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#### **Register-Specific Morphophonological Constructions in Japanese**<sup>\*</sup>

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#### Introduction

This paper argues that the idea of Construction Morpho(phono)logy (henceforth CM) in the sense of Booij (2010) works well in the analysis of many registerspecific expressions in Japanese. Japanese is often (unofficially) said to be morpho-syntactically "less constructional" than languages like English. This kind of remark seems to stem in part from the apparent rarity of constructional templatebased innovation like the one cited in (1a), in which the otherwise intransitive verb *sneeze* occurs in a transitive sentence frame with the help of the well-known "caused-motion construction" given in (1b). What seems to be its Japanese equivalent is clearly ungrammatical, as shown in (1c).<sup>1</sup>

(1) a. Fred sneezed the napkin off the table. (Goldberg 1995:156)

b. The caused-motion construction in English (Goldberg 1995:152):

syntax:	[SUBJ [V OBJ OBL]]
semantics:	'X CAUSE Y to MOVE z'

<sup>&</sup>lt;sup>\*</sup> An earlier version of this paper was presented at BLS 38. I appreciate the insightful comments from the audience, especially Russell Lee-Goldman and Eve E. Sweetser. My gratitude also goes to Oana David, Atsushi Oho, and my ESP students at Osaka University (Fall 2011) for their help-ful questions and comments. Related talks were given at a linguistics colloquium at the University of Tokyo and the 13th Annual International Conference of the Japanese Society for Language Sciences in 2011. I would also like to thank Geert Booij, whose course on Construction Morphology at LSA Summer Institute at University of California, Berkeley in 2009 turned my attention to the issues discussed in this paper. Remaining inadequacies are of course my own. This study was partly supported by Grant-in-Aid for JSPS Fellows (#21-2238), Grant-in-Aid for Young Scientists (B) (#24720179), and a Spanish Ministry of Science and Innovation grant to Proyectos de Investigación Fundamental no Orientada (Tipo A) (#FEI2010-14903).

<sup>&</sup>lt;sup>1</sup> The abbreviations and symbols used in this paper are as follows: ACC = accusative; CONJ = conjunctive; IMP = imperative; NOM = nominative; NPST = nonpast; POL = polite; PST = past; Q = the first half of a geminate cluster; TOP = topic;  $\mu$  = mora;  $\sigma$  = syllable; \* = accent nucleus (only in constructional representations)

c. \*Hureddo-ga teeburu-kara napukin-o kusyami-si-ta. F-NOM table-from napkin-ACC sneeze-do-PST 'Fred sneezed the napkin off the table.'

In this study, however, it will be shown that the language has a rich constructional architecture at least at the word level.

The organization of this paper is as follows. Section 1 will outline CM as a theoretical standpoint this paper takes, and introduce a related case study on Japanese innovative verbs. In Section 2, six more cases of morphophonological constructions in Japanese—innovative adjectives, child-directed verbs, heavy-initial emphatic verbs, bipartite slang nominal adjectives, reduplicated attributive predicates, and mimetics (i.e., sound-symbolic, ideophonic words)—will be described with plenty of examples. Section 3 will discuss the form and function of the seven constructions from a general point of view, especially in light of the (iconic) constraints that the registers of the constructions impose on their other specifications. Section 4 will conclude the paper.

#### **1** Previous Studies

#### 1.1 Construction Morphology

Construction Grammar is a monostratal theory that views a form-meaning pairing (or "construction") as a fundamental unit of language (Fillmore and Kay 1995, inter alia). Constructions are posited for various levels of linguistic signs—words, phrases, sentences (e.g., (1b)), and even discourses.

Booij (2010) develops the framework of Construction Morphology, which is a constructional approach to words and word-like units. For example, deverbal *-er* agent nouns in English, illustrated in (2a), are analyzed as instances of the word-level construction given in a simplified fashion in (2b). The left and right parts of the schema specify the formal and semantic components of the construction, respectively, and their internal correspondences are coindexed.

- (2) a. baker, eater, shouter, walker
  - b.  $[V_i \text{-er}]_{Ni} \Leftrightarrow [\text{one who PRED}_i]_i$

This paper focuses on three major advantages of this nonreductionist morphological theory. First, the existence of a construction guarantees the productivity of the word group. Booij (2010:2) focuses on cases of coinage, such as *skyper*, which is a recent innovation based on the denominal verb *skype* 'communicate by means of Skype' (cf. Kay 2002). Second, constructional schemas license words that do not have an established "base form," which a derivational approach would have to posit. For instance, *unbeatable* is a frequent adjective in English, but its assumed base adjective *beatable* is infrequent and unlikely to be registered in the English lexicon. CM solves this problem by simply positing the  $[un[V-able]_A]_A$  construction (Booij 2010:42). Third, constructional templates capture the diversity of root types in a single word group. This last point will be discussed with actual instances in the next subsection.

#### **1.2** Innovative Verbs in Japanese

Tsujimura and Davis (2011) discuss the constructional nature of a group of innovative verbs in Japanese, illustrated with their base words in (3a) (see Asao 2008 for another case of CM in Japanese).<sup>2</sup> Two important features of the morphophonological construction are cited in (3b).

- (3) a. gugúr- 'conduct a Google search' (< gúuguru 'Google' [proper noun]), zikór- 'have a traffic accident' (< zíko 'accident' [Sino-Japanese noun]), kopír- 'make a copy' (< kópii 'copy' [non-Chinese loanword noun]), guzúr- 'be peevish' (< gúzuguzu 'peevish' [mimetic])</li>
  - b. The innovative verb construction:

\* morphophonology: ...(C)V(C)V-r]<sub>Vroot</sub>- pragmatics: playful

(Tsujimura and Davis 2011:811, 818)

What is noteworthy about this construction is the wide variety of sources, as indicated in (3a). The constructional template in (3b) allows us to categorize all those innovative verbs into one group, which is characterized by the morphophonological and pragmatic features. (The construction is morphophonological in that it has specifications of root length (i.e., "two or more moras long") and accentuation (i.e., "root-finally accented").) The present paper extends the latter feature as "register-specificity." This term refers to a stylistic restriction on a word group in a broad sense, which limits the use of the members of the group to particular types of speakers, hearers, and situations, either strictly or loosely defined (see Halliday and Hasan 1976 for a classification of register). In the case of innovative verbs, the pragmatic specification of the construction (i.e., "playful") rules out their occurrence in formal text. For example, a governmental white paper in Balanced Corpus of Contemporary Written Japanese (BCCWJ) contains an instance with the conventional verb *kopii-su-* 'make a copy', which can never be replaced by its innovative counterpart *kopir-*, as shown in (4).

(4)... kyokasyoo-o {kopii-si/ \*kopít} -te kore-o kaizan-si... permit-ACC copy-do make.copy -CONJ this-ACC falsification-do '...[he] copied a permit and falsified it...'

(Environmental White Paper 1980, BCCWJ)

<sup>&</sup>lt;sup>2</sup> Accentual information will be given only when necessary.

In the next section, I will point out six more morphophonological constructions that have a register specification. It will turn out that the notion of register leads us to notice not only the non-partial significance of constructional generalizations in Japanese word formation, but also the existence of some previously not recognized word groups in Japanese.

#### 2 Six More Register-Specific Word Groups in Japanese

This section discusses the formal and functional properties of six register-unique word groups in Japanese. Each of these groups is characterized by a set of constructional specifications, and thus serves as a further case for CM.

#### 2.1 Innovative Adjectives

The first word class is innovative adjectives, which are in part similar and related to innovative verbs in Section 1.2. As shown in (5), they can be divided into four etymological subtypes.

- (5) a. Clipped adjectives (some): *hazúkasi*- 'embarrassed', *kimótiwaru*- 'disgusting', *kisyókuwaru*- 'weird', *muzúkasi*- 'difficult', *natúkasi*- 'good old', *uzátta*- 'annoying'
  - b. Mimetic roots (relatively productive): boró- 'ragged' (< bóroboro/boroboro 'ragged'), gotú- 'well-built' (< gótugotu 'rugged'), hyoró- 'lanky' (< hyórohyoro 'lanky'), tyará-'flashy' (< tyáratyara 'flashy')</li>
  - c. (Clipped) non-Chinese loanwords (limited in number): annyú- 'languid' (< annyúi 'ennui'), eró- 'erotic' (< erotíkku 'erotic'), guró- 'grotesque' (< gurotésuku 'grotesque'), mazó- 'masochistic, too hard' (< mázo 'masochist'), naú- 'fashionable' (< náu 'now')</li>
  - d. Native nouns (rare):
    %natú- 'summerly' (< natú 'summer'), %nazó- 'mysterious' (< nazo 'mystery')</li>

As is obvious in these examples, all innovative adjectives are two syllables long (cf. Kubozono 2002:87) and have a root-final accent, which may be moved to the left in some cases (e.g., *éro-*, *múzu-*).<sup>3</sup> It is interesting that the latter prosodic fea-

<sup>&</sup>lt;sup>3</sup> Among young generations, innovative adjectives with more than two moras are sometimes jokingly created from nouns (e.g., *ameriká*- 'America-ish' < *amerika*- 'America') and nominal adjectives (e.g., *daizyoobú*- < *daizyoobú*- < *daizyoobú*' all right'). They also have a root-final accent.

ture is shared by all innovative verbs, and the former by many of them. Moreover, like innovative verbs, these adjectives are stylistically playful. The innovative adjective construction can therefore be schematically represented as in (6).

(6) The innovative adjective construction:

morphophonology:	$[\sigma\sigma]_{\text{Aroot}}$ -
register:	playful

The aforementioned similarities between innovative verbs and adjectives suggest the existence of the superordinate "innovative predicate construction" in (7), which is elaborated by the two subconstructions above.

(7) The innovative predicate construction:

morphophonology:	$\sigma\sigma]_{V/Aroot}$ -
register:	playful

#### 2.2 Child-Directed Verbs

The second group is child-directed verbs. As is the case for Japanese childdirected/motherese vocabulary items in general (Tomosada 2005), they are based on either a mimetic (or interjection) (see (8a)) or a child-directed word (typically a deverbal noun) (see (8b)). The former type is more productive than the latter, which is a highly closed class.

- (8) a. Mimetics/interjections (productive): *aań-su-* 'open one's mouth wide', *kénken-su-* 'hop on one foot', *mósi- mosi-su-* 'make a phone call' (< *mósimosi* 'hello'), *pái-su-* 'throw away', *póipoi-su-* 'toss', *tón-su-* 'jump down', *tyán-su-* 'sit down', *zyó- rizyori-su-* 'shave'
  - b. Child-directed action nouns (less productive):
    án'yo-su- 'walk' (< án'yo 'foot' < ayúm- 'walk'), háihai-su- 'creep' (< háw- 'creep'), húkihuki-su- 'wipe' (< huk- 'wipe'), nénne-su- 'sleep' (< ne- 'sleep'), nonnoń-su- 'pray to Buddha' (< nonno(n)-san 'Buddha'), ónbu-su- 'give a piggyback' (< obúw- 'carry on one's back'), tátti-su- 'stand up' (< tát- 'stand up')</li>

What is important here is that the two subtypes of child-directed verbs share typical prosodic/morphological properties. As illustrated by the verbs *póipoi-su*-'toss' in (8a) and *háihai-su*- 'creep' in (8b), the base of many verbs from the two classes is reduplicated, has three or four moras, and/or begins with an accented

heavy syllable (Kubozono 2005, Mazuka et al. 2008). This parallelism allows us to posit a general morphophonological construction like (9) for these childdirected verbs. Note that there is no particle element between a mimetic(-like) element and the verb su- 'do'. In adult-directed Japanese, we would add distinct particles to the two types of complex verbs: quotative -to for the mimetic type and accusative -o for the nominal type. The absence of them in child-directed verbs guarantees their formal uniformity.

(9) The child-directed verb construction:				
	morphophonology:	[mimetic(-like)-su] <sub>Vroot</sub> -		
	register:	child-directed		

Since this construction has a register specification as "child-directed," verbs instantiating it are unlikely to be used in adult-directed speech, as exemplified in (10). (See Akita 2011b for a more extensive discussion.)

(10)a. Doozo {suv	wat/ *tyán-si}	-te kudasai.
please sit	sitting.down-	do -CONJ IMP.POL
'Please have	e a seat.'	
b. Doozo {ner please slee 'Please slee	1 1 0	-te kudasai. -CONJ IMP.POL

#### 2.3 Heavy-Initial Emphatic Verbs

The third group is heavy-initial emphatic verbs. Verbs in this group are characterized by their heavy-syllable "prefix," which has six types of origin, as summarized in (11).

(11) a. Verb roots (nearly 80% of all cases):

*bun-nagur-* 'beat violently' (< *but-* 'hit' + *nagur-* 'beat'), *hin-magar-* 'twist' (< *hik-* 'pull' + *magar-* 'bed'), *hun-zuke-* 'step on' (< *hum-* 'step on' + *tuke-* 'attach'), *tuk-kom-* 'thrust in' (< *tuk-* 'prick' + *kom-* 'put in'), *yop-paraw-* 'get drunk' (< *yow-* 'get drunk' + *haraw-* 'brush off')

b. Mimetic roots (or part of them) (some): gat-tuk- 'devour' (< gatu(gatu) 'devouring' [mimetic] + tuk- 'be attached'), sup-ponuke- 'slip out' (< suppori 'entirely' [mimetic] + nuke-'come off'), tyon-gir- 'snip off' (< tyon 'snipping' [mimetic] + kir-'cut') c. Prefixation (some):

*sut-tob-* 'be blown away' (< suQ- [emphatic prefix] + *tob-* 'fly'), *sut-toboke-* 'play the perfect fool' (< suQ- + *toboke-* 'play the fool')

d. Infixation (rare):

*o-kko-ti-* 'fall' (< *oti-* 'fall' + *-kko-* [diminutive infix]), *to-n-gar-* 'get quite sharp' (< *togar-* 'get sharp' + *-n-* [emphatic infix])

- e. Gemination (one): mik-ke- 'find' (< mi-tuke- 'find')</pre>

In most cases, there is (originally) a morpheme boundary between the "prefix" part and the rest. However, a few examples, including *sup-ponuke-* 'slip out' (< *suppo-nuke-*) in (11b) and *bak-kure-* 'skip (a class)' (< *bakkure-*) in (11f), are likely to undergo phonological reanalysis in terms of the formal specification of the construction formalized in (12). As specified at the formal level of the construction, the two components are always taken from the native lexical stratum.

(12) The heavy-initial emphatic verb construction:

morphophonology:	[[(C)VC] <sub>native</sub> -[CV] <sub>Vnative</sub> ] <sub>Vroot</sub> -
register:	rough

The construction leads us to notice those verbs with different etymologies as a register-constrained class (cf. Saito 1992, who focuses on the (11a) type). They have a more or less rough, violent, or sometimes childish flavor, which is more than mere emphasis of meaning. In fact, these verbs are not or less likely to be used in formal speech, as shown in (13), which is intended to be uttered in a news report, for example. (See Akita 2011b for a detailed observation.)

- (13)a. Gootoohan-ga keikan-o {naguri/\*bun-naguri} -masi-ta. burglar-NOM policeman-ACC beat beat.violently -POL-PST 'The burglar beat a policeman (violently).'
  - b. Taihuu-de yane-ga {tobi/ \*sut-tobi} -masi-ta. typhoon-due.to roof-NOM fly be.blown.away -POL-PST 'The roof flew away due to the typhoon.'

#### 2.4 Bipartite Internet/Magazine Nominal Adjectives

The fourth group comes from Internet/magazine slang. Recent netspeak and magazine language in Japanese contain many coined nominal adjectives based on an

unaccented four-mora template. The first and second two moras are either (part of) a mimetic or adjective root, and all four combinations are attested, as in (14).

(14) a. Mimetic root + mimetic root (productive):

*moti-huwa* 'chewy and fluffy' (< *motimoti* 'chewy' + *huwahuwa* 'fluffy'), *tun-dere* 'initially aloof but later kind-hearted' (< *tuntun* 'brusque' + *deredere* 'slovenly'), *waku-teka* 'excited and gleaming' (< *wakuwaku* 'excited' + *tekateka* 'gleaming'), *yuru-huwa* 'loose and fluffy' (< *yuruyuru* 'loose' + *huwahuwa* 'fluffy')

- b. (Clipped) adjective root + (clipped) adjective root (less productive): dasa-ike 'unrefined but cool' (< dasa- 'unrefined' + ikete- 'cool'), kimo-kawa 'disgusting but cute' (< kimo(tiwaru)- 'disgusting' (see (5a)) + kawai- 'cute'), kuu-kawa 'cool and cute' (< kuuru 'cool' [loanword] + kawai- 'cute'), mote-kawa 'popular and cute' (< mote- 'be popular' + kawai- 'cute')<sup>4</sup>
- c. Mimetic root + (clipped) adjective root (limited in number): huwa-kawa 'fluffy and cute' (< huwahuwa 'fluffy' + kawai- 'cute'), saku-uma 'crunchy and yummy' (< sakusaku 'crunchy' + uma- 'yummy')
- d. (Clipped) adjective root + mimetic root (rare): yawa-kusyu 'soft and crumply' (< yawaraka- 'soft' + kusyukusyu 'crumply')

It is noteworthy that the two components of each of these nominal adjectives are either nearly synonymous or antonymous to each other, as indicated by "and" and "but" in their translations. Since not only synonymy but also antonymy is a semantic relation within one semantic domain (Cruse 1986), the construction for these words should possess this feature in its semantics, as shown in (15) (the absence of a pitch fall is represented by the overline at the morphophonological level). This semantic property critically distinguishes them from clipped loanwords, many of which also take an unaccented bipartite form but its first and second constituents are not meaningfully related to each other (e.g., *dezi-kame* 'digital camera' (< *dezitaru* 'digital' + *kamera* 'camera')).

(15) The bipartite Internet/magazine nominal adjective construction:

	orphophonology: mantics:	$[[\mu \overline{\mu}]_{i^{-}}[\mu \mu]_{j}]_{\text{NAroot}^{-}}(i, j = \text{mimetic, adjective})$ similar ( <i>i</i> , <i>j</i> )
re	gister:	Internet/magazine slang

<sup>&</sup>lt;sup>4</sup> *Mote*- 'be popular' in the last example is a verb but shares the stative aspect with the adjectives.

#### 2.5 Reduplicated Attributive Predicates

The fifth morphophonological construction is proposed for reduplicated attributive predicates that are quite similar to English SALAD-salad expressions, cited in (16a). Like English SALAD-salad expressions, Japanese reduplicated attributive predicates refer to a "real" or prototypical instance of the referent of their base word, as illustrated in (16b,c).

l6) a. I'll make	the tuna salad, a	nd you make	the SALAD-sal	ad.
			(Ghomesh	ni et al. 2004:308)
b. Kono	toori-wa	Kyooto-Ky	óoto -si-te	i-ru.
this	street-TOP	К -К	-do-CONJ	be-NPST
'This stre	et is really Kyoto	o.'		
		(adaj	oted from Yamad	and Oho 2011)
c. Kono	ronbun-wa	Sigeto-ga-l	ai-ta-ronbun-	
this	paper-TOP	S-NOM-wri	te-PST-paper-	
Sigeto-ga	a-kai-ta-rónbun	-si-te	i-ru.	
		-do-CONJ	be-NPST	
'This pap	per has the typica	l writing styl	e of Shigeto.'	
		(adaj	oted from Yamad	la and Oho 2011)

As these examples show, the reduplicated part can be a word, a phrase, or even a clause. Significantly, however, they are always followed by *si-te i-* (do-CONJ be-) or *si-ta* (do-PST), both marking a state, and have an accent nucleus in the syllable containing the antepenultimate mora of their reduplicated part. (17) formulates the construction.

(17) The reduplicated attributive construction:

	*
morphophonology:	$[[[]_{Ni}-[\sigma\mu\mu]_{Ni}-si]_{Vroot}-\{te i-/ta\}]$
semantics:	'typical of $N_i$ '
register:	colloquial

#### 2.6 Mimetics

(1

I conclude the data section with a CM analysis of sound-symbolic, mimetic items, which are also found in some of the above constructions. As I argued in Akita (2009, 2011a), Japanese mimetics have a set of characteristic morphophonological templates, including the three representative ones given in (18).

(18) a. Reduplicative (most productive):

dókidoki 'excited or nervous', húwahuwa 'fluffy', móyamoya 'hazy', nósinosi 'lumber', órooro 'bewildered', páripari 'crunching', tékuteku 'walking with light steps', tíkutiku 'pricking', zókuzoku 'shivering'

b. Suffixal:

dokiń/dokíQ/dokíri 'startled', huwań/huwáQ/huwári 'fluffy', moyáQ 'hazy', paríQ/pariń 'crack', sukáQ 'refreshed', tikuń/tikúQ/tikúri 'pricking', tyokoń 'sitting quietly', zokúQ/zokúri 'shivering'

c. "Emphatic":

dokkíri 'startled', gessóri 'emaciated', hunwári 'fluffy', kongári 'baked lightly brown', ottóri 'gentle', pakkúri 'split open', sukkári 'completely', unzári 'fed up', zikkúri 'meticulously'

The use of mimetics is loosely limited to informal discourse. This stylistic characteristic constitutes the register information of the superschematic mimetic construction, which is inherited by all individual mimetic constructions. Moreover, the reduplicative and suffixal templates are associated with durative and punctual aspect, respectively (Akita 2009: Chapter 5). So-called emphatic mimetics are characterized by low iconicity and often by emphatic meaning (Akita 2011a). These semantic specifications are reflected in the individual constructions (19a-c).

(19) The mimetic construction:

semiotics:	iconic
register:	more or less colloquial

a. The reduplicative mimetic construction:

morphophonology: [(C)VCV-(C)VCV] semantics: durative

- b. The suffixal mimetic construction: morphophonology: [(C)VCV-Aff] semantics: punctual
- c. The "emphatic" mimetic construction:

morphophonology:	[(C)VCCVri]	
semantics:	moderately iconic, (emphatic)	

It is important in terms of productivity that the mimetic lexicon contains several entries with non-mimetic origin, such as *mómimomi* 'crumpling' (< *mom*- 'crumple'), *hiyáQ/hiyári* 'feeling a chill' (< *hiyas*- 'make cool'), and *hossóri* 'slender' (< *hoso*- 'thin'). The mimetic status of these words is primarily guaranteed by their morphophonological shapes (i.e., the formal aspects of the mimetic constructions).

#### 3 Register-Constrained Constructional Specifications and Iconicity

In the previous section, I described six morphophonological constructions in Japanese. Each of these word groups, as well as innovative verbs in Section 1.2, exhibits more than one etymological type but shares a schematic template.<sup>5</sup> The seven word-level constructions have various types and degrees of register specifications. Furthermore, as noted above for the examples of each word group, some constructions or their subtypes are more productive than others. For example, coinage is in principle not allowed for heavy-initial emphatic verbs. This fact suggests the diversity of constructional status across morphophonological templates (cf. Goldberg 1995:136-8, Booij 2010:13).

In this section, I focus on another essential feature of the constructions: the construction-internal constraints (sometimes iconically) imposed by their register-specificity. I will discuss such constraints at the levels of morphophonology and lexical semantics in Sections 3.1 and 3.2, respectively.

#### 3.1 Morphophonological Specifications

We can point out at least five formal features that are motivated by a register specification. First, four of our word groups—namely, innovative verbs, innovative adjectives, heavy-initial emphatic verbs, and bipartite slang nominal adjectives—illustrate two-mora clipping (e.g., *hazúkasi*- 'embarrassed' in (5a), *ya-waraka-kusyukusyu* 'soft and crumply' in (14d)). As Kubozono (2002:117) and Tsujimura and Davis (2011:819) discuss, clipping can be considered an effective strategy of secret language. Therefore, it is reasonably related to the register restriction of the word groups concerned.

Second, as noted in Section 2.2 above, child-directed verbs exhibit some typical formal features of Japanese babytalk, such as reduplication, an initial heavy syllable, an initial accent, and the root length of three to four moras. It can be speculated that these formal features are adopted because caregivers think they help their children find and understand the words. If this speculation is correct, the present case will count as another instance of register-motivated morphophonology.

Third, heavy-syllable "prefixes" of heavy-initial emphatic verbs are more or less iconic. In many cases, they are likely to acquire sound symbolism because of their CVC shape, which is typical of intensifier-like mimetics (e.g., pon 'pop', zaQ 'rough') (see Hamano 1998, Akita 2009: Chapter 5). Moreover, the existence

<sup>&</sup>lt;sup>5</sup> The schematicity of the templates differs from construction to construction. Some constructions (e.g., the reduplicated attributive construction) have a lexically or segmentally fixed part, while others (e.g., the innovative adjective construction, the heavy-initial emphatic verb construction, the bipartite Internet/magazine nominal adjective construction, the mimetic constructions) are only specified for their lexical category/stratum and prosodic contour. This gradualness is particularly important in relation to the issue of "lexicon-grammar continuum" (Goldberg 1995, Croft 2001:17, Booij 2010:15-6, inter alia).

of a few phonosemantic minimal pairs of heavy-initial verbs confirms this possibility. That is, both *but-tób-* (< *bút-* 'hit' + *tob-* 'fly') and *hut-tób-* (< *húk-* 'blow' + *tob-* 'fly') mean 'be blown away', despite their etymological difference, and the former is more emphatic than the latter. This follows the general sound-symbolic pattern of voicing (see Hamano 1998). A similar contrast is shown by *zuk-kóke-*(< *zúr-* 'rub' + *kóke-* 'tumble') and *suk-kóke-* (< *suQ-* [emphatic prefix] + *kóke-*'tumble'), both meaning 'tumble'. The sound symbolism of the heavy-initial prefixes seems to be one important feature that furnishes this verb group with distinct roughness.

Fourth, bipartite slang nominal adjectives consist of two roots with similar (or opposite) meanings. This is reminiscent of the intensifying function of reduplication (Abraham 2005, Inkelas and Zoll 2005), which is more precisely illustrated by reduplicated attributive predicates. The effect has an obvious iconic ground: a doubled form for (more than) a doubled meaning. It seems that the highly informal registers in which the two groups of attributive words are used make the speaker want to entertain the hearer with exaggerated utterances.

Fifth, needless to say, mimetics are iconic lexical items. It appears that an informal register allows one to use these words that have direct form-meaning connections and are easy to understand without the complicated definitions that come with many formal terms, such as Sino-Japanese words. In this respect, it should be noticed that all those colloquial constructions discussed in this paper, except the reduplicated attributive construction, involve mimetics as their major source of roots.

#### 3.2 Semantic Specifications

Register specifications also seem to motivate a loose semantic constraint on at least three of our morphophonological constructions: the innovative verb, childdirected verb, and heavy-initial emphatic verb constructions. The three verb groups have a general semantic restriction as "dynamic," ruling out state verbs (Akita 2011b). For example, innovative verbs are least likely to be made from a noun that purely denotes an object (e.g., \*sorár- < sora 'sky'). Likewise, there is unlikely to be a child-directed verb that represents an internal state (e.g., ??ziiń-su- 'feel numb' < ziin 'numb' [mimetic]). Further, we cannot create a state predicate by combining the heavy-initial emphatic construction and a state verb, such as kanzi- 'feel' (e.g., \*buk-kanzi- 'feel absolutely').

These semantic restrictions can be drawn without difficulty from the three register features concerned: playfulness, child-directedness, and roughness. The conversational situations characterized by these register features demand a dynamic manner of speech that can (keep) attract(ing) the attention of the hearer (e.g., the speaker's kid).

In summary, register-specificity can, sometimes iconically, constrain or motivate other parts of a construction. All seven morphophonological constructions exhibit one or more such characteristics. These construction-internal correlations

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point to the significance of "interactive frames" in which words are used (Tannen and Wallat 1993). That is, for a full understanding of morphophonological constructions (or grammatical constructions in general), we need to take into account by and to whom, in what situation, and for what purpose they are used.

#### 4 Conclusion

This paper has discussed the constructional status of seven word groups in Japanese, each of which is tied to a certain register. It turns out that the idea of constructions works well even in this syntactically "less constructional" language. Morphophonological constructions like the ones observed above appear to support the systematicity and productivity of the periphery, rather than the core, of the Japanese lexicon (e.g., motherese, slang, mimetics). The paper further argued that the register specifications of the seven constructions constrain and motivate some of their morphophonological and semantic properties. Thus, the notion of register seems to play a more fundamental role in morphophonology than previously assumed.

There is no doubt that Japanese has many more instances of register-specific word-level constructions. In this regard, existing descriptions in Japanese linguistics may help us extend the present study. More generally, it is hoped that these lines of research will lead to a constructional typology that pursues where (e.g., syntax, morphology), for what purpose (e.g., register-based grouping of non-canonical expressions), and to what degree each language uses "constructions."

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