

Light Verb Constructions: Problems for an Incorporation Analysis

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1. Introduction

Saito and Hoshi (2000) propose an analysis which captures the properties of Japanese light verb constructions in terms of complex predicate formation, and argue that a predicate can assign theta roles even after undergoing movement (contra Chomsky's 1995 configurational theta theory; cf. Grimshaw and Mester 1988, Terada 1990, Kageyama 1993, Sato 1993, Matsumoto 1996, among others). In the following section of this paper, I show how Saito and Hoshi's incorporation analysis accounts for the nature of Japanese light verb constructions. In Section 3, I point out three potential problems for the incorporation analysis. In Section 4, I suggest that we need an alternative analysis which accounts for the nature of Japanese light verb constructions not in terms of complex predicate formation (Grimshaw and Mester 1988, Saito and Hoshi 2000, among others), but in terms of the left to right processing of the sequence of words (see Hoshi (to appear), cf. Kempson et al. 2001, Cann et al. 2005, among others).

2. Light Verb Constructions: Saito and Hoshi's (2000) Incorporation Analysis

Martin (1975), Kageyama (1993), among others, call predicates such as *ryakudatu* 'plunderage' 'verbal nouns,' and those predicates display the properties of V and/or N, depending on structural environments.¹⁾ Consider example (1).

(1) [John-no Mary-kara-no hooseki-no ryakudatu] -o

.....

[John-Gen Mary-from-Gen jewelry-Gen plunderage]-Acc

'..... John's plunderage of jewelry from Mary

In (1), the predicate *ryakudatu* seems to be N, since the theme argument, *hooseki* 'jewelry,' the source argument *Mary-kara* 'from Mary,' and the agent argument *John* are all attached by the Genitive Case marker *-no*.

Consider next light verb constructions in (2a-b), where the verbal noun *ryakudatu* is attached to the Accusative Case marker *-o*, and is selected by the light verb *si*, presumably a verb without any semantic content. (2a-b) are semantically equivalent.

(2a) ?John-ga Mary-kara hooseki-o ryakudatu-o si-ta.

John-Nom Mary-from jewelry-Acc plunderage-Acc do-Pst

'John stole jewelry from Mary.'

b. John-ga Mary-kara hooseki-no ryakudatu-o si-ta.

John-Nom Mary-from jewelry-Gen plunderage-Acc do-Pst

'John stole jewelry from Mary.'

In contrast with *ryakudatu* in (1), the 'verbal noun' *ryakudatu* in (2a) appears to be V. This is so, because in (2a), none of the arguments of the predicate is attached with the Genitive Case particle *-no*. Instead, the theme argument *hooseki* is attached by the Accusative Case marker *-o*, the source argument *Mary-kara* surfaces without any case particle, and the agent argument *John* is attached by the Nominative Case marker *-ga*. The predicate *ryakudatu* in (2b), on the other hand, appears to be N, since the theme argument *hooseki* is attached by the Genitive Case marker *-no*, as in (1). *Ryakudatu* in (2b), however, seems to be V at the same time, for the source argument *Mary-kara* and the agent argument *John* surface without the Genitive Case particle *-no* in (2b), exactly as in (2a).

Examine now example (3), where the predicate *ryakudatu* is attached to the light verb *si*. (3) appears to be semantically equivalent to (2a-b).

(3) John-ga Mary-kara hooseki-o ryakudatu-si-ta.

John-Nom Mary-from jewelry-Acc plunderage-do-Pst

'John stole jewelry from Mary.'

Here, all the arguments of the predicate *ryakudatu* appear to be verbal arguments, for they are not marked by Genitive Case *-no*. The theme argument *hooseki* is marked by Accusative Case *-o*, the source argument *Mary-kara* appears without any case particle, and the agent argument *John* is marked by Nominative Case *-ga*, as in (2a). Light verb construction (3) is grammatical, while (2a) is marginally ungrammatical. This is because not (3) but (2a) is in violation of a surface filter in Japanese, i.e. the surface double-*o* constraint, which prohibits more than one *-o* marked phrase within a single sentence in Japanese.²⁾

Consider finally Grimshaw and Mester's (1988) observation that light verb constructions such as (4) are ill-formed.

(4) *John-ga hooseki-o Mary-kara-no ryakudatu-o si-ta. (cf. 2b)

John-Nom jewelry-Acc Mary-from-Gen plunderage-Acc do-Pst

'John stole jewelry from Mary.'

In (4), the source argument *Mary-kara* is attached by

Genitive Case *-no*, whereas the theme argument *hooseki* is marked by Accusative Case *-o* and the agent *John* is marked by Nominative Case *-ga*. As Grimshaw and Mester point out, there is a sharp contrast between (2b) and (4). Not (2b) but (4) violates the above mentioned surface double-*o* constraint in the same way as (2a). However, example (4) is much worse than (2a). This implies that the ill-formedness of (4) cannot be explained only in terms of the surface double-*o* constraint.³⁾

To capture the above mentioned properties of a ‘verbal noun,’ Saito and Hoshi (2000) argue that 1) there is nothing lexically special about ‘verbal nouns,’ and a ‘verbal noun’ is simply N with its argument structure; 2) the mixed [V+N] properties of ‘verbal nouns’ should be accounted for derivationally by means of incorporation. That is, being N, a ‘verbal noun’ functions as N in its base position. At some point of the derivation, a ‘verbal noun’ incorporates into the light verb *si*, and becomes a part of the complex verb. As a result, a ‘verbal noun’ theta-marks as V at the sentential level. The structures that Saito and Hoshi (2000) propose for (1), (2a-b), (3) and (4) are given below.

Saito and Hoshi (2000) assign structure (5) to example (1).

- (5) [_{NP} **John³-no Mary-kara²-no hooseki¹-no** [_N ryakudatu]-o] (for 1)
(agent³(source²(theme¹)))

Here, the nominal predicate *ryakudatu* assigns theta roles to all of its arguments as N in its base position, and thus, all the arguments are marked by the Genitive Case marker *-no* within the N projection of *ryakudatu* (cf. Saito 1982, Murasugi 1991).⁴⁾

Saito and Hoshi (2000) propose derivation (6a-b) for light verb construction (2a).

- (6)a. ?[_{TP} **John-ga Mary-kara hooseki-o** [_{NP} [_N ryakudatu]-o] [_V si] ta]. (syntax) (for 2a)
(agent(source(theme)))
b. [_{TP} **John³-ga Mary-kara² hooseki¹-o** [_{NP} t_N] [_V [_N ryakudatu]-o si] ta]. (LF)
(agent³(source²(theme¹)))

As shown in (6a), the nominal predicate *ryakudatu* first projects NP in its base position, but does not assign any theta role within its N projection in syntax. As illustrated in (6b), *ryakudatu* undergoes movement, and incorporates into the light verb *si* in the LF component, forming the complex predicate [_V [_N *ryakudatu*]-o si]. In LF, being a part of the complex verb, *ryakudatu* assigns theta roles to its arguments as V at the sentential level. Hence, in (6b), there is no NP which immediately dominates any of the arguments, and none of the arguments is marked by the Genitive Case marker *-no*. Instead, the theme argument *hooseki* is attached by the Accusative Case marker *-o*, the source argument *Mary-kara* is not attached by any case particle, and the agent *John* is marked by Nominative Case *-ga*. The marginal ungrammaticality of (2a) is accounted for by the surface

double-*o* constraint, which prohibits more than one *-o* marked element within a sentence in Japanese (cf. Grimshaw and Mester 1988, among others).

Saito and Hoshi (2000) propose the following derivation for light verb construction (2b):

- (7)a. [_{TP} **John-ga Mary-kara** [_{NP} **hooseki¹-no** [_N ryakudatu]-o] [_V si] ta]. (syntax) (for 2b)
(agent(source(theme¹)))
b. [_{TP} **John³-ga Mary-kara²** [_{NP} **hooseki¹-no** t_N] [_V [_N ryakudatu]-o si] ta]. (LF)
(agent³(source²(theme¹)))

As illustrated in (7a), at the initial point of the derivation, the nominal predicate *ryakudatu* theta-marks the theme argument within its N projection at the base position. Hence, *hooseki* is marked by Genitive Case *-no* within the NP. As shown in (7b), in the LF component, *ryakudatu* incorporates into the light verb *si*, and forms the complex predicate [_V [_N *ryakudatu*]-o si]. Consequently, being a part of the complex verb, the predicate *ryakudatu* theta-marks the source argument and the agent argument as a verbal predicate at the sentential level. Thus, the source *Mary-kara* is not marked by any case particle, and the agent *John* is marked by Nominative Case *-ga*. Significantly, under Saito and Hoshi’s incorporation analysis, the dual [V+N] properties of a ‘verbal noun’ follows straightforwardly from the proposal that a verbal noun itself is N, but after incorporating into the light verb *si*, a verbal noun becomes a part of the complex V, assigning theta roles as V.

The following derivation is assigned to light verb construction (3) by Saito and Hoshi (2000):

- (8)a. [_{TP} **John-ga Mary-kara hooseki-o** [_{NP} [_N ryakudatu]] [_V si] ta]. (syntax) (for 3)
(agent(source(theme)))
b. [_{TP} **John³-ga Mary-kara² hooseki¹-o** [_{NP} t_N] [_V [_N ryakudatu]-si] ta]. (syntax)
(agent³(source²(theme¹)))

In (8a), the nominal predicate *ryakudatu* projects in its base position, but does not assign any theta role within the N projection (cf. 6a). Here, *ryakudatu* undergoes head movement, and incorporates into the light verb *-si* in syntax, forming the complex predicate [_V [_N *ryakudatu*]-si]. Being a part of the complex verb, the nominal predicate theta-marks all the arguments as V at the sentential level. Hence, the theme *hooseki* is attached by Accusative Case *-o*, the source *Mary-kara* surfaces without any case particle, and the agent *John* is marked by Nominative Case *-ga* (cf. 2a, 6a-b).

Finally, examine Saito and Hoshi’s (2000) derivation for illicit light verb construction (4), discovered by Grimshaw and Mester (1988).

- (9)a. * [_{TP} **John-ga hooseki-o** [_{NP} **Mary-kara¹-no** [_N ryakudatu]-o] [_V si] ta]. (syntax) (for 4; cf. 7a-b)
(agent(source¹(theme)))
b. * [_{TP} **John³-ga hooseki²-o** [_{NP} **Mary-kara¹-no** t_N] [_V [_N ryakudatu]-o si] ta]. (LF)

(agent³(source¹(theme²)))

As shown in (9a), the nominal predicate *ryakudatu* projects its NP in its base position, and assigns a source theta role to *Mary-kara* within the NP. The source argument *Mary-kara* is thus attached by the Genitive Case marker *-no* within the N projection. As illustrated in (9b), *ryakudatu* undergoes movement and adjoins to the light verb *si* in LF, forming the complex predicate [_V [_N *ryakudatu*]-o *si*]. Consequently, *ryakudatu* assigns as V a theme theta role to *hooseki* and an agent theta role to *John* at the sentential level. Accordingly, *hooseki* is attached by the Accusative Case marker *-o* and *John* by the Nominative Case marker *-ga*. The derivation of (9a-b) for (4) is, however, illicit, because the predicate *ryakudatu* does not assign theta roles bottom-up in accordance with its argument structure. In the derivation in (9a-b), *ryakudatu* discharges its source theta role before undergoing head movement to discharge its theme theta role, in contradiction with the argument structure. Notice that in (5), (6a-b), (7a-b) and (8a-b), the nominal predicate *ryakudatu* assigns its theme theta role before assigning its source theta role in accordance with the argument structure.

To summarize, Saito and Hoshi (2000) propose that there is nothing lexically special about ‘verbal nouns,’ and a ‘verbal noun’ is simply N with its own argument structure. Hence, a ‘verbal noun’ functions as N in its base position. However, after incorporating into the light verb (*-si* at some point of the derivation, a ‘verbal noun’ becomes a part of the complex verb, consequently behaving as V. The dual [V+N] characteristics of a ‘verbal noun’ in Japanese is thus accounted for derivationally under the proposal. Significantly, if Saito and Hoshi’s analysis is correct, a predicate should be able to assign theta roles to its arguments even after movement operations, and theta relatedness is not a base property (contra. Baker 1988, Chomsky 1995, among others.) That is, Theta Theory interacts with Movement Theory.

3. Potential Problems for Saito and Hoshi’s (2000) Incorporation Analysis

As I have shown above, Saito and Hoshi (2000) provide a straightforward way to account for the mixed [V+N] properties of a ‘verbal noun’ derivationally by means of head movement, and argue that a predicate may assign theta roles even after movement operations. Although the proposal accounts for all the data in the previous section, the proposed incorporation analysis does not appear to be free from problems. Below, I will point out potential problems for Saito and Hoshi’s (2000) proposal.

The first potential problem is a theoretical one which concerns the nature of Saito and Hoshi’s (2000) LF representations. Recall that Japanese light verb constructions such as (2a-b) are semantically equivalent (Grimshaw and Meter 1988, Saito and Hoshi 2000,

among others). Under Saito and Hoshi’s (2000) incorporation analysis, however, they are assigned quite different LF representations. Namely, under Saito and Hoshi’s (2000) analysis, light verb constructions (2a) and (2b) are assigned LF structures in (6b) and in (7b), respectively. The Japanese light verb constructions in (2a-b) are repeated below as (10a-b):

(10)a. ?**John-ga Mary-kara hooseki-o** ryakudatu-o si-ta. (=2a)

John-Nom Mary-from jewelry-Acc plunderage-Acc do-Pst

‘John stole jewelry from Mary.’

b. **John-ga Mary-kara hooseki-no** ryakudatu-o si-ta. (=2b)

John-Nom Mary-from jewelry-Gen plunderage-Acc do-Pst

‘John stole jewelry from Mary.’

The LF representations in (6b) and (7b) Saito and Hoshi (2000) propose for (10a-b) are repeated here as (11a) and (11b), respectively.

(11)a. [_{TP} **John-ga Mary-kara hooseki-o** [_{NP} *t_N*] [_V [_N *ryakudatu*]-o *si*] *ta*]. (LF for 10a) (=6b)

b. [_{TP} **John-ga Mary-kara** [_{NP} **hooseki-no** *t_N*] [_V [_N *ryakudatu*]-o *si*] *ta*]. (LF for 10b) (=7b)

In (11a), the nominal predicate *ryakudatu* does not assign any of its theta roles within its own N projection. Only after incorporating into the light verb *si* in LF and forming the complex predicate [_V [_N *ryakudatu*]-o *si*], the nominal predicate assigns, as a verb, theta roles to the theme *hooseki*, the source *Mary-kara*, and the agent *John* at the sentential level. In (11b), on the other hand, *ryakudatu* assigns a theme theta role to *hooseki* within its own NP. After adjoining to *si* in LF and forming the complex predicate [_V [_N *ryakudatu*]-o *si*], the nominal predicate theta-marks as V the source *Mary-kara* and the agent *John* at the sentential level. Hence, semantically equivalent light verb constructions (10a) and (10b) have distinct LF representations under Saito and Hoshi’s (2000) analysis. Consequently, it is not entirely obvious how we can read off the semantic equivalence of examples (10a-b), just given those two different LF representations, (11a) and (11b).

We can make basically the same point on the basis of a single example which is unambiguous. As an example, let me take light verb construction (2b), repeated above as (10b). According to Saito and Hoshi’s (2000) proposal, crucially, a predicate can assign theta roles even after movement. Hence, strictly speaking, example (10b) can be assigned a variety of LF representations all of which must be semantically equivalent. For instance, under Saito and Hoshi’s (2000) analysis, (10b) may be assigned LF structure below:

(12) [_{TP} [_{VP} **John-ga Mary-kara** [_{NP} **hooseki-no** *t_N*] [_V [_N *ryakudatu*]-o *si*]] *ta*]. (LF for 10b)

Here, the nominal predicate *ryakudatu* assigns a theme theta role to *hooseki* within its own NP. After

incorporating into the light verb *si* in LF, the predicate becomes a part of the complex verb [_v [_N *ryakudatu*]-*o* *si*], assigning theta roles to *Mary-kara* and *John* within the VP.

(10b) might be given the following LF representation:

- (13) [_{TP} **John-ga** [_{VP} **Mary-kara** [_{NP} **hooseki-no** *t_N*] *t_V*] [_T [_v [_N *ryakudatu*]-*o* *si*] ta]]. (LF' for 10b)

In (13), the predicate *ryakudatu* assigns a theta role to the theme *hooseki* within its own N projection. After adjoining to the light verb *si* in LF and forming the complex predicate [_v [_N *ryakudatu*]-*o* *si*], *ryakudatu* assigns a theta role to the source *Mary-kara* within the VP. By the subsequent head movement, the complex predicate [_v [_N *ryakudatu*]-*o* *si*] incorporates into the tense marker [_T *ta*], and assigns a theta role to the agent argument *John* within the TP.

Japanese light verb construction (10b) can also be assigned the LF representation in (14) under Saito and Hoshi's (2000) account:

- (14) [_{TP} **John-ga** **Mary-kara** [_{VP} [_{NP} **hooseki-no** *t_N*] *t_V*] [_T [_v [_N *ryakudatu*]-*o* *si*] ta]]. (LF'' for 10b)

Here as well, the nominal predicate *ryakudatu* assigns a theta role to the theme *hooseki* within its own N projection. After incorporating into the light verb *si* in LF and forming the complex predicate [_v [_N *ryakudatu*]-*o* *si*], *ryakudatu* does not assign any of its theta roles within the VP. After the subsequent head movement to [_T *ta*], the complex predicate [_v [_N *ryakudatu*]-*o* *si*] assigns a source theta role to *Mary-kara* and an agent theta role to *John* within the domain of the TP. As illustrated here, under Saito and Hoshi's proposal, even a single light verb construction (10b), which is semantically unambiguous, can thus be given quite different LF representations, e.g. (12), (13) and (14). Apparently, here as well, it is not entirely clear how we can account for the unambiguity of (10b), if we are just given those distinct LF representations, (12), (13), and (14).

As Kuroda (2003) points out, to avoid having this type of problem with respect to the nature of the proposed LF representations, Saito and Hoshi (2000) imply that we need not only LF representation, but also the argument structure of each predicate, to successfully calculate the interpretation of each sentence. Accordingly, Saito and Hoshi (2000) assign (15) to light verb construction (10a), and assign (16) to light verb construction (10b).

- (15) [_{TP} **John³-ga** **Mary-kara²** **hooseki¹-o** [_{NP} *t_N*] [_v [_N *ryakudatu*]-*o* *si*] ta]]. (LF for 10a) (=6b)
(agent³(source²(theme¹)))
- (16) [_{TP} **John³-ga** **Mary-kara²** [_{NP} **hooseki¹-no** *t_N*] [_v [_N *ryakudatu*]-*o* *si*] ta]]. (LF for 10b) (=7b)
(agent³(source²(theme¹)))

Notice that (15) and (16) both involve two independent representations, i.e. the LF representation and the argument structure of the 'verbal noun' *ryakudatu*. To capture the correspondence between the LF

representation and the argument structure in (15) and (16), Saito and Hoshi (2000) have to stipulate by superscripts the theta relations between syntactic arguments and theta roles within the argument structure.

Under Saito and Hoshi's analysis, exactly for the same reason, Japanese light verb constructions such as (10b) must also be given the argument structure of the 'verbal noun' as well as a variety of LF representations, in order to calculate the final semantic interpretation. This is shown below:

- (17) [_{TP} [_{VP} **John³-ga** **Mary-kara²** [_{NP} **hooseki¹-no** *t_N*] [_v [_N *ryakudatu*]-*o* *si*] ta]]. (LF for 10b; =12)
(agent³(source²(theme¹)))
- (18) [_{TP} **John³-ga** [_{VP} **Mary-kara²** [_{NP} **hooseki¹-no** *t_N*] *t_V*] [_v [_N *ryakudatu*]-*o* *si*] ta]]. (LF' for 10b; =13)
(agent³(source²(theme¹)))
- (19) [_{TP} **John³-ga** **Mary-kara²** [_{VP} [_{NP} **hooseki¹-no** *t_N*] *t_V*] [_v [_N *ryakudatu*]-*o* *si*] ta]]. (LF'' for 10b; =14)
(agent³(source²(theme¹)))

In summary, under Saito and Hoshi's (2000) proposal, the semantic equivalence among constructions such as (10a-b) cannot be captured by LF representations such as (11a) and (11b) directly. Crucially, as Kuroda (2003) points out, the semantic equivalence of (10a-b) must be calculated based on both the LF representation and the argument structure of the 'verbal noun' in (15) and (16). This is because for Saito and Hoshi (2000), the LF representation is not the final semantic representation for a linguistic expression. However, Saito and Hoshi (2000) do not show formally what the final semantic representation of (15) and (16) is, or do not spell out how we can construct the identical semantic representation for (10a-b) based on (15) and (16), to capture the semantic equivalence of (10a-b). Similarly, Saito and Hoshi (2000) do not clarify, either, how we can calculate the identical semantic interpretation based on the LF representation and the argument structure in (17), (18) and (19). One might thus consider this to be a potential theoretical problem for Saito and Hoshi's (2000) proposal.

The second potential problem for Saito and Hoshi (2000) is an empirical one. Compare now light verb construction (20) with (21).

- (20) ?**John-ga** **Mary-kara** **hooseki-o** *ryakudatu-o* *si-ta*.
(=10a)
John-Nom Mary-from jewelry-Acc plunderage-Acc do-Pst
'John stole jewelry from Mary.'
- (21) **John-ga** **Mary-kara** **hooseki-o** *ryakudatu-si-ta*.
(=3)
John-Nom Mary-from jewelry-Acc plunderage-do-Pst
'John stole jewelry from Mary.'

In (20), the predicate *ryakudatu* is attached by Accusative Case *-o*. In (21), on the other hand, *ryakudatu* is attached by the light verb *-si*.

Saito and Hoshi (2000) assign structures (22) and

(23) to light verb constructions (20) and (21), respectively, as illustrated below:

(22) [_{TP} **John-ga Mary-kara hooseki-o** [_{NP} *t*_N] [_V [_N ryakudatu]-o si] ta]. (LF for 20) (=11a)

(23) [_{TP} **John-ga Mary-kara hooseki-o** [_{NP} *t*_N] [_V [_N ryakudatu]-si] ta]. (syntax/LF for 21) (=8b)

In (22), the predicate *ryakudatu* incorporates into the light verb *si* in the LF component and forms the complex predicate [_V [_N ryakudatu]-o si], assigning all of its theta roles at the sentential level. In (23), on the other hand, *ryakudatu* incorporates into the light verb in overt syntax and forms the complex predicate [_V [_N ryakudatu]-si], carrying out theta-marking only at the sentential level. In this way, Saito and Hoshi (2000) analyze light verb constructions (20) and (21) in a uniform way, and argue that the only difference between (20) and (21) is whether the predicate *ryakudatu* incorporates into the light verb in LF or in syntax. In other words, in both (20) and (21), a complex predicate is formed. In (20), the complex predicate [_V [_N ryakudatu]-o si] is formed in LF. In (21), the complex predicate [_V [_N ryakudatu]-si] is formed in overt syntax.

This uniform ‘complex predicate’ analysis of (20) and (21), however, seems to be problematic, because there is a fundamental difference between the two types of light verb construction, (20) and (21). Consider the following sharp contrast:

(24) **John-ga Mary-kara hooseki-no** ryakudatu-o si-ta. (=10b)

John-Nom Mary-from jewelry-Gen plunderage-Acc do-Pst

‘John stole jewelry from Mary.’

(25) ***John-ga Mary-kara hooseki-no** ryakudatu-si-ta.

John-Nom Mary-from jewelry-Gen plunderage-Acc do-Pst

‘John stole jewelry from Mary.’

Japanese light verb construction (24) is grammatical, whereas (25) is totally ungrammatical.

As I have explained above, Saito and Hoshi (2000) can straightforwardly account for the grammaticality of (24). This is so, because under Saito and Hoshi’s (2000) structure (26) for (24),

(26) [_{TP} **John-ga Mary-kara** [_{NP} **hooseki-no** *t*_N] [_V [_N ryakudatu]-o si] ta]. (LF for 24) (=11b)

the nominal predicate *ryakudatu* first projects its N projection, where it assigns a theta role to the theme *hooseki*. The theme argument is thus successfully marked by Genitive Case *-no* within the NP. After incorporating into the light verb *si* in the LF component and forming the complex predicate [_V [_N ryakudatu]-o si], the predicate *ryakudatu* assigns theta roles to the source *Mary-kara* and the agent *John* as part of the complex verb at the sentential level.

Significantly, however, the ungrammaticality of example (25) is not expected by Saito and Hoshi’s (2000) analysis. This is because under Saito and Hoshi’s uniform ‘complex predicate’ analysis, example

(25) should be given structure (27), exactly in parallel to structure (26):

(27) [_{TP} **John-ga Mary-kara** [_{NP} **hooseki-no** *t*_N] [_V [_N ryakudatu]-si] ta]. (syntax/LF for 25) (cf. 26)

In (27), the nominal predicate *ryakudatu* assigns a theta role to the theme *hooseki* within its own N projection. In syntax, *ryakudatu* undergoes head movement and forms with the light verb *si* the complex predicate [_V [_N ryakudatu]-si], assigning theta roles to the source *Mary-kara* and the agent *John* (cf. 26). Hence, as in (26), there should be nothing wrong in structure (27), and example (25) is expected to be as grammatical as (24). In particular, the Genitive Case marked theme argument, *hooseki-no*, should be properly licensed within the NP in (27), exactly as in (26). However, (25) is ungrammatical in sharp contrast with (24). The ungrammaticality of example (25) thus poses a problem for Saito and Hoshi’s (2000) uniform treatment of the two types of Japanese light verb construction, (20) and (21).

The last potential problem for Saito and Hoshi’s (2000) incorporation analysis I wish to point out here is also an empirical one. Sato (1993) and others observe the grammaticality of light verb constructions such as the ones below:

(28)a. ?**Mary-kara hooseki-o** ryakudatu-o-sae, John-ga si-ta.

Mary-from jewelry-Acc plunderage-Acc-even, John-Nom do-Pst

‘Even steal jewelry from Mary, John did.’

b. **Mary-kara hooseki-no** ryakudatu-o, John-ga si-ta.

Mary-from jewelry-Gen plunderage-Acc, John-Nom do-Pst

‘Steal jewelry from Mary, John did.’

(28a) sounds slightly odd, because there is more than one *-o* marked phrase in the sentence (Harada 1973, Kuroda 1978, Saito 1985, among others). Putting aside this surface double-*o* constraint violation, (28a) seems to be as grammatical as (28b).

Importantly, Japanese light verb constructions such as (28a-b) appear to pose another potential problem for Saito and Hoshi’s (2000) incorporation analysis. This is because (28a-b) are based on (29a-b), which do not involve ‘predicate fronting.’

(29)a. ?**John-ga Mary-kara hooseki-o** ryakudatu-o-sae si-ta. (cf. 10a)

John-Nom Mary-from jewelry-Acc plunderage-Acc-even do-Pst

‘John even stole jewelry from Mary.’

b. **John-ga Mary-kara hooseki-no** ryakudatu-o si-ta. (=10b)

John-Nom Mary-from jewelry-Gen plunderage-Acc do-Pst

‘John stole jewelry from Mary.’

As explained above, Saito and Hoshi (2000) propose LF representations (30a-b) for constructions such as (29a-b), respectively.

(30)a. [_{TP} **John-ga Mary-kara hooseki-o** [_{NP} *t_N*] [_v [_N ryakudatu]-o-sae si] ta]. (LF for 29a) (cf. 11a)

b. [_{TP} **John-ga Mary-kara** [_{NP} **hooseki-no** *t_N*] [_v [_N ryakudatu]-o si] ta]. (LF for 29b) (=11b)

Notice that in derivation (30a), the ‘verbal noun’ *ryakudatu* never forms a constituent together with the theme *hooseki-o* and the source *Mary-kara* at any point of the derivation. However, predicate fronting in (28a) implies that [*Mary-kara hooseki-o ryakudatu*]-o-sae is, in fact, a constituent. Notice also that in (30b), there is no point in the computation, either, where [*Mary-kara*] forms a constituent with [*hooseki-no ryakudatu*]-o. Nonetheless, predicate fronting in (28b) suggests that [*Mary-kara hooseki-no ryakudatu*]-o does, indeed, form a constituent.

Finally, observe below that the ‘verbal noun’ can never be fronted alone:

(31) *[ryakudatu-o-sae]_i, John-ga Mary-kara hooseki-o *t_i* si-ta.

plunderage-Acc-even, John-Nom Mary-from jewelry-Acc do-Pst

The ill-formedness of (31) reinforces the hypothesis that the ‘verbal noun’ *ryakudatu* is indeed fronted to the sentence initial position together with the internal arguments, the theme and the source, in (28a-b). Namely, in (28a), [*Mary-kara hooseki-o ryakudatu*]-o-sae is a fronted constituent. In (28b), [*Mary-kara hooseki-no ryakudatu*]-o is a proposed constituent.

4. Conclusion

In the previous section, I have pointed out three potential problems for Saito and Hoshi’s (2000) incorporation analysis of Japanese light verb constructions. The first one concerns Saito and Hoshi’s (2000) proposal that a predicate can assign theta roles even after undergoing movement operations. In particular, the first problem is related to the nature of LF representations proposed by Saito and Hoshi (2000). The second and third problems are empirical ones. More specifically, the second potential problem concerns the difference between the two types of light verb construction, (20) and (21). The third one is related to predicate fronting and constituents in Japanese light verb constructions such as (28a-b).

Given the above mentioned problems, here, I wish to conclude that we need a novel analysis which could provide more adequate a way to capture the mixed [V+N] properties of a ‘verbal noun’ from a radically different perspective (cf. Kempson, et al. 2001, Cann et al. 2005, Cann et al. 2009, among others). The reader is referred to Hoshi (to appear), which crucially adopts the ‘dynamic’ view of the language faculty, trying to account for the nature of the Japanese light verb construction.

Notes

1. See Martin (1975) and Kageyama (1993) for more detailed

discussion of ‘verbal nouns’ in Japanese.

2. The reader is referred to Harada (1973), Kuroda (1978), Saito (1985), among others, for detailed discussion of the surface double-*o* constraint in Japanese.

3. The following ‘light verb’ construction in Japanese is totally ungrammatical:

(i) *[_{NP} John-no Mary-kara-no hooseki-no ryakudatu]-o si-ta.
John-Gen Mary-from-Gen jewelry-Gen plunderage-Acc do-Pst
‘John stole jewelry from Mary.’

To account for the ungrammaticality of example (i), Grimshaw and Mester (1988) and Saito and Hoshi (2000) stipulate that the external argument and at least one internal argument of a ‘verbal noun’ must appear at the sentential level in the Japanese ‘light verb’ construction.

Hence, for Grimshaw and Mester (1988) and Saito and Hoshi (2000), example (ii) is ungrammatical as well.

(ii) John-ga [_{NP} Mary-kara-no hooseki-no ryakudatu]-o si-ta.
John-Nom Mary-from-Gen jewelry-Gen plunderage-Acc do-Pst

‘John stole jewelry from Mary.’

This is because in (ii), the external argument of the verbal noun *ryakudatu* appears at the sentential level, but all of the internal arguments are within the N projection of *ryakudatu*, being attached by the Genitive Case marker *-no*.

However, example (ii) is by far better than example (i). To account for this difference, Grimshaw and Mester (1988) and Saito and Hoshi (2000) suggest that in fact, the verb *si* in Japanese is ambiguous between a ‘light verb’ *si* and a ‘heavy verb’ *si*. The ‘light verb’ *si* is semantically vacuous, whereas the ‘heavy verb’ *si* is a main verb which assigns an agent theta role and a theme theta role. An instance of the heavy verb *si* is given below:

(iii) John-ga syukudai-o si-ta.

John-Nom homework-Acc do-Pst

‘John did his homework.’

Hence, for Grimshaw and Mester (1988) and Saito and Hoshi (2000), example (ii) is an ill-formed ‘light verb’ construction, but it is a well-formed ‘heavy verb’ construction.

Terada (1990) and others, on the other hand, argue that *si* with Accusative Case assigning/checking ability is a ‘heavy verb,’ and *si* without any Case assigning/checking capability is a ‘light verb.’ Hence, for Terada (1990) and others, ‘heavy verb’ construction (i) is ungrammatical, because the ‘heavy verb’ *si* with Accusative Case assigning/checking ability needs an external agent argument; example (ii) is well-formed as a ‘heavy verb’ construction.

It seems reasonable to adopt Terada’s (1990) solution for (i) and (ii), at least because of its simplicity. However, because this debate is not relevant to the main discussion here, I put it aside for ease of discussion.

4. In this paper, following Saito and Hoshi (2000), I indicate by superscripts the theta relations between syntactic arguments and theta roles within the argument structure of a predicate.

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