

Emonds's Generation of Parentheticals

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Emonds の挿入節の生成について

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1. Introduction.

Many proposals have been made as to how sentences with parentheticals are to be generated. They can be roughly classified into two groups: one advocates the transformational generation of parentheticals and the other their base generation. It is claimed in Okada 1977b that the transformational generation should be discarded and that the base generation should be adopted.

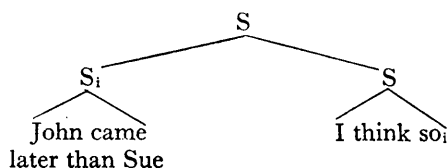
A transformational generation of parentheticals has recently been proposed in Emonds 1976. We will attempt to direct critical comments upon it.

Emonds maintains that sentence (1) is derived in the following way.

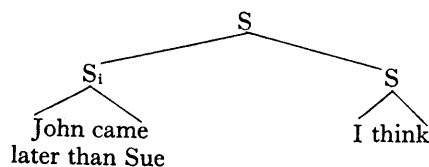
(1) John came, I think, later than Sue.

First, a transformation called the proform deletion rule (henceforth PD) converts the P-marker in (2) into that in (3).

(2)

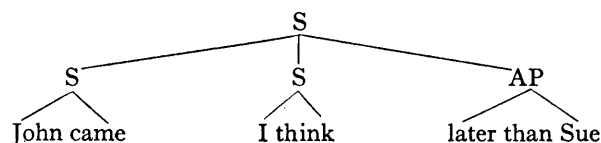


(3)

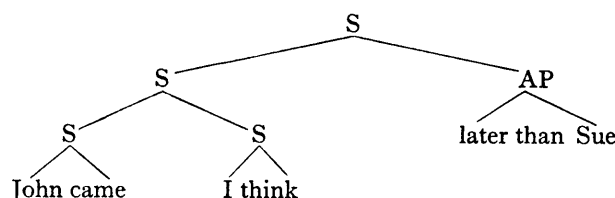


Thus PD deletes a proform from the second S in structures like (2), yielding (3). Next, a transformation called Parenthetical Formation (henceforth PF) converts the P-marker in (3) into that in (4a) or (4b).

(4) (a)



(b)



Thus PF moves a constituent over a parenthetical to the right. It is formulated as follows.

(5) PF

SD:

$$\left[S \left[S \text{ X } - \begin{Bmatrix} \text{NP} \\ \text{AP} \\ \text{S} \\ \text{VP} \\ \text{PP} \end{Bmatrix} \right] S - \left\{ \begin{Bmatrix} \text{S} \\ \text{PP} \end{Bmatrix} \right\} \right] S$$

$$\begin{array}{ccccc} \text{SC:} & 1 & 2 & 3 & \Rightarrow \\ & 1 & \emptyset & 3+2 & \end{array}$$

If PF is to attach the second term of the SD as a right sister to the third term, P-marker (4a) will be given. If PF is to Chomsky-adjoin the second term to the right of the S which dominates the first, second, and third terms, P-marker (4b) will be given. Emonds is non-committal to either of the two alternatives.

We will make critical comments upon Emonds's approach illustrated above.

2. Parenthetical Formation.

PF has at least three problematical points. We will deal with them one by one.

2.1. As we have seen in Section 1, Emonds derives sentences with "internal" parentheticals from those with "final" parentheticals by PF. No arguments, however, are given in favor of this derivation rather than the derivation of sentences with final parentheticals from those with internal parentheticals or the derivation of sentences with internal parentheticals from those with "initial" parentheticals.¹

The more important point to note is that he decrees that PF move a final phrasal *constituent* of the nonparenthetical clause to the right over the sentence-final parenthetical. As is evident from the following sentences, however, non-constituents may rather freely occur to the right of parentheticals.

- (6) What is, I believe, the same restriction also carries over to the generic form *one*, not surprisingly, since such forms also involve in some way universal quantification.

- (7) Nobody, he pointed out, who was still in the larval stage could claim to know anything of life at all. (Agatha Christie, "The Man from the Sea")
- (8) Though the suggestion that rule ordering is relevant cannot, I think, be seriously considered without more specific indication of what the relevant rules and underlying structures might be, the suggestion that these sentences 'never contain coordinate structures at all' is, I think, essentially sound—if by 'coördinate structures' one means structures whose constituents are interpreted as being of equal rank. (Paul Schachter, "Constraints on Coördination")
- (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. (Paul Schachter, "On Syntactic Categories")
- (10) Primarily, as observed first, I believe, by S. Y. Kuroda, backwards pronominalization is in general banned *for indefinite NP*: (Paul Postal, *Cross-Over Phenomena*)
- (11) Mental and physical organs alike are determined, it seems, by species-specific genetically-determined properties, though in both cases interaction with the environment is required to trigger growth and will influence and shape the structures that develop. (Noam Chomsky, "On Cognitive Structures and Their Development")
- (12) Bill, John, I think, supposes, won't sign it. (Bruce T. Downing, "Parenthesization Rules and Obligatory Phrasing")
- (13) The mothers, I think, and the older people, were rather cross with her. (Agatha Christie, "Hallowe'en Party")
- (14) Neither the sickly and thoughtworn Dr. Giacomo Rappaccini, it is true, nor his brilliant daughter, were now visible; (Nathaniel Hawthorne, "Rappaccini's Daughter")
- (15) A revised and, we think, improved version will appear in N. Chomsky and M. Halle, *Sound Pattern of English*, Harper and Row, New York (forthcoming). (N. Chomsky, "Formal Nature of Language")
- (16) A very generous, I think, generation is growing up.
- (17) He was a painter, I think, of a good deal of prominence a few years ago. (O. Henry, "A Madison Square Arabian Night")
- (18) ... it was often difficult to know how to dispose of these natural, it seemed, young criminals who came before the juvenile courts. (Agatha Christie, *Hallowe'en Party*)
- (19) The empirical study of linguistic universals has led to the formulation of highly restrictive and, I believe, quite plausible hypotheses concerning the possible variety of human languages, hypotheses that contribute to the attempt to develop a theory of acquisition of knowledge that gives due place to intrinsic mental activity. (N. Chomsky, *Language and Mind*)

- (20) If the range is quite narrow (as, it seems to me, is suggested by considerations of the sort mentioned above), then a first approximation of the sort suggested will be a prerequisite to any fruitful investigation of learning. (N. Chomsky, "The Formal Nature of Language")
- (21) With it there are no such corresponding 'modal transitives', and this is because more obviously in this case (and, I would suggest, with (liv. *a*)) the adverbial is 'associated' with the subject, whereas in (liv. *b*) and the like it relates rather to the agent. (John Anderson, *The Grammar of Case*)
- (22) A salient semantic fact about the verb *cause* (and, one would surmise, about CAUSE as well) is that if a sentence of the form *NP cause S* is true (I am being rather casual about the exact syntactic structure of the complement), then *S* must be true as well. (Richard T. Oehrle, "Review of Green, *Semantics and Syntactic Regularity*")
- (23) We learn the meanings of practically all our words (which are, it will be remembered, merely complicated noises), not from dictionaries, not from definitions, but from hearing these noises as they accompany actual situations in life and then learning to associate certain noises with certain situations. (S. I. Hayakawa, *Language in Thought and Action*)
- (24) In that instant, in too short a time, one would have thought, even for the bullet to get there, a mysterious, terrible change had come over the elephant. (George Orwell, *Shooting an Elephant*)
- (25) Dressed, I think, in the uniform of an Elder Brother of Trinity House he was proposing a toast at a dinner at the Mansion House. (A. G. Gardiner, "On Habits")
- (26) But in order, I suppose, to encourage generosity, the IRS taxes gifts at a lower rate than bequests. (*Playboy*, October 1971)

Furthermore, the following sentences might be added.

- (27) Conversely, he figured, the Soviet involvement might force the Israelis to realize that they might not be dealing from a position of strength forever. (*Time*, August 3, 1970).
- (28) Thus, claims this argument, the underlying embedded sentence from which the negation is taken must be [*not all*] *the boys will leave*, rather than *all the boys won't leave*. (Ray S. Jackendoff, "Arguments about Quantifiers and Negation")
- (29) Next day, Kalmbach reported, he met again with Dean in the Statler Hilton. (*Newsweek*, July 16, 1973)
- (30) From the inside of government, Ellsberg added, it seemed easy to control news: (*Time*, July 19, 1971)
- (31)² It was, White thought, an odd whim on the part of God to bestow so long a life on a creature who seemed to care so little for it. (Joseph W. Krutch, *Nature and Human Nature*)

- (32)³ Where, we might ask, does this face come from which gives moving objects their orientation?

PF, which is claimed to move a phrasal constituent to the right over a parenthetical, cannot generate the sentences (6)–(32). Emonds's grammar, therefore, is descriptively inadequate. In particular, it is too weak because it fails to generate some grammatical sentences with (internal) parentheticals.

2.2. Emonds maintains that PF must be restricted so that certain phrasal constituents that are "too deeply embedded" do not serve as the second term of the rule. He directs attention to the contrast in the following pairs of sentences.

- (33) a. He dislikes the man that Mary works for, I think.
 b. *He dislikes the man that Mary, I think, works for.
 (34) a. She persuaded Bill that you worked for her company, it seems.
 b. *She persuaded Bill that you, it seems, worked for her company.

It is suggested that, whereas (33b) may be excluded by Ross's Complex NP Constraint (henceforth CNPC), nothing in the literature would properly account for the ungrammaticality of (34b).

But there are many examples where certain elements which are "rather deeply embedded" appear to the right of parentheticals. The following sentences are drawn from Okada 1977c.

- (35) Bill thinks that he is taller than Jane, it seems to me, has ever been.
 (37) They think that Tom is someone that, it seems to me, he isn't.
 (38) The indictment was filed in Detroit because, it was charged, the conspiracy was born at a secret meeting of the Weathermen in Flint, Mich., last December.
 (39) Part of the difficulty is the fact that the adjectives here are, I think, actually irregular forms of *ly* adverbials, a point suggested by their correspondence with *how* questions, typically associated with such adverbials.

Sentences (6), (8), (9), (10), (12), (18), (20), (21), (23), (25), etc. contain elements which are rather deeply embedded to the right of parentheticals. Since there are many sentences where parentheticals occur in relative clauses even in my small collection of data presented in Okada 1977c, the ungrammaticality of (33b) seems to be strange. The ungrammaticality of (34b), on the other hand, may have something to do with the ungrammaticality of (40):

- (40) *Bill thinks that Jane, it seems to me, is tall.

2.3. PF is held to derive (41) from (42).

- (41) John would like fewer courses and, it is likely, more pay.
 (42) John would like fewer courses and more pay, it is likely.

Sentences (13), (14), (15), (19), (21), and (22) have parentheticals which intervene between elements that combine to form coordinate structures. Emonds notes that PF violates Ross's Coordinate Structure Constraint (henceforth CSC) when it moves *more pay* to the right over the

parenthetical *it is likely* in (42). He accordingly suggests that some revision of CSC is needed that will permit PF to violate such a constraint and yield (41). Considering that he suggests that the ungrammaticality of (33b) is accounted for by CNPC, it seems that he thinks it is not necessary to revise CNPC. As a matter of fact, however, parentheticals may occur in restrictive relative clauses and certain appositive clauses. The following sentences are drawn from Okada 1977c.

- (43) But 'art museum' is not an expression that a British writer, I think, would be likely to use.
- (44) I cannot really think that I have any advantages beyond the fact that I may, I suppose, seem rather foolish and simple, and am in fact, what used to be called in rather early days an "old pussy".

One can add sentences (6), (37), and (39). The point to note is that PF would not have generated these sentences without violating CNPC.

Moreover, as is pointed out in Grosu 1972, no elements can be extracted out of parentheticals and comparative clauses.

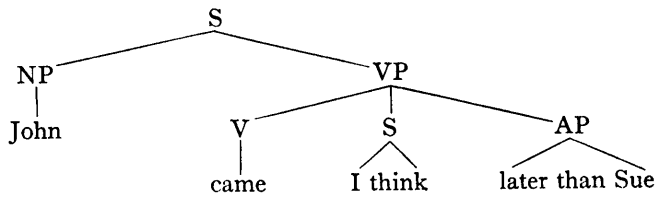
- (45) Life would be richer, students of aging agree, if a wider repertory of activities were encouraged throughout life.
- (46) *Who would life be richer, agree, if a wider repertory of activities were encouraged throughout life?
- (47) John is taller than Mary (is).
- (48) Who is John taller than (*is)?

Parentheticals, however, may appear in parentheticals (cf. (12)) and comparative clauses (cf. (35)). PF would not have generated (12) and (35) without violating Groux's constraint.

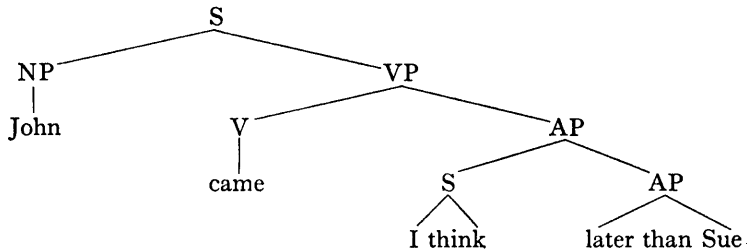
Emonds should have proposed that some revision of CSC, CNPC, and Grosu's constraint is needed that will permit PF to violate such constraints. I am not prepared to suggest that the proposal is quite implausible. But now that no concrete proposals have been made along the line, it seems to me that it is more reasonable to base-generate parentheticals and move them into major breaks of sentences. It may turn out that the rule to move parentheticals is not a transformation, which is to be defined on analyzability. It might properly belong to the stylistic component.⁴

2.4. Emonds has formulated PF in such a way that it moves the second term of the SD around the parenthetical to the right, attaching it as a right sister to one of the root S's in the input structure. It would have been possible, however, for him to set up PF', which moves the third term (the parenthetical itself) to the left into the left-hand S. He has chosen PF for the following three reasons. The first reason is based on the phenomena of comma intonation. He argues that in order to get the right comma intonation of sentence (1), its surface structure should be (4a) or (4b) rather than (49a) or (49b):

(49) a.



b.



Both (4a) and (4b) are structures which PF is likely to generate, while both (49a) and (49b) are structures which PF' is likely to generate. In order to account for the comma intonation of sentence (1), he has recourse to (50):

(50) A root S (immediately) dominated by another S is set off by commas.

This rule, however, is inadequate in that it fails to correctly predict the comma intonation of sentence (51), for instance.

(51) John came, in my opinion, later than Sue.

because the expression *in my opinion* cannot be a root S. Moreover, it is generally the case that there is not one-to-one correspondence between the place of phonological break and that of syntactic break. For example, in sentence (52), the phonological break occurs before *if*, whereas the first syntactic major break occurs after *he*⁵.

(52) He asked me anxiously if everything is alright.

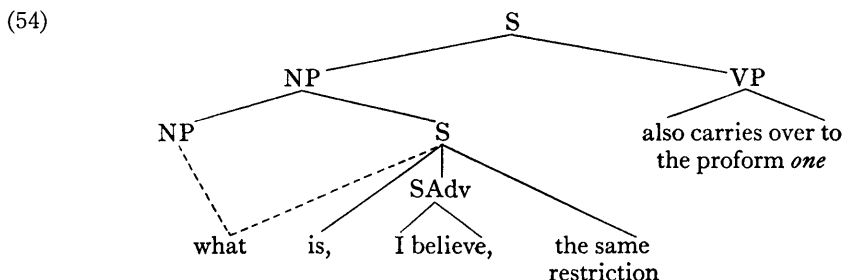
It is impossible, therefore, to discard the possibility that the parenthetical formation rule generates (49a) or (49b) and that a readjustment rule (cf. Chomsky and Halle 1968) converts it into the structure which would enable us to correctly determine the comma intonation of sentence (1).

The second reason is that PF' violates the principle of insertion-prohibition (first proposed in Chomsky 1965: 146). But one must also recall that PF violates CSC, CNPC, and Grosu's constraint. Thus it is impossible to make any plausible argument in favor of PF rather than PF' on the basis of the insertion-prohibition principle alone.

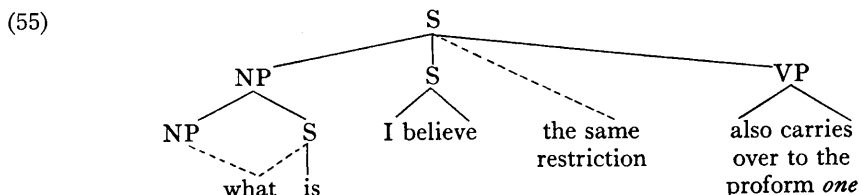
The third reason is related to the structure-preserving constraint. Both PF and PF' interchange two phrasal nodes, so they cannot be local transformations. PF' does not attach a parenthetical to a root S, so it cannot be a root transformation. Further, it does not move a parenthetical to positions where S can be generated by the base rules. So it cannot be a structure-preserving transformation. Emonds concludes that PF' is ruled out by the structure-

preserving constraint; only PF is consistent with the constraint. In particular, PF is a typical case of a root transformation. Granted that the structure-preserving constraint holds,⁶ it is not clear that parentheticals are always immediately dominated by root S's and root S's themselves. For example, the structure of sentence (53):

(53) What is, I believe, the same restriction also carries over to the generic form *one*.
seems to me to be (54):



rather than (55):



What is more, PF would have to move non-constituents, as is shown in Section 2.1. Thus one must conclude that the arguments made in Emonds 1976 in favor of PF rather than PF' are weak and that it is premature to adopt the former version of the parenthetical formation rule.

3. Proform Deletion Rule.

PD is held to derive sentences with final parentheticals from deep structures which consist of two successive independent clause S's concatenated without a coordinate conjunction, the second of which contains a proform referring back to the first. Thus, as is indicated in Section 1, PD converts (2) into (3).

It is not clear, however, what proform has been deleted to generate such sentences as in (55):

(55)

Many young people, $\left\{ \begin{array}{l} \text{it is true} \\ \text{it is likely} \\ \text{it is said} \\ \text{it seems plain} \\ \text{let it be noted} \end{array} \right\}$, do not seem to value freedom.

It is impossible to claim that the proform *so* or *that* has been deleted, because the corresponding sentences in (56) are ungrammatical.

(56)

*Many young people, $\left\{ \begin{array}{l} \text{it is true} \\ \text{it is likely} \\ \text{it is said} \\ \text{it seems plain} \\ \text{let it be noted} \end{array} \right\} \left\{ \begin{array}{l} \text{so} \\ \text{that} \end{array} \right\}, \text{ do not seem to value freedom.}$

If the proform *it* were dropped from the sentences in (55), ungrammatical sentences would result.

(57)

*Many young people, $\left\{ \begin{array}{l} \text{is true} \\ \text{is likely} \\ \text{is said} \\ \text{seems plain} \\ \text{let be noted} \end{array} \right\}, \text{ do not seem to value freedom.}$

It follows, therefore, that PD is not involved in the generation of the sentences in (55). Thus Emonds's proposed grammar is descriptively inadequate, since it fails to generate some grammatical sentences with parentheticals.

4. Conclusion

As we have seen thus far, there are some objections to Emonds's proposed generation of sentences with parentheticals. In particular, PF and PD, the two rules which are crucial in his grammar, are not adequate. Both rules do not guarantee the generation of all the grammatical sentences with parentheticals. One must conclude, therefore, that it is impossible to adopt his proposal as to how sentences with parentheticals are generated as it is.

Footnotes

- 1) Let it be noted that Kajita 1968 derives sentences with internal parentheticals from those with "initial" parentheticals. Furthermore, he base-generates such sentence-modifying adverbial phrases as *in NP's opinion* sentence-initially.
- 2) Of course, if the extraposed clause is, as is claimed in Emonds 1976, immediately dominated by VP, then the string which follows the parenthetical constitutes a constituent.
- 3) If one assumes, following Bresnan 1972, that the base system of English includes the following rule:
 $\bar{S} \rightarrow \text{COMP } S$
 then what follows the parenthetical *we might ask* in sentence (32) constitutes a constituent with the category S.
- 4) Cf. Chomsky 1965: 126–27.
- 5) This example is drawn from Kajita 1976: 229, fn. 18.
- 6) Some crucial doubts have been pointed out as to the adequacy of the constraint. Cf. Nagahara 1973.

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Abstract

A transformational generation of sentences with parentheticals has been proposed in Emonds 1976. Interesting though it is, there are some objections to the proposal. In particular, Parenthetical Formation and the proform deletion rule, which are claimed to play crucial parts in generating sentences with parentheticals, cannot be accepted as they are. It is premature, therefore, to adopt his proposed derivation of sentences with parentheticals.