

Conditions on Argument Transfer in Japanese *-o suru* Construction *

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1. Introduction: Light Verb *suru* and Process Nouns

This paper investigates the properties of Japanese light verb construction. It is known that the light verb *suru* has peculiar properties about its argument-taking and Case-marking. Let us consider the following examples.

- (1) a. John-ga [NP WWF-e-no 100 mandoru-no KIHU]-o mitome-ta.
John-Nom WWF-Dat-Gen 1 million dollars-Gen donation -Acc approve-PAST
b. * John-ga WWF-ni [NP 100 mandoru-no KIHU]-o mitome-ta.
'John approved the donation of 1 million dollars to the WWF.'
- (2) a. ?? John-ga [NP WWF-e-no 100 mandoru-no KIHU]-o shi-ta.
SURU-Past
b. John-ga WWF-ni [NP 100 mandoru-no KIHU]-o shi-ta.
- (3) a. daitooryoo-ga [NP kishadan-to-no KAIKEN] -o shi-ta.
President-Nom press corps-Com-Gen conference -Acc SURU-Past
b. daitooryoo-ga kishadan-to [NP KAIKEN]-o shi-ta.
'The President hold a conference with a press corps.'

In (1a), ‘KIHU’ takes two internal arguments, i.e. Goal (‘WWF-e’) and Theme (‘100 mandoru’), and assigns genitive Case (‘-no’) to them. The arguments must be realized and remain in the projection of their predicate: when outside, as in (1b), where the Goal NP is marked with a sentential Case ‘-ni’, the sentence is totally ungrammatical. We can see from (1) that thematic relation must be local. This is a universal constraint for argument realization.

However, Japanese has an apparent counterexample for this constraint. As (2b) indicates, one of the internal arguments of N can be outside the NP and marked Case ‘-ni’ when the sentential predicate is *suru*. (2b) is much better than (2a), where the two arguments remain in the NP as in (1a). The apparent locality violation is not restricted to particular theta-roles. In (3), a

comitative argument of the noun ('KAIKEN') can be either in the NP, or outside the NP. In the latter case, *suru* can license the outside argument by assigning proper Case to it.

The verb *suru* is called 'light verb': it is semantically vacant, and is able to function as a predicate only when it cooccurs with a process noun, which expresses some event, and thus takes its own argument(s). As a matter of course, *suru* cannot cooccur with a simple noun, which just refers to an entity in the world: '* tsukue-o suru', '* hon-o suru'.^{1, 2} The peculiar behaviors of this construction are:

- (i) Apparent locality violation: an argument of a process noun can be realized outside the NP.
- (ii) The Case-marking property of *suru*: a light verb *suru*, which is semantically vacant, can assign proper Cases to various arguments of a process noun when they are realized outside the NP.

The aim of this paper is to provide a principled account of the above peculiarities of the light verb construction and pose proper conditions which are concerned with various phenomena observed in this construction.

2. Grimshaw and Mester (1988)

In this section I briefly review the proposal made by Grimshaw and Mester's (1988; henceforth G & M) in two respects: Argument Transfer accompanied by its Case, and the conditions on the transfer.

2.1. Locality

G & M define the status of the light verb *suru* as 0-place predicate, with the accusative Case-assigning property. Process nouns to which the light verb attaches are predicates, expressing some events. And as predicates, they take argument(s). The argument structure of 'KEEKOKU' (warning), for instance, is shown in (6):

(5) *suru*, V; () <acc>

(6) KEEKOKU, N; (Agent- ϕ (Goal (Theme)))³

The light verb can receive argument(s) from the process noun which cooccurs with it. When 'KEEKOKU', for instance, cooccurs, the argument structure is either (7a) or (7b):

(7) a. KEEKOKU (Theme) + *suru* (Agent (Goal))

b. KEEKOKU () + *suru* (Agent (Goal (Theme)))

Argument Transfer is processed within the Lexicon. After the transfer, the sequence of the

N and V is inserted into the D-structure. (7a,b) yield the D-structures (8a,b), respectively.

- (8) a. [_{IP} Agent [_{VP} Goal [_{NP} Theme N] V] Infl _{Past}]
 b. [_{IP} Agent [_{VP} Goal Theme [_{NP} N] V] Infl _{Past}]

This approach accounts for the two peculiarities of the light verb construction mentioned in the section 1. As for (i), apparent locality violation is reduced to the application of the transfer in the Lexicon: the arguments of a process noun has been transferred and realized as the argument of the V, hence the locality is observed. As for (ii), various Cases are assigned by *suru* simply because the Case-assigning property is transferred from N to V along with argument(s). In (8a), dative Case is assigned to the transferred Goal argument, and in (8b), dative and accusative Cases are assigned to the transferred Goal and the Theme. The Theme in (8a) which remains in the NP is assigned ‘genitive’ Case by N. Thus the sentences like (9a) and (9b) are generated from (8a) and (8b), respectively.

- (9) a. [John]-ga [Mary]-ni [_{NP} [hayaku tachisaruyooni to]-no KEEKOKU]-o shi-ta.
 -Nom -Dat immediately leave COMP-Gen warning -Acc SURU-Past
 b. [John]-ga [Mary]-ni [hayaku tachisaruyooni to] [_{NP} KEEKOKU]-o shi-ta.
 ‘John warned Mary to leave immediately.’

Notice that the locality is observed in Case-assignment: *suru* assigns proper Cases to its argument, and the process noun assigns Case to its non-transferred argument under government.

2.2. Conditions on Argument Transfer

G & M note that the transfer operation has certain limitation. Descriptive constraints are:

- (i) At least one argument apart from the subject must be outside the NP.
- (ii) The subject argument must always be outside the NP.
- (iii) For nouns that take a Theme and a Goal, if the Theme argument is realized outside NP, the Goal must also be realized outside NP. (G & M 1988: 215)

With respect to (i), it should be recalled that (2a), which violates the constraint, is obviously deteriorated as compared with the grammatical (2b). Similarly, sentence (10) below containing both internal arguments in the NP is odd, as opposed to the grammatical (9a, b):

- (10) ?? [John]-ga [_{NP} [Mary]-e-no [hayaku tachisaruyooni to]-no KEEKOKU]-o shita.

G & M assume that this constraint is derived from Theta-Criterion. The NP projected by a process noun sits in complement position of the light verb, and therefore needs an interpretation, but this is impossible because of the semantic vacancy of *suru*. Therefore, the process noun must show that the noun itself is a predicate and is not subject to Theta-Criterion. Argument Transfer works for that purpose, hence the obligatory transfer occurs. Since a ‘suspended’ argument (i.e. subject) does not count for the transfer, the constraint (i) obtains.

Let us next consider (ii) and (iii). They prohibit sentences such as the following:

(11)* [Mary]-ni [_{NP} [John]-no HANASHI]-o shi-ta.
 -Dat -Gen talking -Acc SURU-Past
 ‘John talked to Mary.’

(12)* [John]-ga [hayaku tachisaruyooni to] [_{NP} [Mary]-e-no KEEKOKU]-o shi-ta.
 -Nom immediately leave COMP -Dat-Gen warning -Acc SURU-Past
 ‘John warned Mary to leave immediately.’ (Cf. (9), (10))

G & M claim that the prominence relation between arguments accounts for these facts: the more prominent argument cannot remain in the NP when the less prominent argument is transferred out. Roughly, the prominence ordering is set:

Agent > Experiencer > Goal/ Source/ Location > Theme (Grimshaw 1990: 8).

It derives the constraints (ii) and (iii). Since an internal argument must be out for because of (i), the external argument must also be out owing to its most prominent status. As for (iii), since Goal is assumed to be more prominent than Theme, it follows that if Theme is transferred, Goal must also be outside the NP.

To sum up, two conditions have been suggested concerning Argument Transfer. Theta-Criterion requires that at least one internal argument must be transferred out, and Argument Transfer is subject to the prominence ordering. G & M claim that with these conditions, apparently complicated phenomena in the light verb construction can be explained straightforwardly.

3. Problems with G & M

In the course of discussion below, I adopt the notion of Argument Transfer in the light verb construction. However, the constraints suggested by G & M are not without problems. I will proceed to point out the problems connected with their constraints.

A. Internal Argument Transfer: G & M claim that any process noun must transfer at least one of its internal argument(s) to avoid the violation of Theta-Criterion. However, the claim is not right empirically, as shown by the following counterexamples:

- (13). a. [John]-ga [_{NP} [Tokyo]-e-no RYOKOO]-o shi-ta. 'John made a trip to Tokyo.'
 b. [John]-ga [_{NP} [sono hon]-no KENSAKU]-o shi-ta. 'John retrieved that book.'
 c. [daitoryoo]-ga [_{NP} [kishadan]-to-no KAIKEN]-o shita. (= (3a))
 (14) a. [John]-ga [_{NP} SUIEE]-o shi-ta. 'John swam.'
 b. [John]-ga [_{NP} OOSAWAGI]-o shi-ta. 'John made a great fuss.'

The transfer of an internal argument has not occurred in any of (13a-c). In (14), the nouns are monadic predicates and hence have no extra internal argument to transfer. These instances tell us that the transfer is not obligatory: when it is forced, as in (2) and (10), a principle other than Theta-Criterion must be involved.

B. External Argument Transfer: If we suppose that the internal argument transfer is not obligatory, then the external argument must be transferred for some independent reason, not for its thematic prominence that forces it to accompany the internal argument transferred out.

C. Process Nouns That Do Not Take Accusative Case: This point is not mentioned by G & M. There are some process nouns that cannot appear in the construction 'NP-o suru'. Rather, they are forced to incorporate to *suru* and form 'N-suru' complexes. Consider the following examples.

- (15) a. ?? ya-ga mato-ni [_{NP} MEECHUU]-o suru.
 b. ya-ga mato-ni [_V MEECHUU-suru]. 'An arrow hits the mark.'
 (16) a. ?? John-ga [_{NP} BISHOO]-o shi-ta.
 b. John-ga [_V BISHOO-shi-ta]. 'John smiled.'

According to Kageyama (1991), process nouns whose event cannot be controlled by the subject's intention do not appear in '-o suru' context. Although this claim is just a statement of facts and not without counterexamples, I tentatively adopt this generalization here.

D. Phonetically Null Arguments: Let us compare (17a) with (17b), and (18a) with (18b):

- (17) a. [John]-ga [_{NP} [sensee]-e-no ϕ SHITSUMON]-o shi-ta.
 -Nom teacher-Dat-Gen question -Acc SURU-Past
 b. ? [John]-ga [_{NP} [sensee]-e-no [suugaku]-no SHITSUMON]-o shi-ta.
 'John asked a teacher a question (of mathematics).'
 (18) a. [John]-ga [_{NP} [WWF]-e-no ϕ KIHU]-o shi-ta.
 -Nom -Dat-Gen donation -Acc SURU-Past
 b. ? [John]-ga [_{NP} [WWF]-e-no [100 mandoru]-no KIHU]-o shi-ta. (= (2a))
 'John donated (1 million dollars) to the WWF.'

In (17a) and (18a), the theme of each action is not expressed explicitly, but the action requires its theme: one cannot ask without anything to ask about, or cannot donate without anything to donate. That is, some implicit Theme argument exists in the (a) examples just as in their (b) counterparts. Since the thematic prominence ordering does not allow the transfer of the Theme when the Goal remains in the NP (G & M's constraint (iii)), the Theme argument, indicated by ' ϕ ' in the (a) examples, must remain in the NP as it is. Therefore, the (a) examples show that when the Theme is realized as a phonetically null argument, two internal arguments (Goal and Theme in this case) can remain in the NP. When both arguments are phonetically realized, on the other hand, the sentence is degraded, as shown by the (b) examples. This fact has not been mentioned in the previous analyses. I will try the explanation in section 5.

4. Properties of the Light Verb Construction

On the basis of the preceding observations as well as G & M's observation, let us proceed to give the whole picture of the properties of the light verb construction.

1. Transfer of the internal argument(s) is not obligatory (Cf. (13),(14)), and hence Theta-Criterion does not involve in the licensing of the process nouns in the light verb construction.
2. When Argument Transfer occurs, regardless of whether optionally or obligatorily, it must observe the thematic prominence ordering constraint. (Cf. (11), (12))
3. If a process noun takes an external argument, it must be transferred out obligatorily (Cf. (11)). This is expected from the Burzio's generalization: for *suru* to assign accusative Case, it must have an external argument. Notice that *suru* is defined as a 0-place predicate. Thus, unless *suru* gets an external argument through Argument Transfer, it cannot assign accusative Case to its complement NP. In (7), for instance, if an external argument (Agent) were not transferred out, *suru* could not assign accusative Case to the NP, and the sentence '[NP ... KEEKOKU]-o suru' would be impossible. Therefore, in this construction the external argument transfer is obligatory.⁴
4. A process noun that does not express an 'agentive' event cannot appear in the '-o suru' construction. (Cf. (15), (16))
5. A process noun can contain at most one overt internal argument in its projection.

of the overt internal arguments in NP:

(19) a. [John]-ga [NP SUIEE]-o shi-ta.	0
b. [John]-ga [WWF]-ni [NP [100 mandoru]-no KIHU]-o shi-ta.	1
c. [John]-ga [NP [WWF]-e-no ϕ KIHU]-o shi-ta.	1
d. ? [John]-ga [NP [WWF]-e-no [100 mandoru]-no KIHU]-o shi-ta.	2

6. Internal argument transfer is obligatory in cases such as the following:

- (i) Since the NP of a process noun can contain only one overt argument, as mentioned above, those nouns that take more than one overt argument obligatorily transfer their extra argument(s).
- (ii) Some process nouns obligatorily transfer their single internal argument. This might be due to the lexical property of each of the nouns: eg. aiseki (table-sharing), ninshin (pregnancy).

- (20) a. [John]-ga [Mary]-to [NP AISEKI]-o shi-ta.
 -Nom -Com table-sharing-Acc SURU-Past
 b. ?? [John]-ga [NP [Mary]-to-no AISEKI]-o shi-ta.
 ‘John shared the table with Mary.’

Some previous analyses have attempted to clarify this property: Dubinsky (1994) insists that ‘telicity’ is the culprit: only ‘telic’ object can remain in the NP. (13a, c) are the counterexamples, though. Kageyama (1991) suggests that process nouns of moderate level of ‘transitivity’ allow their argument in the NP. His suggestion is not without counterexamples, either: ?? [koibito-no HOOYOO]-o suru (‘embrace one’s lover’), ?? [hannin-no TAIHO]-o suru (‘arrest the culprit’). An appropriate analysis of these nouns is yet to be provided. I leave it for future research.

To summarize, the light verb construction is subject to two conditions: the Burzio’s generalization and the thematic prominence ordering constraint. However, the other constraints indicated in 4, 5 and 6 remain as statements of facts, awaiting further principled analysis. In the next section I propose that the facts in 5 and 6-(i) can be accounted for by Case theory.

5. A Constraint on the Predicative NP: A Case Approach

In this section I consider the licensing of an internal argument of a process noun in the light verb construction. Two questions are addressed concerning to this issue:

- (i) Why can a process noun contain only one overt internal argument in its projection?
- (ii) Why can a process noun in the ‘heavy’ verb construction allow two internal arguments in its projection, as shown in (21), contrary to (i)?

- (21) [John]-ga [NP [WWF]-e-no [100 mandoru]-no KIHU]-o mitome-ta. (= (1a))

Firstly, let us turn to (17) and (18) again. Note that there is no structural difference between (17a) and (17b), or (18a) and (18b). Therefore, the degraded status in the (b) examples is not due to the structural deficiency, but to the fact that they contain *two phonetically realized arguments* in the NP. This is reminiscent of the definition of Case filter.

(22) Every phonetically realized NP must be assigned (abstract) Case. (Chomsky 1986: 74)

If we assume that a predicate can assign only one Case for the reason to be presented below, then the question (i) is resolved: the nouns in (17a) and (18a) properly assign Case to their single (overt) argument that needs it. In (17b) and (18b), on the other hand, there are two overt arguments for one predicate noun. Proper Case assignment is not possible, hence the sentences are to be excluded.

Note that the (b) examples are just ‘degraded’, not excluded, which is unlikely for the violation of Case filter. I account for this fact as follows: let us compare (18b) it with (23).

(23) John-ga [_{NP} [WWF]-e-no [100 mandoru]-no KIHU]-o *okonatta*.

Since there is a grammatical sentence like (23), which is almost the same as (18b), both semantically and formally, the status of (18b) might be improved on the analogy of (23). I do not mean that *suru* has a ‘heavy’ reading as (23), which is suggested by G & M. If it were true, (18b) should be completely grammatical.

Now let us proceed to the second question. This can be accounted for by saying that the process noun ‘KIHU’ behaves differently between in the light verb construction and in the ‘heavy’ verb construction. The different behavior is evident in the following contrast.

(24) a. John-ga [_{NP} *dorudate-de-no* [WWF]-e-no KIHU]-o *mitometa*.

b. ?? John-ga [_{NP} *dorudate-de-no* [WWF]-e-no KIHU]-o *shita*.

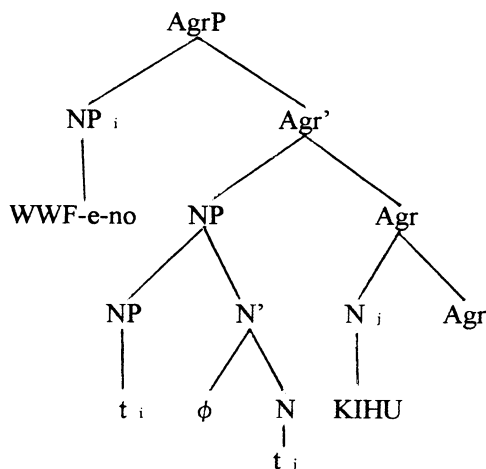
‘John approved/ executed the donation to the WWF based on dollar.’

(24a) shows that an NP-internal adjunct phrase (‘*dorudate-de-no*’) can be inserted in front of the internal argument of N in the heavy verb construction. On the other hand, this is hard to obtain in the light verb construction (24b).

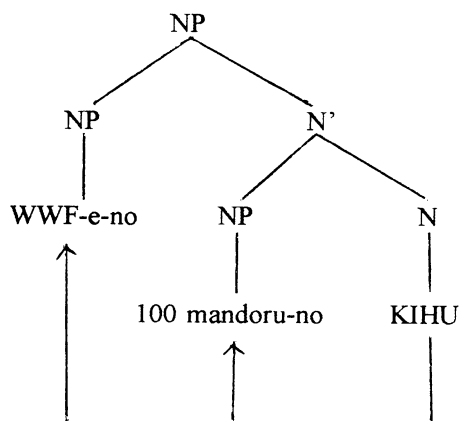
I propose that the difference in grammaticality between (18)-(21) and between (24a)-(24b) is due to the different Case-assigning tactics of a process noun. Since a process noun in the light verb construction is a predicate, it might be reasonable to assume that it assigns Case like a predicate as well: that is, it takes AgrP over its projection NP and assigns Case to the argument in Spec-AgrP, under the Spec-Head relation. Since the only one specifier position is available, only one (overt) argument is allowed to appear in the NP, as shown in (17)-(18). Moreover, since the argument must be raised from within NP to Spec-AgrP, an adjunct will be an obstacle for the argument shift at LF, hence the degraded (24b) obtains.

In contrast, a process noun in the heavy verb construction cannot utilize AgrP for the Case assignment. Then Case is assigned within NP, under government. Since government relation can hold between the head and whatever argument positions in the NP, more than one argument can appear in the NP, as shown in (21). As for (24a), since the argument ('WWF-e-no') need not move, the adjunct phrase is no obstacle for the Case-assignment.⁵ The contrast in Case-assigning is illustrated in (25).

(25) a. (Cf. (18a))



b. (Cf. (21))



In this way, the differentiation of Case-assigning tactics explains the difference between (17/18a) and (17/18b), and the difference between (18) and (21). A process noun in the light verb construction utilize AgrP for Case-assignment, thus only one Case can be assigned. A process noun in the heavy verb construction, on the other hand, assigns Case to its governing argument(s), hence more than one Case can be assigned.

6. Conclusion

We have seen that the various behavior observed in the light verb construction can be properly predicted and accounted for with a few conditions: the thematic prominence ordering constraint, the Burzio's generalization, and Case Theory pose proper constraints on the construction. These conditions regulate the operation of Argument Transfer and generate correct light verb sentences that are apparently diverse and complicated.

NOTES

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much indebted for helpful comments to the audience there. Needless to say, responsibility for the text rests entirely upon me.

1. There are other constructions in which *suru* appears as a sentential predicate.

(i) cases in which *suru* cooccurs with simple nouns: (hon-o) makura-*ni* suru/ jihibiki-*ga* suru

(ii) cases in which *suru* cooccurs with adjectives: (heya-o) kirei-*ni*-suru/ atataka-*ku*-suru

(iii) cases in which *suru* cooccurs with nouns and expresses some state: nagai kami-*o* suru

For the present it is not clear whether they should be treated as pseudo-light verb constructions, or 'heavy' verb constructions where each *suru* has a distinct selectional property.

2. In most cases, 'NP-o suru' can be transformed into 'N-suru' by means of 'incorporation'.

(2) [100 mandoru-no KIHU]-o suru --> 100 mandoru-o KIHU-suru

(3) [kishadan-to-no KAIKEN]-o suru --> kishadan-to KAIKEN-suru

For the limited purpose here, I do not consider the property of this transformed construction, though briefly mentioned later in this paper. Cf. Dubinsky (1994), Hasegawa (1997).

3. The external argument, i.e. Agent in this case, is suspended in a nominal argument structure.

Cf. Grimshaw (1990). However, as (7) shows, after the transfer the suspended status disappears and it can stand as a proper argument of the light verb.

4. When a process noun has no external theta-role, no transfer is needed. In that case, *suru* has no structural Case to assign, hence the predicative NP will be assigned nominative Case instead: eg. [JIHIBIKI]-ga suru ('There is a rumbling of the ground.').

5. Woolford (1997) makes the very same claim about the Case-assigning mechanism.

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