SOUND SYMBOLISM AND ITS EFFECT IN CHARACTERS' NAMES: A STUDY ON CONSONANTS

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ABSTRACT

Although the relationship between sound and meaning is claimed to be arbitrary, sound symbolism is widely used in business. Studies on Japanese brand names have indicated that plosive consonants such as /p/, /b/, /t/ and /k/ have the power to attract consumers ([6]).

In this paper, we first report our findings based on the analysis of 224 Japanese character names collected from 68 works. We found that there was a strong tendency to link /m/, /r/ and /s/ with "goodness", and /g/ and /b/ with "badness". Based on this result, we next conducted a forced-choice experiment where the 80 participants were instructed to match sentences that depicted male/female characters that had good/ bad characteristics.

The results indicated that there was a strong tendency to link "bad & male" characters with /g/, "good-female" with /m/, thus supporting the viewpoint that a sound-meaning association can be attested in at least some phonemes.

Keywords: bad characters, good characters, iconicity, sound symbolism in consonants.

1. INTRODUCTION

Although the relationship between sound and meaning is generally claimed to be arbitrary ([3], [5]), recently the non-arbitrary link between linguistic form and meaning is becoming the focus of attention (e.g. [10], [17] among others). Instead of approaching the relationship as strictly arbitrary vs. non-arbitrary, recent studies have attempted to take a more "constructive" approach by accepting arbitrariness and iconicity to co-exist within language ([7]). This may be one of the major reasons why research on sound symbolism has been gaining influence in not only linguistics and psycholinguistics but also in cognitive neuroscience as well.

Sapir was one of the first researchers who focused on the relationship between sound and image. He reported that some sounds are associated with certain images and called this phenomenon sound symbolism ([12]).

Nowadays, sound symbolism is used in business. A survey on famous brand names conducted by Kurokawa found that plosive consonants such as /p/, /b/, /t/, /k/ have the power to attract consumers, and thus, are frequently used in product names ([6]). She also analysed the names of monsters and reported that /g/ is often used in their names because this sound is associated with the images of badness, strength, and coolness (135). She concludes that the relationship between sound and image strongly has influence on whether the product will succeed or not.

In this paper, our focus of attention will first be on the role that iconicity plays in depicting heroes and villains that appear in fiction. We will pay attention to not only characters that are good and bad, but also those that change their roles halfway through the story. In other words, we will also take up characters who initially start off as villains but change their role to good characters halfway through the story, and vice versa. Next, we also report on the forced-choice experiment that we had conducted based on the data that we had collected from heroes and villains.

In the next section, we review some of the major studies that take up the issue of sound symbolism.

2. PREVIOUS STUDIES

Research on sound symbolism has indicated that a sound-symbolic effect can be attested in shapes ([1], [8], [11]), size ([12], [15]), speed ([2]) and even taste ([13]). (For a more detailed review of the literature, please refer to [7].).

In this section, we take up two studies that are directly relevant to the present study.

2.1. Hamano (1998): onomatopoeia and sound symbolism

Hamano approached sound symbolism from the perspective of Japanese onomatopoeia ([4]). She analyzed the relationship between not only sound and image, but also the position of the phonemes within a word. For example, the Japanese onomatopoeia *kotu-kotu* "tap-tap" and *toku-toku* "glug-glug" have different meanings, although both

consist of the same sounds /k/, /t/ and /u/. The difference lies in the positions of /k/ and /t/ within each word. According to Hamano, /t/ has the meaning of "lax surface" when it appears in word-initial position, but the meaning changes to "hitting" when it appears in word-medial position. Furthermore, /k/ has the meaning of "hard surface" when it appears word-initially, but the meaning changes to "in-out movement" word-medially (170). She concludes that the image that is associated with a phoneme may change depending on its position within a word.

2.2. Kurokawa (2004): sounds and subliminal impressions

Kurokawa deals with sound symbolism by analyzing various Japanese brand and product names ([6]). She claims that the way to succeeding in business is to come up with names where the sounds used reflect the "correct" subliminal images. As an example of how sounds can influence subliminal impressions, she compared two words *tanuki* "raccoon" and *kitsune* "fox". In Japan, both animals are believed to cheat people, but the images of these animals are quite different. A fox is seen as a sly animal, whereas a raccoon is not. Kurokawa claims that the difference comes about partly due to the subliminal impressions of the phonemes used in the two words. The word-initial /t/ in *tanuki* is associated with a sense of fulfilment, but the /k/ in *kitsune* is associated with a speedy image. She concludes that the impressions of /t/ and /k/ leads to the different images linked to each animal: whereas a racoon is easy-going, a fox is considered to be a quick-thinker, hence, the strong association with slyness.

In similar fashion, she compares famous brand names and claims that the subliminal images linked to the phonemes contained in the names characterize the images of the products of each company. For instance, if we compare the three companies that produce tomato juice, Kurokawa states that the characteristics of the type of tomato juice that each company produces can be read off by focusing on the subliminal images of their names. *Kagome* is "sweet", *Kirin* is "refreshing", and *DelMonte* is "full-bodied".

3. THE ANALYSIS OF CHARACTERS' NAMES

3.1. Background

Based on the findings of Kurokawa, Osaka hypothesized that good and bad characters should have names that are associated to "goodness" and "badness", respectively ([9]). She surveyed 115 villains that appear in Disney storybooks and found that /s/ was the most frequently used phoneme in their names. Suetake followed suit, and collected names of 118 villains from *Dragon Ball*, a popular Japanese comic book, and found that /g/ and /b/ were frequently used in their names ([14]).

Although these two studies made clear the fact that there was a strong tendency to use a certain phoneme in villains' names, the collection of names came from a limited resource. Therefore, in order to see whether the tendency reported in these studies can be applied to villains in general, we decided to collect character names from a wider resource.

3.2. Method

We collected 224 Japanese character names from 68 works that included *Star Wars*, *Devilman* and other animation movies and fiction. We focused just on the non-sense names. In other words, we excluded all names that were made up of existing words, or were considered to have a certain meaning. Initially, we had intended to analyse just the names of villains that appear in each work, but during the analysing process, we realized that there was the need to classify the character names according to the following four criteria: 1) good characters; 2) bad characters (i.e. villains); 3) characters who initially start off as villains but end up being good characters; 4) characters who initially start off as good characters, but end up being villains.

3.3. Result

According to Tobin, the first syllables usually have the greatest communicative force in a word ([16]). Therefore, in analysing the characters' names, we focused mainly on the consonant and vowel that appear in the first syllable of each name.

In the case of good characters, /r/ appeared in 13 names, followed by /k/, /s/ (6 names, respectively) and /m/, /j/ (4 names) (cf. Table 1). As for the bad characters, there was a completely different tendency. The most frequently used phoneme here was /g/ (9 names), followed by /b/ (7 names) (cf. Table 2).

Table 1: Word-initial consonant-vowel combination of good characters

	a	i	u	e	o	sum
p	1	1	1			3
t		3				3
d		1			1	2
k	0	3	2		1	6
g	3					3
s			2	3	1	6
ʃ		1		1		2
z				1		1
h	2					2
f	1	1				2
m	1	1			2	4
n	1				1	2
r	1	4	1	2	5	13
w					1	1
y			2			2
j		2	2			4
vowel	2	1	2	5	1	11
sum	12	18	12	12	13	67

Table 2: Word-initial consonant-vowel combination of bad characters

	a	i	u	e	o	sum
p	1		2			3
b	3	1	1	1	1	7
t		1				1
d	1			1		2
k			3	1	1	5
g	2	2	3		2	9
s			1			1
z				1	1	2
h				1		1
f	1			1		2
m			1			1
r	1			1	2	4
w		1		1		2
y			3			3
j	2					2
vowel	5				1	6
sum	16	5	14	8	8	51

If we turn our attention to the characters who change their status halfway through, the good→bad characters frequently use /r/ (16 names), followed by /s/ (6 names) and /k/ (4 names). This shows the tendency similar to that of good characters. In the case of the bad→good characters, /b/, /k/, /r/ (6 names) were quite often used, followed by /g/ and /m/ (5 names). Here, although the phonemes /b/ and /g/ were also used frequently in the bad characters' names, and /k/, /r/, /m/ were used frequently in the good ones. This may be interpreted as follows: the good→bad characters' names reflect their initial

3.4. Discussion

The data collected indicated that the phonemes used in good and bad characters show a completely different tendency. Furthermore, the good→bad characters show a similar tendency to good characters. This may be because the authors would not want their readers to notice that the good characters would turn to villains, thus revealing their "plot" half way through the story. In contrast, the bad→good characters show a "mixed" tendency because some names used phonemes that were characteristic of good characters, whereas others used those of bad ones. This mixed tendency may come about because some authors might want to "give away" the hint that the character will change its status, whereas others might want to avoid doing so.

A closer look at the data indicated that there was a tendency for /m/ and /r/ to be used not only for "good" characters in general, but for "good & female" characters. This leads us to hypothesize that certain phonemes are linked not only to good/bad images, but also may be closely linked to male/female images as well. In order to test this hypothesis, we conducted an experiment whose details will be given in the following section.

4. THE EXPERIMENT

4.1. Hypothesis

The results obtained in the previous section implied that in addition to the association of certain phonemes to goodness and badness, there might be certain sounds that go well with male names, and others that go well with female names. Particularly, the result indicated that /m/ and /r/ go well with "good & female" names. This implies that these two phonemes will not be linked to the image of "bad & male", i.e., the polar image of "good & female".

4.2. Method
In order to test our hypothesis, we recruited 80 native speakers of Japanese between the ages of 19 to 24 for our experiment. The participants were divided into two groups: Group A tested the image of the four phonemes /m/, /s/, /g/, and /k/; Group B tested /r/, /s/, /g/, and /k/. The participants were

instructed to choose a character's name that best matches the context of the 24 sentences that depicted good-male, bad-male, good-female and bad-female characteristics. The occurrence of each phoneme was controlled so that they all appeared 12 times each. Sample sentences are given below in (1) and (2):

(1) The kind queen, loved by all, tried to pray for the happiness of her people.
Q. Which name would you prefer for the queen?
a. Meme   b. Keke

(2) The devilish witch tried to kill those who got in her   way.
Q. Which name do you think is appropriate for the witch?
a.Gege   b. Sese

The names used in the experiment used the vowel /e/ because it was possible to come up with the maximal number of minimal pair words that were non-existing.

4.3. Result and Discussion

The result is summarized in Tables 5 and 6.

Table 5: The result for Group A

	m	s	g	k	sum
good-male	44	73	55	68	240
bad-male	14	45	110	71	240
good-female	113	65	15	47	240
bad-female	71	60	44	65	240

Table 6: The result for Group B

	r	s	g	k	sum
good-male	60	78	35	67	240
bad-male	25	53	94	68	240
good-female	104	80	7	49	240
bad-female	78	65	32	65	240

If we focus on the highlighted area in Tables 5 and 6 (i.e. the good-female), we find that the names that contained either /m/ or /r/ was most frequently chosen among the four phonemes, thus supporting our hypothesis that /m/ and /r/ are closely linked to the image of "good & female". However, when we conducted six patterns of the t-tests between the results for each phoneme, significances were detected in the following:

1. Although both /m/ and /r/ were preferred for the "good & female", only /m/ was statistically significant. In contrast, for "bad & male" (i.e. the polar image of "good and female"), /m/ and /r/ were the least preferred phonemes, both of which were statistically significant.
2. There was a strong tendency to prefer /g/ in "bad & male" names, which was statistically significant in both groups. In contrast, /g/ was the least preferred for the "good & female" (i.e. the polar image of "bad & male"), which was statistically significant in both groups

This finding suggests that the general tendency of using /m/ in "good & female" character names can also be read off from the results from our experiment. In addition, for the "bad & male", /m/ and /r/ were least preferred, thus supporting our hypothesis that the polar image of "good & female" would not be associated with these two phonemes. In addition, "bad & male" showed a strong preference for /g/, which appeared most frequently in the bad characters' names. However, no such tendency was found for "bad & female". In fact, /g/ showed the weakest association to "female" in general. This may be because Japanese female names rarely contain this phoneme. However, our experiment conducted on 10 non-native speakers of Japanese (4 native speakers of Chinese, 3 native speakers of Korean, 4 native speakers of English) showed a similar tendency to avoid /g/ for female names, thus implying that this may not necessary be a language specific phonemena. Further detailed research needs to be conducted to see whether this tendency is particular to the Japanese language or not.

5. CONCLUSION

In this paper, we reported on our findings regarding sound symbolism in characters' names. The result of our experiment indicated that /m/ was closely associated with the image of "good & female", and /g/ with "bad & male".

The findings reported here imply that at least for certain phonemes, sound symbolism can be observed, but since we were able to conduct the experiment mainly on native speakers of Japanese only, we need to conduct a full scale experiment of the same kind to speakers of other languages in order to see whether the tendency observed here is universal or not.

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