

Verbal Noun Complements and Complex Predicates in Japanese

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Focusing on the complex predicate formation in Japanese, particularly on the complex predicates involving the verbal noun, the light verb *su(ru)* and an affixal predicate, this paper presents new data and additional arguments for Saito and Hoshi's (1998, 2000) proposal on theta-role assignment by a predicate in the incorporated position, and it also proposes some significant modification to their proposal. The paper argues that the quasi-light verb construction is shown to involve the same process as the light verb construction without assuming the theta-absorption/merger in the former. It also discusses instances of the light verb *su(ru)*, where it functions not as the head of VP but rather as morphological "glue" between a verbal noun and a V-taking affixal predicate. The proposed analysis makes correct predications about constructions involving further complex predicates and those involving unaccusative verbal nouns.

Key words: verbal noun, light verb construction, quasi-light verb construction, LF-incorporation, complex predicate

1. Introduction

This paper will advance the LF-incorporation analysis of the Japanese light verb construction proposed in Saito and Hoshi (1998, 2000) to account for structures involving more complex predicate formation than previously discussed. The paper will present a novel

analysis concerning the types of verbs that allow the LF adjunction of a verbal noun at LF. It will argue against the theta-absorption/merger in all constructions involving the LF adjunction of a verbal noun, and will argue that an NP headed by a verbal noun suppresses its external argument except when it is embedded by a raising predicate.

The organization of the paper is as follows. Section 1 overviews the LF incorporation analysis of the light verb construction and the quasi-light verb construction proposed in Saito and Hoshi (1998, 2000). Section 2 discusses problems for their analysis and proposes an alternative analysis. Section 3 and 4 discuss how the proposed analysis can account for sentences with more complex predicates and those with unaccusative verbal nouns. Section 5 states the summary and the conclusion.

2. The light verb construction and the quasi-light verb construction

In a nominal projection headed by a verbal noun, the arguments of the verbal noun take the genitive form as shown in (1.a). In contrast, in (1.b) the arguments of the corresponding verb form, *tyoosyuu-suru*, appear in the clausal case-marking pattern.

- (1) a. Maria-no Tom-kara-no kaihi-no tyoosyuu
 Maria-gen Tom-from-gen membership fee-gen collection
 ‘Maria’s collection of the membership fee from Tom’
 b. Maria-ga Tom-kara kaihi-o tyoosyuu-suru
 Maria-nom Tom-from membership fee-acc collection-do
 ‘Maria will collect the membership fee from Tom.’

What is interesting about structures involving verbal nouns is that when the NP headed by a verbal noun is the complement of the light verb *suru*, the case-marking of the arguments of the verbal noun is a hybrid of the nominal and clausal case-marking.

- (2) Maria-ga Tom-kara [kaihi-no tyoosyuu]-o suru¹
 Maria-nom Tom-from [membership fee-gen collection]

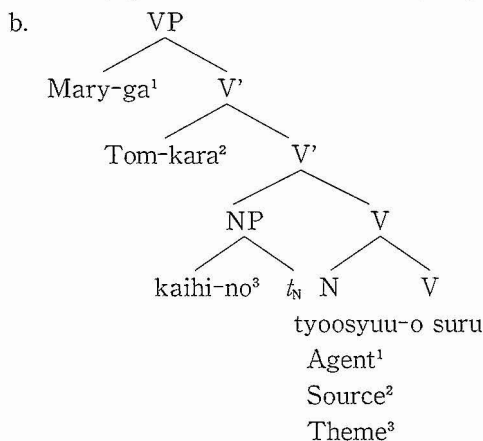
-acc do

‘Maria collected the membership fee from Tom.’

The absence of the genitive-case particle *-no* after the agent argument, *Maria*, and the source, *Tom-kara*, seems to suggest that they are case-marked as the arguments outside the NP headed by the verbal noun. Yet, they must be thematically related to the verbal noun because in this sentence *suru* is a semantically vacuous light verb and the verbal noun is the only theta-assigning element.

To solve this paradox Saito and Hoshi (1998, 2000) propose that a verbal noun can discharge its theta-roles after it is incorporated to the light verb. In their proposal, the verbal noun *tyoosyuu* in (3.a) is adjoined to the light verb at LF as shown in (3.b).

(3) a. [Mary-ga [Tom-kara [kaihi-no [tyoosyuu]_N]_{NP-O} [suru]_V]_{V'}]_{VP}



The LF incorporation of a verbal noun to the light verb is motivated by the theta-role assignment. Thus, in the light verb construction, at least one internal theta-role of a verbal noun is left unassigned within its projection, and the verbal noun discharges the unassigned theta-roles by its incorporation to the light verb at LF. The structure in (3.b)

shows that the verbal noun discharges one of its theta-roles at its base position to the NP in the genitive form, and it discharges the rest of the theta-roles at its LF incorporated position to the NPs outside its own projection. The correspondence between the theta-roles and the arguments is indicated by the indices in superscript.

Grimshaw and Mester (1988) and Matsumoto (1996) discuss that the mismatch of the theta-assignment and the case-marking as observed in (2) is not unique to the construction involving the light verb *suru*. For example, when the two place-predicate *kokoromi(ru)* ‘try’ takes an NP headed by the verbal noun *ryakudatu* as its complement, the source argument of the verbal noun can appear without the genitive case-marking as shown in (4).

- (4) John-ga Mary-kara hooseki-no ryakudatu-o kokoromita
 John-nom Mary-from jewelry-gen plunderage-acc
 attempted
 ‘John attempted to steal jewelry from Mary.’

(4) shows that the arguments of the verbal noun do not have to be case-marked as the elements within the nominal projection, and they can appear in the verbal-case forms. Thus, it appears that the verbal case-marking on the arguments of a verbal noun is not restricted only to the light verb construction. In the following, the construction exemplified in (4) will be referred to as the quasi-light verb construction, which involves a verb other than the light verb *suru* and a verbal noun complement with its arguments appearing in the verbal case forms.

Saito and Hoshi (1998) argue that the LF incorporation of a verbal noun should be extended to the examples like (4). These sentences, however, cannot be accounted for as straightforwardly as in the cases of the light verb construction. In the light verb construction, a verbal noun is the only predicative element capable of assigning the agent role to the subject. In contrast, in (4) the verb *kokoromita* ‘attempted’ as well as the verbal noun *ryakudatsu* ‘plunderage’ has the agent role to be

discharged. If the subject *John-ga* is the agent argument of the verb *kokoromita*, a question arises as to the bearer of the agent role of the verbal noun.

Saito and Hoshi (1988) propose that after the incorporation of a verbal noun, the agent role of the verbal noun is merged or absorbed by the agent role of the argument of the incorporation host V through the relation of control. For instance, in (4) the theme argument is assigned a theta-role by the verbal noun at its base position within the NP, and upon the incorporation of the verbal noun to *kokoromita* at LF, the agent role of the former is merged/absorbed by the agent role of the latter. The unassigned theta-role of the verbal noun is discharged at the incorporated position. Thus, Saito and Hoshi show that by postulating the theta-absorption/merger, the quasi-light verb construction can be given an account parallel to that given to the light verb construction. In the following, it will be evinced, however, that their analysis based on the theta-absorption/merger does not correctly explain the facts of the quasi-light verb construction. I will propose an alternative analysis which does not require such an additional postulation, allowing a more uniform account of the quasi-light verb construction and the light verb construction.

3. The external argument of verbal nouns

3.1 Problems for the theta-absorption/merger

The first problem to be pointed out with the analysis based on theta-absorption/merger concerns the fact that control relation does not necessarily hold between the external argument of a verbal noun and the subject of the higher predicate to which the verbal noun is adjoined. Matsumoto (1996) notes that the class of control predicates that can be used as 'quasi-light verbs' include such directive and permissive verbs as *meijiru* 'order', *gimuzukeru* 'obligate', *motomeru* 'ask', *yurusu* 'allow'. Since they are object-control verbs, the external argument of the verbal noun must be controlled by the indirect object of them. For instance, in (5) control holds between the external argument of the

verbal noun and the indirect object *jyuuinin* ‘resident’.

- (5) Sityoo-ga jyuuinin-ni sigaiti-kara hinan-o motometa
 Mayor-nom resident-to downtown-from evacuation-acc
 asked
 ‘The mayor asked the residents to evacuate from downtown.’

If we follow Saito and Hoshi’s analysis, it will have to be assumed that the theta-role of the indirect object absorbs or merges that of the controlled NP. The theta-role absorption/merger is problematic in the cases involving object-control, however. While the external argument of the verbal noun is interpreted as the agent, the indirect object of *meijita* ‘ordered’ is not interpreted as such. Then, in object-control contexts, a rather problematic assumption would have to be made that the theta-role of the controlling NP absorbs a theta-role of the controlled NP that is different from it, or the two distinct theta-roles are merged.

3.2 Verbs in the quasi-light verb construction

The second problem concerns Saito and Hoshi’s claim that only obligatory control verbs are allowed in the quasi-light verb construction, and the incorporation of a verbal noun into an obligatory control verb results in the merger/absorption of the controlled theta-role of the adjoined verbal noun. In Saito and Hoshi (1998) it is claimed that their analysis of the theta-absorption/merger on the basis of obligatory control relation can account for the contrast observed in (6). The sentences in (6) show that while *kokoromi(ru)* can function as a quasi-light verb, *wasure(ru)* cannot.

- (6) a. John-ga Bill-to kaidan-o kokoromita
 John-nom Bill-with meeting-acc attempted
 ‘John attempted at a meeting with Bill.’

- b. *John-ga Bill-to kaidan-o wasureta
 John-nom Bill-with meeting-acc forgot
 'John forgot about his meeting with Bill.'

Saito and Hoshi claim that *kokoromi(ru)* 'attempt' is an obligatory control predicate while *wasure(ru)* 'forget' does not trigger obligatory control. In (7.a) and (7.b) the embedded subject that is distinct from the subject of *kokoromi(ru)* is not allowed, whereas in (8.a) and (8.b) the embedded subject is distinct from that of *wasure(ru)*.

- (7) a. John-ga [(**Mary-no*) Bill-to-no kaidan]-o kokoromita
 John-nom Mary-gen Bill-with-gen meeting-acc attempted
 'John attempted at (Mary's) meeting with Bill.'
 b. John-ga [(**Mary-ga*) Bill-to kaidansuru koto]-o kokoromita
 John-nom Mary-nom Bill-with meet N -acc attempted
 'John attempted (Mary) to have a meeting with Bill'
- (8) a. John-ga [Mary-no Bill-to-no kaidan]-o wasureta
 John-nom Mary-gen Bill-with-gen meeting-acc forgot
 'John forgot about Mary's meeting with Bill.'
 b. John-ga [Mary-ga Bill-to kaidansuru koto]-o wasureta
 John-nom Mary-nom Bill-with meet N -acc forgot
 'John forgot that Mary was having a meeting with Bill.'

According to Saito and Hoshi, since *wasure(ru)* does not trigger obligatory control, the agent role of the verbal noun cannot be absorbed. If the external argument of the verbal noun remains within the NP as PRO, the other arguments of the verbal noun cannot occur outside the NP. If that happens, the external argument of the verbal noun would be assigned a theta-role before its other arguments are assigned their theta-roles at LF. This would result in a violation of the thematic hierarchy. Hence, their conclusion is that the quasi-light verb construction is possible only when theta absorption is triggered by obligatory control relation.

It seems, however, that contrary to their observation, the verbs that sanction the LF-incorporation of a verbal noun are not restricted to verbs that trigger obligatory control. For example, as shown in (9)-(12) the verbs *kuwadate(ru)* ‘attempt’, *mokurom(u)* ‘contemplate’, *nozom(u)* ‘hope’ and *osore(ru)* ‘fear’ all allow a distinct embedded subject, and thus, according to Saito and Hoshi they are not obligatory control verbs.

- (9) a. John-ga [Mary-no Bill-kara-no kabu-no koonyuu]-o
 kuwadateta
 John-nom Mary-gen Bill-from-gen stock-gen purchase
 -acc schemed
- b. John-ga [Mary-ga Bill-kara kabu-o koonyuu-suru koto]
 -o kuwadateta
 John-nom Mary-nom Bill-from stock-gen purchase N -acc
 schemed
 ‘John planned to have Mary purchase stocks from Bill.’
- (10) a. John-ga [Mary-no Bill-e-no sekinin-no tenka]-o moku-
 onde-iru
 John-nom Mary-gen Bill-to-gen blame-gen imputation
 -acc contemplating
- b. John-ga [Mary-ga Bill-e sekinin-o tenka-suru koto]-o
 mukuronde-iru
 John-nom Mary-nom Bill-to blame-acc impute N-acc
 contemplating
 ‘John is contemplating to have Mary lay blame on Bill.’
- (11) a. John-ga [Mary-no Bill-e-no wakai-no moosiire]-o nozon-
 deiru
 John-nom Mary-gen Bill-to-gen reconciliation offer-acc hope
- b. John-ga [Mary-ga Bill-e wakai-o moosiireru koto]-o
 nozondeiru
 John-nom Mary-nom Bill-to reconciliation-acc offer N
 -acc hope

- 'John hopes that Mary offers Bill reconciliation.'
- (12) a. John-ga [Mary-no Bill-to-no tairitu]-o osoreteiru
 John-nom Mary-gen Bill-to-gen confrontation-acc fear
- b. John-ga [Mary-ga Bill-to tairitusuru koto]-o osoreteiru
 John-gen Mary-gen Bill-to confrontation-acc fear
 'John fears that Mary confronts Bill.'

Contradicting the predictions made by Saito and Hoshi's analysis, the examples (9')-(12') show that these verbs can take a verbal noun complement and form quasi-light verb sentences.

- (9') John-ga Bill-kara [kabu-no koonyuu]-o kuwadateta
 John-nom Bill-from stock-gen purchase-acc schemed
 'John schemed to purchase stocks from Bill.'
- (10') John-ga Bill-e [sekinin-no tenka]-o mokurondeiru
 John-nom Bill-to blame-gen imputation-acc contemplate
 'John is contemplating to lay blame on Bill.'
- (11') John-ga Bill-e [wakai-no moosiire]-o nozondeiru
 John-nom Bill-to reconciliation-gen offer-acc hope
 'John hopes to reach a settlement with Bill.'
- (12') John-ga Bill-to [tairitu]-o osoreteiru
 John-nom Bill-with confrontation-acc fear
 'John fears of confronting with Bill.'

Assuming the correctness of these data, we can deduce that verbs not necessarily triggering obligatory control can form quasi-light verb sentences. Then, it cannot be maintained that the theta-role absorption/merger is triggered by obligatory control verbs. Thus, Saito and Hoshi's data presented in (6) above in fact do not support their analysis of theta-absorption, and the correlation between obligatory control verbs and the quasi-light verb construction is not as straightforward as it first appeared.

In contrast to Saito and Hoshi's example presented as (6.b) above,

Matsumoto (1996) includes *wasure(ru)* ‘forget’ among the verbs that form quasi-light verb sentences.

- (13) John-wa ie-ni renraku-o wasureta (Matsumoto (1996 : 80 (34.b)))
 John-top house-to message sending-acc forgot
 ‘John forgot to send a message to his house.’

In (13), the subject of the verbal noun *renraku* ‘message sending’ must be interpreted as referentially dependent on that of *wasureta* ‘forgot’. The same holds for the additional examples of quasi-light verb sentences with *wasure(ru)*.

- (14) a. John-ga Mary-e kogitte-no soohu-o wasureta
 John-nom Mary-to check-gen sending-acc forgot
 ‘John forgot to send Mary a check.’
 b. John-ga Mary-kara ryoosyuusyo-no jyuryoo-o wasureta
 John-nom Mary-from receipt-gen receiving-acc forgot
 ‘John forgot to receive a receipt from Mary.’
 c. John-ga Mary-to utiawase-o wasureta
 John-nom Mary-with arrangement-acc forgot
 ‘John forgot to make an arrangement with Mary.’

When the verb *wasure(ru)* takes a noun complement clause followed by the noun *koto* ‘fact’ or the nominalizer *no*, the embedded subject can be distinct from that of *wasure(ru)*. The data in (15) parallel the (b) sentences in (9)-(12).

- (15) a. John-ga [Mary-ga Bill-ni renrakusuru koto/no]-o wasureta
 John-nom Mary-nom Bill-to contact N -acc forgot
 ‘John forgot that Mary was going to contact Bill.’
 b. John-ga [Mary-ga Bill-ni renrakusita koto/no]-o wasureta
 John-nom Mary-nom Bill-to contacted N -acc forgot

'John forgot that Mary had contacted Bill.'

The data given in (9')-(12'), (13), and (14) suggest that it is not the case that only obligatory control verbs can form quasi-light verb sentences, but the case is that in quasi-light verb sentences control relation is forced between the subject of a verbal noun and that of the higher predicate. It will be argued in the following that in the quasi-light verb construction, the obligatory control interpretation is forced because the complement NP headed by a verbal noun lacks the external argument.

With respect to the verbs that can function as quasi-light verbs, Matsumoto (1996) makes a different observation from the one presented in Saito and Hoshi (1998). He notes that all raising and control verbs that take a predicative complement clause marked in the accusative case (with *koto* or no nominalizers) can take a verbal noun complement and form quasi-light verb sentences. However, this observation turns out to be too general. Let us consider verbs that take a complement clause in accusative but do not form quasi-light verb sentences.

- (16) a. John-ga [(Taro-ga) Mary-e syazaisita koto]-o kuita
 John-nom (Taro-nom) Mary-to apologize N -acc regretted
 'John_i regretted that Taro/he_i apologized to Mary.'
 b. *John-ga Mary-e syazai-o kuita
 John-nom Mary-to apology-acc regretted
- (17) a. John-ga [(Taro-ga) Mary-to kaidansuru koto]-o happyoosita
 John-nom (Taro-nom) Mary-with meet N -acc announced
 'John_i announced that Taro/he_i was going to meet Mary.'
 b. *John-ga Mary-to kaidan -o happyoosita
 John-nom Mary-with meeting-acc announced
- (18) a. John-ga [(Taro-ga) Mary-to kekkonsuru koto]-o sinjiteiru
 John-nom (Taro-nom) Mary-with marry N -acc believe
 'John_i believes that Taro/he_i will marry Mary.'
 b. *John-ga Mary-to kekkon-o sinjiteiru

- (19) a. John-ga [(Taro-ga) Mary-e zaisan-o bunyosita koto]-o
nageita
John-nom (Taro-nom) Mary-to estate-acc give N -acc
lamented
'John_i lamented that Taro_i/he_i let Mary share his_{i/j} estate.'
- b. *John-ga Mary-e zaisan-no bunyo-o nageita
John-nom Mary-to estate-gen giving-acc lamented

The verbs in (16)-(19) cannot be used as quasi-light verbs as indicated by the (b) sentences although they can take a complement clause in accusative. The (a) sentences show that the embedded subject can be distinct from that of the higher clause, which indicates that the verbs involved are not qualified as obligatory control verbs in Saito and Hoshi's term. Comparing the verbs in (16)-(19) with those in (9)-(12) and (9')-(12'), what distinguishes the verbs that can form quasi-light verb sentences from those that do not seems to be reduced largely to a difference in the semantics of the verbs' complements. The verbs in (16)-(19) are all factive or propositional attitude verbs, and their complements are interpreted as proposition. On the other hand, the complements in quasi-light verb sentences cannot be interpreted as propositions, but they are interpreted as events or eventive properties.

Unlike the verbs used in (16)-(19), whose complement clauses can only be interpreted as propositions, the complement clause of the verb *wasure(ru)* can be interpreted either as a proposition or an eventive property.

- (20) a. John-ga [Taro-ga Mary-e kogitte-o soohusuru koto]-o
wasureta
John-nom Taro-nom Mary-to check-acc send N -acc for-
got
'John forgot that Tom was supposed to send a check to
Mary.'
- b. John-ga [Mary-e kogitte-o soohusuru koto]-o wasureta

John-nom Mary-to check-acc send N -acc forgot
 'John forgot that he was supposed to send a check to Mary.'
 'John forgot to send a check to Mary.'

In (20.a) the presence of the embedded subject distinct from that of the matrix verb forces the embedded clause to be interpreted as a proposition. No overt embedded subject is present in (20.b), and the embedded clause in this sentence can be interpreted either as a proposition or an eventive property.

What is of interest to us here is that when the verb *wasure(ru)* forms a quasi-light verb sentence, only an eventive property reading is available for the complement.

- (21) John-ga Mary-e kogitte-no soohu-o wasureta
 John-nom Mary-to check-gen sending-acc forgot
 'John forgot to send a check to Mary.'
 *'John forgot that he was supposed to send a check to Mary.'

To recapitulate the observations made based on the data given above, verbs which can take only a propositional complement cannot form quasi-light verb sentences, and the complement of the quasi-light verbs can only be interpreted as an eventive property even if the clausal complement of these verbs can be interpreted either as a proposition or an eventive property.

In the quasi-light verb construction, the external argument of a verbal noun is never realized overtly, and the complement of the quasi-light verb cannot be interpreted as a proposition. On the basis of these observations, a reasonable suggestion seems to be that in the quasi-light verb construction the external argument of the verbal noun is suppressed². The absence of the external argument leads to the absence of propositional readings in the complement of quasi-light verbs. Consequently, only eventive property readings are available. As part of

the semantics of the predicate incorporating a verbal noun, the eventive property expressed by the verbal noun and its complements is interpreted as a property of an argument of the selecting predicate.

In the analysis proposed above, since in the quasi-light verb construction the external argument of a verbal noun is not present even as PRO, the theta-hierarchy is respected when the verbal noun assigns the other theta-roles at LF. In contrast, the external argument of the verbal noun in the light verb construction cannot be suppressed because the light verb *suru* does not have the external theta-role. If the external argument of a verbal noun incorporated into the light verb is suppressed, it will lead to an uninterpretable sentence with no subject.

4. The structure of complex sentences with the light verb and a stative predicate

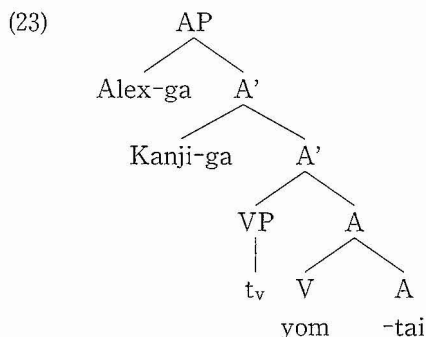
Saito and Hoshi (1998) show that their analysis can be extended to accommodate the appearance of the nominative object in complex predicate structures with certain stative verbal suffixes. Compare the case-markings on the object NPs in (22.a) and (22.b).

- (22) a. Alex-ga kanji-ga/?-o yomi-tai
 Alex-nom Chinese character-nom/-acc read-want
 ‘Alex wants to read Chinese characters.’
 b. Alex-ga kanji-o/*-ga yomu
 Alex-nom Chinese character-acc/*-nom read
 ‘Alex reads Chinese characters.’

The fact that only the accusative object is possible in (22.b) with the non-stative verb *yomu(u)* suggests that the nominative case on the object in (22.a) is due to the desiderative suffixal adjective *-tai*.

In Saito and Hoshi’s analysis the verb *yomu(u)* is incorporated into *-tai*, as a verbal noun is incorporated into V in the quasi-light verb construction discussed above. To summarize their analysis, the incorporating host *-tai*, which is assumed to be an obligatory control predi-

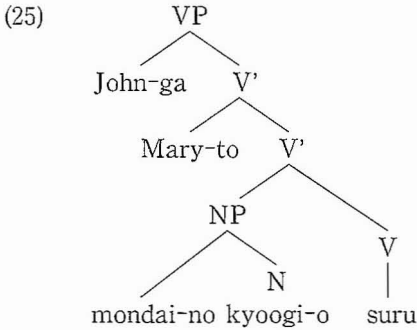
cate, absorbs the agent role of *yom(u)*. As shown in (23), the theme argument of *yom(u)* is located where it can be case-marked by the higher predicate *-tai*, while it is assigned the theme role by *yom(u)*. The only difference between the quasi-light verb construction and (23) is that in the former involves covert incorporation, while in the latter the incorporation is overt.



Let us now consider structures involving complex predicates involving both the light verb *su(ru)* and a suffixal predicate.

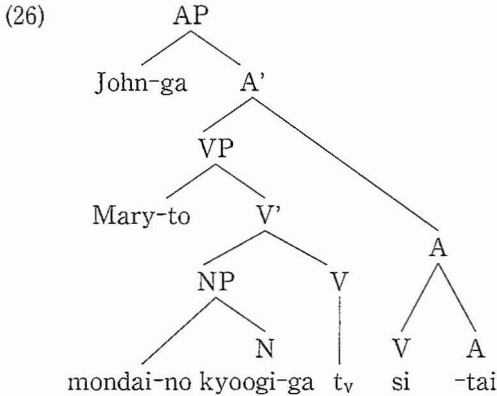
- (24) a. John-ga Mary-to mondai-no kyoogi-o suru
 John-nom Mary-with problem-gen discussion-acc do
 'John discusses problems with Mary.'
- b. John-ga Mary-to mondai-no kyoogi-ga si-tai
 John-nom Mary-with problem-gen discussion-nom do-want
 'John wants to discuss problems with Mary.'

In (24.b) the light verb *su(ru)* is affixed by the stative affixal adjective *-tai*, and the nominative case on the NP headed by the verbal noun *kaidan* is due to this stative adjective. In Saito and Hoshi's analysis of the light verb construction, the pre-LF structure of (24.a) can be illustrated as in (25).



The derivation of the sentences like (24.b) supports the proposal presented above that the external argument of verbal nouns is suppressed in the quasi-light verb construction.

Let us first assume that in (24.b) the affixal adjective takes a VP headed by the light verb as the complement. Due to the affixal nature of *-tai* its incorporation of the light verb *su(ru)* must be overt as shown in (26).

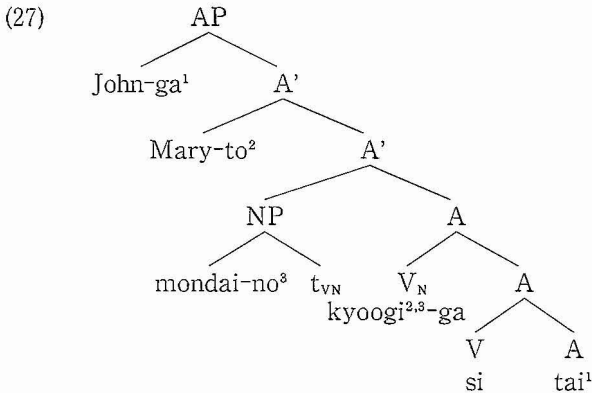


In Saito and Hoshi's analysis the incorporation into an obligatory control predicate leads to the absorption/merger of the controlled theta-role of the adjoined head. But in (26), the adjoined head *su(ru)* is the

light verb, and it does not have a theta-role to be controlled by that of *-tai*. Since the only other theta-assigning predicate, the verbal noun *kaidan*, is not directly incorporated into *-tai*, the absorption/merger of the agent-role of the former would not be possible. This problem does not arise if the external argument of a verbal noun is suppressed in this kind of complex predicate construction as in the quasi-light verb construction as proposed above. We will return to the details of this alternative analysis shortly.

Another problem is that in the structure shown in (26), the nominative case marking on the NP headed by the verbal noun cannot be accounted for. In order to discharge the unassigned theta-role, the verbal noun adjoins to the trace of the light verb at LF. From its LF adjoined position at V^0 , the verbal noun can assign a theta-role to *Mary-to*. Whether its agent-role is suppressed as in the present proposal or it is absorbed/merged as in Saito and Hoshi's, since the verbal noun has discharged all its theta-roles within the VP, it does not have a motivation to move out of the VP and adjoin to the complex predicate *si-tai*. As long as it remains within the VP, the predicted case marking is accusative, not nominative. The nominative case marking on the NP headed by the verbal noun suggests that the verbal noun is in the case domain of the stative predicate *-tai*.

The solution I propose for these problems is to posit that in (24.b) the light verb *su(ru)* adjoins into the affixal adjective *-tai* at the initial stage of the derivation and the nominative NP headed by the verbal noun merges into the structure as the complement of the complex predicate *si-tai*. Hence, in the derivation of this sentence the light verb does not project a VP, and at LF the theta-assigning verbal noun incorporates into the complex predicate, rather than into the light verb alone, as illustrated in (27).



The superscript indices in the structure show the relation between the theta-assigners and the receivers of the theta-roles. Since the adjective *-tai* has the external theta-role, the external argument of the verbal noun is suppressed. The verbal noun theta-assigns the genitive NP at its base position and discharges the unassigned theta-role to *Mary-to* at its LF incorporated position.

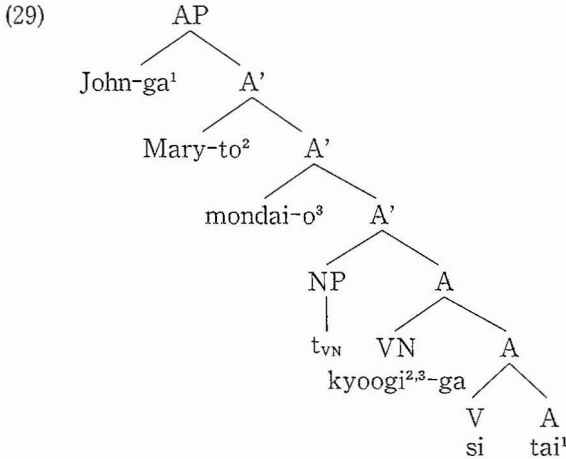
What needs to be accounted for is why the light verb *su(ru)* does not project a VP and adjoins directly to the affixal adjective. In sentence (24.b) since the case marking on the verbal noun is not due to the light verb *su(ru)*, the sole contribution of the light verb into the derivation seems to be that it functions as a bridge or an adhesive between the verbal noun and the adjective *-tai*, which can only affix to a verb. Since there is no positive evidence that the light verb projects a VP, the structure shown in (27) is preferred to the one given in (26) in terms of derivational economy as well.

In (27), the object NP of the verbal noun is marked genitive and remains within the NP. But, the object NP can also be marked accusative as in (28).

- (28) John-ga Mary-to mondai-o kyoogi-ga si-tai
 John-nom Mary-with problem-acc discussion-nom do-want

‘John wants to discuss problems with Mary.’

In the present analysis, sentence (28) will have the LF representation as shown in (29), in which the accusative NP is outside the NP headed by the verbal noun.



In this sentence, the nominative-case marking on the verbal noun is due to the stative predicate *-tai* as in (27) above. I assume that the accusative case is due to the verbal noun, which can check a verbal case by being part of the complex predicate. Notice that since the nominative case due to the stative predicate *-tai* is assigned to the verbal noun, the object of the verbal noun can only be marked accusative in this structure.

Now let us compare sentences (28)-(29) with those involving a quasi-light verb as exemplified in (30).

- (30) a. John-ga Mary-to mondai-no kyoogi-ga kokoromi-tai
 John-nom Mary-with problem-gen discussion-nom try
 -want
 ‘John wants to try to discuss problems with Mary.’

- b. *John-ga Mary-to mondai-o kyoogi-ga kokoromi-tai
 John-nom Mary-with problem-acc discussion-nom try-want

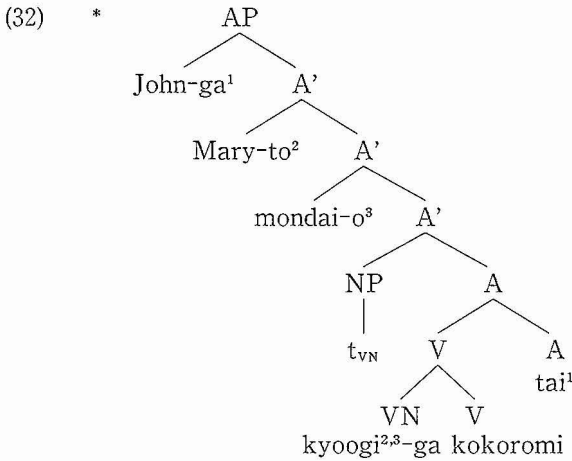
When a quasi-light verb is followed by a stative predicate, the object NP of the nominative verbal noun can be marked genitive but not accusative. (30.b) contrasts with (28) above, in which the object NP of the verbal noun is marked accusative. The contrast can be accounted for on the basis of the difference in the structure of the complex predicates involved. It was assumed above that in (28) the verbal noun is adjoined to the complex adjective *si-tai* at LF. This adjunction is possible because of the semantic transparency of the light verb. The light verb is present only to change the affixal adjective into a word, and there is no selectional relation between the light verb and the verbal noun. By contrast, when a quasi-light verb intervenes between a verbal noun and the desiderative adjective *-tai*, as in (30.a) and (30.b), I assume that at LF the verbal noun must be adjoined to the quasi-light verb alone, not to a complex adjective consisting of the quasi-light verb and *-tai*. The assumption seems necessary in order to capture the restriction on the types of verbs that can take verbal noun phrase. As discussed above, propositional attitude verbs such as *sinji(ru)* ‘believe’, *happyoosu(ru)* ‘announce’ cannot form quasi-light verb sentences. But they can be followed by the affixal adjective *-tai*, which takes an eventive complement.

- (31) Taro-ga John-ga Mary-o yurusu to sinji-tai
 Taro-nom John-nom Mary-acc forgive comp believe-want
 ‘Taro wants to believe that John will forgive Mary.’

If a verbal noun is adjoined to the complex predicate, *sinji-tai*, for example, the relation between the verbal noun phrase and the verb *sinji(ru)* would not matter, and unacceptable sentences like (32) would be derived.

- (32) *John-ga Mary-to kaidan-ga/-o sinji-tai
 John-nom Mary-with meeting-nom/-acc believe-want
 ‘John wants to believe to meet Mary.’

By assuming that at LF a verbal noun is adjoined only to the verb in the complex adjective, the selectional restriction that holds between them can be captured. On the basis of this argument, the LF representation of (30.b) will be as shown in (32).



In this structure the nominative case on the NP headed by the verbal noun is licensed by the stative predicate *-tai*. Since the verbal noun is embedded deeply within the complex predicate, it may be conjectured that the verbal noun cannot license the accusative case on its object NP. Hence, (30.b) contrasts with (29) above, where the object NP is marked accusative by the verbal noun adjoined to the complex predicate *-si -tai*.

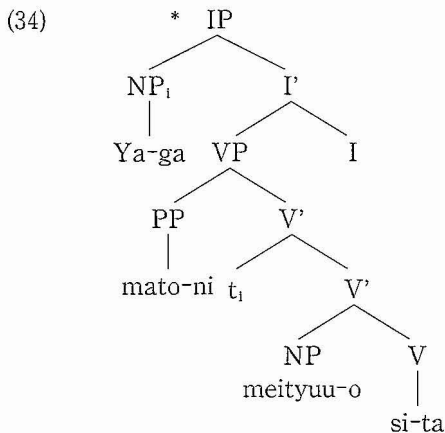
5. Complex predicates involving unaccusative verbal nouns

As noted by Miyagawa (1989) and Tsujimura (1990), unaccusative nouns are excluded from the light verb construction as theta-assigning

nouns.

- (33) a. *Ya-ga mato-ni meityuu-o sita
 arrow-nom target-to strike-acc did
 ‘The arrow struck the target.’
 b. *Sono biru-ga minamigawa-ni keisya-o sita.
 that building-nom southward-to slant-acc did
 ‘That building slanted southward.’

Assuming that in the light verb sentences in (33) the internal arguments of the unaccusative verbal nouns can have its accusative case checked at LF by the verbal noun adjoined to a verbal element *-sita*, their movement to the subject position is ruled out on account of the violation of Last Resort.



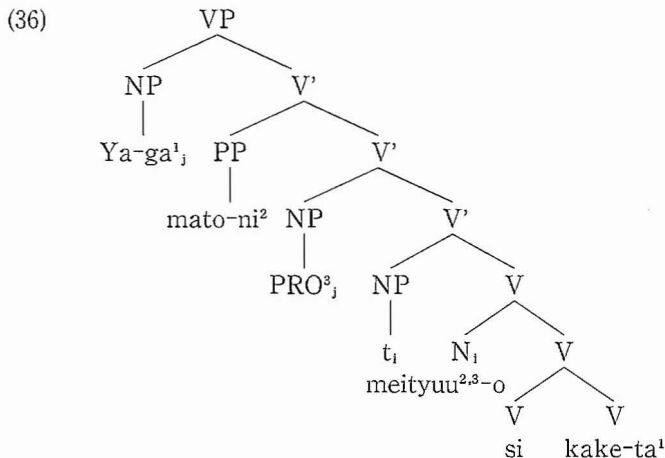
An interesting fact is that when the light verb is followed by a certain aspectual verb, unaccusative verbal nouns are allowed.

- (35) a. Ya-ga mato-ni meityuu-o si-kake-ta
 arrow-nom target-to strike-acc do-almost-past

- 'The arrow almost struck the target.'
- b. *Ya-ga mato-ni meityuu-o si-hajime-ta*
 arrow-nom target-to strike-acc do-begin-past
 'The arrow(s) began to strike the target.'
- c. *Sono biru-ga minamigawa-ni keisya-o si-tuzuketa*
 that building-nom southward-to slant-acc do-continued
 'That building continued to slant southward'

The theta-absorption/merger analysis again faces a problem to account for the sentences in (35). The light verb is adjoined to an aspectual verb, but with no theta-role of the light verb, no theta-role is absorbed/merged. If the aspectual verbs are assumed to be raising verbs just like the light verb, the raising of the internal argument of the unaccusative verbal nouns would have the same problem as the raising to the subject position in (34).

Suppose that the suffixal aspectual verbs in (34) have an external argument of their own, and that the light verb is affixed to the aspectual verbs for a morphological requirement — to turn a suffixal verb into a word. Then, the light verb-suffixal aspectual verb complex functions just like a quasi-light verb, and the proposed analysis correctly predicts the acceptability of the sentences in (34). As illustrated in (36), at LF the verbal noun is adjoined to the complex verb to discharge its unassigned theta-roles and its accusative case is checked through this incorporation. The internal argument of the unaccusative verbal noun is realized as PRO, which is controlled by the subject *yaga*, the external argument of the aspectual verb. Hence, no movement to violate Last Resort is involved in (36).



Thus, the acceptability of the sentences in (35) involving an unaccusative verbal noun and the light verb can be given a parallel account to those given to the light verb construction and the quasi-light verb construction.

6. Conclusion

It was shown above that the light verb construction and the quasi-light verb construction should be given a uniform account without assuming a process like the theta-absorption/merger only in the latter. The difference between the two constructions was shown to be derived from the fact that the light verb does not have the external argument while quasi-light verbs do. The paper showed that the proposed analysis can advance the LF-incorporation analysis proposed in Saito and Hoshi (1998, 2000) and can account for structures involving more complex predicates and unaccusative verbal nouns.

Notes

- 1 If the object NP of the verbal noun is also marked accusative as in (i), this will result in a violation of the Double-o Constraint.

(i) ??Maria-ga Tom-kara kaihi-o tyoosyuu-o suru

Maria-nom Tom-from membership fee-acc collection-acc do

Saito and Hoshi (2000) claim that the deviance of sentence (i) is not as severe as that of sentence (ii) which violates the abstract Double-o Constraint.

(ii) *Mary-ga [John-o hon-o yom]-aseta

Mary-nom John-acc book-acc read made

'Mary made John read a book.'

Saito and Hoshi point out that the difference observed between (i) and (ii) supports their analysis of the light verb construction. In their analysis, the accusative case on the theta-assigning verbal noun is licensed by its incorporation to the light verb, and therefore, only the object NP of the verbal noun needs to be licensed by abstract case assignment. Thus, (i) involves only a violation of the surface Double-o Constraint.

- 2 If nominal projections are assumed to have a structure parallel to that of verbal projections, the absence of the external argument of a verbal noun can be attributed to the absence of *n*, which is comparable to *v* providing the external argument to a verb projection.

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