Mixed characteristics of verbal nouns in Japanese*

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1. Introduction

A verbal noun (VN) in Japanese is a predicative nominal, which can form a verbal
expression with a light verb *suru* 'do'. It is argued in the previous literature that
a VN exhibits mixed characteristics of a verb and a noun (cf. Sells 1990,
Kageyama 1993, Manning 1993, etc.), but it has not been clearly discussed in
what respect a VN resembles a noun, and in what sense it behaves like a verb.
This paper deals with basic characteristics of VNs, focusing on examining the
categorial status of a VN from both morphological and syntactic perspectives. It
will be argued that a VN has a form of a noun, and syntactic properties of a verb.

The structure of this paper is as follows: section 2 summarizes typical
properties of a noun and a verb as a basis for describing characteristics of VNs;
section 3 looks at data of VNs, examining their nominal and verbal
characteristics; section 4 reviews some previous approaches to VN constructions;
then section 5 proposes an analysis of the VN constructions by encoding relevant
information in the lexical entry of a VN.

2. Nominal vs. verbal properties

What is a difference between a verb and a noun? In this section, I will briefly
consider typical nominal and verbal properties in Japanese, which is relevant for
examining characteristics of VNs.

2.1. Bound morphemes

If we look at a bound morpheme attaches to a verb or a noun, we can observe the
difference between them. As shown in (1), a simple noun can host nominal
morphemes, such as a case particle, a postposition, a copula *-da* 'be', and so on.
The nominal morphemes are italicized in (1).

(1) a. Hanako-*to* Taroo-*ga* puuru-*de* oyoide iru.[1]
　　　 Hanako-and Taro-NOM pool-at swim be
　　　 'Hanako and Taro are swimming in the pool.'

b. Taroo-*wa* kookoo-*no*   sensei-*da*.
    Taro-TOP   high.school-GEN   teacher-COP
    'Taro is a high school teacher.'

On the other hand, a verb can host verbal morphemes, such as tense, causative, passive, speech level, negation, etc., as shown in (2). The verbal morphemes are indicated in italics.

(2) kak-*u*   kai-*ta*   kaka-*se-ta*   tatak-*are-ta*
     write-NONPAST   write-PAST   write-CAUSE-PAST   hit-PASS-PAST

     kaki-*masi-ta*   kaka-*na-katta*
     write-LEVEL-PAST write-NEG-PAST

Of course, there are several morphemes which can be attached to both a noun and a verb, and we cannot completely classify bound morphemes into two groups. For example, some delimiters (e.g. *sae* 'even', *mo* 'too', etc.) or final particles (*ne* 'isn't it', *sa*, *yo*) can appear either a position following a noun or a verb. However, except these examples, most morphemes show a high degree of selection with regard to category of their hosts, and this morphological criterion can be used to distinguish between a noun and a verb.

2.2. Modification

There is another difference between a noun and a verb, when it is used to modify a noun. When a nominal projection modifies a noun, it requires a genitive case marker which appears on the head of a modifying NP.

(3) a. [N [N Hanako]-no   tomodachi]]-no   rombun
             Hanako-GEN   friend-GEN   paper
         'a paper written by Hanako's friend'

     b. [N siroi   kinu]-no   sukaafu
             white   silk-GEN   scarf
         'a white silk scarf'

On the other hand, a verbal projection can directly modify a noun without any relative pronoun occurring between them. See the verbal modification pattern in (4), with non-past tense form (4a), and with past tense form (4b).

(4) a. [_V sono   ie-ni   sunde iru]   hito
    the   house-in live   is   person
   'a person who lives in the house'

  b. [_V kyonen kaita]   rombun
    last.year wrote   paper
   'a paper which (I) wrote last year'

The difference in modification pattern will also be used to examine VNs.

2.3. Syntactic properties

There are some differences between a noun and a verb in terms of their syntactic behavior. First, a noun can appear in an argument position, such as the subject or the object position; and it requires its argument or a modifier to be marked by a genitive case, which will be referred to as 'nominal case' in this paper; and it can take an adjectival modifier. In (5a), a noun *boosi* 'hat' appears in the subject position, and takes a genitive marked modifier *Taroo* 'Taro' and an adjectival modifier *aoi* 'blue'; (5b) presents the same property. In this case, a noun *sukaafu* 'scarf' appears in the object position, taking a genitive marked modifier. Similarly, inside a noun phrase, a postposition *kara* 'from' needs to be followed by a genitive case marker as in (5c).

(5) a. [Taroo-no aoi   boosi]-ga   kaze-ni   tobas-are-ta.
   Taro-GEN   blue hat-NOM   wind-by   blow.off-PASS-PAST
   'Taro's blue hat was blown off by the wind.'

  b. Taroo-wa Hanako-ni [kinu-no sukaafu-]-o katte   ageta.
   Taro-TOP   Hanako-DAT silk-GEN   scarf-ACC   buy   gave
   'Taro bought Hanako a silk scarf.'

  c. Taroo-wa [byooin-kara-no sirase]-o   matte ita.
   Taro-TOP   hospital-from-GEN notice-ACC wait   was
   'Taro was waiting for a notice from the hospital.'

Turning to the syntactic properties of a verb, we can see that quite the opposite is true with a verbal projection. A verb takes (an) argument(s); it requires its argument(s) to be marked by non-genitive case (i.e. nominative, accusative, dative, etc.), which will be referred to as 'verbal case'; it can take a postpositional phrase; and it can take an adverbial, not an adjectival, modifier. The examples in (6) illustrate these verbal properties. In (6a), a verb *kaita* 'wrote' takes the

subject and the object arguments, which are marked by nominative and accusative cases. Also, an adverbial modifier, *isoide* 'quickly' appears inside its projection. The example (6b) represents the same properties, but in this case, a complex predicate *katte ageru* 'buy give' takes three arguments, subject, object and secondary object, and they are marked by appropriate verbal cases respectively; and (6c) illustrates the occurrence of a postpositional phrase in a verbal projection. Note that unlike the case with a nominal projection, we cannot put a genitive marker after a postposition -*kara* 'from'.

(6) a. Taroo-ga   isoide   hon-o   kai-ta.
         Taro-NOM   quickly   book-ACC   write-PAST
         'Taro wrote a book quickly.'

    b. Jiroo-wa   Hanako-ni   kinoo   fuku-o   katte ageta.
        Jiro-TOP   Hanako-DAT yesterday   clothes-ACC buy   gave
        'Jiro bought Hanako clothes yesterday.'

    c. Hanako-wa   igirisu-kara(*-no)   hagaki-o   okutte kureta.
        Hanako-TOP   England-from-GEN   postcard-ACC   send   gave
        'Hanako sent me a postcard from England.'

Thus, the syntactic behavior can also be used to draw a distinction between a noun and a verb. The table in (7) summarizes nominal and verbal properties I discussed above.

(7) Nominal vs. verbal properties

		Nominal property	Verbal property
Form		Hosts a nominal morpheme	Hosts a verbal morpheme
		Requires the genitive marker when modifies a noun	Directly modifies a noun
Function		Appears in an argument position	Takes an argument
		Requires an argument/modifier to be nominal case marked	Requires an argument to be verbal case marked, and can take a postpositional phrase
		Can take an adjectival modifier	Can take an adverbial modifier

3. Basic data: verbal nouns

3.1. Preliminaries

Now, having observed characteristics of an ordinary noun or a verb, let us turn
our attention to VNs. In this paper, a VN is defined as a predicative nominal
which can form a complex predicate with a light verb *suru* 'do': a simple noun
cannot be combined with *suru*, but a VN can. I give a few examples of VNs
below.[2] The majority of VNs are loan words of Chinese origin, Sino-Japanese,
but there also exist some other foreign origin VNs, such as loan words from
English. There are some native Japanese VNs as well.

(8) Sino-Japanese: *BENKYOO* 'study', *KENKYUU* 'research', *HAITATSU* 'delivery', ...
     Loan word: *KOPII* 'photocopy', *DORAIBU* 'drive', *TESUTO* 'test', ...
     Native Japanese: *TORISIMARI* 'control', *HIKKOSI* 'moving', *OSYABERI* 'chatting', ...

All of the examples in (8) can be combined with a light verb *suru* 'do', which is a
morphological criterion separating a VN from an ordinary noun, as proposed in
Kageyama (1993, Ch.1).

(9) Simple Noun
     * *syasin suru* 'photograph do', **kompyuuta suru* 'computer do'

     Verbal Noun
     BENKYOO suru 'study', *KOPII suru* 'photocopy', *OSYABERI suru* 'chat'

It is often argued that a VN shows both verbal and nominal properties, but
it has not been clearly argued in what respect a VN resembles a verb or a noun.
Let us now examine characteristics of a VN, using nominal and verbal
characteristics summarized in the previous section. A VN shows different
behavior depending on whether it is used as a result nominal or a complex event
nominal in the sense of Grimshaw (1990). When a VN name an element
associated with a process, and is used as a result nominal, it always shows
nominal properties. See the examples in (10): VNs can host a nominal morpheme
such as a case particle or a copula, which indicates their nominal status in terms
of word form. From syntactic point of view, VNs also show nominal properties:
they appear in argument positions, such as the subject position in (10a), or in the
object position in (10b); a VN takes a genitive case marked argument, and cannot

take a verbal case marked argument (10a,b); also, they can take adjectival modifiers, but not adverbial modifiers (10a,c). Thus, in (10), VNs show nominal properties both in terms of their word forms and syntactic behavior.

(10) a. [Han'nin-no/*-o   sumiyaka-na/*-ni   TAIHO]-ga nozom-are-te   iru.
           offender-GEN/-ACC   quick/-ly   arrest-NOM expect-PASS-GER be
           'The quick arrest of the offender is expected.'

   b. Taroo-wa   [heya-no/*-o   SOOJI]-o   oeta.
       Taro-TOP   room-GEN/-ACC   cleaning-ACC finished
       'Taro finished the cleaning of the room.'

   c. Kore-wa   [omosiroi   KENKYUU]-da.
       this-TOP   interesting   research-COP
       'This is an interesting research.'

From examples in (10), we can conclude that there exists a nominal VN, without any verbal property involved.

     If a VN name a process or an event and is used as a complex event nominal, it can exhibit syntactically verbal properties. One of the most common verbal environments a VN occurs is the one accompanied by a light verb *suru* 'do'.

(11) a. Taroo-wa   piza-o   isoide   HAITATSU   sita.
           Taro-TOP   pizza-ACC   quickly   delivery   did
           'Taro delivered pizzas quickly.'

   b. Hanako-wa kotosi   siken-ni   GOOKAKU   sita.
       Hanako-TOP   this.year examination-at pass   did
       'Hanako passed an examination this year.'

(12) a. *Taroo-wa   piza-o   isoide   sita.
            Taro-TOP   pizza-ACC   quickly   did

   b. *Hanako-wa kotosi   siken-ni   sita.
       Hanako-TOP   this.year examination-at did

As shown in (12), if we omit a VN from the sentence in (11), the sentence becomes ungrammatical. The contrast between (11) and (12) indicates that a VN determines the type of argument(s) it takes, and a light verb *suru* is not responsible for the content of a sentence. So, in (11), we can see that VNs show syntactically verbal properties: they take (an) argument(s), which is/are marked by a verbal case; and it can take an adverbial modifier. Thus, when a VN is accompanied by a light verb, it definitely exhibits syntactically verbal

characteristics.

Although a VN with a light verb shows syntactically verbal properties, it cannot be identified with a verb, since it does not show any verbal property in terms of its word form. A VN cannot host verbal morphemes and it needs the support of a light verb to express information such as tense, causative, passive, speech level, negation, etc., as shown in the following examples. If we omit the light verb, the sentences become ungrammatical.

(13) a.   Taroo-wa   Hanako-ni   heya-o   SOOJI   *(s)-ase-ta.
          Taro-TOP   Hanako-DAT room-ACC cleaning do-CAUSE-PAST
          'Taro made Hanako clean a room.'

     b.   Taroo-wa   Hanako-ni   TYUUI   *(s)-are-ta.
          Taro-TOP   Hanako-by   warn   do-PASS-PAST
          'Taro was warned by Hanako.'

     c.   Tanaka-san-ga   kono hon-o   TYUUMON   *(si)-masi-ta.
          Tanaka-Mr.-NOM this book-ACC order   do-POL-PAST
          'Mr. Tanaka ordered this book.'

     d.   Hanako-wa   sono hon-o   TYUUMON   *(si)-na-katta.
          Hanako-TOP the book-ACC order   do-NEG-PAST
          'Hanako didn't order the book.'

Thus, in these examples, the light verb functions as a place holder which carries inflectional endings on behalf of a VN. A VN subcategorizes an argument, which is marked by a verbal case, but it needs to be supported by a light verb for hosting a verbal morpheme.

Observing the examples with a light verb, one might think that a light verb supports the verbal behavior of a VN, and a VN cannot function like a verb without a verbal element. This view cannot be maintained, since a VN can take (an) argument(s) marked by a verbal case in various constructions which do not involve any verb at all. The examples in (14) represent the VN constructions without a verbal element.

(14) a.   Taroo-wa   [piza-o   HAITATSU-tyuu]-ni,   jiko-o   okosita.
          Taro-TOP   pizza-ACC delivery-while-at   accident-ACC caused
          'Taro caused an accident while delivering pizzas.'

b. Taroo-wa [piza-o   HAITATSU]-ni   isoide   itta.
    Taro-TOP   pizza-ACC   delivery-PUR   in.a.hurry went
    'Taro went to deliver pizzas in a hurry.'

c. [Repooto-o kanarazu   TEISYUTSU]-no   koto.
    report-ACC   by.all.means submit-GEN   fact
    'Do hand in a report by all means.'

d. [Tosyokan-o go-RIYOO]-no   kata-e-no   o-negai.
    library-ACC   HON-use-GEN   person-to-GEN HON-request
    'A request to the person who utilises the library.'

All of the VNs in (14) take an object argument marked by an accusative case. There is no verbal element within a bracketed clause, but a VN still can take its argument(s) in the same way as an ordinary verb does. Since these 'verbless' VN constructions are essential to understand verbal properties of a VN, I will describe these forms in detail.

3.2. Various 'verbless' VN constructions

3.2.1 Aspectual constructions

Let us begin by examining aspectual constructions, represented in (14a). Several researchers discuss that a VN with an aspectual item can exhibit syntactically verbal properties like an ordinary verb (Martin 1975, Iida 1987, Shibatani and Kageyama 1988, Sells 1990, Hasegawa 1991, Kageyama 1993, Sato 1993, Iwasaki 1997, ms., etc.). There are several aspectual items discussed in the literature, and typical items are listed in (15) (cf. Martin 1975, Iida 1987, Shibatani and Kageyama 1988).

(15)   a. *-tyuu*   'while'
            -go   'after'
            -izen   'before'

        b. (-no) *tyokuzen* 'right before'
            (-no) *tyokugo*   'right after'

        c. -no *sai*   'on the occasion of'
            -no *ori*   'on the occasion of'
            -no *setsu*   'at the time when ...'

The aspectual items shown in (15a) are nominal suffixes and attach to a VN directly. Nothing can intervene between it and the VN. In contrast, each aspectual item in (15c) is a noun denoting a temporal relation, and it requires a

genitive particle -*no* to appear on the VN. Finally, the occurrence of a genitive particle -*no* is optional with each aspectual item in (15b).

When a VN is associated with one of the aspectual items shown in (15), it can take its argument(s) marked by a verbal case.

(16) a. [Taroo-ga   piza-o   HAITATSU]-*tyuu*-ni, jisin-ga   okotta.³
        Taro-NOM   pizza-ACC delivery-ASP-at,   earthquake-NOM occurred
        'An earthquake occurred while Taro was delivering pizzas.'

    b. [Sono   nyuusu-o HOOSOO]-*tyokugo*-ni, sityoosya-kara-no
        that   news-ACC broadcast-ASP-at   the.TV.audience-from-GEN
        kujoo-ga   SATTOO sita.
        complaint-NOM   rush   did
        '(We) had a rush of complaints from the TV audience, right after having broadcast that news.'

    c. [Kompyuuta-o SIYOO]-no   *sai*-ni-wa,   tsugi-no ten-ni tyuui-site   kudasai.
        computer-ACC use-GEN   ASP-at-TOP   following point-at pay.attention please
        'Please pay attention to the following points when you use a computer.'

Here, an aspectual construction as a whole functions as an adjunct clause of a sentence, having various temporal relations to a main clause. These sentences with aspectual items tend to be stylistically formal in varying degrees.

As seen in (16), irrespective of the status of an aspectual item, whether it is a suffix or a noun, a VN shows syntactically verbal properties: it takes its argument(s) marked by a verbal case. Also, an adverbial phrase, but not an adjective, can modify the event denoted by the VN phrase, as shown in (17).

(17) a. [Taroo-ga   piza-o   *subayaku/*subayai* HAITATSU]-*tyuu*-ni, ...
        Taro-NOM   pizza-ACC quickly/quick   delivery-ASP-at,
        '... while Taro was delivering pizzas quickly.'

    b. [Kompyuuta-o *hajimete*   SIYOO]-no   *sai*-ni-wa, ...
        computer-ACC for.the.first.time use-GEN   ASP-at-TOP
        '... when you use a computer for the first time.'

Thus, in the presence of an aspectual item listed above, a VN functions as though it is an ordinary verb.

Although VNs function like verbs, they have some differences from ordinary verbs from a morphological point of view. For example, an aspectual suffix can be combined with nouns, but not with verbs, as long as the temporal relationship

carried by the suffix is compatible with the meaning of nouns (cf. Iida 1987, Tsujimura 1992, Iwasaki ms.). The morphological nominal status of a VN can be seen with an aspectual noun in (15c) as well. As shown above, when a VN phrase combines with it, a VN phrase needs to be accompanied by a nominal case marker *-no*, just like an ordinary noun. If the VN phrase were an ordinary verbal projection, it would directly modify a noun, without a genitive case marker appearing between them. See the following examples of the modification pattern with an ordinary verb, *kak-u* 'write-NONPAST' and *kai-ta* 'write-PAST'.

(18) a. [$_{VP}$ sono   rombun-o   kak-u]   tyokuzen
            that   paper-ACC   write-NPAST   ASP
         'right before writing that paper'

    b. [$_{VP}$ sono   rombun-o   kai-ta]   sai
            that   paper-ACC   write-PAS   ASP
         'when (I) wrote that paper'

Thus, from the simple fact that a VN needs a genitive marker to combine with an aspectual noun, we can conclude that a VN retains a nominal property from morphological perspective.

    Moreover, if we look at the property of an entire aspectual phrase, it shows not only a morphological nominal property, but also syntactically nominal characteristics. It is not surprising that a form with an aspectual noun behaves like a nominal projection, since the head of the phrase is a noun after all. But even with an aspectual suffix, the entire phrase behaves like a nominal projection. As in (19) below, it can host a nominal morpheme, such as a nominative marker *-ga*, an accusative marker *-o*, or a topic marker *-wa*, and appear in an argument position; it can also host a copula *-da* 'be' and function as a predicational phrase as in (20). All of these properties point to the fact that an entire aspectual phrase exhibits nominal characteristics both syntactically and morphologically.

(19) a. [Taroo-ga   genkin-o   YUSOO-tyuu]-o   neratte,   gootoo-ga osotte kita.
          Taro-NOM   cash-ACC   transport-ASP-ACC aiming   burglar-NOM attack came
          'Burglars came to attack, aiming at the time Taro was transporting cash.'

b. Taroo-wa [heya-o   sooji-tyuu]-ga, ichiban   kigen-ga   ii.
    Taro-NOM   room-ACC   cleaning-ASP-NOM most   mood-NOM   good
    'Taro is in the best mood when he is cleaning a room.'

c. [Taroo-ga heya-o   sooji-tyuu]-wa, daremo jama   deki-nai.
    Taro-TOP   room-ACC   cleaning-ASP-TOP nobody   disturb   can.do-NEG
    'Nobody can disturb Taro while he is cleaning a room.'

(20) a. [Taroo-wa piza-o   HAITATSU]-tyuu-da
          Taro-NOM   pizza-ACC   delivery-ASP-is
          'Taro is in the middle of delivering pizzas.'

      b. Kujoo-ga   SATTOO   sita-no-wa   [sono nyuusu-o
          complaint-NOM   rush   did-NZER-TOP   that   news-ACC
          HOOSOO]-tyokugo-datta.
          broadcast-ASP-was

          'It was right after having broadcasted that news when we had a rush
          of complaints.'

Note that in the above examples, inside a VN phrase, a VN takes an object
argument marked by an accusative case, just like an ordinary verb does. Thus,
even when an entire VN phrase behaves like a nominal phrase, a VN can show
syntactically verbal properties inside the clause. These examples indicate that
we cannot simply say that a VN is categorially either V or N, since it exhibits
external distribution of a nominal phrase, whereas it retains syntactic
characteristics of a verb inside the clause.

3.2.2. Purposive construction

Let us turn our attention to the purposive construction, represented in the
example (14b) above. Here again, a VN can function like a verbal predicate
without *suru* (Iida 1987, Sells 1990, Manning 1993, Kageyama 1993). In the
purposive construction, the main verb is a verb of coming or going, and the
embedded predicate can be a VN, or the *renyookei* form of a verb, which is
followed by the purposive marker -*ni*. The fact that a purposive marker -*ni*
requires its host to be the *renyookei* form, one of nominalization forms of a verb,
indicates (rather indirectly) that a VN has a nominal status in terms of its word
form.

As discussed in Miyagawa (1987) and Matsumoto (1991, 1996), the two

predicates involved in the purposive construction can optionally form a single complex predicate, when these predicates appear adjacent to each other. In other words, although there are two predicates, there is a possibility of these two predicates being converted into a single head at some level of grammatical representation. In order to abstract away from examples with such a complex predicate formation, I put an adverbial phrase between the two predicates, which forces the two predicates to stay separate from each other. Note that an object argument inside a VN phrase in (21) bears an accusative case, although there is no verbal element in the embedded clause.

(21) a. Taroo-wa   [heya-o   SOOJI]-ni   isoide   itta.
          Taro-TOP   room-ACC   cleaning-PUR   quickly   went
          'Taro went to clean a room quickly.'

     b. Hanako-wa [sono   hon-o   TYUUMON]-ni   hitoride   kita.
         Hanako-TOP   the   book-ACC   order-PUR   by.herself   came
         'Hanako came to order the book by herself.'

Moreover, unlike the case with an aspectual suffix construction, it is even possible to insert *si*, the *renyookei* form of *suru*, in the position following a bare VN in the purposive construction. Actually, the examples with *si* sound better than the bare VN examples.

(22) a. Taroo-wa   [heya-o   SOOJI si]-ni   isoide   itta.
          Taro-TOP   room-ACC   cleaning do-PUR   quickly   went
          'Taro went to clean the room quickly.'

     b. Hanako-wa [sono   hon-o   TYUUMON si]-ni   hitoride   kita.
         Hanako-TOP   the   book-ACC   order do-PUR   by.herself   came
         'Hanako came to order the book by herself.'

Although a VN in the purposive construction has a form of a noun, it clearly shows verbal characteristics syntactically: as shown in (21), a VN takes (an) argument(s) which is/are marked by an accusative case. Also, an adverbial phrase is allowed to occur inside a VN phrase. I put the matrix subject scrambled in between the two predicates, in order to avoid having these predicates being adjacent to each other.

(23) a. [Piza-o *subayaku/*subayai* HAITATSU]-ni Taroo-wa itta.
       pizza-ACC quickly/quick   delivery-PUR   Taro-TOP   went
       'For delivering pizzas quickly, Taro went.'

    b. [Sono hon-o *hitoride* TYUUMON]-ni Hanako-wa kita.
       the   book-ACC by.herself order-PUR   Hanako-TOP   came
       'For ordering the book by herself, Hanako came.'

As shown in (23), instead of an adjectival modifier, a VN allows an adverbial modifier appearing inside its projection. It shows again that a VN functions like a verb even in the absence of verbal predicates.

3.2.3 'Koto' construction

The aforementioned two types of construction, aspectual constructions and the purposive constructions, have often been discussed in the previous literature. In order to have a general view of VNs, I will present two other VN constructions, which I tentatively refer to as 'koto' construction and 'kata' construction. Kageyama (1993, Ch.1) adduces these constructions as evidence supporting the inherent verbal property of a VN. Let us begin with a brief description of these two types of constructions.

First, let us consider the 'koto' construction, represented in (14c) above, and repeated here as (24a). Below, I provide some more examples of the same type.

(24) a. [Repooto-o   kanarazu   TEISYUTSU]-no   koto.
       report-ACC   by.all.means   submit-GEN   fact
       'Do hand in a report by all means.'

    b. Kaifuu-go-wa   [reizooko-de HOZON]-no   koto.
       open-after-TOP   fridge-in   preservation-GEN fact
       'After opening, preserve it in a fridge.'

    c. [Tojimari-o   sikkarito   KAKUNIN]-no   koto.
       lock.the.doors-ACC definitely   confirmation-GEN fact
       'Do definitely confirm the doors be locked.'

In this construction, a genitive marked VN is followed by a noun *koto* which literally means 'fact'. As the English translation indicates, this nominalization pattern conveys a sort of imperative meaning. Martin (1975, 966) has observed that nominalizations can be used to express 'oblique requests' in Japanese, and the *koto* construction is one of those nominalized expressions.

Now, let us examine characteristics of a VN in the '*koto*' construction. Here again, a VN functions like a verbal predicate despite the absence of a light verb. The VN takes an object argument with an accusative marker. It allows a postpositional phrase to appear inside of its phrase just like a verb, as in (24b). Also, it can take an adverbial modification such as *kanarazu* 'by all means' or *sikkarito* 'definitely' as in (24a,c). All of these properties indicate the verbal characteristics of VNs.

Although a VN clearly exhibits syntactically verbal properties, we cannot simply conclude that it is just a verb, since it shows nominal properties in terms of its word form. Firstly, a VN hosts a nominal morpheme, a case marker -*no*. Secondly, the fact that it needs a genitive marker to conjoin with a noun *koto* 'fact' shows its nominal nature again: if it were a verb, it would not need a genitive marker.

Thus, once again, without any support of a verbal element, a VN in the '*koto*' construction exhibits syntactic characteristics of a verb, although its word form is that of a noun.

3.2.4 '*Kata*' construction

Finally, let us consider the '*kata*' construction represented in (14d). As Kageyama (1993) and Matsumoto (1996) have pointed out, a VN appearing in this construction behaves as though it is a verbal predicate, and it takes its object argument marked by an accusative marker. Consider the following examples:

(25) a. [Sono   daigaku-no   an'naisyo-o   go-KIBOO]-no   kata-wa, ...
          that   university-GEN prospectus-ACC HON-wish-GEN   person-TOP
          'The person who wants a prospectus for that university ...'

      b. [Syusseki-o   go-KIBOO]-no   kata-wa, ...
          attendance-ACC HON-wish-GEN   person-TOP
          'The person who wants to attend ...'

      c. [Tosyokan-o go-RIYOO]-no   kata-e-no   o-negai.
          library-ACC   HON-use-GEN   person-to-GEN HON-req/smalluest
          'A request to the person who utilises the library.'

The '*kata*' construction is most commonly used as a public announcement, directed to unspecified people. Thus, a stylistically polite form is typically used with this construction: *kata* is a polite form for referring to 'a person', and a

prefixal honorific marker *go-* is usually attached to the VN.

In the *'kata'* construction as well, a VN exhibits the same pattern of mixed characteristics of a noun and a verb. In terms of its word form, a VN shows nominal property: it hosts a genitive marker *-no*; and it combines with a noun *kata* 'person' with the genitive marker appearing in between. On the other hand, if we look at the internal property of a VN phrase, it shows syntactic characteristics of a verb: a VN takes an object argument, which is marked by an accusative case. Also, as shown below, a VN can be modified by an adverb.

(26) a. [Tosyokan-o   *itsumo*   go-RIYOO]-no   kata-wa, ...
        library-ACC   always   HON-use-GEN   person-TOP
        'The person who uses the library always...'

   b. [Kompyuuta-o *hajimete*   go-SIYOO]-no   kata-e-no   tebiki.
        computer-ACC   for.the.first.time HON-use-GEN   person-to-GEN guide
        'A guide to the person who uses a computer for the first time.'

Thus, the *'kata'* construction represents once again that a VN shows nominal properties in terms of its form on the one hand, and exhibits syntactic properties of a verbal projection on the other hand.

To sum up this section, I have shown basic properties of a VN, sorting out its verbal and nominal properties into places. In order to understand characteristics of a VN properly, we need to observe its behavior from two different perspectives, form and function. In terms of its form, a VN has a word form of a noun: a VN can host nominal morphemes, and it needs to have a genitive marker when it modifies a noun. In terms of its function, on the other hand, a VN shows characteristics of a verb in certain verbal environments: a VN takes (an) argument(s), which is/are marked by a verbal case; a VN can be modified by an adverb. Using the table in (7), we can summarize the properties of VNs in 'verbless' constructions observed in this section as follows:

(27) Nominal vs. verbal properties

	Nominal property	Verbal property
Form	Hosts a nominal morpheme	
	Requires the genitive marker when modifies a noun	
Function		Takes an argument
		Requires an argument to be verbal case marked, and can take a postpositional phrase
		Can take an adverbial modifier

Thus, we cannot simply say a VN is just a noun or a verb, because it has split characteristics of nominal and verbal properties with respect to its form and function.
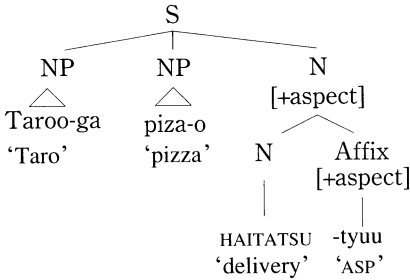
4. Previous approaches to VN constructions

Because of the mixed characteristics of a VN, there is not a unanimous agreement on the category a VN belongs to: some researchers take a VN as a noun; others as a verb; and others postulate a special category for it. In this section, we review some previous analyses of VN constructions.

4.1. Aspectual licensing approach

Assuming that the VN is a noun, Iida (1987) suggests that a noun can take verbal case marked argument(s) only if there is some element carrying an aspectual feature. Iida examines VN constructions with an aspectual suffix (e.g. (16a)), and the purposive marker -*ni* (e.g. (21)), and proposed that a VN and its subsequent element is concatenated, and an aspectual suffix such as -*tyuu* 'while' or the purposive marker -*ni*[4] provides an aspectual feature to the concatenated word. This proposal can be illustrated as in (28), where *HAITATSU-tyuu* 'delivery-ASP' functions as a predicate of a sentence.

(28)

```
                    S
         ┌──────────┼──────────┐
        NP         NP          N
        △          △       [+aspect]
      Taroo-ga    piza-o      ╱╲
       'Taro'     'pizza'    N    Affix
                                [+aspect]
                             │      │
                          HAITATSU  -tyuu
                          'delivery' 'ASP'
```

Although this approach works fine with the above two forms, if we try to extend it to the other VN constructions described in the previous section, some problems arise. Firstly, take the form with an aspectual noun, such as (16c), for example. When an aspectual noun occurs with a VN, a genitive marker appears between the VN and the aspectual noun. Now, the genitive marker is positioned at the edge of a phrase, as shown in the following conjugation pattern in (29). This sentence is grammatical with a reading where 'a house' is possessed by 'Taro' and 'Hanako' respectively, not only with the reading 'Taro' and 'Hanako' jointly possess 'a house'.

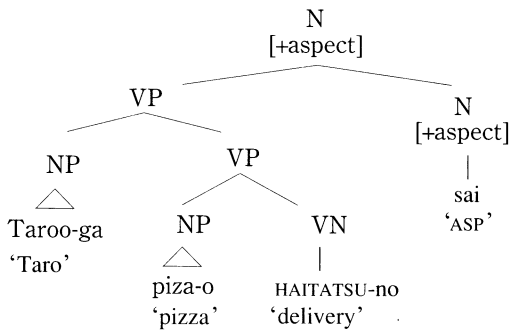(29) [Taroo-to Hanako]-no ie
      Taro-and   Hanako-GEN house
      'Taro and Hanako's house/Taro's and Hanako's house'

From the grammaticality of the conjunction pattern in (29), we can say that a genitive particle appears at the right edge of a nominal projection, although it is lexically attached to a host noun. Since a genitive particle is positioned at the edge of a phrase, the sequence of [VN-*no* ASP] cannot be formed in the morphology, but should be combined in the phrasal syntax. This is problematic for Iida's approach, since it requires the combination of a VN and an aspectual noun to occur in the syntax, unlike the case of an aspectual suffix, which occurs in the morphology.

A possible generalization might be the following. A VN can assign a verbal case, only if it is aspectually licensed, and aspectual licensing is carried out not

only by a suffix but also by an aspectual noun. This approach can be found in Manning (1993). Following Iida's proposal, Manning keeps the idea of aspectual licensing, although he does not assume a VN as a noun, but as an underspecified category which is compatible with either a verb or a noun. He proposes that 'all the words in Japanese can only assign verbal case if they are aspectually licensed' (Manning 1993, 245). However, if we look closer at the structure of an aspectual noun construction, we can see a few problems which need to be solved before this approach will work.

(30)

```
                              N
                          [+aspect]
              ┌───────────────┴──────────┐
             VP                          N
        ┌─────┴──────┐               [+aspect]
       NP           VP                   │
       △        ┌────┴────┐             sai
    Taroo-ga    NP        VN           'ASP'
     'Taro'     △          │
              piza-o   HAITATSU-no
              'pizza'   'delivery'
```

Let us compare the structures (28) and (30). In (28), a VN determines the categorial status of the N node and gives subcategorization information, and an aspectual suffix provides the [+aspect] specification. These two types of information carried by a VN and an affix are combined at the node dominating these two morphemes, since they jointly form a single word. Now in (30), an aspectual noun is a head of the structure and it also provides the feature [+aspect], while a VN independently forms a phrase and modifies the aspectual noun *sai*. Now, we can see there is no node where the subcategorization information of a VN and the [+aspect] feature can be combined: a VN takes its argument(s) inside its projection, and the feature [+aspect] of an aspectual noun percolates up independently of the projection of a VN. Manning does not provide any adequate account for this problem, and it seems difficult to come up with a

solution without being stipulative.

Even if we solve the problem of an aspectual noun, case marking patterns in the *koto* and the *kata* constructions remain to be explained. In these constructions, it is not plausible to assume that *koto* 'fact' or *kata* 'person' provides an aspectual feature, because their meanings have nothing to do with aspect. Of course, with '*koto*' construction, it might be possible to assume that the feature [+aspect] arises from the construction as a whole. It denotes a sort of imperative meaning, which is usually associated with a verbal expression. However, this way of reasoning cannot be maintained with the '*kata*' construction, since this form does not exhibit any obvious verbal feature. In short, it seems difficult to maintain the aspectual licensing approach, and whatever it is, the verbal behavior of a VN cannot exclusively be attributed to the [+aspect] feature carried around by a co-occurring affix or a noun.

4.2. Verbalization with a copula

Also assuming a VN to be a noun, Matsumoto (1996), in a footnote, hints at a way to handle the form with a VN and a noun. Note that such a VN form was problematic for the aspectual licensing approach reviewed above. He suggests that the *-no* following a VN is not a case marker, but actually a prenominal form of a copula *-da* 'be'. A similar line of analysis is proposed in Iwasaki (1997) as well. As shown below, a copula *-da* can be used with a verbal expression of a VN.

(31) a. Taroo-wa   sono   teian-ni   HANTAI-datta.
        Taro-TOP   that   proposal-to   opposition-was
        'Taro was against that proposal

     b. Kyoo-kara Jon-wa   Tookyoo-e SYUTTYOO-da.
        today-from John-TOP Tokyo-to   business.trip-is
        'John will be on a business trip to Tokyo from today on.'

                                                    (Matsumoto 1996, 81 (i))

Also, as shown in the following example, it is true that we can observe the following conversion pattern with *-no* and a copula *-da*.
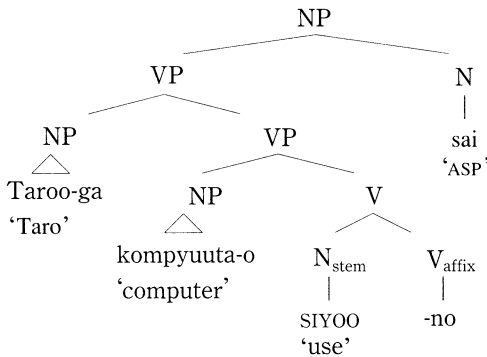
(32) a. Taroo-wa   Hanako-no   tomodachi-da.
        Taro-TOP   Hanako-GEN   friend-COP
        'Taro is a friend of Hanako.'

b. [Hanako-no   tomodachi-no] Taroo
    Hanako-GEN   friend-COP   Taro
    'Taro, who is a friend of Hanako.'

On the basis of the above patterns, some researchers argue that the -no following a noun *tomodachi* 'friend' is a prenominal form of a copula (cf. Martin 1975, Sells 1998).

Now, according to Matsumoto's proposal, a VN phrase followed by -no is not a noun phrase, but a relative clause with a verbal head modifying a noun *sai* 'on the occasion', *koto* 'fact', *kata* 'person', and so on. This proposal is illustrated by the following structural representation.

(33)

$$
\begin{array}{c}
\text{NP} \\
\text{VP} \qquad \text{N} \\
\text{sai} \\
\text{'ASP'}
\end{array}
$$

NP
　VP　　　　　　　　N
　　　　　　　　　　 |
NP　　　　　VP　　　sai
△　　　　　　　　　 'ASP'
Taroo-ga　NP　　　　V
'Taro'　　△
　　　kompyuuta-o　N$_{stem}$　V$_{affix}$
　　　'computer'　 |　　　 |
　　　　　　　　SIYOO　-no
　　　　　　　　'use'

Under this proposal, when a VN is followed by -no, a verbal feature comes from this prenominal form of the copula, but not from an aspectual noun or other type of noun heading the NP. In this way, we can explain the remaining problem of the aspectual licensing approach: with VN constructions, either an aspectual affix or a prenominal form of a copula -no licenses the verbal behavior of a VN.[5]

This proposal is not without shortcomings, however. Firstly, it is not a widely accepted assumption that -no is an inflected form of a copula -da. Although it is argued that a copula -da can take a form -no as a prenominal form in the recent literature (cf. Martin 1975, Matsumoto 1996, Iwasaki 1997, and Sells

1998), it is not recognized as an inflectional form of a copula in traditional Japanese grammar. Most people would consider that the second *-no* in (32b) is a genitive case marker, rather than an inflected form of a copula.

Even if we accept the possibility of *-no* being a form of a copula *-da*, a problem remains. To begin with, though some VNs can be combined with a copula *-da*, most VNs cannot, due to a semantic inconsistency. The copula *-da* conveys stative meaning, and only a small number of VNs such as those in (31), can be used as stative predicates accompanied by the copula. The majority of VNs denote activity events, and attachment of the copula results in ungrammaticality. Significantly, it is not always possible to use the copula *-da* with the VNs shown in the previous section, especially when a VN takes an argument with verbal case marking.

(34) a. *Kompyuuta-o   SIYOO-da.   (cf. Kompyuuta-o   SIYOO-no   sai)
         computer-ACC   use-COP   computer-ACC   use   ASP

      b. *Reizooko-de   HOZON-da.   (cf. Reizooko-de   HOZON-no   koto.)
         fridge-in   preservation-COP   fridge-in   preservation fact

      c. *Syusseki-o   KIBOO-da.   (cf. Syusseki-o   KIBOO-no   kata)
         attendance-ACC wish-COP   attendance-ACC wish   person

Now, it must be recalled that the examples in (34) are grammatical with *-no* followed by a noun. If the *-no* is really a form of a copula, it is totally mysterious why a copula can appear in a prenominal position, but not in a sentence final position.

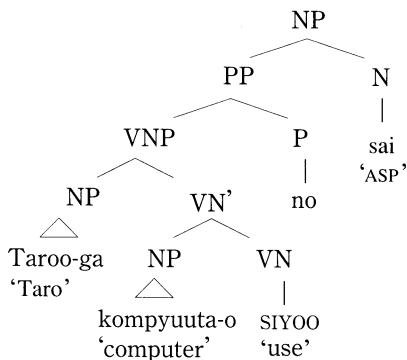**4.3.** Inherent verbal characteristics of VNs

As the previous reviews in 4.1 and 4.2 show, there is no verbalizing element which can be uniformly applied to all of the VN constructions described in the section 3. It seems misleading to seek for a verbalizing element of a VN construction, and it would be more appropriate to attribute the verbal behavior of a VN to the VN itself. There are some proposals in this line of reasoning, which reflect the assumption that a VN has an inherent verbal property.

Hasegawa (1991) proposes to treat a VN simply as a verb, when it exhibits verbal behavior. This proposal would work all right with an aspectual suffix construction (cf. 16a), but it would have difficulty to explain a nominal aspect of

a VN reflected in its word form. For example, with an aspectual noun construction, a VN takes its argument(s) like a verb, but it hosts a genitive case marker -*no* like a noun (cf. (16c)).

Kageyama (1993) proposes to postulate a separate lexical category for a VN, which has a nominal form and a verbal function. When a VN appears in a certain verbal environment, it takes its argument(s) without the aid of the verb *suru*, though it is a noun in terms of its form. Notice that with this approach, a VN does not need any licensing feature to function as a verbal predicate, since it has inherent ability to behave like a verb. Kageyama also indicates that a VN phrase has the internal structure of a verbal projection, and external characteristics of a nominal projection. In this analysis, an aspectual noun construction will be represented as follows (see Kageyama 1993, 38 (57)).

(35)

```
                        NP
                      /    \
                   PP        N
                 /    \       |
             VNP        P    sai
            /   \       |   'ASP'
         NP      VN'    no
        / \     /   \
   Taroo-ga  NP     VN
   'Taro'   / \      |
       kompyuuta-o  SIYOO
       'computer'   'use'
```

Here, a VN shows verbal characteristics inside its own projection, and takes its argument with accusative case marking. At the same time, it exhibits external nominal distribution, and needs case particle -*no* to appear in front of an aspectual noun *sai*.

I share the basic insight of Kageyama's proposal about the characteristics of a VN, which has nominal form and inherent verbal function. However, I do not accept the analysis of having a separate lexical category for VNs. It seems to be

a stipulation to say that a VN functions like a verb clause internally and behaves like a nominal projection externally. With an ordinary noun or a verb, a lexical item would normally projects up to phrasal level, without any change in its categorial status. It is mysterious how and when a VN changes its category from a verb to a noun. In other words, the structure in (35) just describes a problem, but does not give an explanation of it.

5. Lexical approach to VNs

This section discusses a proposed analysis of a VN construction. I will present an analysis based on the approach proposed in Sells (1990), in which the lexical entry of a VN contains argument structure and subcategorization information of a verb. As repeatedly shown in the section 3, a VN has a form of a noun, but it can function like a verb in an appropriate environment. In order to deal with such mixed properties of VNs, we need to distinguish characteristics of form and function. Let us consider, in the following, how this approach works.

In terms of its form, a VN is always a noun, since it hosts nominal morphemes, and never allows verbal morphemes to appear on it. Thus, I assume that a VN retains its categorial label 'N' throughout its projection. Note that unlike a standard assumption, the 'categorial label' is defined on the basis of morphological property of a VN, but not on its syntactic characteristics.
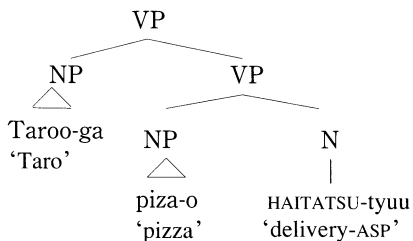
For syntactic behavior of a VN, it is assumed that a lexical entry consists of two types of information, argument structure and subcateogirzation.[6] Let us take the lexical entry of a VN *HAITATSU* 'delivery' as an example. As shown below, it has two arguments, Agent and Theme, and they are mapped to the subject and the object respectively. The mapping between argument structure and subcategorizaiton frame is represented by the vertical alignment.

(36)   HAITATSU   EV   < Agent   Theme >
        'delivery'   N   < SUBJ   OBJ   >

The lexical entry above shows that verbal *HAITATSU* 'delivery' has a nominal form, and it has argument structure and subcategorization frame of a transitive verb.

Now, let us consider how a VN construction is analyzed in this approach, taking an aspectual suffix construction as an example. At the point when a VN's arguments are realized, the lexical entry in (36) is used, and we can represent the structure of a VN phrase as follows:

(37)

```
                  VP
           _____|_____
         NP                VP
         △            _____|_____
     Taroo-ga       NP              N
      'Taro'        △               |
                  piza-o        HAITATSU-tyuu
                  'pizza'       'delivery-ASP'
```

Here, a VN is a noun, and can host nominal morphemes, such as a case particle, a copula, and so on. At the same time, a VN takes (an) argument(s) marked by a verbal case, because it has argument structure and subcategorizaition frame of a verb. The VN phrase can be modified by an adverb, but not an adjective, because of its verbal lexical information.

6. Summary

This paper presents mixed characteristics of a VN, which has a word form of a noun and functional properties of a verb. It is sometimes argued that this is a case of verbalization, but I have showed some data which indicate inherent verbal characteristics of VNs. In the final section, I have proposed an analysis of a VN, which is an attempt to reflect its mixed characteristics of a noun and a verb in the lexical information.

Notes

* This paper is based on the discussion in Ohara (2000, Ch.5). I wish to thank Louisa Sadler for valuable comments and criticisms. Of course, all remaining errors and inadequacies are mine.

1. The following abbreviations are used in the glosses: ACC— accusative; ASP— aspect; COP— copula; DAT— dative; GEN— genitive; GER— gerund; HON— honorific; NEG— negative; NOM— nominative; NZER— nominalizer; PASS— passive; PUR— purposive; TOP— topic.

2. VNs in the examples are written in small capitals.

3. We cannot put the *renyookei* form of a light verb between a VN and an aspectual suffix. Thus, the form *HAITATSU-si-tyuu-ni* 'delivery-do-ASP-at' is ungrammatical. Since the form with a light verb is ungrammatical, we cannot assume that a light verb is responsible for the verbal behavior of a VN and that it is deleted after verbalizing a VN in the above examples.

4. Iida has noted that the purposive marker *-ni* could have an aspectual feature such as *irrealis*.

5. A similar proposal is made in Morimoto (1996, 1998) for analyzing examples of *sa* nominalizations. It is claimed that *-ni* can be an infinitive form of a copula. If that is the case, '*-ni*' in the aspectual suffix construction (as in *-tyuu-ni*) could be responsible for the verbal behavior of the VNs.

6. Sells (1990) proposes to represent lexical information in the following two lists, ARGUMENT (thematic structure) and DEPENDENTS (subcategorization).

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