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Meeting "Moi Moi": An Exploration of Ideophones in Japanese Children's Literature

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MEETING "MOI MOI": AN EXPLORATION OF IDEOPHONES IN JAPANESE CHILDREN'S
LITERATURE

by

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Undergraduate Thesis

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Abstract

This thesis investigates an uncharted sector of the study of onomatopoeia in Japanese—children's literature. After briefly exploring the definition of *onomatopoeia* and *ideophone*, the linguistic characteristics of these words in Japanese, and the lack of attention given to ideophones occurring in Japanese children's literature, I proceed to investigate the linguistic properties of ideophones which occur in a corpus of Japanese children's literature that I compiled. This examination uncovers a set of novel ideophonic forms that appear in two books, prompting an informal study investigating native Japanese speakers' reactions to said forms. This study, carried out in the form of a series of interviews, seeks to explore native speakers' sound symbolic intuitions when presented with novel ideophonic items out of context. Upon completion of this study, I found several notable similarities between interviewees' answers for specific items and even across multiple items. Considering that notable and interesting results appeared despite some limitations to this investigation, at the end I discuss the need for further research to more deeply and widely explore territory scouted by this project.

1. Motivations

The study of onomatopoeia, or sound symbolism, has gained considerable momentum in recent linguistic literature, especially since Hamano Shoko's systematic analysis of the Japanese sound-symbolic system in 1989. Its prominence in the Japanese lexicon, relative to a sound-symbolically arid language like English, is often illustrated via a comparison of a Japanese translation of an English text with the original English text itself. For instance, where an English text might say "strutted" or "waddled," a Japanese translation would employ a mimetic adverb with a verb (like *teku teku* [mimetic adverb] *aruku* [walk]—"walk at a steady pace"). I was first introduced to this in a Japanese linguistics class at the University of Iowa, in which we compared the original English and the Japanese translation of the first chapter of *Harry Potter and the Philosopher's Stone*, to discover that sound-symbolic words (or onomatopoeia, a term I will use loosely for now) would pop up in the Japanese text where there was nothing even remotely onomatopoetic in the original.

Other studies (Flyxe [2002]; Inose [2007]) have looked at the translation of Japanese onomatopoeia into English, to see whether translators choose an onomatopoetic equivalent in English, if they use some other translation technique (such as using adverbs), or if they ignore the onomatopoeia altogether. Flyxe (2002) finds that in Swedish translations of Japanese fiction, Japanese ideophones with low lexicalization are often translated using verbs in Swedish, and those with high lexicalization (he raises the particle -*to* as a definitive marker of high lexicalization) are often translated using adverbs or adjectives (70). A study by Dingemanse and Akita (2016) forms a corpus of Japanese onomatopoeia from a database containing footage of interviewees describing the 2011 March Earthquake, to see whether there exists a correlation

between gesturing and degree of iconicity[1] in onomatopoeia. Other studies have surveyed the use of dialectal and invented onomatopoeia in the works of Japanese authors, such as Miyazawa Kenji (Ono [2018]; Sato [2017]). However, the literature thus far has not yet involved a study focused specifically on onomatopoeia appearing in Japanese children's literature—picture books, specifically.

Children's picture books are of interest precisely because of their audience—i.e. children, who are also early language learners. The role of onomatopoeia in Japanese children's language learning has been delved into before in studies like those by Tsujimura (2005) and Yoshida (2012). Tsujimura, for instance, looks at Noji's (1973-1977) documentation of his child's language development and observes that the child's inventive use of mimetics resembles adults' innovative use of nouns (Tsujimura 2005:378-379). Other studies have extended this research to children learning English, seeking to find whether onomatopoeia helps children cross-linguistically in learning words. Yoshida (2012) examines how Japanese- and English-speaking parents differ in their use of sound symbolic words when explaining verbs, and how children of either language background benefit from sound symbolism in their verb learning. Studies such as these have focused primarily on spoken data, however, and English scholarship, at least, still lacks an exploration that narrows its focus to the presence of onomatopoeia in children's books (though some, such as Hamano (1998), have drawn from children's literature as a source for onomatopoeic data).

This is not an insignificant gap, since books are a prominent means of linguistic input for infants and young children, and hence an important source for language learning. Like the language of parents and other adults when talking to their children, the language in these books caters specifically to children, in terms of the level of language used, and the word choices. Because they target children (and also specify age ranges), it would be interesting to see whether the examples of onomatopoeia that appear in this environment are at all different from onomatopoeia seen in other environments (such as literature for higher age ranges, spoken language, etc.); and if there is a difference, how this disparity accrues significance when viewed in terms of a relationship between children's literature and child language acquisition. Thus, in light of the scarcity of work done on onomatopoeia in children's literature, in addition to 1) the relative importance of onomatopoeia in child language and linguistic development as demonstrated in analyses like that of Tsujimura (2005), and 2) the overall importance of onomatopoeia in the Japanese language, a study centered around onomatopoeia found in children's literature is territory worth exploring.

I consider this to be a preliminary investigation of the presence of onomatopoeia in children's books. By "presence," I mean what kinds of onomatopoeia appear (these specific types will be delineated in a later section); if and how these forms contradict linguistic

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[1] Iconicity, meaning a direct and close relationship between symbol and the thing it represents (Hamano 1998: 4).

characteristics of onomatopoeia outlined by sources such as Hamano (1998) or Tamori and Schourop (1999); if differences do arise, what these are and what implications can be drawn from them; whether some forms of onomatopoeia are more prevalent than others, and why; if more symbolic/iconic forms predominate; and in what direction one might take these results. A difficulty, however, lies precisely in making comparisons—how representative are my data? Is there any basis on which to make a statistical comparison (how might one establish a majority)? Due to the small size of the corpus used for this analysis, I also consider this strictly an exploratory study, which might spark (or dissuade) further studies on this topic.

2. Literature and Definitions

Onomatopoeia and sound symbolism have been an infamous thorn in the side of Saussure's assertion that language is an arbitrary system, due to the rather obvious connection they evidence between sound and meaning. What is onomatopoeia? The root for the word is Greek (*onomatopoiia*), and means literally "making a word or name." Onomatopoeia thus has, in this manner, been conceived of as the product of humans constructing a word, and importantly, of presumably basing this construction on the nature of the thing described. In English, the quality usually focused on or thought of is that of sound—thus, put very simply, our onomatopoeic words were constructed based on a sound that something or someone makes. However, words are not always made up to recreate a sound. In many other languages like Japanese (and even English), onomatopoeic words are constructed to recreate or express other qualities, like emotions, states, and manners, using sound.

Thus, a matter of deceptively great importance concerns what precisely *onomatopoeia* means, what *onomatopoeia* does not mean, and what terminology is appropriate to use. Thus far I have primarily used *onomatopoeia* for the sake of simplicity, but *mimetic*, *sound symbolic word*, and *ideophone* are all terms that litter the literature and make a delightful show of complicating things. What do they all mean, and how are they different from each other? *Onomatopoeia*, the term more familiar to English speakers, is traditionally used to refer to words that mimic the sounds they represent (thus, words like "woof," "bang," "pop"). Bredin (1996) discusses the complexity involved in fishing for a secure definition of *onomatopoeia*, despite the seemingly innate sense we have that enables us to somehow identify onomatopoeic words. Though the default way to define onomatopoeia is as a signified relationship between "the sound of a word and something else, there are divergent views both on the second term of the relationship and on the nature of the relation itself" (Bredin 1996: 555). Later, Bredin specifies the "first term" in this two-word-description of onomatopoeia as verbal sound, a complex network of individual sound properties which become the "objects of consciousness" (Ibid) for speakers. The "something else" that would be the second term presents another challenge to pin down. Bredin identifies it as a type of meaning. Specifically, it is referent and sense, sense being

subdivided into denotation and connotation.[2] Bredin then proceeds to identify two different types of onomatopoeia: direct onomatopoeia, and associative onomatopoeia.

A word is direct onomatopoeia if it denotes a class of sounds, and its verbal sound is similar to that class of sounds (Bredin 1996: 558). This would be what we as English speakers would commonly come up with if asked to give an example of onomatopoeia—"hiss" or "ping," for example. Associative onomatopoeia, on the other hand, would be defined as a word whose linguistic sound is not directly related to the sound of the thing it denotes. A handy way to think about this is to consider the following: "baa" is a direct onomatopoeia, because the sound of the word reproduces the sound of the thing it describes (the sound a sheep makes); however, if a child were to call a *sheep* a "baa baa," for instance, this would be employing associative onomatopoeia, since the sound of the word refers not to another sound, but a thing that makes that sound. Bredin uses the noun "bubble" as an example—the sound of the word does not refer to a bubble, but the sound associated with the formation of bubbles (Bredin 1996: 560). However, as Bredin also mentions, onomatopoeia does not necessarily involve a pure sound-thing relationship—other entities, such as convention, or even orthography, muddy the clear waters enjoyed thus far. Sometimes the sound no longer produces the word, but the word produces the sound. As Bredin describes it, we hear an animal sound the way in which our language allows us. Sheep utter some sort of sound that sheep tend to make (usually), but what we hear in English is "baa" because that is the word—the onomatopoeia—we have that describes that sound; Japanese speakers, on the other hand, might disagree and say it sounds like "meeh" because that is the Japanese onomatopoeia used to describe sheep utterances. Furthermore, the degree to which onomatopoeia is "representative" of a sound is also limited and influenced by the sound inventory of a language itself. However, the term "onomatopoeia" only encompasses a relationship between verbal sound and a class of sounds or something associated with a class of sound. In other words, it is still limited to a domain in which sounds are described by sound.

Mimetic or *ideophone*, also used extensively in the literature, adds more possibilities to what Bredin outlines as onomatopoeia. The "meaning" of a mimetic or ideophone does not have to be a class of sounds, but can be totally non-sound related things, like emotions, modes of action, and sensory perceptions. These relationships are relevant in the Japanese "onomatopoetic inventory." *Mimesis* refers to mimicry, originating from the Greek *mimeisthai*, which means "to imitate." It has been employed in the works by Tsujimura mentioned earlier, Ivanova (2006), and by Hamano (1989). Dingemanse and Akita (2016) acknowledge the use of "mimetic," but elect to use "ideophone" as a kind of blanket term (502). Imai, Kantartzis, and Kita (2010) use "sound symbolic form." Japanese possesses its own terms to describe items in its sound-symbolic inventory. Two main terms are used: *giongo* and *gitaigo*. Giongo (擬音語) translates to what we

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[2] The easiest way to understand the difference between referent and sense, is to imagine a person looking at the moon through a telescope (Frege 1948: 213). The moon itself is a referent (or reference), and the image projected onto the viewer's eye is the sense. Denotation refers to a class of things, and connotation to the concept of a thing (Bredin 1996: 558).

call onomatopoeia—a word in which verbal sound correlates to sound-related meaning (in Japanese, this might be *pinpon*, which means the ring of a doorbell). Gitaigo (擬態語) refers to words in which verbal sound correlates to emotions, sensory perception, motion, and the like. It can be further divided into *giyōgo* and *gijōgo*. Within giyōgo (擬容語) are words "imitating" or describing modes of action (*koro koro*, rolling), and gijōgo (擬情語) consists of words signifying emotions, state of mind, or other psychologically related states (*hara hara*, nervous). Perhaps due in part to this complexity in terminology, some in Japanese literature elect to use "onomatopoeia" (though the Japanese variant of it draws from the French *onomatopeé*) as a blanket term for *all* the different types of ideophones/mimetics in the language. In terms of terminology, then, it is easier to choose what <u>not</u> to use henceforth than what to use— considering the specific way in which we use "onomatopoeia" in English literature and the diverse set of mimetic items this discussion will be concerned with, I will elect not to use "onomatopoeia." Instead, also for the sake of convenience, I will follow the practice of most other literature and use "ideophone."

Explorations of ideophones in Japanese began in full by Shōko Hamano's (1998) study of Japanese ideophones as a sound-symbolic system, establishing that Japanese ideophones were a valid system within themselves, following phonological, syntactic, and morphological rules. She identifies two main prosodic classes of ideophones—monosyllabic ideophone roots (CV structures) and bisyllabic roots (CVCV structures), which follow different rules for processes such as reduplication and gemination. After observing syntactic characteristics of these ideophones, summarizing those that appear as adverbs, adjectives, nouns, and verbs, and noting what structures appear where and under what conditions, Hamano then delves into an exploration of the sound-symbolic makeup of ideophones, segmenting different sound symbolic properties to individual vowels and consonants, differentiating between vowels in the first and second syllables, and also syllable-initial consonants in first and second syllables.

Tamori & Schourop (1999) compare the sound-symbolic properties of Japanese ideophones with English ideophones, drawing substantially from Hamano's analysis. They identify commonalities between Japanese and English ideophones, including a sense of "corpulence" associated with labial sounds and "rounded" vowels (116-118),[3] bilabial stops and sibilants being associated with water spray (122), and sibilants denoting dry things touching other (123).[4]

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[3] Despite grouping them together, the authors note that high back tense vowel in English and Japanese are different, since the Japanese vowel is not rounded, but "compressed" (Ibid).

[4] An example for labials and corpulence would be "chubby" in English, and "*buku buku*" (bulging, bubbling) in Japanese; bilabials and sibilants, "splash" and "*basha basha*" (splashing). Sibilants, "rustle" and "*sawa sawa*" (rustling).

Some have responded with criticism to Hamano's approach to analyzing sound symbolism in Japanese ideophones. Ivanova (2006) notes that Hamano's assignment of specific semantic properties to individual sound segments (consonants and vowels) may be inadequate. For instance, Hamano asserts that /m/ appearing as the C1 consonant in a CVCV form is accompanied by a semantic quality of "murkiness." However, Ivanova presents ideophones like *meki meki* (conspicuously), *maza maza* (vividly), and *muka muka* (queasy) as counterexamples to this generalization (106). Ivanova then proceeds to suggest a different way of analyzing sound symbolism in Japanese, using a phonoaesthematic approach of identifying phonological patterns with common meanings, in which thirty-seven phonoaesthematic (a kind of ablaut) patterns are established (106-107). An example would be "Mu + CV + Mu + CV," which Ivanova describes as meaning "excessive energy" or "suppression" (107).

Necessarily preceding a descent into a discussion of the following study is a final matter of great importance, that concerns the definition of Japanese ideophones themselves. How does one define Japanese ideophones linguistically, and how might one clearly distinguish this class of words from other, non-ideophonic, constructions? Historically, reduplication has been considered a hallmark of ideophones—*kachi kachi*, *fusa fusa*, and *pachi pachi* are examples of this. However, only saying that reduplicable items are ideophones, is not at all a sufficient definition. Namely, it is also true that other non-ideophonic forms can reduplicate as well. In these cases, reduplication signifies plurality, repetition, or intensification—for instance, *kuro guro* ("deep black"), *toki doki* ("sometimes"), and *hito bito* ("many people"). As will be noted shortly, *rendaku* voicing[5] plays a key role in differentiating these different types of reduplication. Tamori and Schourop (1999), however, in their discussion of ideophonic properties, argue that these issues are not actually problematic. First, they note that non-ideophonic reduplicated forms (like *kuro guro* and *hito bito*) share a voiced syllable-initial consonant (aka rendaku voicing) in the second reduplicated stem—*kuro **g**uro*, *hito **b**ito*—a process that cannot happen in sound symbolic forms (30). We cannot say *fusa busa for *fusa fusa*, likewise *kachi gachi for *kachi kachi*. Furthermore, they note that the quotative particle -*to* that accompanies adverbial forms is obligatory for non-ideophonic reduplicated forms, and optional (as a whole) for ideophones (Ibid). Third, there is a distinction in accent pattern between ideophones and their non-sound symbolic counterparts. Ideophones commonly have a falling (high-low-low-low) accent pattern, in contrast to a more variable pattern in non-mimetics (low-h-h-h; low-h-h-low) (31). Finally, ideophones can be reduplicated more than once (*kachi kachi kachi* is possible), whereas forms that are not sound-symbolic cannot (*toki doki doki). Furthermore, Ono (2007) notes that if a reduplicated form does not make sense or is unnatural in an un-reduplicated state (*fusa* … for instance), then it is most likely an ideophone (16). Furthermore, ideophones can undergo a vowel

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[5] This is a phenomenon of sequential voicing, in which "the replacement of a morpheme-initial voiceless obstruent [is replaced] with a voiced obstruent" (Vance 1987:133)

alternation (not possible with other reduplicated forms like *hito bito*), in which the vowel changes in the first mora of the second iteration of the root form— like *kaQchin koQchin*.

Another unique characteristic that sets ideophones apart from other lexical items is their morphological processes. Hamano (1998) notes that monosyllabic and bisyllabic forms have different morphological limitations. This affects how reduplication occurs (CVCV forms reduplicate as CVCV-CVCV, not CVCVCV-CVCV, as in *ka-ka-kachi) (37-38). Furthermore, the fact that the *-ri* suffix only attaches to bisyllabic roots further supports the notion of viewing CV and CVCV forms as separate units (28). Thus, a morphological means of defining ideophones, though valid in itself, is not quite sufficient to account for the entire set of ideophones that exist in Japanese.

Ideophones can, as one might expect, be differentiated semantically, as well. Ono (2007) lays out a helpful delineation of how to define ideophones semantically. First, an ideophone (he uses "onomatopoeia" to avoid unnecessary confusion) mimics or represents a sound produced by things other than human vocal cords (11)—this would include both *giongo* (onomatopoeia) and *gitaigo* (non-sound-correspondent ideophones). Furthermore, if a word does refer to a human sound, but its phonetic elements do not correspond to what actually comes out of a human (11-12)—thus, a word like */ue:n/* in Japanese "mimics" the sound of a baby crying, but no one actually says /ue:n/ when they cry—is an ideophone, otherwise known as a type of *giseigo*. An ideophone also represents something that has no sound or cannot be heard, with sound elements in the word itself that somehow correspond to the circumstance referred to (the "referent," if we draw from Frege's language) (12). Furthermore, in explaining this point, Ono differentiates *giyōgo* and *gijōgo*, the sub-categories of *gitaigo*, by saying that *giyōgo* describes external phenomena and *gijōgo* describes internal states and emotions—though he notes that attempting to define these two more strictly will result in more complications (Ibid).

Thus, criteria that can be used to identify ideophones could include the following.

1) They are items that can be/are reduplicated, and which have unique reduplicative behaviors— they can be reduplicated more than once (*kachi kachi kachi*); and the first consonant of the reduplicated form of the stem cannot be voiced (*kachi gachi).

1a) Different prosodic templates undergo different reduplicative patterns—namely, monosyllabic (CV) stems can undergo partial reduplication (*pipipīN*), but bisyllabic stems cannot.

1b) Bisyllabic stems are unnatural in an un-reduplicated state.

2) They are items for which the bisyllabic form can have *-ri* and *-N* suffixation; for which lengthening can occur after or inside the root; and for which a geminate consonant (Q) can be infixed (*kotteri*) or suffixed (*pakaQ*).

3) They are lexical items that can exist as nouns, nominal adjectives, derived verbs, and more commonly adverbs. Adverbs are either syntactically independent, or are attached with the particle *-to*.

3. Analyzing the Corpus

3.1. Assemblage and Analysis

The corpus examined for this project was assembled in Japan during a study abroad trip to Tokyo for a spring semester. A total of twenty-eight children's books whose target ages range from infant to six years, all written originally in Japanese, were examined. These books were selected haphazardly in used and retail bookshops (a total of four bookstores were visited over a period of a few months, as time allowed). A total of about three hundred and thirty unique ideophonic items were identified, "unique" meaning that all and only forms that are different from others in some way were included in the data. In other words, if I found *paka paka* appearing four times in the same book, I would only include *paka paka* once in the corpus for that book (if it appears in a different book, I would include it in the corpus); however, any variants of a form that appeared in the same book (such as *paka pakā* or *paka pakkaN*) were included. This was done to avoid unnecessary repetition, since especially repetitive books would, if every appearance of an ideophone were included, result in skewing the balance towards these repeated forms. Non-ideophonic items were weeded out by 1) utilization of the framework outlined above in determining what is and is not an ideophone, and 2) consulting Ono's *Nihongo Onomatope Jiten* (Dictionary of Japanese Onomatopoeia) (2007) and the Shonagon Corpus of Contemporary Written Japanese. If an item did not satisfy the characteristics mentioned above that define ideophones, or if it did not appear in Ono's dictionary or the Shonagon corpus, it was eliminated from the corpus. There were novel ideophones that appeared in the books examined, which did not appear in Ono's dictionary or Shonagon—but since they do not exist in the Japanese lexicon, and they observe sound symbolic behavior (they follow reduplicative patterns unique to ideophones, and they appear in a very abstract manner while paired with abstract illustrations), they were kept in the "corpus."

For the following discussion I will adhere to the Hepburn System of romanization (Hebon-shiki), with some adjustments of my own for the purposes of this study. First, when displaying ideophones, I will follow conventions used in other literature on ideophones, and express the coda nasal as "N" instead of "n," which is common for the Hepburn style. Furthermore, geminates occurring in ideophones will be expressed with "Q." Length, however, will be expressed with a macron (such as "ō"), except for specific ideophones for which vowels may be intended to be pronounced much longer than a typical lengthened vowel in Japanese. Use of will be restricted, except when relevant to the discussion.

3.2. Method of Analysis

Items in this corpus were analyzed with respect to their syntactic, morphological, semantic, and phonetic properties, to see how this inventory of ideophones aligns with broader linguistic descriptions of ideophones give in Hamano (1998) and Tamori & Schourop (1999); or, to put this conversely, to see whether there were any items that did not conform to the linguistic parameters given in these two works. First, the morphological properties of the collected ideophones were analyzed, in terms of their prosodic structures (CV versus CVCV), what morphological processes had been undergone, and what suffixes or infixes existed. I wanted to see 1) the types of morphological structures that do (and do not) occur in this data, and 2) if there are any items that diverge from attested morphological processes. For each ideophone I identified the root (thus being able to determine whether it is a monosyllabic or bisyllabic root), and any instances of lengthening (within or at the end of a stem); suffixation of syllabic N, geminate (Q), or -ri; and infixation of N or a geminate consonant. I also observed phonetic properties of each ideophone, to see if any unattested sound combinations occurred in the data. Furthermore, I marked each ideophone with their syntactic function in the sentence. I identified adverbs, adjectives, verbs, and forms that behaved independently from the rest of the sentence, which I labelled as "interjections." Items in the corpus were also tagged as either onomatopoeic or non-onomatopoeic—put otherwise, items imitating sound or manner. This was done to gauge whether the data indicated a preference towards one type of ideophone over the other. The Dictionary of Japanese Onomatopoeia was again consulted in this process.

3.3. Findings

An analysis of the phonetic characteristics of corpus items showed no significant results. A morphological analysis also did not produce anything that diverged from descriptions given in Hamano (1998) and Tamori & Schourop (1999).

However, in observing the syntactic situation of corpus items, I came upon some findings of debatable importance. I performed this analysis with the general curiosity to see whether there was any preference in this data towards 1) certain syntactic forms of ideophones (whether adverbs predominate or if there is much of nominal adjectives and mimetic verbs), and 2) certain degrees of lexicalization. Since scholars have identified low lexicalization with high iconicity (Hamano 1998; Akita and Dingemanse 2016; Flyxe 2002; Inose 2007), and vice versa, I wanted to investigate whether there was a general preference in this data for ideophones with higher iconicity, for instance, identifiable by degree of syntactic integration. Especially since the context in which all these ideophones appear are children's books, I wondered if there would be a slight possibility that more iconic ideophones might predominate over less iconic forms.

To pursue this question, I gauged degrees of lexicalization in the following way: 1) I identified all instances in which the quotative particle -to was used, and 2) marked all items that were syntactically independent from the rest of the sentence (or which appeared on their own on a page). The appearance of -to would indicate that an item is less syntactically integrated and more iconic—however, -to is only used with mimetic adverbs, which limits this type of iconicity

analysis to the domain of adverbs. Similarly, syntactically independent items (which I very loosely called "interjections" in my corpus) also indicate more iconic ideophones—a perhaps useful way to think of this is to imagine the same principle in English. If you compare "Whack! Batman hit the Penguin with his umbrella" and "Batman wacked the Penguin with his umbrella," you might (and should) find that "whack" is more iconic in the first sentence than it does in the second; the second sentence, in which "whack" is a verb marked with morphology characteristic to verbs, some of the iconicity is lost to an increase in lexicality.

It must be remembered again that the following quantitative analyses should be taken with much salt and is only presented to give an idea of possible general trends. As I mentioned before, ideophonic items that appear more than once in a book were only entered once into the corpus, in the interest of making this investigation a qualitative one instead of a quantitative one. However, if the same ideophone appeared in a different book, it was entered in the corpus because it was not in the same source as the other ideophone (*waku waku* would only be entered once in the corpus even if it appears eight times in Book A; but if it appears again in Book B, it would be entered in the corpus once again). Thus, if every single apparition of every ideophone were counted in the corpus, we would be getting considerably more of some things, skewing the data in favor of whatever those items would be.

The total of mimetic adverbs marked with -to was 18 out of 123 adverbs—a rough 15 percent. This is quite an underwhelming result for one expecting to see a majority of un-lexicalized adverbs to support a vague hypothesis that more children's books contain more words with higher iconicity. Looking at this comparison from the other angle, however, there is an overwhelming majority of adverbs that do not employ a -to particle or any particle to "lexicalize" them into a sentence. However, it should also be noted that a very wide array of adverbs exist in this data, including lexicalized adverbs, adverbs that occur with dropped verbs (*Akira wa michi wo teku teku [aruita]*—"Akira (walked) steadily on the street"), adverbs with an optional -to (which authors decided not to use), and so forth. It should also be noted that as of now we are only looking at one morphological item; assuming definitively based on this alone that there is no preference towards more iconic adverbs is a shaky claim to make. Furthermore, it would also be helpful to think of this as an indication that children's books may not employ overt discretion in terms of using more iconic ideophones over less iconic ideophones—and by extension, children are exposed to a wide variety of ideophones in the literature to which they might be exposed.

Second, the number of syntactically independent ideophones was measured relative to the presence of adverbs, adjectives, and the occasional noun and verb attested in this data. It was found that 189 of 336 tokens in the corpus are these syntactically independent items that I have generally labeled as "Interjections." In comparison, 123 of the 336 ideophones in this corpus are adverbials. "Interjections" include the following: ideophones that appear by themselves, in pictures, or syntactically independent from the rest of a sentence; and conversely, items that do not interact with any other lexical item in a sentence. "Interjections" include a wide range of

ideophones morphologically-speaking, from monosyllabic items to bisyllabic items, total reduplication, partial reduplication, and all suffixes and infixes unique to ideophones. Roughly 56% of the data are these interjections, with roughly 37% consisting of adverbials. The modest consideration that over half of the data (once again keeping in mind what is and what is not represented in the corpus) is comprised of these syntactically independent elements is suggestive. Despite our findings regarding the -to particle, it might be that children's books do in fact to some extent "prefer" ideophones with high iconicity.

Finally, a comparison of the number of onomatopoeic items and non-onomatopoeic items resulted in the following. 177 items out of a total 336 consisted of non-onomatopoeic items, and 159 were onomatopoeic forms. Thus, a distribution of roughly 53 percent non-onomatopoeia and 47 percent onomatopoeia makes non-onomatopoeic items a slight "majority" in this corpus. A more reserved interpretation of this result would be that according to this particular corpus, children's literature does not greatly favor onomatopoeic items over non-onomatopoeic words.

4. Interviews—process and findings

4.1. Arrival at Study

In surveying the various ideophones that appear in the data, I noticed a group (sourcing from two books) that stood out from the rest in terms of novelty in form, sound, and "meaning." These two books would be *Moi Moi*[6] and *Moi Moi to Kīrī*[7], part of a larger series of books formed by Tokyo University, called "Books Chosen by Babies for Babies."[8]

The roots of the novel forms and their variants are as follows:

Chart 1

/moi/	moimoi	momomoi moiQ	mo:i moiQ	mo:i mo:i	moi moi po	moi moi pa
/mui/	mui mui					
/mai/	mai mai					
/pare/	parere: pare pare	pare parere:				
/boru/	boru boru	boruN boruN				
/kiri/	ki:ri:	kiru kiru				

For reasons presented later, I am considering *mui mui* and *mai mai* to be variants of *moi moi* and not independent ideophones. None of these forms are attested *ideophones* in Japanese, as confirmed upon consultation of Ono's (2007) Dictionary of Japanese Onomatopoeia and the

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[6] Hiraki, K. (2017). *Moi Moi*. Tokyo: Discover 21, Inc.

[7] Hiraki, K. (2017). *Moi Moi to Kīrī*. Tokyo: Discover 21, Inc.

[8] *Akachan ga eranda akachan no tame no shirīzu. …*

Shonagon Corpus of Contemporary Written Japanese. Though *mai mai* is a word in Japanese, it not an ideophone but a word that means "snail"[9]—and thus as an ideophone it remains relevant to what is about to be discussed.

These forms are of interest not only because of the fact that they are invented, but also because of how they appear in these books. The books are laid out such that each new ideophone or variation of it is paired with a different illustration. In *Moi Moi*, the main "character", synonymous with the base form *moi moi*, is a strange blob-like creature.

Image 1: *moi moi*

For each variation of ideophone, something about the creature also changes to reflect this. Thus, for instance, in the transition from *moi moi* to *moi moi po*, a beak-like thing emerges from the creature.

Image 2: *moi moi po*

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[9] Three of the twelve participants mentioned "snails" in their responses.
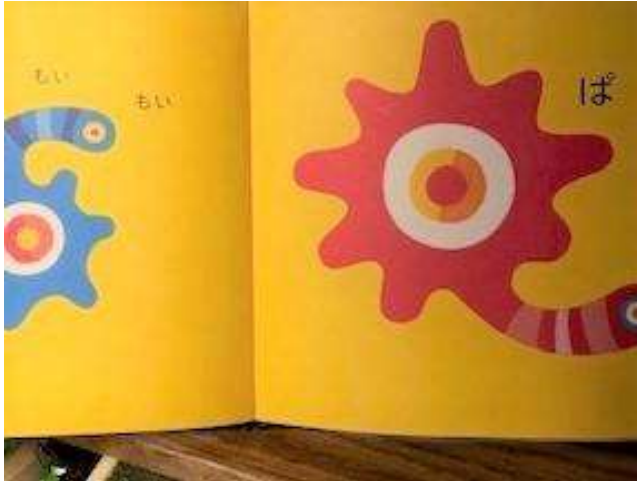
Image 3: *moi moi pa*

When the reader moves from *moi moi po* to *moi moi pa*, the beak disappears, and the "head" of the creature expands into a star-like shape with soft spikes (see above). Thus, in this way each segmental and morphological change (or addition, if we want to think of it that way) in the ideophone is reflected somehow in the accompanying illustration. *Moi Moi to Kīrī* is a slightly less enigmatic book—it follows a similar ideophone-illustration format, and includes words that are relatively common in the Japanese lexicon (such as *chiku chiku*). It does, however, still contain novel ideophones, including *moi moi* (again), *kīrī*, *pare pare*, and *boru boru*.

Due to the abstract nature of these books, and the interesting forms of these ideophones, I was curious to see how native speakers would react to and perceive these invented forms. Also considering analyses like those by Hamano (1998) and Tamori & Schourop (1999), which track semantic qualities attached to individual sound segments, it seemed to be worth pursuing if and how native speakers of Japanese would be able to track any semantic transitions as the form of these words changes throughout the book. In order to pursue these questions, I chose to conduct a series of interviews with native Japanese speakers to probe the role of native speaker intuition when presented with new ideophonic forms.

4.2. Design and Implementation

In designing this study, I endeavored to explore the intuitions of native Japanese speakers with respect to the following issues. My first question was how interviewees would respond to the vowel changes in the forms presented, and what kinds of changes would appear in their answers. Recall that *moi moi* appears with different vowels in *mai mai* and *mui mui*, meaning that three different diphthongs appear as part of a monosyllabic stem in this book. This is of interest because Hamano (1998) lists three different diphthongs that are attested in Japanese ideophones--/ai, oi, ui/ (notice the absence of /ei/ from this list; it also does not appear in the two books under consideration here) (73). Hamano furthermore notes that while /oi, ui/ are

commonly seen in ideophones (such as *poi*, used to describe tossing something, or *pui*, which describes someone in a bad mood), /ai/ only appears once—in *wai wai* ("a clamor") (75). She argues that /ai/ here was, in fact, not even /ai/ originally, but /aji/ with a medial /j/, and thus it should not be considered the same as the other two diphthongs (Ibid)—and by extension, neither should it be a lawful diphthong in ideophones. However, /ai/ does appear in one of the books under consideration, treated in the same manner as the other manifestations of *moi moi*. Considering this, I wanted to see what native speakers' reactions were to this particular form—if it is not attested in Japanese mimetics, it would be interesting to see if, for instance, native speakers treat it differently than the other forms.

My second object of pursuit is how native speakers react to the partial reduplication and lengthening (*momomoi moiQ* and *mo:i moiQ*) that appear in the book. Hamano (1998) describes partial reduplication in monosyllabic forms as indicating "a number of preparatory phases roughly corresponding to the length of initial repetitions" (66) while also denoting rapidity or "forcefulness" (Ibid).[10] Furthermore, she states that length in vowels denotes longer or more strenuous action (72). It would thus be of interest to see whether native speakers' responses align with these semantic characteristics. Third, I was specifically interested in the form *kīrī*, especially since the authors indicate that this was based on the Bouba and Kiki study[11] (Kohler [1929], as cited in Ramachandran and Hubbard [2001])—and indeed, the characters in this book greatly resemble the shapes described in the study (one is an amorphous blob, the other a more spiked shape).

Image 4: *kīrī*

However, the manner in which I would present this kīrī form to speakers of Japanese would differ from the Bouba and Kiki Study in that 1) it will be presented without an

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[10] An example she gives is the sentence (slightly adapted here) "[The policeman] blew a whistle *pi-piQ-to* and stopped the cars." Here, the partially reduplicated *pi* form indicates that the policeman blew the whistle more than once (Hamano 1998: 66). Partial reduplication can also denote force, as in the form *do-dōN*, which can indicate a considerable force (Ibid).

[11] This study presented participants with two images (one being a blob, the other a more pointy object) and two words: *bouba* and *kiki*. Participants were then asked to match the two images and words—this resulted in the great majority of participants choosing *bouba* for the blob, and *kiki* for the pointed shape (Ramachandran and Hubbard 2011: 19).

accompanying image and 2) it is not explicitly compared or contrasted with other forms. My open-ended approach would differ crucially from a guess-and-match approach of showing two things with different shapes and two possible names, in which participants are constrained in how they can respond.

In connection to this, I wanted to confirm to what degree contextualizing mimetic forms affects participants' responses. Namely, if individuals are presented with novel mimetic forms (several of which have semi-systematic segmental changes) without any sort of context, will they pick up on these, and in their perceptions of these forms indicate associated semantic differences? Furthermore, might showing participants these novel mimetic forms "in the raw" say anything about the true nature of sound symbolism and how it operates in native speakers' observations of ideophones? What conclusions could one draw if all participants have strikingly similar responses?

The study was thus designed in the following manner. Eleven ideophonic items were selected out of the two books to be shown to interviewees. These forms are: 1) *moi moi*, 2) *moi moi po*, 3) *moi moi pa*, 4) *mōi mōi,* 5) *mai mai*, 6) *mui mui*, 7) *mōi moiQ*, 8) *momomoi moiQ*, 9) *parerē pare pare*, 10) *boruru boru boru*, and 11) *kīrī*. The forms were presented in this order, so that participants would be presented with the forms in the order that they appear in the books (*boruru boru boru* was altered from *boruN boruN* to match *parerē pare pare*), and to experience the segmental changes as they also occur in the original text. This order was also maintained to see if participants' responses to the forms would at all align with the original progression in the books. The ideophones were displayed on a PowerPoint presentation, with a blank slide inserted between each form to serve as a kind of visual and mental break for the interviewee. All forms were centered in the middle of the slide, with no visual or auditory cues other than the word itself.

The study was performed interview-style with twelve adult native speakers of Japanese, of varying genders, ages, time spent in the United States, and dialectal backgrounds. The interviews were done either in person near campus, or via FaceTime. None of the interviewees were individuals involved in linguistic study. At the interviews, I first introduced my study with a brief description of my research project. Participants were instructed to look at each onomatopoeic form (I described them as both onomatopoeia and *gitaigo/giongo* to make sure participants understood fully what they were about to see) and verbalize what each form made them think of. Directions were also presented on a slide in Japanese. Preceding the main eleven forms were three practice forms—*kira kira* (sparkly), *kachi kachi* (hard), and *yopo yopo* (an invented form of my own creation)—that each represent *giongo*, *gitaigo*, and an invented form, to familiarize the participants with the process. The eleven forms were then presented in succession, with participants describing their perceptions of one form before we progressed to the next. It was ensured that reactions were not influenced by others' responses, via prior communication for instance, and are thus entirely their immediate reactions. Their responses were recorded on paper as notes I took during the interview. The interview process (not counting

conversation before or after) itself was conducted in Japanese, and thus the responses are also all in Japanese. The responses summarized below are my translations—readers interested in the original Japanese can refer to Appendix B. Any gestures or body movements interviewees made as a part of forming their answer were also considered. A total of 120 responses were gathered (not counting three "no answers").

4.3. Results

Participants' responses varied quite significantly, though certain similarities and trends were identified. An overwhelming result was that most participants used associations in forming their responses. Namely, they drew from words and ideophones that already exist in the Japanese lexicon, that sound like the forms they saw. Thus, for instance, for *mōi mōi*, eleven of the twelve interviewees responded with *ōi ōi*, which is a verbalization of calling out to someone far away. For *moi moi po,* several responded with "rock paper scissors" (*jankenpoi*), which, it will be noted, sounds a great deal like the ideophone. It was thus quite obvious that they drew from sound association in forming some of their responses. This was an understandable tactic for participants to use when first encountering what really are bizarre forms for Japanese ideophones. Since the motivation for such a response is quite clear, these responses will not be focused on in the following discussion of the results, but will later be a key point in a reassessment of how this study was performed.

However, some interviewees did respond similarly for several forms. I thus identified a number of semantic groupings from participants' answers for individual ideophones, and across more than one ideophone. In Chart 2, conspicuous semantic groupings (containing three or more responses that fall inside any respective category) are listed next to the word they apply to; three categories which apply to more than one form follow in Chart 3.

Chart 2

Ideophones	Category	Number of responses per category
moi moi	Softness	5
Moi moi po	Sudden or abrupt motion	5
Moi moi pa	Sudden or abrupt motion	9
mui mui	Squirming movement	5
Mōi moiQ	Abrupt movement	3
Momomoi moiQ	Effort	3
Parerē pare pare	Cheerfulness, fun	8
Boruru boru boru	Machinery	4
	engines	5
	Digging holes	3
Kīrī	friction	4

	Screaming or crying out	4

Chart 3

Category	Forms	Total number of responses per category
Softness	*Moi moi, mui mui, moi moi po, moi moi pa, mai mai, mōi mōi*	10
Successive motion or events	*Moi moi po, moi moi pa*	13
Non-concentrated movement	*Moi moi pa, mai mai, parerē pare pare*	7

First, it should be noted that the categories listed above are not strictly or overtly defined. For some (such as "machinery" or "engines"), responses fall into a category because they directly refer to it—for example, a response of "a car engine" will fall into the category of "Engines." Responses that do not directly indicate a category, but have an innate semantic quality that applies to a category are also included in that category—a response of "furball," then, though it does not explicitly say "soft," is nevertheless included because a furball is by nature a soft thing. Furthermore, some responses count for multiple categories at once. Because of these overlaps and the lenient nature of the categories, I will refrain from giving any detailed quantitative analyses. Another important matter to keep in mind is that the following analyses are essentially interpretations of interpretations and should thus be considered with reservations. Categories will be analyzed in reverse order beginning with *kīrī* and ending with *moi moi*, and after these the broader categories in the order presented on the chart.

Kīrī elicited a particularly broad range of responses, and seemed to be the most difficult word to interpret, according to a few participants. However, three groups of responses (only two are specified above) were identified. First, four interviewees alluded in some way to a kind of friction—they responded with things like "scissors cutting," "a tight door opening," "a bicycle stopping," and "iron and iron rubbing together." These responses are united by a sound or action produced by movements involving a kind of friction. Furthermore, four people named an act of screaming or crying out, which seems to intersect with another semantic grouping that I identified but did not include in the chart above (due to its vague nature)—namely, they contain

a sense of unpleasantness or a negative nuance. Examples of this would be "a pinned situation," or "crying out to make someone/something stop," or "when you are angry."

Why interviewees responded this way is a difficult question to ask (and answer). The idea of friction could make sense if we consider other words in Japanese. For instance, *kī* (キー), which *kīrī* resembles, is an onomatopoeic word frequently used to describe something squeaky. Furthermore, there is an ideophone *kirikiri*, which has among its meanings "chafing" or "grinding," which would explain these responses, though it is unclear whether the interviewees actually did think of this form. However, why would this form also produce responses with negative nuances? Looking specifically at a participant's answer that *kīrī* describes being in a pinned situation, from which you cannot get out (like a pickle), one might guess that perhaps this comes from the high front vowel, /i/. Consulting Hamano (1998) does not, however, help very much—she ascribes a general meaning of "line/tenseness" to the vowel /i/ in CVCV forms (119), which by itself is insufficient to describe being "pinned" or trapped. Furthermore, C1 /k/ describes contact with a hard surface, firm contact, and rigidity of attitude (155-158). C2 /r/ indicates rolling or fluid movements, definitely not related to the concept dealt with here (140-142). These elements, even when combined, do not quite produce a semantic picture that at all matches with the idea of being trapped—direct tenseness, with rolling and rigidity and hard surfaces. What further complicates this, is that /ki:ri:/ itself ignores some morphological principles—first, it does not follow Hamano's generalization that the two vowels in a CVCV form cannot both be lengthened (27-28); second, it violates the principle outlined earlier that a CVCV form cannot be found in its root form alone (Ono 2007: 16). This presents two alternatives: one, to say that this is not an ideophone because it breaks rules; or two, to consider it an unusual ideophone that breaks some rules (which the unusual nature of the book allows to happen).[12]

In response to *boruru boru boru*, three groups of participants had similar interpretations. First, four referred to machinery in their responses, either blatantly ("the sound of a machine") or indirectly ("the sound of a drill"). Five participants indicated the sound of an engine or something containing an engine ("a big motorcycle"). Both of these make some sense considering the mimetic form *bururuN*, which is used to describe motor sounds. Three interviewees, interestingly, mentioned digging holes when seeing this word. It could be conjectured that this association with holes could be related to the rounded quality of the sounds here, since there is a bilabial consonant and a rounded mid back vowel—thus perhaps there might be a connection to roundness of sound with the "roundness" of holes. The original image paired with this form is incredibly vague, as seen below, though it contains several round shapes within itself that could be construed as holes. It could also be seen as smoke (as from an exhaust,

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[12]Of interest is that one participant included as part of their answer "a triangular shape," which comes incredibly close to the image associated with *kīrī*. This was the only participant to describe shape in response to this ideophone. One could argue that this might come from an idea of "sharpness" that accompanies words like *kiru* ("to cut"), but then again, why would this translate to a triangular shape?

which could tie it to the engine grouping above). However, the very clear answers that participants gave contrast sharply with the vague, amorphous, and ambiguous nature of the image, resulting in a very difficult discrepancy.
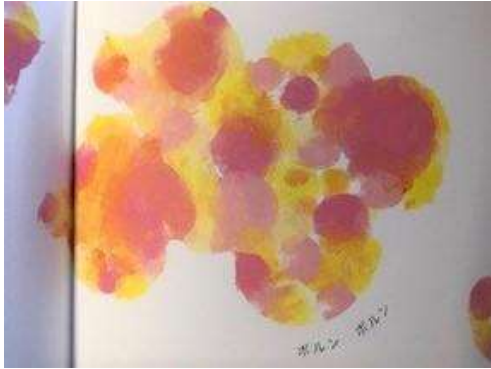

Image 5: /boru/

   Parerē pare pare elicited responses that all fall into a very large semantic group, which I have labeled "cheerfulness/fun." This form accompanies an illustration of the kīrī character and moi moi character seemingly dancing together in the center of the page. Eight out of the eleven responses fall into this category, and include references to dancing (very similar to the illustration), walking in sunlight, having fun, excitement, and so forth. Looking at some of these responses, it is quite possible that references to sunlight and cheerfulness might have something to do with the Japanese word *hare* (晴れ) which means clear weather, sounds like *pare*, and can be argued to have associations with cheerfulness and things like picnics and parades. There is also a word *appare* in Japanese, often used as an interjection to mean "hurray!" or "huzzah!" and thus has very positive connotations—the resemblance between these two forms in the /pare/ string of sounds could also have had an indirect influence in participants' perceptions of this word.

Image 6: *parerē pare pare*

   Mui mui was responded to in very interesting ways, which I will attempt to break down helpfully here. Five people referenced squirming movements in their responses, which was not at all expected, though it matches the worm-like appearance of the illustration that accompanies this form (see Image 7). Responses included in this category either referenced, or necessarily involved, squirming or wriggling movements. For instance, some responses were "trying to put

on really tight clothing," "trying to go through a place that is unpassable," and "crawling," all of which involve to some degree movements that resemble squirming or writhing. I also included "moving forward on all fours" in this category, since this action also by nature involves small side-to-side motions that resemble squirming. Why did five participants (which is not a negligible number) perceive this form in this way? Upon looking up words with similar sounds, I came upon *mugura*, which refers to creeper plants—but it would be a stretch to say that all five participants had a word like this in mind when responding. Furthermore, the variety of their answers even within this category discourages thoughts like this. Looking at Hamano (1998) once again for clues on sound symbolism, we get the following--/u/ in CV forms "indicates that the event involves a small round opening such as the nose or mouth" (Hamano 1998: 78); /i/ indicates high pitch or straightness (79); and the nasal /m/ signifies suppression or vagueness (and Hamano also groups /m/ and /n/ together) (96-97). The resulting semantic sketch we would get is an action that is suppressed but moving in a straight line within a small round opening, or something along these lines. It would theoretically be possible to see the action or concept of "squirming" as describable in these terms, but so could other movements—"sliding" could be a movement performed in a straight, suppressed manner within a small round opening. A big question that further challenges such an analysis, is how does one define "suppression?" Is it suppression from within, or from an outside force? How powerful is the suppression and what does it do? What about a small round opening? Could one describe it as a tunnel, or a hole that one could plausibly climb through? This is to say that trying to analyze participants' answers as a product of a matrix of these vague semantic attributes is quite difficult.

Image 7: *mui mui*

Both *moi moi po* and *moi moi pa* instigated responses that described or alluded to sudden or abrupt movements. Responses that formed this category include "something appearing out of nowhere," "a caterpillar walking along and then jumping," "make a sudden dramatic movement," and so forth. This category is loosely defined as an action or movement that arises

unexpectedly from preceding movements. An analysis of this category will be delayed for a little later, since most of these items also qualify for a different category—that of successive actions. Abruptness is an interesting way to perceive these forms, since the accompanying illustrations also hint at this. With *moi moi po*, the main character suddenly has a beak-like-thing emerging; with *moi moi pa*, the "head" of the character appears to explode. This should make a lot of sense in Japanese, since both *po* and *pa* are common ideophones. Hamano (1998) mentions these forms specifically in her analysis of vowels in CV forms, noting that they both indicate a sudden change, *po* "an inconspicuous change while [*pa*] indicates a conspicuous change" (78). The illustrations follow this perfectly; and some responses reflect this contrast as well. For instance, one person mentioned a sprout for both forms, but for *moi moi po* the sprout emerges, and in *moi moi pa* the sprout comes out and blooms—here *pa* thus produces a larger, more "conspicuous," result. One person mentioned that "pa" felt like someone smiling. Since the only thing different about these forms from the base *moi moi* form is these two additional ideophones, it would be very natural for participants to focus on these extra things when interpreting the form. It may be that these two forms were the easiest for interviewees to interpret.

As mentioned above, most of the responses that can be characterized by "abrupt movement" can also form the category of "successive movement." A glance through interviewees' responses for these forms should also reveal a common feature of a train of events—walking and sitting, walking and stopping, eating and spitting something out, things emerging from soft places and saying hello, and so forth. Thirteen out of twenty-one responses (one person chose not to respond to *moi moi po*), slightly more than half, refer to this sort of action. This may be the category that makes the most sense, and for which the defining characteristics are the most lucid—the presence of an additional ideophonic element (and one that already generally carries the meaning of a sudden change), which produces a succession of sounds, would reasonably produce an idea of a succession of some kind. For instance, one participant, who analyzed *moi moi* as something soft, proceeded to analyze *moi moi pa* as "something coming out of soft movement." Not all participants maintained this sense of continuity between forms, likely because of the way in which the forms were presented to them, but many responses nevertheless featured successive movement in their responses to *moi moi po* and *moi moi pa*. Furthermore, none of the participants interpreted this as simply a repetition of the same movements (like hopping and then hopping again)—they always distinguished between two different actions or motions. It would be interesting to see how they would have reacted to something like *moimoi moi*—a form reduplicated more than once, but without an extra element like *po* or *pa*.

Before I move on to semantic groupings for multiple forms, I would like to briefly note three responses to *momomoi moiQ*. Recall earlier that one of the questions I wanted to answer during this analysis, was whether participants would have a common assessment of partial reduplication seen in this form. Many interviewees interpreted this form as a form of shout

(which they did for other *mōi moiQ* as well). However, three indicated a sense of effort or something that involves or causes effort in their answers—specifically, "something heavy," "moving something with your own volition," "pulling something down with effort/force." Though again these are held together by a loose definition of category, the idea of extra effort evinced here aligns with the idea that partial reduplication in monosyllabic forms can signify force—or, as two of these answers imply, a sense of accumulated force for accomplishing an end—as Hamano (1998) suggests (66).

A more widely-encompassing category of answers is that of "softness." Five out of eleven mentioned or alluded to softness in their interpretations of *moi moi*, and ten out of sixty-four (about sixteen percent) responses to *moi moi*, *moi moi po*, *moi moi pa*, *mai mai*, *mui mui*, and *mōi mōi* also referred to softness. The second distribution is not a very spectacular number; however, what is of more import here is that participants drew a sense of softness from several forms, all of which are a variant of *moi moi*. Responses containing either direct references to softness, or allusions to softness (for instance, "fluffball" could be considered by nature to be soft) entered into this category. Observe, furthermore, that this sense of "softness" does not seem to be determined by vowel quality—people answered with softness for /a/, /ai/, /ui/, and /oi/. This would suggest that "softness" may come from the initial /m/. One interviewee, in fact, explicitly said that the sound /m/ gives a soft or fluffy feeling to a word, and that following vowels can also change the "meaning" or "feel" that the particular onomatopoeia can have. Of further interest is an observation by Tamori and Schourop (1999) that labial sounds in both Japanese and English can be associated with corpulence or fatness (116-117), which may help explain this trend (however small it is). However, they do not specify /m/ alone, but all labial sounds, which raises the question of whether participants would have reacted as they did if they were presented with something like *boi boi*. As will be mentioned again later, interviewees also indicated using orthography as a tool in forming meaning—and if you look at the characters for *moi moi* (もいもい), you can somewhat see how their rounded nature might have given off a sense of roundness, though to what extent participants used orthography is unknown.

Finally, a trend traceable to the presence of /a/ was also identified. In *mai mai, moi moi pa,* and *parerē pare pare*, seven responses (out of thirty-three) described non-concentrated movement. These would be responses like "walking with legs wide apart," "scattering something," "blowing in the wind," and so forth. These actions or movements contain a sense of movement directed outwardly or lack a sense of direction or uniformity. This aligns somewhat with Hamano (1998)'s analysis of /a/--in CVCV forms, /a/ in the first syllable[13] denotes flatness and large surface area, often used to describe the shape of an object (118). Similarly, in monosyllabic (CV) forms, /a/ denotes a large area and often a sense of conspicuousness (77-78).

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[13] In the second syllable of a bisyllabic form, /a/ refers more to the expansiveness of an action, and is not limited to shape (Hamano 1998: 118).

Thus, these interpretations could be said to conform to Hamano's analyses, in that the actions and events described in the answers generally affect a larger area (spread legs, spread arms, or dancing…); and for some responses (such as something blowing in the wind, or a child walking), it is also connected to a lack of control in movement.

For the sake of interest, I would like to briefly raise one participant's answers. Only one person produced a continuous chain of responses that changed in one facet or other according to each form. These responses are as follows:

Chart 4

Form	Response (translated into English)
Moi moi	Walking slowly
moi moi po	Walk slowly and then sit
Moi moi pa	Walk slowly and then stop
Mōi mōi	Walk with legs wide apart (like straddling)
Mai mai	Like a child walking
mui mui	Like moving forward on all fours
Mōi moiQ	Doing a running long jump
Momomoi moiQ	Like running for a bit and then jumping
Parerē pare pare	Blowing in the wind
Boruru boru boru	Rolling
kīrī	A bicycle stopping

Here I would like to focus on the *moi moi* forms in particular, in which we see a steady, continuous progression. First, the participant starts with the idea of "walking slowly" in response to the base *moi moi* form. Then they continue to build on that thought, progressing to "walking slowly and sitting" and "walking slowly and stopping" (where we again see the successive-event type of response dealt with earlier). After this the participant diverges from the idea of walking slowly, and instead describes different manners of forward movement—*mōi mōi* describes someone walking with a bowl-legged-type movement, *mai mai* is reminiscent of a child walking (hearkening back to the lack of controlled movement I associate with /a/), and *mui mui* reminds them of someone walking forward on all fours (again something mentioned earlier with the general trend of squirming movements). The next two forms, the final of the *moi moi* group, develop a similar concept of running before jumping, also a description of successive motions. It is also interesting that their response for *mui mui* harks back to another participants' note that this form seems to be lower to the ground than the other forms—this must be due to the vowel /u/, which is the only segment differentiating this form from the rest. Hamano's description of the semantic carriage of /u/ does not make any reference to elevation, and neither does the place of

articulation of /u/[14] (high and back) seem to present any motivation for this kind of interpretation. One could suggest that the compression[15] involved in making this sound may be associated with compression of the body when nearing the ground, or compression-ness of dirt, which, though an exciting analysis, is admittedly a stretch.

5. Discussion and Future Possibilities

This investigation briefly scouts the domain of ideophones in Japanese children's literature. A survey of the corpus data, which looked at the linguistic qualities of items in the corpus, overall shows nothing particularly odd about the corpus data that would set them apart from ideophonic properties and tendencies outlined elsewhere. Looking at the distribution of some of the data reveals a possible preference for less syntactically integrated forms, and thus more iconic ideophones. A question that emerges from this observation would ask why this is the case. Why would children's books prefer more iconic items—does a more direct relationship between sound and meaning facilitate word-learning, or is this merely an assumption on the part of the authors?

The series of interviews with native speakers of Japanese attempted to inquire into native sound symbolic intuitions by presenting interviewees with invented ideophonic forms. An examination of their responses shows that, despite a great tendency across interviewees to use associations when responding, notable semantic clusters emerged among answers that did not employ association. Eleven semantic clusters limited to one form are identified, in addition to three broader clusters that apply across forms, and some of these aligned with the original accompanying illustrations. A category could have as many as eight out of eleven responses, which suggests that perhaps native speakers have some sort of vague common intuition when presented with novel forms. Looking at responses to forms such as *mui mui* and categories like "softness," I suggest that Hamano (1998)'s analysis of sound-symbolic properties belonging to individual sound segments may not be entirely sufficient, and perhaps a one-to-one correlation between linguistic sound and semantic property based on word-position is not quite the best way to look at ideophones or native speakers' use of them. However, a deep and semi-precise analysis of this is not quite possible with my data, and is very complicated due to the rather nebulous nature of the semantic groupings themselves. In other words, though this study has located traces of something lurking around the data, there is not enough data to conclude much more. However, I must also emphasize that I am not negating the analyses and semantic characteristics delineated in Hamano (1998)—I am instead proposing that perhaps this is not the only way in which to analyze the semantic properties of sounds in ideophones, and the way in

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[14] Recall from earlier that this vowel is actually the high back tense unrounded vowel, unique to the Japanese phonetic inventory. I continue to use "u" to represent this sound for the sake of convenience.

[15] Vance (1987) describes compression as a closure of the jaws that brings the lips together (11). Distinguishing lip rounding and lip compression is a concept suggested by Ladefoged (1971) (as cited in Vance 1987).

which native speakers analyze ideophones involves more complex processes than the meaning-sound mapping that could have operated when ideophones were originally created in Japanese.

A large issue with this study lies in its very goal to explore native speaker "intuition" about novel ideophonic forms. Prior to the series of interviews, I hoped to investigate native speaker intuition, and perhaps even uncover sound symbolic instincts, by presenting novel ideophones without any context whatsoever, so that the only tools available to speakers would be the sounds of the ideophone itself. This was also carried out with the aim of deciphering whether the forms and illustrations in these books were paired intuitively or at random, which I hoped to do with the aid of the participants' interpretations of these eleven forms. I was also curious to see whether participants picked up on sequences of changes "reflected" by changes in the ideophonic forms. However, this approach of presenting the forms without any context did not help reaching the desired outcomes. Because these were novel (and weird) forms out of context, participants were often bewildered, and used other means by which to somehow understand these forms. As noted earlier, many and most participants used association—they drew from other words or expressions in Japanese that sounded similar in some way to help construct meaning for these forms, and even mentioned words or phrases in English. They also mentioned using orthography as a clue. This tendency, though unexpected, was utterly understandable given the circumstances. Reflecting on this, I wonder what would have resulted if I presented the forms audially, so that the participants could not "see" the forms—it is still entirely possible, however, that they would have still visualized the word in their heads.

However, these flaws in my study do raise the question of how exactly does one attempt to probe native speaker intuition about sound symbolism. This is a deceptively difficult endeavor (despite what the Bouba and Kiki study may suggest), but an important one to tackle, since much literature about sound symbolism in Japanese focuses on written material and the productive aspect of onomatopoeia in Japanese—what speakers produce, and not what they perceive and how they perceive it. Hinging on this question is the other issue of how much of the use and perception of ideophones is a result of convention, and not quasi-pure sound symbolism. Writers can still (and do) create their own onomatopoeia, but how much of their creation is based on other onomatopoeia, and how do readers try to understand these novel forms?

At this point it will be evident that there are many limitations to this investigation. The first (and quite large) limitation relates to the corpus used in this study. Qualitatively speaking, the construction of this corpus was not well-executed, likely impacting the representative nature of the corpus. As mentioned much earlier, books in the corpus were selected very haphazardly in a relatively small group of bookstores, with no thought to popularity, authors, publication date, or publisher. If I had instead only selected children's books that were ranked highly in popularity, I would more likely be including books that more parents would buy and more children read, and hence books to which more children might be exposed. Quantitatively speaking, a larger corpus (and ideally a better selection of books) would have been substantially better, resulting in a corpus closer to being representative of the type of ideophones children are

exposed to and more promising material for syntactic, morphological, and phonetic analysis. A more ideal corpus like this would then help one make more conclusive generalizations about the question presented in this investigation about whether children's literature tends to have less syntactically integrated ideophones, and by extension, what this means about the degree of iconicity in ideophones appearing in this genre of literature.

Thus, these limitations urge for further and different explorations in this area, if even minor adjustments to the investigation performed here. For instance, I would also have liked to present participants with the same ideophones and the appropriate illustrations and ask them to match ideophones and pictures. If, hypothetically, many participants end up matching the "correct" pairs, this may have implications for the role of imagery and the need for context in deciphering novel forms. It would also present another question of how participants matched the same things, in addition to implying that they might have used a similar set of intuitions. At some point it would also be interesting to see what effect dialectal backgrounds have on perceptions of novel ideophonic forms, since different dialects in Japan have their own unique inventory of sound symbolic words. The participants in this study came from a diverse set of dialectal backgrounds, but the total group was too small to remotely detect any impact this might have on participants' responses. In hindsight, I would also have liked to present these forms in some fashion to children, to see what their responses would be, and what similarities or differences would arise between their responses and those of adult native speakers. Finally, I am interested to see what would happen if one were to replicate this study to speakers of other languages, and see whether they respond very differently from Japanese speakers, and if they utilize homophones in their language in forming meaning. Ultimately, it would be worth pursuing how the presence of ideophones in Japanese children's literature compares with that of ideophones in English children's literature. Since English does not employ onomatopoeia as much as Japanese, can we expect a smaller presence of onomatopoeia in children's books? How do the ideophones that do appear differ linguistically? What does this have to say about the exposure of Japanese and English children to ideophonic input other than their parents' speech, and what possible implications could it have in teaching Japanese ideophones to learners of Japanese?

This investigation simply makes a leisurely loop around all that could and needs to be investigated with respect to this very broad topic of ideophones in children's literature. If anything, it hopefully presents reasons to pursue what could be a means of casting more light on sound symbolism and its deep, intricate presence in the lives of Japanese speakers.

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Appendix A.

English translation of participants' responses

/moi moi/	/moi moi po/	/moi moi pa/	/mo:i mo:i/	/mai mai/
smoky	No answer	a caterpillar walking along and then jumping; when a kid won't take their clothes off, trying to convice them by changing a doll's clothes while saying "moi moi pa"	calling out, (like *ya,hoooo*), calling out during a game of hide and seek	it's mine (English "my my")
like a small child or a stuffed animal-like character moving around; a small child or stuffed animal-like character who can't say something clearly and are thinking	(when there's a po) something like a sprout coming out	(when there's a pa) a sprout coming out and then blooming (with a *pa*), opening	calling your friend, scattering something	a small kid unable to say "bye bye" and is instead saying "mai mai"; *imaichi* (which means "meh")
something coming out of a soft place	a baby walking totteringly, and then tossing something into the garbage	something coming out of a soft place and saying "hello"	calling somebody from a faraway place	a snail; somebody's name, a nickname
reminiscent of imo imo (potato potato); eating potatos?	eating, throwing, chewing, playing (like "moi moi …po!"), hopping on one foot	rock paper scissors, opening your eyes	calling out *ooooi oooooi*	wave your hand (like "bye bye"), yum yum (*umai umai*)
mogi mogi, something that came off (of something else), a caterpillar (something kind of swollen), basically something soft	something appearing (like a blooming flower); something appearing out of nowhere, birth	a train of actions or events, like something appearing (like your face), something coming out of soft movement	calling out to somebody; (in a picture book) a non-human thing raising its voice	like a girl's name; reminiscent of the word *mau* (which means to flutter about), so something just moving around; walking around; someone who's lost

walking slowly	walking slowly and then sitting	walking slowly and then stopping	walking with legs wide apart (like straddling)	like a child walking
furball; a sweater, with a texture that is more coarse than bushy or thick; something dense or full	something that was dense or full suddenly burst open	showing something that is "moi moi" to someone -> "this is what it's like"	calling out [to someone]; "more and more"	something wild and energetic (will not settle down); make mincing movements; move small, soft movements?
like squirming or restless movements; slow and sluggish; something not sharp; sluggishness/languidness; dullish	like you're being asked something, as in a confirmation statement, "[this is] moi moi isn't it"; (po) is like a small kid talking to their mom	pa conveys more of an affirmation; "yeah, it's kind of vague/amorphous [bonyari]	sounds beginning with /m/ have a soft, fluffy feel; warm, gentle; calling out "o:i o:i" in a gentler way	wrapping or winding something
like eating a potato, eat while huffing (*mofu mofu*)	an image of a shy middle-school girl who suddenly blushes when she sees a boy she likes	(from the sound of *pa*) moi moi pa makes a sudden dramatic movement	*ooooi oooi*; sounds like *mou iikai* from hide and seek	sounds like the nickname of a pop idol; like wrapping a string
No answer	word from a fairy language	*inai inai baa* --> Japanese version of peekaboo	*oooi, ooooi* basically calling out to someone	*donmai* a shortened version of "don't mind"
food; eating; softness	soft; jumping lightly	walking a short distance and then stopping; to jump (hop?) a little bit, and then stand still; spit out after eating	walk slowly/stroll; call someone's name	snail; kid; cute; "bye-bye"; delicious (sounds like *umai umai*)
some kind of touching sensation; an insect	to totter along and then stop (which is po)	walking, and then opening your hands [she motions like you do when somebody tells you to freeze)/ "pa" feels like someone smiling	calling somebody	feels like [something is] moving in circles; a snail; something with a round shape

/mui mui/	/mo:i moiQ/	/momomoi moiQ/	/parere: pare pare/	/boruru boru boru/	/ki:ri:/
"I don't know," "No way (*muri muri*)"; walking slowly	"No thank you"; "I'm all right now"	heavy	calling out, like during a day of good weather ("it's sunnyyyy"); walking cheerfully while singing; when you take out your umbrella because of rain, but it's a sun shower	digging; passing through a tunnel while saying this	when you're angry; iron and iron rubbing together; a bird crying out
moving along while digging; trying to get a kid to put clothes on by saying "let's do *mui mui*"	calling out to someone	people putting their voices together to make a shout (think heave-ho again)	a word for making a spell or some kind of magic; playing instruments together in a parade	(for instance in a picture book) driving a car and making this sound	calling out to make someone/somethi ng stop; a word you might use while counting
trying really hard to put on tight clothing	eating something with a big bite, and then again with a smaller bite	pushing somebody once and then once again	cheering somebody on	opening a hole with some sort of machine	opening a tight door
(wiggles body) peeling something; something is angry	one more (*mou ikko*); an enthusiasti c shout --> like raising your voice together (think "heave ho") while pulling a	an enthusiastic shout	scattering something (like seeds); eating rice crackers with a *pare pare* sound; messing/foolin g around	eating with a *bori bori* sound	a name of something

	boat or something				
closer to the ground that "mai mai"; plump or swollen; some sort of movement; *mozo mozo* (to creep or crawl around); sounds cute	an enthusiastic shout; tug of war; pulling a large turnip out of the ground; not human	cute; a sense of rhythm; lively; lots of things (or people) together making vocal sounds	cheerful; seems warm; an enthusiastic shout, or people making a din with a kind of rhythm to it	When it's voiced, it summons a sense of strength; no longer cute (all the above words were cute); large, a slightly grotesque appearnace	something crying out; least sense of movement; seems like a high voice; least understandable word
moving forward on all fours	doing a running long jump	running and then jumping	blowing in the wind	rolling	a bicycle stopping
to move with more continuous movements, without discontinuation or jumping up	like the moment when someone has been trying very hard to grab or attain something, and they finally get it	to move something with your own volition	to dance freely	to put in all your strength, and move some machine-like thing with your thinking/willpower	like an exclamation; something that expresses your joy when you've planned and finally and perfectly produced something; like "yay!"
forcing something to connect, saying "no no" --> this sounds like "muri muri" [which means "it's impossible" or "no way"]	"It's over/good enough" [mo: i:]; "it's over/done" [mo: owari]	With a rising intonation --> "I'm going to do this! / do my best!" ; with falling intonation --> "Are you tired?" (more negative nuance)	a cheer chant for volleyball (resembles the word for volleyball)	"shaking your booty" as it were	"What did you say?" *nothing comes to their mind; no impression
no response	hide and seek	a shout	like dancing, sounds like *rererenore*, a cartoon character; honk	starting an engine	sounds like *kiriiiitu*, something teachers used to say when entering a room (to make students stand up); cutting something with scissors

trying to go through a place that is unpassable (makes a snake or wriggling motion with hands)	something you'd hear in a dialect; *oooi oi*	*mou iikai, mou iiyo* --> things said in hide and seek that roughly mean "are you ready yet" "yup I'm ready"	a word that seems to describe or embody a feeling of fun	like the sound of a car engine or a motorbike	sounds like calling out to someone
eating; softness; something that has elasticity or is bouncy to the touch	An enthusiastic shout; to call someone's name; sounds like "*yoisho*" (a meaningless thing people say when they are about to do something that takes effort); energy or force	a shout; something a kid or a grandpa or grandma might say (it reminds them of something you'd hear in a folk tale or in a dialect)	happy, excited, skip and walk, fun	a car engine, machine sound	yell or scream loudly; an unusual situation/a situation in which you are pinned/a metaphorical pickle
scratching something that feels itchy	pulling something down from above [she makes a motion like pulling down a rope]	pulling something down with strength/force/effort	a sound like the little squeezable bugles on mopeds; something you would hear in the Hawaiian language	a big motorcycle; like digging a hole with a drill [she draws this from another picture book she's seen with a mole drilling holes]	a bird; something with a triangular shape

Appendix B.

Participants' responses in Japanese

もいもい	もいもい　ぽ	もいもい　ぱ	もーいもーい	まいまい
けむたい		芋虫が歩いててジャンプをするとき、子供が服を脱ぐのを嫌がってて、「もいもいぱ」を言って人形を着替えさせた	呼んでいる、「ヤッホー」みたいな、かくれんぼをするときに「もーいもーい」と呼んでいる	自分のものだよ（「My my」）、ゆっくりゆっくりみたいな
小さい子やぬいぐるみみたいなキャラが動いているイメージ、またはまだそんなにはっきりものが言えなくて、考えてるイメージ	（ぽがつくと）何かが（芽が）出てくるような感じ	（ぱだと）芽がでてきて、パッと咲くような、開くような感じ	仲間を呼んでいる、何かを撒いている	ちっちゃい子がバイバイがはっきり言えなくて、「まいまい」で言おうとしている、または「いまいち」
やわらかいところから何かが出てくる感じ	あかちゃんがよたよた歩いて、何かを棄てる感じ	何かが柔らかいところからでてきて、「こんにちは」ってしている感じ	遠くから誰かを呼んでいる感じ	カタツムリ、人の名前、ニックネーム
いもいもみたいになる、イモを食べる	食べる、投げる、かむ、なんか「もいもい…ぽ」遊びみたいに、けんけんする	ジャンケン・パ、目を開く	おーいおーい	「まいまい」手を振る（バイバイみたいな）うまいうまい
もぎもぎ、何かがとれたりする感じ、芋虫（何かが張ってる感じ）、とにかくやわらかい	なにかが出現する（花が咲くとか）；どこから出た何からにどっさん、生まれた	ひとつながりの動作、例え何かが現れたりする（顔をぱ）、柔らかい動きから何かが表れる、見えるようになる	よびかけに見える；（絵本から）人間じゃないものが声をあげたり	女の子の名前に見える；「まう」の感じの連想、単純にものが運動してる；歩き回る；迷子の連想
ゆっくり歩く	ゆっくり歩いて、こしかける	ゆっくり歩いて、止まる	おおまたに歩く	子供が歩いてる感じ

けだま、セーター、フサフサよりはあらい、こんもり感じ	こんもりしてたのがパッとはじけた	もいもいしてるものをパッと見せる、「こういうものだよ」	呼んでいる、もっともっと	チャカチャカしている、小刻みに動く、なでらかなうごきかた、ムニムニ動く感じ
もぞもぞしてる、のろのろしてる、あんまりシャープじゃない感じ、のっそりしてる、dull な感じ	きかれてる感じ、「もいもいだよね〜」、（ぽは）小さい子がお母さんに「もごもごしてるね〜」と語りかけるような	ぱだと、「そうだよ」断定しているような感じ、「ぼんやりしてるよ」	「ま行」はほんわかしてるような感じ→あたたかい、おだやかな感じ、「おーいおーい」をもうちょっと柔らかく言ってるような感じ	まいてるような感じ
イモを食べてる感じ、モフモフ食べる	（イメージから）中学生の女がモジモジして、男の子が来るとぽっと顔が赤くなる	（ぱにずられて）もいもい〜ぱ makes dramatic movement	おーいおーい！かくれんぼの「もういいかい」	アイドルのニックネームみたいな、（糸を）まいてる感じ
	妖精の言葉	いないいないばあ	おーい、おーい	ドンマイ、おしまい
たべもの、たべる、やわらかい	やわらかい、軽くジャンプする	少し歩いて、立ち止まる・ちょっとジャンプして、立ち止まる or 食べてから口から出す	ゆっくり歩く、呼びかける	カタツムリ、子供、かわいい、バイバイ、おいしい（うまいうまい）
手触り、虫	よちよちあるいて、（ぽは）止まる	歩いてて、手を開く感じ／（ぱは）笑ってる感じ	誰かを呼んでいる感じ	回ってる感じ、カタツムリ、丸い形

むいむい	もーいもいっ	もももい もいっ	パレレーパレパレ	ボルル ボルボル	キーリー
「わかんないなー」「むりむり」、ゆっくり歩くのを「ムイムイ」みたいな	「いらない」「もう大丈夫」	重たい	ヤッホー、天気がいい日に「晴れたよー」みたいな感じ、歌を歌いながら、楽しく歩いてる、傘をさしてるけ	掘ってる、トンネルをくぐってこれを言いながら進む	怒ってる時、鉄と鉄がこすり合う、鳥が鳴いてる感じ

			ど天気雨みたいな感じ		
何かを掘りながら進むイメージ、小さい子に服を着替えさせようとするときに「むいむいしましょうね」を言うみたいな場面	呼びかけ	みんなが一緒に何かをするときに声を合わせて、かけ声をするような感じ	魔法や呪文をとらえるような言葉、パレードとかでみんなが一緒に楽器を合わせている感じ	（絵本のなかだと）車が走って音が出ている	何かがストップをさせるような声をかける、数えるときに使うような言葉のイメージ
きつい洋服を無理無理着る感じ	何かを大きな口で一回食べて、そしてもう一回小さく食べる	誰かを押して、もう一回押す	誰かを応援している感じ	何かを機械で穴をあけてる感じ	きついドアを開ける
(wiggles body) 何かをむいてる、何かが怒ってる	もう一個？かけ声、作業みたいな　→声を合わせてボートをひくみたいな	かけ声みたい	撒いてるみたい（種を）せんべいをパレパレ食べてる、ふざけてる、	ぼりぼり食べる	物の名前
5）よりはより地面に近い；張ってる感じ；何かしらの動き；もぞもぞ；かわいらしい感じ	かけ声；綱引き；大きなカブを抜いた時；人間じゃない	可愛い；リズムが感じてる；賑やか；たくさんのものがいる、声を出してる	陽気な感じ；暖かそう；かけごえ、リズムがあってみんなで騒いでる	濁音が入ると、強そうな感じ、可愛い感じがなくなった、大きい、見た目が少しグロテスク	何かのなきごえ；動きが一番しない；声高そう；一番わからないかも
よっつんばいで進んでる感じ	走り幅跳び	ちょっと助走をつけてから、ジャンプするような感じ	風に吹いてる感じ	転がってる感じ	自転車が止まる感じ
もっとけいぞくして、とぎれとぎれにならずに、飛び上がらずに動く	一生懸命つかもうとして、やっと捕まった感じ	自分の意志があって、うごかせる	てんとつながった感じで、自由意思で踊っている	スッと力を込めて、機会みたいなものを自分の考えで動かせた感じ	はっせいかん、自分で考えて、完璧に完成して、喜びをあらわした様、「や

					った！」みたいな感じ
むりにつながってるような（無理無理）「ダメダメ」みたいな	「もういい」「もう終わり」	「これから頑張るぞ！」when up; when down「疲れちゃったの？」の方に行く（pitch）	バレーボールの応援(looks like バレー)	おしりをふってそう	「なんて言った？」…　なにも思い浮かばない、印象がない
	かくれんぼ	かけ声	踊ってる感じ、れれれーのれ、クラクションを鳴らしてる	エンジンをかけてる音	キリツ、はさみで切る
とおれない所を無理やり通って行こうとする感じ（makes snake-like motion）	方言でありそう、おーいおい	もういいかい、もういいよ	楽しい気分を表しているような言葉	車のエンジンみたいな、バイク	だれかをよびかけてるような
食べる、やわらかい、弾力ある	かけごえ、呼びかける、「よいしょ」みたいな、いきおい	かけ声、子供が言いそう、おじいさんおばあさんも言いそう（昔話や方言のあるイメージ）	嬉しい、うきうき、スキップしながら歩く、楽しい	車のエンジン、機械の音	大声で叫ぶ、普通じゃない時／切羽づまった状況 (motions with hands)
かゆくてかいてる感じ	上にあるものを下に引っ張ってる感じ	強く引っ張ってる感じ	モペッドについてるパフパフみたいな音／ハワイ語でありそうな感じ	大きいバイク、あなを掘ってる感じ、ドリルみたいなやつで	鳥、三角な形

Appendix C.

Illustrations accompanying the ideophones
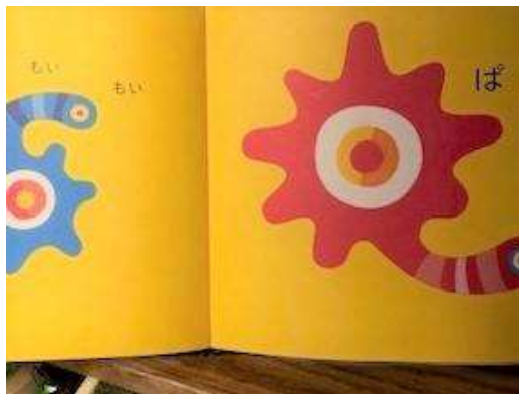

Moi moi

Mōi mōi

Moi moi po

Mai mai

Moi moi pa

Mui mui

Mōi moiQ

Momomoi moiQ

boruN boruN (presented as *boruru boru boru*)

parerē pare pare

kīrī