

The Principle of Conservation of the Relation Between Main and Subordinate Clauses

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主節・従属節関係保持の原則

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1. INTRODUCTION. In order to relate such a pair of sentences as in (1):

(1) (a) I think that John will come.

(b) John, I think, will come.

an optional transformation called, for example, Slifting in Ross 1973b has been proposed.

But in dealing with (i) the case where a well-formed surface structure containing a parenthetical lacks its corresponding well-formed deep structure and (ii) the case where a well-formed deep structure lacks its corresponding well-formed surface structure containing a parenthetical, one would be obliged to expand the descriptive power of transformations inordinately, and accordingly be one step removed from the goal of attaining explanatory adequacy.

For example, in the pair of sentences in (2):

(2) (a) *John thought that damn it, the son of a bitch had done it again.

(b) Damn it, John thought, the son of a bitch had done it again.

(b) is well-formed, whereas (a) is ill-formed. In this case, Slifting is supposed to derive (b) from (a). One might try to explain the ungrammaticality of the source of (b) by proposing that Slifting, which is otherwise an optional rule, be obligatory in case such an exclamatory expression as *damn it*, which may, in general, not occur in complement sentences in surface structure, is contained in the complement clause to be upgraded.

In the pair of sentences in (3):

(3) (a) He proposed that the meeting be postponed.

(b) *The meeting, he proposed, be postpond.

the result of Slifting is ill-formed. It might be possible to account for the fact that Slifting may not apply to (3a) by suggesting that the rule, which is otherwise optional, not apply in case the present subjunctive predicate (or the predicate where *should* has been deleted by a rule of *should*-deletion) whose occurrence is restricted to complement sentences in surface structure is contained in the complement sentence to be upgraded.

It is true that one could attain descriptive adequacy by thus adding complex conditions in the structural description of Slifting, but this approach will lead to the expansion of the descriptive power of transformations, which, in turn, will lead to the retreat from the end of attaining explanatory adequacy. Furthermore, these conditions are ad hoc at best. What seems more important is the fact that one cannot explain why it is not the other way around in the two cases mentioned above, that is, why (i) Slifting is not inapplicable in case such an exclamatory expression as *damn it* is contained in the complement sentence and (ii) it is not obligatory in case the present subjunctive predicate is contained in the complement sentence.

When a condition is set up which prohibits transformations from changing main into subordinate clauses and subordinate into main clauses, such a transformation as Slifting is disallowed on principle. This condition results from the linguistic universal that main and subordinate clauses have their own distinct structures besides their common structures.

The condition fortunately succeeds in discarding some of the transformations proposed in the literature which lack strong syntactic motivation on a principled basis. One can consider this fact to be evidence for the acceptance of this condition.

Below we will take up some of those transformations one by one, point out their syntactic problems, and show that the condition proposed with respect to Slifting can disallow them on principle.

2. PERFORMATIVE DELETION. Ross 1970 proposes that declarative sentence be derived from deep structures containing a higher clause where the speaker is the subject, a verb of saying ('performatative verb') is the main verb, and the hearer is the indirect object of the main verb. According to this proposal, the deep structure of (4) :

(4) Prices slumped.

is (5) :

(5) I SAY you [_s prices slumped]_s

I SAY (an abstract verb of saying) *you* in (5) is deleted by a rule called performative deletion. As a result, the original subordinate clause upgrades into a new main clause, and (4) is yielded.

Some pieces of evidence have been proposed for supporting this manner of derivation but each of them is not very persuasive. Let us consider the argument presented in

Hasegawa 1972 to the effect that even the relatively plausible argument made in Ross 1970 cannot stand.

Ross points out the difference in grammaticality between the following two sentences :

(6) Tom believed that the paper had been written by Ann and himself.

(7) *Tom believed that the paper had been written by Ann and themselves.

In the light of this fact, he hypothesizes that emphatic reflexive pronouns are anaphoric and may appear in case they are commanded by their antecedents. Now consider (8)–(9) :

(8) This paper was written by Ann and myself.

(9) *This paper was written by Ann and themselves.

The grammaticality of (8) and the ungrammaticality of (9) would be predicted by this apparently plausible generalization of Ross's, if the deep structures of (8) and (9) were (10) and (11), respectively.

(10) I SAY you [_s this paper was written by Ann and myself]_s

(11) *I SAY you [_s this paper was written by Ann and themselves]_s

If (8) were derived from (10), the grammaticality of (8) would follow automatically from the fact that *myself* is commanded by *I* in (10). Similarly, if (9) were derived from (11), the ungrammaticality of (9) results automatically from the fact that *themselves* does not have any appropriate antecedent to command it in (11).

It should be recalled that this approach of Ross's crucially depends upon the grammaticality of (8) and the ungrammaticality of (9). But Hasegawa points out that such a discourse as (12) :

(12) Tom claims that he has never written this paper. It is not true. This paper was written by Ann and himself.

is well-formed. He goes on to say that Ross's analysis would suggest that the deep structure of the last sentence in the discourse (12) is (13) :

(13) I SAY you [_s this paper was written by Ann and himself]_s

But in (13) the generalization set up with respect to the occurrence of emphatic reflexive pronouns does not hold, he notes. Thus Ross's argument involving emphatic reflexive pronouns, which is one of the stronger arguments presented in Ross 1970, cannot stand¹¹. It seems that one should try to find a way to determine the appearance of emphatic reflexive pronouns which takes the properties of discourse structure into account.

Notice here that Ross's performative deletion has the effect of converting the original subordinate clause into a new main clause, deleting the original main clause. The principle of conservation of the relation between main and subordinate clauses will discard performative deletion on a principled basis.

3. INSTRUMENTAL ADVERBIALS. Lakoff 1968a shows that the same grammatical relations

and selectional restrictions are found in such pairs of sentences as in (14):

(14) (a) Seymour used a knife to slice the salami.

(b) Seymour sliced the salami with a knife.

He then proposes that the deep structure of (14 b) is, roughly, (15):

(15) Seymour used a knife [_S Seymour sliced the salami]_S

which is nearer to (14 a) than to (14 b).

Chomsky 1971, however, claims that one should take such sentences as (16)–(19) into consideration.

(16) Seymour used the knife to slice the salami with.

(17) Seymour used this table to lean the ladder against.

(18) Seymour used this table to write the letter on.

(19) Seymour used this car to escape (make his gate way) in.

He then proposes that the structure represented in (20):

(20) Seymour used a knife [_S Seymour sliced the salami with a knife]_S

underlie (14 a). According to his analysis, (i) a deletion rule deletes the last NP *a knife* in the complement sentence of (20) on the identity condition, yielding the structure represented in (16), and (ii) a rule which deletes the preposition (*with*, in this case) optionally apply to the structure in (16), yielding the structure in (14 a).

If such is the case, it follows that (a) and (b) in (14) do not have the same deep structure. But the fact that the same grammatical relations and selectional restrictions are found in (a) and (b) in (14) follows automatically from the fact that the deep structure of (b) is contained in that of (a) as the complement sentence.

Thus the approach to derive (14 b) from (14 a) does not seem to be plausible before the wider array of linguistic facts presented in Chomsky 1971.

If the principle of conservation of the relation between main and subordinate clauses is adopted, the transformation which is held to map (a) onto (b) in (14) will automatically be dropped from the repertory of possible transformations, since it involves the operation by which the original subordinate clause is converted into a new main clause and, at the same time, the original main clause is changed into an instrumental adverbial modifying the main verb of the newly created main clause.

4. It is Adj that $S \longrightarrow \text{Adj} + \text{ly}, S$. It has been proposed, for example, in Schreiber 1971, that the structure illustrated in (21):

(21) Probably/clearly/fortunately/reportedly/..., S

be derived from the structure given in (22):

(22) It is probable/clear/fortunate/reported/... that S

Kajita (personal communication), however, points out (i) that the expressions cited in (23):

(23) In all probability/perhaps/maybe/..., S

lack the corresponding structures of the form (22), and (ii) that the expressions in (24):

(24) It is imaginable/inconceivable/imperative/said/thought/... that *S* lack the corresponding structures of the from (21)²¹. He concludes that more research should be conducted before adopting the approach to deal with the relation between (21) and (22) by a transformation, and not by the lexicon.

Moreover, Jackendoff 1972 maintains that the approach mentioned above would wrongly predict that (25)–(27) :

(25) *Did Frank probably beat all his opponents ?²³

(26) *Who certainly finished eating dinner ?

(27) ? What has Charley evidently discovered ?

are synonymous with (28)–(30), respectively.

(28) Is it probable that Frank beat all his opponents ?

(29) ? Who is it certain finished eating dinner ?

(30) What is it evident that Charley has discovered ?

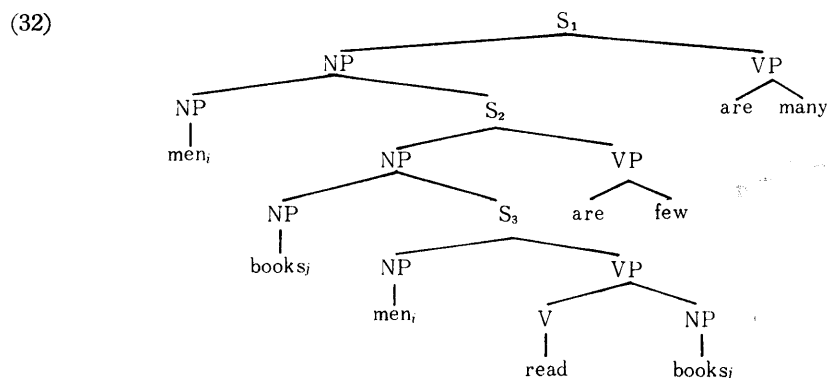
The trouble is that (25)–(27) are ill-formed, while (28)–(30) are well-formed. He claims that this difference in grammaticality shows that the derivation of (21) from (22) cannot stand.

It is clear that the transformation which derives the structure *Adj + ly, S* from the structure *it is Adj that S* changes the original subordinate clause into a new main clause and the original main clause into a sentence adverbial modifying the newly created main clause. Here, too, a transformation against whose existence have been cited several pieces of evidence does not satisfy the principle of conservation of the relation between main and subordinate clauses.

5. QUANTIFIER-LOWERING. It has been proposed in several papers⁴⁾ that quantifiers be generated in the base as predicates of higher sentences and inserted into the complement sentences by a cyclical rule of quantifier-lowering. According to this analysis, such a sentence as (31):

(31) Many men read few books.

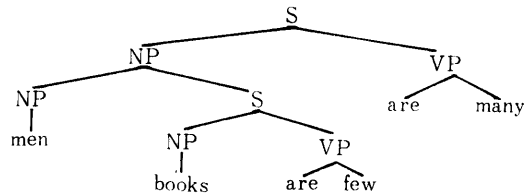
is derived from (32) :



Specifically, quantifier-lowering places *few* in front of *books* in S_3 on the S_2 cycle, yielding *men_i read few books_j*. Next it lowers *many* onto *men_i* in S_3 on the S_1 cycle, yielding *many men read few books*.

Chomsky 1972 makes two types of criticisms against this approach.⁵⁾ One of the criticisms which belong to the first type goes as follows. In order to block the base-generation of such structures as (33):

(33)



two conditions would have to be posited. One is that the embedded NP *books* have a relative clause attached to it. The other is that this relative clause contain both of the NP's that appear in (33). But these conditions are without parallel among syntactically motivated structures.

Next, one of the criticisms of the second type goes as follows. Quantifier-lowering is held to (i) delete the antecedent noun and (ii) move the predicate of the matrix sentence into the embedded sentence. These operations, nevertheless, do not have an analogue within the syntactically motivated sections of the grammar.

The approach having recourse to quantifier-lowering would thus be forced to set up structures with unique properties and require rules with unique properties. This fact does suggest that the approach is incorrect.

Let it be noted here that quantifier-lowering involves the operation that upgrades the original subordinate clause into a new main clause and downgrades the predicate of the original main clause into a premodifier of the noun of the newly created main clause. Here, too, it is evident that the problematical analysis involves a rule that violates the otherwise plausible condition on application of rules, i. e., the principle of conservation of the relation between main and subordinate clauses. If this principle is adopted, quantifier-lowering is discarded on a principled basis.

6. If $S, S \longrightarrow \text{Imperative}, \left\{ \begin{smallmatrix} \text{and} \\ \text{or} \end{smallmatrix} \right\} S$. A transformation has been proposed which converts a subordinate clause beginning with the conjunctions *if* and *although* into the first of coordinated clauses.⁶⁾

This transformation is held to map the structures in (34)–(36):

(34) If you help him, John will be thankful.

(35) If you do not help him, John will hate you.

(36) Although he was well liked by the parishioners, the priest simply couldn't get

along with the bishop.

onto those in (37)–(39) :

- (37) Help him, and John will be thankful.
- (38) Help him, or John will hate you.
- (39) He was well liked by the parishioners, but the priest simply couldn't get along with the bishop.

As is clear from the mapping of (34)–(35) onto (37)–(38), the transformation may apply only if (i) the subject of the *if*-clause is the second pronoun, and (ii) the main clause modified by the *if*-clause is not embedded in any other clause. But notice that these two conditions are exactly the conditions which are to be stated in the structural description of the imperative transformation. Therefore, it would miss a linguistically significant generalization to repeat the conditions to be imposed on the imperative transformation in the structural description of the transformation proposed.

Moreover, it seems to be impossible to collapse the transformation which converts (34)–(35) into (37)–(38) and the transformation which converts (36) into (39), since (i) the former, not the latter, may apply only if the above-mentioned two conditions are met, and (ii) the former, not the latter, involves the operation that deletes the second person pronoun subject of the subordinate clause.

The interpretation of pronouns has been cited as evidence for setting up the transformation or transformations proposed. But it seems that one should take stress into consideration and try to find a more extensive explanation.⁷⁾

Thus we must conclude that the existence of the transformation or transformations proposed is quite dubious.

Let us point out that the principle of conservation of the relation between main and subordinate clauses would disallow the transformation or transformations at issue, with a slight revision to the effect that transformations may not apply in such a way that they change main, subordinate, and coordinate clauses into any of the other types of clauses. Of course, however, if it is possible or imperative to regard a coordinated clause as a main clause, as is likely from the fact that root transformation may apply to both of these two types of clauses, then no revision will be needed.

7. CONCLUSION. It is evident that there are arguments strong enough to doubt the existence of the transformations taken up in Sections 2–6. But it has not been noted that they all have a property in common. If the principle of conservation of the relation between main and subordinate clauses, which has been proposed with respect to Slifting, is adopted, all of these transformations are discarded on a principled basis. This principle prohibits transformations from applying in such a way that they convert main into subordinate clauses and vice versa, on the well-attested assumption that it is a true lin-

guistic universal that main and subordinate clauses have not only their common syntactic structures but also their own structures distinct from the structures of each other.⁸⁾ By accepting this principle, some of the transformations which have traditionally been regarded as ad hoc, complex, and ill-motivated can successfully be discarded. This fact, in turn, gives the principle strong motivation.

Footnotes

- 1) Let us pay attention to such a sentence as (i):

(i) There would be a rescue party from the lodge hunting for Martin and herself, she was sure.

where an emphatic reflexive pronoun is not commanded by its antecedent. If Slifting, as I have argued in Okada 1977, is not a possible transformation, then it is not a correct generalization that emphatic reflexive pronouns may occur only if they are commanded by their antecedents.

- 2) Greenbaum 1969 cites such pairs of sentences as in (i)-(ii):

(i) (a) $\left. \begin{array}{l} \text{bad} \\ \text{nice} \\ \text{false} \\ \text{hard} \\ \text{sufficient} \end{array} \right\} \text{It's } \left. \begin{array}{l} \text{bad} \\ \text{nice} \\ \text{false} \\ \text{hard} \\ \text{sufficient} \end{array} \right\} \text{ (that) he hasn't a job.}$

(b) $\left. \begin{array}{l} \text{Badly} \\ \text{Nicely} \\ * \text{Falsely} \\ \text{Hardly} \\ \text{Sufficiently} \end{array} \right\} \text{, he hasn't a job.}$

(ii) (a) $\left. \begin{array}{l} \text{judged} \\ \text{said} \\ \text{argued} \end{array} \right\} \text{It is } \left. \begin{array}{l} \text{judged} \\ \text{said} \\ \text{argued} \end{array} \right\} \text{ (that) they have taken the job.}$

(b) $\left. \begin{array}{l} \text{Judgedly} \\ * \text{Saidly} \\ \text{Arguedly} \end{array} \right\} \text{, they have taken the job.}$

- 3) Schreiber 1971: 88 claims that such sentences as (i):

(i) Is he possibly a scholar?
are grammatical.

- 4) That is, within the framework of generative semantics. See, for instance, Lakoff 1970 and Lakoff 1972.
- 5) For different types of criticisms, see Jackendoff 1972.
- 6) For example, in Chiba 1972.
- 7) Reference should be made to Lakoff 1968b, Akmajian and Jackendoff 1970, Hinds and Okada 1975, etc.
- 8) Emonds's structure-preserving constraint, according to which a certain type of transformations, called root transformations, which is not structure-preserving, may apply only in root sentences seems to be based, in part, on this universal. Ross's penthouse principle, which is an implicational universal that stipulates that all syntactic processes that apply in subordinate clauses also

apply in main clauses, also is related to this universal in certain respects.

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Abstract

When one accepts a transformation called, for example, Slifting, one will be compelled to expand the descriptive power of transformations inordinately, and will, accordingly, be one step removed from the goal of attaining explanatory adequacy. Furthermore, the expansion of the descriptive power of transformations which will result from the setting up of Slifting is quite ad hoc and is unnecessary in the case of other syntactically well-motivated transformations.

In order to disallow Slifting on a principled basis, a universal condition on application of transformations has been proposed which prevents transformations from applying in such a way that they change main into subordinate clauses and vice versa. This condition is held to capture the linguistic universal that the structures possible in main clauses are not the same as those possible in subordinate clauses in any language.

Once this condition is adopted, it will turn out that some of the transformations which have been proposed in the literature but which are lacking in syntactic motivation are abandoned on principle. For example, (1) performative deletion proposed in Ross 1970, (2) the transformation proposed in Lakoff 1968 a, which, in effect, converts the sentence *John used a knife to slice the salami* into the sentence *John sliced the salami with a knife*, (3) quantifier-lowering, (4) the transformation which maps the structure *it is Adj that S* into the structure *Adj + ly, S*, (5) the transformation which converts the structure *if S, S* into the structure *Imperative, {^{and}_{or}} S*, etc., are lacking in syntactic motivation. But since they all involve complex operations which change main into subordinate clauses and/or subordinate into main clauses, they are banished by the above-mentioned principle. The fact that the principle succeeds in blocking those transformations which lack strong syntactic motivation supports the plausibility of the principle.