A construction approach to innovative verbs in Japanese*

NATSUKO TSUJIMURA and STUART DAVIS

Abstract

Innovative verbs in Japanese are formed from nouns of various sources including loanwords, Sino-Japanese nouns, mimetics, and proper names. Regardless of their different origin, these innovative denominal verbs exhibit a collection of intriguing properties, ranging from phonological, morphological, to semantic and pragmatic. These properties are not strictly predictable from the component parts including the nature of the parent noun and verbal morphology. Such an unpredictable nature is suggestive of a constructional analysis. The form-meaning-function complex takes a templatic representation, which expresses the phonological and morphological characteristics, and associated with it are semantic and pragmatic properties. These phonological, morphological, semantic, and pragmatic properties combine to capture the nature of innovative denominal verbs as a construction. The analysis supports the idea of applying construction grammar to morphology along the lines of the developing field of construction morphology (e.g., Booij 2005, 2007, 2009a, 2009b). We further show how insights from templatic (or prosodic) morphology (e.g., McCarthy and Prince 1986, 1990) can be conceptualized in terms of construction grammar.

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1. Introduction

There are a number of innovative verbs in Japanese that are formed based on nouns of various sources such as loanwords—both of Chinese origin (i.e., Sino-Japanese) and of other languages—and proper names. Some examples of innovative denominal verbs in the present-tense form are given in (1).¹

(1) a. Sino-Japanese loanword-based
   \textit{kokuru} ‘make a confession’ (< \textit{kokuhaku} ‘confession’), \textit{jikoru} ‘have a traffic accident’ (< \textit{jiko} ‘accident’), \textit{biyoru} ‘go to a hair salon’ (< \textit{biyooin} ‘hair salon’), \textit{hinikuru} ‘make a sarcastic remark’ (< \textit{hiniku} ‘sarcasm’), . . .

b. Non-Chinese loanword-based
   \textit{kopiru} ‘make a copy’ (< \textit{kopii} ‘copy’), \textit{teroru} ‘commit an act of terrorism’ (< \textit{terorizumu} ‘terrorism’), \textit{kaferu} ‘go to a café’ (< \textit{kafe} ‘café’), \textit{memoru} ‘take notes’ (< \textit{memo} ‘memo’), \textit{biriru} ‘play billiards’ (< \textit{biriyaado} ‘billiards’), \textit{jazuru} ‘play jazz’ (< \textit{jazu} ‘jazz’), . . .

c. Proper name-based
   \textit{makuru} ‘go to McDonald’s’ (< \textit{makudonarudo} ‘McDonald’s’), \textit{sutabaru} ‘go to Starbucks’ (< \textit{sutaabakkusu} ‘Starbucks’), \textit{guguru} ‘conduct a Google search’ (< \textit{guuguru} ‘Google’), \textit{egawaru} ‘display self-ish conduct’ (< \textit{egawa}—former pitcher of the Tokyo Giants), . . .

The Japanese innovative verbs in (1a) are based on nouns of Sino-Japanese compounds: \textit{kokuhaku} ‘confession’, for example, is a Sino-Japanese noun from which \textit{kokuru} ‘make a confession’ is derived; and \textit{biyooin} ‘hair salon’ is the base noun for the innovative verb \textit{biyoru}, which generally means to go to a hair salon for the purpose of having one’s hair done. The verbs in (1b) are based on loanwords from languages other than Chinese. These verbs are based on the borrowed nominal forms. The denominal verbs in (1c) are all based on proper names, regardless of the origin of the base noun. Although the primary focus of the investigation dealt with in this paper is on innovative verbs derived from full-fledged nouns, we will also include innovative verbs that are

¹ As we will discuss in detail in Section 3, the meaning of each example relies greatly on the context and situation. Although we provide glosses for the examples of innovative denominal verbs to facilitate the reader’s understanding, it should be kept in mind that such meaning definitions are often inadequate without taking further contextual information into consideration.
formed based on mimetic words, whose categorial status is not always clear-cut. (Hamano 1986, 1998; Tamori and Schourup 1999; Tsujimura 2007) Examples of this class are shown in (1d).  

(1) d. nikoru ‘smile’ (< nikoQ, nikoniko [description of smiling])

chibiru ‘be stingy’ (< chibiQ, chibichibi [description of a small amount])

guzuru ‘be peevish’ (< guzuguzu [description of slowness, laziness])

The part of speech category of mimetic words in Japanese is often difficult to identify because a mimetic base can surface in a range of categories depending on the linguistic environment in which it appears. For instance, the mimetic base from which nikoru is derived, i.e., nikoQ or nikoniko, serves as an adverb, as in nikot-to or nikoniko(-to), or a verb as in nikoniko-suru, where suru ‘do’ is a light verb. As we will demonstrate later, innovative verbs based on mimetic words pattern with innovative denominal verbs, and thus we will treat (1d) as belonging to the same class as (1a–1c).

In this paper we will demonstrate that innovative denominal and mimetic-based verbs constitute a construction since they are characteristically associated with a cluster of properties that range from phonological, morphological, to semantic and pragmatic: (i) innovative verbs tend to undergo clipping of base nouns, and when they do, the clipping restricts the length of verbal roots, (ii) they all take the same conjugation pattern, which assumes a specific morphological shape of the verbal roots, (iii) they consistently display a particular accentuation pattern, and (iv) they show a unique semantic nature and pragmatic use. We shall argue that each of the properties related to the form, i.e., phonological and morphological properties, cannot strictly be attributed to the base nouns from which innovative verbs are derived. Nor is their meaning and special use compositional from base nouns and verbal suffixes. We will claim that the cluster of properties displayed by innovative verbs should be collectively built into a template and that, taking Goldberg’s (1995, 2006) definition of construction in (2) as a starting point, this template indeed amounts to a construction that represents a form-meaning-function complex where phonological, morphological, semantic, and pragmatic information is encoded as a collective property.

(2) Any linguistic pattern is recognized as a construction as long as some aspect of its form or function is not strictly predictable from its component parts or from other constructions recognized to exist. In addition,

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2. ‘Q’ in the first and second examples in (1d) stands for a geminate. For example, nikoQ and chibiQ are normally used with the adverb-forming suffix –to. Their surface forms as adverbs are nikotto and chibitto, respectively, inducing gemination of the suffixal consonant.
patterns are stored as constructions even if they are fully predictable as long as they occur with sufficient frequency.

( Goldberg 2006: 5 )

While much of the research in construction grammar has been centered on phrasal and clausal phenomena, work by Booij (2005, 2007, 2009a, 2009b, among others) has developed the application of construction grammar to morphological analyses (see also Koenig 1999; Jackendoff 2002). This development is in line with earlier suggestions by Michaelis and Lambrecht (1996: 216), who claim that “[i]n Construction Grammar, the grammar represents an inventory of form-meaning-function complexes, in which words are distinguished from grammatical constructions only with regard to their internal complexity”; the idea is also advocated by Croft (2001: 17), who observes “... the internal structure of words are also constructions ... The only difference between morphological constructions and syntactic ones is that the former are entirely made up of bound morphemes while the latter are largely made up of free morphemes.” It is in this spirit that our construction-based analysis of innovative verbs in Japanese will be presented here. However, previous work in construction morphology has rarely paid attention to the potential role of phonological factors in shaping the nature of the construction. One of our goals is to detail how phonological properties can be an integral part of a morphological construction.

Goldberg (2009: 93) elaborates on the term “constructionist” as being “intended to evoke both the notion of ‘construction’ and the notion that our knowledge of language is ‘constructed’ on the basis of the input together with general cognitive, pragmatic and processing constraints.” We shall argue that the pattern of forming innovative verbs in Japanese and their function both reflect and provide evidence for such a constructionist view.

2. Formal properties of innovative verbs

In this section we will enumerate a cluster of formal properties of innovative verbs in Japanese, and demonstrate that each of the properties is not necessarily predictable from the verbal phonology and morphology of Japanese.

2.1. Length requirement

The first morphological constraint on an innovative verb is that the root be at least 2-mora long (i.e., minimally (C)V(C)V). This length requirement may be viewed as a condition on the output of clipping, but clipping does not have to be operative. That is, regardless of whether shortening takes place or not, the length requirement must be met in order for an acceptable innovative verb root
to be obtained. The broad applicability of this constraint is detected by the overwhelming number of attested innovative verbs that satisfy it. Examples include those in (3).³

(3) a. 2 moras: *kopi-ru* ‘make a copy’ (< *kopii* ‘copy’), *maku-ru* ‘go to McDonald’s’ (< *makudonarudo* ‘McDonald’s’), *jiko-ru* ‘have a traffic accident’ (< *jiko* ‘accident’)
b. 3 moras: *sutaba-ru* ‘go to Starbucks’ (< *sutaabakkusu* ‘Starbucks’), *makudo-ru* ‘go to McDonald’s’ (< *makudonarudo* ‘McDonald’s’), *egawa-ru* ‘display selfish conduct’ (< *egawa* — personal name), *jakuji-ru* ‘use jacuzzi’ (< *jakuujii* ‘jacuzzi’)
c. 4 moras: *sutanba-ru* ‘stand by’ (< *sutanbai* ‘stand by’), *kafeore-ru* ‘have a café au lait stain’ (< *kafeore* ‘café au lait’)
d. 5 moras: *gengogaku-ru* ‘discuss linguistic matters’ (< *gengogaku* ‘linguistics’), *jingurube-ru* ‘spend Christmas Day by oneself’ (< *jinguruberu* ‘Jingle Bell’)
e. 6 moras: *higashikokuba-ru* ‘go to Miyazaki (place)’ (< *higashikokubaru* — personal name)

The length requirement is in fact reminiscent of the constraint on clipping in the language in general. (cf. Tsujimura 2007) As the examples in (4) illustrate, the minimal word requirement consistently makes reference to 2 moras as a base line when it involves clipping (Ito 1990; Tsujimura 2007). Each word comprising a compound is shortened to 2 moras.

(4) a. *purofesshonaru resuringu* → *puro resu* ‘professional wrestling’
b. *waado purosessaa* → *waa puro* ‘word processor’
c. *rimooto kontorooro* → *rimo kon* ‘remote control’
d. *jiinzu pantsu* → *jii pan* ‘jeans’
e. *sekusharu harassumento* → *seku hara* ‘sexual harassment’
f. *paasonaru konpyuutaa* → *paso kon* ‘personal computer’

(Tsujimura 2007: 98)

On the other hand, the length requirement is not a constraint that is morphologically imposed by the native Japanese verb system. As can be amply demonstrated, there are a number of existing native verbs whose roots are 1-mora long, as in *ni-ru* ‘cook’, *mi-ru* ‘see’, *ne-ru* ‘sleep’, *de-ru* ‘exit’, and *i-ru* ‘be,

³ The only exception to the length requirement that we are aware of is *bi-ru*. This verb with a one-mora root is derived from *Bill Gates*, and means ‘to search using MSN Live Search.’ It is not common, however.
exist’, among many more. Coupled with the fact that clipping is not a necessary condition for innovative verbs, it seems reasonable to consider that the length requirement is a property associated with innovative verbs, rather than following directly from a morphological criterion that is applied to native verbs in general.4

To summarize from the morphological constraint placed on the form of verbal roots as a result of the denominalization process that we have discussed, we can schematize the output as the morphological configuration in (5).

(5) . . . (C)V(C)V]\_Vroot -

2.2. Verbal conjugation pattern

As can be seen in all the examples shown thus far, the present tense form of innovative denominal verbs seems to consist of a (clipped) root and the present tense morpheme –ru, as is illustrated in (6).

(6)  
   a.  kopi-ru  ‘make a copy’ (< kopii ‘copy’)  
   b.  jiko-ru  ‘have a traffic accident’ (< jiko ‘accident’)  
   c.  niko-ru  ‘smile’ (< nikoQ, nikoniko – description of smiling)  
   d.  sutaba-ru  ‘go to Starbucks’ (< sutaabakkusu ‘Starbucks’)  
   e.  kafoonre-ru  ‘have a café au lait stain’ (< kafoonre ‘café au lait’)  

The present tense form can then be generalized and schematized as (7).

(7) [X]-ru, where X = verbal root.

We now take a moment and examine the generalization of (7).

Roots of native verbs end in either a vowel or a consonant. When a root ends in a vowel, the present tense morpheme /ru/ is suffixed. In the case of a root that ends in a consonant including the root-ending consonant /t/, the allomorph /u/ is suffixed to mark the present tense. Thus, the present tense form of a root

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4. While the minimum 2-mora requirement is a strict characteristic of innovative denominal verbs, there seems to be a strong tendency that the last two moras of a root cannot consist of a long vowel. For example, based on copy (kopii) and jacuzzi (jakuujii), we can form kopiru and jakujiru as well as jakuru, respectively, but the forms like kopiru and jakuru are disfavored. This is in fact consistent with the observation that verb roots in Japanese rarely end in a long vowel. Yukinori Takubo (personal communication) pointed out to us that those who can accept verb roots with a final long vowel seem to do so by splitting up the long vowel into two syllables. This observation appears correct based on the accentuation pattern of the innovative verb chaaru (< cha ‘tea’) where the accent is on the second part of the long vowel—an unusual location of accent in Tokyo Japanese. This indicates heterosyllabification of the long vowel, as is discussed in Footnote 11.
that ends in a vowel and a root that ends in /r/ both surface with the final phonemic sequence of /ru/. The contrast is shown in (8).

(8) present tense form:

<table>
<thead>
<tr>
<th>Roots ending a vowel</th>
<th>Roots ending a consonant (C = /r/)</th>
</tr>
</thead>
<tbody>
<tr>
<td>tabe-ru ‘eat’</td>
<td>kaer-u ‘return’</td>
</tr>
<tr>
<td>tasuke-ru ‘rescue’</td>
<td>shir-u ‘know’</td>
</tr>
<tr>
<td>kotae-ru ‘answer’</td>
<td>tomar-u ‘stop’</td>
</tr>
<tr>
<td>same-ru ‘cool’</td>
<td>sagar-u ‘lower’</td>
</tr>
<tr>
<td>oki-ru ‘get up’</td>
<td>hashir-u ‘run’</td>
</tr>
<tr>
<td>deki-ru ‘be capable’</td>
<td>komar-u ‘get in trouble’</td>
</tr>
</tbody>
</table>

Roots ending in a vowel and those ending in /r/, in contrast, show a slight morphological distinction in their past tense forms. Consider (9).

(9) past tense form:

<table>
<thead>
<tr>
<th>Roots ending a vowel</th>
<th>Roots ending a consonant (C = /r/)</th>
</tr>
</thead>
<tbody>
<tr>
<td>tabe-ta ‘ate’</td>
<td>kaer+ta → kae-t-ta ‘returned’</td>
</tr>
<tr>
<td>tasuke-ta ‘rescued’</td>
<td>shir+ta → shi-t-ta ‘knew’</td>
</tr>
<tr>
<td>kotae-ta ‘answered’</td>
<td>tomar+ta → toma-t-ta ‘stopped’</td>
</tr>
<tr>
<td>same-ta ‘cooled’</td>
<td>sagar+ta → saga-t-ta ‘lowered’</td>
</tr>
<tr>
<td>oki-ta ‘got up’</td>
<td>hashir+ta → hashi-t-ta ‘ran’</td>
</tr>
<tr>
<td>deki-ta ‘was capable’</td>
<td>komar+ta → koma-t-ta ‘got in trouble’</td>
</tr>
</tbody>
</table>

As (9) illustrates, when a verb root ends in a consonant (i.e., singling out roots ending in /r/ in this case), the suffixation of the past tense morpheme /ta/ typically triggers gemination. There is no gemination with roots that end in vowels as in the first column of (9).

Turning to innovative verbs, recall that we have assumed so far that their roots end in vowels, as we have demonstrated in (6–7). Under such an assumption, then, the present tense and past tense forms are expected to look like (10).

(10) present tense form: past tense form:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>kopi-ru ‘make a copy’</td>
<td>*kopi-ta</td>
</tr>
<tr>
<td>jiko-ru ‘have a traffic accident’</td>
<td>*jiko-ta</td>
</tr>
<tr>
<td>niko-ru ‘smile’</td>
<td>*niko-ta</td>
</tr>
<tr>
<td>sutaba-ru ‘go to Starbucks’</td>
<td>*sutaba-ta</td>
</tr>
<tr>
<td>kafeore-ru ‘have a café au lait stain’</td>
<td>*kafeore-ta</td>
</tr>
</tbody>
</table>

As is clear in (10), however, the past tense ends up with a wrong form. What if we change our assumption about the nature of the root of innovative verbs, and consider them to end in a consonant, i.e., ending in /r/? Under this modified assumption, the present and past tense forms of innovative verbs are predicted to be like those in (11). And, the past tense forms are indeed well-formed.
(11) present tense form: past tense form:

kopir-u ‘make a copy’ kopi-t-ta
jikor-u ‘have a traffic accident’ jiko-t-ta
nikor-u ‘smile’ niko-t-ta
sutabar-u ‘go to Starbucks’ sutaba-t-ta
kaфеore-u ‘have a café au lait stain’ кафеore-t-ta

While the conjugation pattern confirms that innovative verbs end in a consonant and the /t/ in the present tense form belongs to the root, we need to pay close attention to this conclusion.

It should be remembered that verbal roots of innovative denominal verbs are derived from nouns (including mimetics) of various sources that often involve the clipping process. When we compare derived verbal forms in the present tense and their source nouns, however, we often do not find the presence of the root-final /t/ anywhere in the base noun forms. Compare the verbal forms in the present tense and their corresponding base nouns in (12).

(12) kopir-u ‘make a copy’ ← kopii ‘copy’
jikor-u ‘have a traffic accident’ ← jiko ‘accident’

nikor-u ‘smile’ ← niko(niko) (mimetic expressing smiling)
sutabar-u ‘go to Starbucks’ ← sutaabakkusu ‘Starbucks’
kaфеore-u ‘have a café au lait stain’ ← кафеore ‘café au lait’

The contrast in (12) evidently exhibits that the presence of /t/ in the root-final position of these verbs is not expected from their corresponding source nouns. Then, where is /t/ coming from?

The issue surrounding the presence of /t/ has been discussed by Sato (1975–76, 1985) and de Chene (1985) in their exchange concerning two denominal verbs, demoru ‘demonstrate’ (< demonsutoreeshon ‘demonstration’) and saboru ‘skip school, cut classes’ (< sabotaaju ‘sabotage’). These verbs share the conjugation pattern with the range of innovative verbs that we have been examining in this paper. Furthermore, as is also the case with our data, the nouns from which they derived do not contain /t/ in the relevant respect, i.e., demonsutoreeshon and sabotaaju. Although Sato and de Chene disagree on some technical points, they nonetheless agree that these two denominal verbs should be considered consonant-ending. de Chene, in particular, attributes the classification of these verbs as ending in a consonant to a default form in verbal conjugation based on frequency and historical stability of roots that end in consonants. Specifically, roots ending in consonants are twice as common as those ending in vowels; and the former are diachronically more stable than the latter (de Chene 1985: 197). de Chene’s argument about the default nature of roots ending in consonants is an important motivation for the morphological classification of innovative verbs and will be discussed later. However, there is...
no a priori reason why a root must end in a consonant in forming innovative verbs because there are indeed a large number of native verbs ending in vowels, some of which are highly frequent. Crucially, requiring a root ending in a consonant, or more specifically requiring a root that ends in /r/, is not a property that is predictable from the phonological or morphological make-up of an innovative verb; nor is it predictable from component parts of a base noun from which an innovative verb is derived. Thus, while we agree with Sato and de Chene in not denying the presence of /r/ as a part of a verbal root, we argue that /r/ is present as a distinctive property that characterizes innovative denominal verb formation, rather than relating it to a more general tendency of the native verb class. Building upon the morphological configuration we have established earlier, we modify the structure of the root of innovative denominal verbs as including /r/ following the (optionally) clipped noun. The structure is schematized as in (13).

\[(13) \ldots (C)V(C)V - r\]_{\text{root}} -

2.3. Accentuation pattern

In addition to morphological conditions that we have discussed above, innovative denominal verbs exhibit a systematic accentuation pattern. Uehara (1998: 154) observes that the equivalent of our innovative denominal verbs neutralizes its accentuation to “a penultimate accentual pattern with –ru, the accentual pattern for regular accented verbs”. His examples are given below. (“H” and “L” in (14) refer to the high and low pitch, respectively, that fall on each mora. The accented mora coincides with the high pitch that immediately precedes a low pitch.)

\[
\text{(14)} \quad \begin{array}{c}
\text{ya-do} \\
\text{H-L}
\end{array} \rightarrow \begin{array}{c}
\text{ya-do-ru} \\
\text{L-H-L}
\end{array} \quad \begin{array}{c}
\text{de-mo} \\
\text{H-L}
\end{array} \rightarrow \begin{array}{c}
\text{de-mo-ru} \\
\text{L-H-L}
\end{array}
\]

‘inn’ ‘stay’ ‘demonstration’ → ‘demonstrate’

(cf. regular accented verbs: \text{yo-mu} ‘read’, \text{a-ru-ku} ‘walk’)

\begin{array}{c}
\text{H-L} \\
\text{L-H-L}
\end{array}

5. One might wonder about the origins of the root final /r/ in (13). In the phonological literature on Japanese, it has been argued on independent grounds that /r/ behaves as a consonant whose phonological features are underspecified: that is, no specific consonantal features are indicated in its representation. As evidence, Mester and Ito (1989) argue that /r/ resists palatalization and participates in consonantal epenthesis. Given this, it is possible to view the template in (13) as ending in an unspecified C-slot that is realized by the epenthetic [r]. However, it should be pointed out that the analysis of /r/ as a featurely underspecified consonant in Japanese is controversial. See Kurisu (2009) for recent discussion.

6. The accentuation patterns discussed in this section reflect Standard Tokyo Japanese pronunciation and may be different in other dialects such as Osaka Japanese.
Uehara is correct to point out that the base nouns lose their original accent in forming denominal verbs, but the present tense form with –ru (or more accurately –(r)u for the reason we explained in Section 2.2) does not reflect the inherent accent pattern of denominal verb roots. This is because verbal suffixes of various kinds in Japanese can influence the original locus of the accent in verbal roots (cf. Tsujimura 1989, 2007); and the present tense suffix –(r)u is one such suffix. Consider the examples of existing native verbs in (15), where the underlined vowels indicate the location of the accent.

(15)  
\[\text{tabe-} + \text{ru} \rightarrow \text{taberu} \quad \text{‘eat’ [tabe-te]}\]  
\[\text{yorokoh-} + \text{ru} \rightarrow \text{yorokohu} \quad \text{‘get pleased’ [yorokon-de]}\]  
\[\text{araware-} + \text{ru} \rightarrow \text{arawareru} \quad \text{‘appear’ [araware-te]}\]  
\[\text{sawar-} + \text{ru} \rightarrow \text{sawaru} \quad \text{‘touch’ (accentless) [sawat-te]}\]  

(Tsujimura 2007: 122)

The generalization relevant to the accentuation of the present tense form is that when a root is accented, the suffixation of –ru has the effect of shifting the accent to the last mora of the root; and if the root is accentless, the present tense form remains accentless. Thus, Uehara’s observation in (14) is correct to the extent that the accent of the base noun is lost in its corresponding deverbal form; but the present tense form of denominal verbs does not identify the accent locations of the root forms themselves. Verbal gerunds, on the other hand, are helpful in isolating the location of the accent in verbal roots since the gerundive suffix –te does not affect root accent, as seen in the forms on the far right in (15).

In contrast to the variety in the locus of root accent observed with native verbs, the accent in the gerund forms of innovative verbs consistently falls on the root final vowel. This is shown in the left column of (16), where the accent is again indicated by the underline. It is important to recognize that the root final accent of innovative verbs does not come from their source nouns. Compare the accent of the gerundive forms on the left and the accent of their corresponding parent nouns on the right in (16).

<table>
<thead>
<tr>
<th>gerundive forms</th>
<th>source nouns</th>
</tr>
</thead>
<tbody>
<tr>
<td>kopi-tte</td>
<td>kopii ‘copy’</td>
</tr>
<tr>
<td>jiko-tte</td>
<td>jiko ‘accident’</td>
</tr>
</tbody>
</table>

7. To be more complete, when the final syllable of a root consists of two moras and the first of them is accented, there is no shift when –(r)u is suffixed: e.g., kaer+u \(\rightarrow\) kaeru ‘return’ and hair+u \(\rightarrow\) hairu ‘enter’.
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niko-tte ‘to smile’  nikoniko [mimetic for smiling]
sutaba-tte ‘to go to Starbucks’  suitaabakkusu ‘Starbucks’
demo-tte ‘to demonstrate’  demo, demonsutoreeshon ‘demonstration’
gengogaku-tte ‘to discuss linguistic matters’  gengogaku ‘linguistics’
kafeore-tte ‘to have a café au lait stain’  kafeore ‘café au lait’

Regardless of the locus of the accent of source nouns, all the innovative verbs pattern in exactly the same fashion, having their root accent on the root final vowel. That is, the accent of the innovative verbs in (16) and others like them is not predictable from any part of the verbal forms nor the nouns from which they are derived.

It is interesting to note that the relevance of the accentuation property can be demonstrated by minimal pairs where the base noun and its corresponding innovative verb take the same segmental phonemic shape but with the different accentuation pattern. Satoshi Uehara (personal communication, 2010) pointed out to us that there is an innovative denominal verb, sadaharu ‘under-perform contrary to high expectation’, based on the personal name of the former baseball player, Sadaharu Oh.\(^8\) This denominal verb takes the identical phonemic shape with the base noun, but crucially the accentuation patterns are different. The contrast is illustrated in (17).

(17) N: sadaharu
    V: sadaharu-u (cf. sadaha-t-te)

As a noun, sadaharu has the accent on the second mora while as a verb the accent is on the last mora of the root, as the gerundive form explicitly shows. A similar example is found with daburu (N) ‘double’ vs. daburu (V) (daby-t-te) ‘overlap’, toraburu (N) ‘trouble’ vs. toraburu (V) (torabu-t-te) ‘have trouble’, and higashikokubaru (N) [personal name] vs. higashikokubar-u (V) (higashikokuba-t-te) ‘go to Miyazaki (place)’. Despite the identical phonemic surface forms between the base noun and the present tense form of the corresponding denominal verbs, the unique accentuation pattern of the verbal root identifies their status as innovative denominal verb.

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\(^8\) We will discuss how innovative denominal verbs are generally interpreted in Section 3. It is sufficient to note for now that the meaning of sadaharu as an innovative denominal verb reflects the fact that while Sadaharu Oh was an outstanding baseball player, he under-performed as a manager when he first started.
Recall that in discussing the conjugation pattern of innovative denominal verbs in the previous subsection, we referred to de Chene’s observation concerning the default nature of native verbs that end in consonants. In this connection, we may wonder if the root-final accent is related to the root-final consonant /r/. It seems to be the case that a number of native verbs whose root final consonant is /r/ have their accent on the root-final vowel, as in (18a); but at the same time, there are many /r/-ending verbs that are accentless, as in (18b).

(18) a. 
- sagar- saga-tte ‘to lower’
- hashir- hashi-tte ‘to run’
- komar- koma-tte ‘to get in trouble’
- mamor- mamo-tte ‘to protect’
- sasar- sasa-tte ‘to stick’

b. 
- shir- shi-tte ‘to know’
- tomar- toma-tte ‘to stop’
- magar- maga-tte ‘to turn’
- kawar- kawa-tte ‘to change’
- hamar- hama-tte ‘to fit’

Additionally, although the number may be small, there is no denying the existence of accentuation patterns other than (18a) and (18b): kaer- ‘return’, mair- ‘be beaten’, and hair- ‘enter’, for instance, have their accent on the root-initial mora (or penultimate, as this pattern seems to be available to heavy monosyllabic roots), as in kae-tte, mai-tte, and hai-tte. It might be considered that this last pattern can be generalized with (18a) as placing accent on the root-final syllable, rather than the root-final mora. There are, however, at least two reasons for not adopting this generalization. First, there are indeed native verb roots ending in /r/ that consist of one heavy syllable and yet have the accent on the root-final mora. Examples include aor- ‘fan’, haor- ‘put on (clothes)’, naor- ‘recover’, and miir- ‘gaze’ as in ao-tte, haq-tte, nag-tte, and miit-tte.9 That is, the roots that have accent on the final syllable can be divided into two types: either having the accent on the root-final mora or on the penultimate mora. Despite this choice that is available for native verbs, innovative denominal verbs systematically place their root accent on the root-final mora. Second, although the overwhelming majority of innovative denominal verbs consists of the minimum of two light syllables, namely two moras, there are a handful of examples documented in the literature that comprise one heavy syllable. Shoor-

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9. The example, miir-, is a compound verb consisting of mi- ‘see’ and ir- ‘enter (archaic)’. This compound in its modern use, however, is not analyzable as such, and its meaning has undergone substantial semantic bleaching. Thus, it seems reasonable to treat it as a single verb especially for the purpose of accent assignment.
‘make sarcastic remarks’ and chaar- ‘go to a coffee shop’, found in Yonekawa’s (1989, 1998) discussion of innovative denominal verbs, serve as our examples. The former is derived from George Bernard Shaw, and emerged at the beginning of the Showa era according to Yonekawa; and the latter can be viewed as coming from cha ‘tea’.10 The former does not appear to be prevalent in the present day and the latter may be quite restricted in its use (see the discussion below), but the accent of their root forms would nevertheless fall on the root-final vowel rather than on the penultimate mora, shoo-te and chaa-tte.11 It should be pointed out, too, that the root accent is not derived from the base nouns, shoo and cha: the accent falls on the initial mora, shgo, for the former, and the latter, cha, is accentless.12 Thus, it is clear that neither a default accent pattern that could be generalized from existing native verbs nor the accentuation of the base nouns from which innovative verbs are derived can be a source of the root-final accent pattern that is consistently observed with innovative denominal verbs. Instead, the root-final accent is an independent property that is unique to, and consistent among, the class of verbs under investigation. We now indicate the accentuation property in the previously established morphological configuration by way of asterisk, as in (19).

(19)  *
   . . . (C)V(C)V - r]Vroot −

At this point it should be clear that morpho-phonological properties observed with innovative denominal verbs form a cluster of features that collectively characterize this unique verbal class. Furthermore, each property does not strictly follow from the characteristics inherent to the native verb class or from default features. In our analysis the form into which innovative denominal verbs are shaped takes the template in (19), and we can consider the template an instance of a construction. It is worth emphasizing that phonological determinants constitute a vital part of the innovative verb construction. That is, the

10. The Chinese character corresponding to cha ‘tea’ 茶 appears in kissaten ‘a coffee shop’ (喫茶店). Consequently, the two words are closely connected in determining the meaning of chaar- ‘go to a coffee shop’.

11. As we pointed out in Footnote 4, shooru and chaaru, each consisting of a root-final long vowel, fall under the rare cases. We stress, however, that their gerundive forms, shoot-te and chaat-te, as well as their present tense forms, shooru and chaaru, have their accent on the second part of the long vowel. This suggests that a long vowel in each of these examples is heterosyllabic. Crucially, they are distinguished from most instances of accentuation on long vowels where the accent falls on the first part of a long vowel.

12. The location of the accent of the noun cha can be detected by adding the Nominative Case -ga, which is known not to influence the locus of the accent of the preceding noun: the sequence cha-ga is accentless, which means that the noun cha is accentless. (cf. Tsujimura 2007)
discussion above highlights the integral role that phonology plays in characterizing the form of this construction.

3. Semantic and pragmatic properties

3.1. Interpretation

Up to this point, we have been intentionally vague about what each of our sample innovative denominal verbs exactly means because it requires us to illustrate the social and contextual background that leads to a specific “meaning” of the innovative verb. In this section we shall describe the process through which a base noun gives rise to a particular interpretation of a corresponding verb. As will be demonstrated, some innovative denominal verbs may reach their interpretations with relative ease based on the meaning of the noun, but in other cases, idiosyncratic meanings are apparently a unique property.

It seems a general pattern that the noun on which an innovative verb is based is widely known to the language users before appearing in the template of (19). Familiarity is often associated with clipping, as is seen in pairs like examination and lab-laboratory. Examples of innovative denominal verbs that resulted from clipping include sutabaru ‘go to Starbucks’ (< sutaabakkusu ‘Starbucks’), makuru|makudoru ‘go to McDonald’s’ (< makudonarudo ‘McDonald’s’), and deniru ‘go to Denny’s’ (< deniizu ‘Denny’s’), where all the base nouns refer to highly popular franchises in contemporary Japanese society. As mentioned earlier, however, clipping is not always involved, nor is it required, in the emergence of innovative denominal verbs. Examples include: memoru ‘take notes’ (< memo ‘memo’), kaferu ‘go to a café’ (< kafe ‘café’), jikoru ‘have a traffic accident’ (< jiko ‘accident’), egawaru ‘display selfish conduct’ (< egawa [personal name]), gengogakuru ‘discuss linguistic matters’ (< gengogaku ‘linguistics’), kafeoreru ‘have a café au lait stain’ (< kafeore ‘café au lait’), and higashikokubaru ‘go to Miyazaki (place)’ (< higashikokubaru [personal name]), all containing full nouns. Regardless of whether a noun form is clipped or not, the individuals and concepts for which the base nouns stand have been well accepted in society.

A number of innovative denominal verbs are based on proper names, but unless the individuals and entities to which those names refer are known to the speakers, their corresponding innovative verb forms do not emerge. Thus, an innovative denominal verb commonly used at one historical period does not necessarily survive to the later historical periods, but nonetheless it can provide a mirror as to what was popular at a given time in society. According to Yonekawa (1989), the formation of innovative denominal verbs of the sort we have been investigating, i.e., of the type illustrated in (19), had already started toward the end of the Meiji period (1868–1912). Furthermore, Yonekawa notes
that many of the innovative verbs that appeared during this time are the ones based on loanwords. For example, *enbiru* (< *enbii* ‘envy’) and *baioru* (< *baio-reeshon* ‘violation’) are considered to be the first two innovations that were recorded in a 1903 document: they mean ‘to envy’ and ‘to (sexually) violate’, respectively. Yonekawa (1989: 118–119) lists additional samples that were used during the Meiji era to the beginning of the Showa (1926–1989) period. Some of the most notable ones for our purpose are given in (20).

(20)  

<table>
<thead>
<tr>
<th>Verb</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>odakyuuru</em></td>
<td>‘go to the suburbs of Tokyo’ (&lt; <em>odakyuu</em> [name of a train line])</td>
</tr>
<tr>
<td><em>harakeru</em></td>
<td>‘lie’ (&lt; <em>hara takashi</em> [name of a politician])</td>
</tr>
<tr>
<td><em>shamiru</em></td>
<td>‘behave perversely’ (&lt; <em>shakaiminshutoo</em> [name of a political party])</td>
</tr>
<tr>
<td><em>oragaru</em></td>
<td>‘take things easy’ (&lt; <em>ora-ga</em> ‘I-Nom’)</td>
</tr>
</tbody>
</table>

The first verb in (20), *odakyuuru*, is based on a proper noun, *odakyuu*, which is the name of a train line. Yonekawa notes that the particular meaning assigned to the derived verb originated from a marching song “Tokyo Kooshinkyoku”, which was presumably a popular song around the time. The second and third examples in (20) are also derived from proper names: a personal name, *Takashi Hara*, and a name of a political party, *shakaiminshutoo*. In order to appreciate how ‘to lie’ and ‘to behave perversely’ have come to be the meanings of the derived verbs *harakeru* and *shamiru*, respectively, we have to understand the political environments of the Meiji and Showa eras in which Takashi Hara and the Shakaiminshutoo party were identified with specific types of behavior. The last sample of (20) is explained by Yonekawa as originating from the use of the first person pronoun by the politician, Giichi Tanaka. The pronoun *ora* refers to the (normally male) speaker and its use is stereotypically understood to be prevalent in a rural area. Its rustic flavor was presumably linked to a laidback attitude, leading to the meaning of ‘to take things easy.’ What applies to all the samples illustrated above that are reported to have existed in the early 20th century is that at least some aspects of the individuals and events that are bases for the innovative verbs were historically, socially, or culturally notable and thus are known to many speakers at that time. As their prominence in the society decreases, the recognition and popularity fades away, and the corresponding

13. The example *odakyuuru* seems to violate the phonological constraint mentioned earlier that innovative verbs do not have root-final long vowels. However, since this word was written in Kanji (Chinese characters) in Yonekawa’s work, it is not clear how the denominal verb was actually pronounced, with a root-final long vowel or a shortened version.

14. Takashi Hara (1856–1921) was a notable politician. His first name, Takashi, is written as 敬, which can also be read as “kee” (as the Chinese reading). So, the innovative verb *harakeru* is derived from “Hara-Kee”, rather than “Hara Takashi.”
verbs that used to be ubiquitous or at least recognizable by many are no longer in use. It would be rare to find young native speakers in today’s society who are familiar with them as verbal forms, let alone their specific, idiosyncratic meanings. It is undeniable, then, that an intimate familiarity with the base nouns and their social, cultural, or political background that lead to the nouns’ salience must exist for them to give rise to their corresponding innovative verb forms. The meanings of these innovative verbs do not always depend on the semantic contents of the base nouns alone. In fact, as we have observed above, the meanings of a number of innovative verbs cannot readily be associated with the meanings of their corresponding base nouns as we know the definitions of them. Only when we take into consideration whatever extra-linguistic information that has given distinguishable status in the society to what the nouns linguistically refer to, are we able to discern the culturally relevant meanings of innovative verbs.

When the function of a base noun is easy to identify, such as *takuru* ‘take a taxi’ (< *takushii* ‘taxi’), *keshoru* ‘put on make-up’ (< *keshoo* ‘make-up’), and *makuru* ‘go to McDonald’s’ (< *makudonarudo* ‘McDonald’s’), the meaning of a derived verb may be straightforwardly figured out, making reference to an event that involves the primary cultural function of the noun. Thus, based on Starbucks, *sutabaru* is normally understood to mean ‘to have coffee at Starbucks’. However, the specific meaning of this denominal verb may vary depending on the user. For example, *sutabaru*, for some speakers, means to have specifically café latte at Starbucks; and yet for other speakers, particularly those of the younger generation, it means to relax while drinking coffee-like beverages at Starbucks. To give another example of this sort, Koyano (1993) lists *kaфеoreru* (< *kaфеore* ‘café au lait’) as used in *kono ɸuku кафеoretteru* ‘This outfit has a stain of café au lait.’ While the most straightforward meaning that is inferred based on the primary function of the base noun is to drink café au lait, and this interpretation would be perfectly acceptable, female college students from whom Koyano collected data assigned the much narrower meaning to the innovative verb, i.e., ‘to have a café au lait stain’. The specific semantic nature of a given innovative verb may differ, however slightly, depending on particular social context shared within a given speech community. At the same time, it should be pointed out that these examples suggest fluidity in assigning meaning to a verb derived from a single noun. That is, it is possible for an innovative denominal verb to have a variety of meanings as long as a core function of the parent noun is somehow reflected in the meaning and as long as it constitutes common knowledge among the speech community, however narrowly such community may be defined. The range of potential meanings of a given innovative verb in isolation is indefinite, but the verb selects the most salient functional meaning that is connected to the base noun and is relevant in context: the determination of the unique meaning is made on the basis of the
time, place, and circumstance in which a conversation takes place, following the cooperative principle (Grice 1975) between the speaker and the listener.

The semantic and pragmatic properties of innovative denominal verbs that we have discussed thus far resemble what Clark and Clark (1979) call “contextuals”. An example of contextuals is given in the three ways of using the denominal verb *Houdini* in (21) (Clark and Clark 1979: 784).

(21)  
   a. My sister *Houdini’d* her way out of the locked closet.  
   b. Joe got *Houdini’d* in the stomach yesterday.  
   c. I would love to *Houdini* those ESP experiments.

Clark and Clark claim that contextuals, as opposed to denotational (such as *man, blue, walk, day, . . .*) and indexical (such as *he, over there, yesterday, . . .*), form an independent word category, and are characterized as having shifting sense and denotation. In (21), for instance, the denominal verb *Houdini* has various senses and denotations depending on the context: the verb means ‘escape by trickery’ in (21a), ‘hit hard without warning’ in (21b), and ‘expose as fraudulent by careful analysis’ in (21c). Clark and Clark go on to give three properties of contextuals: they have a number of potential senses, their meaning is dependent upon context, and cooperation is called for between the speaker and the listener for successful communication.

Aronoff (1980), however, argues that there is no need to set up an independent word class of “contextuals” because sparse semantics that characterizes this word class are shared by denominal verbs (his “zero-verbs”) in general and follows from the word formation rule that changes a noun to a verb; and contextual relevance leading to a unique interpretation is accommodated by pragmatic conventions. The word formation rule that is relevant to innovative deverbal nouns (Aronoff’s novel zero-verbs) is in (22).

(22) **Verb Rule:** $X_N \rightarrow X_V$

The rule in (22) forms innovative verbs, and “by their very nature, denote states, events, or processes.” (p. 747) Aronoff further goes on to point out the semantic connection between the novel verb and its corresponding base noun: “A cooperative speaker would not form a novel verb from a given noun unless the speaker felt that the noun had something to do with what the verb is meant to denote. Therefore nothing explicit need be said about what the verbs mean. The fact that there is such a wide variety of meanings follows directly from the fact that the meaning of the verb is limited only to an activity which has some connection with the noun.” That is, by virtue of the categorical status as verb, the output of the Verb Rule in (22) denotes a state, event, or process that has some relation to the base noun. And, contextual relevance leading to a unique interpretation is accommodated by pragmatic conventions.
This explanation by Aronoff can be interpreted from the perspective of Fillmore’s (1977a, 1977b) frame semantics (also Goldberg 2010). Fillmore claims that meanings are “relativized to scenes” (1977b: 72), where by scene it is meant to be “any coherent individuatable perception, memory, experience, action, or object.” (1977a: 84) Meanings are results of profiling a specific scene out of many based on one’s perception, experience, and actions. Fillmore explains this using a commercial event: when the perspective of the seller and the goods is taken, the verb sell is used; when the buyer and the money are in perspective, the verb spend is used; and when the goods and the money are taken to be in perspective, the verb cost is used. The verb names a scene that is profiled, while the remaining part of the commercial scene is present as a background scene. In the case of the verb sell, for instance, the scene that describes the seller performing a transfer of goods is profiled, but at the same time the buyer and the money as well as the circumstance under which the commercial act is conducted are implicit as background information. Viewed in this fashion, then, the meaning of innovative verbs is no different from the meaning of existing conventional verbs. Applying frame semantics to innovative verbs, a particular scene that is related to a base noun is profiled as a state, event, or process while the remaining scenes serve as background. Depending on which particular scene a speaker chooses to profile, a variety of interpretations result, but pragmatic convention, such as Grice’s cooperative principle, will designate which of the potential interpretations is most suitable for a specific situation. This process sometimes leads to seemingly idiosyncratic meaning of an innovative verb; and additionally a particular interpretation could become conventionalized. It is our contention, therefore, that the meaning property of innovative verbs follows from the principles in frame semantics along with general pragmatic convention.

Let us demonstrate the form-meaning pairing using sutabaru. The parent noun for this denominal verb is the loanword, sutaabakkusu ‘Starbucks’. The coffee franchise is extremely popular in Japan, as it is in the US, and drinking Starbucks merchandise has become a daily routine for a number of Japanese people, regardless of their age. The familiarity of the name and related events evokes clipping, which generates sutaba (which is itself a loanword noun). The three-mora noun meets the minimum number of 2 moras for a verbal root; the root-final /r/ is present in sutabaru, as is evidenced by the presence of the geminate consonant in the past tense form, sutabatta; and the accent is on the root-final vowel, (b)a. These all fit the formal properties of the construction in (19). Morphological status as a verb and its denominal nature give the word potentially numerous senses, each of which denotes a state, an event, or a process that profiles some aspect of Starbucks. Going to a Starbucks store whose main purpose is to buy beverage is perhaps the most stereotypical activity that immediately comes to the speaker’s mind, and is hence the primary candidate
for a profiled scene. It is, furthermore, likely to become—and in fact it is—the most conventionalized meaning. Going to a Starbucks store to buy specifically café latte is a slightly more idiosyncratic meaning, but is nevertheless possible. In yet another situation, going to a Starbucks store primarily to spend leisure time with a friend may also be a more idiosyncratic but likely interpretation of the denominal verb, even if what is bought is a cookie rather than coffee. All these situations present themselves as scenes to be profiled. The determination of the specific sense for the verb *sutabaru* and the question of whether the particular interpretation is appropriate depends on the time and location of a given speech environment as well as on the mutual understanding among speech participants of that particular speech environment—this is expected from the general pragmatic convention.

Another example, *egawaru*, illustrates a situation in which interpretation depends crucially on the assumption that the speech community is aware of what happened to the former Tokyo Giants pitcher, Suguru Egawa. The source noun of this innovative denominal verb is the family name, Egawa, which consists of 3 mora. The verb, *egawaru*, is formed with the root final consonant /r/, as is shown by its past tense form, *egawatta*, and has the root final accent on *(w)a*. The parent noun is a proper name, but the interpretation of the verb, *egawaru*, is based on a nationalized story about his draft contract in 1978. Egawa was a superbly promising pitcher whom several professional baseball teams in Japan named as their number one draft pick. In Japan, one day before the draft meeting is a “free day”, and taking advantage of this “free day” and without waiting for the draft meeting, Egawa signed a contract with the Tokyo Giants on that day, the team for whom Egawa wanted to pitch. When the draft meeting was held without the Tokyo Giants who were boycotting the meeting (because the league did not consider the contract valid), the number one pick, i.e., Egawa, went to the Hanshin Tigers. In an effort to accommodate Egawa’s strong desire to be with the Giants, the Tigers generously traded Egawa for the then Giants pitcher Kobayashi so that Egawa could pitch for the Giants after all. The outraged public criticized Egawa’s extremely selfish behavior, and coined the verb *egawaru* to mean insisting on something outrageously selfish. Japanese speakers who are familiar with this incident around the late 1970s know exactly how *egawaru* is to be interpreted, but those who did not hear about it or who were born long after that would not know how this denominal verb should be interpreted, even if they know who Suguru Egawa is. That is, the appropriate interpretation of this verb requires the speaker’s knowledge of the original social situation and the pragmatic convention of cooperation among the interlocutors must be invoked for a coherent communication.

While innovative denominal verbs have been assumed to be based on nouns, as the examples of (1d) illustrate, mimetic words can be a basis for innovative verbs that bear the same set of properties. A mimetic base is unspecified for its
parts of speech category, and it may be argued that a different mechanism is
called for in order for an innovative verb that consists of a mimetic word to
receive an appropriate interpretation. We contend, however, that innovative
verbs containing mimetic expressions are straightforwardly analyzed on a par
with denominal verbs that we have discussed above. First, unlike the Verb Rule
in English, (22), the template of (19) specifies the word category as a verb
without further categorial specification of its composite elements. As is the
case with denominal verbs, then, it follows from the template that the meaning
of a mimetic-base innovative verb corresponds to a state, an event, or a process
that has some connection to a sound or an image that the mimetic word sym-
bolizes. Such connection, in fact, is again captured in terms of semantic frames.
For instance, nikoru in (1d) contains a mimetic expression of nikoQ or nikon-
iko, which symbolizes a state or an act of someone smiling. The common ex-
perience of symbolizing facial expression gives rise to the scene that the verb
nikoru labels. A more innovative example of a mimetic-based verb is bururu.
The base mimetic expression buruburu or buruQ generally describes an invol-
untary bodily movement that normally occurs when humans experience cold
temperature (e.g., shivering). In the case of bururu, the image of a shaking
body is applied and extended innovatively to cell phones: bururu as an innova-
tive verb refers to the vibrating situation of a cell phone when it receives an
incoming call while it is in the manner mode. The situation in which a cell
phone vibrates constitutes a scene to be profiled; and the profiled scene corre-
sponds to what bururu labels as its meaning. Unless the speaker and the lis-
tener share the knowledge of the image to which buruburu or buruQ is con-
nected and the (possibility of the) association of the image to a cell phone, the
intended interpretation is not successful. The conceptualization of verb mean-
ning based on semantic frames, thus, generalizes innovative verbs of both de-
nominal and mimetic-base types.

3.2. Pragmatic property

We have thus far demonstrated that the semantic property of innovative de-
nominal verbs in Japanese follows from their morphophonological status as
verbs whose meanings are captured in terms of semantic frames together with
the pragmatic convention. However, there is a set of pragmatic functions that
cannot be ascribed to the components of this word class or general principles.
That is, these verbs are casual in style and yield the flavor of what might be
labeled as “playfulness.” It is tempting simply to put them under the rubric of
“slang”, and sometimes they are indeed labeled as such. On the other hand, in
light of the fact that innovative verbs taking the form of (19) have been identi-
fied as one of the characteristics of youth language in recent times (Yonekawa
the “playfulness” of the derived verbs seems to be better, and more positively, paralleled to secret language or language play. Considering the innovative verbs a type of secret language may be more appropriate especially when a root of such a verb is much shorter than its corresponding source noun, thereby making it obscure what the source noun actually is. In fact, young speakers extensively use innovative denominal verbs that result from clipping. Included are relatively recent examples like *chariru* ‘ride on a bicycle’ (< *charinko* [a mimetic-based word to refer to a bicycle]), *beniru* ‘put on lipstick’ (< *kuchiben* ‘lipstick’), *masaru* ‘massage’ (< *massaaji* ‘massage’), *ϕamiru* ‘get involved in a family game’ (< *ϕamirii geemu* ‘family game’), and *rizoru* ‘hunt for a guy at a resort hotel by playing marine sports and the like’ (< *rizooto (hoteru)* ‘resort (hotel)’) (Yonekawa 1998). Added to these examples is *kaϕeoreru* ‘to have a café au lait stain’ (< *kaϕeore* ‘café au lait’) (Koyano 1993), which would probably not be considered the most stereotypical interpretation as was illustrated before. Assigned a very idiosyncratic meaning, however, this innovative verb can serve better as a term that is comprehensible only among a restricted group of young speakers who belong to the same in-group. Thus, deviation from the norm and stereotype, which often masks the form and meaning of the underlying noun, is indeed played out to serve the purpose intended by a specific group of speakers.

Furthermore, the style and function of innovative denominal verb makes it less than appropriate for the speaker to use it when a certain level of formality is called for, such as in a serious job interview. We might note that a single sense can be conventionalized over time and receives a less innovative and more conventional status even if the original (and primary) meaning were idiosyncratic. *Memoru* ‘take notes’ (< *memo* ‘memo’) and *kopiru* ‘make a copy’ (< *kopii* ‘copy’) are examples of such conventionalized cases whose meanings have lost the novel nuance in their modern use. However, their casual style still seems to shadow them and this is perhaps why they are distinguished from their slightly less casual counterparts, *memo-suru* and *kopii-suru*, respectively. The fact that the casual style and the playful function remain intact even after conventionalization of idiosyncracies in meaning takes place is not predicted from the form of these verbs or any part of them, and hence provides additional evidence for the construction approach to innovative denominal verbs.

Before leaving this section, we would like to comment on differences between constructions and coinage, as Kay (2002) extensively discusses. An anonymous reviewer suggests that innovative denominal verbs (including mimetic-base verbs) are actually more like an instance of coinage in the narrow sense of Kay (2002) than constructions. Under Kay’s classification, there are at least two essential differences that distinguish coinage patterns (or formulae) from constructions. One contrast pertains to their learnability: “each expression that exemplifies one of these patterns [= coinage] has to be learned
and remembered on its own” (2002: 1), while expressions of a construction need not be. The other distinction relates to productivity: coinages are not productive in that new forms only come about through sporadic analogical creations rather than productive use of the formulae. For example, phrases that take the pattern of $A$ as NP “extremely $A$”, such as hot as Hell, dead as a door-nail, and clear as a bell, are argued by Kay to be instances of coinage formulae rather than construction because “knowledge of formulae [= $A$ as NP] plus knowledge of the constituent words is not sufficient to license any of these expressions . . . If a young, foreign or sheltered speaker of English knew what easy meant, and knew what pie meant . . . they would still not know that easy as pie is a way of saying very easy.” (2002: 8) Japanese innovative verbs do not have to be learned: knowledge of the construction that has the formal representation of (19) coupled with knowledge of composite words and relevant contextual factors license new innovative expressions. As such, the process is totally productive, and hence Japanese innovative verbs instantiate construction even in its narrow sense of Kay as opposed to coinage. While we have focused on certain word classes on which innovative verbs are most commonly built, i.e., loanwords, proper names, and mimetics, it should be underscored that a word of any origin or even category can potentially form an innovative verb. It is much more common, however, to build a new verb on loanwords, proper names, and mimetics, which are more readily linked to the playful nature of the construction.

4. Conclusions and implications

In this paper we have discussed various properties associated with innovative denominal verbs in Japanese and have demonstrated that their formal and functional characteristics cannot be attributed to those parts that comprise them. Such an unpredictable nature fits a constructional approach very well and we have claimed that innovative denominal verbs indeed constitute a construction. The form-meaning-function complex takes the templatic representation of (19) that captures the phonological and morphological properties. These formal properties are associated with a specific pragmatic function. Once the formal and functional properties characterize the nature of the construction, the semantic nature follows from its parts coupled with the general pragmatic conventions.

In light of unpredictability as a motivation for a construction approach, we mentioned that the accentuation pattern (i.e., the root final accent) and the root morphology (i.e., the root final /r/) may be hypothesized to fall under the default patterns of Japanese native verbs. Thus, one may argue that some of their formal properties, at least the accentualtion pattern and the morphological make-up, simply follow the default patterns available in the language and
hence that these properties are fully predictable. We have already given our
claims against this line of argument earlier by saying that there is no a priori
reason to impose an exclusive connection between a noun and a default pattern
in deriving a verb based on it, when there are other possibilities available in the
grammar. Furthermore, the accentuation pattern of innovative verbs is not ex-
actly like default accent as was discussed in Section 2.3. We wish to emphasize
that even if conforming to default linguistic patterns were to characterize the
formal property of the construction, it still would not lead to or predict the se-
matic and pragmatic properties; nor, more crucially, would it capture the
fundamental nature of innovative denominal verbs, namely, that these various
properties coexist as a set.

Default forms often reflect high frequency patterns available in the grammar.
As mentioned above, the two possible default patterns discussed in this paper,
i.e., the root-final accentuation pattern and consonant-ending verbal root forms,
are indeed supported by their high frequency (cf. de Chene 1985; Kubozono
2006). As Goldberg’s (2006) definition of “construction” given in (2) states,
patterns can be regarded as constructions on frequency grounds. Thus, even if
these accentual and morphological default patterns were considered decisively
predictable, their high frequency would still be an adequate reason for treating
them as constructions. In fact, innovative denominal verbs are very common,
particularly among young speakers, and they have even been named as one of
important features that characterize youth language (Kamei 2003; Kato 2005;
Yamaguchi 2007; Yonekawa 1989, 1998). Given the popularity of innovative
denominal verbs especially among younger speakers, it would be reasonable to
think that the form of (19) with its semantic and functional properties can be
analyzed as a construction stored as knowledge of the speaker.

Our construction approach to innovative verbs in Japanese may have a fur-
ther implication for the developing field of construction morphology (see espe-
cially Booij 2005, 2007, 2009a, 2009b). We have schematized the Japanese
construction with the templatic shape in (19). The use of templates in mor-
phology has been much discussed in the literature on prosodic morphology
rently, prosodic morphology can be viewed as a subfield of phonology, con-
cerned with how morphological processes can be delimited by prosodic con-
siderations. While this is not the place to discuss the nature of these prosodic
considerations in detail, it should be clear that such constraints can be built into
a construction approach to morphology as we have done in this paper. In the
prosodic morphology literature, two types of constraints have been generally
recognized: templatic constraints that characterize the output of a morphological
process and constraints on the input of a morphological process. We will briefly
elaborate on how these different types of constraints can be understood and
formalized in terms of construction morphology.
A large part of the literature on prosodic morphology has focused on cases where an output to a morphological process is prosodically delimited. From the perspective of construction morphology, we would not view this as an output constraint, but as a formalized part of the schematization of the construction, as we have done in (19). In other words, the construction schema can incorporate prosodic information. This, then, can shed light on template-based morphophonological analyses, as is shown most notably in Semitic languages, along the lines of McCarthy (1981). We illustrate an example from the verbal morphology of Standard Arabic. In an analysis like that of McCarthy (1981), consonants and vowels comprise a verbal form and are represented separately on different morphological tiers. The exact meaning of a given verbal form is determined not only by the consonantal sequence and the vowel, but also by a specific CV template to which the consonants and the vowel are linked. For instance, *katab* is considered the base form to mean “write”, and the CVVCVC template is associated with the reciprocal meaning. A verbal form *kaatab* “corresponded with” is formed on the basis of the reciprocal template, CVVCVC, with the consonantal tier consisting of *k-t-b* to give the base meaning of “write” and the vowel tier *a*, which is the tense-aspect-mood marker. This is schematically shown in (23).

(23) Base form: katab “write”
\[
\begin{array}{c|c|c}
| & k & t \ b \\
\hline
C & V & V & C & V & C \\
\hline
\end{array}
\]
\[← \text{reciprocal}\]
\[\downarrow\]
\[a \ ← \text{past, active}\]
\[→ \text{kaatab “corresponded with”}\]

The CV tier plays an important role to give rise to the reciprocal meaning, but this meaning is not predicted from individual parts of the CV-tier. Rather, the reciprocal meaning belongs to a template as a whole that is formed by a specific number and order of consonants and vowels. Thus, this example is naturally analyzed as a form-meaning pair, namely, a grammatical construction, where the form corresponds to the CVVCVC tier and the meaning is reciprocal.

With respect to constraints on the input to a morphological process from the perspective of construction grammar, we would not consider these to be input constraints, but constraints on the applicability of a construction. Such constraints are recognized in the literature on construction grammar. Kay (2002: 3) cites Fillmore (no date given), who observes that “[a]ll grammatical constructions have some constraints on their applicability, but the extent to which those constraints can themselves be formulated in general ways is the extent to which we can say that the construction is productive. Some constructions work with only monosyllabic words; some only with certain grammatical categories.”
Moreover, Goldberg (1995) has shown that various syntactic constructions in English have particular semantic constraints. For example, the way construction only applies to verbs designating a repeated action or an unbounded activity. Thus, it is not surprising that morphological constructions have phonological (prosodic) constraints that restrict their applicability in general ways. A good example of this is the English comparative –er construction whose applicability is restricted to adjectives that are monosyllabic with individual variation on its applicability to bisyllabic forms (see Carstairs-McCarthy 1998 for discussion). This is a construction-specific constraint since it does not apply to the homophonous agentive –er construction (see Jackendoff 2002 and Booij 2009b for the formalization of the agentive construction). Thus, from a construction morphology viewpoint, what the research on prosodic morphology can contribute is an understanding of what are possible prosodic conditions on the schematization and applicability of a construction, and how the formal schema of a morphological construction can be prosodically delimited. While the details of how to capture and express prosodic constraints will continue to fall under the purview of theoretical phonology (e.g., whether templates are best expressed in terms of CV structure or higher level prosodic constituents like syllables and feet), the role of prosodic constraints in construction morphology should not be ignored. Thus, it is not difficult to imagine that the present sort of analysis be extended to other productive morphological patterns—an approach that would lead to constructionist analyses of morphology in general. This in turn could be used to unify one’s approach to word and phrasal level phenomena.

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