COUNTER EQUI NP DELETION*

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1. Although I know of no explicit reference in the literature of transformational grammar, it seems to me that there is a general agreement that identity deletion transformations are subject to a principle such as the following: [1]

(1) When a deletion transformation operates on a pair of identical elements, one asymmetrically commanding the other, it is the commanded, rather than the commanding, element that is deleted by that transformation.

Familiar rules of identity deletion all seem to obey this principle. For example, the well-known rule of Comparative Deletion derives from a structure like [2]

(2) John is more smart [than Bill is smart]$_S$

a structure like (3a) rather than (3b):

(3) a. John is smarter than Bill (is).

b. *John is more than Bill is smart.

Similarly, the rule of Sentence Pronominalization, which converts an embedded sentence into it under identity with another clause, cannot form structures like (b)-sentences but rather (c)-sentences from underlying structures like (4a) and (5a):

(4) a. Kissinger went to China, but John doesn't believe that Kissinger went to China.

b. *It, but John doesn't believe that Kissinger went to China.

c. Kissinger went to China, but John doesn't believe it.

(5) a. Although John doesn't believe that Mary got pregnant, Mary got pregnant.

b. *Although John doesn't believe that Mary got pregnant, it.

c. Although John doesn't believe it, Mary got pregnant.

But perhaps the most famous instance of identity deletion transformation would be the rule of Equi-NP Deletion. Since this rule has been subject to

much scrutiny in past years of transformational study, I feel no need to illustrate the point that this rule, to our present knowledge, always deletes the subject of a complement sentence under identity with some NP in the matrix sentence. [3]

One might be tempted to consider, therefore, that (1) is a general constraint on all deletion transformations. If this is in fact the case, we can drop the reference to the command relation that holds between the deleting and the deleted elements from every deletion rule in a particular grammar, thereby simplifying the grammatical descriptions of particular languages and strengthening the explanatory power of the general linguistic theory at the same time.

What I am going to show is that, despite the desirability of some such general restriction on deletion rules, principle (1) cannot be regarded as one such restriction. Specifically, I will demonstrate the need for a rule which I will call "Counter Equi-NP Deletion" [Counter Equi] in the grammar of Japanese. [4] Very roughly, this rule can be stated in the following way:

(6) Counter Equi

Delete an NP in the matrix sentence if it is identical to the subject of the complement sentence.

Details of the content and the function of this rule will be discussed in Sections 2, 3 and 4, where we seek a way to reconcile the existence of this rule with the otherwise general principle (1). I will motivate this rule by a consideration of sentences with a tokoro-complement as a superficial direct object in the next section. In Section 3, an independent syntactic phenomenon will be discussed which might lend further support for Counter Equi. In the final section, I will discuss some nontrivial theoretical implications of the postulation of this rule.

2. Circumstantial Tokoro-Complement Construction

2.0 The necessity of Counter Equi can best be demonstrated from a consideration of sentences like [5]

(7) a. Keisatu wa sono doroboo ga nige-te ik-u tokoro o tukamae-ta.
police that burglar escape go occasion arrest

'The police arrested the burglar trying to escape.'

b. Taroo wa Hanako ga yudan-si-ta tokoro o osot-ta.
relax attention assault

'Taro assaulted Hanako the instant she relaxed her attention.'

c. Taroo wa Ziroo ga komat-te i-ru tokoro o tasuke-ta.
at a loss be help

'Taro$_i$ helped Jiro$_j$ when he$_j$ was at a loss.'

Let us refer to such sentences as the "tokoro-complement sentences" [TC sentences]. The element tokoro marks a complement that refers to a physically perceptible state of affairs which indicates the situation in which the event referred to by the matrix sentence takes place.

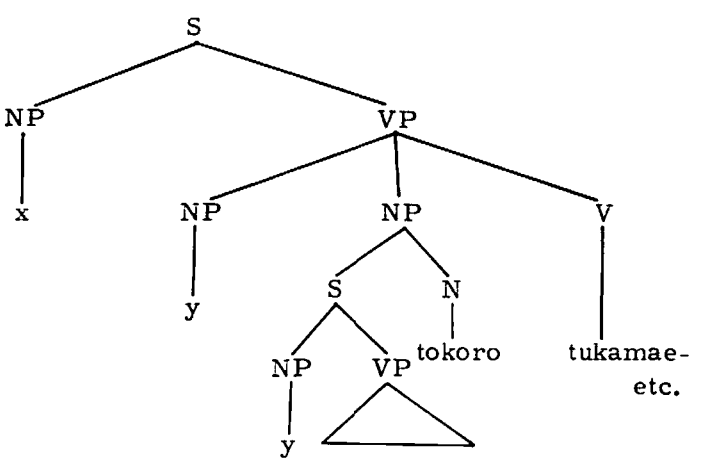
Although one might be tempted to consider that the tokoro-complement in a TC sentence is a surface direct object, on the basis of the fact that it is followed by the direct object marker o, there is some evidence that this is not the case in underlying structure. Specifically, there are facts that suggest that these sentences contain an extra NP in the matrix sentence as its direct object, which is identical to the subject of the tokoro-complement. We thus hypothesize that TC sentences like (7) are derived from underlying structures like those in (8), schematically diagramed in Fig. 1: [6]

(8) a. Keisatu sono doroboo [sono doroboo nige-te ik-u]$_S$ tokoro tukamae-ta.

b. Taroo Hanako [Hanako yudan-si-ta]$_S$ tokoro osot-ta.

c. Taroo Ziroo [Ziroo komat-te i-ru]$_S$ tokoro tasuke-ta.

Fig. 1 Underlying configuration for TC sentences according to the Counter Equi analysis



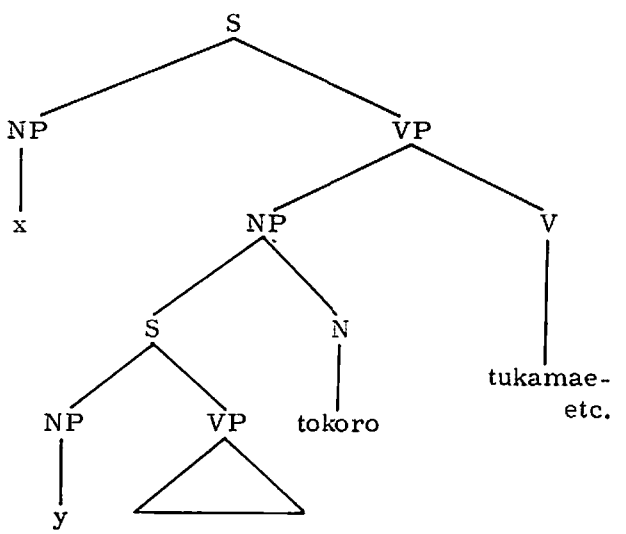
The structures in (8) are converted to the corresponding TC sentences through a rule that deletes the matrix rather than the complement occurrence of NP_y, namely, Counter Equi, together with familiar transformations such as particle placement rules.[7] Let us refer to this analysis of TC sentences as the "Counter Equi analysis".

Nakau (1973:70), however, objects to this analysis on grounds that there are no such sentences like the following, in which the extra NP is overtly present in surface structure:

(9) a. *Keisatu wa sono doroboo o nige-te ik-u tokoro o tukamae-ta.
b. *Taroo wa Hanako o yudan-si-ta tokoro o osot-ta.
c. *Taroo wa Ziroo o komat-te i-ru tokoro o tasuke-ta.

These non-sentences are what we would expect to obtain from underlying structures in (8) if we had no rule like Counter Equi. Let us refer to the analysis implicit in Nakau's objection as the "No Extra NP analysis". This analysis presumably derives TC sentences from underlying structures which contain a tokoro-complement as the direct object (cf. Fig. 2), and postulates no such rule as Counter Equi.

Fig. 2 Underlying configuration for TC sentences according to the No Extra NP analysis



In the remainder of the present section we shall give two arguments for assuming an extra NP in the underlying structure of TC sentences, and two arguments against regarding the tokoro-complements as direct objects of such sentences. These arguments will provide strong evidence for the Counter Equi analysis and against the No Extra NP analysis.

2.1 Clefting. Consider the following 'cleft' sentences corresponding to (7):

(10) a. Keisatu ga sono doroboo o/*ga tukamae-ta no wa, (soitu ga)
that guy
nige-te ik-u tokoro (o) dat-ta.
'It was the moment he tried to escape that the police arrested the burglar.'

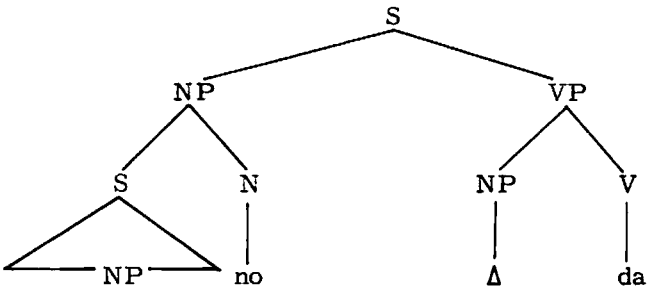
b. Taroo ga Hanako o/*ga osot-ta no wa, (kanozyo ga) yudan-si-ta
she
tokoro (o) dat-ta.
'It was when she relaxed her attention that Taro assaulted Hanako.'

c. Taroo ga Ziroo o/*ga tasuke-ta no wa, (kare ga) komat-te i-ru
he
tokoro (o) dat-ta.
'It was when he [=Jiro] was at a loss that Taro helped Jiro.'

The particle o after tokoro in these sentences seems optional for most speakers, but many of my informants preferred the versions with it to those without it.

There are two plausible analyses of cleft sentences. In one analysis, cleft sentences are derived from an underlying structure of the form shown in Fig. 3, by extracting an NP from the embedded sentence and substituting it for the precopular dummy. In the other, they are derived from an underlying structure that differs from the one in Fig. 3 only in that a full NP (identical to an NP in the embedded sentence) occupies the precopular position, through deletion of the equi-NP in the embedded sentence. But whichever analysis turns out to be correct, the derivation of cleft TC sentences must evidently go through a stage in which such structures as (11) are contained.

Fig. 3.



(11) a. *Keisatu ga sono doroboo o (soitu ga) nige-te ik-u tokoro o tukamae-ta.

b. *Taroo ga Hanako o (kanozyo ga) yudan-si-ta tokoro o osot-ta.

c. *Taroo ga Ziroo o (kare ga) komat-te i-ru tokoro o tasuke-ta.

The No Extra NP analysis now faces serious problems, for structures like these are not derivable unless recourse is had to an ad hoc rule that raises the subject of a tokoro-complement. But this "raising" analysis does not work, either, for we can have any NP that can be coreferential with the matrix object as the subject of a (clefted) tokoro-complement. Thus it is perfectly all right to substitute e. g. sono otoko "the man", sono ko "the girl", and sono roozin "the old man", respectively, for soitu, kanozyo, and kare in (10). If a raising operation has applied, it is impossible to leave in the original position an NP that is not pronominal. [8]

On the other hand, the Counter Equi analysis has no problem in generating such structures as underlie (11). Though there remains a still unsolved problem in rule ordering, to be pointed out in Section 2. 5, we shall see in Section 4 below that a general solution is available along the lines of the Counter Equi analysis. Thus the existence of such cleft sentences as (10) offers a piece of evidence for the Counter Equi analysis.

2. 2 Passive. A further piece of evidence for assuming an extra NP in the underlying structure of TC sentences comes from the passive construction corresponding to (7):

(12) a. Sono doroboo wa keisatu ni, nige-te ik-u tokoro o tukamae-rare-ta.
'The burglar was arrested by the police the moment he tried to escape.'

b. Hanako wa Taroo ni, yudan-si-ta tokoro o osow-are-ta.

'Hanako was assaulted by Taro the moment she relaxed her attention.'

c. Ziroo wa Taroo ni, komat-te i-ru tokoro o tasuke-rare-ta.

'Jiro was helped out by Taro when he was in trouble.'

Japanese has two types of passive construction,[9] which we shall call "simple" and "complex" passives, respectively illustrated by (13) and (14):

(13) a. Taroo wa Ziroo ni koros-are-ta.
kill

'Taro was killed by Jiro.'

b. Taroo wa sensei ni home-rare-ta.
teacher compliment

'Taro was complimented by the teacher.'

c. Amerika Tairiku wa Koronbusu ni hakken-s-are-ta.
continent Columbus discover

'The American Continent was discovered by Columbus.'

(14) a. Taroo wa tuma ni nige-rare-ta.
wife

'Taro's wife ran out on him.'

b. Taroo wa Hanako ni zisatu-s-are-ta.
suicide

'Hanako committed suicide on Taro.'

Simple passives are derived from structures that also underlie the corresponding active sentences by a transformation that has the effect of permuting the subject and the object:

(15) Passive

SD: X NP [NP X V]$_{VP}$ Aux
SC: 1 2 3 4 5 6 $\longrightarrow$ 1 3 2+ni 4 are 6

On the other hand, complex passives are derived from a complex underlying structure with rare as the matrix main verb and the superficial subject as the matrix subject, such as:

(16) a. Taroo [tuma nige]$_S$ -rare-ta.

b. Taroo [Hanako zisatu-s]$_S$ -rare-ta.

through a couple of independently needed transformations.[10]

At present, two tests are available for eliciting whether a given passive sentence is a simple or a complex passive. First, there is a selectional restriction on the subject of a complex passive, namely that it be an

animate NP. Thus, a passive sentence with inanimate subject (e. g. (13)) cannot be a complex passive. Second, and more interestingly, when there is an anaphor zibun, which refers to a subject of the same or a higher clause, an ambiguity arises in complex passives but not in simple passives, as was pointed out by N. McCawley (1972). Thus, sentences in (18) are ambiguous, while those in (17) are not:

(17) a. Taroo wa Ziroo ni zibun no heya de koros-are-ta.
room

'Taro$_i$ was killed by Jiro$_j$ in his$_{i/*j}$ room.'

b. Taroo wa sensei ni, zibun no koto o kai-ta sakubun
matter write composition

de home-rare-ta.

'Taro$_i$ was complimented by the teacher$_j$ on the essay about himself$_{i/*j}$.'

(18) a. Taroo wa tuma ni zibun no heya e nige-rare-ta.

'Taro's wife ran into her/his room on Taro.'

b. Taroo wa Hanako ni zibun no heya de zisatu-s-are-ta.

'Taro was annoyed by Hanako's committing suicide in her/his room.'

The second test enables us to see whether passive TC sentences like (12) fall within the category of simple or complex passives. As indicated by the unambiguity of the sentences in (19), they are simple passives:

(19) a. Sono doroboo wa Hanako ni, zibun no ie no hookoo e nige-te
house direction

ik-u tokoro o tukamae-rare-ta.

'The burglar was caught by Hanako when he was trying to escape to the direction of his/*her house.'

b. Hanako wa Taroo ni, zibun no heya de yudan-si-ta tokoro o osow-are-ta.

'Hanako was assaulted by Taro in her/*his room, the moment she relaxed her attention.'

c. Ziroo wa Hanako ni, zibun no yama de soonan-si-te komat-te i-ru
mountain meet-mishap

tokoro o tasuke-rare-ta.

'Jiro$_i$ was helped out by Taro$_j$ when he was at a loss having met a mishap on his$_{i/*j}$ mountain.'

Now observe that this fact poses two problems for the No Extra NP analysis. In the first place, if verbs like tukamae-ru, osow-u, and tasuke-ru can undergo Passive, then it ought to be possible, in the No Extra NP analysis, to apply Passive to the structure in Fig. 2 in such a way as to subjectivize the tokoro-complement. Yet such sentences are all ungrammatical:

(20) a. *Sono doroboo ga nige-te ik-u tokoro wa, keisatu ni tukamae-rare-ta.

b. *Hanako ga yudan-si-ta tokoro wa, Taroo ni osow-are-ta.

c. *Ziroo ga komat-te i-ru tokoro wa, Taroo ni tasuke-rare-ta.

As can be seen from the fact that from the structures underlying (21), we can form the corresponding sentences in (22), [11]

(21) a. Minna wa [kokutetu no suto ga kyoo ar-u]$_S$ koto o
everybody National Railway strike today be

sit-te i-ru.
know

'Everybody knows that the JNR employees are on strike today.'

b. Hanako wa [zisin ga san-nen mae okot-ta]$_S$ koto o
earthquake three years ago happen

wasure-ta.
forget

'Hanako forgot that an earthquake occurred three years ago.'

(22) a. Kokutetu no suto ga kyoo ar-u koto wa minna ni sir-are-te i-ru.

'It's known to everybody that the JNR employees are on strike today.'

b. Zisin ga san-nen mae okot-ta koto wa Hanako ni wasure-rare-ta.

'That there occurred an earthquake three years ago was forgotten by Hanako.'

it is not the case that NP-complements are generally not subjectivizable by Passive. Thus the ungrammaticality of (20) demands explanation, but the No Extra NP analysis offers no general solution.

Moreover, note that we cannot form the following sentences from the structures underlying (21):

(23) a. *Kokutetu no suto wa minna ni kyoo ar-u koto o sir-are-te i-ru.

b. *Zisin wa Hanako ni san-nen mae okot-ta koto o wasure-rare-ta.

It seems that there is a general principle in Japanese that prevents any ele-

ment of an embedded sentence from being converted to a passive subject on the matrix cycle.[12] In the No Extra NP analysis, however, the sentences in (12) would constitute an exception to this principle, though there is no non-ad hoc structural characteristic that serves to distinguish (12) from (23) with respect to the principle just mentioned.[13] Here again, the No Extra NP analysis fails to provide a general account of the behavior of passive TC sentences.

Neither of these problems will arise in the Counter Equi analysis. The ungrammaticality of sentences in (20) is simply a consequence of the formulation of Passive in (15): Passive subjectivizes the first unmarked NP in the verb phrase.[14] The ungrammaticality of (23) can be accounted for by the independently motivated restriction that Passive permute only clause mate NPs (or, if one subscribes to the Passive-as-a-stupid-rule hypothesis, by the tensed S condition mentioned in Note 13). Passive TC sentences like (12) therefore need not be regarded as an exception to general principles of Japanese and universal grammars.

To conclude, we have shown that the various formal peculiarities of passive TC sentences like (12) are best explained if we assume an extra NP in the underlying structure of TC sentences. This constitutes a second piece of evidence for the Counter Equ analysis.

2.3 Tokoro-complement in intransitive sentences. Consider now the following sentences:

(24) a. Sono doroboo wa nige-te ik-u tokoro o keisatu ni tukamat-ta.
be-caught

'The burglar was arrested by the police when he was trying to escape.'

b. Taroo wa kanningu o si-te i-ru tokoro o sensei ni mitukat-ta.
cheating be-found

'Taro was found by the teacher cheating in the exam.'

A notable property of such sentences is that the tokoro-complement occurs with an intransitive main verb.[15] This fact strongly suggests that a tokoro-complement, though followed by the particle o, is actually not a direct object but a kind of circumstantial adverbial phrase. In the No Extra NP analysis, however, the tokoro-complement in a sentence like (24a) would have to be regarded as a direct object, for there is no reason for treating (7a) and (24a)

differently with respect to the function of the tokoro-complement. But the tokoro-complement of (24a) is devoid of any characteristic of direct object, except for the trivial fact that it is marked with the particle o.

On the other hand, the Counter Equi analysis treats both (7a) and (24a) as containing an adverbial tokoro-complement. The occurrence of the particle o would not be considered as a result of the Object Particle Placement transformation but rather of whatever process is responsible for the placement of such particles as de (instrumental or locative), e ("toward"), kara ("from"), and ni (inherent locative). Though details of the analysis remain yet to be explored, a unitary treatment at least appears feasible along these lines.

One might contend, however, that sentences like those in (24) are not underlyingly intransitive but are derived from structures that also underlie the following sentences:

(25) a. Sono doroboo wa, nige-te ik-u tokoro o keisatu ni tukamae-rare-ta.
'The burglar was arrested by the police when he was trying to escape.'

b. Taroo wa kanningu o si-te i-ru tokoro o mituke-rare-ta.
find
'Taro was found by the teacher cheating in the exam.'

That is, it is possible to assume that some lexical insertion rules follow non-lexical transformations (e. g. Passive), and underlying structures have semantic elements rather than actual morphemes as terminal elements. Such "semantic" underlying structures first undergo Passive to become structures containing predicates like CATCH+rare or FIND+rare, for which lexical insertion rules later substitute the morphemes tukamar and mitukar, respectively (where CATCH and FIND are universal semantic elements).[15]

If such an analysis is adopted, the sentences in (24) might appear to provide no independent argument from the one given in the preceding section, for the problem reduces to that of how sentences like (25) are to be accounted for, a problem which we have already discussed.

However, even if the "generative-semantic" approach to lexical insertion is accepted, one cannot reduce all instances of superficially intransitive sentences with a tokoro-complement to underlying transitive sentences. The following examples illustrate the point:

(26) a. Isya ga Taroo o tasuke-ta. 'The doctor saved Taro.'
doctor

b. Taroo ga (*isya ni) tasukat-ta. 'Taro was saved.'
be-saved

c. Taroo ga isya ni tasuke-rare-ta. 'Taro was saved by the doctor.'

Although the predicate tasuke-ru can undergo Passive as in (26c), the corresponding intransitive predicate tasukar-u does not occur with an Agent ni-phrase. Thus it is impossible to derive tasukar-u from underlying tasuke-ru. Yet, tasukar-u co-occurs with a tokoro-complement marked with o:

(27) Taroo wa sini-soo ni nat-ta tokoro o tasukat-ta.
die almost become

'Taro almost died, but he recovered.'

Compare this sentence with the following:

(28) Taroo wa sini-soo ni nat-ta tokoro o isya ni tasuke-rare-ta.

'Taro was saved by the doctor from the illness that almost killed him.'

In sharp contrast to (28), sentence (27) has no implication of there being an agent behind Taro's survival. In addition, there is of course no passive derived from (27):

(29) *Sini-soo ni nat-ta tokoro wa, Taroo ni tasukar-are-ta.

This will follow trivally from our proposed restriction on Passive that it apply only to the unmarked object NP.

We can now conclude that an inherently intransitive predicate can also take an o-marked tokoro-complement, and that such o-marked tokoro-complements do not behave like a direct object. As this fact receives a natural treatment in the Counter Equi analysis, it can be taken as an additional piece of evidence for our proposal.[16]

2.4 Selectional restriction. It should also be noted that the No Extra NP analysis is not capable of handling the selectional properties of TC sentences adequately, which was pointed out to me by David Perlmutter (conversation). Observe that, in contrast to the sentences in (7), the following TC sentences are all ungrammatical:

(30) a. *Keisatu wa ame ga hut-te i-ru tokoro o tukamae-ta.

'*The police arrested the rain while it was raining.'

b. *Taroo wa ame ga hut-te i-ru tokoro o osot-ta.

'*Taro assaulted the rain while it was raining.'

c. *Taroo wa ame ga hut-te i-ru tokoro o tasuke-ta.

'*Taro helped the rain while it was raining.'

To filter out such selectionally ill-formed sentences, the No Extra NP analysis would require a modification of the theory of selectional restriction, allowing a matrix main verb to impose a selectional restriction on an NP in the complement sentence. While there are cases in which a matrix main verb imposes a selectional restriction on the complement main verb (e.g., force requires its complement main verb to be a self-controllable verb), there is no known case of a matrix main verb imposing a restriction on an NP in its complement. On the other hand, in the Counter Equi analysis the ungrammaticality of sentences like (30) follows from the ungrammaticality of sentences like

(31) a. *Keisatu wa ame o tukamae-ta.

b. *Taroo wa ame o osot-ta.

c. *Taroo wa ame o tasuke-ta.

Thus, the No Extra NP analysis requires of verbs like tukamae-ru that they are associated not only with (strict subcategorization) features saying that they take either a non-sentential NP or a tokoro-complement as direct object but also with (selectional) features that reduplicate the same restriction redundantly. Therefore, from the point of view of selectional restriction, the Counter Equi analysis is to be preferred to the No Extra NP analysis.

2.5 On the rule 'Counter Equi'. Our arguments in Sections 2.1 and 2.2 for the Counter Equi analysis both took the form of a demonstration that the underlying structure of a TC sentence must contain an NP that does not occur in surface structure (cf. Fig 1). Once the existence of a non-surfacing NP is admitted, it takes just a logically necessary step to reach the conclusion that there is a rule like Counter Equi that deletes a matrix constituent under identity with a complement constituent.

Let us now discuss the properties of the rule Counter Equi, which have largely been left unspecified. From our discussions thus far, the rule appears to be formulable essentially in the following way: [17]

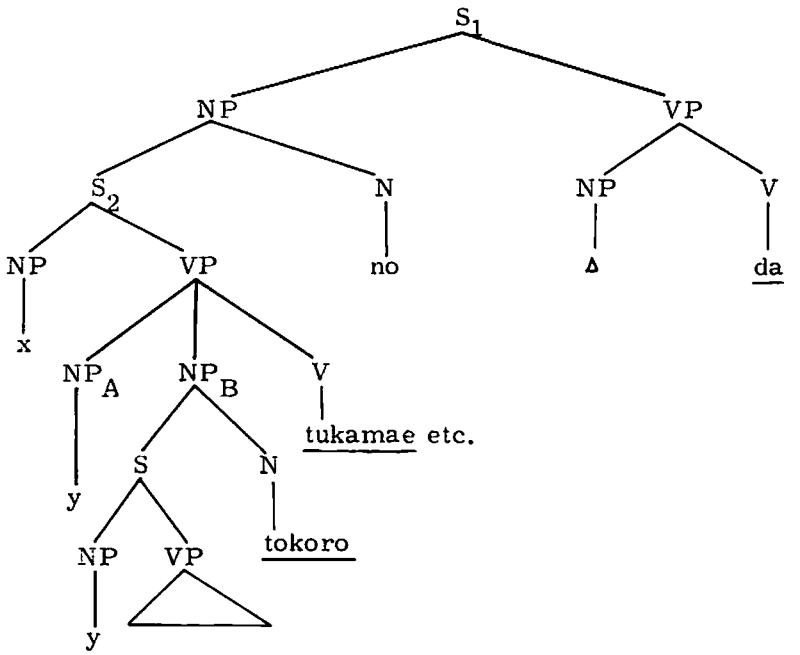
Counter Equi

SD: X - NP - X - [NP - X]$_S$ - X
1 2 3 4 5 6 $\longrightarrow$ 1 $\emptyset$ 3 4 5 6

Conditions: (a) 4 is the subject of the S that exhaustively dominates 4+5.
(b) 2 is the "controller" of 4.

When we consider the mode of application of this rule, we are faced with a few problems. In the first place, note that the ungrammaticality of active noncleft TC sentences suggests that the rule is obligatory. If this were the case, however, cleft TC sentences like (10) would never be derivable, since to the structure underlying them (see Fig. 4) we would have to first apply Counter Equi on the cycle of S_2, erasing NP_A, and then Clefting on the cycle of S_1 raising NP_B to the position of the precopular dummy. But if Counter Equi is an optional rule, what accounts for the ungrammaticality of active noncleft TC sentences?

Fig. 4



Second, in the discussion of passive TC sentences like (12) we assumed, implicitly, that they are derived in the following fashion:

A. Hanako sono doroboo [$_S$ sono doroboo nige-te ik-u]$_S$ tokoro tukamae-ta.
(= 8a)

B. Sono doroboo Hanako+ni [$_S$ sono doroboo nige-te ik-u]$_S$ tokoro tukamae-rare-ta. (by Passive)

C. Sono doroboo Hanako+ni [$_S$ nige-te ik-u]$_S$ tokoro tukamae-rare-ta. (by Equi NP Deletion)

D. Sono doroboo wa Hanako ni, nige-te ik-u tokoro o tukamae-rare-ta. (by other rules)

In order to ensure such a derivation, however, it must be stipulated that Counter Equi does not apply to a structure like (B). While this can rather trivially be achieved, e. g., by constraining the rule so that (i) it applies after Passive, and (ii) it deletes only a nonsubject NP, the problem is that there is no independent evidence for these modifications.

Further, notice that Counter Equi must be an exceptional, or "governed," rule, its applicability being conditioned by the choice of a particular main verb. Note, however, that while tukamae-ru requires its application, the lexically corresponding verb tukamar-u requires its non-application.[18] It remains totally unclear what is the basis of this distinction.

Finally, it should be pointed out that the above account leaves unexplained the complementarity of the normal Equi-NP Deletion and Counter Equi. Specifically, when Counter Equi does not apply to a pair of identical NPs, the normal Equi-NP Deletion is called for.

It seems to me that none of the problems are damaging to the hypothesis that there is a rule like Counter Equi. But before showing that they are resolvable in a general framework, let us discuss an independent set of facts that have been used to motivate a rule very similar to Counter Equi.

3. O-Causatives with a Transitive Complement

3. 0. Kuroda's analysis. Kuroda has observed that Japanese has two types of causative construction,[19] as illustrated by

(32) a. Taroo wa Ziroo o hatarak-ase - ta.
work cause
'Taro made Jiro work.'

b. Taroo wa Ziroo ni hatarak-ase-ta.

'Taro let Jiro work.' 'Taro allowed Jiro to work.'

Kuroda refers to these constructions respectively as the o-causative and the ni-causative constructions. Let us refer to the NP Ziroo in (32) as the "causee," to follow Shibatani's (1973) terminology. Kuroda pointed out that ni-causatives presuppose the volition of the causee, while there is no such presupposition in o-causatives. Assuming a set of rules of particle placement, in particular the rule of CSNA (cf. Note 9), he argued that the two kinds of causative construction should be derived from different underlying structures, as in (33).

(33) a. o-causative: Taroo Ziroo [Ziroo hatarak]$_S$ -sase-ta.

b. ni-causative: Taroo [Ziroo hatarak]$_S$ -sase-ta.

Structure (33a) is converted to (32a) by normal Equi NP Deletion (and other rules), and structure (33b) is converted to (32b) by CSNA (and other rules).

Assuming this analysis of the causative construction, Kuroda observed that when the embedded sentence is transitive, i.e., of the form 'NP (+ga - NP (+o) - V - Aux,' there is no surface contrast as is found in a pair like (32).

(34) a. *Taroo wa Ziroo o sakana o tabe-sase-ta.

b. Taroo wa Ziroo ni sakana o tabe-sase-ta.
fish eat

(i) 'Taro made Jiro eat fish.'

(ii) 'Taro allowed Jiro to eat fish.'

As sentences like (34b) are ambiguous as to whether the volition of the causee is presupposed, Kuroda proposed to derive sentences like (34b) from two sources, parallel to those in (33):

(35) a. Taroo Ziroo [Ziroo sakana tabe]$_S$ -sase-ta.

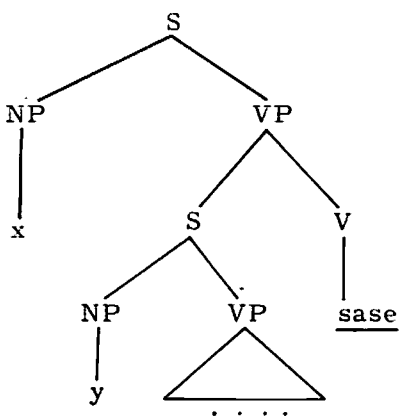
b. Taroo [Ziroo sakana tabe]$_S$ -sase-ta.

Kuroda proposed a rule reminiscent of Counter Equi, to derive a sentence like (34b) from the underlying structure (35a), on grounds that this would account for the otherwise unexplained occurrence of the particle ni on the causee. If Kuroda's analysis of the causative construction is correct, we will have an independent piece of evidence for the rule Counter Equi.

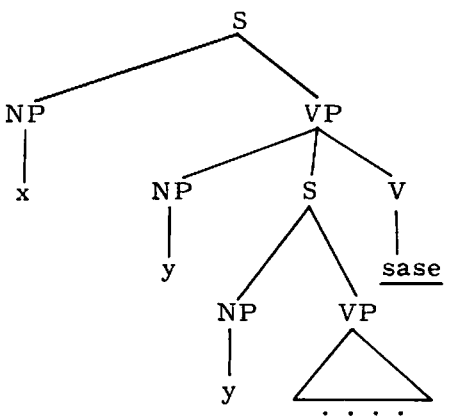
However, his arguments are not very strong, and have thus been subject to much criticism. In the present section, I will examine one major objection to Kuroda's analysis of the causative construction and show, by refuting it, that Kuroda's analysis is basically correct.

3.1. The Inoue-Nakau proposal. A number of linguists have made a variety of objections to Kuroda's analysis of the causative construction, of which the most remarkable is the counterproposal by Inoue (1971) and Nakau (1973). They proposed to derive o-causatives from the underlying configuration in Fig. 5a and ni-causatives from the configuration in Fig. 5b:

Fig. 5a.



b.



In support of this analysis they cite the observation that the causee in the ni-causative is generally confined to animate NPs, whereas the causee in the o-causative is not subject to such a restriction:

(36) a. Taroo ga ame o hur-ase-ta.
rain fall

'Taro made it rain.'

b. *Taroo ga ame ni hur-ase-ta.
'*Taro allowed it to rain.'

They argue that the causee in the ni-causative must originate in the underlying matrix sentence because it is generally the case that the main verb can impose a selectional restriction on an NP only when it is a clause mate of the verb.

However, this argument does not hold up, because their observation about the 'animacy restriction' is not sufficient. Observe further that the (b)-sentences in the following are ungrammatical, though they obey the 'animacy restriction':

(37) a. Taroo wa tomodati o komar-ase-ta.
friend be-annoyed
'Taro annoyed his friends.'

b. *Taroo wa tomodati ni komar-ase-ta.
'*Taro allowed his friends to be annoyed.'

(38) a. Taroo wa Hanako o kizetu-s-ase-ta.
faint
'Taro caused Hanako to faint.'

b. *Taroo wa Hanako ni kizetu-s-ase-ta.
'*Taro allowed Hanako to faint.'

(39) a. Taroo wa Ziroo o kiken na me ni aw-ase-ta.
meet with a danger
'Taro caused Jiro to meet with a danger.'

b. *Taroo wa Ziroo ni kiken na me ni aw-ase-ta.
'*Taro allowed Jiro to meet with a danger.'

The correct generalization is that the complement of a ni-causative must denote a 'self-controllable' action. Given this restriction, which is expressible as a verb-verb selectional restriction, the alleged "animacy restriction" will follow quite automatically from the independently needed principle that the subject of a self-controllable verb must at least be animate. Therefore, no special V-NP selectional restriction is needed in the ni-causative construction beyond the above-mentioned verb-verb selection, and hence the

Inoue-Nakau observation is irrelevant for the choice of correct underlying configurations.

3.2. Having discarded the Inoue-Nakau counterproposal, we must look for a real basis for establishing the correct underlying structures of causative constructions. I know of one argument, based on passivized causative sentences, that o-causatives with animate causee (cf. Note 23 below) must derive from the underlying configuration in Fig. 5b. Consider the following sentences:

(40) a. Hanako wa Taroo ni zibun no ie de hatarak-as-are-ta.
self house
'Hanako was made to work by Taro in her/*his house.'

b. Hanako wa Taroo ni zibun no ronbun o yom-as-are-ta.
'Hanako was made by Taro to read her/*his paper.'

c. Hanako wa Taroo ni zibun no heya de kizetu-s-ase-rare-ta.
room
'Hanako was made by Taro to faint in her/*his room.'

These sentences correspond to o-causatives, as witnessed both by the fact that they imply that Hanako had had no intention of doing the things denoted by the complements until Taro caused her to do so and by the fact that verbs like kizetu-su-ru, which are not permitted in ni-causatives, can occur in passivized causatives. In fact, there are no passive causative sentences that can be interpreted as ni-causatives. That they are syntactically simple passives can be seen from the fact that zibun in these sentences unambiguously refers to Hanako.

It is important to note that the fact that only o-causatives are passivizable poses some serious problems for the Inoue-Nakau proposal. In the first place, the Inoue-Nakau proposal is incapable of accounting for why ni-causatives are not passivizable, since it is not impossible to convert a ni-phrase into a passive subject.[20] Thus from

(41) a. Taroo wa Hanako ni kanozyo no ie de paatii o hirak-u to
party open
yakusoku-si-ta.
promise
'Taro promised Hanako to throw a party in her house.'

b. Taroo wa Hanako ni kanozyo no heya de kekkon o moosikon - da.
marriage propose

'Taro proposed to Hanako in her room.'

c. Nihon Bungei Kyookai wa Kita Morio ni Akutagawa-syoo o atae-ta.
Japan Literary Society price give

'The Japan Literary Society gave the Akutagawa prize to Kita Morio.

we can get passive sentences in

(42) a. Hanako wa Taroo ni zibun no ie de paatii o hirak-u to yakusoku-s-are-ta.

'Hanako was promised by Taro that he would throw a party in her/*his house.'

b. Hanako wa Taroo ni zibun no heya de kekkon o moosikom-are-ta.

'Hanako was proposed to by Taro in her/*his room.'

c. Kita Morio wa Nihon Bungei Kyookai ni Akutagawa-syoo o atae-rare-ta.[21]

'Kita Morio was given the Akutagawa Prize by the Japan Literary Society.'

In the second place, observe that direct objects of raised complement verbs are in general not convertible to passive subjects on the matrix cycle. Thus, from the underlying structures in (43) we can form (44) but not (45):

(43) a. Taroo [Taroo Hanako Hanako no heya de nagur]$_S$ hazime-ta.

b. Taroo [Taroo Hanako Hanako no heya de satuei-si]$_S$ mi-ta.

c. Taroo [Taroo Hanako Hanako no heya de koros]$_S$ sokonat-ta.

(44) a. Taroo wa Hanako o kanozyo no heya de naguri-hazime-ta.
beat begin

'Taro began beating Hanako in her room.'

b. Taroo wa Hanako o kanozyo no heya de satuei-si-te mi-ta.
take-pictures try

'Taro tried taking pictures of Hanako in her room.'

c. Taroo wa Hanako o kanozyo no heya de korosi-sokonat-ta.
kill fail

'Taro failed to kill Hanako in her room.'

(45) a. *Hanako wa Taroo ni zibun no heya de naguri-hazime-rare-ta.

b. *Hanako wa Taroo ni zibun no heya de satuei-si-te mi-rare-ta.

c. *Hanako wa Taroo ni zibun no heya de korosi-sokonaw-are-ta.

It seems that the Passive transformation of the Japanese grammar must be globally constrained in the following way:

(46) Passive cannot subjectivize an NP that used to be a constituent of a sentence embedded in the sentence to which the rule applies. [22]

In the Inoue-Nakau proposal, however, o-causatives must somehow be exempted from this general constraint.

But notice that neither of these problems will arise in Kuroda's analysis. Given constraint (46), it naturally follows that ni-causatives are not passivizable, since the ni-phrase does not originate in the underlying matrix sentence. The o-phrase in an o-causative is of course convertible to a passive subject, since it originates in the underlying matrix sentence. We have thus seen that not only is the Inoue-Nakau argument against Kuroda's analysis invalid, but their proposal also suffers from a grave inadequacy. We conclude, therefore, that Kuroda's analysis is basically correct, [23] and, as such, the o-causative construction offers another piece of evidence for the postulation of Counter Equi. [24]

3.3. An excursus. Kuroda has gone further, considering his version of Counter Equi to be also responsible for the particle distribution peculiarities involved in such constructions as the (rar)e potential construction. [25] Observe the following paradigm:

(47) a. Taroo ga aruk-e-ru.
walk can
'Taro can walk.'

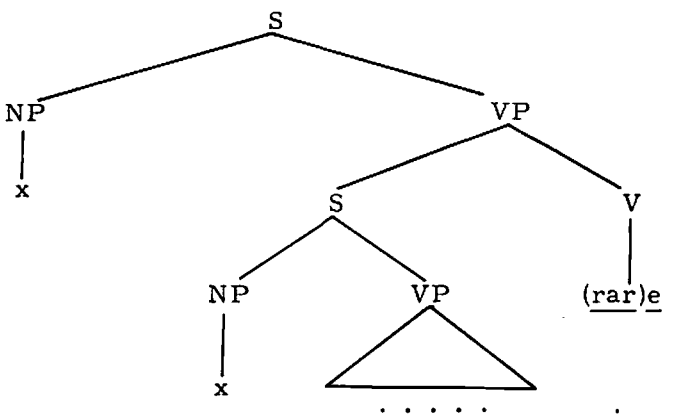
b. *Taroo ni aruk-e-ru.

(48) a. Taroo ga tyuugoku-ryoori ga tukur-e-ru.
Chinese cooking make
'Taro can do the Chinese cooking.'

b. Taroo ni tyuugoku-ryoori ga tukur-e-ru.
'Taro can do the Chinese cooking.'

Assuming the underlying configuration in Fig. 6 for (rar)e potentials,

Fig. 6



Kuroda argues that occurrence of ni in a sentence like (48b) is best accounted for by extending the domain of his version of Counter Equi to the (rar)e potential construction. Part of his motivation for this extension comes from the observation that there is an underlying similarity between the two processes, in that both give rise to a surface ni-phrase, and only when the complement is a transitive sentence.

However, his argument can easily be refuted when we take into account such additional facts as this: alongside of (48) we have also (49a), while there is no sentence like (49b) parallel to (48b):

(49) a. Taroo ga tyuugoku-ryoori o tukur-e-ru.
'Taro can do the Chinese cooking.'

b. *Taroo ni tyuugoku-ryoori o tukur-e-ru.

Sentence (49b) is ungrammatical, even though the complement is a transitive sentence. It is clear, then, that the subject of a (rar)e potential can be marked with ni only when the object is marked with ga. But this generalization is unstatable in Kuroda's proposed extension of Counter Equi.

It thus seems that Kuroda's proposal is wrong, and that the grammaticality of sentences like (48b) should be accounted for in terms of a rule like the following, proposed by Kuno (1973):

(50) NP_1 +ga - NP_2 +ga - ... → NP_1 +ga +ni - NP_2 +ga - ...

where the occurrence of ga followed by ni that figures on the righthand side of

the arrow will later be deleted by a rule that deletes ga and o when they are followed by other particles. The fact that (rar)e potentials with an intransitive complement cannot have a subject marked with ni will be an automatic consequence of the fact that such sentences have no superficial object.

3.4. The Inoue-Shibatani proposal. In the light of the above argument, we can now conceive of a third possibility for accounting for o-causatives. Suppose we set up a rule identical in form to (50) except that it mentions the particle o in place of ga:

(51) $\ldots - NP_1 + o - NP_2 + o - \ldots \rightarrow \ldots - NP_1 + o + ni - NP_2 + o - \ldots$

Then we would have no need to have recourse to a rule like Counter Equi in deriving sentences like (34b) from underlying structures like (35a). The essence of the derivation of such sentences in terms of rule (1) is shown in (52):

(52) a. Taroo Ziroo [Ziroo sakana tabe]$_S$ sase-ta. [=(35a)]

b. Taroo Ziroo [Ziroo+ga sakana+o tabe]$_S$ sase-ta. (by particle placement)

c. Taroo Ziroo [∅ sakana+o tabe]$_S$ sase-ta. (by Equi-NP Deletion)

d. Taroo Ziroo sakana+o tabe-sase-ta (by Predicate Raising)

e. Taroo+ga Ziroo+o sakana+o tabe-sase-ta. (by particle placement)

f. Taroo+ga Ziroo+o+ni sakana+o tabe-sase-ta. (by (51))

g. Taroo+ga Ziroo+ni sakana+o tabe-sase-ta. [=(34b)]

By the rule deleting ga and o before other particles, we can derive (52g) from the underlying structure (52a).

Such an analysis was first proposed by Inoue (1969) and recently defended by Shibatani (1973). The merits of this analysis are twofold: (i) it correctly accounts for the non-occurrence of sentences like (34a) without postulating a rule like Counter Equi that violates what seems to be a universal restriction on deletion transformations; and (ii) rule (52) correctly captures the generalization that "the change of the first N-o to N-ni is entirely dependent upon

the realization of the second N-o. " (Shibatani 1973:344)

These merits notwithstanding, it seems to me that the Inoue-Shibatani proposal is untenable, in view of the fact that rule (51) is of no help in the case of TC sentences. Recall that a TC sentence like (7a) must be derived from an underlying structure like (8a), both of which are repeated here for convenience:

(7) a. Keisatu wa sono doroboo ga nige-te ik-u tokoro o tukamae-ta.
'The police arrested the burglar trying to escape. '

(8) a. Keisatu sono doroboo [sono doroboo nige-te ik-u]$_S$ tokoro tukamae-ta.

In the Inoue-Shibatani proposal, there is nothing that would prevent rule (51) from applying to structures like (8a) to yield such sentences as:

(54) a. *Keisatu wa sono doroboo ni, nige-te ik-u tokoro o tukamae-ta.
b. *Taroo wa Hanako ni, yudan-si-ta tokoro o osot-ta.
c. *Taroo wa Ziroo ni, komat-te i-ru tokoro o tasuke-ta.

Since all such sentences are ungrammatical, the Inoue-Shibatani proposal must be supplemented by a statement of what environments do and what environments do not allow application of rule (51). No obvious solution suggests itself, nor does it seem that any non-ad hoc solution is feasible. If we adopted the Inoue-Shibatani proposal, we would be doomed to end up with a grammar that contained both Counter Equi and rule (51), the latter being supplemented with an ad hoc restriction.

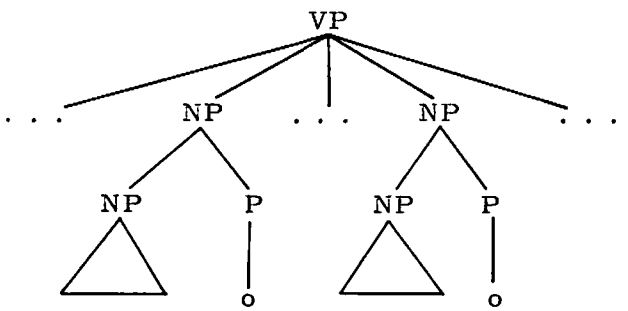
4. Further Perspective: Counter Equi as a Peeking Rule

4. 0. We have thus far been trying to show that the grammar of Japanese must include the rule Counter Equi, which is exceptional in that it operates, so to speak, "upwards, " rather than "downwards, " as would be the case with normal identity deletion rules.

However, as we pointed out in Section 2. 5., there are still problems about the nature of this rule, particularly with respect to its ordering and obligatoriness. In the present section, we shall show that these problems are all solved if we state the rule as a "peeking rule, " that is, a rule whose applicability depends on its effect on a later stage of the derivation.

4. 1. The Double-O Constraint. In the framework of the Standard Theory, in which our discussion has thus far been carried out, there is no way to tell what factors determine the applicability of Counter Equi in certain constructions and its nonapplicability in the others. However, if one looks at the entire derivations of the relevant constructions, it will be obvious that in the case of both active-noncleft TC sentences and o-causatives with transitive complements, we would end up with a surface structure that contains the configuration in Fig. 7, unless Counter Equi applies:

Fig. 7.



In the other cases, e. g., passive and/or cleft TC sentence or passive o-causative with transitive complement, the nonapplication of Counter Equi does not give rise to such configurations.

Thus it seems that the effect of Counter Equi is to avoid such "double-o violations." Now there are two possibilities for stating this generalization. One is to state it directly in the formulation of the rule, so that the rule is reformulated as in

(54) SD: X - NP - o - [NP - X]$_S$ - N - o - X

SC: 1 2 3 4 5 6 7 8

1 ∅ ∅ 4 5 6 7 8

But this possibility still leaves unexplained the grammaticality of cleft TC sentences, for Counter Equi would still be applicable (or rather, should be applied) before Clefting could apply.

The other possibility, which seems to us to to be the correct one, is to set up an independent Surface Structure Constraint (55), and let Counter Equi refer to it:

(55) The Double-O Constraint[26]

A derivation is marked as ill-formed if it terminates in a surface structure which contains two occurrences of NPs marked with o both of which are immediately dominated by the same VP-node.

The applicability of Counter Equi would then be stated in the following fashion.

(56) Counter Equi is applied when, and only when, its nonapplication results in a double-o violation.

Thus Counter Equi must be a "peeking rule" (Hill 1970), a kind of global derivational constraint.

That the Double-O Constraint is needed independently of Counter Equi can be seen from the following consideration. Observe that we have a cleft sentence like

(57) Taroo ga Hanako no ofisu o tazune-ta no wa, kanozyo ga tyoodo
office visit just

gaisyutu-si-ta tokoro (o) dat-ta.
go out

'It was the moment she just wei out that Taro visited Hanako's office.'

By the same argument that we gave in Section 2.1, we can infer that there should be a noncleft sentence like

(58) *Taroo ga Hanako no ofisu o kanozyo ga tyoodo gaisyutu-si-ta tokoro o tazune-ta.

which is definitely ungrammatical. But Counter Equi no longer can be called into play in getting rid of double-o violation, for the identity condition does not hold. Hence, we must have an independent constraint like (55).

If we state Counter Equi in the nonlocal fashion, the problems with the rule will immediately disappear. We can leave unspecified both the obligatoriness and the ordering of the rule: it can be an optional rule and could be applied any place in the cycle. Cleft TC sentences now raise no problem, for Counter Equi does not apply since the later application of Clefting removes the possibility of yielding a double-o violation.

Similarly, to derive the passive TC sentences or o-causatives, we do not have to (or rather, should not) apply Counter Equi, for regardless of whether Counter Equi applies before or after Passive, the application of the latter rule ensures that no double-o violation will arise.

It should also be noted that the restriction of the rule to deletion of a direct object, mentioned in Section 2. 5, is no longer necessary; note that deletion of e. g. the matrix subject has no relevance to the avoidance of a double-o violation. Therefore, even if Counter Equi is formulated in such a way as to be able to delete any NP in the matrix sentence, principle (56) automatically restricts its application to cases in which the matrix direct object is deletable. Thus, principle (56) serves to dispense with the otherwise unavoidable ad hoc restriction on the structural description of Counter Equi.

This freedom is important, since it allows us to identify Counter Equi with the familiar rule of Equi-NP Deletion. We now propose the following formulation for the generalized Equi-NP Deletion, which we shall call 'General Equi':

(59) General Equi

SD: X NP X $[_S$ NP X$]_S$ X Condition: 4 is the subject of 4 + 5

SC: 1 2 3 4 5 6 (a) 1 2 3 Ø 5 6 (the "normal" version)

(b) 1 Ø 3 4 5 6 (the "Counter Equi" version)

Which version of General Equi applies to a given structure is completely determined by principle (56): where the application of the normal version gives rise to a surface structure violating the Double-O Constraint, the Counter Equi version is called for, but otherwise only the normal version is applied.

4. 2. Conspiracy. Also involved here is the notion of 'conspiracy.'[27] When we have a surface structure constraint, rules may "conspire" to avoid violations of this constraint, and they do so often by applying in an unusual fashion, of course to a limited extent, the limitation being imposed by the formal properties of those rules. In the case of the constructions we have thus far been discussing, the Double-O Constraint must be stated as an independent surface structure constraint, but syntactic transformations partici-

pate in the conspiracy to accommodate surface structures that do not violate this constraint.

Thus in the case of TC sentences, the rule of General Equi, which is usually applied in the "normal" fashion, is forced to apply in the unusual "Counter Equi" fashion, unless other rules such as Passive or Clefting get rid of a double-o violation. In this case, the general principle on identity deletion rules which was stated in (1) at the beginning of this paper is ignored for the purpose of avoiding a double-o violation, though the identity condition is still observed. Where, as in (58), avoidance of the double-o violation in terms of the application of Counter Equi requires the rule to ignore the identity condition, the rule is simply blocked. [28]

Notes

* I am grateful to Osamu Fujimura, Kazuko I. Harada, Kazuko Inoue, David Perlmutter, Tazuko Uyeno, and Hiroshi Yamada for suggestions on the content and style of earlier versions of this paper. I am most indebted to Minoru Nakau, who first drew my attention to the peculiarity of tokoro-complements, to be discussed in Section 2. None of them is in complete agreement with the author, however.

1. In fact, Langacker (1969) comes very close to principle (1), but does not formulate as general a principle as this.

By the locution "a deletion transformation operates on a pair of identical elements", I mean essentially that the transformation uses one member of the pair to delete the other, in Chomsky's (1965) terminology.

2. The claim that (2) underlies (3a) should not be taken too seriously; it may very well be the case that more is derived from a much more complex structure than suggested here, say something paraphrasable as to the extent which exceeds.... Likewise, it seems probable that the embedded sentence also contains a degree adverbial, e. g. to some extent, in underlying structure. What I wish to be taken seriously is the point that whatever is the correct underlying structure for a comparative sentence contains an embedded sentence whose predicate, if identical to that of the matrix sentence, is always deleted on the surface.

3. I simply refer the reader to such works as Rosenbaum (1967), Postal (1970), and Grinder (1970), for discussions and illustrations of the various properties of this rule.

4. Actually, this is somewhat misleading. What I am really going to show is that there are cases in which the familiar rule of Equi-NP Deletion must

apply in the way described in (6). For ease of exposition, however, I will talk of Counter Equi as a separate rule until Section 4.

5. I am grateful to Minoru Nakau for calling my attention to such sentences. See Nakau (1973: passim) for his treatment of this construction.

Throughout the present paper, I will cite Japanese examples transcribed in the system of National Romanization. Hyphenation is employed to indicate the boundary between a predicate stem and a suffix, and conventional spacing is used to facilitate the assignment of English glosses. I will give no glosses for grammatical morphemes, the most recurrent ones of which are enumerated below:

wa = topic marker; ga = subject marker; o = object marker; ni = (1) agent marker in passives, (2) goal marker [to]; no = (1) genitive marker [of], (2) factive complementizer.

-(r)u = present or future tense; -ta = perfect tense; -te = gerund or participial marker; -i = alternant of -(r)u, after an adjectival stem; da(t)- = copula; -s-/-si-/-su- = [do] as a tense carrier.

6. Throughout this paper I will present tree diagrams in a simplified fashion, in order to facilitate the exposition. In particular, I will omit auxiliaries and particles wherever possible.

In Fig. 1, I have included two nodes whose existence I have not justified above, namely the VP node and the node N above tokoro. I know of no convincing argument for the VP node, and it may very well turn out to be the case that the node does not exist. The point is, however, irrelevant to my discussion of Ga-No Conversion in Note 7.

7. Note that one cannot consider TC sentences as deriving from underlying structures like those in (8) through the normal Equi-NP Deletion followed by a rule that converts o to ga. (I am grateful to K. I. Harada for reminding me of this possibility.) Such an analysis makes a false prediction that, e. g., in (7a) there is a constituent break between "sono doroboo ga" and "nige-te ik-u tokoro o", which is shown to be false by the fact that one cannot permute these putative constituents:

(i) *Keisatu wa nige-te ik-u tokoro o sono doroboo ga tukamae-ta.
(ii) *Taroo wa yudan-si-ta tokoro o Hanako ga osot-ta.
(iii) *Taroo wa komat-te i-ru tokoro o Ziroo ga tasuke-ta.

While these sentences are acceptable if the ga-phrases are interpreted as subjects of the matrix main verb (meaning, e. g., "As for the police, the burglar arrested them when they were trying to escape."), they are ungrammatical as stylistic variants of (7).

An independent test can be given by the rule Ga-No Conversion (see Harada 1971). This rule changes the particle ga to no only if it is suffixed to an NP in a sentence embedded in a prenominal position. As we have sentences like

(iv) Keisatu wa sono doroboo no nige-te ik-u tokoro o tukamae-ta.
(v) Taroo wa Hanako no yudan-si-ta tokoro o osot-ta.
(vi) Taroo wa Ziroo no komat-te i-ru tokoro o tasuke-ta.

the ga-phrases in (7) must belong to the embedded sentence.

8. I am indebted to David Perlmutter for pointing this out to me.

9. The discussion of the Japanese passive construction in this section is based on the analysis proposed by Noriko A. McCawley (1972) and Kuno (1973). See also Shibatani (1972) for further relevant discussion.

10. I have in mind the following two rules in particular:
   A. Complement Subject ni-Adjunction [CSNA]: Adjoin the particle ni to the subject of a certain type of complement.
   B. Predicate Raising: Raise the main predicate of a certain type of complement into the main predicate of the matrix sentence.

CSNA is essentially equivalent to Kuroda's (1965) "Constituent Subject Extraction", which has the additional effect of extracting the ni-marked NP. The extraction seems superfluous, once Predicate Raising is independently motivated, for the pruning of the complement S-node that takes place as an automatic consequence of Predicate Raising yields exactly the same result.

11. The choice of inanimate objects in (21) is intentional, for this precludes the complex passive interpretation of the derived passives in (22).

12. See Section 3.2 for an independent set of facts that lends support for this principle.

13. Minoru Nakau (personal communication) has suggested to me that if Passive were regarded as a "stupid" rule, in the sense that its structural description does not impose any structural restriction beyond the familiar 'analyzability' condition on the terms, then there would be no problem in applying Passive as formulated in (15) to a structure like that in Fig. 2 to form passives like (12), just in the same way that Chomsky (1971) derives English passives like

(i) The dog is believed to be hungry (by me).

from a structure of the form:

(ii) I believe [the dog to be hungry]$_S$.

According to Chomsky (1971, Note 15), "under any formulation of the theory of transformations so far proposed, it would require an extra condition on the transformation to exclude [(ii)] from the domain of the passive [transformation] with the structural condition (X, NP, V, NP, Y)."

However, even if the conception of Passive as a stupid rule were accepted, passive TC sentences would still remain exceptional, for we cannot derive passive sentences like (23), though the structures underlying them (cf. (21)) can be analyzed so as to meet the structural condition of Passive (now regarded as a stupid rule). In the Passive-as-a-stupid-rule framework, therefore, one must have a principle blocking the derivation of (23), perhaps Chomsky's (1971) "tensed S condition":

(iii) Items cannot be extracted from a tensed sentence.

No matter whether or not Passive is regarded as a stupid rule, therefore, deriving passive TC sentences from a structure in Fig. 2 requires an ad hoc extra mechanism.

14. We here assume, following Kuroda (1965) and Kuno (1973), that the distribution of such particles as ga, o, and ni is largely explained by a set of

simple transformations, and that other particles are generated in underlying structure. The rules that introduce ga, o, and indirect object marker ni are as follows:

Subject Particle Placement: Adjoin the particle ga to the unmarked NP immediately dominated by S.

Indirect Object Particle Placement: Adjoin the particle ni to the first unmarked NP, if there are two unmarked NPs immediately dominated by VP.

Object Particle Placement: (a) Adjoin the particle o to the unmarked NP in the VP, if the main predicate is nonstative.

(b) Adjoin the particle ga to the unmarked NP in the VP, if the main predicate is stative.

The notion "unmarked NP" is somewhat controversial, but the Kuroda-Kuno definition of this notion seems essentially correct.

I think that the particle o on a tokoro-phrase is not to be introduced by Object Particle Placement, but is rather present in underlying structure. Other instances of non-transformationally introduced o occur, I believe, in sentences like the following:

(i) Hanako ga kono kawa o watat-ta.
river cross
'Hanako went across this river.'

(ii) Tori ga sora o ton-de i-ru.
bird sky fly
'A bird is flying in the sky.'

Such sentences do not passivize:

(iii) *Kono kawa wa Hanako ni watar-are-ta.

(iv) *Tookyoo no sora wa tori ni tob-are-ta.

15. The predicates tukamar-u, mitukar-u, or tasukar-u are not passivized transitives but are intransitives. This is evidenced by the following two facts. First, there are no putative corresponding active transitive verbs like *mituk-u or *tasuk-u in modern Japanese, and the verb tukam-u [grasp, grip, hold] does not correspond to tukamar-u [be caught]. Second, the passive morpheme rare never conjugates like a consonant-stem verb. Thus we do not say *tukamae-rar-u or *tabe-rar-u. (Though these particular forms are found, e. g., in newspaper headlines, it is a remnant of the Old Japanese conjugation of vowel-stem verbs. Thus even in such circumstances we cannot say *tabe-rar-a-zu (for tabe-rare-zu [is not eaten]).)

16. Note in addition that the analysis sketched here, if justified, would present a case for the hypothesis that a morpheme can be substituted for a combination of a semantic element and a morpheme, since rare is a morpheme particular to Japanese introduced by a transformation.

A merit of the generative-semantic approach to lexical insertion is that this approach seems to enable us to account for the otherwise puzzling fact that the ni-phrase in such a sentence designates an Agent. As can be seen from the following examples, Agent ni-phrases are not allowed to occur in a non-subject position in underlying structure:

(i) a. Taroo ga mado o ake-ta.
window open
'Taro opened the window.'

b. Mado ga (*Taroo ni) ai-ta.
open
'The window opened (*by Taro).'

(ii)a. Taroo ga suupu o atatame-ta.
soup heat
'Taro heated the soup.'

b. Suupu ga (*Taroo ni) atatamat-ta.
become-hot
'The soup heated by (*by Taro).'

The problem, however, is that the correspondence between a superficially intransitive sentence and a passivized transitive sentence is highly idiosyncratic, and that no apparent generalization is as yet available. It is for this reason that I refrain here from drawing a specific conclusion as to the correctness of the approach mentioned above.

17. For the notions "exhaustively dominates" and "controller", see Ross (1967, Chapter 3) and Postal (1970), respectively.

18. If tukamar-u allowed the application of Counter Equi, there would be no means to prevent a surface structure like

(i) [Sono doroboo ga nige-te ik-u]$_S$ tokoro o keisatu ni tukamat-ta.

Although the string contained in (i) is grammatical, the constituent analysis is wrong. We can show this by the fact that it is possible to scramble the agent ni-phrase over the tokoro-complement in the following way:

(ii) Sono doroboo wa/ga, keisatu ni, nige-te ik-u tokoro o tukamat-ta.

or by the fact that the subject NP "sono doroboo" can topicalize: notice that topicalization out of a prenominal clause is impossible (unless the noun is semantically empty as in the case of koto or no):

(iii) *Sono kaisya wa, Taroo ga [tubure-ta]$_S$ toki Nihon ni i-nakat-ta.
'As for that company, Taro wasn't in Japan when it got broke.'

19. See Kuroda (1965), Chapter VI. Actually, the observation quoted below was first published in an earlier paper in the first volume of Foundations of Language (1965), where Kuroda proposed a different analysis. As the older proposal was made in an obsolete theoretical framework, I will only refer to the later proposal.

20. It seems that this is possible only when the ni-phrase is an "indirect object" and is thus unmarked in underlying structure. Ni-phrases that cannot be regarded as unmarked in underlying structure cannot be subjectivized in a passive sentence:

(i) a. Taroo ga Oosaka Eki ni tui-ta.
station arrive
'Taro arrived at Osaka Station.'

b. *Oosaka Eki ga Taroo ni tuk-are-ta.

(ii) a. Hanako ga Nikuson Daitooryoo ni at-ta.
President see
'Hanako saw President Nixon.'

b. *Nikuson Daitooryoo ga Hanako ni aw-are-ta.

Note that this is consistent with our observation that only the first unmarked

NP in a VP can be converted to the subject of a passive sentence.

21. Osamu Fujimura has informed me that sentence (42c) is unacceptable to him. While it is true that it is stylistically less felicitous than a sentence like

(i) Kita Morio wa Nihon Bungei Kyookai kara Akutagawa-syoo o atae-rare-ta.

sentence (42c) is nevertheless acceptable to a number of speakers, including myself.

22. This constraint is consistent with our observation in Section 2. 2. that we cannot e. g., derive (ii) from the structure underlying (i).

(i) Minna wa kokutetu no suto ga kyoo ar-u koto o sit-te i-ru. (=21a)

(ii) *Kokutetu no suto wa minna ni kyoo ar-u koto o sir-are-te i-ru.(23a)

It seems worth mentioning that constraint (46) also accounts for Kuno's (1972) observation that while we can derive (iv) from the structure underlying (iii):

(iii) Taroo wa kono hon ga omosiro-i to omot-ta.
interesting think
'Taro thought this book was interesting.'

(iv) Taroo wa kono hon o omosiro-i to omot-ta.
'Taro thought this book to be interesting.'

we cannot passivize (iv) to

(v) *Kono hon wa Taroo ni omosiro-i to omow-are-ta.

23. As Shibatani (1973) points out, o-causatives with inanimate causee, e. g., (36a) as well as

(i) Taroo ga yasai o kusar-ase-ta.
vegetables rot
'Taro let the vegetables rot.'

(ii) Hanako ga tokei o susum-ase-ta.
clock go fast
'Hanako put the clock forward.'

cannot be considered to derive from a structure in Fig. 5b but rather from that in Fig. 5a. This observation obtains further support from the fact that such sentences do not undergo Passive:

(iii) *Ame ga Taroo ni hur-as-are-ta.

(iv) *Yasai ga Taroo ni kusar-as-are-ta.

(v) *Tokei ga Hanako ni susum-ase-rare-ta.

Restriction (46) on Passive would account for their ungrammaticality if we derived sentences like (i)- (ii) from the structure in Fig. 5a

Note in passing that the NP immediately dominated by VP in Fig. 5b now must be subject to a selectional restriction, namely, that it be an animate NP.

24. Notice, however, that we cannot use Clefting to justify our claim. The sentence (i), if grammatical, would correspond to (ii) rather than to (34b):

(i) Taroo ga Ziroo o tabe-sase-ta no wa sakana (*o) da.
'It was fish that Taro made [*Jiro eat / eat Jiro]!'

(ii) Taroo wa sakana ni Ziroo o tabe-sase-ta.
'Taro made fish eat Jiro.'

Similarly, a sentence like

(iii) *Taroo ga Ziroo o yom-ase-ta no wa sinbun (o) da.

is definitely ungrammatical. In contrast, sentences like

(iv) Taroo ga Hanako o watar-ase-ta no wa kono kawa da.
'It was this river that Taro made Hanako go across.'

(v) Taroo ga tori o tob-ase-ta no wa Tookyoo no sora da.
'It was in the sky in Tokyo that Taro let a bird fly.'

are perfectly acceptable. I have no immediate account of the contrast between cleft TC sentences and (iv)-(v) on one hand and (i)-(iii) on the other, but it might be due to the fact that o is underlyingly present in the former but is transformationally introduced in the latter. Cf. Note 14.

25. For a more recent treatment of this construction, see J. D. McCawley (1972) and Kuno (1973). The choice between the forms rare and e is made on a purely morphological basis; rare is chosen after a vowel-ending stem verb like tabe-ru and e after a consonant-ending stem verb like tukur-u.

26. It was Shibatani (1973) who, to my knowledge, first noticed the existence of this surface structure constraint in Japanese.

27. For the notion of 'conspiracy' (in phonology), see Kisseberth (1970).

28. There is an interesting problem that remains unsolved in the present paper. Notice that in order to participate in the double-o conspiracy, General Equi is forced to violate Principle (1), which seems to be a well-motivated constraint (on identity deletions) to be stated in the universal grammar. Thus in this case, a putatively universal principle is sacrificed to avoid a violation of a language-particular principle. But, of course, this is an unusual situation: it is usually the case that if a language-particular principle conflicts with a universal principle, the latter overrides the former. In cases where this generalization apparently does not hold, it often turns out that either the proposed universal principle or language-particular one is actually incorrect. However, in the case which we are discussing, it seems impossible to argue in this way. But then we must conclude that a language-particular principle may occupy a higher position than a universal one in what we can call the 'principle hierarchy,' a hierarchy of principles (both universal and language-particular) ordered according to the priority of application. If so, the basic assumption of contemporary linguistic theory concerning the existence of language universals faces quite a serious problem which I do not know how to solve.

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