



LUND UNIVERSITY

Joint Faculties of Humanities and Theology

**Universals in Usage of and
Attitudes to Onomatopoeia**

**A comparative study of the use of sound-
imitating words in Japanese and English**

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Abstract

This study compares the usage of- and attitudes towards sound imitating expressions, onomatopoeia, in English and Japanese. It looks at previous research on onomatopoeia conducted on English and Japanese to establish a working definition for onomatopoeia and a categorization of the types of meanings each expression can have. With the help of indications provided by previous research two questionnaires, one for English speakers and one for Japanese speakers, were created.

The questionnaires featured scale-grading, alternative and open-ended questions where the informants were asked a variety of questions on their usage and attitudes towards onomatopoeia. 29 English speakers and 24 Japanese speakers completed each questionnaire and their answers were then organized into charts and tables for analysis. Two English informants and two Japanese speakers were asked a few follow-up questions in a short interview.

The study concludes that onomatopoeia are used mainly in informal contexts for the purpose of providing a more vivid and clear picture. Informants consider them to be a bit childish yet emotive and expressive. These characteristics tend to be experienced more strongly when the meaning of the onomatopoeia is closely connected to the onomatopoeia and less so when the connection is more metaphorical. A deeper understanding of patterns like these may help facilitate learning English or Japanese as a second language more effectively.

Keywords: Sound symbolism, Onomatopoeia, mimetics, English, Japanese, Linguistics, semantics, usage, attitudes, meaning, metaphors, register

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1 Introduction

When English speakers hear the word *onomatopoeia* (sound imitating words) many of them are likely to think of comic books or the old batman TV-series, where words like *slam*, *boom* or *smash* are common. Some of them may even be unaware of the word and the notion of sound-imitating words may need to be explained to them. Students with a western origin that study Japanese are therefore often surprised to learn of the role that onomatopoeia, or *mimetics* as they are usually referred to when speaking of Japanese, play in the Japanese language. While Japanese people may also think of manga as a common source of these words they are used in a wide variety of situations.

Furthermore, there are a lot more onomatopoeic words in Japanese, between 2000 and 4500 words according to Sugahara (2011:1), and their morphology follows a more restricted pattern than onomatopoeic words in English do. This in all likelihood means that Japanese speakers are overall far more likely to identify onomatopoeic words as such upon seeing them than English speakers are.

For learners of a foreign language the things that are often difficult to learn are the things that are quite different from your own mother tongue (or other languages they have a high proficiency in). Thus Japanese onomatopoeia are often seen as a troublesome phenomenon for foreigners to tackle. However, the question posed in this paper is whether Japanese onomatopoeia truly are radically different from English onomatopoeia or whether there are actually tangible similarities between them. If such similarities and patterns could be identified they might broaden our understanding of the role that sound-imitating words have in languages. In addition, such similarities and patterns could also provide a much needed reference point for Japanese as a foreign language learners that could facilitate a smoother and faster learning process.

1.1 Aim

The aim of this study is therefore to, with the help of previous research conducted and data collected in a survey and interviews, try to identify which if any patterns and similarities exist in the usage of and attitudes to onomatopoeic words in Japanese and English.

1.2 Structure

The paper is divided into four main sections: Section 2 provides a summary and analysis of previous research conducted in the area of sound symbolism and onomatopoeia; section 3 describes the methods used to collect data through a survey and interviews and subsequently how this data

was analysed; section 4 presents the results of the survey and interviews conducted and puts them into context with previous research; section 5 discusses the and analyses the results and finally section 6 draws conclusions of what the study tells us.

2 Previous research on Sound symbolism, onomatopoeia and mimetics

In the field of linguistics it has long been held as a truth that the connection between the meaning of a word and the actual word is arbitrary (Saussure 1915). What this means is that practically any combination of sounds that make up a word can be chosen to represent something as long as society agrees on what that sound combination should be. For example, an object with four legs and a back that you sit on is called a *chair* in English, *isu* in Japanese and *stol* in Swedish. While this may generally be true there are aspects of language where the connection between the sounds in a word and the meaning of a word are not arbitrary. This phenomenon is most commonly referred to as *sound symbolism* and is what this previous research section is all about. In section 2.1 sound symbolism in general and more specifically onomatopoeia will be discussed, section 2.2 looks at research on sound symbolism and onomatopoeia in Japanese, 2.3 looks at research on English onomatopoeia and section 2.4 looks at research into possible common patterns between Japanese and English onomatopoeia.

2.1 Sound symbolism and the definition of onomatopoeia

Sound symbolism is defined by Jespersen (1922:896), one of the most well recognised pioneers and authorities in this area, as the connection between the sound of the word and its meaning. Words like *bubble* or *crack* show a connection between the sound of the word and the meaning of the word since the sound of the word imitate the phenomenon they are describing. Hunter-Smith (2007:2) points out that this non-arbitrariness raises the issue of whether sound symbolism is specific for each language or whether it can, to some extent, be understood universally. As she points out evidence for language specific sound symbolism existing are plentiful while universal patterns are rather more speculative. Later in this paper in section 2.4 universals in onomatopoeic words will be discussed further.

It is important to note at this point that not all sound symbolism refers to onomatopoeia (words that mimic sound), it also includes words that mimic other sensory perceptions, such as vision, smell, touch or even ideas. In Japanese the expression *kira kira* means to glitter or sparkle and in Zulu the word *twa* means that something is bright. Both of these words describe visual

phenomena and are therefore not mimicking sounds. It does not always have to be a whole word either; many words in English that start with the cluster *gl*, for example *glitter*, *glimmer*, *glisten*, *glance*, *gleam* etc., have something to do with light (Hunter-Smith (2007:7). The existence of words or clusters like this has given rise to broader terms like *ideophones* and *mimetics*.

According to Voeltz & Kilian-Hatz (2001:1-3) *ideophones* are traditionally defined as the representation of an idea in sound and that they can be said to simulate and event, an emotion or a perception through language. They claim that the term first occurred in the 1930s when categories like onomatopoeia were too narrow to describe certain grammatical categories in African languages. Voeltz & Kilian-Hatz (ibid) admits that this definition is a bit broad and that it can sometimes be difficult to see where the borders are to be drawn. While the term is perhaps most commonly used about African languages, research has also been conducted on ideophones in Asian languages, like Japanese, and European language, like Finnish and Estonian, and Voeltz and Kilian Hatz suggest that all languages make use of ideophones.

The English term most often used when describing Japanese sound symbolic words is *mimetics*, see for example Baba (2001), Hamano (1998), Inose (2008), and Iwasaki et al. (2007). This term is in many ways synonymous to the word *ideophone* and refers to words that somehow mimic a phenomenon. Japanese mimetics are often divided into three categories (Baba 2001:1ff):

- Phonomimes - Words that mimic sounds of living things like animals or people (擬声語 *giseigo*) and words that mimic sounds made by inanimate objects like the rain (擬音語 *giongo*).
- Phenomimes - Words that mimic actions, conditions or states that occur in the natural world (擬態語 *gitaigo*).
- Psychomimes – Words that mimic psychological states or emotions (擬情語 *gijoogo*).

It is not always that the division is made like this, sometimes the term *onomatopoeia* is used as an umbrella term including all categories, sometimes *onomatopoeia* is used instead of phonomimes and often *gitaigo* is used for both phenomimes and psychomimes. The categorisation and usage of Japanese onomatopoeia and mimetics will be discussed in more detail in section 2.2 of this paper.

The word *onomatopoeia* itself is also suffers from being a category of words not defined very clearly. It is defined by the Oxford English Dictionary Online as:

"The formation of a word from a sound associated with the thing or action being named; the formation of words imitative of sounds. Occas.: the fact or quality of being onomatopoeic" (OED)

According to this definition any word or expression formed from a sound could be considered an onomatopoeic word or expression. Bredin (1996:555) bemoans the fact that most reference books on the English language tend to take a more narrow view than this and define onomatopoeia as an imitation of a sound. This may seem like a small difference; however it means that under the narrow definition only instances where the sound is directly represented can fit in the category of onomatopoeia, for example this usage found in the Corpus Of Contemporary American English:

(1) There was a flash like a camera, and a loud **pop**, and a curl of smoke (COCA)

...while sentence where the same word, formed from a sound, is not used as a direct representation of sound would not be considered part of the category, such as:

(2)...the juncture where the two plates are locked together can **snap** violently like a giant spring (COCA)

In the above the word snap is not used to directly represent a sound but an action, which may produce the sound. The different usages and categories of onomatopoeia in English will be discussed further in section 2.3 of this paper.

For the purpose of the study conducted and presented in this paper it was decided to limit the research to onomatopoeic words and expressions as the term is defined in the OED. Thus the study will look only at words that were formed from sounds but will consider all usages of those words. It may be that the results of this study have relevance to all types of sound symbolic expressions but to consider all types of sound symbolism would require a more comprehensive study than the time frame for this project allows.

2.2 Japanese onomatopoeia and mimetic expressions

While onomatopoeia occur in all natural languages they are used very extensively in Japanese compared to other languages. A specialized dictionary of Japanese onomatopoeia by Ono (2007) contains 4500 entries. Despite their frequent use in Japanese Hamano (1986:1) argues that they are often not mentioned to any greater extent in regular dictionaries or grammars of Japanese. The reason being mainly that their expressive meanings and distinct form make them very easy for native speakers to recognize and understand.

According to Hamano (1986:1) most onomatopoeia in Japanese take the shape CVCV CVCV (C – Consonant, V – Vowel), like *beta beta* (sound of something sticking to a surface) or *jiro jiro* (to stare at someone); or the form CVCVN CVCVN (N- Long nasal [n] sound) like *gohon*

gohon (to cough repeatedly). These are actually repetitive onomatopoeia and the repetition stresses that something is happening repeatedly or for a period of time.

kan – the sound of light metal objects striking each other once

kan kan – the sound of light metal objects striking each other repeatedly

The connection between sound and meaning of the different consonants and vowels in Japanese are also highly systematic as noted by Hamano (1986:77-224) and Fukuda (2003:16-29). For example changing the vowel in the above example to [i] (*kin/kin kin*) would indicate a sound with a higher pitch. The example from Fukuda (2003:28) below with added explanations illustrates well how one onomatopoeic word can be modified to have slightly different meanings.

koro – The sound of a round object that rolls over once

koro koro – Sound of a round object rolling

goro goro – The change to a voiced consonant indicates a heavier or larger object

korotto – The addition of a glottal stop and *to* indicates the sound ended abruptly

koron – Adding a nasal sound at the end indicates that sound echoes or reverberates

koroo – Making the vowel sound longer indicates the sound drags on for a long time

korori – Adding *ri* at the end indicates the sound was not too short or long and ended naturally

It is set structures like these that make onomatopoeia easier to identify and understand for native Japanese speakers.

As stated by Hamano (1998:12) Japanese mimetic words are mainly used in the form of adverbs, so called mimetic adverbs (see also Hirose (1981) and Sugahara (2010)). While English and other European languages have a variety of verbs for laughing and smiling (*giggling*, *snickering*, *guffawing*, *smirking*, *grinning*, *beaming*, etc.), Japanese has only the verb *warau* (meaning to smile or laugh). Mimetic adverbs are therefore used to describe how the person is laughing and smiling. Hirose (1981) looks at the many adverbs that describes ways of laughing/smiling and walking. Here are a few examples:

gera gera to warau – laugh loud and uncontrollably

hiya hiya to warau – laughing to make fun of someone

kusu kusu to warau – laughing quietly and involuntarily

niko niko to warau – smile brightly

doshin doshin to aruku – walk heavily

bata bata to aruku – walk quickly with light steps

peta peta to aruku – walk on a wet surface

yota yota to aruku – walk clumsily, unstable

Of the examples above the first three examples in each column can quite easily be connected to a

sound, while the bottom example in each column are more connected to something visual or a state of being. In her study Hirose (1981:2) only considers two categories: Words that mimic sound (which she refers to as *giongo*) and other mimetic expressions that mimic visual or emotional impressions (which she refers to as *gitaigo*). This simplified categorization of Japanese mimetic expressions is by far the most common one in the articles and books reviewed in this study.

While there are studies like Hamano (1981) that do a good job of describing the form, structure and grammatical frameworks for Japanese mimetics and studies that look at the difficulties of translating them into other languages like English (for example (Hirose 1981) and Inose (2008)), there are much fewer studies that consider the connection in meaning between those words that are sound imitating and other mimetic expressions or in what contexts they are used. Ozmianska (2001:152) points out that most sound imitating words in Japanese have extended meanings that are metaphorical and more iconic. For example the word *zuru zuru* can represent the sound of slurping, but it can also mean to to not be able to finish something or let a bad situation continue due to laziness. It is of course possible to say that one of these should be in the category of sound imitating words and the other in the category for words that mimic states. However, this ignores the link between the two usages of *zuru zuru*. They are both connected to the idea of something slippery, the sound of something that slips and a situation slipping out of your hands. Metaphoric uses of onomatopoeia like the one above will be discussed in more detail in section 2.4.

One of the few studies that looks at the contexts in which Japanese mimetics are used and for what purpose is Baba (2001). Her study is based on a series of interviews where informants were shown a series of cartoon that together made up a story of a boy that was almost hit by a rude driver; as he collects himself and continues he finds, with considerable joy, that driver has crashed his car. The informants were first asked to narrate what happened in the pictures and then to role-play as the boy telling one of his friends what had happened. The findings of the study was that more mimetic expressions were used when the informants were role-playing as the boy, in particular more mimetic expressions used to describe emotion were used. Baba (2001) therefore concludes that Japanese mimetic expressions are typically informal and emotional in nature. Informants also stated that they found mimetic words to be more expressive, descriptive and powerful.

This section looked at the characteristics of Japanese mimetic expressions. Research presented here has concluded that compared to other languages mimetic expressions are very common in Japanese and also highly systematic in terms of the meaning of their different parts and their grammatical function. There is less research on the metaphorical extension of sound imitating words and the contexts and purposes they are used for in communication. The indications are that

they are informal and expressive. This suggests that more studies on the usage of the various meaning of mimetic words in different context would be beneficial and that the study conducted in this paper serves a purpose. The next section will look at research on the characteristics and usage of English onomatopoeia.

2.3 English onomatopoeia

English onomatopoeia are less plentiful and not as systematically organized as Japanese mimetic expressions are. In his study Sugahara (2010:3), using the Oxford English Dictionary, came up with a list of 287 English onomatopoeia. It is well known that many words, particularly those that are non frequent, are not entered into dictionaries. Furthermore, Hamano (1986:1) states onomatopoeia can often be understood without an explanation and are therefore often not added. It is therefore likely that the actual number of onomatopoeia in English is significantly higher.

Both Bredin (1996:555) and Ozmianska (2001:148) argue that onomatopoeia as a group is largely marginalized by reference books on English and that therefore many native speakers are not conscious of them as a category. Indeed in the very comprehensive reference book on English grammar and usage written by Quirk et al. (1985), a work spanning 1700 pages, onomatopoeia are only mentioned as a footnote on the category interjections. It simply states that interjections should be considered a fairly open word category due to the influx of new onomatopoeia. In his study of 287 English onomatopoeia, using the London Lund Corpus and the Lancaster-Oslo/Bergen Corpus of British English, Sugahara (2010:37) found that only 4% of those onomatopoeia were ever used as interjections in the two corpora. On the other hand 88% of them were used as verbs at some point and 79% did at least once figure as a noun. Thus, if onomatopoeia in English were to be considered only when used as interjections they certainly are a rare and more or less insignificant part of everyday communication.

Bredin (1996:558) refers to this strict view of onomatopoeia as *direct onomatopoeia*.

(3) There was a **snap**, followed by a spritzzy **hiss** and a small discharge of foam (COCA)

This example from Rydblom (2010a:12) illustrates onomatopoeia being used to directly represent the sound itself. Bredin (1996:560) proposes that two additional categories of onomatopoeia should be considered. What he calls *associative onomatopoeia*, which refers to actions or objects strongly associated with the sound, as the first example below from Rydblom (2010a:17) demonstrates.

- (4) Its Teflon coating means the glass may **crack**, but the pieces stay together
- (5) If you were to **crack** open your digital camera, one thing you would find is the image sensor (COCA)

The connection to the sound is quite clear in the first example as it represents an action that could cause the sound. In the second example the connection is less obvious, because opening the camera in a way that actually produces a cracking sound may not be particularly desirable. With this example we move on to the vaguer area of onomatopoeia being used symbolically where the sound *crack* has a connotation of things happening suddenly, quickly or abruptly and it is this connotation that describes how the camera was opened. Bredin (1996:563) calls this type of onomatopoeia *exemplary onomatopoeia* and defines them as words whose sound when pronounced adds connotative meaning; *sluggish* is said slowly and drawling while *dart* is said quickly.

The categories proposed by Bredin (1996) are mainly based on anecdotal evidence and therefore Rydholm (2010a) conducted a corpus study of the three onomatopoeic words *snap*, *crack* and *pop* to examine the usage of onomatopoeia in English. The study found, just like Sugahara (2010), that direct representation of sound was not very common, while verb forms of the onomatopoeic words were frequent. The study looked at hundreds of examples of the three words using COCA (Corpus of Contemporary American English) and BNC (British National Corpus) and found the meaning of the verb forms to be particularly flexible and plentiful. As for example in the case of *snap* from Rydholm (2010a:10) seen below.

- (6) ...(until quite recently was that the juncture where the two plates are locked together can **snap** violently like a giant spring, unleashing a tsunami as large and terrifying as the...
- (7) Cosmic strings that **snap** like rubber bands! Parallel universes that sprout like bubbles! Wormholes! Gravity waves...
- (8) In many U.S. vehicles, the front seats can collapse and **snap** back when a car is rear-ended, causing injury and even death to kids sitting...
- (9) Exposed to a barrage of sensations from the outside world, we **snap** together brain cells to form new patterns of electrical connections that stand for images...
- (10) ...be as free to keep out women as it is to require every cadet to **snap** a morning salute in front of a bronze statue of Confederate General Stonewall Jackson...
- (11) ...where hundreds of Sunnis have gathered for the first night of Ramadan. Korans **snap** shut, and heads turn toward the corner, where a quiet discussion among a... (COCA)

As can be seen in the examples above *snap* can take on the role of a number of different verbs such as in this case *tear*, *break*, *move*, *join*, *do* and *close*. These are only a handful of the many different meanings for *snap* found in the study. It was therefore concluded that onomatopoeic verb forms often take the place of a regular verb for the purpose of describing how the action was carried out. Sometimes the meaning is closely connected to the sound or actions that cause the sound (such as *tear* or *break*) while in other cases the meaning is more symbolic referring to something happening

quickly, suddenly or in the case of *snap* also somewhat aggressively (such as *move, do, join* and *close*). This phenomenon was explored further in Rydholm (2010b) where possible combinations of 10 monosyllabic onomatopoeia (*bang, bump, crack, knock, pop, ring, slam, smash, snap* and *zip*) and 6 adverbs common in phrasal verbs (*up, down, in, out, on* and *off*) were investigated. Out of the 60 possible combinations 50 combinations were found to be existing phrasal verbs, giving further credence to the flexibility of onomatopoeia in English.

In both studies onomatopoeia were found to be used more frequently in the fiction register of COCA, possibly because they are considered to provide more vivid descriptions of an event. It is also possible that their frequency of use in the spoken section, which was considerably less frequent, may be misleading since the spoken register of COCA consists mainly of non-scripted TV and Radio shows. A corpus consisting of more casual conversations may very well yield a higher frequency of usage.

In this section research on the characteristics of English onomatopoeia have been presented and evaluated. Compared to Japanese mimetic expressions they are considerably fewer and researched to a much lesser extent. In fact, Sugahara (2010I), Rydholm (2010a) and Rydholm (2010b) were the only empirical studies focused on the usage onomatopoeia that could be found when researching the topic. The next section of the paper will discuss research on onomatopoeia that compares the two languages or that may otherwise indicate similarities and universal patterns.

2.4 Universals in onomatopoeic expressions and the usage of onomatopoeia

As mentioned in section 2.1, research on universals in sound symbolism tends to focus on smaller sound units of words, *phonemes*. Hirose (1981:19-31) mentions a number of experiments where informants were asked to evaluate the meaning of words from their sound, often using semantic grading dimensions like: *soft-hard, beautiful-ugly*, etc. Hirose concludes that while there were some patterns of informants correctly identifying the meaning with a higher degree of certainty than chance this certainty often varied depending on which languages were compared.

In their study Iwasaki et al. (2007) examine to what extent English speakers with no knowledge are able to understand Japanese mimetic words for laughing and walking. The study featured 24 mimetic words for laughing, for example *hahaha, gera gera, kusu kusu* and *kara kara*, but no mimetic expressions for smiling as they were considered more visual. The informants consisted of 12 native Japanese speakers and 15 English native speakers with no knowledge of Japanese. Both groups were asked in a questionnaire to assess the 24 mimetic words using 20 semantic dimensions, such as *loud-soft, pleasant voice-unpleasant voice, masculine-feminine*,

purposeful-involuntary, and so on. A similar questionnaire of 28 mimetic words for walking assessed in 21 semantic dimensions was completed by 12 native Japanese speakers and 12 English native speakers with no knowledge of Japanese. The study found that English speakers were able to with greater accuracy predict the meaning of the mimetic words for laughter than those for walking. Iwasaki et al. (2007:74) attributes this to those words being more auditory and less iconic than mimetic words for walking. They also note that while Japanese and English speakers were in strong agreement in a number of semantic dimensions of mimetic words for laughing, such as *pleasant voice*, good, loud and *mouth wide-open*, they had opposite ideas on meaning in the two dimensions of *beautiful voice* and *graceful*. In the category of walking mimetics there were only correlations between Japanese and English speakers in two semantic dimensions: *hard sole* and *wet surface*.

The conclusion by Iwasaki et al. (2007) that the more iconic or symbolic meaning the onomatopoeia has, the less likely it is to be understood is echoed by Ozmianska (2001:147-148). She suggests that English onomatopoeia, or sound symbolism, and Japanese mimetics are basically the same phenomenon with universal traits that is then to some extent adjusted to the conditions of each language system and the preferences of each speech society. Ozmianska (2001:152) categorizes the meaning of sound symbolic words as *imitative*, *synesthetic* (meaning strongly associated to the sound or other sensory perception) and *metaphoric*. She argues that while there are some onomatopoeia that belong to only one of these levels the majority of them have meanings that extend to the synesthetic and/or metaphoric level.

In her review of research on emotion of language Majid (2012:433) argues that there has always been a strong synesthetic connection between sound and emotion. She feels that research in sound symbolism has been marginalized. However, since more researchers are moving towards the idea of meaning being *embodied* there are trends that suggest a revitalization of this area. The idea of embodiment is the cognitive principle that our psychology and way of thinking is directly connected to our body's and brain's physiology. Lakoff & Johnson (1980:3) argue that our use of metaphors in language is not arbitrary but conceptual and rooted in our physical reality, in other words in order to understand an abstract concept we need to relate it to our physical reality. Therefore it should not be a leap to assume that when dealing with abstract phenomena like emotions, states and manners we choose to connect them to something closer to our physical reality, like sensory perceptions such as sounds or visual impressions. This also supports Ozmianska (2001)'s argument that most onomatopoeia and mimetics have metaphoric extensions of their meaning.

While Japanese mimetics are most commonly used as adverbs and English onomatopoeia are most commonly used as verbs, there are strong indications in for example Hamano (1986),

Hirose (1981), Rydholm (2010a) and Rydholm (2010b) that their purposes are similar. Consider these two examples:

(12) Manga o yon-de **gera gera** warat-te i-ru.
Comic book Obj read-ing laugh-ing be-Pres

'He is reading a comic book and laughing **uncontrollably**' (Hirose 1981:100)

(13) ...we **snap** together brain cells to form new patterns of electrical connections that stand for images...
(Rydholm 2010a:10)

Grammatically we can confirm that the onomatopoeia in sentence (12) is an adverb and that the one in sentence (13) is a verb. It is equally true therefore that *gera gera* represents the manner in which the person is laughing while *snap* represents the action that takes place. However, *snap* does not have the typical meaning of describing things that are joined together. English already has verbs like *put* or *join* that could easily have filled that purpose in this sentence. The purpose for using *snap* in this sentence is to add something about the way in which things are joined, in this case abruptly or quickly (possibly with some connotation of carelessly or violently). The context provides us with enough information about the action that is taking place that a verb describing it, like *put* or *join*, is not strictly necessary for readers to comprehend what is happening. Thus, despite having different grammatical functions *gera gera* and *snap* can in these examples be considered to have similar semantic purposes.

The research reviewed for this study suggests that onomatopoeic words do not only share some universal patterns between sound and meaning. There are also studies that indicate that the way they are used in languages are similar. However, none of these studies have empirically examined and compared in what contexts onomatopoeia are used in English and Japanese and whether this usage differs depending on whether the meaning of the onomatopoeic word is a more direct representation of sound or if the meaning is more metaphorical. The surveys conducted in this study aims to remedy this by assessing when and for what purpose onomatopoeia are used by native speakers of the two languages and what their perception of onomatopoeia are. The next section of this study will describe how these two surveys were carried out.

3 Methodology

This study was conducted with the use of two questionnaires; one on Japanese onomatopoeia for native Japanese speakers (Appendix A) and one on English onomatopoeia (Appendix B). The questionnaires were written in Japanese and English respectively, however they share the same structure and the questions ask for the same things. The only difference in terms of content is that

the questions that features examples of sentences or onomatopoeic words have Japanese and English examples that are not a translation of each other. This is because there are not any direct corresponding English onomatopoeia with the same different extended meanings as a Japanese onomatopoeia and vice versa. Each questionnaire featured examples of 2 onomatopoeic words each used with a meaning that imitated the sound, one with an action or state associated with the sound and one more metaphoric meaning, for a total of 6 examples. The examples for the English questionnaire were taken from Webster's On-line dictionary or COCA, and then usually modified. The examples were modified for a number of reasons: so that they showed no clear markers of what register they came from (fiction, spoken, etc.); so that they were short and easy to follow; or so that the onomatopoeic word could easily be replaced by another expression with similar meaning. The examples for the Japanese questionnaire was taken from Fukuda (2003) or were suggested by native speakers and were also similarly modified. All modification to the sentences were done in consultation with at least two different native speakers.

The first three examples consisted of pairs of sentences with similar meanings where one sentence contained an onomatopoeic expression and the other did not. Of the three sentences containing the onomatopoeic expression the first has a meaning that directly represents the sound, the second describes an action or sound with a close connection to the sound and the last has a more metaphorical connection to the sound. Examples 14-16 below shows the pairs featured in the English survey while examples 17-19 shows those featured in the Japanese survey.

- (14) The street was all quiet and then one of the cars suddenly exploded.
The street was all quiet and then—BOOM!—one of the cars suddenly exploded.
- (15) His voice WAS LOUDLY CARRIED out across the congregation.
His voice BOOMED out across the congregation.
- (16) Housing construction has INCREASED RAPIDLY in the past year.
Housing construction has BOOMED in the past year.
- (17) ゴロゴロという音を聞いた？
GOROGORO to i-u oto o kii-ta?
to say-Pres sound Obj hear-Past
'Did you hear a RUMBLING sort of sound?'
- 雷の音を聞いた？
Kaminari no oto o kii-ta?
Thunder of Sound Obj hear-Past
'Did you hear the sound of thunder?'
- (18) 岩がゴロゴロ落ちてきた。
Iwa ga GOROGORO ochi-te ki-ta.
Rock Top fall-ing come-Past
'The rock came RUMBLING down.'

岩が転がり落ちてきた。
 Iwa ga korogariochi-te ki-ta.
 Rock Top tumbl-ing down come-Past
 'The rock came tumbling down.'

- (19) 彼は土曜日に一日中部屋でゴロゴロしていた。
 Kare wa doyoobi ni ichinichijuu heya de GOROGORO shi-te i-ta.
 He Top Saturday on all day long room in do-ing be-Past
 'He was in his room all day long Saturday doing nothing.'

彼は土曜日に一日中部屋にいたけど何もしていなかった。
 Kare wa doyoobi ni ichinichijuu heya ni i-ta kedo nanimo shi-te i-na-katta.
 He Top Saturday on all day long Room in be-Past but nothing do-ing be-Neg-Past
 'He was in his room all day long on Saturday but did nothing.'

The abbreviations *Top* and *Obj* in the transcribed sentences above refer to Japanese particles that mark that a phrase is the topic or object in the sentence. The word *boom* tends to represent a loud low-pitch sound often connected to explosions, it is this connection that is carried on in a metaphorical sense. A boom in housing construction therefore means that something is expanding or spreading quickly, just like in an explosion. The Japanese onomatopoeia *goro goro* represents a sound made from something heavy rolling. This connection to rolling around is then carried on to the metaphoric meaning of doing nothing, picturing someone being lazy just lying on their bed rolling back and forth. A further three examples were used in the study, this time without comparison to a sentence with a similar meaning. Below are the other three sets of examples used in the English and Japanese survey.

- (20) In Marked for Death he broke the lead villain's body -- SNAP! -- over his knee.
 (21) With so many people crowding onto the platform, its supports SNAPPED.
 (22) Has police work become so dangerous that even well-meaning officers can SNAP under the pressure?

- (22)) 氷の上を歩いたら、バリバリという音がした。
 Koori no ue o arui-tara, BARIBARI to i-u oto ga shi-ta.
 ice of on top Obj walk-Cond to say-Pres sound Top do-Past
 'If you walk on top of the ice it makes a CRACKLING sound.'

- (23) 図書館でせんべいをバリバリ食べてはいけません。
 Toshokan de senbei o BARIBARI tabe-te wa ik-e-nai.
 Library in senbei Obj eat-Past Top do-can-Neg
 'You cannot CRUNCH on senbei (Japanese snack) in the library.'

- (24) 彼女は一日中バリバリ仕事をした。
 Kanojo wa ichinichijuu BARIBARI shigoto o shi-ta.
 she Top all day long work Obj do-Past
 'She worked hard all day long.'

The English onomatopoeia *snap* and the Japanese *bari bari* have quite similar meanings in that they both refer to sounds that occur when tearing or breaking something. Metaphorically *snap*

can refer to a sudden or rapid emotional change, often meaning someone becoming suddenly aggressive or unhinged. On the other hand *bari bari* refers to doing something vigorously in a negative way; in the above example to work harder than is necessary or safe, breaking the limits.

The in the survey questions can be divided into two categories: those related to perceptions and attitudes towards onomatopoeia and those that are more concerned with usage, as in which contexts and for what purpose onomatopoeia are used. The questions pertaining to perception and attitudes towards onomatopoeia mainly ask the informants to provide their opinion on a scale of 1-5, for example if they feel that the words are feminine or masculine, childish or adult, etc. The questions regarding usage of onomatopoeia mainly ask informants to choose the relevant options, for example in what kind of situations they expect to find the onomatopoeia in the examples provided (conversation with a friend, conversation with a client, in fiction, newspapers, academic texts). Both categories also contain more open ended questions where the informants can write their responses and thoughts.

In addition to the survey follow-up interviews were then conducted through the Call function on Facebook or by phone with handful of informants that had completed one of the two questionnaires. The questions asked in the follow-up interviews can be found in Appendix C.

3.1 Participants

The questionnaires were constructed using Google forms and then a link to the form was sent to friends and acquaintances on Facebook, some of them would then pass on the link to some of their friends. The form was set up so that each informant could only reply to the questionnaire once. The Japanese questionnaire was completed by 24 informants, 8 men and 16 women ages 21-56. The English questionnaire was completed by 29 informants, 19 men and 10 women ages 21-65. Follow up interviews were made with 2 native English speakers and 2 native Japanese speakers.

3.2 Analysis

The data collected from informants in the two questionnaires were then analysed to compare to what extent English and Japanese speakers shared the same attitudes of onomatopoeia and used them similarly. The responses to the open-ended questions were divided into categories based on similarity to other responses. To form a category the response needed to be similar to at least one other response; opinions given by only one informant were not included in the results.

3.3 Limitations

The study is limited to 24 native Japanese speakers and 29 native English speaker. Therefore it can only provide data on usage and attitudes that are universal for these two languages. As it is a small survey the number of onomatopoeia featured are limited to a couple for each language with a few different meanings. Opinions and usage may very well vary from word to word and therefore a larger survey featuring more sets of words and meaning would provide more conclusive results. However, the surveys conducted in this study should be able to detect general patterns in usage of and attitudes towards onomatopoeia that can provide a framework and working hypothesis for larger studies in the future.

4 Results

In this section the results of the survey and the interviews are presented. The results are divided into two main sections: Usage of- and attitudes towards onomatopoeia. The implications of the results is discussed in more detail in section 5 of this paper.

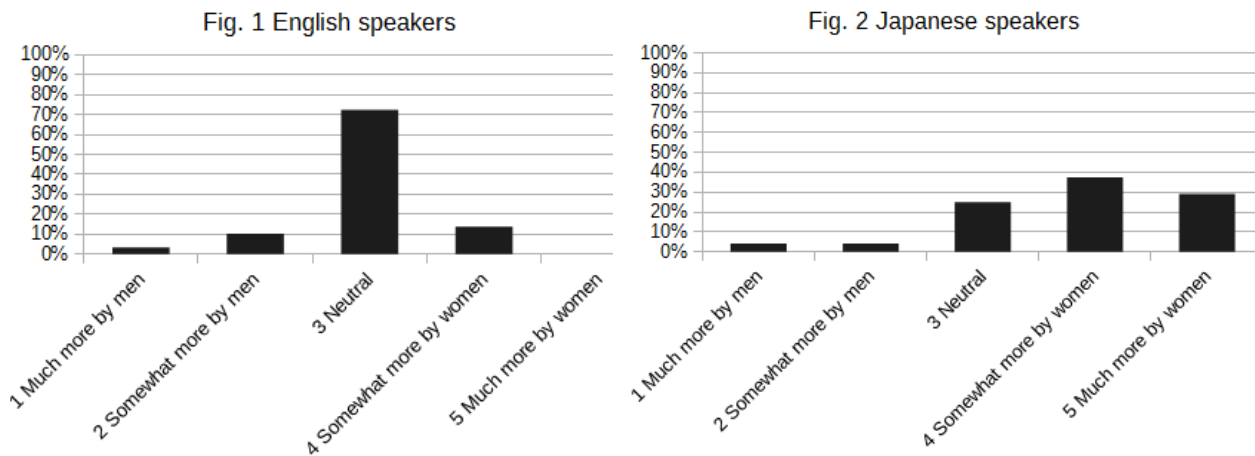
4.1 Usage of Onomatopoeia

The questions on the survey dealing with usage were mainly alternative questions, though some were questions where the informant was asked to grade something on a scale and others where open-ended questions. The purpose of these questions was to determine how native Japanese and English speakers think that onomatopoeia are used. The answers have been divided into the categories: Gender, formality, meaning and purpose.

4.1.1 Gender

One of the general questions in the beginning of the survey asked informants if they thought that onomatopoeia were used more frequently by men or by women. They were asked to evaluate this using a scale from 1-5 where 1 meant that onomatopoeia was used much more frequently by men and 5 meant that they were used much more frequently by women. Figure 1 and 2 below show the distribution of the answers from Japanese and English native speakers.

Figure 1 and 2: Frequency of usage of onomatopoeia by gender



As can be seen in figure 1 the majority of English-speaking informants feel that there is no difference between men and women in the usage of onomatopoeia. In fact the calculated average of the responses was 2.97 which is incredibly close to neutral. Figure 2 shows that among Japanese speakers opinions were more divided. The average of the responses from Japanese speakers was 3.83 which is much closer to the alternative “used somewhat more by women” on the scale.

Interestingly the perception was also divided along gender lines among the Japanese informants. Of the 8 men that took the survey 7 thought that men and women used onomatopoeia about the same or that men used them more often, only 1 thought it was used somewhat more by women. In contrast 15 of the 16 women taking the survey thought onomatopoeia were used either somewhat more or much more by women, while only 1 of the women thought that men and women used them about the same.

During the follow-up interview two Japanese informants (both women) were asked if they used more onomatopoeia when talking to other women than when talking to men. They were unsure about this or why women think they used more onomatopoeia. The first informant said that she felt onomatopoeia were soft expressions and often used for emotions so they felt a bit more feminine. The other respondent said that maybe women prefer to use casual conversation style when possible and that may be why. However, she thought that there probably is not that much of a difference between the two genders in terms of frequency of usage, the difference is probably bigger between different geographical regions.

One of the hypotheses presented in this study is that onomatopoeia is not only used to directly represent sound, but may also be used to describe actions or states connected to that sound either fairly directly or metaphorically. This is discussed in detail in sections 2.2 – 2.4 and many researchers, like Hamano (1998), Bredin (1996) and Ozmianska (2001) support this kind of division

in meaning. Therefore the survey was designed to examine whether there were any differences in usage depending on the how the onomatopoeic expression was used. Three example sentences were therefore posed, one where the onomatopoeic expression directly represented the sound, one where it described an action or stated connected to that sound, and one where it was used more metaphorically. The informants were then asked to determine for each sentence whether this expression was used more by men or women (See questions 25, 28 and 31 in Appendix A and B for details). Again the respondents were asked to grade this on a scale from 1 – 5 just as before. Table 1 below shows the average of responses for the three different meanings as well as the general response for comparison.

	English Speakers	Japanese speakers
General usage	2.97	3.83
Representing a sound	2.76	3.50
Describing an action connected to the sound	2.86	3.17
Metaphorical usage	2.93	3.08

Table 1: Usage of different meanings of onomatopoeia by men and women

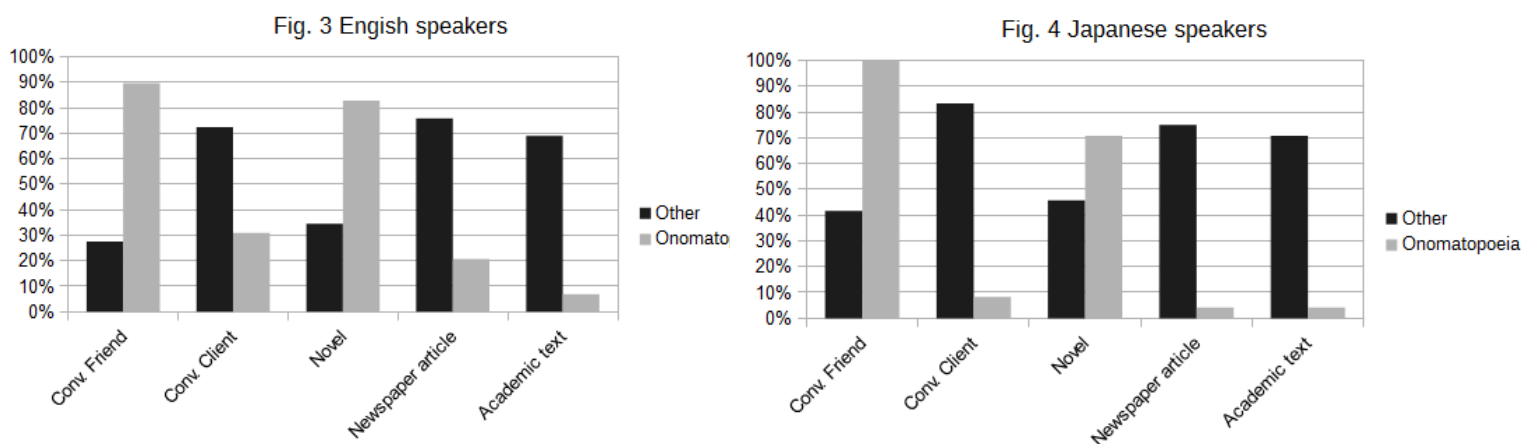
The first pattern that emerges when looking at the table is that both English and Japanese informants feel that the difference between men's and women's usage of onomatopoeia is most distinct with the direct representation of sound. That difference then shrinks the more abstract the usage is. For the metaphorical usage both groups were very close to feeling that there was no difference between men and women while English speakers felt that sound representative usage was more common with men and Japanese speakers felt that it was more common with women. It should also be noted that while Japanese speakers felt that in general women use onomatopoeia more than men, this difference became significantly smaller when looking at specific examples of usage.

4.1.2 Register

The next aspect of usage discussed in this section is *register*, in other words in what contexts onomatopoeia can be used. In the survey five different registers were posed: Conversation with a friend, Conversation with a client, Novel, Newspaper article and Academic text. The informants were asked to compare a sentence with an onomatopoeic expression to one with no onomatopoeic

expression in it that had the same basic meaning. They were asked to compare them in a few different ways, one of which was to select in which of the five registers they thought it would be natural to use the sentences (Question 9 and 10 in Appendix A and B). The results of the first of these comparisons with regards to register can be seen in figure 3 and 4 below. Please note that since informants were allowed to select all the options they felt the sentence could be used in naturally, the total percentages went past 100%.

Figure 3 and 4: Perception of natural usage of an onomatopoeic sentence and another sentence in different registers



As can be seen from the figures above the majority of both English and Japanese speakers feel that onomatopoeic words can naturally be used in more informal registers like a conversation with a friend or in a novel. Only some English speakers and very few Japanese speakers think that it would be natural to use them in more formal registers like a conversations with a client, in a newspaper article or in an academic text. Both English and Japanese speakers would prefer to use the other sentence in these situations.

Figure 3 and 4 show a comparison of a sentence with an onomatopoeic expression that represents a sound and a sentence with the same basic meaning that does not use an onomatopoeic expression. Just as with gender the survey also looked at whether usage in different registers varied depending on if the onomatopoeic expression was used to represent a sound, describe an action or state connected to the sound or a more metaphorical usage (Question 9, 10, 14, 15, 19 and 20 in Appendix A and B). The results can be seen in figure 5 and 6 below.

Figure 5 and 6: Perception of natural usage different meanings of onomatopoeia in different registers

Fig. 5 English speakers

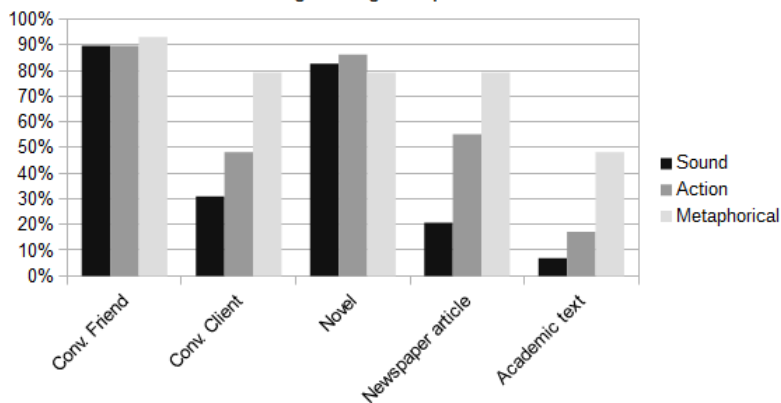
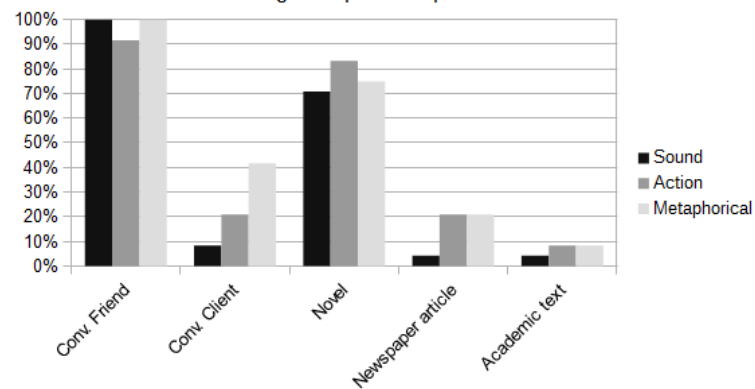


Fig. 6 Japanese speakers



The figures above show that both English and Japanese speakers find it natural to use onomatopoeic expressions in a conversation with a friend or in a novel regardless of the type of meaning of the expression. The interesting differences appear in the formal registers where English speakers show a gradually larger acceptance of onomatopoeic expressions as the meaning moves from sound to a more metaphorical usage. In fact the metaphorical usage was considered acceptable by the majority of English speakers in all registers except in academic text, and even in this register almost half of the speakers found it acceptable. Japanese speakers are more strict with using onomatopoeia mainly in informal registers regardless of meaning. Although, a similar gradual trend can be found in the formal conversation register where less than 10% of speakers would be ok with using an onomatopoeic expression representing sound, while more than 40% of speakers would be ok with the metaphorical meaning of the same expression. Though there is a small rise in acceptance as the meaning moves towards the metaphorical, the vast majority of Japanese speakers still do not think it would be natural to use onomatopoeic expressions in formal registers.

The questions discussed in this section so far have all dealt with in which registers the informants feel these onomatopoeic expressions could naturally be used. Towards the end of the survey the informants were also asked in which register they think they are most likely to encounter onomatopoeic expressions (Question 23, 26 and 29 in Appendix A and B). Just like before they were asked to evaluate three different meanings of onomatopoeic expressions ranging from sound representative to metaphorical. Fig 6 and 7 shows the options selected by English and Japanese informants.

Figure 7 and 8: Perception of which registers different meanings of onomatopoeic expressions are most likely to be found

Fig. 7 English speakers

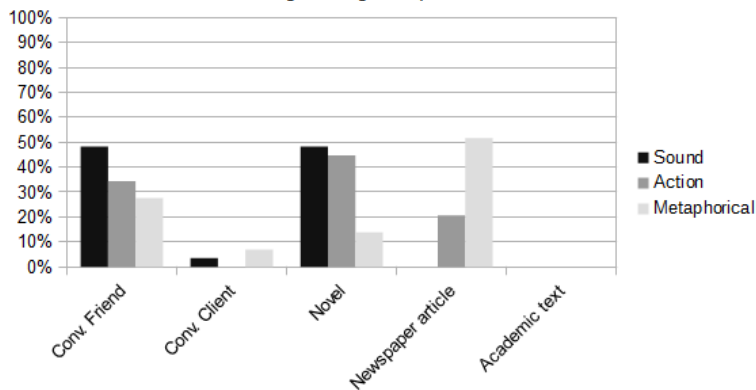
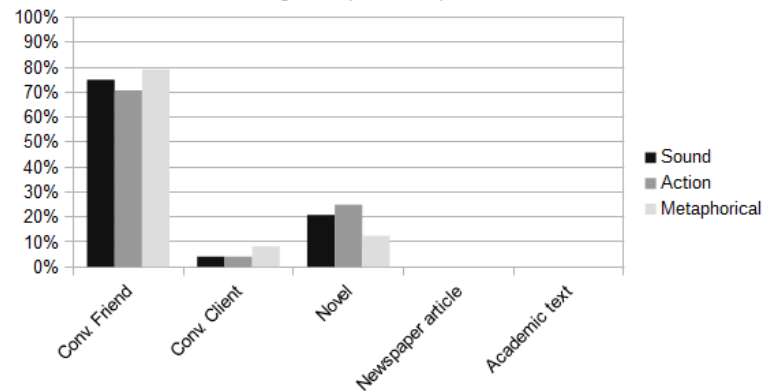


Fig. 8 Japanese speakers



A clear majority of Japanese speakers feel that they are most likely to encounter any use of onomatopoeia in informal conversation while a few think that they are more likely to find them in a novel. English speakers are evenly split between informal conversations and novels when it comes to sound representative usage. For usage describing actions or states, in a novel is the most common choice followed by informal conversations and then newspaper articles. Finally a small majority of English speakers feel that they are most likely to come across metaphorical usage of onomatopoeia in a newspaper article, a stark contrast to Japanese speakers who did not envision seeing onomatopoeia in newspapers.

In summary the results indicate that both English and Japanese speakers feel that onomatopoeia are more appropriately used in informal registers. English speakers are more accepting of them being used in formal registers when the meaning moves more towards the metaphorical.

4.1.3 Meaning

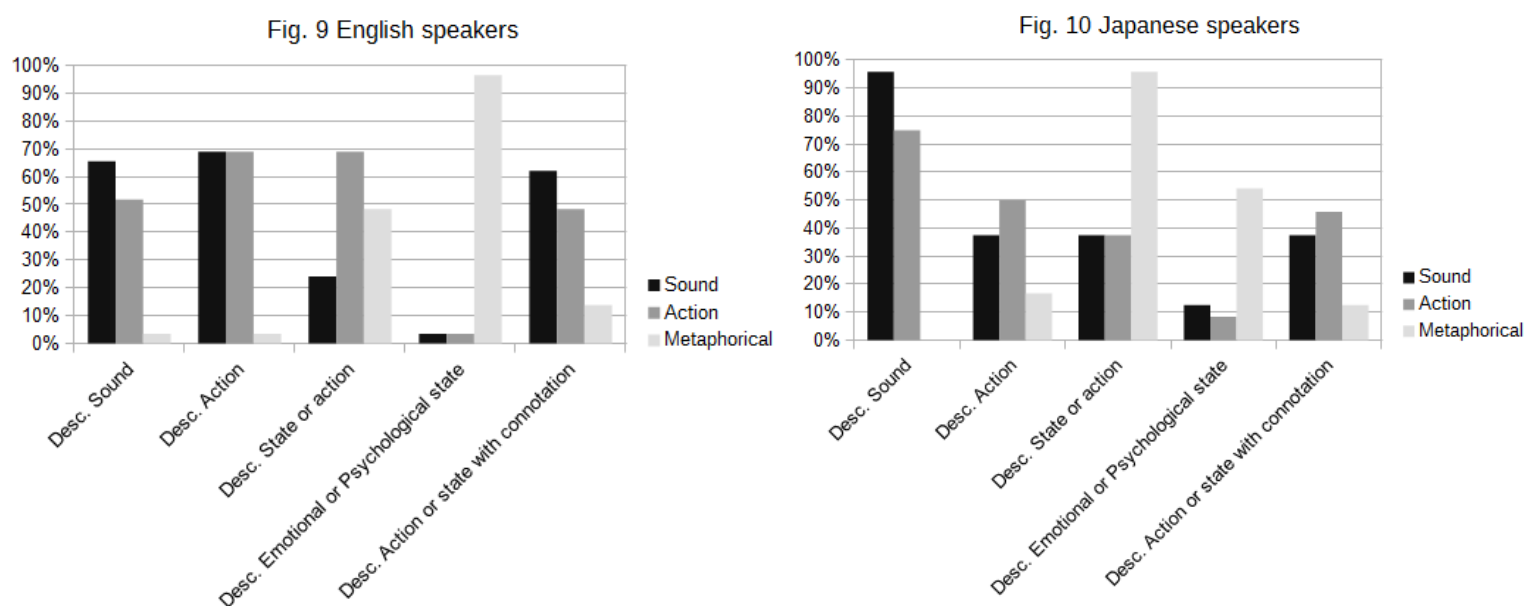
The examples chosen for the survey were, as mentioned earlier, divided into three categories of meaning: representing sound, describing an action or state connected to the sound or a more metaphorical connection to the sound. In order to see to what extent informants agreed with this categorization they were asked which definitions they thought could fit the meaning of the onomatopoeia used in each example. The definitions were paraphrased from Bredin (1997) and Baba (2001) and are as follows:

- Describing a sound

- Describing an action that produces a sound
- Describing the state of or action of an object or person
- Describing an emotional or psychological state
- Describing an action or state that has a similar connotation as the sound

The informants were asked to choose all definitions they thought could fit the onomatopoeic expression in each example (Question 21-23 in Appendix A and B). Figure 9 and 10 below show results for each of the three examples. In the diagrams in this study the definition *Describing an action that produces the sound* was shortened to *Desc. Action* to avoid cumbersome size issues.

Figure 9 and 10: Perception of meaning of different usages of onomatopoeia



The blue bars, representing examples where the onomatopoeia described a sound, were strongly identified as such by Japanese speakers, almost all of which thought that the definition of describing a sound was fitting. English speakers were more split between describing a sound, an action producing the sound, which was the top choice with a small margin, and actions with a connotation to the sound. Describing an action or a state became a more popular choice for English speakers for the examples where the onomatopoeia was used to describe an action connected to the sound. Japanese speakers still rated the connection to the sound as very strong here. The yellow bars, marking more metaphorical usage of onomatopoeia, also indicate that neither Japanese nor English speaker feel a strong connection to the sound any more, and opt for definitions like describing actions, states or emotional and psychological states.

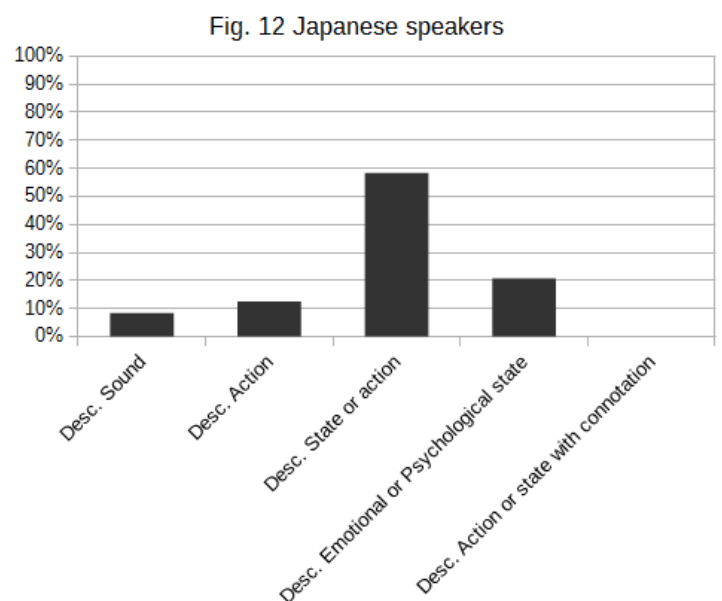
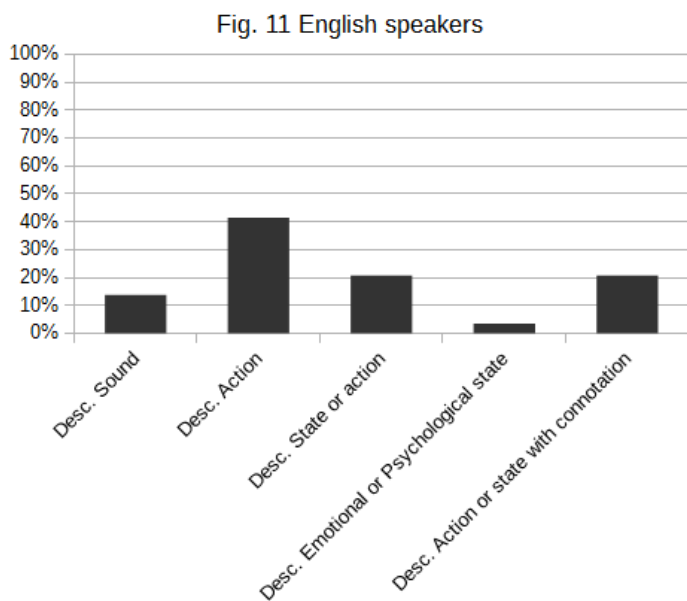
The gradual movement from definitions connected to sounds to those connected to actions

and states indicates that the informants at large agree with the categorization of the examples in the study. In the follow-up interview both of the English informants were asked if they felt that any of the onomatopoeia used in the examples were not really onomatopoeic. Both of the informants responded that they considered all of them onomatopoeia and that they still thought there was a connection between the sound and the meaning even though it was not always so strong.

4.1.4 Purpose

The last aspect of usage analysed in this study was the purpose for which informants choose to use onomatopoeia. Section 2.4 argues that while English onomatopoeia are most commonly used as verbs and Japanese onomatopoeia most often take the form of adverbs, they could both be said to have the purpose of describing an action or state. Using the same five definitions as in the previous example in section 4.1.3, informants were asked to choose for what purpose they used onomatopoeia (Question 33 in Appendix A and B). The distribution of their answers can be seen in figure 11 and 12 below.

Figure 11 and 12: Purpose for using onomatopoeia



The two mcharts show that the majority of both English speakers and Japanese speakers use onomatopoeia to describe an action or state. English speakers seem to favour actions connected to the sound, while Japanese speakers lean more towards actions or states not necessarily connected to the sound, and also use onomatopoeia more to talk about emotional states. Relatively few Japanese

and English speakers state that they mainly use onomatopoeia to describe a sound.

In the beginning of the survey the informants was asked very similarly when they most often used onomatopoeia in an open-ended questions (Question 5 in Appendix A and B). The answers that question were sorted into categories by similarity and Table 2 below shows the type of answers given by English speakers in the order of the most common answer first. Since some informants provided more than one reason the total percentage exceeds 100%.

	Number of responses	Percentage of responders
To describe something	11	37.93%
In a narrative	9	31.03%
To create a vivid image	8	27.59%
In informal contexts	6	20.69%
To express emotions	2	6.90%
To kids	2	6.90%

Table 2: English speakers purpose for using onomatopoeia

Surprisingly the English speakers were very much in agreement with each other as to when they would use onomatopoeic expressions. As can be seen in the table above the top 3 choices are somewhat similar, focusing on describing something that has happened. They also indicate here that they prefer using them in narrative or informal registers, which was also what was found in section 4.1.2 on registers.

As can be seen in Table 3 below Japanese speakers showed a larger variety of purposes for using onomatopoeia which is not surprising as onomatopoeia are used to a greater extent in Japanese than in English.

	Number of responses	Percentage of responders
To be easily understood	8	33.33%
To be more precise or direct	7	29.17%
To express emotions	7	29.17%
To explain something	6	25.00%
To describe a situation	5	20.83%
To describe natural sounds	4	16.67%
When I am emotional or upset	3	12.50%
To create a vivid image	2	8.33%
To kids	2	8.33%

Table 3: Japanese speakers purpose for using onomatopoeia

Just as the English speakers did, a number of Japanese speakers mention the descriptive qualities of onomatopoeia. More Japanese speakers than English speakers mention using them to talk about emotions. Perhaps the main difference here is that quite a lot of Japanese speakers pointed out that they felt using onomatopoeia made it easier for you to be understood or that they often used it when explaining something.

The results presented in this section indicate a few patterns of usage of onomatopoeia true for both English and Japanese speakers. They both tend to regard onomatopoeia as informal expressions and use them mainly in informal registers, particularly when the meaning is more closely related to sound. More metaphorical meanings of onomatopoeia tend to be acceptable in a wider variety of registers. Both Japanese and English informants also indicate that they more commonly use onomatopoeia to describe actions or state than to describe an actual sound and highlight their descriptive quality. The main differences found were that there is a stronger difference in usage by gender in among Japanese speakers, where women tend to use onomatopoeia more frequently. Japanese speakers also tend to be more strict about not using onomatopoeia in formal contexts than English speakers. The next section examines what patterns exist in speakers' attitudes towards onomatopoeia.

4.2 Attitudes towards Onomatopoeia

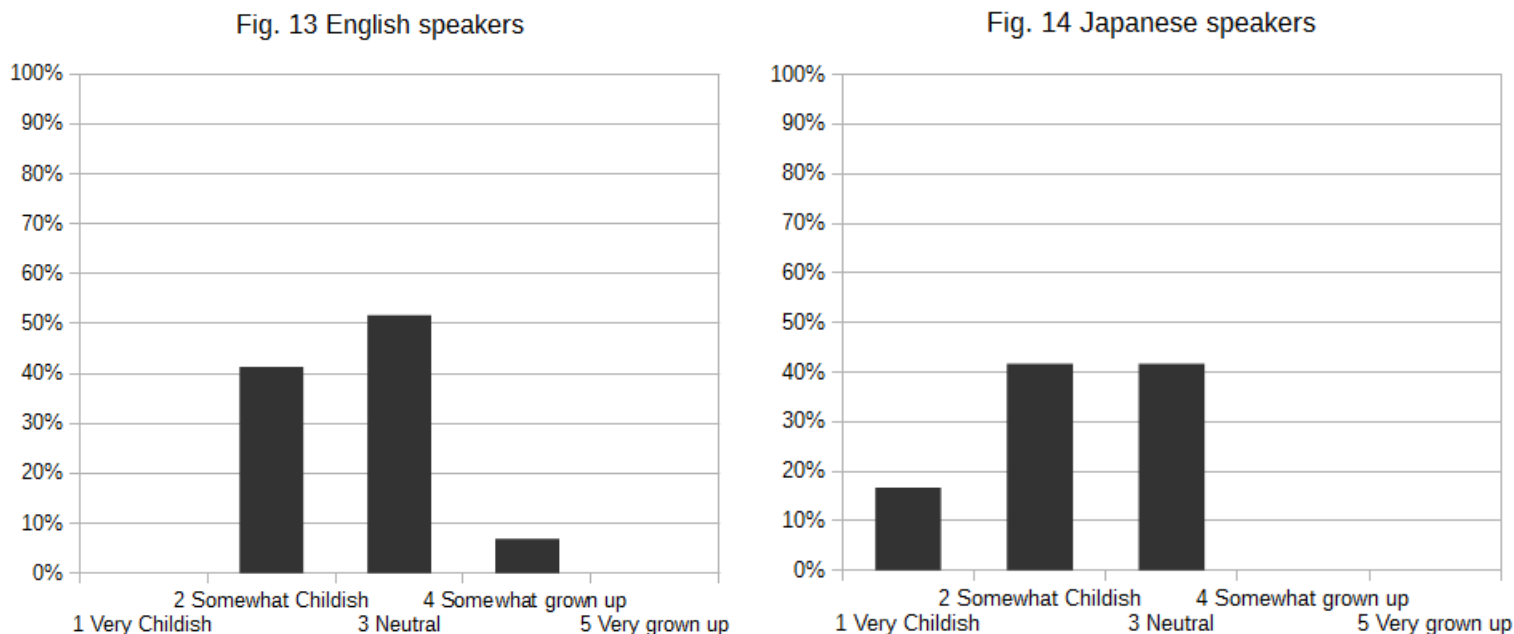
The previous section has provided some patterns on when English and Japanese speakers choose to use, or feel it is appropriate to use, onomatopoeia. The choices made by speakers are often connected to our attitudes to language. Labov's (1966) well-known study of [r] pronunciation is a clear example of this. It showed that a clear pronunciation of [r] after a vowel, as in the word “floor”, was connected to the higher social classes and considered good language. It is not that the sound in itself is good or bad, simply that people decided that this particular way of speaking was more prestigious. Examining the attitudes speakers have towards onomatopoeia may therefore provide valuable insights into when and why Japanese and English speakers choose to use these expressions. This section is divided into four parts: Childishness, naturalness, emotionality and other attitudes towards onomatopoeia.

4.2.1 Childishness

As mentioned in the introduction one of the commonly mentioned associations speakers have towards onomatopoeia is cartoons or comics. Since these literary genres are often connected to children or adolescents the first question informants were asked was to grade how childish they

thought onomatopoeia were in general on a scale of 1-5 (Question 1 in Appendix A and B). The distribution of their answers can be seen in figures 13 and 14 below.

Figure 13 and 14: General childishness of onomatopoeia



The two most common choices for both Japanese and English speakers were *neutral* or *somewhat childish*. Japanese informants leaned more towards childishness with an average score of 2.25, while the average score of English informants was 2.66. This does indicate that in both English and Japanese there is an element of childishness associated with onomatopoeia. Two English informants and two Japanese informants did explicitly state that they often used onomatopoeia when speaking to kids as can be seen in tables 2 and 3 in section 4.1.4.

The survey also examined if the informants attitude of onomatopoeia as childish depended on the meaning of the onomatopoeic expression used (Question 24, 27 and 30 in Appendix A and B). Table 4 below shows the average score given on childishness for onomatopoeia used to represent sound, an action connected to the sound or a more metaphorical usage.

	English informants	Japanese informants
General childishness	2.66	2.25
Childishness of sound representative	2.66	2.63
Childishness of an action described	3.41	2.38
Childishness of a more metaphorical usage	3.66	3.00

Table 4: Childishness of different meanings of onomatopoeia

As can be seen in the table both English and Japanese speakers on the whole move towards onomatopoeia being less childish the more metaphorical the usage is. The exception being that Japanese speaker found the action described slightly more childish than the direct representation of sound. English speakers actually considered the metaphorical non-sound representative meanings to be more typical of grown up speech than childish.

4.2.2 Naturalness

To determine how accepted different meanings of onomatopoeic words are informants were asked to compare a sentence with an onomatopoeic expression in it and another sentence with similar meaning. They were asked to grade on a scale of 1-5 which of the two sentences they thought sounded more natural (Question 6, 11 and 16 in Appendix A and B). Figure 15 and 16 below show how natural English and Japanese speakers consider different meaning of onomatopoeia.

Figure 15 and 16: Naturalness of different meanings of onomatopoeia

Fig. 15 English speakers

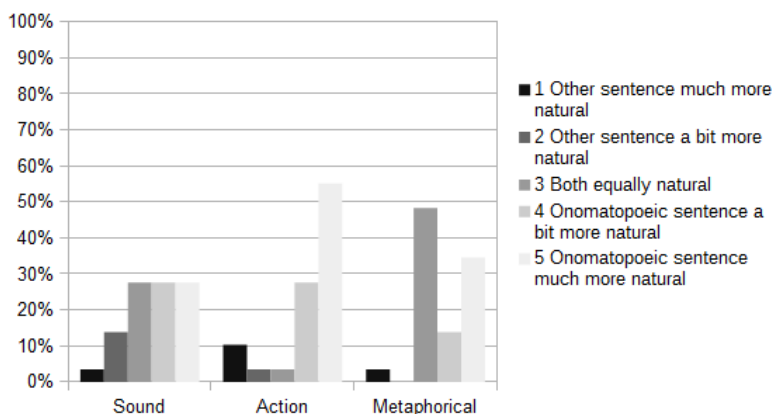
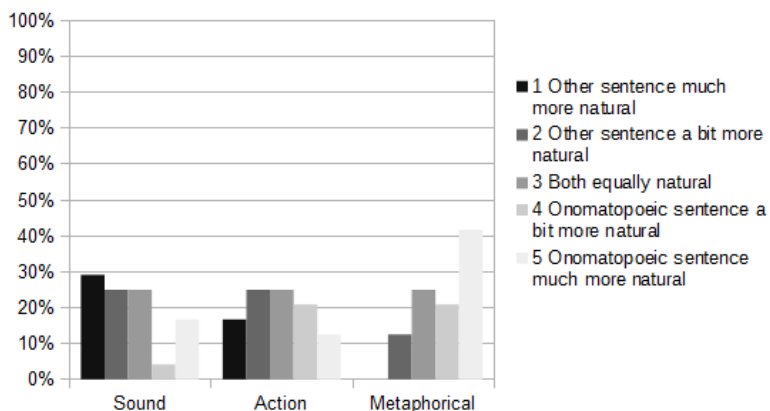


Fig. 16 Japanese speakers



Patterns of attitude were far more difficult to discern in the informants answers to this question. English speakers overall found the sentences with onomatopoeia to be more natural, especially when used to describe an action connected to the sound. Japanese speakers are more divided when it comes to onomatopoeia being sound representative or describing an action connected to the sound. As can be seen particularly in the case of describing an action the informants were fairly evenly spread out over all the options, which might be an indication that there may have been very little difference in naturalness between the two sentences and thus it came down to personal choice. Japanese speakers did however find the onomatopoeia used metaphorically to be more natural than

the other sentence.

4.2.3 Emotionality

Both Baba (2001) and Majid (2012) have argued that there is a connection between sound symbolic words, like onomatopoeia, and emotions. In one of the general questions in the beginning of the survey, informants were asked whether they felt that onomatopoeia were good for describing feelings on a scale from 1-5 (Question 3 in Appendix A and B). Their answers are illustrated in the two figures below.

Figure 17 and 18: Attitudes towards usage of onomatopoeia to describe feelings

Fig. 17 English speakers

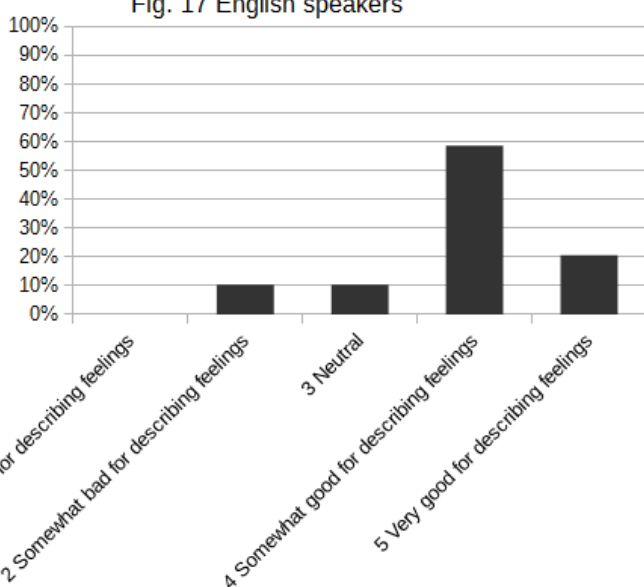
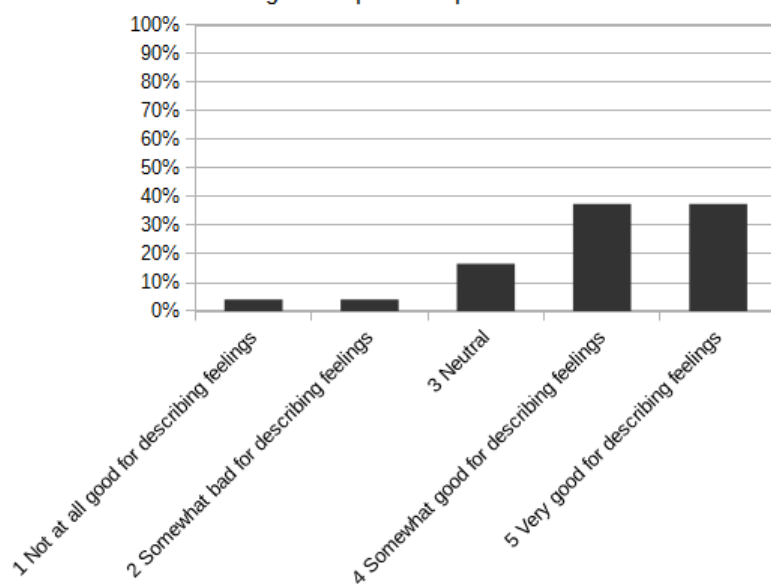


Fig. 18 Japanese speakers



On this issue both Japanese and English informers agreed that onomatopoeia are somewhat good for describing feelings. The average score for English speakers was 3.9 and for Japanese speakers it was 4.0. Question 4 on the questionnaire yielded a similar response, how good onomatopoeia is for describing experiences was given an average score of 3.83 by English informants and 4.08 by Japanese informants. As experiences tend to be personal in nature it makes sense that speakers provide a similar assessments as for describing feelings.

Informants were then asked to compare sentences with onomatopoeic expressions in them to other sentences with a similar meaning to assess how much emotion the sentences conveyed on a scale from 1-5 where a score of one meant communicates no emotion and 5 meant communicates very strong emotion (Question 7, 8, 12, 13, 17 and 18 in Appendix A and B). The average scores for each sentence can be found in the table below.

	Onomatopoeic sentence		Other sentence	
	<i>English speakers</i>	<i>Japanese speakers</i>	<i>English speakers</i>	<i>Japanese speakers</i>
Representing a sound	4.14	3.75	2.00	2.67
An action connected to the sound	3.9	4.21	2.24	2.46
Metaphorical usage	3.21	4.33	2.55	2.29

Table 5: Attitudes to how emotive different meanings of onomatopoeia are

English and Japanese informants both consistently gave a higher emotive score to the sentences with an onomatopoeic expression than for those without, thus supporting the idea that onomatopoeia are linked to emotions. It is interesting to note that English speakers feel that when the meaning of the onomatopoeia are closely connected to the sound they communicate strong emotion and then the emotional contact lessens the more metaphorical the usage becomes. In contrast Japanese speakers follow the opposite trend where emotional content becomes stronger the more metaphorical the usage is.

4.2.4 Other attitudes towards Onomatopoeia

The last couple of questions in the survey were open-ended questions about the informants attitudes towards onomatopoeia. In question 34 they were asked in what way an example sentence with an onomatopoeic expression was different from another sentence with similar meaning. Their answers can be seen in the tables below.

	Number of responses	Percentage of responders
Gives a more vivid image	12	41.38%
Less formal	9	31.03%
More natural and direct	5	17.24%
More emotive	4	13.79%

Table 6: English informants view of the difference between an onomatopoeic sentence and another sentence

	Number of responses	Percentage of responders
More personal/informal	15	62.50%
More about lying down	5	20.83%
More difficult to understand	3	12.50%
More fun	2	8.33%

Table 7: Japanese informants view of the difference between an onomatopoeic sentence and another sentence

A fair amount of both Japanese and English speakers noted that the sentence with the onomatopoeic expression felt more informal. English speakers then pointed to descriptive qualities of being more vivid, natural, direct and emotional. Some Japanese speakers highlighted a specific semantic difference saying that while both sentences meant “to do nothing” the one with the onomatopoeic expression created the image of someone lying down on a bed or futon doing nothing (see example 19 in section 3). So in a sense it was more descriptive and detailed. Some Japanese speakers thought that due to the figurative meaning it might a bit more difficult to understand.

The final question was in all likelihood the most open-ended one as it simply asked the informants what they thought about onomatopoeia in general (Question 35 in Appendix A and B). Not surprisingly this question also generated the greatest variety of responses. In the table below these responses of the English informants have been sorted into categories with other similar answers and organized by most common response first.

	Number of responses	Percentage of responders
Good/Useful	13	44.83%
Informal	6	20.69%
Fun/creative	5	17.24%
Adds emphasis	5	17.24%
No opinion	5	17.24%
Expressive	5	17.24%
Emotive	3	10.34%
Childish	2	6.90%

Table 8: English informants general attitudes towards onomatopoeia

A lot of these attitudes such as onomatopoeia being informal, expressive and emotive have already been encountered earlier in this study. What is new is that a handful of English informants also expressed the idea that onomatopoeia were fun and creative to use, and that they added emphasis to what you said creating a stronger statement. The category *Good/useful* includes the more non-committal responses given that does not provide much information, such as “They're ok”.

The Japanese respondents provided even more variety in their responses as many of them mentioned more than one attitude.

	Number of responses	Percentage of responders
Easy to understand	7	29.17%
Emotive	6	25.00%
Descriptive	6	25.00%
Expressive	5	20.83%
Good/useful	5	20.83%
Detailed/precise	5	20.83%
Informal	3	12.50%
Childish	3	12.50%
Used more in Kansai	2	8.33%
No good	2	8.33%

Table 9: Japanese informants general attitudes towards onomatopoeia

Just as in section 4.1.4, dealing with purpose, a fair amount of Japanese informants mentioned the ease with which onomatopoeia can be understood and them being more descriptive and detailed. The only really new point of interest is that a couple of informants felt that people from Kansai tended to use more onomatopoeia.

In the follow-up interview both Japanese and English informants were asked a couple of questions to determine to what extent they were aware of onomatopoeia and usage of onomatopoeia. At first they were asked if they had ever learned about or discussed onomatopoeia when they were in school, other than sort of the odd reference to comic book words. The two English informants stated plainly that they had never talked about the characteristics of onomatopoeia in school as far as they can remember. The Japanese informants both said that they never really talked about them specifically. However, the first informant said that sometimes when

reading literature the teacher would ask the students what feelings the author was trying to communicate through an onomatopoeic expression. The other informant said that sometimes her teacher would correct her, saying she should not use onomatopoeia when writing papers because they are more informal and part of spoken language.

The second question asked of both Japanese and English speakers was whether the way they thought about onomatopoeia had changed after doing the survey. One of the Japanese informants said that she felt she had a better understanding of how they are used and how their meanings can be extended. The other Japanese informant said that it got her thinking more on the connection between metaphorical meaning and the sound, particularly in the case of *goro goro*. As for the English speakers, one of the informants said that she didn't think her thinking had changed while the other felt that he had become more curious about how onomatopoeia are used in different ways.

This section on attitudes indicates several similarities between Japanese and English speakers attitudes towards onomatopoeia. Both consider onomatopoeia to be slightly childish on the whole, emotive and generally good for more vivid and detailed descriptions. Most of the differences are small by comparison. English speakers find that meanings of onomatopoeia closely connected to the sound they describe are more emotive, while Japanese speakers feel that the more metaphorical meanings carry more emotion. English speakers feel that on the whole onomatopoeic words sound more natural while Japanese are more split on this issue, with the exception of the example of metaphorical meaning of onomatopoeia which they found to be more natural.

5 Discussion

Before talking about what the results of the study says about the usage of onomatopoeia in English and Japanese it is important to note that this study is based on the opinions of informants. Thus, in a sense it is more accurate to say that we are dealing with perception of usage rather than actual usage. Since these are all native speakers it is quite likely that their perceptions are accurate, particularly if there is a strong consensus among informants. However, it is not possible to say with certainty that their perceptions accurately mirrors actual usage.

One of the difficulties discussed in section 2.4 is how to categorize onomatopoeia. Both researchers on English onomatopoeia, like Bredin (1996), and Japanese researchers like Hamano (1998) and Baba (2001) suggest different categories depending on whether they are representing a sound or describing an action or state. However, as argued by Rydblom (2010a) and Ozmianska (2001) most onomatopoeia can have their meanings extended and thus fit into all of the categories. The results of this study (section 4.1.3) agree with the idea that onomatopoeia may represent a

sound, actions closely connected to the sound and actions metaphorically connected to the sound. Unlike the more narrow definition of onomatopoeia as interjections representing sound advocated by for example Quirk et al. (1985), the English informants interviewed had no problem considering more metaphorical uses of the expressions as onomatopoeia as well.

The results of this study confirmed a number of ideas put forth in previous research. The results from section 4.1.2 confirm that onomatopoeia are used primarily in informal contexts as suggested by Baba (2001) and Rydholm (2010a). The results looking at purpose in section 4.1.4 also confirm the idea that onomatopoeia are used to describe emotion suggested by Baba (2001) and Majid (2012), and their ability to provide a more vivid or detailed picture as proposed in Rydholm (2010b). The connection to emotion and vividness was also found in section 4.2 on attitudes, where it became clear that both Japanese and English informants considered onomatopoeia emotive and descriptive, as well as a bit childish.

The results also indicate that the sound is the key component that embodies these characteristics. When the connection to the sound was strong both Japanese and English informants found the expression to be more childish, informal, etc.; when on the other hand the connection between sound and meaning became more metaphorical they tended to consider it less childish or informal and so on.

As Ozmianska (2001:147) points out there are far more similarities between sound symbolism in English and Japanese than there are differences. However, these universal traits are also subjected to the language system of each language and the cultural preferences pervasive in each country. Thus, there will be differences, particularly with more metaphorical uses (see also Iwazaki (2007)). The first of the two significant differences discovered in this study was that while onomatopoeic expressions in general tend to lose some of the power of their characteristics when the connection between meaning and sound is more metaphorical in both languages, in terms of emotive properties Japanese informants considered metaphorical meanings of onomatopoeia to be more emotive. This may be because metaphorical uses of Japanese onomatopoeia to a much larger extent are used to describe emotional states. As stated in Baba (2001) there is even a category of onomatopoeia referred to as psychomimes.

The second difference is that while English informants generally consider onomatopoeia to be used equally by men and women, Japanese speakers feel that they are used more by women. More specifically the female Japanese informants felt strongly that they were used more by women, while the male informants felt that usage was equal between the two genders. When asked if they used more onomatopoeia when talking to other women, which would be a possible explanation for why men did not perceive that women use more onomatopoeia, neither of the two Japanese women

interviewed thought so. They said that they felt that women used more onomatopoeia because they are softer, more emotional or because women prefer that style of speech. While these are good reasons it does not explain why the men did not share this perception. It is possible that women are simply more aware of what language they use.

6 Conclusion

The aim of this study was to examine to what extent there existed patterns of similarities between usage of and attitudes towards onomatopoeia in English and Japanese. It is the findings of this paper that there are far more patterns of similarity in usage of- and attitudes towards onomatopoeia among Japanese and English speakers than there are differences. Speakers from both groups felt that they should be used mainly in informal contexts, such as conversation with friends or in novels, and use them mainly because they provide a more vivid or clear picture. Both Japanese and English informants also felt that onomatopoeic expressions are characteristically a bit childish but emotive and expressive. In general these characteristics connect most strongly when the meaning of the onomatopoeic expression is closely connected to the sound and less so when the connection between sound and meaning is more metaphorical. While Japanese speakers differed from English speakers in that they thought onomatopoeia were used more by women and that metaphorical meanings of onomatopoeia carried more emotion than those more closely linked to the sound, the differences are fewer and more minute than the commonalities found.

Quite a few of the participants in the study commented on how interesting they thought the different usages of onomatopoeia were, and that they have not thought about or talked about this previously in school. Hopefully the patterns found here can be useful to designing future lessons for people who study English or Japanese as a second language. As there are many similarities it should be easy to transfer the knowledge from their native language to a foreign language. The study conducted in this paper was done only on a few examples of different meanings of two onomatopoeia and on a limited group of people looking at a few broad characteristics. For a more complex understanding of the usage of onomatopoeia in English and Japanese a much more detailed study of a large variety of onomatopoeia and characteristics is required. Nevertheless, this study may provide useful indications and hypotheses that may help lay the groundwork for larger studies and hopefully in the end lead to a greater understanding of the connection between sound and meaning.

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Appendix A - Survey of Japanese native speakers

日本語のオノマトペの調査

この調査では日本語のオノマトペ(擬態語と擬音語)のイメージと使い方を調べます。擬音語は自然の音から作った言葉、例えば「かんかん」や「ごろごろ」があります。擬態語は見た目から音をむりやりつけて言葉にしたもので、例えば「きらきら」があります。以下の質問に教えてください。

性別:

- 男
- 女

年齢:

(Field to type in the answer)

この調査では答えの選択肢が五段階に分かれている問題があります。例えば:
あなたにとってバナナは(答えなくてもいいです)

(Scale 1-5)とても不味いと思います — とても美味しいと思います

上の例で1を選んだらあなたにとってバナナはとても不味いと思います、2はやや不味いと思います、3はどちらとも言えない、4はやや美味しいと思います、5はとても美味しいと思います。

最初にオノマトペの一般的な問題に教えてください。

1 一般的にオノマトペの表現(ガンガン、ザーザー)は
(Scale 1-5)とても子供っぽい — とても大人らしい

2 あなたにとって、男女どちらがよりオノマトペをよく使うと思いますか？
(Scale 1-5)男性のほうがよく使うと思います — 女性のほうがよく使うと思います

3 あなたにとって、オノマトペを使うことは気持ちを伝えるのに良い手段だと思いますか。
(Scale 1-5)気持ちを伝えるのに良くない — 気持ちを伝えるのに良い

4 あなたにとって、オノマトペを使うことはあなたの経験を表すのに良い手段だと思いますか。
(Scale 1-5)経験を表すのに良くない — 経験を表すのに良い

5 あなたはどんな場合によくオノマトペを使いますか？その目的は何ですか？

(Field to type in the answer)

a)の文とb)の文を比べて、問題に教えてください。

a) ゴロゴロという音を聞いた？

b) 雷の音を聞いた？

6 あなたにとって

(Scale 1-5) a)の文のほうがとても自然だと思います — b)の文のほうがとても自然だと思います

7 a)の文は

(Scale 1-5)感情が全然伝わらない — 感情がよく伝わる

8 b)の文は

(Scale 1-5)感情が全然伝わらない — 感情がよく伝わる

9 a)の文はどんな場合によく見られると思いますか？(あてはまる選択肢を全て選んでください)

- (1) 友達の会話で
- (2) 会社員とお得意先の会話で
- (3) 小説で
- (4) 新聞の記事で
- (5) 学会誌で

10 b)の文はどんな場合によく見られると思いますか？(あてはまる選択肢を全て選んでください)

- 友達の会話で
- (6) 会社員とお得意先の会話で
- (7) 小説で
- (8) 新聞の記事で
- (9) 学会誌で

c)の文とd)の文を比べて、問題を答えてください。

c) 岩がゴロゴロ落ちてきた。

d) 岩が転がり落ちてきた。

11 あなたにとって

(Scale 1-5) c)の文のほうがとても自然だと思います — d)の文のほうがとても自然だと思います

12 c)の文は

(Scale 1-5)感情が全然伝わらない — 感情がよく伝わる

13 d)の文は

(Scale 1-5)感情が全然伝わらない — 感情がよく伝わる

14 c)の文はどんな場合によく見られると思いますか？(あてはまる選択肢を全て選んでください)

- (10) 友達の会話で
- (11) 会社員とお得意先の会話で
- (12) 小説で
- (13) 新聞の記事で
- (14) 学会誌で

15 d)の文はどんな場合によく見られると思いますか？(あてはまる選択肢を全て選んでください)

- 友達の会話で
- (15) 会社員とお得意先の会話で
- (16) 小説で
- (17) 新聞の記事で
- (18) 学会誌で

e)の文とf)の文を比べて、問題を答えてください。

e) 彼は土曜日に一日中部屋でゴロゴロしていた。

f) 彼は土曜日に一日中部屋にいたけど何もしていなかった。

16 あなたにとって

(Scale 1-5) e)の文のほうがとても自然だと思います — f)の文のほうがとても自然だと思います

17 e)の文は

(Scale 1-5)感情が全然伝わらない — 感情がよく伝わる

18 f)の文は

(Scale 1-5)感情が全然伝わらない — 感情がよく伝わる

19 e)の文はどんな場合によく見られると思いますか？(あてはまる選択肢を全て選んでください)

- (19) 友達の会話で
- (20) 会社員とお得意先の会話で
- (21) 小説で
- (22) 新聞の記事で
- (23) 学会誌で

20 f)の文はどんな場合によく見られると思いますか？(あてはまる選択肢を全て選んでください)

- 友達の会話で
- (24) 会社員とお得意先の会話で
- (25) 小説で
- (26) 新聞の記事で
- (27) 学会誌で

下の文を見て、あとの問題に答えてください。
“氷の上を歩いたら、バリバリという音がした”

21 カタカナで書かれている表現はこの文においてどのような働きをしていると思いますか。下記の定義から当てはまる選択肢を全て選んでください。

- 音を表している
- 音が動きを表している
- 人や物の状態や動きを表している
- 感情や心理的な状態を表している
- 動作と音が間接的に関連している

下の文を見て、あとの問題を答えてください。
“図書館でせんべいをバリバリ食べてはいけない。”

22 カタカナで書かれている表現はこの文においてどのような働きをしていると思いますか。下記の定義から当てはまる選択肢を全て選んでください。

- 音を表している
- 音が動きを表している
- 人や物の状態や動きを表している
- 感情や心理的な状態を表している
- 動作と音が間接的に関連している

下の文を見て、あとの問題を答えてください。
“彼女は一日中バリバリ仕事をした。”

23 カタカナで書かれている表現はこの文においてどのような働きをしていると思いますか。下記の定義から当てはまる選択肢を全て選んでください。

- 音を表している
- 音が動きを表している
- 人や物の状態や動きを表している
- 感情や心理的な状態を表している
- 動作と音が間接的に関連している

下の二つの文をもう一度見て、あとの問題に答えてください。

“ゴロゴロという音を聞いた？”

“氷の上を歩いたら、バリバリという音がした”

24 上の二つのカタカナで書いた表現は
(Scale 1-5)とても子供っぽい — とても大人らしい

25 その表現は男女どちらがよりオノマトペをよく使うと思いますか？
(Scale 1-5)男性のほうがよく使うと思います — 女性のほうがよく使うと思います

26 その表現はどのような場合に最もよく見られますか？一つだけ選んでください。
(28) 友達の会話で
(29) 会社員とお得意先の会話で
(30) 小説で
(31) 新聞の記事で
(32) 学会誌で

下の二つの文をも一回見て、あとの問題を答えてください。

“岩がゴロゴロ落ちてきた。”

“図書館でせんべいをバリバリ食べるはいけない。”

27 上の二つのカタカナで書いた表現は
(Scale 1-5)とても子供っぽい — とても大人らしい

28 その表現は男女どちらがよりオノマトペをよく使うと思いますか？
(Scale 1-5)男性のほうがよく使うと思います — 女性のほうがよく使うと思います

29 その表現はどのような場合に最もよく見られますか？一つだけ選んでください。
(33) 友達の会話で
(34) 会社員とお得意先の会話で
(35) 小説で
(36) 新聞の記事で
(37) 学会誌で

下の二つの文をも一回見て、あとの問題を答えてください。

“彼は土曜日に一日中部屋でゴロゴロしていた”

“彼女は一日中バリバリ仕事をした。”

30 上の二つのカタカナで書いた表現は
(Scale 1-5)とても子供っぽい — とても大人らしい

31 その表現は男女どちらがよりオノマトペをよく使うと思いますか？
(Scale 1-5)男性のほうがよく使うと思います — 女性のほうがよく使うと思います

32 その表現はどのような場合に最もよく見られますか？一つだけ選んでください。
(38) 友達の会話で
(39) 会社員とお得意先の会話で
(40) 小説で
(41) 新聞の記事で
(42) 学会誌で

最後に、あなたのオノマトペの使い方について、問題に答えてください。

33 あなたは通常どのようなオノマトペの働きを使いますか？

- 音を表している
- 音が動きを表している
- 人や物の状態や動きを表している
- 感情や心理的な状態を表している
- 動作と音が間接的に関連している

34『彼は土曜日に一日中部屋でゴロゴロしていた』を使う場合と『彼は土曜日に一日中部屋にいたけど何もしていなかった』を使う場合とでは、何が違うと思いますか。

(Field to type in the answer)

35 一般的に、オノマトペを使った表現についてどう思いますか。

(Field to type in the answer)

36 この調査内容に関してや各問題についてなどどんなことでも構いませんので何か意見はありますか？

(Field to type in the answer)

調査後に Skype や facebook 等で連絡を取っても良い方はお名前と連絡先を書いて下さい。(これは調査に関してのみに限り使用しそれ以外には使用致しませんのでご安心下さい。)

(Field to type in the answer)

調査は以上です。ご協力ありがとうございました！

Appendix B – Survey of English native speakers

Survey of English Onomatopoeia

This is a survey on sound imitating words (onomatopoeia) in English. It consists of 36 questions and should only take about 10-15 minutes to complete. Please answer all questions as truthfully and accurately as possible. Thank you very much for your time and participation!

Gender:

- Male
- Female

Age:

(Field to type in the answer)

In many of the questions in this survey you will be asked to assess and complete statements on a scale from 1-5 where 3 would be a neutral response.

Example: (no need to answer this one) I find bananas to be...

(Scale 1-5) Very bad-tasting – Very delicious

In the example above choosing 1 would mean you find bananas very bad tasting; 2 would mean you find them somewhat bad tasting; 3 would mean you think they are neither delicious or bad tasting; 4 that they are somewhat delicious; and 5 that you find them very delicious.

Now lets start the survey with a few general questions!

1. In general I find onomatopoeic words like POP, SMASH, BUBBLE and CRACK to be...

(Scale 1-5) Very childish words – Very grown up words

2. I think that onomatopoeic words are used..

(Scale 1-5) Much more by men – Much more by women

3. I also think that sound imitating words like BUBBLY, GROWLING and SMASHED are...

(Scale 1-5) Not at all good for describing feelings – Very good for describing feelings

4. Words like those mentioned in the previous questions are...

(Scale 1-5) Not at all good for describing an experience – Very good for describing an experience

5. When do you usually use onomatopoeic expressions like the ones mentioned above and for what purpose?

(Field to type in the answer)

Please compare sentence a) and b) and then answer the questions below...

a) "The street was all quiet and then one of the cars suddenly exploded."

b) "The street was all quiet and then—BOOM!—one of the cars suddenly exploded."

6. I think that...

(Scale 1-5) Sentence a) sounds more natural – Sentence b) sounds more naturally

7. In my opinion sentence a)...

(Scale 1-5) Communicates not emotion – Communicates very strong emotional

8. In my opinion sentence b)...

(Scale 1-5) Communicates not emotion – Communicates very strong emotional

9. I think it would be perfectly natural to find sentence a) in... (Please check all the alternatives you agree with)

- A conversation with a friend
- A conversation with a business client
- A novel
- A newspaper article

- An academic text

10. I think it would be perfectly natural to find sentence b) in... (Please check all the alternatives you agree with)

- A conversation with a friend
- A conversation with a business client
- A novel
- A newspaper article
- An academic text

Please compare sentence c) and d) and answer the questions below...

c) "His voice WAS LOUDLY CARRIED out across the congregation."

d) "His voice BOOMED out across the congregation."

11. I think that...

(Scale 1-5) Sentence c) sounds more natural – Sentence d) sounds more naturally

12. In my opinion sentence c)...

(Scale 1-5) Communicates not emotion – Communicates very strong emotional

13. In my opinion sentence d)...

(Scale 1-5) Communicates not emotion – Communicates very strong emotional

14. I think it would be perfectly natural to find sentence c) in... (Please check all the alternatives you agree with)

- A conversation with a friend
- A conversation with a business client
- A novel
- A newspaper article
- An academic text

15. I think it would be perfectly natural to find sentence d) in... (Please check all the alternatives you agree with)

- A conversation with a friend
- A conversation with a business client
- A novel
- A newspaper article
- An academic text

Please compare sentence e) and f) and answer the questions below...

e) "Housing construction has INCREASED RAPIDLY in the past year."

f) "Housing construction has BOOMED in the past year."

16. I think that...

(Scale 1-5) Sentence e) sounds more natural – Sentence f) sounds more naturally

17. In my opinion sentence e)...

(Scale 1-5) Communicates not emotion – Communicates very strong emotional

18. In my opinion sentence f)...

(Scale 1-5) Communicates not emotion – Communicates very strong emotional

19. I think it would be perfectly natural to find sentence e) in... (Please check all the alternatives you agree with)

- A conversation with a friend
- A conversation with a business client
- A novel
- A newspaper article
- An academic text

20. I think it would be perfectly natural to find sentence f) in... (Please check all the alternatives you agree with)

- A conversation with a friend
- A conversation with a business client

- A novel
- A newspaper article
- An academic text

Please look carefully at the following sentence and then answer the question below
 "In *Marked for Death* he broke the lead villain's body -- SNAP! -- over his knee."

21. Which of the definitions below do you think fit the meaning and function of the word in capital letters in the sentence above? You may choose more than one alternative if you feel more than one fits the meaning and function of the word in capital letters.

- Describing a sound
- Describing an action that produces a sound
- Describing the state of or action of an object or person
- Describing an emotional or psychological state
- Describing an action or state that has a similar connotation as the sound

Please look carefully at the following sentence and then answer the question below
 "With so many people crowding onto the platform, its supports SNAPPED."

22. Which of the definitions below do you think fit the meaning and function of the word in capital letters in the sentence above? You may choose more than one alternative if you feel more than one fits the meaning and function of the word in capital letters.

- Describing a sound
- Describing an action that produces a sound
- Describing the state of or action of an object or person
- Describing an emotional or psychological state
- Describing an action or state that has a similar connotation as the sound

Please look carefully at the following sentence and then answer the question below
 "Has police work become so dangerous that even well-meaning officers can SNAP under the pressure?"

23. Which of the definitions below do you think fit the meaning and function of the word in capital letters in the sentence above? You may choose more than one alternative if you feel more than one fits the meaning and function of the word in capital letters.

- Describing a sound
- Describing an action that produces a sound
- Describing the state of or action of an object or person
- Describing an emotional or psychological state
- Describing an action or state that has a similar connotation as the sound

Please look at these two sentences again and then answer three questions below.
 "The street was all quiet and then—BOOM!—one of the cars suddenly exploded."
 "In *Marked for Death* he broke the lead villain's body -- SNAP! -- over his knee."

24. Do you think that the words in capital letters are more closely related to childish language or grown up language? (choosing 3 means neither)
 (Scale 1-5) Very Childish - Very grown up

25. Do you think that these words are more likely to be used more frequently by women? Choosing 3 means you feel they are used as frequently by both.
 (Scale 1-5) Much more by men - Much more by women

26. In which of the following situations do you think it is most likely that you will encounter the words in capital letters?

- In a conversation with a friend
- In a conversation with a business client
- In a novel
- In a newspaper article
- In an academic text

Please look at these two sentences again and then answer three questions below.

"His voice BOOMED out across the congregation."

"With so many people crowding onto the platform, its supports SNAPPED."

27. Do you think that the words in capital letters are more closely related to childish language or grown up language?

(choosing 3 means neither)

(Scale 1-5) Very Childish - Very grown up

28. Do you think that these words are more likely to be used more frequently by women? Choosing 3 means you feel they are used as frequently by both.

(Scale 1-5) Much more by men - Much more by women

29. In which of the following situations do you think it is most likely that you will encounter the words in capital letters?

- In a conversation with a friend
- In a conversation with a business client
- In a novel
- In a newspaper article
- In an academic text

Please look at these two sentences again and then answer three questions below.

"Housing construction has BOOMED in the past year."

"Has police work become so dangerous that even well-meaning officers can SNAP under the pressure?"

30. Do you think that the words in capital letters are more closely related to childish language or grown up language?

(choosing 3 means neither)

(Scale 1-5) Very Childish - Very grown up

31. Do you think that these words are more likely to be used more frequently by women? Choosing 3 means you feel they are used as frequently by both.

(Scale 1-5) Much more by men - Much more by women

32. In which of the following situations do you think it is most likely that you will encounter the words in capital letters?

- In a conversation with a friend
- In a conversation with a business client
- In a novel
- In a newspaper article
- In an academic text

Finally please answer a few questions on your own usage of and thoughts on onomatopoeic words.

33. When I use onomatopoeic words I mainly use them to...

- Describing a sound
- Describing an action that produces a sound
- Describing the state of or action of an object or person
- Describing an emotional or psychological state
- Describing an action or state that has a similar connotation as the sound

34. What do you think is the difference between using an onomatopoeic word in a sentence like "Housing construction has BOOMED in the past year." and a sentence using a non-onomatopoeic verb or adverb like "Housing construction has INCREASED RAPIDLY in the past year." ?

(Field to type in the answer)

35. How do you generally feel about onomatopoeic words?

(Field to type in the answer)

36. Are there any other thoughts you had during this survey that you would like to share?

(Field to type in the answer)

If you would be ok with possibly answering a few follow up questions please leave your name and contact information in the box below.

(Field to type in the answer)

That concludes this survey. Thank you so much for your contribution! :)

Appendix C – Follow-up interview questions

English informants

Did you ever discuss the usage of onomatopoeia when you were in school?

Were there any of the expressions in the examples marked as onomatopoeia that you felt were not onomatopoeia?

Do you think differently about onomatopoeia after having taken the survey?

Japanese informants

あなたは学校で何かオノマトペについて学びましたか？

女性と話すとき、あなたは、よりオノマトペを使いますか？なぜ女性はオノマトペをよく使うと思いますか？

この調査に取り組んだ後、オノマトペに対して、自分のイメージや考え方が変わったと思いますか？