Loan word syntax: a case in the light verb construction

Takashi Nakajima
Toyama Prefectural University

This paper proposes a novel analysis on the light verb construction (LVC) based upon the Root Hypothesis (Halle and Maran 1993, Maran 1997, Arad 2003) and Aktionsart-based syntax (Ramchand 2001). It is shown that verbal nouns (VNs) are category neutral words that are subject to (de)nominalization and (de)verbalization processes. These processes are necessary to make VNs proper participants of predicate formation. Arguments they contain are realized in the specifier positions of vP, VP and RP that designate INITIATOR, UNDERGORE and RESULTEE of events, respectively. The interactions between event semantics and syntactic structure permutations derive various sentential types in the LVC. Under this analysis, the light verb (LV) ‘do’ is considered to be morpho-syntactic predicate forming features that are made available by UG. These features are realized as null (ø), a category-changing overt morpheme or an independent verb. Examples from Japanese and Korean are considered.

1. Introduction

The main goal of this paper is to reexamine the morphological properties of verbal Nouns (VNs) and come up with a simpler and unified analysis for their argument realization in what is called the light verb construction (LVC) in syntax. In what follows, I will argue that VNs are categorically neutral root words (Pesetsky 1995, Kiparsky 1997) and go through the following morpho-syntactic derivations where ‘ø’ means zero derivation, and ‘sur-/ha-’ indicate ‘do’ in Japanese and Korean, respectively.

\[
\begin{align*}
\text{a. } \sqrt{VN} & \Rightarrow [[\sqrt{VN}] \, \emptyset]_N \Rightarrow [[[\sqrt{VN}] \, \emptyset]_N \, \text{sur-/ha-}]_V \\
& \text{do (J/K)} \\
\text{b. } \sqrt{VN} & \Rightarrow [[\sqrt{VN}] \, \emptyset]_V \Rightarrow [[[\sqrt{VN}] \, \emptyset]_V \, \emptyset]_N
\end{align*}
\]

*I thank Kuniko Kakita, Chen Zhi Ming and other people in the liberal arts program of Toyama Prefectural University, Minjeong Son of University of Tromsø, Hee-Don Ahn, Chung-Hye Han, Reiko Vermeulen, John Whitman and other ICEAL participants for valuable comments that brought substantial improvements to the paper. I also thank Naoko Igarashi of the TPU library for help and assistance in the search for the history of VNs. All the errors and shortcomings are mine, of course.*

Toronto Working Papers in Linguistics 28: 259–280

Copyright © 2008 Takashi Nakajima
In (1a), the √VN is first zero derived to N, then it is further denominalized by the LV ‘do’. The zero derivation to N is considered to be the most unmarked case at least in Japanese. In (1b), the order of derivation is reversed. The √VN is first zero derived to V and is further zero-derived to N. Each one of the four derived forms appears independently as we shall see.¹

This state of affairs presumably originates from a diachronic fact about VNs that they are loan words from Chinese. Being foreign in origin, they are taken into the lexicon of the hosting languages as words, not as roots or stems, for these items are not subjects to be loaned. This word status of VNs; however, is at odds with the agglutinative nature of verbal morphology of the hosting grammars: the functional suffixes such as tense and negation are bound morphemes, and they need roots or stems of a specific grammatical category. VNs with the loan word status provide neither. In other words, these VNs contain the core conceptual semantics but cannot participate properly in predicate formation. Thus, the morphological adaptation schemes in (1) are called for.

In syntax, the arguments that VNs contain are realized under the universal restrictions on syntactic structure imposed by Aktionsart (aspectuality). In particular, I would like to utilize a tri-partite syntactic analysis of Aktionsart developed by Arad (1996) and Ramchand (2001, forthcoming) that is exemplified in (2) below. (See also Travis forthcoming, van Hout 2004 and other similar approaches.

(2) Tripartite Aktionsart-Syntax Interface (Ramchand 2001, forthcoming)

\[
\begin{align*}
vP & \rightarrow \text{INITIATOR} \\
v & \rightarrow \text{VP} \rightarrow \text{UNDERGOER} \\
V & \\
RP & \rightarrow \text{RESULTEE}
\end{align*}
\]

In this configuration, the top-most vP designates an INITIATOR, VP an UNDERGOER and the RP a RESULTEE of an event, respectively. The arguments relevant to the LVC are base generated in the spec positions of the heads (Arad 1996, Brody 1997, Watanabe 2006, Travis (forthcoming)) and are licensed either by the LV or a derived complex predicate that forms a chain at LF (Brody 1997).

¹ The idea that VNs are categorically unspecified is not new. M. Pak (2001), for example, proposes an underspecification theory in LFG while Han, C-h & O. Rambow (2000) proposes the same idea in TAG. Others include Dubinsky (1994) who proposes that VNs could optionally be unspecified for [+N] feature, and thus they could categorically be either [+N] or underspecified [∅]. H-D Ahn (1991) argues that VNs are actually V contrary to the common assumption that they are N. It will be shown that the Root Hypothesis can naturally integrate these insights into a unified account of the morpho-syntax of VNs.

260
2. The Morphological Properties of VNs

2.1. 'Paddle' and 'Tape'

Let us begin with the Root Hypothesis, a theory of morpho-syntactic knowledge and argument realization. The following quote from Kiparsky summarizes the main point of the theory that is implemented in this paper. (See also Tenny 1992, Pesetsky 1995, Arad 2003, Maranz 1997, Volpe 2005 and others for a similar view.)

"Morphologically, noun and verb could still be analyzed as related, but the relationship would be a matter of a derivation from a common root."

(Kiparsky 1997, p.488)

I would like to claim that this is what underlies the categorical ambiguity we see in VNs. The actual application of the Root Hypothesis can be exemplified in the following semantic and syntactic contrasts in denominal verbs between the paddle type and the tape type in English. Arad (2003) demonstrates that the former does not hold special relations with direct object while the latter does.

(3) Paddle type denominal verbs.
   b. She anchored the ship with a rock.
   c. He hammered the nail with a rock.

(4) Tape type denominal verbs
   a. *She taped the picture to the wall with pushpins.
   b. *Jim buttoned up his pants with a zipper.
   c. *Screw the fixture to the wall with nails!

The verbs in (3) do not necessarily involve direct objects that are the nominal version of the verbs while the verbs in (4) such involvement is mandatory. In (3a), for example, you could paddle a canoe not only with paddles but also with many other things including a copy of New York Times, but when you tape a picture on the wall (4a), you must do so with tape.

Following Kiparsky (1982, 1997), she gives the following structural analysis for paddle.

(5) a. $V \sqrt{paddle}$ b. $N \sqrt{paddle}$

Here, $paddle$ serves as a common root ($\sqrt{\cdot}$) for V and N. Because they are derived from the same root, they share the core semantic properties of it. When it is N, it refers to a concrete entity but when it is V, it introduces a ‘paddling’ type of event in a manner akin to any transitive action verb and does not impose restrictions on its direct object.

Verbs like tape are assumed to have the following structures.
(6a) shows the same zero-relation of the root to N. The main difference between tape and paddle lies in the embedded structure in (6b) where V is formed from the already existing N. Due to this embedding, the activity the derived word refers to necessarily involves the complemented entity. The contrast is captured in the following constraint.

**Locality Constraint on the Interpretation of Roots**: Roots are assigned both semantic interpretation and phonological incarnation in the environment of the first category-assigning head with which they are merged. Once this interpretation is assigned, it is carried along throughout the derivation. (Arad 2005, p.43)

According to this constraint, the semantic, phonological and categorical properties of roots are determined at once at the first derivation. It does not; however, preclude further alternations of the properties except for semantic interpretations. Arad (2003, 2005) also shows with Hebrew data that idiosyncratic deviation of the root interpretation always involves the root derivation, but not word derivation. This becomes crucial later in analyzing VNs below.\(^2\)

2.2. Verbal Nouns

VNs, as the name indicates, could provide a good testing ground for the Root Hypothesis, but analyses of this type have not been advanced in the literature. The basic tenet of previous analyses (and this present analysis as well) has been that arguments and much of the semantically relevant features are contained within VNs, and they are somehow supplied to surface syntax via the help from the LV ‘do’. The semantic input of the LV is considered to be very small even if there is any.

It is, therefore, natural that much of the attention has been paid to find ways to connect this dualistic mechanism in a coherent manner. A number of explanations have been proposed that include the seminal Argument Transfer approach (Grimshaw & Mester 1988), ones that utilize syntactic Incorporation (Baker 1988) in one way or another (e.g., Ahn 1991, Nakajima 1993, Dubinsky 1994, Saito and Hoshi 2000 among others) and analyses from LFG framework (e.g., Matsumoto 1996, Jun 2003).\(^3\) Putting aside various theory internal and empirical problems; however, these previous approaches lack principled explanations as to why this particular grammatical construction arises to begin with. To answer this question, I believe that we need to look deeper into the diachronic properties of VNs and their relations to grammar. The Root Hypothesis is just

---

\(^2\) Because the semantics is rigidly fixed once it is set, Arad (2005) claims that it constitutes a word–level phase that is subject to Phase Impenetrability Condition (Chomsky, 2001).

\(^3\) The space limitation does not allow me to go into detailed critiques on previous approaches to the LVC in the literature. Interested readers may consult to Jun (2003) for a comprehensive review.
the right sort of analytical tool.

Note that VNs could either be N or V according to the syntactic environment they appear in. Note also that in either case they always involve their arguments and do not acquire semantic idiosyncrasy in their interpretations. These facts strongly suggest that VNs are like the tape type: they are category neutral root words (\(\sqrt{\text{VN}}\)) and are derived to N or V. When they are N, they are zero related from \(\sqrt{\text{VN}}\) as in (6a), but these derived words could further be derived to V as in (6b). This is schematically shown in (7) below.

\[
(7) \quad \sqrt{\text{VN}} \Rightarrow [[[\sqrt{\text{VN}} \ o]_N] \Rightarrow [[[\sqrt{\text{VN}} \ o]_N \ sur-/ha-]_V]_N
\]

\[
do \ (J/K)
\]

The basic semantic interpretation is set at the first derivation to N and does not change thereafter following the Locality Constraint on the Interpretation of Roots above. In the English case (6b), the head that derives V from N is null. In the LVC, this null head is instantiated as ‘do’. If this view is correct, the categorical ambiguity of VNs between V and N is automatically accounted for.

The Root Hypothesis assumes that roots are category neutral. This assumption seems to be on the right track since the opposite derivational pattern from (7) also exists. This is schematically shown in (8) below.

\[
(8) \quad \sqrt{\text{VN}} \Rightarrow [[[\sqrt{\text{VN}} \ o]_V] \Rightarrow [[[\sqrt{\text{VN}} \ o]_V \ o]_N]
\]

In (8), the root VN is first zero derived to V, then further to N. In the next section, I will demonstrate that each one of the steps in (7) and (8) shows up by using data mainly from Japanese.

3. Grammar Category of VNs

3.1. VNs as N: [[[\sqrt{\text{VN}}]_N]

This is the pattern in which root VNs zero-derived to N. To see this, observe the following examples.\(^4\)

\[
(9) \quad a. \text{Sore-wa tanoshii BENKYOO ja na-i} \quad \text{(That is not an interesting/fun study.)}
\]

\[
\text{b. Taroo-wa suugaku no BENKYOO-o shi-ta.} \quad \text{(Taroo studied math.)}
\]

In (9a), the VN is modified by the adjective \textit{tanoshii}, and the special form of coupla \textit{ja}, which appears only with nouns, is inserted between the LV and the NEG morpheme. These facts strongly indicate that the VN BENKYOO is indeed categorically N. In (9b) the

\(^4\) I indicate VNs with small capitals hereafter.
same VN is marked with ACC case -o, which is another typical characteristic of the category N.

The N nature of VNs can further be confirmed in agreement between nouns and copula in terms of the feature [± animate]. Consider (10).

(10) a. Ashita Suzuki sensee no KOOEN ga diagaku-de
tomorrow Suzuki teacher GEN lecture NOM university-LOC
aru.
be-PRES[¬animate]
(There is Prof. Suzuki’s lecture tomorrow.)

b. Gappee no HAPPYOO-ga kinoo Tookyoo-de
merger GEN announcement-NOM yesterday Tokyo-LOC.
atta.
be-PAST[¬animate]
(There was an announcement that the merger took place in Tokyo yesterday.)

In the examples in (10), the VNs appear as event denoting nouns with locative arguments indicating that the events will take/took place in certain locations. The copula has the [¬ animate] form aru/atta in agreement with the VNs that are marked with NOM case -ga. Since only nominative arguments trigger this agreement, this fact further supports the analysis that the VNs are categorically N.

3.2. VNs as V: [[[\VN]₀] N sur-/ha-]V

The zero-derived VN in (9) can further be derived to V with the LV. Consider the following example in (11).

(11) Taroo-ga suugaku-o tanoshiku BENKYOO shi-ta (koto).
NOM math.-ACC happily study do-PAST fact.
((the fact that) Taro studied math happily.)

In (11), the internal argument of BENKYÔ is assigned ACC case by the complex predicate. ACC case assigning is generally regarded as a unique property of V. Furthermore the predicate is modified by the adverb tanoshiku indicating that the complex is really V.

Explaining the alternation between (9b) and (11) has been one of the main topics of research on the LVC. The Incorporation approach uses head-to-head movement to create the complex predicate. The Argument Transfer approach takes the ‘VN + sur-’ as a unit made in the lexicon. The present analysis takes the problem one step deeper and derives the differences from the well–motivated morphological considerations. A result is a simpler and more general theory of predicate formation. In the next two sections, we will see the opposite sequence of categorization of VNs.

---

5 I am indebted to William T. McClure (p.c.) who brought this fact to my attention.
3.3 VNs as V: $\sqrt{\text{VN}} \Rightarrow [[\sqrt{\text{VN}}]_\emptyset]_V$

This pattern is typically observed in newspaper and magazine captions. Observe the following.

    the prime minister running for an election-ACC give up
    (The prime minister gave up on the idea of running for the election.)

b. Shooish daNTai, kigyoo no taioo-o kibishiku
    consumer group cooperation GEN handling-ACC fiercely
    HIHAN. criticize
    (A consumer group fiercely criticized the handling of the case by the company.)

Note that these VNs are not followed by the LV, yet the internal arguments appear with ACC case in (12a, b). Since there is no other possible case assigner, it is natural to think that the VNs act like V and assign ACC case to their internal arguments. Furthermore, in (12b) the adverb hageshiiku (‘fiercely’) modifies the VN thereby adding another piece of evidence that shows that the VN is indeed V.

3.4. VNs as N: [[[\sqrt{\text{VN}}]_\emptyset]_V]_N

This pattern is attested robustly in Korean. In Korean, expressions like the following are said to be common.

    NOM the car-ACC drive-ACC do-PAST-DEC
    (John drove the car.)

The most notable difference in (13) from the previous examples of the LVC is the fact that there are two instances of ACC case -(-lul) assignment. This state of affairs can most naturally be captured if we assume that the VN wuncen is V (Ahn 1991). Under the current analysis, this translates to saying that wuncen is zero-derived to V and assigns ACC case to its internal argument. This VN is further zero-derived to N and receives ACC case from the LV ha- (‘do’).

Japanese appears to be more restricted than Korean in this regard due to the “Double–O Constraint” which basically says that there should be only one ACC marked NP in the same VP (Shibatani, 1973). It has been argued; however, that this constraint is violable in some cases (Kageyama, 1993). The violation of the Double–O Constraint is frequently observed in discourse.

(14) a. Iran-zin kazoku-ga Nihon-ni tsuyoku taizai-o KIBÔ-o shite iru
    Iranian family NOM Japan-at strongly stay-ACC hope-ACC do be-PRES
    (The Iranian family strongly hopes to stay in Japan)
b. Sakkyūni hōan-o TEISYUTSU-o itasu shyozon quickly law-ACC submission-ACC do-humble intention de-gozaimasu.
be-humble
((The cabinet) intends to submit the law quickly.)

They exactly parallel the Korean example in (13). With a slight pose between the two ACC-assigned arguments, the unnaturalness of the sentence subsides to some extent. Furthermore, if you force the direct word–to–word translation of (13), the result is not completely ungrammatical.

(15) ?? John-ga sono kuruma-o UNTEN-o shi-ta.
    NOM the car-ACC drive-ACC do-PAST
    (John drove the car.)

There is a case in which a particular type of VNs does not allow this violation. I will come back to the nature of this difference between Korean and Japanese in 5.3. to suggest a possible parametric difference.

3.5 Apparent Counter Examples

There are apparent counter examples for the generalizations made so far. Most notably, some non–argument taking result nominals (Grimshaw, 1990) such as hashigo (‘a ladder’) and ocha (‘tea’) or even onomatopoeia like chin (the ‘ding’ sound of a microwave oven) can appear in the LVC. Observe the following examples.

(16) a. Kinoo kachoo to baa-o HASHIGO shi-ta.
yesterday section chief-with bars-ACC ladder do-PAST
(Yesterday, the section chief (and I) did bar-hopping.)

b. Tanaka to kissateN-de OCHA shi-ta.
(Tanaka with a coffee shop-at tea do-PAST
((I) had coffee with Tanaka at a coffee shop.)

c. Haha-ga gohaN-o CHIN shi-ta.
mother-NOM a bowl of rice-ACC ‘ding’ do-PAST
(Mother heated a bowl of rice with a microwave oven.)

These nouns are unlikely to be category neutral root words. Cases like these are; however, rather rare and lack general productivity. This situation could be explained if we assume that they are akin to lexically registered idioms. A piece of evidence for this view comes from their semantic idiosyncrasy. Recall that VNs are regular and predictable in their interpretation due to the locality constraint (Arad 2005). That nouns in (16) gain semantic idiosyncrasy strongly suggests that they are different from the VNs we have discussed above. In fact, syntactic alternations such as passive not only cancel the idiomatic reading but also make the sentence unintelligible as in (17a). Nor do they participate the VN-o
suru alternation as in (17b).

(17) a. *Baa-ga (kachoo to boku-ni) HASHIGO s-are-ta.
    bar-NOM section chief and I-by ladder do-PASSIVE-PAST

b. *Haha-ga gohan-no CHIN-o shi-ta.
    mother-NOM a bowl of rice-GEN ‘ding’-ACC do-PAST

See Yamamoto (1992) for more details of this type of construction.

3.6. Summary

We hypothesized that VNs are category neutral root words, and once this is established, the Root Hypothesis straightforwardly derives both the categorical ambiguity of VNs and their complex behavior on surface syntax.

It is illuminating in this respect that in Chinese the same VN could be used either as V or N. This is to say that in Chinese the features that make an item into a verb are phonetically null, but in Japanese and Korean they could be overt in the form of suru/hada, respectively. I argue that the syntax of the LVC provides us with a rare opportunity of isolating the finely defined features that are very fundamental to UG.

4. VNs Meet Syntax

The (de)nominalization and (de)verbalization processes discussed above enables VNs to participate in predicate formation. This is, however, only half of the story. This section takes up the other half of the issue that deals with how the argument realization is done in the syntax of LVC. We will see that the Aktionsart-motivated syntax (Arad 1996, Ramchand 2001, forthcoming) provides a uniform platform for the task.

4.1. Syntax of Aktionsart

Aktionsart, whether an event has a terminal end point or not, and how the end point is brought about, is an axiomatic cognitive percept languages encode universally in one way or another. It is of particular interest for lexicon-syntax interface because it could provide us with an independently motivated and more constrained apparatus for various types of argument licensing. In this paper, I would like to adopt a view presented in Arad (1996) and Ramchand (2001, forthcoming) in which they try to integrate l-syntax (Hale and Keyser 1993, 2002) and Aktionsart in a unified syntactic scheme of event semantics. In these approaches, it is assumed that there is a (universal) hierarchical syntax of lexico-functional categories whose heads are designated for particular aspectual representations, and relevant arguments are licensed and interpreted in the specifier

---

6 It could be argued that the LV is a product of grammaticalization. The coexistence of the “heavy” form, the unconstrained attachment of ‘do’ and its ‘bleached’ semantics all seem to support this idea. Even if some sort of grammaticalization has been at work; however, a crucial question is what remains in the LV since that is the core feature that cannot be bleached. Under our analysis, the V forming function is the core feature. If this is correct, grammaticalization is not a demotive development of once an independent lexical item. It is rather a different application of the same feature(s) in UG.
positions of the corresponding heads. Consider below.

(16) Tripartite Aktionsart-Syntax Interface (Ramchand, forthcoming, p.18)

\[
\begin{align*}
\text{vP} &= (\text{Asp}_cP, \text{causing projection}) \\
\text{NP}_3 \quad \text{v'} \quad \text{VP} &= (\text{Asp}_pP, \text{process projection}) \\
\text{v} \quad \text{NP}_2 \quad \text{V'} \quad \text{RP} &= (\text{Asp}_rP, \text{result projection}) \\
\text{V} \quad \text{NP}_1 \quad \text{R'} \quad \text{XP}
\end{align*}
\]

\(\text{vP}\) is understood to introduce causation, and \(\text{NP}_3\) in spec \(\text{vP}\) is the \text{INITIATOR} of the cause for the following subevents. \(\text{VP}\) embodies process or change, and \(\text{NP}_2\) in spec \(\text{VP}\) is the \text{UNDERGOER} that goes through the process or change. Finally, \(\text{RP}\) specifies a resulting state, and \(\text{NP}_1\) in at spec \(\text{RP}\) is the \text{RESULTEE} of an event.

The motivation for postulating (16) is a view that the semantics of aspect is also syntactically materialized, and the combinatory syntactic engine Marge builds a structure to express both. It is this syntactic structure that enables other cognitive systems to interact with the linguistic system for interpretation and production. Since the structure recapitulates event composition, some projection in (16) may be absent according to event type. The middle \(\text{VP}\), for example, is the core of the event representation and is always present in events that involve process. It is; however, absent in stative predicates since they generally lack process.\(^7\)

Under this system, the same lexical item may appear in more than one position. The verb \text{arrive} in \text{Mary arrived} where there is a clear initiator of the action, all \(\text{vP}, \text{VP}\) and \(\text{RP}\) project and license the \text{INITIATOR}, the \text{UNDERGOER} and the \text{RESULTEE} of the event, respectively, in their specifier positions. This is a consequence of the event type of \text{arrive} in which an \text{INITIATOR} takes an action and brings herself through a process of change which results in the state of arriving at a certain point in location. The subject received

---

\(^7\) Verbs like \text{fear} in \text{Katherine fears nightmares} are thought to establish a \text{THEME-RHEME} relation among arguments and appear in the following structure. (Ramchand, forthcoming, p. 24)

\[
\begin{align*}
\text{vP} &= \\
\text{DP} \quad \text{v'} \quad \text{NP/DP} &= \\
\text{HOLDER} \quad \text{v} \quad \text{RHEME}
\end{align*}
\]
NOM case at spec IP. See (17) below (Ramchand, forthcoming, p.33).  

(17)  
```
(17) vP
    \_ INITIATOR
        \_ x
          \_ v

    \_ v'
        \_ arrive
          \_ UNDERGOER
            \_ x
              \_ v

    \_ VP
        \_ arrive
          \_ RESULTEE
            \_ R
              \_ x
                \_ R'
      \_ XP
```

When *arrive* lacks an INITIATOR, it is unaccusative and lacks the top most vP projection. In this case, the UNDERGOER and the RESULTEE are the same.

In this paper, I assume that VNs build the base for event descriptions with covert/overt predicate forming features discussed above. Under this approach, VNs are the ‘names’ of the events they bring about to the event structure. If successful, we have independently motivated Aktionsart-syntax and root derivations, and only those, to explain the complex phenomenon of the LVC. The result would be a radically simpler but more general analysis.

4.2. Deriving LVC

Aktionsart is conceived as a universal feature, and complex predicates like the LVC cannot be an exception. In fact, Kageyama (1993) reports that the quantization of direct object affects telicity interpretation in the LVC as it does in simplex predicates. Let us see how the present theory accounts for the diverse syntax of the LVC.

4.2.1. [NP noVN]-o suru or [NP no [\(\sqrt{VN}\)\[N\]]]-o + suru

This is the pattern in which a \(\sqrt{VN}\) is derived to N and receives ACC case from the LV. This means that the predicate forming features are realized as the “heavy” form and take a VN as its argument. The internal argument of the VN is licensed within its nominal projection with the default GEN case marker *no* (Kageyama 1993, Lin, Murasugi and Saito 2006).

(18) Taroo-ga eego-no GAKUSHUU -o (*ichi jikan / ichi jikan de) shi-ta
    NOM English-GEN study-ACC (one hour / in one hour) do-PAST

(Taroo studied English (for one hour / *in one hour.))

---

8 This means that UTAH (Baker, 1988) is not observed. In fact, this approach eliminates Argument Structure and \(\theta\)-roles as well. See Arad (1996) for motivation.
(18) allow only telic reading. This indicates that the complex nominal \( \text{[eego no } \sqrt{\text{GAKUSHUU}} \text{]}_N \) is interpreted as ‘task’ such as homework that has a definite end point. The complex nominal appears in both the Undergoer and the Resultee positions of the projection. This is shown below.

\[
\begin{array}{c}
\text{(19)} \\
\text{vP} \\
\text{INITIATOR} \\
\text{Taroo} \\
\text{v} \\
\text{VP} \\
\text{UNDERGOER} \\
\text{eego no } \left[ [\sqrt{\text{GAKUSHUU}} \text{]}_N \right]_o \\
\text{V} \\
\text{RESULTEE} \\
\text{eego no } \left[ [\sqrt{\text{GAKUSHUU}} \text{]}_N \right]_R \\
\text{sur-}
\end{array}
\]

In this case, the adverbial \text{ichi jikan de} (‘in an hour’) modifies the RP indicating the final state of the homework being finished.

**4.2.2. NP-o VN-suru or NP-o [\sqrt{\text{VN}}_N \text{]}_V suru]_V**

In this derivation, \( \sqrt{\text{VN}}_N \)s are denominalized by the LV and form a complex predicate. Let us see (20), which has been considered as the alternative derivation of (18).

\[
\text{(20)} \text{Taro o eego-o (ichi jikan / *ichi jikan de) GAKUSHUU shita.}
\]

\[
\text{NOM English-ACC (for an hour / *in an hour) study do-PAST}
\]

(Taro studied English.)

Here, the internal argument of the VN \text{eego} (‘English’) is assigned ACC case, and the VN and the LV appear adjacent to each other.\(^9\) The sentence has only atelic reading, and this indicates that \text{eego} (‘English’) is in spec, VP. This is confirmed as the ungrammaticality of the temporal adverbial modification by \text{ichi jikan de} (‘in an hour’). If \text{eego} (‘English’) appeared in spec, RP, the sentence would mean something like Taro mastered English in an hour, which is very unnatural. In other words, this sentence lacks RP.

\(^9\) It has been noted that some adnominal morphemes such as \text{sae} (‘even’) and \text{mo} (‘also’) can intervene between the VN and the LV as in \text{Taro-ga eego-o be\(\text{kyoo sae shita} \) (Taro even studied English). This is taken as evidence against the syntactic Incorporation approach. Our analysis gives a natural explanation for this phenomenon in that these morphemes attach to the N projection of the complex: \( [[[\text{VN}]]_N \text{ ] sae suru}]]_V \) This further supports our analysis that there is N part in the verbal complex.
(21) vP
   |   |
   INITIATOR  v'
   Taroo  v
   VP
   UNDERGOER  V'
   eego-o  V
   [[[GAKUSHUU] ø]N sur-]V

4.2.3. [[NP-o VN]]-o suru  or  [[NP-o √VN]ø]N -o suru

In this derivation, a √VN is first zero derived to V and licenses and case marks its internal argument, and the whole complex is further deverbalized and receives ACC case from the LV. I will use a Korean example below.

(22) John-i ku cha-lul WUNCEN-ul hay-ss-ta
    NOM the car-ACC drive-ACC do-PAST-DEC
    (John drove the car.)

(23) vP
   |   |
   INITIATOR  v'
   John-i  v
   VP
   UNDERGOER  V'
   ha-

We will come back to the internal structure of the complex noun in 5.3. below.

5. Other VNs

This theory accounts for the syntax of various types VNs in the same fashion. In this section, I will analyze unergative and unaccusative VNs. I will also discuss some difficult-to-fit VNs.

5.1. Unaccusative VNs

It is well known that unaccusative VNs such as JOOHATSU (‘evaporate’) do not allow the alternation between NP-o VN suru and NP no VN-o suru and appear only in the former “incorporated” structure. Consider the following.
water NOM evaporate do-PAST
(Water evaporated.)
b. *Mizu ga joohatsu o shi-ta.

The key feature of this type of VNs is that they lack a volitional subject. This translates into saying that unaccusative VNs lack INITIATOR, and as a consequence, they do not project VP.

(25)
```
```

In this context mizu (‘water’) is the UNDERGOER and the RESULTEE of the predicate. Because the predicate lacks ACC case assigning property, the case alternation we have seen above with transitive activity VNs is not available.

5.2. Unergative VNs

Unergative VNs are known to allow the ACC case alternation.

(26) a. Taroo-ga undo-o shi-ta.
Taro NOM exercise-ACC do-PAST
(Taro exercised.)
b. Taroo-ga undo shita.

Note that only the adverb hageshiku (‘hard’) but not the adjective hageshii can modify the complex predicate in (26b). This strongly supports the V status of the complex predicate.

(27) Taroo-ga *hageshii/hageshiku undo shi-ta
NOM hard exercise hard do-PAST

In (26a), the VN is in the spec, VP and receives ACC case. This indicates that the VN is the UNDERGOER. See below.
Physical exercise is; however, inseparable from the INITIATOR. It is something the INITIATOR does. This general fact about unergative verbs presumably gives rise to the alternation in (29) where the same argument Taroo is the INITIATOR and the UNDERGOER of the event.

This analysis makes an interesting prediction in that non-physical ‘movement’ reading such as political activity should be available only in (28) where the INITIATOR ‘joins’ the UNDERGOER rather than going through the process. This prediction is borne out. Without overt ACC case marking, the sentence (30) below is unacceptable.

5.3. Difficult–To–Fit VNs

There are VNs such as HOOYOO (‘embrace (a person)/hug’), MOORA (‘cover/list (exhaustively)’), MIRYO (‘charm/attract’) that do not allow GEN no marked arguments. Observe the sentences with HOOYOO below which are taken from Dubinsky (1994, p.71).

Interestingly, the VN can appear with denominalized (31a) or deverbalized (31b) form, but when it appears with the GEN marked internal argument koibito (‘lover’), it suddenly becomes ungrammatical (31c).
Since the crucial difference in the ungrammatical (31c) is the presence of GEN marked argument, it has been assumed that the ungrammaticality results from how the GEN marked argument relates to the VN. More specifically, koibito (‘lover’) in koibito no hooyoo is not the internal argument of the VN in the ordinary sense. Following this observation, Dubinsky (1994) argues that koibito (‘lover’) is generated outside of the projection of the VN thereby failing to receive GEN case from it.

In this paper, I reinterpret Dubinsky’s structural approach and incorporate McClure’s (2002) insight on event semantics and argue that the ungrammaticality of (31c) stems from the failure of the VN in making a chain \[v, V, R\] that is caused by the deverbalization of this type of VNs. In the syntax of Aktionsart adopted here, \(v\), and \(V\) are always \([+V, −N]\), and the deverbalized \([+N]\) VN in (31c) would be incompatible with them. In other words, the deverbalization of the VN “freezes” it in its R position. Koibito (‘lover’) could be licensed in spec RP but fails to receive case since this is not a case position (VP2 in McClure, 2002). Furthermore, the inability of chain formation of the VN prevents koibito from appearing in spec, VP. This is fatal for the event semantics of HÔYÔ (‘embrace’) since koibito is the UNDERGOER and the RESULTEE simultaneously, and their presence in these positions is required for interpretation. I would argue that this gives the sense described above that koibito is not the internal argument of the VN in the usual sense: it is only half of it. Due to this status, even the default GEN case cannot relate koibito to the VN in the event structure. The internal syntax of the complex NP is shown in (32) below.

\[
\begin{array}{c}
\text{(32)} \\
\text{vP} \\
\text{INITIATOR} \\
\text{VP} \\
\text{UNDERGOER} \\
\text{V'} \\
\text{V'} \\
\text{V} \\
\text{VP} \\
\text{RESULTEE} \\
\text{R'} \\
\text{R} \\
\text{koibito} \\
\text{[}[\text{\[\sqrt{\text{HÔYÔ}}\]}\text{ø}]_{V} \text{ø}]_{N}
\end{array}
\]

Note that the inner part of the complex head \([\text{\[\sqrt{\text{HÔYÔ}}\]}\text{ø}]_{V}\) is a word level phase (Arad, 2005) and no phase external element including the null nominalizing head can access to the root and alter its properties. The vP–VP–RP projection line is a reflection of this verbalization. That this complex head fails to form a chain at \(v\) and \(V\) positions indicates that the complex has to form a chain as a whole, and the internal V phase alone cannot do

\[10\] I assume that when this type of VNs is nominalized from the root, it is semantically R and functions as result nominals.
This analysis is supported by the fact that when this √VN is simply verbalized, ACC case becomes available as expected. This is the newspaper/magazine caption case we observed above. See (33) below.

(33) Wakamono, koibito-o HOOYOO
    young man lover-ACC embrace
    (The young man embraced his lover.)

Similarly, when koibito no HOOYOO is scrambled out and used as a contrastive/focus topic, the grammaticality improves.

(34) ?[Koibito no HOOYOO]-wa wakamono-ga ti shi-ta.

This is presumably because HÔYÔ is reanalyzed as N derivation from the root and is understood as a result nominal. Its internal argument koibito is conjoined with the VN with the default GEN case. Nouns usually do not express v and V properties, and this makes the reanalysis and the adnominal modification by GEN case possible. (See fn. 10 above.) In fact, koibito in [koibito no hooyoo]N is ambiguous between the INITIATOR and the UNDERGOER/RESULTTEE readings. The lack of vP and VP projections within the N projection makes it indeterminable.

These data strongly support the view that the ungrammaticality of (31c) is caused by the failure of koibito from appearing in the UNDERGOER and the RESULTTEE positions simultaneously due to the “frozen” effect of the VN HOOYOO. In the next section, I would like to discuss a possible parametric difference between Korean and Japanese.

A question remains as to what sort of VNs belong to this type. Dubinsky (1994) lists VNs such as follows in addition to the ones discussed here.

(35) a. KAIKETSU ‘solve’
    b. YUURYO ‘worry about’
    c. HAIGYOO ‘discontinue’
    d. DEKIAI ‘blindly love’
    e. GYOOSHI ‘stare at’ etc.

The ones that allow GEN case are the following.

(36) a. TANKEN ‘explore’
    b. BAIBAI ‘trade’
    c. BENGO ‘defend’
    d. HIHYOO ‘criticize’
    e. KOOJI ‘construct’ etc.

It is difficult to make a natural class for either (35) or (36) although what divides the two presumably lie on the nature of the process/change they embody. The diachronic development of VNs is one of the least studied aspects of Japanese grammar, and I would
have to leave this matter for future research.

5.4. Parametric Difference

Korean is known to allow multiple assignments of ACC case in various types of sentences, and the LVC is no exception. It is beyond the scope of the current work to give a comprehensive view on this matter, but I would like to investigate a possible parametric difference between Korean and Japanese in the LVC. Before going into the analysis; however, some comments on grammaticality judgments are in order.

According to several Korean informants, the Korean equivalent of (31c) is just as bad as the Japanese sentence is.

(37) *Zulmuni-ka yoni-uy POUN-ul hay-ss-ta.
     young man-NOM lover-GEN embrace-ACC do-PAST-DEC.
     (The young man embraced his lover.)

Jun (2003, p. 194) gives a very different judgment. According to him, all the examples in (38) are acceptable. The crucial case is (38c).\(^{11}\)

(38) a. Mina-ka Inho-lul PINAN hay-ss-ta.
    Mina-NOM Inho-ACC blame do-PAST-DEC
    (Mina put blame on Inho.)


       GEN

The VN PINAN (‘blame’) in Japanese is HINAN, and the Japanese equivalent of (38c) is completely unacceptable.

(39) *Mina-ga Inho-no HINAN-o shi-ta.
     Mina-NOM Inho-GEN blame-ACC do-PAST
     (Mina put blame on Inho.)

One of my Korean informants also judges (38c) to be ungrammatical on par with the Japanese.\(^{12}\)

Given these conflicting grammaticality judgments, I adopt the conservative judgments and take (35) and (38c) to be unacceptable in Korean as well. Thus, I assume that the following holds both in Korean and Japanese.

\(^{11}\) In his theory, the GEN case in (38c) is assigned NP internally with his Surface Case Resolution.
\(^{12}\) This informant is a descendant of the Korean minority group who lives in southern China bordering North Korea. She is a native Chinese and Korean speaker and learned Japanese as her third language. Another Korean informant from South Korea also judged (38c) ungrammatical.
(40) *[NP-GEN VN]-ACC LV
where VN is of a particular type shown in (35).

To the extent that this is tenable, the real difference between the two languages in this
narrow range of examples comes down to whether they allow double ACC assignment or
not.

There seems to be a broad consensus among native speakers that Korean generally
allows double assignment of ACC case in the LVC although the acceptability comes with
nuances depending on the person and the type of VNs. The VN WUNCEN (‘drive’) we
have seen, for example, allows this easily.

(41) John-i ku cha-lul WUNCEN-ul hay-ss-ta
     NOM the car-ACC drive-ACC do-PAST-DEC
     (John drove the car.)

The question is what makes this distinction between the two languages that are in many
other respects so similar. The current analysis gives a possible solution to this puzzle.
Recall that the middle VP projection that designates process or change is where ACC case
is assigned in the tripartite Aktionsart syntax. That Korean could allow ACC case
assignment to the internal argument of the VN such as WUNCHEN (‘drive’) in John-i ku
cha-lul WUNCEN-ul hay-ss-ta (‘John drove the car.’) above suggests that this argument is
licensed both in the spec, VP and the spec, RP positions simultaneously. This licensing in
turn suggests that the chain [v, V, R] is also present. What makes this possible? I would
suggest that in Korean the inner phase could part from the complex alone and form the
chain. This is shown in (42).

(42)

This subtype of chain formation could override (40) for those who allow the violation of
(40) even with VNs like PINAN (‘blame’).

Japanese adopts a much narrower range of possibility and generally does not
allow the chain formation by the inner phase. As a result, we see the “frozen–in” effect of
the VNs in the R position. Similarly, we don’t see double ACC case assignment at least in written language. The frequent violation of the Double–O Constraint in discourse; however, indicates the chain formation by the inner phase is in principle possible in Japanese as well. When this chain formation is observed, i.e., when ACC case is doubly assigned in the LVC, it is usually for emphatic or focus effect, and this shows that the double assignment of ACC case still remains a somewhat marked phenomenon in Japanese.

6. Conclusion

In this paper, I discussed morpho-syntax of VNs and the LVC by using the Root Hypothesis and event semantics of Aktionsart. A generalization attained through the course of analysis is that the event projection \([v, V, R]\) can be provided in two ways: one is when VNs are denominalized or verbalized thereby gaining verbal properties, and the other is when the LV itself provides it. In the former, the LV functions as predicate forming features that latch onto VNs, and in the latter it is an independent V and takes VNs as its internal argument. In either way, it is the \([v, V, R]\) event composition and the syntactic permutations that provide appropriate argument realization and interpretation. As we have seen, this approach makes a much simpler analysis of the LVC with independently motivated principles.

VNs have been in continuous use since the Chinese writing system was introduced in 7th to 8th century to Japan; however, much more work is clearly needed to account for fine-grained syntactic and semantic differences among them. I did not mention about aspectual nominal construction where the same VNs form a predicate with the help from morphemes that specify aspect such as -zen (‘before’), -chyû (‘while’) and -go (‘after’). Nor did I make enough comparative studies among Japanese and Korean. Languages like Turkish, Hindi and Urdu that also use the LVC should be included.

With all these shortcomings; however, I hope that the current analysis has succeeded in providing a promising new direction for the study of our cognition of events and their linguistic expressions.

References


http://morbo.lingue.unibo.it/mmm/


McClure, William T. 2002. “Incremental Theme, Events, and the double object construction”, an abstract of the talk given at SUNY at Stony Brook. SUNY at Stony Brook, N.Y.


