Some Remarks on the NP First Property*

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0. Introduction

One of the main concerns of the current researches in generative grammar is the characterization of nominals preceding other verbal complements in English, as illustrated in (1) and (2).

(1) a．　Gary introduced *Mittie* to Sam.

　　b．＊Gary introduced to Sam *Mittie*.

　　c．　Mikey visited *his parents* quietly.

　　d．＊Mikey visited quietly *his parents*.

(2) a．　Mary sincerely believes *Gary* to be a fool.

　　b．＊Mary believes sincerely *Gary* to be a fool.

One influential account of the paradigm in (1) and (2) is an adjacency condition, which has been discussed to account for the linear order between NP and other verbal complements. It states that an NP structually Case-marked by a Case assigner must be adjacent to that assigner. A recent inquiry by Kyle Johnson (1991), however, argues against accounts of the fact in (1) and (2) based on the adjacency condition, and proposes instead a different mechanism. His alternative analysis is based on the observation of Scandinavian data, as we shall see later in section 2.

　　The purpose of this paper is to defend the adjacency condition on the linear order among verbal complements as a generalization. In the following three sections I will present Kyle Johnson's analysis and clarify several problems his analysis has. I will argue in section 4 that there is further evidence for the analysis of (1) in terms of the adjacency condition. Also, in section 4, I will present the accounts for (2), independent of the adjacency condition.

1. Problems for Adjacency

Before considering an explanation for the NP First property that does not exploit the adjacency condition on case assignment, let us begin with an overview of several problems Johnson pointed out for the adjacency condition. He claims that the first problem arises as to the invisibility of some categories when the adjacency condition applies. Now consider (3) and (4):

(3) a. I knew that *probably* Gary had left.

   b. I wonder whether *in fact* Gary will leave.

(4) a. Gary *probably* has left.

   b. Gary *in fact* will leave.

In each case above, an adverb occurs between the nominative case-marked NP and the case assigner. These examples suggest that to preserve the adjacecny condition requires the invisibility effect of a given adverb. In other words, the relaxation of the adjacency condition is required. The following examples, however, indicate that the relaxation of the condition does not always hold :

(5) a. * Mikey visited quietly his parents.

   b. * Betsy sang loudly the anthem.

   c. * Chris hit quickly the dog.

Therefore, the fact observed here may stand as the first problem for the adjacency condition.

Another problem presented by Johnson, which is relevant to the relaxation of the condition, is how the differences in acceptability in the following examples can be accommodated.

(6) a.?? I've believed for a long time now Gary to be a fool.

   b. * Mary believes sincerely Gary to be a fool.

   c. Who have you believed for a long time now to be a fool?

   d. Who does Mary believe sincerely to be a fool ?

(6) seems to indicate that the adjacent requirement on case assignment is relaxed when the trace of A'-movement is involved. It seems to show that an overt NP in (6a) and (6b) cannot be separated from the verb by an adverb, but that the trace of A'-movement in (6c) and (6d) can be. The problem lies in when and how the relaxation can be applied according to the type of movement.

2. Three Proposals for the NP First Property

In order to explore an account for the NP first property, and to solve the problems discussed in the previous section, three assumptions are made by Kyle Johnson. They are :

(7) a. Specifiers of XP precede X'.
    b. Verbs always move out of the VP they head.[1]
    c. Accusative case-marked NPs move to Specifier of VP.

According to K. Johnson, (7a) is dependently necessary to explain the fact that in many languages Specifier of IP comes to the left of I'. Considerable evidence for (7b), on the one hand, derives from certain coordination facts. They suggest that verbs move out of the VP they head. Johnson makes the following claim, citing Larson's observation.

(8) a. Gary put [the book on the table] and [the lamp on the sofa].
    b. Chris ate [the meat slowly] but [the vegetables quickly].

The bracketed strings in (8) are identical, and therefore he analyzes these as VPs that have undergone across-the-board Verb Raising. The representation of (8b), for example, is (9):

(9)   Chris ate$_i$ [$_{VP}$ [$_{VP}$ t$_i$ the meat slowly] and [$_{VP}$ t$_i$ the vegetables quickly]].

Further indirect support for (7b) comes from Dutch data. In Dutch, it is assumed that a verb moves into COMP by "Verb Raising," leaving the particle obligatorily

stranded, as is shown in (10).

(10) a.   Carol belt hem op.

   b.   Carol rang him up.

As to (7c), on the other hand, Johnson claims that there is enough evidence in support of (7c).   That is a phenomena known as Object Shift, discovered in the Scandinavian languages.   Object Shift is a kind of a movement rule which relocates a structually case-marked NP when the verb, as a case assigner to that NP, has been moved.   The rule, for example, moves an object NP across past sentence negation to the right of a verb when the verb has been moved.

(11)... að Jon keypti *bokina* ekki.

   ... that John bought book-the not

   ... that John didn't buy the book.

                              (Kyle Johnson (1991), p. 605)

Interestingly, Object Shift has two properties that show it may occur in English as well.   First compare the Icelandic data with the English data below:

(12) a.   * Mikey looked up it.

   b.   Mikey looked it up.

(13) a.   Mikey looked up the reference.

   b.   Mikey looked the reference up.

(14) a.   *... að Jón keypti ekki hann.

      ... that John bought not it.

   b.   ... að Jón keypti hann ekki.

      ... that John didn't buy it.

(15) a.   ... að Jón keypti bokina ekki.

      ... that John bought book-the not

   b.   ... að Jón keypti ekki bokina.

      ... that John bought not book-the

                              (Kyle Johnson (1991), p. 606)

(12)-(15) illustrate that the same observation holds in both the Icelandic and the English. In Icelandic, there is a difference in acceptability between "weak" pronouns and "full" NPs as with Object Shift. This is also the case with English particle constructions. Assuming that Object Shift applies in the cases above, it follows that the application of the rule is optional when the NP is full, but obligatory when the NP is a pronoun.

Second, Object Shift is only able to affect NPs, not other categories. Only NPs are able to move to the position preceding sentence negation. The unacceptability of the following sentences exemplifies this fact.

(16) a. * Mikey teamed *with the women* up.

b. Mikey teamed up with the women.

(17)   * Jeg betalte *for den* ikke. (Danish)

I paid for it not.

As has been pointed out above, such phenomena as Object Shift can be observed in English. Thus Johnson assumes the null hypothesis (7).
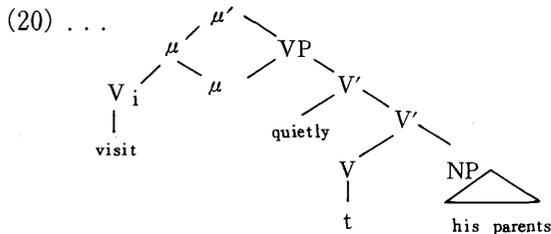
Let us now attempt to extend (7) into the examples in section 1 which might be problematic for the adjacency condition. Consider (5), repeated here as (18):

(18) (=5)

a. * Mikey visited quietly his parents.

b. * Betsy sang loudly the anthem.

c. * Chris hit quickly the dog.

The representation of D-structure in (18a) is like that in (19).
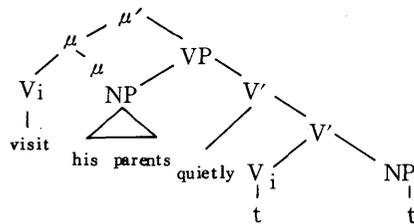
(19) . . .
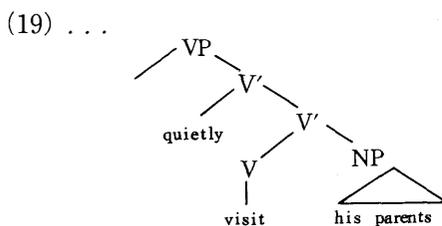
When the verb in (19) has moved out of the VP the NP complement remains in the base-generated position. The example now considered may be given the illicit structure in (20):

(20) . . .

$$
\begin{array}{c}
\mu' \\
\mu \quad VP \\
V_i \quad \mu \quad V' \\
| \quad quietly \quad V' \\
visit \quad V \quad NP \\
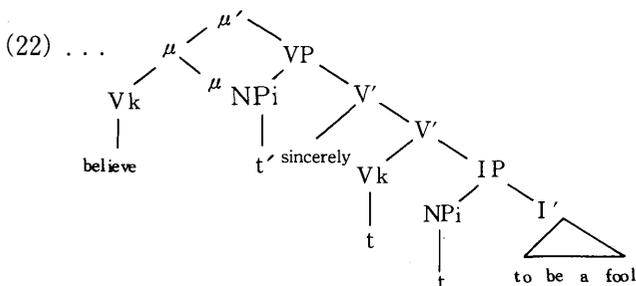| \quad his\ parents \\
t
\end{array}
$$

(18a) then violates the requirement of (7c): NP must move to Specifier of VP. If the NP moves there, then the sentence can be acceptable. This prediction will be borne out.

(21) a. Mikey visited his parents quietly.

     b. . . .

$$
\begin{array}{c}
\mu' \\
\mu \quad VP \\
V_i \quad NP \quad V' \\
| \quad his\ parents \quad quietly \quad V' \\
visit \quad V_i \quad NP \\
t \quad t
\end{array}
$$

The difference in acceptability between overt NP and A′-movement traces in (6) can be explained under (7). The account for the unacceptability of (6a) and (6b) runs as follows : The structually accusative case-marked NP fails to move to Specifier of VP. (6c) and (6d), where WH-movement has occurred, may satisfy (7). The representation of such as those in (6c) and (6d) is like that in (22).

(22) . . .

$$
\begin{array}{c}
\mu' \\
\mu \quad VP \\
V_k \quad \mu \quad NP_i \quad V' \\
| \quad t' \quad sincerely \quad V' \\
believe \quad V_k \quad IP \\
t \quad NP_i \quad I' \\
t \quad to\ be\ a\ fool
\end{array}
$$

Here the NP complement, structually case-marked NP, has moved to Specifier of VP before moving to Specifier of CP. Hence, it can be said that the contrast in (6) is a straightforward consequence of (7).

Consider finally the contrast in (23). The difference in (23) is attributed to the fact that Gary in (23a) is nominative case-marked NP while the story in (23 b) is accusative case-marked NP.[2]

(23) a.   Mary said that probably Gary had left.

　　 b. * Gary told probably the story.

(7c) accounts for the unacceptability of (23b): the accusative case-marked NP has not moved in this example.

3. Problems

In the previous two sections, we have seen K. Johnson's analysis and his arguments in favor of (7). The evidence shown here, however, shakes the basic assumption of (7). There are four objections which can be raised against the proposals he made. First, there are quite a few examples in which adverbs can be inserted between verbs and its NP complements. Look at the contrast below:

(24) a.   John yelled forcefully the command.

　　 b.   Bill saw quickly the intention.

　　 c.   She repeated softly her question.

　　 d.   I believe sincerely the mischievous boys who tell lies frequently.

(25) a. * Mikey visited quietly his parents.

　　 b. * Betsy sang loudly the anthem.

　　 c. * Chris hit quickly the dog.

　　 d. * Mary believes sincerely Gary to be a fool.

The statement of (7c) which determines that NP must move to Specifier of VP is not supported by independent evidence, as (24) and (25) illustrate. (24) indicates that accusative case-marked NPs may remain in the original positions,

which conflicts with (7c). What is more, (24) tells us that the arguments against the adjacency condition in the preceding section may not be as strong as was previously thought.[3]

The second argument against (7) is a rather theoretical problem. Johnson claims that (26a) is unacceptable for the reason that the accusative case-marked NP remains in the original position, but even if the derivation in compliance with (7) is possible, the sentence is still not acceptable. The subject of Exceptional Case Marking construction cannot remain in Specifier of VP. (26) supports these facts.

(26) a. *Mary believes sincerely Gary to be a fool.

    b. *Mary believes Gary sincerely to be a fool.

To avoid this theoretical problem, Johnson claims that there is some S-structure constraint that prevents NPs from remaining in Specifier of VP when they have moved past certain adverbs. This view is, however, unsatisfactory. There still remains an unsettled question as to what type of adverbs may create this situation. There is no conclusive evidence to support the S-structure constraint. This theoretical problem, as we shall see later, will not arise if we adopt "transportability convention."

The third question is about the treatment of adverbs. Since it is only assumed that in the framework proposed by Johnson adverbs may precede as well as follow the X′ they are adjoined to, the consistent treatment of adverbs is not possible.

(27) (=2)

    a. Mary sincerely believes Gary to be a fool.

    b. *Mary believes sincerely Gary to be a fool.

Although it is assumed that the adverb in (27b) is adjoined to the V′, the adverb in (27a) must be adjoined to the X′ higher than μ'.[4] If the derivation of (27a) is in accordance with (7), then the verb *believe* is adjoined to μ, and the NP *Gary* occupies VP Specifier position. Thus, the adverb in (27a) must be adjoined to X′ higher than μ.

The fourth area for concern is that the proposal (7) does not provide us with enough explanations as to the following sentences.

    (28) a． An approach to the study of language of *this sort* essentially underlies much of the work. . .

        b． An approach to the study of language of essentially *this sort* underlies much of the work. . .

The proposal (7) does not apply to (28). The application of (7c) is limited to structually accusative case-marked NPs. It does not appeal to inherently case-marked NPs. Inherent cases are given to the italicized NPs in (28) by prepositions. The examples in (28) cannot be accounted for under (7). Fuller discussion about the acceptability of (28) will be presented in the following section in terms of the relaxed adjacency condition.

4. An Alternative

In the preceding sections, we have already seen that Kyle Jonson's analysis, based on Verb Raising and Object Shift, has several unsolved problems. In this section, we will see that the adjacency condition covers those problems if it is relaxed in a principled way. Furthermore, "transportability convention," firstly proposed by Keyser (1968) and adopted by Nakajima(1989), will be presented as well to give fuller accounts to the problems. Our arguements here basically come from Nakajima's observation (1989).

Now let us take a closer look at (29)-(31):

(29)

        a． John yelled forcely the command.

        b． Bill saw quickly the intention.

        c． She repeated softly her question.

(30) a． Mary loves only Tom.

        b． He favors particularly young women.

        c． Mary has read neither the book nor the review.

(Nakajima(1989), p. 5)

(31)   * He favors in a special way young women.

Judging from the examples above, the Case assignment of object NPs is not blocked when intervening elements are adverbs, but it is when they are PPs.

The point made here also apply in principle to the oblique Case assignment by prepositions.

(32) a.   An approach to the study of language of essentially this sort underlies much of the work. . .

(Nakajima(1989), p. 9)

b. * An approach to the study of language of in an essential way this sort underlies much of the work. . .

(Nakajima(1989), p. 10)

The distinction in Case assignment above is due to the categories of intervening elements. Thus Nakajima(1989) employs the combination of the features $[\pm V]$ and $[\pm N]$ so that the categories involved in Case assignment are definable, and defines the notion of adjacency as in (33):

(33) α is adjacent to β if there is no major category between them.

(33) states that minor categories like adverbs prove to be "invisible" if they occur between the Case assigner and the Case bearer, and that major categories like prepositions block the Case assignment.[5] With the assumption (33), the grammatical sentences in (29)-(32) satisfy (33). The unacceptable sentences in (29)-(32), on the other hand, do not satisfy (33).

(33) is not only applicable to accusative Case assignment and oblique Case assignment, but also applicable to nominative Case assignment as well. Consider (34) and (35):

(34) a.   Gary probably has left.

b.   Gary in fact will leave.

(35) a.   He carefully drives a car.

b. * He in a careful manner drives a car.

It has been said that Johnson claims (34) is problematic for the adjacency, but that is not true. (34) can be explained in terms of (33) in a principled way.

Although (33) covers the data from (29) to (35), there remains another question : That is what distinguishes (2a) and (2b), repeated here as (36a) and (36b).

(36) a.   Mary sincerely believes Gary to be a fool.

b. * Mary believes sincerely Gary to be a fool.

To explain (36) another proposal needs to be made : transportability convention. The transportability convention permits a given phrase to move to the sister position from the original position, but not down to their daughter position. Taking into consideration the convention, we will discuss (36). *Sincerely* in (36) is a subject-oriented S-adverb, which is affiliated with IP. Thus it cannot go down into V'. The illicit representation of (36b) is given below:

(37)
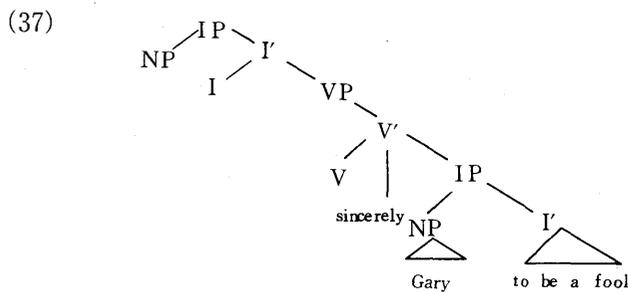
Additional evidence to support the explanation just given stems from the following argument by Nakajima(1989). He argues that the ill-formedness of (36b) does not come from the adjacency condition, but only from the transportability convention. Consider the parallelism below:

(38) a. * I wrote sincerely a paper about the situation in China.

b. * I wrote sincerely about the situation in China.

(38b) shows that the adverb *sincerely* does not appear before a PP complement.

The PP complement does not require Case. Thus the inability of the adverb to appear before the PP complement is not attributed to the Case adjacency condition. It may be concluded that the parallelism of (38) should be captured in the same principle as transportability convention.

So far we have presented two important ideas to make clear the problems concerning NP complements preceding other verbal complements. We are now ready to discuss the difference between (24) and (25). The difference in acceptability between these sentences can be accounted for by transportability convention, but not by the relaxed adjacency condition. Before giving the exact account to the sentences, one more important notion needs to be introduced. The notion is based on J. McCawley's (1988a) classification of adverbs, which is adopted by Nakajima (1989). McCawley makes a distinction between V″-adverbs and V′ adverbs. It is assumed that V″-adverbs modify the whole combination of the verb and its complement while V′-advrbs modify only parts of the verb.[6] Thus in compliance with the transportability convention, V″-adverbs cannot be adjoined to V′. This is the very reason why the inability of the adverbs in (25) occurs.

Finally, back to the second problem Johnson pointed out for the adjacency condition. Consider (39):

(39) a .?? I've believed for a long time now Gary to be a fool.

　　 b . * Mary believes sincerely Gary to be a fool.

　　 c . Who have you believed for a long time now to be a fool ?

　　 d . Who does Mary believe sincerely to be a fool ?

In (39b) the inability of *sincerely* to occur between *believe* and *Gary* comes from the transportability convention. Since the adverb *sincerely* is an S-adverb, it cannot be attached to V″ or V′. To think about the unacceptability of (39a) the following sentence is useful.

(40)　　 I believe t_i sincerely [$_{CP}$ that John is honest.]$_i$

The embedded CP in (40) is assumed to be extraposed to VP. Similarly, let us assume the embedded IP in (39a) is extraposed to VP, and also assume, following Lasnik and Saito(1992), the adjunction structure creates a barrier.[7] Then, the

Case assignment by the given verb is blocked because of the barrier in (39a). Thus (39a) is not acceptable. In the case of (39c / d) the embedded IP is not extraposed to VP as in (39a) because if so, the sentence should be unacceptable. As is just mentioned, adjunction structure creates a barrier, and hence the extraction from within the adjunction structure is prohibited.[8] The representations of (41a / b) also is not applicable. The unacceptability of (39a / b) explains this.

(41) a. Who$_i$ have you believed for a long time now t$_i$ to be a fool ?

b. Who$_i$ does Mary believe sincerely t$_i$ to be a fool ?

The possible representations of (39c / d), then, may be (42a) and (42b).

(42) a. Who$_i$ have you believed t$_i$ for a long time now to be a fool?

b. Who$_i$ does Mary believe t$_i$ sincerely to be a fool ?

(42) observes (33) and thus they are quite acceptable.

It was observed in this section that compared to the proposal by K. Johnson, the relaxed adjacency condition (33) and the transportability convention cover much more language data, and account for the problems in Johnson's analysis.

There are, however, some other problems awaiting us. One problem which is relevant to the present discussion is how to accommodate the following data.

(43) a. I've believed Gary for a long time now to be a fool.

b. I have found Bob recently to be morose.

(43) satisfies (33), but it violates the transportability convention. Although the PP adverbials *for a long time* and *recently* are matrix adverbials, they appear between the subject of the embedded IP and I'. In other words, they occupy the daughter's position, and hence violate the convention. The sentences are, however, acceptable. I must assume that the adverbials in (43) are some kind of parentheticals like (44). I will not be able to take up this problem here.
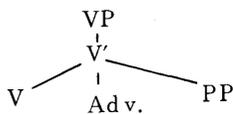
(44)   Jane proved Bob, unfortunately, to be a werewolf.

Another problem is relevant to the English particle construction. Some adverbs can appear between a verb and a particle as in (45), but others do not as in (46). If we regard adverbial particles as non-major category as Nakajima did, (45) and (46) satisfy (33). Thus the difference between these sentences cannot be explained.
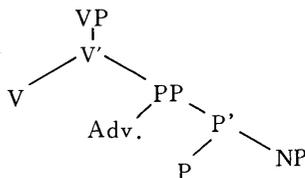
(45) a. They put carefully out the fire.

    b. The electricity supply went straight off when the cable was cut.

<div align="right">(Inage(1991), p. 43)</div>

(46) a. Gary looked the fact right up.

    b. * Gary looked right up the fact.

    c. Betsy mopped the floor all up.

    d. * Betsy mopped all up the floor.

Let us assume that the sentences in (45) have a structure as in (47), and that the adverbs *carefully* and *straight* are V′-adverbs. In addition, assume that the sentences in (46) have a structure as in (48) and that the adverbs in (46) modify particles only. Then the difference can be easily explained. Assuming that the adverbs in (46) modify the particles only, it follows that they cannot occupy the positions in which V′-adverbs can appear.

(47)

```
        VP
        |
        V'
       /   \
      /      \
     V  Adv.  PP
```

(48)

```
        VP
        |
        V'
       /  \
      V    PP
          /  \
       Adv.   P'
             /  \
            P    NP
```

5. Concluding Remarks

In section 1 and 2, we have reviewed K. Johnson's analysis in terms of Verb Raising and Object Shift. In section 3, we have clarified several problems of his analysis. In section 4, we have provided different kinds of evidence that the relaxed adjacency condition and the transportability convention can cover a large range of linguistic data. Also, in section 4, we have discussed some linguistic data the two notions cannot account for, and provided a potential solution. We have argued that the adjacency condition should be defended.

Notes

I am thankful to Amy Larson and Hank Rice for acting as informants patiently, and for reading the early version of this paper. All remaining inadequacies are my own.

1. Johnson assumes that there is a functional head, to which a given verb is attached.

2. (23a) is equal to (3a). In section 1, this example is used as a counterexample to the adjacency condition.

3. Note that both (24d) and (25d) include the same adverb *sincerely.* The acceptability is, however, different.

4. Johnson might cliam that the adverb is adjoined to IP. In fact, he cliams that *probably* in (26a) is adjoined to IP while *probably* in (26b) is adjoined to V'.

   It must be noted that *probably* is usually regarded as an S-adverb by many linguists.

5. Nakajima claims that particles are adverbial PPs and they belong to minor categories. Thus the following sentence satisfies (32).

   (1) He took off his coat.

   As we shall see in section 4, I claim that a particle constitutes a PP, which belongs to major categories.

6. The presice characterization of V'' and V' adverbs has not been established yet. McCawley proposes some criteria to distinguish these two adverbs.

7. Newmeyer cliams that the embedded IP can be extraposed to VP. See Newmeyer (1987) in detail.

8. Note that this is refered to as Freezing.

   (1) * Which game$_i$ do you consider t$_k$ to be good at t$_i$ [your favorite grandson from Seattle] ?

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