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JAPANESE IDEOPHONES FROM A TYPOLOGICAL PERSPECTIVE

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1. INTRODUCTION

The expressive power of ideophones (a.k.a. mimetics, expressives) differs from language to language. Despite the long history of ideophone research in African and Asian linguistics, typological investigations into this crosslinguistically prevalent lexical class and its graded expressiveness are still in their initial stages (Kulemeka 1995, Akita 2009, 2019, Dingemanse 2017, 2018, Dingemanse and Akita 2017, Ibarretxe-Antuñano 2017, Akita and Dingemanse 2019). In this paper, I revisit the formal and functional properties of Japanese ideophones from a crosslinguistic perspective and argue that they are relatively highly integrated with the lexical and grammatical systems of the language.

The organization of this paper is as follows. Section 2 summarizes the prototypical features of ideophones in the world's languages. Section 3 discusses the major characteristics of Japanese ideophones in light of these features. Section 4 concludes this paper.

2. PROTOTYPICAL IDEOPHONES IN A CROSSLINGUISTIC CONTEXT

It is now a standard view "to think of ideophones as a prototype category with a core of good members" (Childs 1994: 181). This prototype category is defined as "an open lexical class of marked words that depict sensory imagery" (Dingemanse 2019: 16). "Marked" formal features of ideophones reported across languages include prosodic and phonotactic deviance, morphological templates, syntactic isolation, and iconic gestures. Languages differ in terms of how many of these features they have. Conversely, ideophones in some languages are more deeply integrated into the rest of the languages than ideophones in other languages and exhibit more language-specific, "systematic" features (Monaghan et al. 2014, Dingemanse et al. 2015). This is what Dingemanse (2017) calls "system integration" (see also Haiman 2018: Chapter 6). Going beyond Dingemanse's morphosyntactic typology, this section introduces various aspects of prototypical ideophones, including their semantic and pragmatic features, in a crosslinguistic context.

Phonologically, ideophones often exhibit characteristic intonation, phonation, intensity, speech rate, or lengthening (Childs 1994: 184). For example, the Siwu color ideophone in (1) is intonationally foregrounded against the rest of the utterance.

(1) i-tì si i-fudza-ɔ ↑ **fututu~tutututu** ↑
C.I-head if S.I-be.white-2SG.O IDPH.pure.white~EM4
'That your head may become white ↑ *fututututututu* ↑ [pure white].'
(Siwu, Niger-Congo; Dingemanse 2017: 366; emphasis added)

Phonological markedness is also observed in the phonotactics of ideophones. In Hausa (Afro-Asiatic), obstruent-final items are rare in the native lexicon but common in ideophones (e.g. *túkúf* 'very old', *tsít* 'in complete silence, hush'; Newman 2001: 252). Furthermore, many languages have systematic phonosemantic paradigms for ideophones. The vowel-based paradigm in Semai (Austroasiatic) appears to be a typical case (e.g. *grĩ:p* 'chewing small, brittle things', *grũ:p* 'chewing large, somewhat soft things', *grã:p* 'chewing large, hard things', *grɔ:p* 'chewing large, crispy things'; Diffloth 1976: 260).

Morphologically, total and partial reduplication and repetition have been recognized as important features of ideophones (Hinton et al. 1994, Dingemanse 2015). As illustrated by examples such as *xapuk xapuk* 'crowing repeatedly' (Didinga, Nilo-Saharan; de Jong 2001: 127) and *ttipi-ttapa* 'walking in small steps' (Basque, isolate; Ibarretxe-Antuñano 2017: 208), reduplicated ideophones in many languages are iconically associated with iterative/continuative aspect or added intensity.

Syntactically, the occurrence of ideophones in some languages is restricted to affirmative-declarative sentences. The Hausa examples in (2) show that the ideophones indicated by boldface cannot be questioned, commanded, or negated. This type of sentence type restriction appears to reflect the low integration of ideophones into the grammatical system of the language.

(2) a. ya fadi **sharap** (affirmative-declarative)
'He fell *headlong*'
b. *ya fadi **sharap**? (interrogative)
'Did he fall *headlong*?'
c. *tashi **farat**! (imperative)
'Get up *in a flash*!'
d. *bai tashi **farat** ba (negative)
'He didn't get up *in a flash*'
(Hausa; Newman 1968: 110-111; emphasis added)

Moreover, some morphosyntactic constructions have been recognized for ideophones in many languages. (3) illustrates three such constructions.

(3) a. **Wirr** inggirr. (utterance-edge)
IDPH pulled.out
'*Wirr*! [He] pulled [it] out.'
(Yir-Yoront, Paman; Alpher 2001: 20; emphasis added)
b. in-komo i-thi **mhu-u-u** xa i-khala-yo (quotative)
9-cattle 9-say IDPH when 9-bellow-REL
'a cow says *moo* when it bellows'
(Xhosa, NC; Güldemann 2008: 276; emphasis added)

c. mia2 laaw2 hêt1 **tòk1-pòk1** juu1 (predicative)
wife 3SG.FA do IDPH CONT
'His wife is being *squat, comical*'
(Lao, Kra-Dai; Enfield 2007: 301; emphasis added)

What I call the utterance-edge (or "holophrastic") construction in (3a), including utterance-initial and utterance-final constructions, is particularly common in languages such as Semai (Diffloth 1976) and Dagaare (Niger-Congo; Bodomo 2006), in which ideophones are thought to be highly independent of the rest of the utterance structure (or "aloof" from it in Kunene's 1965 terms). The quotative construction illustrated in (3b) contains a quotative marker, complementizer, or dummy verb meaning 'say', which "quotes" ideophonic depiction. 'Say'-verbs are sometimes discussed in relation to the predicative construction illustrated in (3c). Many languages incorporate ideophonic elements into the predicate by means of schematic verbs meaning 'do', 'make', 'be', or 'go' as well as 'say' (Childs 1994, Franco 2017).

Multimodally, ideophonic utterances are often synchronized with the strokes of iconic gestures (Kunene 1965). This crossmodal synchronization is ascribed to the special representational mode that is common to ideophones and iconic gestures, termed the "affecto-imagistic" dimension of meaning (Kita 1997) or the "depictive" mode of signification (Dingemanse 2013, Dingemanse and Akita 2017).

Not only formal but also functional properties of ideophones tell us about their degree of system integration. Semantically, the auditory basis of the iconicity of ideophones constrains their possible semantic range (Akita 2009, Dingemanse 2012). Arguably all spoken languages have ideophones for sound (i.e. onomatopoeia; e.g. *jijizhazha* 'chirping' (Chinese)). Ideophones for movement (e.g. *balan-balan* 'moving clumsily' (Basque; Ibarretxe-Antuñano 2017: 200)) and texture (e.g. *tsaklii* 'rough' (Ewe, Niger-Congo; Ameka 2001: 31)) are also quite prevalent. Intangible, subjective properties, such as taste, smell, color, and inner feelings, are harder for ideophones to imitate, but some languages abound with ideophones for these semantic domains. For example, ideophones in Mundari (Austroasiatic) cover taste (e.g. *ragad-ragad* 'salty'), smell (e.g. *mogo-mogo* 'pleasantly fragrant (of a flower)'), color (e.g. *taral-taral* 'very white (of teeth)'; see also (1)), and emotion (e.g. *akul-bakul* 'feeling of anger in which one cannot speak') (Osada and Badenoch 2019: 57, 194, 214, 245). This semantic diversity might be attributed to the deep lexical integration of ideophones in this language.

Pragmatically, various register restrictions on ideophones have been noted across languages. In her typological investigation of African languages, Kilian-Hatz (2001: 156) defines ideophones as "part of an informal language register". On the other hand, according to Schaefer (2001: 342), ideophonic adverbs in Emai (Niger-Congo) "occur in narrative discourse but not in conversation". Moreover, in Zulu (Niger-Congo) "women use ideophones more than men" (Childs 1996: 89), while Basque ideophones are "clearly associated with non-literate contexts" (Ibarretxe-Antuñano 2009: 250). Similar to the sentence type restrictions introduced above, these pragmatic constraints suggest that these languages treat ideophones as more or less special expressions whose system integration is limited.

In this section, I have described the major features of prototypical ideophones across languages. Ideophones exhibit various formal and functional restrictions that

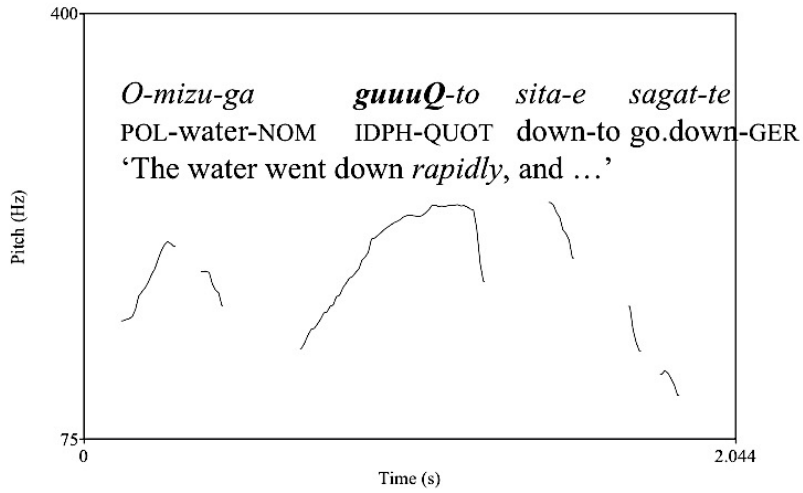
suggest their independence from core linguistic systems. In the next section, the prototype-categorical view sketched out here is applied to Japanese ideophones to discuss their degree of system integration.

3. JAPANESE IDEOPHONES

Japanese ideophones have many but not all of the features of prototypical ideophones summarized in Section 2. In this section, I demonstrate the relatively high system integration of Japanese ideophones by surveying their central characteristics.

Japanese ideophones are phonologically marked. This is clearly illustrated by interview data from the NHK Great East Japan Earthquake Archive (Dingemanse and Akita 2017). *GuuuQ* 'rapidly' in (4a) is highlighted by a gradually rising pitch that demonstrates the water's movement (see also Kita 1997), and *paaQ* 'with a rush' in (4b) stands out with an emotional whisper or devoicing. (/Q/ stands for the first half of a geminate cluster (word-medially) or a glottal stop (word-finally).)

(4) a.



b. …-tte wanko-ni it-tara **paaQ**-to [pa̰ːtːo] hait-te ...
-QUOT doggie-DAT say-when IDPH-QUOT enter-GER
'When [I] said to the doggie "…", [it] entered [the house] *with a rush*, and …'

Ideophones use the same phonemic inventory as non-ideophonic (or "prosaic") native lexemes but with slightly different phonotactics. (5) summarizes the distribution of phonological constraints on the four lexical strata of Japanese. Whereas singleton [p] is not allowed in native words, many ideophones begin in [p] (Hamano 1998). This contrast is illustrated by the ideophone ***p**ikapika* 'shining brightly' and the native verb ***h**ikar-u* 'to shine', which are putatively related in etymology.

(5) The lexical strata of Japanese (adapted from Itô and Mester 1995: 820):

Native	*P	*NT	*DD
Ideophonic	--	*NT	*DD
Sino-Japanese	*P	--	*DD
Foreign	--	--	--

Unlike the crosslinguistic tendency toward vowel-based paradigms, the phonosemantic system of Japanese ideophones is heavily based on the voicing of initial obstruents that is associated with semantic contrasts such as size and weight (Hamano 1998). 51% of all bimoraic ideophonic roots in Kakehi et al. (1996) form minimal pairs based on initial voicing (e.g. /biku/ 'trembling' vs. /piku/ 'twitching'; /goro/ 'a heavy object rolling' vs. /koro/ 'a light object rolling'; /zara/ 'rough' vs. /sara/ 'smooth'; Akita et al. 2019).

Japanese ideophones have a quite simple morphological system in which two types of roots – monomoraic (e.g. /po/ 'popping') and bimoraic ($C_1V_1C_2V_2$; e.g. /poki/ 'snapping') – are combined with a limited number of iconic templates (Hamano 1998, Akita 2009). Three types of templates – reduplicated (e.g. *pokipoki* 'snapping repeatedly'), suffixed (e.g. *pokiQ/pokin/pokiri* 'snapping once'), and "emphatic" (e.g. *pokkiri* 'completely snapped') – are particularly productive, together accounting for 77% of the ideophone entries in Kakehi et al. (1996).

Japanese ideophones are highly integrated with the rest of the sentence. They do not show clear sentence type restrictions, as illustrated in (6) (cf. Kita 1997).

(6) a. Ai-wa **nikoniko**-to warat-ta. (affirmative-declarative)
Ai-TOP IDPH-QUOT laugh-PST
'Ai smiled *brightly*.'
b. Ai-wa **nikoniko**-to warat-ta-no? (interrogative)
Ai-TOP IDPH-QUOT laugh-PST-Q
'Did Ai smile *brightly*?'
c. Ai, **nikoniko**-to warai-nasai! (imperative)
Ai IDPH-QUOT laugh-IMP
'Smile *brightly*, Ai!'
d. Ai-wa **nikoniko**-to warawa-nakat-ta. (negative)
Ai-TOP IDPH-QUOT laugh-NEG-PST
'Ai didn't smile *brightly*.'

(Akita 2017: 321)

Quotative and predicative constructions, as well as several other morphosyntactic constructions, are available to Japanese ideophones, as illustrated in (7).

(7) a. ?**Nurunuru**, unagi-wa subet-te it-ta. (utterance-edge)
IDPH eel-TOP slip-GER go-PST
'*Slip-slip*, the eel slipped away.'
b. Unagi-wa **nurunuru**-to subet-te it-ta. (quotative)
eel-TOP IDPH-QUOT slip-GER go-PST
'The eel slipped away *slipperily*.'
c. Sono unagi-wa **nurunuru**-si-ta. (verbal-predicative)
that eel-TOP IDPH-do-PST
'The eel felt *slippery*.'
d. Sono unagi-wa **nurunuru**-dat-ta. (adjectival-predicative)
that eel-TOP IDPH-COP-PST
'The eel was *slippery*.'

(Akita 2017: 316-317)

Notably, utterance-edge constructions are restricted to poetic and highly informal discourse, as suggested by the limited acceptability of (7a) (cf. Toratani 2017). It was found that utterance-edge constructions account for only 5% (31/573) of ideophone tokens in the 27 informal conversations in the Nagoya University Conversation Corpus (Fujimura et al. 2012). This percentage is significantly smaller than the corresponding Siwu results (12% (27/219)) presented in Dingemanse (2017: 366) ($\chi^2(1) = 11.17$, $p < .001$). It is worth noting that utterance-edge ideophones cannot be questioned, commanded, or negated, as shown in (8) (cf. Sadanobu 2018).

(8) a. ***Nurunuru***, unagi-wa subet-te it-ta-no? (interrogative)
IDPH eel-TOP slip-GER go-PST-Q
'*Slip-slip*, did the eel slip away?'
b. ***Nurunuru***, unagi-yo subet-te ik-e! (imperative)
IDPH eel-VOC slip-GER go-IMP
'*Slip-slip*, slip away, Eel!'
c. ***Nurunuru***, unagi-wa subet-te ika-nakat-ta. (negative)
IDPH eel-TOP slip-GER go-NEG-PST
'*Slip-slip*, the eel didn't slip away.'

Together with the discussion on sentence type restrictions in Section 2, the present data reinforce the idea that utterance-edge ideophones represent low system integration. Therefore, the limited availability of this ideophonic construction in Japanese suggests the high system integration of Japanese ideophones.

Gesture synchronization is frequent in Japanese ideophones (Kita 1997). For example, the two adverbial ideophones in (4) were uttered with iconic hand gestures imitating the movements. Dingemanse and Akita (2017) report that 49% (266/549) of ideophone tokens in a subset of the NHK Great East Japan Earthquake Archive were accompanied by iconic gestures.[1]

Japanese ideophones express an extensive range of sensory meanings. According to a traditional trichotomy (Martin 1975), "phonomimes" (giongo/giseigo) are onomatopoeic ideophones imitating sound (e.g. *tyuntyun* 'chirping', *gotogoto* 'rumbling'). "Phenomimes" (gitaigo) depict visual and tactile sensations (e.g. *yotiyoti* 'toddling', *uneune* 'winding', *nebaneba* 'sticky'). "Psychomimes" (gizyoogo) represent inner feelings (e.g. *zukizuki* 'throbbing', *uziuzi* 'hesitant'). Despite this semantic diversity, Japanese ideophones are unlikely to depict taste, smell, and color. Possible candidates for ideophones for these domains appear to represent tactile sensations (e.g. *piripiri* 'tasting hot', *tun* 'stinging the nose'; Kindaichi 1978: 18) or manner of motion (e.g. *punpun* 'a strong smell wafting across').

Lastly, Japanese ideophones are most frequent in informal conversation, child-related discourse, and poetry but can be found almost everywhere. Figure 1 presents the mean frequency (per million words) of 794 ideophones in the 12 subcorpora of the Balanced Corpus of Contemporary Written Japanese. It is noteworthy that even relatively formal types of discourse, such as the Minutes of the Diet and textbooks, contain quite a few ideophones.

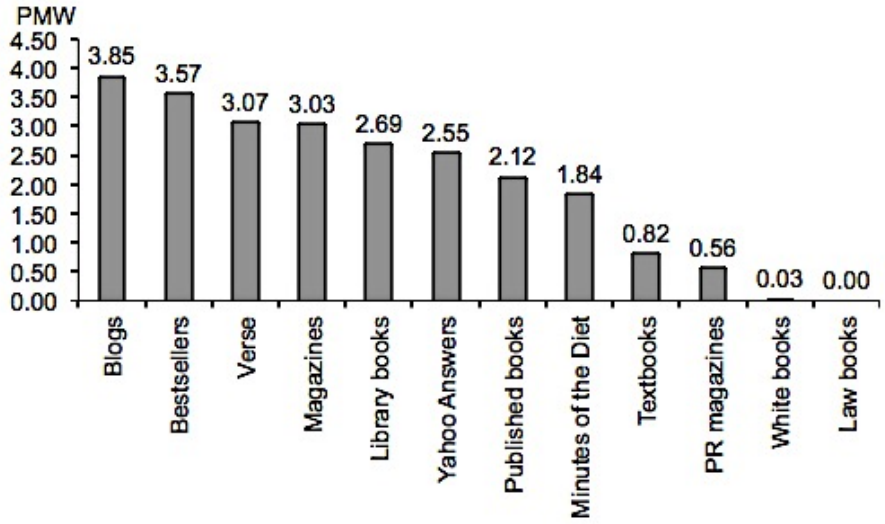


Figure 1. Frequency of ideophones in the subcorpora of the BCCWJ

4. CONCLUSION

In this paper, I have discussed several aspects of Japanese ideophones from a crosslinguistic perspective. Table 1 summarizes the findings in terms of their consistency with ideophone prototype.

Table 1. Prototypicality of Japanese ideophones

	Japanese ideophones	Consistency with ideophone prototype
Phonology	Prosodic foregrounding	✓
	Marked phonotactics	✓
	Voicing symbolism	
Morphology	Iconic templates (reduplication, etc.)	✓
	Remarkable systematicity	
Syntax	No sentence type restrictions	
	Rarity of utterance-edge realization	
Gesture	Synchronized depiction	✓
Semantics	Inner feelings	
Pragmatics	Weak stylistic restrictions	

While Japanese ideophones share some formal and functional features with crosslinguistically prototypical ideophones, they have interesting language-specific characteristics. All these language-specific characteristics appear to reflect the close system integration of Japanese ideophones. The voicing-based sound-symbolic paradigm is crucially dependent on the phonological significance of voicing in Japanese. The remarkable systematicity of the phonosemantic and morphological paradigms can be considered

a structural constraint that gives linguistic status to sound-symbolic depictions, which may otherwise be as random as vocal mimicry. The low availability of utterance-edge constructions suggests the high grammatical integration of Japanese ideophones. The near absence of sentence type restrictions and stylistic restrictions further illustrates that the Japanese language may not draw a distinct line between ideophonic and prosaic words. This close lexical integration appears to enable Japanese ideophones to have even highly abstract meanings, such as inner feelings.

One important question to ask next will be what triggers system integration. Future research must investigate whether particular aspects (e.g. syntax) of ideophones play a critical role in system integration and, if so, why. This question inevitably leads to another fundamental issue: inventory size. One may hypothesize that larger ideophonic lexicons are more systematic and less iconic/expressive (Güldemann 2008, Akita 2009, Thompson and Do 2019). A large-scale crosslinguistic investigation to address these issues will require a refined list of prototype features that helps us to collate ideophones in different languages.

NOTES

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1 Iconic gestures and prosodic foregrounding are more frequent with utterance-edge and quotative ideophones than predicative ideophones (Dingemanse and Akita 2017). This means that the degree of system integration of ideophones may differ within languages (see Tamori 1990, Rhodes 1994, Tamori and Schourup 1999, Akita 2009).

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