

Some Constraints on the Distribution
of Parentheticals in English*

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0. Introduction

The aim of this paper is to give an answer to the following question: what are the possible and the impossible positions of parentheticals, namely, what are the constraints on the distribution of parentheticals? In the framework of generative transformational grammar, many analyses have been proposed as to the derivation of parentheticals,¹ but few have been done as to the distribution of parentheticals. To my knowledge, it is only the rule proposed in Emonds' (1979) analysis that can automatically predict and explicitly define their distribution, and if we adopt other analyses, we need a special constraint on it anyway. In this respect, his analysis is more economical and explanatorily adequate than any other analysis. As will be shown below, however, his analysis has some inadequacies and cannot be maintained. In section 1, we will survey Emonds' (1979) analysis and point out its inadequacies. In section 2, we will propose an alternative analysis of the distribution of parentheticals, which is based on phonological consideration.

1. Emonds' (1979) analysis and its problems

Emonds (1979) proposes the rule "Parenthetical Formation" (henceforth, PF), which moves constituents over parentheticals. This rule is formalized as follows.

$$(1) \quad X - C^{\max} - \left\{ \begin{array}{l} \bar{S} \\ PP \end{array} \right\} - Y \implies 1 - \emptyset - 3+2 - 4$$

where 1-2 is a root \bar{S} , and C^{\max} is a phrasal constituent that is a maximal projection of a lexical category in the bar (prime) notation. Throughout, \bar{S} will refer to COMP + S.

(Emonds 1979: 212)

For example, this rule generates the following sentences by moving the maximal projections, namely, PP (to their campaign fund) and NP (his book on your friends) over the parentheticals, it seems to me and you realize, respectively.

- (2) They would prefer a donation, it seems to me, to their campaign fund. (Emonds 1976: 46)
- (3) He'll talk about, you realize, his book on your friends. (Ibid. p. 47)

The reason why (4)-(6) below, as contrasted with the sentences just above, are not acceptable is that the sequences on the right of the parentheticals do not form constituents.

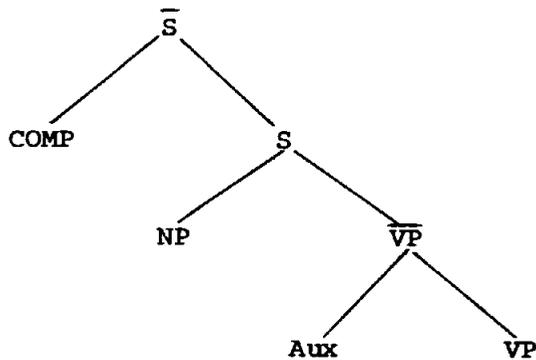
- (4) *A donation, it seems to me, to their campaign fund would be preferred. (Emonds 1976: 46)
- (5) *Linguists in France take, you know, Chomsky very seriously. (Ibid.)
- (6) *He'll talk about, you know, his book to your friends. (Ibid. p. 47)

The rule PF appears to be preferable in the following two respects. First, it states the derivation of parentheticals explicitly. Second, it automatically predicts the distribution of parentheticals, so that it is not necessary to posit a special restriction on it.

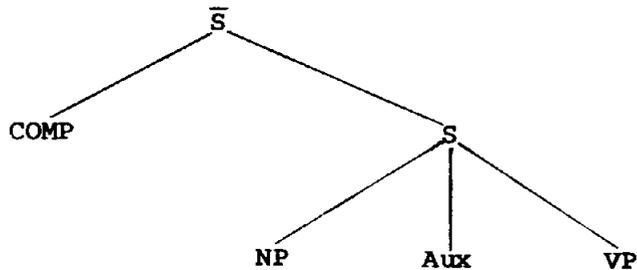
Emonds' (1979) analysis, however, has at least two problems. First, there are some sentences which cannot be generated by the rule PF. Ushie (1980: 60), for example, argues that the rule PF cannot generate the following sentences under the traditional analyses of auxiliary system, namely, (8a) and (8b).

- (7) a. There will, I think, be some mistakes in his new book.
- b. There will be, I think, some mistakes in his new book.
- c. There, I think, will be some mistakes in his new book.

(8) a.



b.



If structure (8a) is adopted, (7a) is not generated. In order for (7a) to be generated, the *nonmaximal* projection, namely, VP (be some mistakes in his new book) must be moved. The rule PF, however, cannot move VP, since it applies only to a maximal projection. Therefore, (7a) is not generated by the rule PF. On the other hand, if structure (8b) is adopted, (7c) cannot be generated, since the sequence $\widehat{\text{Aux VP}}$, which is not a maximal projection, is on the right of the parenthetical. Moreover, (7b) cannot be generated by the rule PF, since the sequence $\widehat{\text{NP PP}}$ (some mistakes in his new book) does not form a constituent either in (8a) or in (8b). Other counterexamples to the rule PF are seen in Okada (1978). Here, I will cite only some of them.

- (9) While it is, I think, ~~true~~ that the ambiguity has to do with whether the adjective is interpreted restrictively or nonrestrictively, I do not think that this ambiguity is traceable to the adjective's having its origin in two different types of relative clauses.² (Okada 1978: 181)

- (10) A very generous, I think, generation is growing up. (Ibid.)
- (11) A revised and, we think, improved version will appear in N. Chomsky and M. Halle. (Ibid.)

One might argue that sentences (7) and (9)-(11) are generated not by the rule PF but by other rules, and that they are not direct counterexamples to the rule PF. For example, sentence (7c) may be generated by a rule that obeys the Transportability Convention proposed by Keyser (1968), which says that sentence adverbs are moved to any position immediately dominated by the node S.³ But this way of thinking leads us to the complexity of the derivation of parentheticals, since we must state the rules for deriving sentences such as (9)-(11) one by one. This is not a desirable result.

The second problem is more crucial and directly related to the rule PF itself. The rule PF moves not a parenthetical clause but a single constituent over it, and the moved constituent, Emonds (1976) claims, has focus stylistically. But this claim is untenable, since the following examples cannot be properly dealt with.

- (12) John, I think, is going to Holland next month.
(Nakamura 1976: 31)
- (13) John deals, I think, with this job.
(where the underlined portion has focus.)

According to Emonds (1976), the moved constituents, that is, is going to Holland next month in (12) and with this job in (13) should have focus.⁴ However, these strings need not be interpreted as focus and instead John and deals can be interpreted as such. Therefore, facts about focus and parentheticals are not so simple as what Emonds thinks they are.

In this section, we have seen that Emonds' (1979) analysis has at least two inadequacies. Therefore, we should find a more reasonable analysis of the derivation of parentheticals and restrict their possible positions. This restriction should not only be able to define the distribution of parentheticals

but also be independently motivated on other grounds. In the next section, we will seek such a restriction from the phonological point of view.

2. An alternative analysis

Before discussing the distribution of parentheticals, we assume (14) to be a rule for inserting parentheticals.

- (14) Chomsky-adjoin parentheticals to the elements which can be modified by adverbs in general.⁵

Now let us seek restrictions on the possible positions of parentheticals. First, as can be seen from the following examples, parentheticals do not modify the elements which cannot be focussed.⁶

- (15) a. *John should write the address, I would say, down.
 b. *They will sooner or later perjure, I predict, themselves.

(Emonds 1973: 338)

Thus the first restriction is that parentheticals not modify those elements that cannot be focussed.⁷ This is evident from the functional nature of the rule for inserting parentheticals to the effect that parentheticals are inserted to put focus on the elements immediately preceded or followed by them. Note that the restriction is to be stated independently of syntax.

Second, it is necessary to posit a restriction on the following examples, which can be automatically excluded by the rule PF.

- (16)=(4) *A donation, it seems to me, to their campaign fund would be preferred.
 (17)=(5) *Linguists in France take, you know, Chomsky very seriously.
 (18)=(6) *He'll talk about, you realize, his book to your friends.

(19) *He likes every, I believe, friend of John.

(Emonds 1976: 46)

In order to account for the unacceptability of the sentences just above, I take the position that the possible positions of parentheticals are restricted not on the syntactic level but on the phonological one.⁸ And I propose the following restriction: parentheticals should not appear where intonation breaks do not occur. Then it is necessary to define the possible and the impossible positions of intonation breaks.

Selkirk (1983) proposes the following restriction on intonational phrasing.

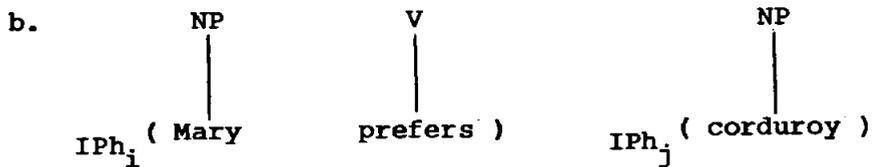
(20) The Sense Unit Condition

The immediate constituents of an intonational phrase must together form a sense unit.

(Selkirk 1983: 247)

Let us illustrate it.

(21) a. Mary prefers corduroy.



(Selkirk 1983: 248)

In (21b), both IPH_i and IPH_j are intonational phrases,⁹ and Mary and prefers are the immediate constituents of IPH_i.

According to condition (20), both intonational phrases, Mary prefers and corduroy, should form a sense unit. What forms a sense unit? Selkirk (1983: 248) states that "a single constituent on its own forms a sense unit," and that as for larger groups of constituents, the following basic hypothesis is adopted.

(22) Two constituents C_i, C_j form a sense unit if a or b is true of the semantic interpretation of the sentence.

In (24), PP (to their campaign fund) and VP (would be preferred) do not together form a sense unit, and in (25), Chomsky and very seriously do not. The same is true of (26) and (27). These constitute supporting evidence for our proposal that the positions where intonation breaks do not occur should be the positions where parentheticals do not appear. Therefore, it can be concluded that condition (20), together with hypothesis (22), is adequate to restrict the possible positions of parentheticals. What is important here is that condition (20) not only defines the distribution of parentheticals but also is independently motivated as a phonological condition on the surface structure, not an ad hoc condition. On the other hand, if one sought a way of restricting the distribution of parentheticals from the syntactic point of view, it would be necessary to posit a number of syntactic rules for their derivation and conditions on each of the syntactic rules, which would cause the complexity of grammar.

Let us further consider the following sentences.

(28) a. John is going , I think, to Holland.

b. *John is going to, I think, Holland.

(where the underlined portion has focus.)

(Nakamura 1976: 34)

In the sentence John is going to Holland, the intonational phrasing IPh_i (John is going) IPh_j (to Holland) is possible, but the one IPh_i (John is going to) IPh_j (Holland) is not, since John is going to does not form a sense unit. Again, the difference in acceptability between (28a) and (28b) can be naturally accounted for by invoking condition (20) and hypotheses (22).¹⁰

3. Conclusion

Summarizing, we have proposed a more natural way of restricting the possible positions of parentheticals. Instead

of the rule PF, we adopt the following rule as a rule for inserting parentheticals.

- (29)=(14) Chomsky-adjoin parentheticals to the elements which can be modified by adverbs in general.

The problem of overgeneration which arises from the application of this rule can be solved by invoking not a syntactic condition but the functional and the phonological conditions.

- (30) Parentheticals do not modify the elements which cannot be focussed.¹¹

- (31) The possible positions of parentheticals are defined by the Sense Unit Condition on intonational phrasing.

One problem with (31) is how sentences (10)-(11), repeated here as (32)-(33), are to be dealt with.

- (32)=(10) A very generous, I think, generation is growing up.

- (33)=(11) A revised and, we think, improved version will appear in N. Chomsky and M. Halle.

It is unclear to me how to account for the acceptability of these sentences. The Sense Unit Condition might be somehow relaxed to make them acceptable. While it might be that Selkirk's (1983) proposal should be modified in some way, nevertheless it seems to me intuitively correct that the positions where intonation breaks do not occur correspond to the positions where parentheticals are not allowed to appear.

NOTES

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¹ The analyses are roughly divided into four groups: (i) the transformational analyses (Kajita (1968), Ross (1973),

Emonds (1973, 1976, 1979), Nakamura (1976), etc.), (ii) the base-generation analyses (Jackendoff (1972), Okada (1977), Nakau (1981), etc.), (iii) the analyses based on the dynamic model of syntax proposed by Kajita (1977) (Kajita (1977), Okada (1983)), (iv) the analysis based on the multidimensional theory of grammar (Haraguchi (1983)).

² On the right of the parenthetical I think is the sequence $AP \overbrace{S}$ (true that the ambiguity has to do with whether the adjective is interpreted restrictively or nonrestrictively, I do not think that this ambiguity is traceable to the adjective's having its origin in two different types of relative clauses).

³ This rule applies to parentheticals only if we assume that they belong to sentence adverbs.

⁴ If we adopt structure (8b), is going to Holland next month does not form a single constituent, and sentence (12) is a counterexample to the rule PF.

⁵ (14) can be regarded as a stylistic rule in the sense of Chomsky and Lasnik (1977) and restated as follows within the framework of GB:

(14') Chomsky-adjoin parentheticals to the elements with F which can be modified by adverbs in general. F is an abstract focus assigned on S-structure.

On the other hand, one may regard (14) as one of the rules of localization by insertion proposed by Kajita (1977). This rule is roughly stated as follows. Suppose that a parenthetical clause which is syntactically associated with S as a whole is semantically closely connected with an element of S (in this case, a focussed element). In this situation, there exists a syntactico-semantic discrepancy, and one of the rules of localization by insertion is introduced in order to remove this discrepancy. This rule moves a parenthetical clause to modify syntactically its semantically connected element. Hence, the syntactico-semantic discrepancy is removed.

⁶ It is evident from the following examples that down and themselves in (15) cannot be focussed.

- (i) *It's down that John should write the address.
- (ii) *It's themselves that they will sooner or later perjure.

(Emonds 1973: 338)

⁷ This restriction is not needed if we adopt rule (14') mentioned in note 5 or the rule proposed by Kajita (1977), for neither rule applies to the elements that cannot be focussed. On the other hand, if we regard rule (14) as a phrase structure rule in the base or as a transformation in the syntactic component, we need the restriction in order to exclude sentences (15a) and (15b). For rule (14) itself says nothing about focus.

⁸ In phonology, to my knowledge, only Downing (1973) and Bing (1980) deal with parentheticals, but neither defines their distribution.

⁹ Of course, there are other possible intonational phrasings. For example, the following phrasings can be regarded as wellformed: IPh_i (Mary prefers corduroy), IPh_i (Mary) IPh_j (prefers corduroy), and IPh_i (Mary) IPh_j (prefers) IPh_k (corduroy). See Selkirk (1983: 249) for intonational phrasing.

¹⁰ My informant judges that the following sentence is acceptable.

(i) John talked to Bill about Harry on, I think, Sunday. Apparently, (i) is a counterexample to our analysis. For that matter, it seems to me that judgements are divided among native speakers as to the insertion of parentheticals between prepositions and noun phrases, and that my informant relaxes the Sense Unit Condition to make sentence (i) acceptable. Although it is not clear to what extent the Sense Unit Condition should be relaxed, it can properly deal with the "core" of the insertion of parentheticals.

Another relaxation is found in the case of the insertion of parentheticals into noun phrases.

- (ii) *Tom cooked a dish, as you know, that I always enjoy.
(McCawley 1981: 106)

Unlike McCawley's judgement, my informant judges sentence (ii) acceptable.

¹¹ As stated in note 7, the necessity of condition (30) depends on which analysis is adopted.

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