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## Sound Symbolism and Its Syntactic Function in Japanese Post-positional Particles<sup>1</sup>

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Abstract: Native speakers of Japanese tend to verbally describe, specify, and qualify human action and natural phenomena by means of words comprised of seemingly abstract sounds, which suggests that there exists in Japanese symbolic meanings in various sounds which underscore the lexical meaning of those words. Based on previous investigations into the nature and meaning of sound in Japanese, this paper shall attempt to broaden the inquiry regarding the possible existence and function of Japanese sound symbolism through an analysis of its relationship with post-nominal particles.

### Introduction

Despite the widespread belief in the arbitrary nature of language, for some time it has generally been accepted that there exists a certain degree of correlation between phonetics and semantics in languages of the world, i.e., that there is a relationship between verbally-generated sound and lexical formation (meaning). This has led some scholars to conclude that specific sounds, in and of themselves, hold various kinds of symbolic meanings, especially in areas related to size and diminution (see Ulta 1978; Ohala 1994). In recent years the scope of inquiry has been broadened to include what has been termed 'metalinguistic,' or 'metacommunicative,' symbolism, which Hinton et al. describes as "segment choice and intonation patterns [which] signal aspects of linguistic structure and function" (1994: 6). Thus, sound symbolism may be seen to work (with varying degrees of convention and language-specificity) at several different levels of language which include not only the realm of semantics, but those of syntax and pragmatics as well.

Studies of the symbolic meaning of sound in the Japanese language have in the past focused on the lexicon on onomatopoeic expressions (giongo) and, in particular, in what has been termed "metaphoric onomatopoeia" (gitaigo—phenomimes—and gijoogo—psychomimes)— words distinctly different from the mere imitation of audible phenomena (giseigo— phenomimes) in that they depict

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<sup>1</sup> The author is grateful to Akira Yamamoto, departments of Linguistics and Anthropology, University of Kansas, for his thoughtful comments on and many suggestions for earlier drafts of this paper.

what are normally inaudible states, conditions, and manners of the external world, in addition to mental conditions and sensations, by means of seemingly abstract (often reduplicated) sound. Table (1) gives some examples of both imitative and metaphoric onomatopoeia in Japanese.

Table (1): Onomatopoeic Words in Japanese (Giongo)

1- Phonomimes:	wan-wan zaa-zaa	“bow-wow” sound of downpour
2- Phenomimes:	yobo-yobo kossori	wobbly stealthily
3- Psychomimes:	ira-ira zuki-zuki	nervously throbbingly

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According to linguists such as Shibatani (1990), although it appears that there are common sounds in words that share similar meaning (as in the words *ira-ira* and *zuki-zuki* in Table (1), which both contain the high front vowel /i/), any perceived common meanings of those sounds is rather subjective and non-specific. On the other hand, a strong case has been made elsewhere pointing to the existence of a more definite, symbolic meaning and function of sound and its manner of articulation in Japanese which serves as the foundation for and reflects the lexical meaning of metaphoric onomatopoeic words (Bruch 1983). This would suggest that there also exists symbolic meaning in other Japanese words and expressions, and possibly, on other levels of the language apart from a phonetic one. It is the purpose of this paper to continue this argument in favor of the symbolic meaning and function of sound by extending and applying it to the area of syntax, in particular, selected post-nominal particles, to suggest that there is a possible, though perhaps less specific and noticeable, relationship between sound quality and the formation of sentences in Japanese.

### Japanese Onomatopoeia

Before undertaking an analysis of the role of sound in post-nominal particles and Japanese syntax it is necessary to first briefly discuss certain aspects of Japanese onomatopoeic expressions and phonetics.

The Japanese language is one rich in both imitative and metaphoric onomatopoeic words which syntactically function as qualifiers (as adverbs, adjectives, and verbs). Morphologically speaking, they frequently involve the reduplication of syllables, and, the phenomimes tend to end in /ri/ (Shibatani 1990: 154). These words are often essential in order to make a sentence or

utterance more specific, given that most Japanese verbs are rather vague. For example, warau is a general lexical term used to cover a wide spectrum of meanings related to the action of laughing. When this verb is preceded by various onomatopoeic words (often adverbialized by the particle ni or to), the resulting verb phrase becomes a more specific lexical expression, as in the cases of niko-niko (to) warau (smile), kusu-kusu (to) warau (giggle), nikkori (to) warau (grin), ha-ha-ha (to) warau (laugh). In fact, according to Yang (1985), onomatopoeic words are preferred, rather than standard adverbs [e.g. yawarakaku (gently) warau (smile)] or Chinese compounds [e.g. bishoo-suru (smile)], in most effectively making a description of an action, condition, or state as specific as possible in Japanese.

It is generally in the area of articulation that researchers agree that the quality and type of sounds (re)produced in Japanese onomatopoeic expressions is in various ways related to the semantic interpretation of those words. According to Shibatani (1990), onomatopoeic words, both imitative and metaphoric, which have nasal endings tend to reflect a sense of prolonged resonance or rhythmicality. For example,

- (1) Ton-ton hanasi-ga susumu.<sup>2</sup>  
Ton-ton (knocking sound) discussion-NOM advance.Nonpolite/Nonpast  
-The discussion proceeds ton-ton (smoothly, without missing a beat).

Words that contain long vowels suggest prolongation or continuity.

- (2) Ame-ga zaa-zaa huru.  
Rain-NOM zaa-zaa (sound of pouring or gushing water) fall.Nonpolite/  
-Nonpast  
-It rains zaa-zaa (incessantly, heavily).

A /ri/ ending is often found in words associated with punctuality and separateness.

- (3) Kami-o bari-bari yaburu.  
Paper-ACC (motion and sound of ripping) rip.Nonpolite/Nonpast  
-(I) rip the paper bari-bari (in half or in strips).

Reduplication of syllables, as in many other languages, imitates repetitive sounds

<sup>2</sup> The following abbreviations will be used for the remainder of this paper:  
N=nominal, NP=noun phrase, V=verb, VP=verb phrase, Nom=nominative case particle,  
Comp=comparative particle, Gen=genitive case particle, Top=topic particle, Loc=locative particle,  
Dir=directional, Temp=temporal, Dat=dative case particle, Acc=accusative case particle,  
Exp=experiencer, Agt=agent, Com=commititive particle, Goal=destination.

and suggests repeated movement. The presence or absence of voiced consonants ([+voice]/[-voice]), especially word and syllable-initial ones, are clearly related to onomatopoeic word-meanings. [+voice] consonants tend to be found in words and expressions associated with heaviness, loudness, larger sizes, hardness, strength, and speed. On the other hand, [-voice] consonants are usually found in words associated with lightness, softness (auditory and tactile), smallness, slowness, etc.

- (4a) To-o gara-gara akeru.  
Door-ACC gara-gara (heavy clattering sound) open.Nonpolite/Nonpast

-[I] open the (sliding) door gara-gara [with a (heavy) clatter].

- (4b) To-o kara-kara akeru.  
Door-ACC kara-kara (light clattering sound) open.Nonpolite/Nonpast

-[I] open the (sliding) door kara-kara [with a (light) clatter].

Differences in vowel quality are similarly related, with high or closed vowels associated with higher, sharper sounds, or activities involving smaller objects. The vowel /i/ particularly stands out in this respect and is often contained in words which in some way produce a diminutive effect. In contrast to these high-vowel meaning-associations, of course, are those words containing mid-range and lower vowels.

- (5a) Nezumi-ga kii-kii naku.  
Mouse-NOM kii-kii (squeaking sound) cry.Nonpolite/Nonpast

-A mouse emits kii-kii (sharp, squeaking) cries.

- (5b) Karasu-ga kaa-kaa naku.  
Crow-NOM kaa-kaa (crowing) cry.Nonpolite/Nonpast

-A crow emits kaa-kaa (crowing) cries.

This apparently close relationship between the articulation of onomatopoeic words and their semantic interpretations would indeed seem to support a case for a more objective, symbolic meaning of sound in Japanese.

It is with the purpose of objectifying the link between sound and meaning that Bruch (1983) undertook her study of Japanese metaphoric onomatopoeia (gitaigo and gijoogo). Ultimately her goal was to systematically establish and make clear specific symbolic meanings for each of the one hundred syllables and their phonemes in the Japanese syllabary as they occurred in metaphoric onomatopoeic words. To arrive at these meanings (see Appendix), Bruch, with

the aid of a computer, began with a base of eight-hundred-sixty-four reduplicative words which were first divided into two groupings: (1) words categorized according to the syllables they contained (for example a list was made of all the words containing the syllable /ka/, another of all the words containing the syllable /ki/, etc., for each of the one-hundred possible syllables) and (2) words categorized according to single phonemes (rather than the syllabary) for each of the five vowels and fifteen consonants in the language. She then started by examining the syllable lists and, using a blank grid, recorded in the appropriate area the meanings which were most common among the words containing a particular syllable (see Appendix, I).

After completing this task for each syllable, Bruch then looked down each column vertically, to see if there were common meanings for syllables containing the same consonant, and horizontally for syllables containing the same vowel. After discovering a meaning common among a group of words containing a certain phoneme unit by examining her grid in this way, Bruch then referred to her second group of lists (categorized by phonemes: for example, all words containing the phoneme /d/) in order to discover any correspondence which was duly noted (see Appendix, II). Finally, with the meanings she established in examining her lists, she tested her results for accuracy by predicting meanings for a large number of other reduplicative metaphoric onomatopoetic words. The frequency of correct predictions varied according to specific factors, including the arrangement or position of occurrence of syllables and phonemes in a given word, but was particularly high in the cases of words containing [+voice] syllable-initial stops and words containing the high vowel /i/ and low-vowel /a/ (see Appendix, III). Overall, Bruch found that the symbolic meanings that she had established for Japanese syllables and phonemes generally referred to potential for, or actually occurring motion, sense impressions, attitudes, states, and objects.

### Sound and Syntax

It is in light of Bruch's findings that the remainder of this paper shall attempt to analyze the possible relationship between sound symbolism and syntax in Japanese. The analysis will focus on a sample of post-nominal particles. Because it appears that some particles developed from what were once interjections (with purely audible effect for the purpose of emphasis and mood expression) in Old Japanese which, over time, took on grammatical and semantic functions as the need to more clearly express, verbally, more complex ideas and sentence-internal relationships between various elements grew (see Shibatani 1990: 333-355), post-positional particles present themselves quite well as an area of investigation for sound symbolism.

### Ga/yori; ga/wa; wa/mo

Perhaps the most readily accessible example of the relationship between

Japanese phonemes and morphemes and the syntactic function of post-nominal particles can be seen in the comparative construction N<sub>1</sub> (no-hoo)-**ga** N<sub>2</sub> (no-hoo)-**yori** + VP.

- (6) SeNsei (no-hoo)-**ga** gakusei (no-hoo)-**yori** umai.  
 Teacher      **-Nom** student      **-Comp** good=at. Nonpolite/Nonpast

-The teacher is better (at it) than the student

notes: a) NP **gakusei-yori** may occupy sentence-initial position.

b) the phrase no-hoo (genitive particle no + nominal hoo) may be inserted between the sentence nominals seNsei (N<sub>1</sub>) and gakusei (N<sub>2</sub>) and their particles ga and yori respectively, and can be loosely translated as "the side of" (the nominal); the ga- marked nominal usually appears with this phrase while in the case of the yori-marked nominal it is usually omitted. In this example no-hoo has been omitted in both cases for the sake of simplicity and clarity.

Upon examination it appears that the outcome of this comparison can be predicted, even without a former knowledge of the interpretation of the comparative construction, by loosely applying the sound-symbolic meanings of the particle syllables and phonemes listed in Bruch's chart for ga and yori in Table (2) below.

Table (2) Meanings of the Particles Ga and Yori and Their Phonemes  
 (source: Bruch 1983: 79-80)

Particle	Syllables	Relevant Meanings	Phonemes & Relevant Meanings
1- ga	ga	big, hard, heavy	-g: abruptness, discontinuity, hardness -a: bright, non-trivial, non-bound
2- yori	yo	soft, unsteady	-y: slowness, non-firmness, unsteadiness -o: round, discontinuous
	ri	discontinuous movement, dry	-r: discontinuous movement -i: hard, small, light

As indicated in Table (2), in comparing the relevant meanings of both ga and yori, generally speaking, the ones associated with the syllable and phonemes of ga tend to be more "x" than those associated with the syllables and phonemes of yori. This is reinforced by the plosive [+voice] articulation of the



initial phoneme /g/ in ga which differs from the softer manner of articulation of the initial phoneme /y/ (though still [+voice]) in the first syllable /yo/ of yori. Similarly at the phonemic level, the /a/ in ga, according to Bruch, usually implies something of a larger degree in relation to the /i/ in yori, which tends to have a diminutive connotation in Japanese metaphoric onomatopoeic words. By extension, the ga and yori marked nominals may be understood to take on (syntactically speaking) the syllable and phoneme meanings of their respective particles. Thus, the outcome of the comparison in (1) is implied in the meaning and sound quality of the key particles ga and yori: the teacher (N<sub>1</sub>) is better (more V) than the student (N<sub>2</sub>) [this is also reinforced by the fact that the ga-marked nominal takes the sentence or clause-initial position]. It must be noted that although the meanings associated with the syllable ga may connote something large, and yori something small, in a comparison it is really a question of degree. There is no contradiction, therefore, in an example such as N<sub>1</sub>-ga N<sub>2</sub>-yori chiisai (small). Semantically, the interpretation of such a sentence is not \*N<sub>1</sub> (which is something larger) is smaller than N<sub>2</sub> (which is something smaller), but rather, N<sub>1</sub> (is smaller than) N<sub>2</sub>.<sup>3</sup>

The above interpretation of the phonetic function of the particle ga in a comparative sentence fits more broadly into its nominative case marking function and also reveals its relation to other particles in the following example:<sup>4</sup>

- (7) Kono hoN-**wa** miNna-**ga** yoNde iru.  
 This book-**Top** all -**Nom** read be.Nonpolite/Nonpast  
 -As for this book [this book is such that], every one is reading [it].

The above example is based on what has been termed the 'topic. . . comment' construction [ [N<sub>1</sub>-**wa**]topic [N<sub>2</sub>-**ga** (**Nom**). . .VP]comment. . . ]sentence in which the wa-marked nominal is considered to be a broad topic of discussion while the ga-marked nominal is the main subject of the sentence which describes that topic; thus, syntactically, the focused nominal is the ga-marked one in the sentence.<sup>5</sup>

<sup>3</sup> According to Akira Yamamoto, in most cases, however, if there is a choice between (1) X is larger than Y, and (2) Y is smaller than X, (1) is preferred (personal communication).

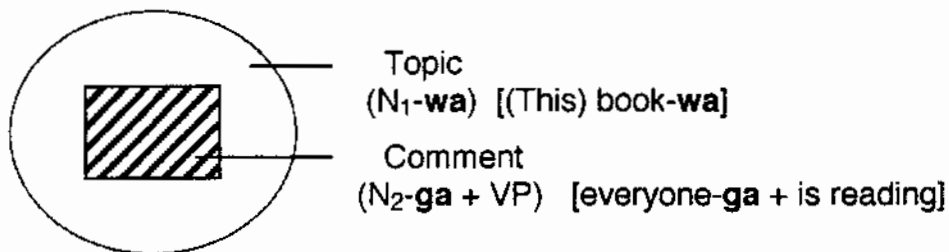
<sup>4</sup> According to Shibatani (1990: 347-356), the particle ga originated in Old Japanese as an attributive/genitive particle and did not take on its subject-marking functions until medieval times, first in dependent clauses, and later in independent clauses. Thus, it is not until the Kamakura period (1185-1333) that the particle ga first developed the nominative case marking function that it has in modern Japanese. This does not necessarily conflict with the discussion of ga here; . . . suggest that, based upon its manner of articulation, the original function of the particle was to sound-symbolically identify the most important argument of a clause. Over time, the particle went through processes of grammaticalization, first, as an attributive/genitive particle in dependent clauses, and later, as a nominative case marking particle in independent clauses.

<sup>5</sup> This holds true for Shibatani's interpretation of the particle ga as marking the introduction of "new information" which receives the focus of the sentence in relation to wa ("old information").

This can also be explained on a phonetic level. According to Bruch, the symbolic meaning of the syllable ga conveys an idea of something to a large(er) degree which is also suggested at the phonemic level in the vowel /a/ ("bright, non-trivial, non-bound"), emphasized by the [+voice] articulation of /g/. The particle and syllable wa shares the phoneme /a/ with ga, also indicating something "bright, non-trivial, non-bound," but differs in its initial phoneme /w/, which implies "non-firmness, unsteadiness," and although [+voice], /w/ is softer than /g/. It seems that the "non-trivial, bright" aspect of the vowel /a/ may serve to single out the most important nominals/arguments in a given sentence (the ga and wa-marked nominals). In relation to ga, wa will appear (sound) to be marking something of a broader scope (= non-bound) in light of its syllable/phoneme symbolic meanings and (although [+voice]), somewhat softened articulation in comparison. Thus, due to its being singled out in a sentence (/a/) and the degree of emphasis ([+voice] /g/), the ga-marked nominal is singled out as the focus. The wa-marked nominal, in relation to the ga-marked one, is less focused, given its more broader symbolic meanings and softened articulation. Though still one of the essential arguments in a particular sentence, the wa-marked nominal does not draw the same focus as the ga-marked one. In the above example, then, the wa-marked book is presented as the topic of discussion while the focus of the sentence is on the ga-marked "everyone" and the act of reading.

More specifically, the manner of articulation of the phoneme /w/ phonetically suggests the topic marking function of the particle wa. Martin (1975: 52) has described the topicalizing function of wa as "backgrounding" which can be thought of as a broad, diffuse idea (topic) within which some sort of action or event takes place, usually initiated by a subject (nominative case marked-nominal) of a sentence or phrase. The following diagram attempts to illustrate this concept.

Figure (1) Diagram of Topic...Comment Sentence.



The manner in which /w/ is articulated, with the lips of the mouth beginning from a position nearly touching and then moving away from each other as the mouth opens and air passes between, may suggest this idea of topic "diffusion", spreading out, and encircling as in the example in Figure (1), and consequently, a sense of "backgrounding" and subduing. In opposition to this is the manner of articulation of the adverbial particle mo which syntactically has an inclusive

function (what Martin terms "foregrounding" or "highlighting") and when attached to a nominal N, will be interpreted as N also. The particle mo imparts a degree of emphasis and focus which is phonetically symbolized by the bringing of the lips together to articulate the phoneme /m/, conveying this sense of inclusiveness.

No; ni; ni/to

In the cases of the particles no, ni, and to, the relationship between these postpositions and their symbolic function in syntax is perhaps somewhat clearer than in the above examples of ga, wa, yori, and mo.

(8a) Watashi-**no** hoN da.

I -**Gen** book copula.Nonpolite/Nonpast

-(That/It is) my book.

(8b) Yamada seNsei-**no** hige-**ga** rippa da.

Yamada teacher-**Gen** beard-**Nom** impressive copula.Nonpolite/Non-

-(It is) Professor Yamada's beard (that) is impressive

(8c) Sakana-**no** tai-**ga** ii.

Fish -**Gen** seabream-**Nom** good.Nonpolite/Nonpast

-(It is) the fish seabream (that) is good.

In the sentences in (3a-c) above, the syntactic function of the genitive case particle no is to link the preceding nominal with the nominal which immediately follows in either a possessor-possessed [(a)], whole-part [(b)], or genus-species [(c)] type of relationship. Although Bruch has assigned various meanings to the syllable no and its phonemes (such as "bigness, heaviness, roundness, softness, and discontinuous movement"), it is the "wetness, sliminess, and stickiness" sound-symbolic meanings associated with the initial nasal phoneme /n/ that describes the syntactic function of the particle (which may imply that there is some sort of hierarchy of meaning importance<sup>6</sup>). The idea of stickiness, in particular, suggests a direct bond between two (or more) things. In terms of articulation of the nasal /n/, the bond, or contact between the tongue and palette in the mouth is clearly the origin of this associated meaning. Thus, by means of sound, a link or bond is established between words through the use of the particle no which reflects the relationship between the nominals in the sentences of (3a-c).

<sup>6</sup> Brought to the author's attention by Akira Yamamoto (personal communication).

This meaning of stickiness, or bonding, in the phonetic qualities of the nasal /n/ can also be carried over to the case particle ni.

- (9a) Uchi-**ni** shukudai-**ga** aru.  
 (My) home-**Loc** homework-**Nom** exist. Nonpolite/Nonpast  
 -(My) homework is at home.
- (9b) Ashita Tokyo-**ni** iku.  
 Tomorrow Tokyo-**Loc/Goal** go. Nonpolite/Nonpast  
 -Tomorrow (I) will go to Tokyo.
- (9c) Watashi-**wa** mai asa roku ji-**ni** okiru.  
 I -**Top** every morning six hour-**Temp** get up. Nonpolite/Nonpast  
 -Every morning I get up at six o'clock.
- (9d) John-**ga** Mary-**ni** hoN-**o** yatta.  
 John-**Nom** Mary-**Dat** book-**Acc** give. Nonpolite/Past  
 -(It is) John (who) gave the book to Mary.
- (9e) Watashi-**ni** Eigo-**ga** dekiru.  
 I -**Exp** English-**Acc (Nom)** able to. Nonpolite/Nonpast  
 -I can (speak, read) English.
- (9f) Ame-**ni** furareta.  
 Rain-**Agt** fall. Passive/Nonpolite/Past  
 -I was rained on [I got caught in the rain and was adversely affected].

The sentences in (9a-f) are but a few of the wide ranging uses and multiple meanings of the particle ni, including marking of the dative case, a location, a point in time, a direction, a goal, an experiencer, and a passive agent among other things. Yet, among these various functions and meanings, there does exist a common denominator. It has been suggested to the author that of the syntactic meanings and functions of ni, all seem to indicate a sort of contact between a sentence's (or phrase's) subject and ni-marked nominal, be it physical, mental, temporal, etc.<sup>7</sup> This might explain the common usage of ni in, for example, (a), where the syntactic (though not semantic) subject (homework) is "in contact" with

<sup>7</sup> Kyoko Mizuno, oral presentation and personal communication.

a location (the house), and (f), where the subject (I, omitted) is adversely affected in the indirect passive construction from coming in contact both physically and mentally with the agent (rain). The so-called "stickiness" meaning of the nasal phoneme /n/ of *ni* has already been examined in the study of the particle *no* above. It appears that in the very same way that the sound quality and articulation (contact between the tongue and palette) of /n/ of *no*, contact is phonetically established between a sentence's (or phrase's) subject and *ni*-marked location, goal, time, indirect object, or agent.

This phonetic understanding of the symbolic sound-based function and meaning of the particle *ni* may also explain the syntactic and semantic differences in sentences involving verbs such as *au* (meet), which takes either *ni* or *to* (comitative) to mark objects.

- (10a) John-**ga** Mary-**to** *atta*.  
 John-**Nom** Mary-**Com** meet.Nonpolite/Past  
 -John met (with) Mary.
- (10b) John-**ga** Mary-**ni** *atta*.  
 John-**Nom** Mary-**Loc/Goal** meet.Nonpolite/Past  
 -John met (ran into) Mary.  
 (source: Kuno 1973: 104)

Although both (10a) and (10b) are very similar in meaning, there is a slight difference in their interpretations. Kuno has diagrammed the two sentences as thus:

- (a) John → (encounter) ← Mary =to  
 (b) John → (encounter) Mary =ni

According to Kuno, in (a) the encounter was reciprocal, implying that "both John and Mary came intentionally or unintentionally all the way to the common meeting place." In (b) the encounter appears to be unidirectional: "Mary was there at the common meeting place and John came, intentionally or unintentionally, all the way to meet her" (1973: 104). It is fairly clear that in both sentences "contact" is made between the two parties which is sound-symbolically reflected in the articulation of both *to* and *ni*. In the case of the latter particle this is perceived in the symbolic "stickiness" meaning through palatalization. In the case of *to*, the contact may be sound-symbolic in its alveolar-dental articulation (contact between the tip of the tongue and the alveolar ridge-dental area of the mouth in order to produce the sound of the phoneme /t/). What then accounts for the syntactic and semantic difference between the two particles? In the case of *to*, one of the meanings Bruch has established for the phoneme /o/ is a sense of

roundness, established by the manner of its articulation: the slight dropping of the lower jaw and the rounding of the lips. Both the sound of the phoneme and the actual physical action of its articulation, symbolic of roundness, connotes an act of surrounding, encircling, and inclusiveness. It is from this idea of inclusiveness, expressed in sound, that lends to the interpretation of reciprocal action in sentence constructions that include the particle *to* with this group of predicates [including *x,y* → both *x,y* → with *x,y/with each other*, etc., (reciprocal movement)]. This may also apply to the conjunctive function of *to* (*x to y* → *x and y*).

Although contact is established through the sound of /n/, *ni*, in contrast to *to*, lacks a sense of inclusiveness, instead phonetically conveying an idea of exclusiveness, given the "smallness" connotation and diminutive effect of the phoneme /i/. Thus there is imparted an idea of "x only," or "only John" (unilateral movement). There is also the possibility that in sentences in which verbals such as *au* are presented with *ni*, the idea of non-initiation of action on the part of the *ni*-marked nominal (Kuno 1973: 104), may in fact be symbolically suggested by the "stickiness" meaning of *ni*, emphasizing both contact with other nominals and, perhaps, contact/bonding with space, time, or psychological factors, which prevent action or movement of the marked nominal. Thus, there is only unilateral action taken by the first (*ga*-marked) nominal.

If this last idea seems to be stretching the analysis a bit too far, it is unfortunately one of the pitfalls in attempting to apply the symbolic meaning of sound to Japanese syntax. In any case, regardless of much of the study presented thus far, it is the author's opinion that, at the very least, the sound quality of post-nominal particles serves one important function on a very basic level in Japanese sentence formation. A brief examination of the meanings associated with the various syllables of particles reveals that most, if not all, connote a sense of discontinuous movement, implying a stoppage (if only brief) of action. Similarly, there are no particles whose syllables contain the high back vowel /u/—the phoneme associated with prolonged, continuous movement. It seems that above all else, post-nominal particles function in a given sentence to briefly arrest the flow of words (both audibly and mentally) to draw focus to the nominals to which they are attached in order to highlight or identify the important/essential arguments required by the verb, before continuing on to the next word uttered (or read). This highlighting function may be visually represented in the following example by means of printing the particles in bold-face (which has been the practice in the examples given throughout this paper).

- (11) Kono kurasu-**wa** miNna-**ga** seNsei-**to** toshookan-**ni** iru.  
 This class-TOP all-NOM teacher-COM library-LOC exist.Nonpolite/  
 -Nonpast

-(This class is such that everyone is in the library with the teacher.)

A function of sound in highlighting, or singling out, the essential nominals in sentences may itself provide enough material for further investigation of Japanese sound-symbolism at a later time.

## Conclusion

This paper has by no means been an exhaustive analysis of the relationship between sound and the syntactic function of post-positional particles of the Japanese language. It has not even come close to dealing with all of the many post-nominal ones. This means to suggest that there is also strong evidence of sound-symbolism at work in other post-positional particles which fall outside the scope of this paper. For example, it appears that there is a symbolic function in the sound of the conditional verb ending *-tara* which carries an implied sense of surprise. The symbolic meanings associated with the morphemes and phonemes of *-tara* (abruptness, movement, things of large degree) most likely reflect this implied surprise. The difficulty in understanding and thus, presenting in this paper, sound symbolism (in the syllables and individual phonemes of Japanese particles) and its syntactic function is in making explicit what is by nature something which is intuitively sensed or perceived beyond cognitive thought. In other words, it just feels and sounds right while not lending itself very well to clear, written explanations. This having been said, there are a few conclusions which might be drawn in light of this study:

(1) There definitely exists to some degree a symbolic function of sounds in Japanese syntax.

(2) This function is closely related to the places and manners of articulation (alveolar, palatal, [+voice]/[-voice], high vowels/mid-vowels/low vowels, etc.) of those sounds which comprise certain particles, as is apparently the case in Japanese onomatopoeic expressions.

(3) Some sounds (syllables and phonemes) which comprise certain post-nominal particles, lend themselves more readily than others to an analysis and understanding of a symbolic syntactic function, i.e., the phenomenon of sound symbolism lies closer to the surface in some particles than in others. Interestingly, these particles whose sound-symbolic functions are more apparent seem to coincide with a hierarchy of particles in areas such as deletability.

(4) What may at first appear to be of a secondary importance and peripheral nature when viewed on a semantic level in dealing with onomatopoeic expressions, sound symbolism, when applied to the area of syntax may hold a greater importance in tracing the historical development of the Japanese language.

This last point leaves open a door for further investigation into the symbolic meaning of sound in Japanese particles, and, more ambitiously, perhaps in the

area of post-verbal inflections (such as -*tara*), in order to establish more clearly the role of sound in Japanese. The fact that the Japanese tend to clarify sentences or concepts by means of sounds which, otherwise, may appear to be quite abstract in the form of metaphoric-onomatopoeic expressions, and post-nominal particles (which in many instances evolved from abstract interjectional, expressive utterances), hints, at a very basic level, at the importance of sounds in Japanese. If nothing else, the sound symbolism apparently at work refutes any argument in favor of the arbitrariness of the formation and development of the language.



Appendix  
I-Grid of Syllables and Their Symbolic Meaning (source: Bruch 1983: 79-80)

<b>KA</b> big bright discontinuous dry hard	<b>GA</b> big discontinuous dry hard heavy	<b>SA</b> continuous dry fast friction light quiet rough	<b>ZA</b> continuous friction rough	<b>IA</b> big discontinuous hard loud	<b>DA</b> big/many discontinuous long (time)
<b>KI</b> bright discontinuous dry fast hard light sharp small	<b>GI</b> bright discontinuous fast hard heavy	<b>SI (SHI)</b> discontinuous friction hard quiet small	<b>ZI (JI)</b> restless small	<b>TI (CHI)</b> discontinuous fast hard small	
<b>KU</b> continuous dark fast round smooth	<b>GU</b> continuous fast round smooth	<b>SU</b> continuous smooth	<b>ZU</b> big heavy smooth	<b>TU (TSU)</b> discontinuous smooth	
<b>KE</b> continuous loud sharp undesirable	<b>GE</b> continuous loud sharp undesirable	<b>SE</b> continuous restless undesirable	<b>ZE</b> friction rough	<b>TE</b> big/many undesirable	<b>DE</b> big/many undesirable
<b>KO</b> big/many bouncy discontinuous hard round	<b>GO</b> big/many bouncy discontinuous hard heavy loud rough	<b>SO</b> discontinuous dry friction quiet rough	<b>ZO</b> friction rough	<b>TO</b> bouncy discontinuous hard round	<b>DO</b> big/many discontinuous loud
<b>KYA</b> (scream)	<b>GYA</b> (squawk)	<b>SYA (SHA)</b> big/many soft wet	<b>ZYA (JA)</b> big/many loud wet	<b>TYA (CHA)</b> big/many hard wet	
<b>KYU</b> (squeak)	<b>GYU</b> (squeak, creak)	<b>SYU (SHU)</b> friction (hissing)	<b>ZYU (JU)</b> friction (hissing)	<b>TYU (CHU)</b> (squeak)	
<b>KYO</b> restless	<b>GYO</b> restless	<b>SYO (SHO)</b> wet	<b>ZYO (JO)</b> gradual hard rough	<b>TYO (CHO)</b> bouncy discontinuous restless wet	

<b>NA</b> discontinuous soft/flexible	<b>HA</b> bright movement through air	<b>BA</b> big/many bright discontinuous hard heavy	<b>PA</b> discontinuous hard movement through air small	<b>MA</b> big/many	<b>RA</b> discontinuous movement dry hard
<b>NJ</b> slimy/sticky	<b>HJ</b> fast movement small	<b>BJ</b> discontinuous hard small	<b>PJ</b> discontinuous hard sharp	<b>MJ</b> big/many	<b>RJ</b> discontinuous movement light not wet small
<b>NU</b> slimy/sticky smooth wet	<b>HU</b> airy movement through air soft unsteady	<b>BU</b> big/many soft	<b>PU</b> round soft	<b>MU</b> big/many dark undesirable	<b>RU</b> continuous movement round smooth
<b>NE</b> discontinuous slimy/sticky soft/flexible undesirable	<b>HE</b> undesirable	<b>BE</b> big/many (too much) undesirable	<b>PE</b> flat soft undesirable	<b>ME</b> undesirable	<b>RE</b> discontinuous movement
<b>NO</b> big heavy slimy slow	<b>HO</b> discontinuous	<b>BO</b> big/many discontinuous round	<b>PO</b> discontinuous round small	<b>MO</b> discontinuous quiet restless slow unclear undesirable	<b>RO</b> bouncy discontinuous movement restless round
<b>NYA</b> soft/flexible	<b>HYA</b> (no examples present)	<b>BYA</b> (no example present)	<b>PYA</b> (no examples present)	<b>MYA</b> (no examples present)	<b>RYA</b> (no examples present)
<b>NYU</b> slimy	<b>HYU</b> fast movement through air	<b>BYU</b> fast movement through air	<b>PYU</b> fast movement through air	<b>MYU</b> (no examples present)	<b>RYU</b> (muscular, flourishing)
<b>NYO</b> restless wiggling	<b>HYO</b> bouncy	<b>BYO</b> (no examples present)	<b>PYO</b> bouncy discontinuous	<b>MYO</b> (no examples present)	<b>RYO</b> discontinuous
<b>WA</b> flexible slow soft	<b>YA</b> big/many	<b>-N (syllable final)</b> big/many completion/finality discontinuous hard loud			
	<b>YU</b> continuous slow				
	<b>YO</b> discontinuous soft unsteady				

## II-Phoneme Articulation and Meanings (source: Bruch 1983: 81-85)

<p><u>Consonants</u></p> <p>Stops (k, g, t, d, p, b): abruptness, discontinuity, hardness</p> <p>Flapped (r): discontinuous movement (especially in the second syllable)</p> <p>Nasals (n): wetness, sliminess, stickiness, flexibility/softness</p> <p>(m): softness, undesirability</p>
<p><u>Vowels</u></p> <p>High front vowel (i): hard, small, fast, sharp, light</p> <p>High back vowel (u): smooth, round, continuous</p> <p>Mid front Vowel (e): undesirable, soft (non-sharp)</p> <p>Mid back vowel (o): bouncy, round, discontinuous</p> <p>Low vowel (a): bright, non-trivial, non-bound</p>
<p><u>Semi-vowels</u></p> <p>Glides (y, w): slowness, non-firmness, unsteadiness</p>

## III Sound-Meaning Distribution (source: Bruch 1983: 87-88)

Sound	Number of Words Containing Sound	Percent of Words Involving Meanings Found— Position Unspecified	Number of Words Containing Sound in Initial Syllable	Percent of Words Involving Meanings Found— Initial Syllable
k	256	27%	105	60%
t	114	31%	42	55%
p	73	62%	62	86%
g	128	27%	90	80%
d	56	45%	33	78%
b	121	37%	63	78%
s	97	24%	51	41%
f	58	24%	27	59%
z	52	33%	26	77%

h	82	22%	70	49%
f	90	43%	38	82%
ts	37	30%	14	64%
ç	41	44%	26	62%
n	50	28%	36	45%
m	89	37%	55	60%
w	24	21%	12	33%
y	94	47%	29	52%
r	191	37%	13	31%
-n	97	69%	—	—
a	391	61%	210	73%
i	274	61%	147	67%
u	276	48%	182	56%
e	141	60%	89	62%
o	329	40%	242	42%
Total Words Examined —		864		

### References

- Bruch, Julie J. 1983. Sound Symbolism in Japanese. University of Kansas Department of Linguistics M.A. Thesis, Lawrence.
- Hinton, Leanne, et al (eds.). 1994. Sound Symbolism. Cambridge: Cambridge University Press.
- Kuno, Susumu. 1973. The Structure of the Japanese Language. Cambridge: M.I.T. Press.
- McClain, Yoko M. 1981. Handbook of Modern Japanese Grammar. Tokyo: Hokuseido Press.

- Martin, Samuel E. 1975. *A Reference Grammar of Japanese*. New Haven: Yale University Press.
- Ohala, John J. 1994. The Frequency Code Underlies the Sound-Symbolic Use of Voice Pitch. In *Sound Symbolism*, ed. by Hinton, Leanne, pp. 325-345. Cambridge: Cambridge University Press.
- Shibatani, Masayoshi. 1990. *The Languages of Japan*. Cambridge: Cambridge University Press.
- Ultan, Russell. 1978. Size-sound symbolism. In *Universals in Human Language*, vol. 3, ed. by J. H. Greenberg, pp. 526-557. Stanford: Stanford University Press.
- Yang, Edith. 1985. The effectiveness of Japanese onomatopoeic words (giseigo and gitaigo). In *Studies in East Asian Linguistics*, ed. by Nam-kil Kim and Henry H. Tsee, pp. 165-178. Los Angeles: University of Southern California Department of East Asian Languages and Cultures.