A constructional approach to mimetic verbs

Natsuko Tsujimura
Indiana University

1. Introduction*

Mimetic words in Japanese employ a large set of members and their linguistically unique properties have recently led to a great deal of interesting investigations (Hamano 1986, 1998; Tamori & Schourup 1999). They are symbolic or iconic and represent sounds, shapes, texture, or something more abstract such as feelings. McCawley (1968: 64) gives the following description: mimetics "function syntactically as manner adverbs and may refer to just any aspect (visual, emotion, etc.) of the activity involved, rather than just its sound." Morphophonological make-up of mimetic words ranges from two-mora words as in (1a), three-mora words as in (1b), reduplication of 2-mora and to 3-mora base as in (1c) and (1d), respectively, and to multi-mora words as in (1e).

(1) a. pin, pan, gan, kit(-to), paa, ...
b. kitin, garan, garari, zabari, baan, pitit(-to), pityat(-to), pesyari, ...
c. karu-kuru, saku-saku, guri-guri, gura-gura, kan-kan, suya-suya, ...
d. dosun-dosun, dosin-dosin, katin-katin, gatin-gatan, ...
e. gossori, kossori, tadabata, hunwari, pottyari, ...

While many mimetic words are used to describe sounds and manners, some refer to concrete objects and others are used as predicates when they occur with the light verb suru 'do'. Some examples are given in (2)–(4).

(2) Hosi ga kirakina(-to) hikatteiru.
stars NOM in glittering manner shining
'Stars are glittering.'
(3) Sukato no hira-hira ga kawaii.
   skirt gen frill nom cute
   'The frill of the skirt is cute.'

(4) Atama ga gan-gan-suru.
   head nom pounding
   'I have a pounding headache.'

The adverbial use of mimetic words is especially frequently observed in Japanese where English verbs incorporate or conflate the manner, as in (2). More examples of this sort are given in (5) (Ono 1994:xxv–xxvi), where various modes of walking are expressed through the combination of mimetic words as modifiers and the verb aruku ‘walk’, while English employs independent verbs that conflate the meaning of ‘walk’ and the manner of walking.

(5) a. tyoko-tyoko aruku ‘waddle’
    b. teku-teku aruku ‘trudge’
    c. toko-toko aruku ‘trot’
    d. dosi-dosi aruku ‘lumber’
    e. tobo-tobo aruku ‘plod’
    f. bura-bura aruku ‘stroll’
    g. yota-yota aruku ‘stagger’
    h. yoti-yoti aruku ‘toddle’

The same pattern is observed in a wide range of verb classes, from manner of motion to sound emission.

It has been argued that these mimetic words constitute an independent word class with particular phonological and morphological properties, and this is a primary reason that traditionally they have often been excluded from theoretical investigation and have thus not received analyses as extensive as other word classes including native and Sino-Japanese words. It is only recently that mimetic words have been reconsidered with respect to their implications for linguistic theories. Examples of this trend are seen in the discussion of phonological properties of mimetic words and their implications for autosegmental theory, underspecification, and optimality theory (Mester & Ito 1989; Hamano 1998; Ito & Mester 1999).

In this chapter I will pursue implications of mimetic words to lexical semantic theories: more specifically, implications for two prevalent approaches to the multiple meaning of verbs, i.e., the projectionist approach and the constructional approach. The projectionist approach, as advanced by Rappaport Hovav & Levin (1998), holds that the multiple meaning of a verb is a manifestation of individually different lexical representations and that the syntactic
The distribution of a verb's arguments and adjuncts is determined by the meaning. In contrast, the constructional approach, as is most robustly developed by Goldberg (1995), claims that verb meaning comes not from the meaning of the verb alone or the composition of the meaning of the verb and the meaning of other constituents in a sentence, but from the composition of the meaning of the verb and the meaning of the construction in which it occurs. As I will demonstrate below, the independent status of mimetic words, especially their semantic nature, makes it difficult to analyze their lexical semantic representation and argument structure on a par with standard verbs in the language. Drawing on data from Japanese mimetic verbs, I shall argue that the so-called “meaning” of a mimetic verb should not be attributed solely to the mimetic word itself, but rather it results from more global information obtained throughout a sentence in which the mimetic verb appears. The conclusion drawn from this investigation is that the selection of a specific interpretation associated with a mimetic verb in Japanese is best captured in constructional terms.

In what will follow below, I will label as a “mimetic verb” the combination of a mimetic word immediately followed by the light verb suru ‘do’, as is exemplified in (6).

(6)  a. tō-suru ‘to microwave’
     po-suru ‘to throw away’
    b. hotto-suru ‘to be relieved’
     katto-suru ‘to get angry’
    c. beta-beta-suru ‘be sticky’
     doki-doki-suru ‘be nervous’

In most cases, furthermore, I will limit my discussion to mimetic verbs that consist of reduplicated mimetic words like those in (6c); they take the schematic form of (7).

(7)  C₁ V₁ C₂ V₂ - C₁ V₁ C₂ V₂-suru

2. Unique properties of mimetic words

In this section I will show that mimetic words exhibit a unique set of properties from their phonological, categorial, and semantic perspectives. Such a cluster of properties is distinctive enough so as to constitute a category different from other lexical items including native words and loans.
2.1 Phonological characteristics

McCawley (1968) and Ito & Mester (1993) explain that native and Sino-Japanese words have a phonotactic constraint that a single occurrence of the phoneme /p/ must be followed by another occurrence of the same phoneme, making it a geminate, or by a moraic nasal /n/, whereas mimetics do not follow the same constraint, as is evidenced by the presence of mimetic words such as *pota-pota* 'dripping' and *pitya-pitya* 'splashing'. Furthermore, mimetic and native words are not allowed to contain a nasal sound immediately followed by a voiceless consonant, whereas Sino-Japanese and other loans are not bound by the same constraint.

Of the phonological characteristics of mimetic words, however, the one that is most relevant to our discussion of their meaning is that mimetic words are sound-symbolic. Moreover, as Hamano (1998:2) points out, "they symbolize manners or psychological conditions" and in this sense they serve as more than just onomatopoeic expressions. In her extensive investigation of the sound-symbolic nature of mimetic words in Japanese, Hamano summarizes the relation between a consonant and what it symbolizes in $C_1VC_2V$-based mimetic adverbs as in (8)–(9).

\[(8) \quad C_1\]

<table>
<thead>
<tr>
<th>$C_1$</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>p taut surface</td>
<td>light; small; fine</td>
</tr>
<tr>
<td>b taut surface</td>
<td>heavy; large; coarse</td>
</tr>
<tr>
<td>t lack of surface tension; subduedness</td>
<td>light; small; fine</td>
</tr>
<tr>
<td>d lack of surface tension; subduedness</td>
<td>heavy; large; coarse</td>
</tr>
<tr>
<td>k hard surface</td>
<td>light; small; fine</td>
</tr>
<tr>
<td>g hard surface</td>
<td>heavy; large; coarse</td>
</tr>
<tr>
<td>s non-viscous body; quietness</td>
<td>light; small; fine</td>
</tr>
<tr>
<td>z non-viscous body; quietness</td>
<td>heavy; large; coarse</td>
</tr>
<tr>
<td>h weakness; softness; unreliability; indeterminateness</td>
<td></td>
</tr>
<tr>
<td>m murkiness</td>
<td></td>
</tr>
<tr>
<td>n viscosity; stickiness; sliminess; sluggishness</td>
<td></td>
</tr>
<tr>
<td>y leisurely motion; swinging motion; unreliable motion</td>
<td></td>
</tr>
<tr>
<td>w human noise; emotional upheaval</td>
<td>(Hamano 1998:172)</td>
</tr>
</tbody>
</table>
In each instance of a CVCV-based mimetic word, Hamano claims that C₁ indicates the tactile nature of the object while C₂ describes the type of movement. Two examples that describe the relation between the two consonants and what they symbolize are given in (10)–(11) (taken from Hamano 1998: 170).

(10) Kotu-kotu-to tume de ita o tataita.

nail with board ACC hit
‘I knocked on the (hard) board with my fingernail.’

(11) Toku-toku-to osake o tuida.

sake ACC poured
‘I poured (out) sake with a glugging sound.’

Hamano (1998: 170) explains, “the combination /k-t-/ means that ‘a hard surface is involved in hitting,’ whereas the combination /t-k-/ means that ‘a lax surface is involved in an inward/outward movement’.” While many mimetic adverbs often seem to fit the description of (8)–(9), there are also a number of cases whose symbolism is not as straightforwardly explained by the same generalization. For example, zoro-zoro in (12) describes a movement of a large group forming a line, and sowa-sowa in (13) expresses impatience.

(12) Hito ga bizyuuukan kara zoro-zoro-to detekita.

people nom museum from exited
‘A group of people continuously came out of the museum.’

(13) Rassyuuawa ni butukari Taro wa tokei e sowa-sowa-to mite

rush.hour at hit Taro TOP watch ACC see

bakari-ita.

kept
‘Taro kept looking impatiently at his watch in the middle of the rush hour.’
What these mimetic adverbs symbolize is not readily deduced from the combination of what each consonant is meant to express according to (8)–(9).

Another sound-symbolic aspect that is pertinent in relation to meaning and that has been discussed in phonology at some length is the role of reduplication (Hamano 1986, 1998) and palatalization (Hamano 1986, 1998; Mester & Ito 1989). Hamano describes that a mimetic of the CVCV-base refers to a single occurrence while multiple repetitions indicate consecutive occurrences and in some cases quickness or forcefulness of an action. Palatalization, according to Hamano, adds to non-palatalized mimetics the sense of uncontrolledness, which subsumes the concepts including childishness, immaturity, instability, unreliability, uncoordinated movement, diversity, excessive energy, noisiness, lack of elegance, cheapness, and lack of restraint. Duplicated mimetics are shown in (14)–(15), and mimetics with and without palatalization are contrasted in (16)–(18).

(14) a. *Teeburukurosu o pin-to hippatte hosita.*
   table cloth ACC pull and dried
   ‘I carefully pulled the table cloth into shape and hung it on a line.’
   b. *Teeburukurosu o pinpin-to hippatte hosita.*
   table cloth ACC pull and dried
   ‘I carefully pulled the table cloth into shape a couple of times and hung it on a line.’

(15) a. *Tukue no ue o pan-to hon de tataita.*
   table GEN top ACC book by hit
   ‘She slapped the book down on the desk.’
   b. *Tukue no ue o panpan-to hon de tataita.*
   table GEN top ACC book by hit
   ‘She slapped the book down on the desk a couple of times.’
   (Hamano 1998:65)

(16) a. *koro-koro* ‘rolling on’
    b. *kyoro-kyoro* ‘looking around inquisitively’

(17) a. *poko-poko* ‘making holes here and there’
    b. *pyoko-pyoko* ‘hopping around; in a childish, bobbing motion’

(18) a. *suru-suru* ‘passing smoothly’
    b. *syuru-shuru* ‘the sound of gas escaping from a narrow opening’
    (Hamano 1998:184–186)

The phonological contribution to the meaning of mimetic words is undeniable in that consonantal combination, reduplication, and palatalization all participate in symbolization of some sounds and images. On the other hand,
the extent to which these phonological phenomena determine the meaning of mimetics is far from clear, and as some exceptional cases show, they may not be a defining factor for the semantic properties of mimetics at all.

2.2 Categorial characteristics

Another characteristic of mimetic words that separates them from other word types is their indistinguishable categorial status. While various functions that mimetics exhibit resemble those of nouns, adverbs, and verbs, mimetic words, when they stand in isolation, cannot be associated with morphologically identifiable categories. Nouns, adverbs, and verbs are all so classified by their conjugation or modification patterns. For instance, nouns and verbs have specific inflectional patterns, as is illustrated in (19)–(20).

(19) noun: hon 'book'
   a. non-past      hon-da    'it is a book'
   b. non-past neg. hon-zya na-i 'it's not a book'
   c. past          hon-dat-ta 'it was a book'
   d. past neg.     hon-zya na-kat-ta 'it wasn't a book'
   e. tentative     hon-daroo 'it is probably a book'

(20) verb: tabe-ru 'eat'
   a. non-past      tabe-ru    '(I) will/do eat'
   b. non-past neg. tabe-nai    '(I) will/do not eat'
   c. past          tabe-ta    '(I) ate'
   d. past neg.     tabe-na-kat-ta '(I) didn’t eat'
   e. tentative     tabe-ru-daroo '(I) will probably eat'

Adverbs are either derived from adjectives, which makes it easy to identify them on morphological grounds, as is shown in (21), or they appear as independent forms when they do not have corresponding adjectives. In that case their categorial status is determined by their function of modifying adjectives, verbs, other adverbs, and entire sentences. Examples of this type are given in (22).

(21) adjective   adverb  gloss
   a. ooki-i   ooki-ku   'big'
   b. aka-i    aka-ku    'red'
   c. taka-i   taka-ku   'high, expensive'
   d. too-i    too-ku    'far'
   e. samu-i   samu-ku   'cold'

(Tsujimura 1996:127)

(Tsujimura 1996:132)
(22) a. Ano hito wa totemo omoiroi.
that person TOP very interesting
'That person is very interesting.'

b. Kooumimo ziko de kega o sinakatta.
luckily accident at injury ACC didn't do
'Luckily, I didn't have any injury in the accident.'

In contrast with these words that generally have clear categorial indication, mimetic words by themselves give no clue as to which category they should belong to because mimetics appear in morphologically uninflected form. Furthermore, their categorial status is not important in any sense because it does not contribute to the meaning of a mimetic word in the way that the categorial information of other word types does. That is, mimetic words inherently do not have categorial status. To illustrate this point, consider the distribution of the mimetic word *ira-ira* in (23).

(23) a. Kodomo no seiseki ga waruku iraira ga tamatta.
child GEN grade NOM bad irritation NOM accumulated
'Since my child's grades have been bad, my irritation has accumulated.'

b. Ano hito wa itumo iraira-to hanasu.
that person TOP always irritated speak
'That person always speaks in an irritated manner.'

c. Otto no kudaranai hanasi ni iraira-sita.
husband GEN silly talk at get. irritated
'I got irritated by my husband's silly talk.'

In all cases of (23), the identical mimetic, *ira-ira*, is used, but its function in each case is determined by what surrounds it. For example, *ira-ira* in (23a) appears with the Nominative case marker, which normally indicates that the preceding word is a noun; *ira-ira* in (23b) is accompanied by -to, which allows it to modify the following verb and hence gives the status of an adverb; and *ira-ira* in (23c), immediately followed by the light verb *suru* 'do', serves as a verb in combination with *suru* 'do'. Therefore, a mimetic word alone does not provide a clue that can lead to categorial identification. Since categorial information is not exhibited in mimetics, information about semantic properties that are often associated with lexical categories is also missing. Incidentally, the lack of categorial identification is reflected in the dictionary definition of *ira-ira* in (24) (Ono 1994: 4); neither entry suggests a specific connection to the categorial status of the mimetic word, leaving the issue totally open. Furthermore, all examples for (24a) take the verbal form parallel to (23c).
(24) a. Expression of nervousness, irritation, annoyance etc.
   b. Expresses the irritating, irksome feeling caused by having a bone stuck
      in one's throat or being pricked by a thorn etc.

In sum, mimetic words lack distinctive categories and as a natural conse­
quence, the semantic characteristics that are often associated with categories
are missing in mimetics as well.

2.3 Semantic characteristics

Turning to semantic characteristics, many mimetic words lack a clear definition
of their “meaning.” This is perhaps attributable to the fact that mimetic words
are by definition symbolic or iconic rather than referring to specific objects
and concepts. For example, the dictionary of Ono (1994) gives the definition
of koro-koro and tyon, as in (25).

(25) koro-koro (Ono 1994:122)
   a. The sound or action of a small, round object rolling continuously.
   b. A sound or voice reminiscent of a hard, round object rolling. It is also
      used to describe a young woman's laughter.
   c. To be round and ripe.
   d. For things to be done easily in succession.

(26) tyon (Ono 1994:201)
   a. The sound of clapping wooden clappers together once.
   b. Used with the meaning of something ending.
   c. To write a dot, or that dot itself.
   d. For movement to be sudden and brief.

Connection among these definitions for a single mimetic word may some­
times not be straightforward, as is exemplified by the four definitions in (25):
(25a) and (25c) share something round, but the description of laughter in
(25b) and successive actions in (25d) do not seem to be readily connected to
roundness. This is primarily because the connection among them may need to
rely on human perception and imagination on the part of individual speak­
ers. This further explains the fact that dictionaries, even those that exclusively
list mimetic words, have a wide variety of definitions, and many of the stan­
dard dictionaries leave out mimetic words. For example, compare (25) with
the definitions of koro-koro that Kojien gives (translation mine) in (27).

(27) a. The manner of rolling.
   b. The sound of a bell ringing.
c. The manner of laughing hard.
d. The description of a girl being round and plump.

Although a basic iconic picture underlying these definitions may be readily imaginable, i.e., an image related to roundness, a deeper unified meaning does not seem to be always agreed upon in its extension to the sound of a bell, to a chubby girl, and to successive action. This inevitably leads to the lack of unique definitions of mimetic words.

It is interesting to note that despite lack of consensus on what constitutes the meaning of a given mimetic word, mimetics in Japanese are extremely productive and ubiquitous. Speakers can easily create one with a normally agreed-upon sense of what it symbolizes although its strict definition is not something we can easily put in words. Furthermore, mimetic words emerge at a very early stage of language acquisition, and as the child acquires more vocabulary, both nouns and verbs, the number of mimetics decreases.

The vague nature of semantic characteristics that are sometimes problematic in providing dictionary definitions, then, seems to provide a foundation substantial enough to assume that the semantic content of mimetic words should receive an analysis different from the meaning of non-mimetic words, which are more solid and uniquely definable than mimetics. Kita (1997), for example, claims that adverbial mimetics in Japanese belong to the affecto-imagistic dimension of meaning, as opposed to the analytic dimension. Kita explains that in the affecto-imagistic dimension of meaning, “language has direct contact with sensory, motor, and affective information” (Kita 1997:380); and that the analytic dimension is characterized by “decompositional and hierarchical representation in terms of decontextualized semantic partials” (Kita 1997:409). Furthermore, it is crucial in his analysis that the two dimensions are totally autonomous. He states, “...the semantics of a mimetic and that of other parts of a sentence are not fully integrated with each other despite the fact that they are syntactically integrated” (Kita 1997:386).

As I have demonstrated above, it is clear that the semantic properties of mimetic words present quite a different picture from those of non-mimetic words. In this sense, I agree with Kita that the semantic representation of mimetics should be given a separate treatment from non-mimetic words although I will not discuss the issue of whether such a separate treatment should involve the assertion of the two dimensions that Kita proposes. I will thus assume that the semantic representation of mimetics does not involve the type of representation that can be decomposed into a set of primitives and variables. I will depart from Kita, however, in arguing that mimetic words are totally
integrated into the rest of the sentence. I will take a step further in claiming that a specific interpretation of a mimetic word's multiple “meaning” is determined only when global information throughout the sentence is taken into consideration.

3. A constructional analysis

To illustrate the global nature of semantic properties of mimetics, I will now focus on mimetic verbs. Let us examine the mimetic word *bura-bura*, whose dictionary definition is given in (28) (Ono 1994:319), and its various uses as a mimetic verb, as in (29)–(32).

(28) a. Describes the motion of a hanging or drooping object swaying under an external force.
   b. To stroll about in a relaxed way.
   c. To live one’s life or pass one’s time idly without any particular aim.

(29) *Daon toto ga bura-bura-suru.*
   door gen knob nom bura-bura-do
   ‘The door knob is loose.’

(30) *Taro ga kōen o bura-bura-sita.*
   Taro nom park in bura-bura-did
   ‘Taro strolled leisurely in the park.’

(31) *Taro ga uti de bura-bura-siteiru.*
   Taro nom home at bura-bura-is.doing
   ‘Taro is being lazy at home.’

(32) *Taro ga asī o bura-bura-suru/saseru.*
   Taro nom legs acc bura-bura-do/make.do
   ‘Taro swings his legs.’

It seems that the definitions in (28) are illustrated by these examples: (28a) corresponds to (29), (28b) to (30), and (28c) to (31). Notice that while (29) and (32) are together subsumed by the definition of (28a), the event types in these two examples are quite different. (29) is a stative description of a loose door knob whereas (32) denotes a causative event that brings about motion. The aspectual and event type in each instance is quite distinct as well, ranging from the stative description in (29), to an atelic activity in (30), to a causative event in (32). As I have demonstrated above, the mimetic word, *bura-bura*, does not have a decomposable semantic representation, and thus the semantic disparity
including the variety in the event and aspectual types cannot be attributed to the semantic property of the mimetic word alone. Instead, the specific interpretation of the mimetic verb and the information about its event type should be accounted for more globally. That is, while mimetic verbs by themselves cannot be singled out for their specific “meanings,” global information spread throughout a sentence including the number of NPs and their grammatical functions, animacy of the subject, and verbal morphology together gives rise to an explicit interpretation and an event type. For example, when the mimetic verb buru-bura-suru appears in the intransitive frame with an inanimate subject, as in (29), the verb is stative and describes the door knob being loose; when it is in the intransitive frame but with an animate subject and a traversal phrase indicated by the postposition -o or a locative phrase, as in (30)–(31), the verb is interpreted as activity, referring to the subject’s dynamic, atelic action; and when it appears in the transitive frame, as in (32), the verb is construed as causative, i.e., Taro making his legs swing. Thus, I contend that these varying “meanings” are not to be attributed to the mimetic verb alone, but should be deduced from the construction in which it appears.

The validity of this constructional approach to the multiple meaning of mimetic verbs is further observed in the additional examples in (33)–(36). Each example set is prefaced by a dictionary definition of the mimetic word.

(33) goso-goso
The sound or feeling of hard but light objects rubbing or touching. Also, to make such a sound while moving about. It is a muffled, somewhat repressed sound. (Ono 1994:110)

a. Kono nuno wa tezawori ga goso-goso-suru.
   this cloth touch NOM
   ‘This cloth feels rough.’ (Ono 1994:110)

b. Yoippari no otooto wa yonaku goso-goso-sitari, hon o
   night.owl gen brother top night book ACC
   yondari siteiru.
   read do
   ‘A night owl, my younger brother is always moving about or reading books in the middle of the night.’ (Ono 1994:110)

c. Tikatetueki no runpeu ga kuzuire o
   subway.station gen tramp nom trashcan ACC
   goso-goso-saseteita.
   ‘A tramp in the subway station was shuffling around in a trash can.’ (Ono 1994:110)
Constructional approach to mimetic verbs

(34) bata-bata

1. The sound produced when clothes or board-like objects are blown by the wind or bang against something. Or, the sound or action of wings or limbs moving vigorously and continuously with small, quick, dis-arrayed movements.
2. The action of objects falling continuously one after another. Or, things being undertaken one after another. It refers to a heavier object falling over, or the scale of events being large.
3. To be busy, or act in a hasty, unsettled manner. (Ono 1994:259)
   a. Hata ga kaze de bata-bata-siteiru.
      flag nom wind with
      ‘The flag is flapping noisily in the wind.’ (Chang 1991:471)
   b. Kodomo wa teasi o bata-bata-sasete nakiwameiteita.
      child top hands.and.legs acc bawl.loudly
      ‘The child thrashed his hands and legs back and forth, bawling loudly.’
      (Ono 1994:259 – modified)

(35) guru-guru

1. Describes something rotating continuously or moving around.
2. The state of moving in a circular fashion continuously.
3. To roll a long object; also, the state of being rolled up.
4. Describes something long coiling round something else; also the state of being coiled round something. (Ono 1994:100–101)
      car by town throughout
      ‘We drove around the town.’
   b. Asi o hootai de guru-guru-sita.
      leg acc bandage with
      ‘I wound the bandage around my leg.’

(36) gosi-gosi

The sound or action of rubbing a surface or object firmly. (Ono 1994:108)

Nabe no soko o tawasi de gosi-gosi-siteiru.
pan gen bottom acc scrubbing.brush with
‘She is scrubbing the bottom of the pan with a scrubbing brush.’
(Ono 1994:108 – modified)

It should be clear from these examples that mimetic words provide information concerning the fundamental symbolism while the number and type of NPs and the animacy of the subject supply the information about the event type, and
that both kinds of information ultimately determine the specific interpretation of the mimetic verb. In (33a), for example, the mimetic verb appears in the intransitive frame, and the subject is inanimate. The stative interpretation is the result of putting together these pieces of information. (33b) and (35a) also take the intransitive frame, but the subjects are animate. In addition, (35a) includes a traversal expression marked with -o, implying a motion. Therefore, the mimetic verbs in these examples refer to atelic actions, particularly motion in these cases. (33c), (34b), (35b), and (36) take the transitive frame: either overt or covert animate subjects and direct objects marked with the Accusative Case -o together lead to dynamic events where the animate subjects act on the objects in the manners described by the mimetic words. Thus, the meaning of mimetic verbs cannot be found in the mimetic words themselves or not even from the mimetic verbs as a whole; rather, it is a property of the construction in which they appear.

It is worth noting that not all mimetic verbs have a wide range of frames in which they appear. For instance, \textit{gosi-gosi-suru} is typically used in a transitive frame, and does not show up in an intransitive construction with an inanimate subject that is parallel to (33a), for example. This is because what the mimetic word \textit{gosi} symbolizes and the real world situation together put a pragmatic restriction on the extent to which \textit{gosi-gosi-suru} can denote. That is, the speaker's knowledge of the world makes it less likely to extend what \textit{gosi} symbolizes to a static description of the sort expressed in (33a). However, I consider the restriction pragmatic in nature because the likelihood of such an extension can readily be altered if the nature of the world were to change, as in an imaginary world. It should be emphasized, furthermore, that if a new mimetic verb is coined (and coinage of mimetics and mimetic verbs is very frequently observed) the listener will be able to figure out what the event type of the mimetic verb may be, given the construction in which the mimetic verb appears, even if s/he does not have a clear idea what exactly the mimetic word is supposed to symbolize.

The constructional approach to mimetic verbs is further supported when we compare mimetic verbs with Sino-Japanese verbal nouns that appear with the light verb \textit{suru}. Examples are given in (37)

\begin{itemize}
  \item \textit{sangyo-suru} ‘take a walk’
  \item \textit{syokai-suru} ‘eat a meal’
  \item \textit{nyuuyoku-suru} ‘take a bath’
  \item \textit{tootyaku-suru} ‘arrive’
  \item \textit{benkyoo-suru} ‘study’
\end{itemize}
Morphologically, the items in (37) take the same form as mimetic verbs discussed above. Verbal nouns in (37) are different from mimetic words, however, in that they are predicative with specific subcategorization frames and the subcategorization information is carried over when they are not accompanied by the light verb suru. In (38)–(40), the (a) sentences are examples with the verbal nouns with suru while the (b) sentences are the same nouns without suru. The same pattern is also observed when they appear in the nominal construction as in (c).

(38) a. Taro ga kōen de sanpo-sita.
   Taro NOM park in took a walk
   'Taro took a walk in the park.'

b. Taro ga kōen de sanpo-tyūu, Hanako ni atta.
   Taro NOM park in walk while Hanako with met
   'Taro met/saw Hanako while taking a walk at the park.'

c. Taro no kōen de no sanpo.
   Taro GEN park in GEN walk
   'Taro's walk in the park.'

(39) a. Hanako ga Boston ni tootyaku-sita.
   Hanako NOM Boston at arrived
   'Hanako arrived at Boston.'

b. Hanako ga Boston ni tootyaku-go, Taro ga kita.
   Hanako NOM Boston at arrival after Taro NOM came
   'Taro came after Hanako's arrival at Boston.'

c. Hanako no Boston e no tootyaku.
   Hanako GEN Boston at GEN arrival
   'Hanako's arrival at Boston.'

(40) a. Taro ga suugaku o benkyoo-sita.
   Taro NOM math ACC studied
   'Taro studied math.'

b. Taro ga suugaku o benkyoo-tyuu, denwa ga natta.
   Taro NOM math ACC study while telephone NOM rang
   'The telephone rang while Taro studied math.'

c. Taro no suugaku no benkyoo.
   Taro GEN math GEN study
   'Taro's study of math'

None of these patterns is observed with mimetic verbs. That is, while argument structure may be construed as a property of verbal nouns in (38)–(40), the same generalization cannot apply to mimetic verbs since they do not em-
ploy a structured lexical representation. Rather, they simply represent what they symbolize.

4. Implications for the two approaches to multiple meaning

As I have mentioned in the introduction, the analysis of mimetic verbs in Japanese has an implication for the two major approaches to multiple meaning, i.e., the projectionist approach and the constructional approach. One of the motivating factors of the projectionist approach is what Apresjan (1974) calls "regular polysemy." Rappaport Hovav and Levin (1998) give the range of environments in which the verb *wipe* appears as in (41) to illustrate regular polysemy.

\[(41)\]
\[
\begin{align*}
\text{a.} & \quad \text{Terry wiped.} \\
\text{b.} & \quad \text{Terry wiped the table.} \\
\text{c.} & \quad \text{Terry wiped the crumbs into the sink.} \\
\text{d.} & \quad \text{Terry wiped the crumbs off the table.} \\
\text{e.} & \quad \text{Terry wiped the slate clean.} \\
\text{f.} & \quad \text{Terry wiped the crumbs into a pile.}
\end{align*}
\]

(Rappaport Hovav & Levin 1998: 99)

They argue that the multiple meanings associated with *wipe* in (41) are a manifestation of individually different lexical representations and that the syntactic distribution of the verb's arguments and adjuncts is determined by the meaning. More relevant to our discussion, furthermore, is the fact that the extent to which verbs like *wipe* demonstrate the variety illustrated in (41) is regularly observed with verbs that belong to the same semantic class, i.e., surface contact verbs in this case. That is, the variety of syntactic environments depicted in (41) is also available with other surface contact verbs such as *sweep*.

While there is some evidence that the phenomenon of regular polysemy is observed in Japanese, it is not attested with mimetic verbs. I have demonstrated in (29)-(32) above that *bura-bura-suru* takes at least three structural patterns: the intransitive frame with an inanimate subject; the intransitive frame with a traversal or locational phrase; and the transitive frame. I have also shown that specific meanings are associated with these structural frames. Contrary to the projectionist prediction, mimetic verbs that consist of other swaying/swinging mimetic words, of which *bura-bura* is a member, do not exhibit the same range of argument/adjunct distribution nor the same semantic properties. For example, other swaying/swinging mimetic words include *gura-*. 
gura, hura-hura, yusa-yusa, and yurari-yurari according to Chang (1991), but except for hura-hura the patterns parallel to (30) and (31) are not available with these mimetics, and the transitive pattern of (32) (with the option of suru) is not available to any of them. Similarly, guru-guru in (35) belongs to the class of rotating/revolving according to Chang (1991), but other members of the same class such as kuru-kuru and kururi-kururi do not show the same patterns: neither takes the intransitive frame with a locational phrase as in (35a) or the transitive frame as in (35b) although the transitive frame may be possible with kuru-kuru if the light verb takes the form of saseru. Thus, mimetic verbs behave quite differently from other kinds of verbs in the language regarding regular polysemy, and the projectionist approach is not well motivated on these grounds.

5. Conclusion

In this chapter I demonstrated that mimetic verbs in Japanese exhibit a set of properties that is best analyzed in constructional terms. I have shown that mimetic words that include mimetic verbs cannot be singled out for their specific meanings, and that global information contributed by a whole sentence including the number of NPs and their grammatical functions, animacy of the subject, and verbal morphology together gives rise to an explicit meaning. Mimetic verbs also exhibit properties that run counter to what the projectionist approach to multiple meaning would predict concerning the phenomenon of regular polysemy. The conclusion drawn from the discussion of mimetic verbs is, then, that the varying interpretations of mimetic verbs are not to be attributed to the mimetic verb alone but should be deduced from the construction in which the mimetic appears.

Note

* I would like to thank Mirjam Fried for her careful editing and encouraging comments. Thanks also go to Stuart Davis, whose comments on earlier versions of this chapter and genuine interest in this topic helped me organize my thoughts in shaping up the current version, and to the audience of the ICCG in Berkeley for stimulating discussions.
References