

A few thoughts on iconicity

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Introduction

For the majority of linguists, it is axiomatic that the relationship between the grammatical behavior of a word and its meaning is arbitrary. The simple concept of arbitrariness, however, is refuted by the idea of iconicity, as in Haiman's (1983, 1985) idea of diagrammatic iconicity. He challenges the idea of arbitrariness, asserting that languages are like diagrams, stating as follows (1985:3).

There are respects in which linguistic representations are exactly what they seem to be, and there are respects in which human languages are like diagrams of our perceptions of the world, corresponding with them as well (or poorly) as other diagrams do in general. (cf. Makino 2007)

According to Haiman (1985), the widely accepted idea of arbitrariness (which he equates with linguistic relativism) makes the following two central assertions:

1. The idea of arbitrariness asserts, first, that the categories of grammar do not correspond in their number or their extent with the categories of reality or experience.
2. The idea of arbitrariness asserts that the categories of the grammar of one language do not correspond to the categories of the grammar of any other language (1985:2).

Haiman also claims that the idea of arbitrariness has

been supported by generative grammar, by making a distinction between deep structure and surface structure and by positing the innateness hypothesis (Haiman 1985:2-3). In fact, tense, aspect, and modality are iconically marked in many languages. Linguistic data suggest that there is no language in which. According to Haiman, it is possible to study not only correlations between grammar and meaning, but also between sound and meaning, though he usually confines himself to the former.

Haiman's notion of diagrammatic iconicity traces back to C.S. Peirce (1932), who asserted that the relationship between the parts of a diagram resembles the relationship between the parts of the concept which it represents. I will briefly summarize the development of Peirce's idea.

Compared with Saussure's (1916, 1969) two-way distinction between signified and signifier (Figure 1), Peirce's study of symbols is three-dimensional, including the process the process of generation, that is, *firstness*, *secondness*, and *thirdness* (1932). On the level of representation, there are three steps in perceiving an object: at the level of qualisign, the receiver perceives the existence of an object, at the level sinsign, the receiver perceives that there is a certain object, and s/he sees its characteristics without noticing its name, and at the third level, the receiver assumes what it would be like if s/he touches it, tastes it, etc. If the object is concrete, each sign corresponds to iconic, indexical, and symbolic sign respectively.

Figure 1. Saussure (1916,1969)

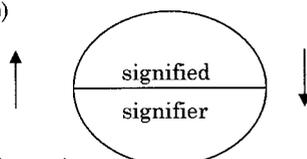
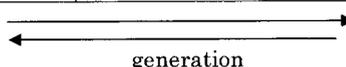


Figure 2. Peirce (1932) Trichotomic

	firstness	secondness	thirdness
representamen	qualisign	sinsign	legisign
object	iconic sign	indexical sign	symbolic sign
interpretant	rheme	decisign	argument



A clearer distinction between icon, index, and symbol can be made in the following way: an icon shows a similarity between what it represents and what it means. For example, the Chinese character 人 'person', which shows the form of a standing person, is an icon, because it shows a visual similarity with a person. An index is slightly different from an icon in the sense that it shows continuity between what it represents and what it means: smoke, for example, is an index for fire. Lastly, a symbol has no similarity or contiguity between its representation and meaning. For example, in Japanese, the word for university is *daigaku*, which is phonologically quite different from English university. English speakers happen to learn the word university instead of *daigaku* to mean university. Following this distinction, language and meaning might be regarded as arbitrary, and it is self-evident that the relationship between the phonological shape of most words and their meaning is quite arbitrary, e.g. the similarity of dye and die has nothing to do with their meaning.

However, it is self-evident that sound symbols and onomatopoeia are icons, or as Bolinger writes (1985:98). In his discussion, Haiman excludes the words of any language. However, I will start my discussion by studying onomatopoeia, because contrary to what Haiman suggests, in Japanese it plays a significant role.

Onomatopoeia in Japanese can function in verbs, adjectives, and nouns. Kawamoto 1986 treats them as playing a significant role in causing 'translinguistic' effect in poetry. The study of onomatopoeia in Japanese deals not only with sound symbols but also with icons in a narrower sense, that is, visual similarity itself. I will start my discussion with onomatopoeia in general. After that, I will also develop my discussion about the relationship between onomatopoeia and taxonomy in Japanese, then I will reconsider Haiman's study of iconicity by reviewing problems of lexical elaboration as well as the relationship between grammar and social distance.

1. Onomatopoeia: language-external sound phenomena

Although I cannot give an exact count of the number of onomatopoeic usages in Japanese, it is definitely far more than that of English. The majority of them have been grammaticized as verbs using the auxiliary verbs *suru* 'do' or *ni-naru* 'become'. Some of them can also be used as nouns. For example:

1. *hara-hara* description of occasional falling such

as the falling of autumn leaves, or description of being anxious, thrilled → *hara-hara suru* ('to fall a little by little, to be anxious, thrilled')

2. *bara-bara* description of being scattered, na-adjectiva → *Bara-bara ni suru* 'to take a thing to pieces'
3. *boro boro* shaggy na-adjectival, *boro-boro ni naru* 'to become shaggy'
4. *poro-poro* 'description of falling, dropping' → *poro-poro ni naru* 'to lose stickiness'

(Table 1)

Kindaichi 1994 presents the emotional aspects of Japanese consonants in the following way:

/k/ dry, stiff

/s/: comfortable, something wet

/t/: strong

/n/: sticky

/h/: light

/m/: round, feminine

/y/: soft, weak

/w/: fragile

(Table 2)

It is not clear why Kindaichi does not compare particular voiced and voiceless phonemes. However, he does point out that there are general meaning differences between voiced and voiceless phonemes in Japanese. He states that generally voiceless sounds have a connotation of small, pretty, and fast, while voiced sounds connote large, rough, and slow (Kindaichi 1994: 131-132). The most prominent dichotomy is:

voiceless:voiced:: clean:dirty

This point is significant when we consider onomatopoeia. If we make a comparison between *sarasara* ('lightly flowing,' such as the flow of a stream) and *zarazara* ('rough-surface'), *kira-kira* ('shining pleasantly,' e.g. starts) and *giragira* ('shining unpleasantly,' e.g. the eyes of a reptile looking for prey), all Japanese would feel that the first one in each pair has a positive connotation, which they would conceptualize as *kirei* 'clean,' and the latter a negative connotation, which they would conceptualize as *kitanai* 'dirty'.

In terms of consonants, the psychological aspect of onomatopoeia seems to be language-specific; in English, the difference between voiced and voiceless does not necessarily correspond to bad vs. good or dirty vs. clean. Considering variation of vowels, it seems that making a universal statement of the relationship between the sentiment and vowels is slightly easier, e.g. high front /i/ and /I/ tend to be used for diminutives or small objects (e.g. teensy, weensy, itsy bitsy).

The problem of sound symbolism is a matter of degree. Although, as I just mentioned, the relationship between consonants and sentiment is language-specific, Haiman claims that there is some universal idea of iconicity in naming shape, emotional feeling, and tactile feeling (Haiman 1985); he states that [t] and [k] are associated with angular meaning while [m] and [n] are associated with curvilinear meaning.

The problem of sound symbols in Japanese is not only a matter of sound, but also it is because of the writing system. The dichotomy proposed above, that is, voiceless:voiced::clean:dirty is related to the Japanese syllabary, because in this system a voiceless sound is turned into its voiced counterpart by the addition of two dots. As the result, voicing probably causes the feeling of an unnecessary addition, and thus dirty. The concept of dirtiness does not just mean ‘unsanitary, filthy’ but is related more to Japanese aesthetics. In this sense, over-decoration, i.e. gaudiness, vividness, and colorfulness are many times associated with ‘being dirty’.

Onomatopoeia is the most external sound phenomenon (Du Bois 1983:343). Therefore, it is very frequently used in Japanese poetry for a particular effect. At the same time, the language of poetry is not only related to sound symbolism, but also to the visual appearance of the icon itself. In this situation, poetry has the same iconic characteristics as calligraphy. Consider the following poem, which is made up entirely of onomatopoeic words of the poet’s own invention:

(1) Chiro chiro chiro
 Soro soro soro
 Soru soru soru
 Chirochirochiro
 Sare sare saresaresare
 Birubirubiru biru Oote, Takuji “Night”

In (1), other than the last line, all the onomatopoeic expressions consist of the consonants /t/, /s/ and /r/. These sounds show the poet’s calm, comfortable feeling, or they may describe the pleasant movement of night insects. The last line, on the other hand, which includes the voiced /b/, seems to describe the arrival of a large night spirit. Most Japanese could probably get this interpretation even though they have never heard these words before and even without knowing the title of the poem. In this poem, not only the usage of different types of onomatopoeia, but the usage of space is effective, that is, the pause itself is iconic in this poem. Another such example is (2).

(2) Ruru

Kusano, Shinpei “Spring”

(2) on the other hand, has no pause and only one mora, /ru/. The poet states that there could be any number of /ru/s here, as long as they do not go to the next line. /ri/, /ra/, and /ru/ are humming onomatopoeia in Japanese, so the repetition of /ru/ causes the feeling of leaping and a favorable feeling such as joy. This poem can be contrasted with the following (3), of which the title is ‘Hibernation’ by the same poet, Kusano:

(3)  Kusano, Shinpei “Hibernation”.

The blackened circle in the lower part of the whole space shows immobility and silence. This is a poem without any symbols (including sound symbols) in Peirce’s sense, but is simply iconic; this is not a poem in a narrow sense but rather a sketch or painting. The claim that this is a poem could be supported only by the fact that Kusano is a poet. The sparseness of this poem contrasts with (2) and shows the direct relationship between motivation and iconicity.

Considering Peirce’s system again, onomatopoeic expressions are those which cause degeneration, that is, a backward process which moves back the hearer/reader from language as ‘arbitrary symbols’ to icons (similarity). Usage of onomatopoeia in the poems above exemplifies degeneration.

2. Folk taxonomy: Sound symbols first?

This discussion is related to the discussion of onomatopoeia above. This section may be somewhat ambitious, but I will consider how the naming of indigenous animals has been conducted in relation to iconicity in Japanese. The theme here is whether the names of animals are based on sounds which they make or the form they have. I will limit myself to birds and insects, of which some make sounds while others do not. The reason why I do not include mammals in this section is because many of their names are borrowed from Chinese. On the other hand, terms for birds and insects are obviously of Japanese origin, because the majority of them cannot be written in Chinese characters. Some names of birds can be assumed to be borrowed, because they can be written in Chinese characters, and I have also excluded these from my discussion below (boldfaces are names based on onomatopoeia).

1. Birds

1.1. Table 3. Birds whose sound is salient:

suzume	uguisu	ahiru
?	?	?
sparrow	Japanese nightingale	suzume

niwa-tori	karasu	hachi-dori
yard bird	SOUND(?)	Bee-bird
Chicken/hen	crow	humming bird

uzura	hiyoko	tombi
?	?	?
quail	chick	kite

mimizuku/ konohazuku	tsugumi/monomane dori	yotaka
?	/mocking bird	night hawk
screech owl (barn owl)	mocking bird	whippoorwill

1.2. Table 4. Birds whose sound is not salient:

kitsutsuki	tsubame	kiji
Wood pecker	?	?
woodpecker	swallow	pheasant

ama-tsubame	?	kiji
? swallow	?	?
chimney swift	roadrunner	pheasant

2.1. Table 5. Insects which make sound:

koorogi	suzu-mushi	matsu-mushi
SOUND	bell insect	pine insect
cricket	insect which makes sounds like 'rrrrr'	A kind of cricket

<i>min-min zemi</i>	<i>abura zemi</i>	<i>tsuku-tsuku hooshi</i>
SOUND cicada	oil cicada	SOUND-SUF. actor
?	?	A relatively small cicada which makes sound like tsu-tsuk-tsuk

<i>kirigirisu</i>	<i>batta</i>	<i>kutsuwa mushi</i>
SOUND	onomatopoeia (?)	bit bug
katydid	grasshopper/locust	noisy cricket

2.2. Table 6. Insects which do not make sound

<i>maruhana bachi</i>	<i>hae</i>	<i>ka</i>
round nose bee	?	?
bumblebee	fly	mosquito

2.3. Table 7. Insects which do not make sound

<i>kabuto mushi</i>	<i>kamikiri mushi</i>	<i>kuwagata mushi</i>
helmet bug	paper cutting bug	hoe shaped bug
beetle	long horned beetle	stag beetle

<i>tentoo mushi</i>	<i>ageha</i>	<i>tonbo</i>
sun bug	?	?
ladybug	swallowtail	dragonfly

<i>tama mushi</i>	<i>kame mushi</i>	<i>kogane mushi</i>
jewelry bug	turtle bug	gold bug
jewel beetles/ metallic wood- boring beetles	stink bug	gold bug

<i>amenbo</i>	<i>batta</i>	<i>kamakiri</i>
rain SUF.person	?	sickle cutter
water spider	grasshopper/locust	praying mantis

From the data above, it is possible to conclude that in the case of Japanese folk taxonomy of insects, those which make salient sounds have a name derived from the sound they make, while those which do not make a salient sound have a name derived from their shape, color, design, or behavior. Birds are too ambiguous to draw a clear conclusion, but it can still be said that when the sound they make is regarded favorably, they have a name based on the sound they make.

The apparent ambiguity of birds' names may be due to the fact that I have mixed domesticated and wild birds. Apparently domesticated birds (for meat or eggs) are not named for their sounds. Their distinction between domesticated and wild birds should be studied further. Also, even though I have tried to exclude names of birds which are of Chinese origin, I suspect that there are still some names of Chinese origin in my list. For these reasons, it is not always clear what birds' names are based on.

None of the insects listed above are domesticated, although recently there are some children who keep beetles and *suzumushi* as pets. Also, it should be noted that these names are not a translation of Latin scientific terms but purely folk taxonomical. Again, as shown in the list above, except for *matsumushi*, all the insects which make sounds are named based on their sound. Therefore, I propose the principle of Japanese folk taxonomy of insects in the following way: (1) Name them based on the sound symbols, if possible, otherwise (2) visual motivation.

In English, too, some names of birds are behaviour-based. Some are evidently based on onomatopoeia such as screech owl, whippoorwill, and others are based on their behavior, such as woodpecker, barn owl, chimney-swift, roadrunner, mocking bird, etc. Some names of insects are sound-symbol based, such as cricket (Hook, p.c.), others are behavior-based such as praying mantis, grasshopper, etc., but the principle I proposed above does not necessarily apply to the naming of insects. This is a clear difference from the Japanese insect taxonomy.

3. Elaboration

Discussing the relationship between the amount of vocabulary and iconicity in a language, Haiman proposes the following two points: (a) an increase in vocabulary size covaries with a decrease in iconicity, and (b) an increase in vocabulary size is itself motivated by considerations of economy (1985:230). In this section, I will consider these two proposals with data from a number of languages.

3.1. Increase in vocabulary → decrease in iconicity?

According to Haiman, Mühlhäusler (1974) speculated that the degree of iconic motivation in a language is greater where the lexicon of the language is small. This phenomenon can be clearly observed in New Guinea Pidgin and the African pidgin Fanagalo as well as taboo language in Australia. First, although in many languages the semantic relationship between antonyms is morphologically opaque, in pidgins the relationship can be transparent, e.g. New Guinea Pidgin *gutpela* and *nogutpela* for 'good' and 'bad'. Secondly, the semantic relationship between male and female individual is also often transparent, e.g. New Guinea *pikinini man* (boy) and *pikinini meri* (girl); thus in both ways, the lexicon of these language is organized more transparently (Haiman 1985 :230-231).

Economic considerations are not very convincing as far as Chinese borrowings in Japanese are concerned. Chinese compounds have a tendency to show a transparent relationship between the elements. Even though I cannot say how large the vocabulary of Chinese is, it is undoubtedly not small. Consider the antonym examples: (Table8)

Sino-Japanese compound	<i>ko-tei</i>	<i>hi-tei</i>
Gloss	affirm	negate rule
English translation	affirmation	negation

<i>ka-no</i>	<i>fu-kano</i>
possible	non-possible
possible	impossible

<i>shoo-nen'</i>	<i>shoo-jo</i>
small age	small woman
boy	girl

<i>sei-ketsu</i>	<i>fu-ketsu</i>
pure-clean	non-clean
clean	dirty

In this way, Chinese compounds are transparent in the semantic meaning of each opposing element. The reason why Chinese is characterized by this transparency of semantic relationship may be related with the writing system.

On the other hand, it is obvious that the formation of Esperanto is a good example for hypothesis, because in this artificial language, the semantic relation between antonyms is transparent:

(Table 9)

Esperanto:	<i>sana</i>	<i>malsana</i>
English	healthy	ill
	<i>nova</i>	<i>malnova</i>
	new	old
	<i>bona</i>	<i>malbona</i>
	good	bad
	<i>bela</i>	<i>malbela</i>
	beautiful	ugly
	<i>Juna</i>	<i>maljuna</i>
	Young	old
	<i>Granda</i>	<i>malgranda</i>
	Large	small
	<i>Larga</i>	<i>mallarga</i>
	Wide	narrow
	<i>Pura</i>	<i>malpura</i>
	Clean	dirty

¹ The reason why boy is not glossed as "small man" has something to do with issue for gender markedness theory

As shown above in Esperanto, the prefix *mal-* gives the exact opposite of the word to which it is attached, apparently reflecting the ideology of transparency of the creators of Esperanto. The economy of the invented language seems to clearly appear in antonyms and it proves the above point.

There is a question, then, of why in many other languages the semantic relationship between antonyms is morphologically opaque? Is this question itself related with iconicity? Although a pair of antonyms are dichotomic, they are not in absolute opposition, but more in relative opposition. For example, the semantic relationship between good and bad is in reality a continuum. In their discussion of basic color terms, Berlin and Kay 1969 found that the difference between colors is a continuum, but rather each language has its own way of naming certain parts of the continuum. In this sense, though the perception of colors is universal among human beings, the way of associating it with certain color terms is language-specific. However, Berlin and Kay also add that the colors farthest apart on their continuum are always distinguished. Morphologically, the most economic and rational opposing words would be A;not A. Therefore, it is very likely that in newly-formed languages, the semantic relationship between antonyms is transparent, and thus, more iconic.

3.2. Increase of vocabulary size motivated by consideration of economy

Considering 'Nukespeak,' a jargon used by the military including words such as MIRV (Multiple Independently Targetable Reentry Vehicle) and SIOP (The Single Integrated Operational Plan), Haiman also proposes that the increase of vocabulary size by way of producing specialized terms which are not familiar with uninitiated audience is also motivated by economy (1985:233-236). In the case of Nukespeak, the opacity of the meaning comes from economy: 'economy of effort in production; economy of time spent in communication; and economy of time spent on labeling and processing the familiar' (p.235).

Haiman draws parallels between Australian taboo register and Nukespeak (and I might add the terminology of formal syntax, e.g. GB, RESNIC) are parallel because both can be understood only by those who have been initiated into the language community. Only the process is different; that is, taboo registers correspond to very simple concepts, while the words of Nukespeak are supposedly developed to hinder understanding by outsiders (Haiman:235-236).

Abbreviations in Indonesian have been developed since the time of independence in 1945. The rich inventions of abbreviations (*kata-kata singkatan*) by the charismatic first president Soekarno have been continued through the regime of the second president Soeharto. This holds not only for military jargon, but also political slogans and mottos, and social policies are repeatedly advertised in acronyms. Without a dictionary of acronyms for foreigners, it is impossible to understand newspapers or TV news. For Indonesian themselves, acronyms are something which can be easily used, and many of them are the invention of authorities. In this situation, the abbreviations have lost their opacity and they are not secret words any longer, while their original form has lost their frequency of usage.

More importantly, abbreviation brings about another semantic function. Soekarno's political mottos, NASAKOM-Nasionalis, Agama, Komunis- ('nationalism, religion, communism'), i.e. combination of three elements of nationalism, religion, and communism as a unique characteristic of the newly-born nation. USDEK -Undang-undang Dasar 1945; Socialisme ala Indonesia; Demokrasi terpimpin; Ekonomi terpimpin; Kepribadian Indonesia ('1945 Constitution; Socialism ala Indonesia; Guided democracy; Guided economy; National identity'), and MANIPOL -MANifesto POLitik-('Political Manifest') are a few typical shortened words. As they show, their meanings are opaque not only because of their brevity, but also because they reproduce another semantic function. Unlike Nukespeak, the shortened forms developed by the Indonesian government are not simply jargon, but stand as independent vocabulary items. Also, as samples such as NASAKOM and MANIPOL show, the shortened forms also conform with the phonological system of the Indonesian language, and thus can be independent words: this method of inventing shorter forms can be easily used for semantic manipulation. ABRI-Angkatan Bersenjata Republik Indonesia-('Indonesian Armed Forces'), for example, suggests an association with the noun *abdi* ('servant') or the verb *mengabdi* ('to serve') in the mental image of both speakers and audience. The way of choosing shortened form is not arbitrary. This way of manipulation may be attributed to the Javanese tradition of folk etymology, called *kerotodasa*. In this way, as Haiman 1983 explains, the shortened form is not necessarily identical in meaning to the original.

4. Passives and social distance

Wierzbicka 1980 explained the emotional aspects

of Japanese passives in detail, using semantic primitives. Her discussion can be developed to the discussion of the passive-causative structure (Jorden 1987). Here, I would propose that there is an iconic relationship between passive-causative structure and social distance.

As Wierzbicka discussed, the passive in Japanese often implicitly represents the speaker's negative feeling toward the incident. For example:

(1) Taroh wa Hanako ni denwa shita.
PAR telephone do,PAST
'Taroh telephoned Hanako.'

(2) Hanako wa Taroh ni denwa sare-ta.
Hanako was telephoned by Taroh.

The active structure is an objective description of what happened, while the passive structure (2) means that Hanako was bothered by Taroh's phone call. Based on this contrast, let us compare the causative (3), the passive (4), and the passive-causative (5):

(3) Taroh wa Hanako o ikase-ta.
Go-CAUS PAST
Taroh made Hanako go.

(4) Hanako wa Taroh ni ikare-ta.
Go-PASSIVE PAST
Hanako was left by Taroh.
(Taroh left Hanako, which affected Hanako negatively.)

(5) Hanako wa Taroh ni ikase-rare-ta.
by go-CAUS PASSIVE PAST.
Hanako was made Taroh to go (although Hanako was reluctant to go).

Japanese passive/active is not only a syntactic change or cognitive shifting, but also, it involves the feeling of positiveness/negativeness, willingness/unwillingness. In fact, when verbs are intransitive verbs, the passive form almost automatically connotes the negative feeling of the subject (It is evident in this sense that the subject of the passive form tends to be human, or at least animate.).

Conclusion

In this paper, I have tried to interpret the study of iconicity in various aspects, starting from the most external iconicity, onomatopoeia. In the first section I

reinterpreted some Japanese poems to see how poets are able to manipulate iconicity both linguistically and visually. Secondly I also analyzed the relationship between onomatopoeia and folk taxonomy of animals. The study shows that for the Japanese folk taxonomy of insects, onomatopoeia is the more important than the visual iconicity. In the third part of the paper I considered the relationship between the size of the vocabulary and the transparency of semantic meanings, based on Haiman's proposal that the smaller the size of the vocabulary of a language, the more transparent its semantic meaning; this does not work for Chinese, however, probably because of its writing system. On the other hand, artificial languages such as Esperanto seem to follow this rule. I also discussed another phenomenon, the usage of abbreviation, by citing politicized abbreviations in Indonesian. The study of Indonesian abbreviations shows that the usage of abbreviations is not only a matter of economy but also semantic manipulation. The last part of this study was about the relationship between grammatical forms and emotions. I tried to explain how volitionality vs. non-volitionality and positive emotion vs. negative emotion is related to the usage of passive, causative, and passive-causative structures in Japanese.

There is always a distortion in iconicity (Haiman 1985), and the matter of iconicity is a matter of degree. Iconicity covers a vast range of aspects of language, from human perception to social behavior. Probably because it covers the most basic part of human languages, the study of it has not been very appealing, especially after the birth of generative grammar. Which aspect of language is iconic and which aspect is non-iconic, in other words, which aspect of language is motivated and which aspect is not motivated is a never-ending question. We seem to have many more aspects to explore.

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