Contrastive Analysis of Onomatopoeic Use in Nursery Rhymes as Children's Environmental Sounds Recognition in Japanese and Indonesian

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Abstract. Nursery rhymes play a role in children's language development and help them recognize and express the environmental sounds or sounds around them. Onomatopoeia or imitation words are often found in nursery rhymes. Every country has a different language, so it has different phonetic sounds to express onomatopoeia. In this research, the author will contrast the onomatopoeic use in Japanese and Indonesian nursery rhymes. The theory and classification of onomatopoeia used in this research are combinations proposed by Akimoto (2002) and Kaneda (1978). This qualitative research used the listening and note-taking methods from Youtube videos. The analysis data used in this research are the referential matching method. The result from the research data shows that in Japanese nursery rhymes, onomatopoeia is the sound of nature, the sound from an object, the sound of a human, the sound of an animal, object condition, object movement, human movement, animal movement, and human emotion are found. Meanwhile, in Indonesian nursery rhymes found, almost all types of onomatopoeia in Japanese are found except for the class of the sound of a human, object movement, and human emotion are not found.

1 Introduction

Music is sound from the human mind to express and communicate creatively [1]. Apart from being a way for the artists to express themselves, music also impacted the listeners. One of them is they had a good impact on children's speech and auditory development. In that case, children can recognize the environmental sound or the sounds around them. Parents usually play nursery rhymes in human childhood while feeding their child, playing, or sending their child to sleep. Human speech and auditory development start when a human is six months old when they begin to recognize the phonetic system of their mother language. From 1 to 1,5 years old, humans begin to step into their lexical, which develops more at 2 and 4 years

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old [2]. Nursery rhymes play the role of helping parents to nurture children's speech and auditory development.

Nursery rhymes are packed attractively so that children would like them. One of the interesting things in nursery rhymes is that there are imitations of sounds known as onomatopoeia. Onomatopoeia in nursery rhymes helps children to express the sounds they hear around them. In Japanese, onomatopoeia is also known as *onshouchougo*. In general, Kaneda divided onomatopoeia into five classes, words that come from imitation of nature or objects called *giongo*, imitation sounds came from a living creature such as humans and animals called *giseigo*, words that describe object movements and conditions called *gitaigo*, and words that describe human and animal activity called *giyougo*, and words that describe the human condition, feelings and thoughts called *gijougo* [3]. In terms of meaning, Akimoto divides onomatopoeia into ten classes, namely *shizengenshou* (natural phenomena), *doubutsu no nakigoe* (animal sounds), *hito no koe* (human sounds), *hito no dousa* (human movements), *hito no youko/shinjou* (human conditions or feelings), *hito no shintaiteki tokuchou* (human physical characteristics), *hito no kenkou joutai* (human health conditions), *mono ga dasu oto* (sounds produced by objects), *mono no ugoki* (movement of objects), and *mono no youtai/seishitsu* (shape or nature of objects) [4]. In this study, the author will classify onomatopoeia by combining the classifications proposed by Kaneda and Akimoto.

Due to the difference in the phonological system of language, each country has different ways of expressing sounds. For example, the sound of a human knocking on a door in Indonesian is defined as "tok-tok-tok" but in Japanese is defined as "kon-kon." This example also proved the theory of Odgen and Richard's triangle that symbols and references in language are connected with a dotted line. The references are the same: the sound of a human knocking on the door was heard by ear, but when it comes to the symbol or expressing it in different languages, it will be different too. Same as the onomatopoeia in the nursery rhymes, it adjusts based on what country they are produced. In this study, the author will contrastively use onomatopoeic nursery rhymes in Japanese and Indonesian.

2 Methods

This qualitative research collects data through the Youtube website using the listening and note-taking method. The data were analyzed by using referential and matching methods. The referential method is used to classify the onomatopoeia base on their classes and language [5]. The matching method compares the onomatopoeic use in Japanese and Indonesian nursery rhymes [6]. The author presents the results of the data analysis informally by description.

3 Discussion and Result

This research took data from 20 nursery rhymes divided into 10 Japanese songs and 10 Indonesian songs that contain onomatopoeia in the lyrics. Of the 20 songs, 36 onomatopoeias were in them. The onomatopoeia found are divided according to languages as follows.

Table 1. Onomatopoeia data in Japanese

No	Onomatopoeia	Transliteration	Translation
1	ツルン	/tsurun/	Slipping motion
2	ニコニコ	/niko-niko/	Smiling happily
3	ボンボコ	/bon-boko/	Sound of drum
4	グーグー	/guu-guu/	Snoring
5	ポカン	/pokan/	Openmouthed
6	スポン	/supon/	Snugly into hole
7	モグモグ	/mogu-mogu/	Chewing food
8	リンリンリン	/rin-rin-rin/	Bell ringing
9	ドンドンドン	/don-don-don/	Stamping
10	チャチャチャ	/cha-cha-cha/	Dance
11	トントントントン	/ton-ton-ton-ton/	Tapping
12	キラキラキラキラ	/kira-kira-kira-kira/	Sparkling
13	コロコロ	/koro-koro/	Lightly rolling
14	ピョンピョン	/pyon-pyon/	Hopping
15	ヒョロヒョロ	/hyoro-hyoro/	Tottering
16	ヨチヨチ	/yochi-yochi/	Tottering step
17	ブンブンブン	/bun-bun-bun/	Buzzing
18	グツグツ	/gutsu-gutsu/	Simmering
19	ムシャムシャ	/musha-musha/	Munching
20	ゴクゴク	/goku-goku/	Gulping
21	モリモリ	/mori-mori/	Welling up strength
22	ふんわり	/funwari/	Fluffily
23	モクモク	/moku-moku/	Smoke rising
24	ガーガー	/gaa-gaa/	Quack
25	ピカピカ	/pika-pika/	Shiny and clean
26	ビュンビュン	/byun-byun/	Swishing through the air
27	ガチャガチャ	/gacha-gacha/	Clatter
28	ゴロンゴロン	/goron-goron/	Something large rolling
29	スイスイ	/sui-sui/	Lightly and smooth movement
30	ぴっちぴっち	/picchi-picchi/	Splashing water
31	ちゃっぷちゃっぷ	/chappu-chappu/	Splish-splash
32	らんらんらん	/ran-ran-ran/	Rejoicing in song

Table 2. Onomatopoeia data in Indonesian

No	Onomatopoeia	Translation
1	Guk-guk-guk	Barking
2	Kring-kring-kring	Bell ringing
3	Tuk-tuk-tuk	Knock on objects
4	Dor	Pop
5	Tik-tik-tik	Rain sound
6	Ku-ku	Owl sound
7	Tuk-tik-tak-tik-tuk	Horse running sound
8	Tut-tut-tut	Train sound
9	Cit-cit-cit-cit-cuit	Sound of bird
10	Tok-tok-tok-tok-petok	Sound of chicken
11	Wek-wek-wek-wek-kowek	Sound of duck
12	Ku ku kukuruyuk	Sound of rooster
13	Prok-prok-prok	Stomping feet

3.1 Comparison of Onomatopoeia

In this research paper, only one representative onomatopoeia from each language will be analyzed for each classification.

3.1.1 Giongo

1 Sound of nature (SN)

(1) ぴっちぴっちちゃっぷちゃっぷらんらんらん [9]
Picchi-picchi/ chappu-chappu/ ran-ran-ran
'**Splash** splish splash lalala'

(2) **Tik tik tik** bunyi hujan di atas genting [9]
'**Tic tic tic** sounds of rain from the roof'

According to data (1), onomatopoeia ぴっちぴっち 'picchi-picchi' is found in the lyrics of the song titled *Ame Furi*, which is another form of ぴちゃぴちゃ 'picha-picha' is an imitation sound of splashing water [7]. Whereas in data (2), 'tik-tik-tik' onomatopoeia is found in the lyrics of the song titled *Tik Tik Tik Bunyi Hujan* is an imitation of the sound of rain [8]. 'Picchi-picchi' represents Japanese data and 'tik-tik-tik' represents Indonesian data classified into the onomatopoeia classification of nature sounds.

2 Sound of an object (SO)

(3) いそいでりんりんりん [9]

Isoide/ **rin-rin-rin**

'Quickly **ring ring ring**'

(4) **Kring-kring-kring** ada sepeda [9]

Kring-kring-kring there's a bike

In data (3), onomatopoeia りんりんりん 'rin-rin-rin' is found in the lyrics of the song titled *Awatenbou no Santaruroosu*. 'Rin-rin-rin' is a word imitating the sound of bells [7]. From the lyrics in the Indonesian nursery rhyme titled *Kring Kring Kring Ada Sepeda,* onomatopoeia 'kring-kring-kring' was found, it is an imitation of the sound of bicycle bells [8].

3.1.2 Giseigo

1 Sound of human (SH)

(4) グーグーお昼寝にいい気持ち [9]
Guu-guu/ ohirune/ ni/ ii/ kimochi
'**Snoring** during nap feels good'

In data (4), onomatopoeia **グーグー** 'guu-guu' is found in the lyrics of the song titled *Tondetta Banana*. 'Guu-guu' is an imitation of the sound of people snoring [7]. From the data collected, there are no onomatopoeias that represent Indonesian for the onomatopoeia classify human voices in Indonesian.

2 Sound of animal (SA)

(5) ぶんぶんぶん はちがとぶ [9]
Bun-bun-bun/ hachi/ ga/ tobu
Buzz-buzz-buzz the bee fly

(6) **Kuku kukuruyuk** begitulah bunyinya [9]
Cock-a-doodle-doo that is how it sounds

Data (5) is found in the song *Bun-Bun-Bun Hachi ga Tobu* lyrics. ぶんぶんぶん 'bun-bun-bun' is an imitation word sound of bees [7]. Meanwhile, in Indonesian, the imitation word 'kuku kukuruyuk' is found such in data (6) in the lyrics of the song *Kuku kukuruyuk*. The onomatopoeia 'kuku kukuruyuk' is a variation in nursery rhyme from the commonly known onomatopoeia kukuruyuk which means is an imitation of the sound of a crowing chicken [8]. Data (5) and (6) represent and are classified into animal sound imitations.

3.1.3 Gitaigo

1 Object's condition (OC)

(7) ぐつぐつ にましょう
Gutsu-gutsu/ nimashou
Burble-burble it's simmering

(8) Meletus balon hijau '**dor**'
The green ballon '**pops**'

Data (7) is a part of the lyrics of the song *Karee Raisu no Uta*, **ぐつぐつ** 'gutsu-gutsu' describes water in a state of boiling [7]. In the lyrics of the song titled *Balonku* in data (8), the imitation word 'dor' is found which is interpreted as a state of balloon popping [8]. Both data are classified into onomatopoeias that describe the object's condition.

2 Object's movement (OM)

(9) どんぐりころころ [9]
Donguri/ **koro-koro**
The acorn is **rolling**

No onomatopoeia representing the movement of objects was found in the data in Indonesian. However, in Japanese data such as (9), onomatopoeia ころころ 'koro-koro' was found in the lyrics of a song titled *Donguri Korokoro*, 'koro-koro' is defined as a light object that is rolling [7].

3.1.4 Giyougo

1 Human movement

(10) お水を**ゴクゴク** [9]
Omizu/ wo/ **goku-goku**
Drinking water

(11) Kalau berjalan **prok-prok-prok** [9]
When I walk it sounds **prok-prok-prok**

In data (10), ゴクゴク 'goku-goku' onomatopoeia is found in the lyrics of the song *Karee Raisu no Uta*. 'Goku-goku' is an imitation sound of swallowing water or drinking water [7]. In the Indonesian nursery rhyme, 'prok-prok-prok' onomatopoeia is found in the lyrics of the song *Aku Seorang Kapiten*. Data (10) and (11) are classified into human movement sounds.

2 Animal movement

(12) うさぎさんのたいそうは**ピョーンピョーン**ピョピョピョピョーン [9]
Usagi/ no/ taisou/ wa/ **pyoon-pyoon**/ pyo-pyo-pyo-pyoon
Rabbit movement is **hop hop** hop hop hop hop

(13) **Tuk-tik-tak-tik-tuk** suara sepatu kuda [9]
Tuk-tik-tak-tik-tuk the sound of horseshoes

Data (12) is data from the song titled *Doubutsu Taisou 1 2 3* and in it is found the word ピョーンピョーン 'pyoon-pyoon' is an onomatopoeia varied into nursery rhyme derived from the word ピョンピョン 'pyon-pyon' which describes the state of jumping, in the lyrics of this song the rabbit becomes the subject that performs the movement so it is classified into animal movements [7]. In data (13) found the word 'tuk-tik-tak-tik-tuk' in the lyrics of the song *Naik Delman*, 'tuk-tik-tak-tik-tuk' in the song lyrics is mentioned as the sound of horseshoes or described as a horse that is walking. Both data are included in the classification of animal movement onomatopoeia.

3.1.5 Gijougo

1 Human emotion and condition

(14) おひさまにこにこいい天気 [9]
Ohisama/ **niko-niko**/ ii/ tenki
The sun smile happily so the weather is good

Data (14) is a part of the lyrics of a song titled *Tondetta Banana*, and found onomatopoeia 'niko-niko' means smiling happily [7]. Since smiling happily is part of human feelings, even though the subject in the song lyrics states that it is the sun that is smiling, this onomatopoeia is still classified into human feelings and conditions because inanimate objects do not have feelings. No data was found for this type of onomatopoeia in the Indonesian nursery rhyme.

3.2 Classification of onomatopoeia

Table 3. Japanese onomatopoeia data classification

No	Onomatopoeia	*Giongo*		*Giseigo*		*Gitaigo*		*Giyougo*		*Gijougo*		
		SN	SO	SH	SA	OC	OM	HM	AM	HEC	HPC	HHC
1	モクモク	√										
2	ぴっちぴっち	√										
3	ちゃっぷちゃっぷ	√										
4	リンリンリン		√									
5	ビュンビュン		√									
6	ガチャガチャ		√									
7	グーグー			√								
8	らんらんらん			√								
9	ブンブンブン				√							
10	ガーガー				√							
11	キラキラキラキラ					√						
12	グツグツ					√						
13	ふんわり					√						
14	ツルン						√					
15	スポン						√					
16	コロコロ						√					
17	ゴロンゴロン						√					
18	ポカン							√				
19	モグモグ							√				
20	リンリンリン							√				
21	ドンドンドン							√				
22	チャチャチャ							√				
23	トントントントン							√				
24	ムシャムシャ							√				
25	ゴクゴク							√				
26	ピョンピョン								√			
27	ヒョロヒョロ								√			
28	ヨチヨチ								√			
29	スイスイ								√			
30	ニコニコ									√		
31	モリモリ									√		
32	ピカピカ									√		

According to data analysis, based on the classification proposed by Kaneda, in the Japanese nursery rhymes are found all types of onomatopoeia, meanwhile in the Indonesian nursery rhymes are found four types, namely *giongo, giseigo, gitaigo,* and *giyougo.* And according to the classification stated by Akimoto, in Japanese found onomatopoeia type the sound of nature, the sound of an object, the sound of a human, the sound of an animal, object condition, object movement, human movement, animal movement, and human emotion and condition. Whereas in Indonesian are also found the same type as in Japanese but some are not found, such as the sound of a human and object movement.

Table 4. Indonesian onomatopoeia classification data

No	Onomatopoeia	*Giongo*		*Giseigo*		*Gitaigo*		*Giyougo*		*Gijougo*		
		SN	SO	SH	SA	OC	OM	HM	AM	HEC	HPC	HHC
1	Tik-tik-tik	√										
2	Kring-kring-kring		√									
3	Tut-tut-tut		√									
4	Guk-guk-guk				√							
5	Ku-ku				√							
6	Cit-cit-cit-cit-cuit				√							
7	Tok-tok-tok-tok-petok				√							
8	Wek-wek-wek-wek-kowek				√							
9	Ku ku kukuruyuk				√							
10	Dor					√						
11	Tuk-tuk-tuk							√				
12	Prok-prok-prok							√				
13	Tuk-tik-tak-tik-tuk								√			

4 Conclusion

From the result of this research, it can be concluded that the data found the differences in the types of onomatopoeia that appear in Japanese and Indonesian nursery rhymes. In Japanese, onomatopoeia that often found in nursery rhymes is human movement, while in Indonesian the sound of the animal frequently appears. Based on the general classification proposed by Kaneda, in the Japanese found all types of classification, while in the Indonesian only found four classifications: *giongo, giseigo, gitaigo,* and *giyougo*. However, when it comes to classification proposed by Akimoto, in Japanese, the only types found are the sound of nature, the sound of an object, the sound of a human, the sound of an animal, object movement, object condition, human movement, animal movement, and human emotion and condition. In contrast, in Indonesian the types found are the sound of nature, the sound of an object, the sound of an animal, object condition, human movement, and animal movement. From this conclusion, we can see that Japanese and Indonesian had different types of onomatopoeic use in their nursery rhymes and so it also had different mainly environmental sound expressions to be recognized by children in their beginning stage of auditory and language development.

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