is supported by the following Korean data.

(i) a. ?*John-un [$_{vP}$ ppalli [$_{vP}$ i   chayk-un ilk]]-ess-ta,   haciman
       John-Top   quickly   this book-Foc read-Past-Dc but
       [$_{vP}$ chenchenhi [$_{vP}$ ce   chayk-un ilk]]-ess-ta.
            slowly   that book-Foc read-Past-Dc
    b. John-un [$_{FocP}$ [i chayk-un]$_i$ [$_{vP}$ ppalli   [$_{vP}$ t$_i$ ilk]]]-ess-ta, haciman
       [$_{FocP}$ [ce chayk-un]$_i$ [$_{vP}$ ppalli   [$_{vP}$ t$_i$ ilk]]]-ess-ta.
       'John read this book fast, but read that book slowly.'

As shown in (i), the object DP with contrastive-focus-marker "-un" should move out of VP to be properly interpreted. Thus, a contrastive-focus-marked object cannot remain in-situ, as a presentational-focus-marked object does.

When the pronoun is stressed, as shown in (68) above, the pronoun *them* is not used as anaphoric, but rather as deictic. The deictic pronoun introduces new information into the sentence or discourse. Thus, the stressed pronoun *them* is assigned focus in the mapping into LA from LEX. Sentence (68) has the following structure:

(69)   *v*P

              Betsy   *v*′   Focus Domain
                                                  ■
                          v   VP$_F$

                                V$_F$ ·······▶ THEM$_F$

                          threw   out

The focus-feature of the focus-marked DP *THEM*$_F$ spreads to VP by the focus licensing process. As I discussed in section 5, the focus-marked DP *THEM*$_F$ remains in situ within VP to preserve the following principle:

(70) Focus Preserving Principle
      Focus property must be preserved throughout the derivation.

If the focus-marked DP moves out of VP, the focus property of the object DP cannot be preserved since it receives a specific or presuppostional interpretation.[11] Thus, the focus-marked DP should remain in situ within VP. As a result, the continuous
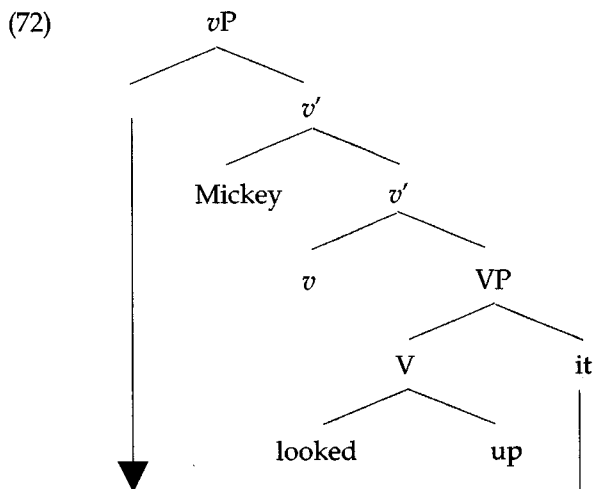
---

[11]Specificity is a term related to presupposition or given information. Thus, focus-marked element cannot be interpreted as specific.

order is derived.[12]

Let us now turn to the discontinuous order case in (71).

(71)   a. Mickey looked it up.
        b. *Mickey looked up it.

(71) has the following structure:

(72)   *v*P

In (72), the pronoun *it* is not stressed and thus it is used as
anaphoric. The anaphoric pronoun refers back to a known entity.
Thus, the pronoun *it* is not assigned focus in the mapping into

---

[12]According to the proposal above, the focus-marked object DP cannot
move out of VP in case the focus property of the object DP is not
preserved throughout the derivation. However, the focus-marked object
DP can move to the Spec of TP in the passive constructions, as shown
in (i).

(i) [John$_F$]$_i$ was arrested t$_i$.

Unlike Object Shift, the moved object DP to the Spec of TP is not
assigned INT in Chomsky's (2001) sense. Thus, the movement to the
Spec of TP is allowed since the moved DP *John*$_F$ preserves its focus
property.

LA from LEX. Thus, the pronoun *it* moves out of VP to receive an appropriate (i.e., specific or presuppositional) interpretation. After V raises to T via *v* at PF[13]), the discontinuous order [V DP Particle] is derived.

7. Conclusion

I have shown in this paper that the two alternating orders in particle constructions are closely related to the focus property of the object DP. To explain the choice of word order in particle constructions, I argued that focus feature should be regarded as a syntactic feature which is assigned to a lexical item in the process of mapping from LEX to LA. When the object DP is focus-marked, it takes VP as its focus domain. Thus, the focus-marked DP remains in situ within VP. Consequently, the continuous order is derived. In the case of the non-focus-marked object DP, however, it moves out of VP to receive an appropriate interpretation. As a result, the discontinuous order is derived.

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[13]Following Boeckx and Stjepanović (1999) and Chomsky (2001), I assume that head movement is a phonological process.

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