Event Argument in Restructuring

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1. Introduction

The so-called "Restructuring" phenomenon has been claimed to result from the application of a rule that transforms a bi-clausal structure to a mono-clausal structure, triggered by a certain class of verbs. Clitic climbing in Italian as in (1) shows an exemplary case of restructuring.

(1) a. Piero verra a parlarti di parapsicologia.
    Will come to speak to you about parapsychology.
    'Piero will come to speak to you about parapsychology.'

b. Piero ti verra a parlare di parapsicologia.

The clitic ti in the infinitival clause is cliticized to that clause in (1a), but it can also be cliticized to the matrix clause as in (1b). Since clitics observe the clausemate condition, the grammaticality in (1b) has been claimed to provide a piece of evidence for the mono-clausal structure of the sentence. The class of matrix verbs that allow for the clitic climbing illustrated in (1b) is usually modal, motion, and aspectual verbs in Italian. When the matrix verb does not belong to one of these verbs, as in (2), then, clitic climbing is not possible.

(2) a. Piero decidera di parlarti di parapsicologia.
    Will decide to speak to you about parapsychology.
    'Piero will decide to speak to you about parapsychology.'


Thus, the ungrammaticality of (2b) suggests that the Restructuring does not occur in a sentence in which the matrix verb is other than a modal, motion, or aspectual verb. In this paper I shall discuss two environments in Japanese in which Restructuring phenomena are demonstrated and argue that the essential difference between the two can be attributed to the distribution of event argument of these constructions.

2. Two Environments of Restructuring in Japanese

As Miyagawa (1986) and Matsumoto (1991) demonstrate,
purpose clauses and gerundive clauses in Japanese exhibit Restructuring phenomena. Such phenomena include negative polarity binding and the Nominative Case marking on the embedded object associated with the potential morpheme (rar)e. Negative polarity items like sīka are bound by negation clause-internally, as the contrast in (3-4) illustrates.

(3) Taroo-ga sakana-sīka tabe-nai.
   Nom fish-SIKA eat-NEG
   'Taro eats only fish.'
(4) *Hanako-ga [Taroo-ga sakana-sīka tabe-ru]-to
   Nom -Nom fish-SIKA eat-nonpast-COMP
   iw-ana-katta.
   say-NEG-past
   'Hanako said that Taro eats only fish.'

Unlike (3), the negation in (4) fails to bind the negative polarity item sīka since they are in different clauses. This leads to the ungrammaticality in (4). Purpose clauses like (5) and gerundive clauses like (6) violate the clausemate condition, and yet the sentences are grammatical.

(5) Taroo-ga (tosyokan-e) [manga-sīka kari-NI]
   Nom (library-to) comic books-SIKA borrow-
   ik-ana-katta.
   purpose go-NEG-past
   'Taro went (to the library) to borrow only comic books.'
(6) Taroo-ga [manga-sīka kari-TE] ko-na-
   Nom comic books-SIKA borrow-gerund go-NEG-
   katta.
   past
   'Taro (came back, having) borrowed only comic books.'

This suggests that Restructuring has taken place to transform the bi-clausal structure to a mono-clausal one, so that the polarity item sīka is locally bound by the negation in both (5) and (6).

A Restructuring phenomenon is also observed in relation to the Nominative Case assignment with the potential morpheme (rar)e. When the potential morpheme (rar)e is suffixed to a verb, the direct object of the verb can be marked either with Nominative or with Accusative. This optional marking of Nominative Case is allowed only clause-internally, as is illustrated by (7-8).
Given the clausalmate condition, the Nominative Case assignment on the embedded objects of the purpose clause in (9) and the gerundive clause in (10) is expected to be disallowed. Contrary to this prediction, the Nominative Case assignment is possible.

Hence, the Nominative Case assignment on the internal object observed with the potential morpheme (rarie) shows that a Restructuring effect appears with purpose clauses and gerundive clauses.

3. Adjunct Selection

Despite the similarities between purpose clauses and gerundive clauses that we have observed so far, there is a striking difference between these two clause types in their ways of selecting adjuncts. The generalization to be captured is that sentences with purpose clauses can select only the adjuncts that modify the matrix verb, while those with gerundive clauses allow only the adjuncts modifying the embedded verb. We shall look at the validity of this generalization with respect to (i) locative/directional adjuncts, (ii) comitative adjuncts, (iii) instrumental adjuncts, and (iv) depictive predicates.

First, in a sentence with a purpose clause, a locative/directional phrase can modify the matrix verb, but it cannot modify the embedded verb. Consider (11).
Both sentences in (11) are Restructured sentences, as indicated by the sika...nai construction, which was considered as triggering a Restructuring environment. The directional phrase in (11a) tosyokan-e 'to the library' modifies the matrix verb, while the locative phrase in (11b) tosyokan-de 'at the library' is intended to modify the embedded verb. As the ungrammatical status of (11b) suggests, locative/directional adjuncts are licensed only by the matrix verb.

The situation is opposite in sentences with gerundive clauses. With gerundive clauses, locative/directional phrases can modify the embedded verb but not the matrix verb. This is illustrated by (12).

The polarity binding construction with sika...nai suggests that the sentences in (12) are in the restructuring environment. In (12a) the locative phrase tosyokan-de 'at the library' modifies the embedded verb, and the sentence is grammatical. By contrast, the directional phrase in (12b), tosyokan-kara 'from the library' is intended to modify the matrix verb, rather than the embedded verb, but the sentence is ill-formed. Hence, with gerundive clauses, locative/directional adjuncts are licensed only by the embedded verb.

Second, the selection of comitative phrases points toward the same generalization. (13) and (14) contain a
purpose clause and a gerundive clause, respectively, and each has a comitative phrase.

(13) Taroo-ga (Tookyoo-e) hon-sika Hanako-to kai-Nom (Tokyo-to) book-SIKA -with buy-ni ik-ana-katta.
purpose go-NEG-past
'Taro went (to Tokyo) to buy only books with Hanako.'

NEG-past
'Taro (came back, having) eaten only sushi with Hanako.'

The comitative phrase in (13), Hanako-to 'with Hanako', is interpreted as 'go and buy books with Hanako', but is never construed as "Taro went to Tokyo alone and bought books with Hanako (after meeting with her somewhere, for example)." The comitative phrase, then, must have its scope over the event of going. The comitative phrase in (14), on the other hand, is interpreted such that Taro ate sushi with Hanako, and crucially it cannot be construed as Taro came back with Hanako. That is, the comitative phrase modifies only the embedded VP. Hence, comitative adjuncts are licensed by the matrix verb in a sentence with a purpose clause while they are licensed by the embedded verb in a sentence with a gerundive clause.

Third, the same generalization holds for the interpretation of instrumental adjuncts as well. Consider the sentence with a purpose clause in (15) and the sentence with a gerundive clause in (16).

(15) Taroo-ga Hanako-no megane-sika zitensya-de -Nom -Gen glasses-SIKA bicycle-with kowasi-ni ik-ana-katta.
break-purpose go-NEG-past
'Taro went to break only Hanako's glasses (??)with a bicycle/by bicycle.'

(16) Taroo-ga Hanako-no megane-sika zitensya-de -Nom -Gen glasses-SIKA bicycle-with kowasi-te ko-na-katta.
break-gerund come-NEG-past
'Taro (came back, having) broken Hanako's glasses with a bicycle.'
'*Taro (came back by bicycle, having) broken Hanako's glasses.'

The instrumental phrase zitensya-de 'by bicycle' in (15) is interpreted as modifying the matrix verb, whereby a bicycle is used as a transportational device. In (16),
by contrast, the instrumental adjunct can only modify the embedded verb, so that the bicycle is interpreted as being an instrument used to break Hanako's glasses rather than as a transportational device. Again, we can observe that with a purpose clause, an instrumental adjunct is licensed by the matrix verb, while with a gerundive clause, it is licensed by the embedded verb.

Finally, the selection of secondary depictive predicates in Restructuring environments is consistent with the generalization under discussion. Contrast (17) and (18).

(17) Taroo-ga Ziroo-sika hadakade naguri-ni ik-ana-Nom -SIKA naked hit-purpose go-NEG-katta. past 'Taro went naked to hit only Ziro.'

(18) Taroo-ga Ziro-sika hadakade nagut-te ko-na-Nom -SIKA naked hit-gerund come-NEG-katta. past 'Taro (came back, having) hit Ziro naked.'

In the sentence with a purpose clause in (17), the secondary depictive predicate hadakade 'naked' can relate only to the matrix verb: that is, the person who is naked in (17) is Taro, rather than Ziro. In the sentence with a gerundive clause in (18), on the other hand, the depictive phrase can only modify the embedded object, namely, Ziro. So, the person who was naked is Ziro rather than Taro in (18). This suggests that object-oriented depictives can cooccur with gerundive clauses but not with purpose clauses.

To summarize so far, we have observed an interesting contrast between the two Restructuring environments, purpose clauses and gerundive clauses. The data from locative/directional, comitative, and instrumental adjuncts all demonstrate that these adjuncts can relate only to the matrix verb with purpose clauses while they can relate only to the embedded verb with gerundive clauses. Furthermore, purpose clauses and gerundive clauses are different in that purpose clauses disallow object-oriented depictive predicates while gerundive clauses allow them.

4. Typological Observations

The Restructuring phenomenon exists in languages other than Italian and Japanese. For example, in Serbo-Croatian, evidence for Restructuring comes from negative polarity items. Serbo-Croatian negative polarity items such as nista 'nothing' and niko 'no one' must be bound
by negation within the same clause. This is illustrated in (19).

(19) a. Milan ne vidi nista.
not sees nothing
'Milan cannot see anything.'
b. *Milan ne tvrdi [da Marija poznaje niko-ga].
not claims that knows no one-Acc
'Milan does not claim that Marija knows no one.'

The negative polarity item nista in (19a) is properly bound by the negation ne within the same clause, yielding a grammatical sentence. In (19b), however, the negative polarity item niko is within the embedded clause while the negation ne that should bind it is outside of the embedded clause. This violates the clausemate condition on the negative polarity item in Serbo-Croatian, and thus, the sentence is ruled out. Given the clausemate condition illustrated in (19), the sentence in (20) is predicted to be ungrammatical. This prediction, however, is not borne out: even if the clausemate condition is not met, the sentence is grammatical.

(20) Ne zeli-m [da mrzi-m niko-ga].
not wish-1st that hate-lsg no one-Acc
'I wish to hate no one.'

Nevertheless, the unexpected grammaticality in (20) can be accounted for if we assume that the underlying bi-clausal structure undergoes Restructuring and consequently is transformed into a mono-clausal structure. Since the structure in (20) is now analyzed as a single clause after Restructuring, the clausemate condition on negative polarity item is met, and thus, the sentence is grammatical.

In what follows below, I show that Restructuring sentences in Italian and Serbo-Croatian pattern with gerundive clauses in Japanese with respect to adjunct selection. We shall first examine locative/directional adjuncts. In a non-Restructuring environment in Italian, a directional PP modifying the matrix VP is allowed, as in (21a), whereas in a Restructuring environment, it is not, as in (21b).

(21) a. Piero verra in biblioteca a parlati
will come to the library to speak to you
di parapsicologia.
about parapsychology
'Piero will come to the library to speak to you
about parapsychology.'
b. *Piero ti verra a parlare di parapsicologia in
biblioteca.
In (21b) the clitic ti climbs up to the matrix verb, which is an indication that Restructuring has taken place. In this case, in biblioteca 'to the library', which is intended to modify the matrix verb, is not appropriate.

The situation in Serbo-Croatian is similar to Italian: a directional PP that modifies the matrix verb yields an ungrammatical sentence. Consider (22).

(22) *Nisam isla da pozajmim nista _u_ bibliotek-\text{-}u.
    not-have gone that borrow nothing to library-\text{-}Acc
    'He hasn't gone to the library to borrow anything.'

Notice that since the negative polarity item nista is properly bound by negation, it suggests that Restructuring has occurred. The directional PP _u_ bibliotek-\text{-}u 'to the library' in this case, too, cannot modify the matrix verb isla. On the other hand, the locative PP that modifies the embedded verb is allowed, as is demonstrated in (23).

(23) Nisam isla da pozajmim nista _u_ bibliotec-\text{-}i.
    not-have gone that borrow nothing in library-\text{-}Loc
    'He hasn't gone to borrow anything at the library.'

The locative PP _u_ bibliotec-\text{-}i 'in the library' modifies the embedded VP rather than the matrix VP. In both Italian and Serbo-Croatian, the locative adjuncts that modify the embedded VP are allowed whereas the directional PP modifying the matrix VP are not. In other words, only the embedded verb can license locational/directional adjuncts in Restructuring sentences. This is exactly parallel to gerundive clauses in Japanese in their behavior observed in adjunct selection.

Second, the interpretation of comitative PP's illustrates the "superior" status of embedded verbs in Restructuring sentences in Serbo-Croatian. Consider (24).

(24) Jovan ne ide da pojede nista _sa_ Marij-\text{-}om.
    not goes that eat nothing with Mary-\text{-}Instr
    'Jovan doesn't go to eat anything with Mary.'

The comitative PP 'with Mary" in (24) is interpreted only with the embedded VP: it is construed as "eat with Mary" rather than "go with Mary".

Third, a similar generalization holds for the interpretation of instrumental adjuncts, as (25) shows.
(25) Jovan ne ide da razbije nista kol-ima.
'Jovan doesn't go to break anything with a car/*by car.'

(25) is unambiguous: the only available interpretation is "break with a car" where a car is used as an instrument with which Jovan broke something. The adjunct cannot modify the matrix VP, and hence the interpretation of "go by car", where a car is a transportational device, is missing.

The investigation of locative/directional, comitative, and instrumental adjuncts in Serbo-Croatian (and in part Italian) all points toward a single generalization: as far as the selectional properties of adjuncts are concerned, it is the embedded verb that wins out in these languages. This is exactly what we have observed with gerundive clauses in Japanese.

5. Event Argument

Given these observations about adjunct selections in Japanese, Italian, and Serbo-Croatian, let us return to the difference between purpose clauses and gerundive clauses in Japanese. I would like to claim that the different behaviors manifested between purpose clauses and gerundive clauses has to do with the temporal properties associated with the two clauses, which ultimately lead to the difference in the distribution of event arguments. The analysis to be presented below is motivated by the behavior of the two types of Restructuring environments, particularly by the one that is observed concerning secondary depictive predicates in Japanese. Since the present analysis is based on the claims made by Koizumi (1990) about secondary depictive predicates, I will first discuss his proposals.

Koizumi demonstrates, on the basis of various syntactic tests, that subject-oriented depictive predicates (SDP's) and object-oriented depictive predicates (ODP's) have the structural positions as illustrated in (26).
Koizumi further proposes the following licensing conditions for secondary depictive predicates.

(27) The Principle of Predication: A predicate must be licensed.

(28) XP, a predicate, is licensed if
(a) XP or its trace is c-governed by its antecedent (antecedent government: identification), and
(b) XP or its trace is c-governed by a zero-level category (head government: formal licensing).

(29) X c-governs Y iff
(a) X c-commands Y, and
(b) there is no G, G a barrier for Y, such that G excludes X.

(30) X c-commands Y iff neither X dominates Y nor vice versa, and the first node (a projection or a segment of a projection) dominating X dominates Y as well.

(31) A excludes B if no segment of A dominates B.

Given the licensing conditions stated above, SDP's and ODP's are licensed as follows. The SDP1 is c-governed by the subject NP, satisfying (28a), and it is also c-governed by Infl, which fulfills (28b). So, the SDP1 is licensed. Similarly, the SDP2 is c-governed by the subject NP (antecedent government) and by the Infl (head government). Both conditions in (28) being met, the SDP2 is licensed. The ODP is c-governed by the object NP (antecedent government) and by the verb (head government), and accordingly it is licensed.

It should be remembered, at this point, that an ODP can appear in gerundive clauses but it cannot in purpose clauses. This was shown by the contrast between (17) and (18), which are repeated below.


'Taro went naked to hit only Ziro.'
The secondary depictive predicate hadakade 'naked' can only take the subject, Taro, as its antecedent in (17), while the object antecedent is a possible reading in (18). Assuming that purpose clauses and gerundive clauses are structurally similar in relevant respects, SDP's and ODP's should equally be allowed in both sentence types. However, while a SDP is allowed in both clause types, ODP is allowed only in gerundive clauses. Upon closer examination, furthermore, this contrast shows up independent of the Restructuring environment. This is shown in (32-33).

Even in the absence of any factors that generate Restructuring, such as the negative polarity binding and the potential morpheme, an ODP is still not possible in the purpose clause in (32) while it is allowed in the gerundive clause in (33). That is, hadakade 'naked' is predicated only of the subject, Taro, in (32), whereas it is predicated of the object, Ziro, in (33). This indicates that a potential difference between the two structures to which this contrast can be attributed is an inherent difference between the purpose morpheme -ni and the gerundive suffix -te. A possible inherent property that separates the two appears to be the temporal properties that accompany them. The gerundive morpheme -te is presumably specified as [-Tense] for its infinitival property. By contrast, -ni is not specified for the feature [Tense]: it only bears the aspectual property of irrealis, as Iida (1987) points out. Furthermore, purpose clauses differ from gerundive clauses in their entailment. As Jackendoff (1990) observes, purpose clauses do not entail that the intended action actually takes place. For instance, (32) does not entail that Taro hit Ziro. Purpose clauses simply indicate "intended results", as Jackendoff puts it (p.96). Gerundive clauses, on the other hand, do have the entailment. Moreover, the event denoted by a gerundive clause is always interpreted to take place prior to the event denoted by the matrix clause. Thus, the gerundive clause in (33) entails that Taro indeed hit Ziro, and the hitting event is construed as occurring
before the event of coming back. It seems plausible to conclude, then, that the lack of any entailment in purpose clauses is a manifestation of the underspecification of the [Tense] feature, and that the interpretation of intended results in purpose clauses may result from the temporal/aspectual independence of the matrix event. It would be equally reasonable to conclude that the presence of entailment in gerundive clauses suggests the accompaniment of the [Tense] feature with those clauses; in this case, furthermore, the gerundive morpheme -te is specified as [-Tense] and the temporal relation to the matrix event may well be triggered by that feature. Whatever the exact nature of the temporal/aspectual feature specification is, it seems reasonable to posit that such a feature specification is playing a crucial role in distinguishing the behavior of depictives in (17-18). Then, we might want to add another condition on licensing of secondary depictive predicates, as in (34), to the antecedent government and the head government requirements in (28).

(34) XP, or its trace, is (c-)governed by [+/-Tense].

Given the additional licensing condition, the interpretation of the depictives in (17-18) has a straightforward explanation. In (17) the purpose morpheme does not bear the feature [Tense], and thus, it cannot govern the object-oriented depictive. In (18), by contrast, the gerundive suffix is specified for [-Tense], which governs the depictive phrase, and therefore, the depictive can be predicated of the object.

Let us now turn to the different selectional properties for adjuncts observed in purpose clauses and gerundive clauses. I contend that the feature specification of [Tense], motivated by the above discussion on secondary depictive predicates, is again relevant. Suppose that the feature [Tense] sanctions an event argument, and that the event argument in turn licenses adjuncts. Given this assumption, the distribution of adjuncts in purpose sentences and gerundive sentences is explained as follows. In the case of sentences with purpose clauses, the purpose morpheme is not specified for [Tense], and thus, it cannot sanction an event argument. This means that adjuncts are not licensed internal to the purpose clause. The matrix verb, on the other hand, does bear the [+Tense] feature, as evidenced by the inflection on it. In the presence of this feature, the matrix clause can have an event argument, which enables adjuncts to be licensed. This is why in Restructuring sentences with purpose clauses, adjuncts are allowed only when they modify the matrix predicate.
In the case of sentences with gerundive clauses, the situation is opposite. The gerundive suffix bears the feature of [-Tense], which sanctions an event argument internal to the gerundive clause. The event argument within the gerundive clause, then, licenses adjuncts that modify the embedded verb. This property departs from the construction with purpose clauses, as we have just explained. Hence, purpose clauses can have their own adjuncts internal to them. Notice, however, that the matrix clause is also specified as [+Tense], just as in the sentences with purpose clauses. Nevertheless, we have observed that the matrix clause that cooccurs with a gerundive clause cannot license adjuncts.

A solution to this problem might be found in the nature of the matrix verb. In examining the selectional properties for adjuncts in gerundive clauses, we have observed that the matrix verb is "inferior" to the embedded one in its ability to relate to adjuncts. This inferiority of the matrix verb is also supported on semantic grounds in that unlike with purpose clauses, the matrix verb with a gerundive clause does not have much contribution to the interpretation of the whole sentence. This situation with gerundive clauses is reminiscent of Italian Restructuring sentences, as analyzed by Napoli (1981). Napoli claims that after Restructuring, the matrix verbs, most of which are modals, aspectuals, and motion verbs, are "semantic auxiliaries", acting to modify the infinitival verb. She further demonstrates that if the matrix verb becomes too strong semantically by way of adding modifiers to it, for example, then, Restructuring is impossible. We have made such an observation above with respect to the locative/directional adjunct selection. The relevant examples are in (21), which is repeated below.

(21) a. Piero verra **in biblioteca a parlarti**
    will come to the library to speak to you
    di parapsicologia.
    about parapsychology
    'Piero will come to the library to speak to you
    about parapsychology.'

b. *Piero ti verra a parlare **di parapsicologia in biblioteca**.

The contrast in (21) illustrates that a directional adjunct which is intended to modify the matrix verb disallows clitic climbing. In other words, in a Restructuring sentence, a directional adjunct cannot modify a matrix verb. According to Napoli's analysis, the directional adjunct **in biblioteca** 'to the library' modifies the matrix verb, making it a full-fledged verb rather than a semantic auxiliary. This disallows the clitic **ti** to climb to the matrix clause, as in (21b), as
Restructuring requires that the matrix verb be a semantic auxiliary.

The analysis of matrix verb as "semantic auxiliaries" in Italian Restructuring sentences can be extended to the Restructuring sentences with gerundive clauses in Japanese as well as Restructuring sentences in Serbo-Croatian. Since the matrix verb becomes a semantic auxiliary after Restructuring, it loses the function of denoting an event, which the same verb would otherwise have expressed. Therefore, as a semantic auxiliary, the matrix verb involved in a sentence with a gerundive clause in Japanese, as well as a matrix verb of Restructuring sentences in Serbo-Croatian, fails to bear an event argument, and as a consequence, it cannot license adjuncts internal to that clause.

6. Summary

I have argued that the difference in adjunct selection between purpose clauses and gerundive clauses in Japanese should be attributed to the presence of the feature specification for [Tense]. A purpose clause lacks the feature, and as a result, it also lacks an event argument which would otherwise license an adjunct internal to it. The absence of the feature is also argued to be the reason for the failure of licensing an object-oriented secondary depictive predicate. The matrix clause that accompanies a purpose clause, on the other hand, bears the feature [Tense], and thus, can license an adjunct. As for the sentences with gerundive clauses, the gerundive clause bears the feature [-Tense], which allows for an object-oriented depictive as well as an adjunct internal to the gerundive clause. The matrix verb in this construction, however, functions as a "semantic auxiliary" in the sense of Napoli (1981). As a semantic auxiliary, the matrix verb lacks an event argument, and hence cannot license any adjunct internal to that clause.

References


