

Aspects of Phonetic Tendencies in Era Names

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Abstract

The new era Reiwa started on the first of May, 2019 in Japan. The system of era-naming in Japan began in A.D. 645, and there have been a total of 248 era names. There are some rules that must be followed when deciding era names such as referring to classical literature and spelling it using two kanji characters. Though the rules vary from ancient times to modern periods, it seems universal that era-naming is an important ceremony for the vision of a glorious future. Era names tend to require positive and holy meanings in the choice of kanji characters as well as the pronunciation. This paper investigates all era names in Japan by typing them in phonetic symbols and categorizing them to analyze rhythm patterns and phonemes. Some tendencies of era-naming are discussed by comparing previous studies of sound symbolism which is often found in onomatopoeia.

Keywords: alliteration, consonants, contracted sound, long vowels, mora, rhyme, sound symbolism, syllabic consonant

1. Introduction

Sound symbolism exists all over the world. Sound symbolism can be shared by speakers of any language because most onomatopoeic words are produced as speech sounds based on natural sounds or phenomena. One of the most popular Japanese television programs is *Shoten*, which is a long-running variety show including sections that several comic storytellers compete to tell jokes and entertainers perform a skit or comic dialogue. One actress told a traditional comic story in the show. The title of the story is *Tarachine*, and the main character, who is single, describes his future with his wife. He says she will have a meal in the way of [saku:saku no po:ri:pori no tʃiNtʃi:roriN] while he eats in the way of [za:kuzaku no ba:ribari no ga:ʒagaʒa]. Each phrase consists of three parts and can be split by a postposition [no]. The first part indicates that they eat boiled rice soaked

with hot water. The second part describes that they eat pickled radish. The third part means that they use chopsticks with a bowl. The pair of the phrases provides contrast that a woman eats quietly and elegantly while a man eats dynamically and enthusiastically. Voiceless consonants /s, p, tʃ/ symbolize quietness while voiced consonants /z, b, g/ offer loudness. /r/ implies elegance while /ʃ/ describes roughness. Through using these onomatopoeic phrases, it is possible to bring certain images to mind due to the sound symbolism.

Another example of this is with the names of two sumo wrestlers. The two Mongolian wrestlers are Dolgorsürengiin Dagvadorj and Nyamjavyn Tsevegnyam. Is it possible to guess what kind of people they are? Who is more aggressive? Who is gentler? Most people think that the former sounds stronger, and the latter sounds milder. They used Japanese names in their professional careers, the former was called Asashoryu and the latter was Kyokutenho. Actually, the former wrestler looked wild while the latter wrestler looked calm. Their characters seemed to correspond to the sound symbolism of their original names. The former name repeats voiced plosives such as /d, g/. The latter name repeats nasals as /n, m/. We can form an image through their names even if we don't understand the Mongolian language.

Some previous studies mention voiced consonants' sound symbolism. Kawahara (2015, p.9) states that voiced consonants convey an image that is both large and strong. Hamano (1998, p.99) indicates voiced consonants symbolize "heavy; large; coarse" while voiceless ones describe a quality of "light; small; fine". Tamori (2002, p.175) maintains that voiced consonants imply big sounds or objects, large quantities and numbers, more active movement, drastic degrees, and negative nuances. Kurokawa (2004, pp.135-136) points out that voiced consonants subliminally stimulate boys and appear in comic magazines and characters such as *Jump Magazine*, *Sunday*, *Godzilla*, *Gamera*, *Kanegon*, *Gundam*, and *Devilman*. Iwanaga (2006, pp.165-166) illustrates that 'd', 'g', and 'z' particularly sound masculine and massive. As seen above, the previous studies share a similar opinion of voiced consonants. Sound symbolism can be found and analyzed in the phonemes of any language.

2. Method

Although some voiced consonants tend to be used to express

something rough, what then are used to refer to the opposite extreme, something delicate or impressive? One use for such words is the holy names used in era-naming. This paper will discuss phonetic features of naming eras in Japanese history. NHK World News (Mar. 30, 2019) explains the history of era-naming, called 'gengo' in Japanese:

The system for era names started in China more than 2,000 years ago. Chinese dynasties were influential throughout Asia, so many monarchs in the region followed the system. However, political upheavals, social revolution, and modernization led these countries to eventually abandon era names, with the exception of Japan.

The first gengo in Japan was "Taika" in the seventh century. It means "to lead people with great virtue." Since then, there have been 247 era names.

In Japan, a new era started on the 1st of May, 2019. It was named Reiwa. The process of naming it was discussed through media. There are several rules for naming. According to NHK World News (Mar. 30, 2019), "The Era Name Act stipulates that a name must be written with two Chinese characters, it must have a positive meaning, and it must be easy to read and write. Beyond that, the selection process is highly confidential." In general, era names are chosen from quotations from classical literature. A panel of experts select some names and choose one with the prime minister. BBC (Apr. 1, 2019) summarizes the process of naming and the prime minister's interview below:

The term for the new era is made up of the two characters Rei and Wa. Rei can mean "commands" or "order", as well as "auspicious" or "good".

Wa often means "harmony", and is also used in the Japanese word for "peace" – "hei-wa".

It is the first time an era name has been taken from an old anthology of Japanese poems, the Manyoshu, instead of a Chinese one, Mr Abe said.

The Manyoshu symbolises Japan's "profound public culture and long tradition", he said.

"Our nation is facing up to a big turning point, but there are lots of Japanese values that shouldn't fade away," Mr Abe told reporters.

The Manyōshū, which dates back to the 8th Century, depicts the auspicious month (“reigetsu”) in early spring when the winds have become temperate (“fu-wa”).

There have been only four eras in Japan’s modern history. Emperor Akihito’s current gengo, Heisei, which means “achieving peace”, was preceded by the Showa era (1926-1989), which can be translated as “enlightened harmony”.

Before that, the Taisho era (1912-1926) meant “great righteousness”, while the Meiji era (1868-1912) meant “enlightened rule” in English.

Additionally, pronunciation as well as character meaning must be considered. A Japanese newspaper the Sankei News (Apr. 3, 2019) included an article on pitch in pronouncing Reiwa in the Japanese language: falling or level. [reiwa] consists of three morae. Falling tone means that /re/ is the highest and /iwa/ is lower in the same way as “Meiji” and “Kobe”. Level tone means that the same pitch lasts in the word like “heiwa” and “Showa”. When the chief cabinet secretary announced Reiwa on the first of April, he pronounced it in falling tone. The prime minister introduced Reiwa in falling tone in the following interview and based on this, the NHK decided to pronounce it in falling tone too.

In the Sankei News (Apr. 19, 2019), another article summarized the proceedings of naming Reiwa. They suggest the mild sound in the name of Reiwa, which is appropriate for a new period and can be remembered by children. Fujino (2019) advocates an image provided by articulation: /re/ offers rhythmical sense through a flap; /i/ creates sharpness; /wa/ delivers brightness and resonates. It proves that speech sounds correspond to meaning. Sound symbolism can be implemented in era-naming.

There are 248 era names in Japanese history, from Taika, which began in A.D. 645, through Reiwa. In this paper, all the era names shown in Tokoro et al. (2019) will be typed in phonetic symbols to investigate phonemes. Then all the phonemes will be totalled. If an era name includes a certain phoneme repeatedly, it will be counted as plural. For instance, in Heisei [he:se:], a long vowel /e:/ appears twice, which will be counted as two in the factor of /e:/.

3. Analysis

3.1 Mora

A 'mora' is the unit of time for an ordinary short syllable, and the first focus of this analysis will be on the morae. The number of morae in the 248 era names is shown in Figure 1. During the Asuka to Nara periods, five names consist of 4 kanji characters while the others consist of two characters. Four-character names include seven or eight morae. Two-character names include three or four morae. The highest proportion of 68% is comprised of 4 morae. The second highest rate of 30% is comprised of 3 morae. This is an unexpected finding because in the recent era names, Keio [ke:o:], Meiji [me:dʒi], Taisho [taiʃo:], Showa [ʃo:wa], Heisei [he:se:], and Reiwa [re:wa], the ratio of 3 morae and 4 morae is even. Two-character names can be composed of two morae, but such names aren't found because it seems too short to recognize as era names or it is possible to expect short names to have a short-life period. Additionally, regarding four-character names, each is composed of a pair of two-character names. Therefore, 5 names multiplied by a pair of two characters make ten parts. Seven of them contain 4 morae while three contain 3 morae. This balance is similar to the result of the total in Figure 1 as 68% of 4 morae versus 30% of three morae. It seems interesting to be a miniature copy. That is to say, the number of 4 morae generally marked the highest rate.

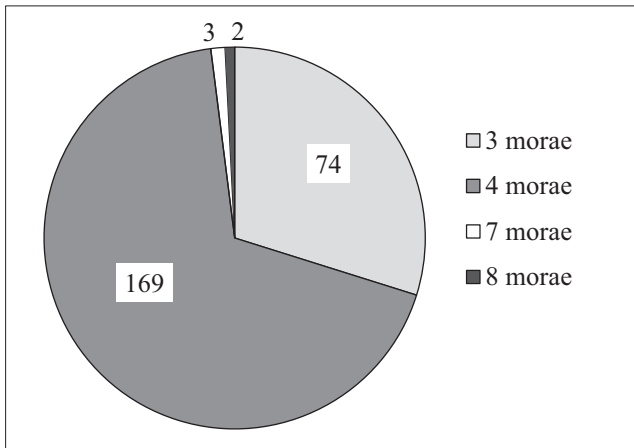


Figure 1. Number of morae

3.2 Other features

In the Japanese language a mora consists of a (C)V structure, which means a single vowel or a pair of a consonant and a vowel. The regular pattern of V or CV is sometimes transformed by the syllabic nasal /N/, a glottal stop /Q/, and a long vowel /:/. According to Kido (2017, 2018), these phonemes seem to be favored in the naming of pets, dolls and stuffed animals. Murata (1990, p.258) elaborates on this point:

R, N and Q are Japanese subordinate mora phonemes which cannot be used independently as syllable nuclei, but are used as codas adding extra beats to nucleus vowels. R is the second moraic phoneme of a long vowel; N is a syllable-final nasal mora; and Q is the first part of a syllable-final geminate consonant, or a glottal stop when there are no following consonants. The phonetic values of N and Q are usually assigned according to the features of the following consonants.

These features peculiar to the Japanese language can enhance the resonance of preceding or following phonemes. Such irregular sound patterns also can bring a rhythmical and comfortable impression and a feeling of preciousness and these frequently appear in era names.

The syllabic nasal /N/ is found 157 times such as [ho:geN], [keNmu], [teNbuN], [buNka], and [geNroku]. When the position of /N/ is examined, it appears that /N/ doesn't occur in the initial position. It appears 109 times in the medial position while it appears 48 times at the final position. It occurs in the medial position over twice as many times as in the final position. As shown in Figure 2, concerning the medial position, 24 of 109 consist of 3 morae while 78 consist of 4 morae. On the other hand in the final position two, [dʒiaN] and [kageN] are composed of 3 morae while the others are composed of 4 morae.

In general, there are two types in 4-mora names that include /N/. One type includes a long vowel in the first or second half of the name. As shown in Figure 3, a long vowel is followed by /N/ in 24 names, for instance, [kyu:aN], [o:niN], and [ke:aN] while a long vowel follows /N/ in 46 names such as [kaNse:], [teNpo:] and [buNkju:]. Such rhythms are produced by combining a couple of irregular phonemes to transform the (C)V structure. This technique makes the names fine-sounding and produces an effect where people get an impulse to pronounce them. Regarding another type of 4-mora names with /N/, /N/ appears twice in the second mora and fourth

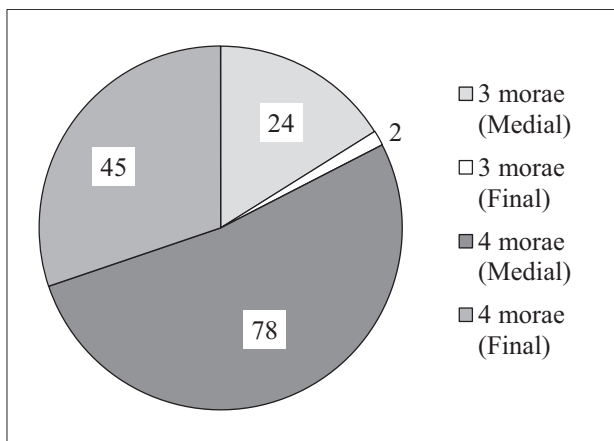


Figure 2. Mora and position of /N/

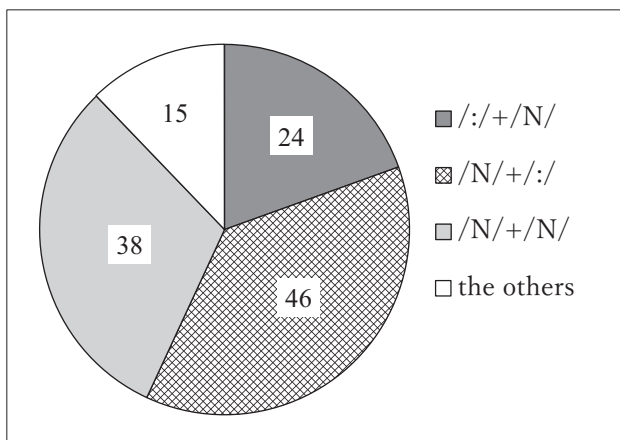


Figure 3. /N/ in 4 morae

mora of a name. As shown in Figure 3, there are 19 names which means 38 times in total, such as [teNaN], [kaNniN], and [buNaN]. This type is similar to Japanese onomatopoeia, for example, [guNguN] and [piNpoN]. Hence, 4-mora names are more frequently adopted than 3-mora names because of the potential to use their multi rhythmical phonemes through repeating /N/ or using /N/ with a long vowel.

Moreover, the eleventh to the fifteenth names from the beginning of

Taika have the spelling of four characters of kanji. Three of the five names include /N/ twice in each and the first and second halves rhyme in these names. [teNbjo: kaNpo:] repeats the same rhythm of /N/ followed by a long vowel /o:/. [teNbjo: dʒiNgo] also has a similar rhythm of /N/ followed by /o:/ or /o/. The other instance is [dʒiNgo ke:uN]. The position of /N/ varies in the two parts: the first half /N/ occurs in the medial position while the second half /N/ occurs in the final. This might be because of the order of era names: [teNbjo: kaNpo:], [teNbjo: ʃo:ho:], [teNbjo: ho:dʒi], [teNbjo: dʒiNgo], and [dʒiNgo ke:uN]. The first two names are composed of 8 morae, the last three are 7 morae. These five names gradually change. The first three names begin with [teNbjo:] while the last two include [dʒiNgo]. Then, the first two names share the same rhythm, and the second and the third include /ho:/. The third and fourth names consist of the same number of morae including /dʒi/ in the last half. These might have been named reflecting on previous times while adding novelty to the new age.

Likewise, concerning two-character names, two consecutive eras have similar names, such as [geNo:]/[geNko:], [geNtoku]/[geNko:], [kaNʃo:]/[buNʃo:], and [buNka]/[buNse:] all of which include /N/. They might have been named using alliteration or rhyme to show respect for the previous periods. Hamano (1998, p.67) states that “/N/ indicates that the direction of the motion or the quality of the sound changes toward the end.” This phoneme seems proper to imply improvement.

Regarding long vowels, they are used 222 times. The most frequent long vowel is /o:/ which appears 155 times, for instance in [jo:ro:], [teNʃo:], and [kjo:wa]. /u:/ is found 12 times as /kju:/ 9 times such as [kju:dʒu], [keNkju:], and [dʒo:kju:], or /tʃu:/ 3 times in [ʃo:tʃu:], [buNtʃu:], and [geNtʃu:]. As for /e:/ is spelt “ei” in kana or romaji. According to NHK (2016, p.15), “ei” can be pronounced as two vowels /ei/ in “seito” which means “student” and “keiei” which means “management”, but it should be more natural to pronounce as /e:/ such as [se:to], or [ke:e:]. It also describes “Meiji” as [me:dʒi], and “Heisei” as [he:se:]. Therefore, this phoneme can be categorized as a long vowel. /e:/ is seen 55 times including [dʒue:], [kaNe:], and [me:reki]. /i:/ has never been used in era names, possibly because /i:/ doesn’t have a variety of spellings in kanji and the high front vowel is too sharp and light to match an era name. A low vowel or a back vowel tends to be favored because they imply majesty and dignity compared with /i:/. Moreover, 42 names include a long vowel twice in each, such as [dʒo:kju:], [kjo:ho:], and [ke:o:]. Repeating long vowels gives the impression of a calm and unhurried

mood and stability. These examples might have been named so in hopes of a lasting peaceful time.

/a:/ doesn't occur in Japanese, so the diphthong /ai/ will be discussed instead. There are 8 names including /ai/ such as [taika], [taiho:], [daido:], [saiko:], [ʃo:tai], [daidzi], [daie:], and [taiʃo:], not many examples. This might be for the same reason as the infrequency of /i:/. However, some of their tendencies can be discussed. Four of them are composed of [tai], three are [dai], and one is [sai]. All the preceding consonants are alveolar which articulate in the near position of a low mid vowel /a/ and a high front vowel /i/. /a/ can convey a sense of spaciousness and /i/ can add tenseness to it. The combination of /ai/ with an alveolar can imply brightness with respectful attention for the future. Therefore, this could be the reason that /ai/ is slightly favored over /i:/.

Additionally, the glottal stop /Q/ has never been adopted. Watanabe (1990, p.331) explains that /Q/ can generally occur after short vowels and before voiceless consonants such as /p, t, k, s, ʃ, č/. This means that /Q/ appears less frequently than the other phonemes. According to Kido (2017, 2018), a double consonant is favored for pets, dolls and stuffed animals' names such as "Chippu", "Pippi", "Chappi", and "Piyocchi". /Q/ seems too casual and short for era names. Dolls and animals are personally close and comparatively compact-sized, while era-naming should be formal and worldwide in scale. A glottal stop doesn't last long which can imply that the age will stop soon and that could sound inauspicious. Long vowels or a syllabic nasal seem more appropriate for era-naming in the hope of an eternally peaceful time as mentioned above.

3.3 Consonants

A discussion of the other consonants follows: The frequency of each consonant is shown in Table 1. The top five ranking are /k, dʒ, t, j, g/ and are favored to name eras. The second group includes /h, r, b, ʃ, tʃ, w, n, m/ and tend to be commonly used. Conversely, /p, s, d, f, z/ are infrequently used.

The most frequent consonants, /k, t, g/ are categorized in the same manner of articulation as plosives. As for the three pairs of plosives, a voiced /b/ is more frequent than a voiceless /p/ while the voiceless /t, k/ are more frequent than the voiced /d, g/. Bilabials /p, b/ are articulated in the front of the mouth while alveolars /t, d/ and velars /k, g/ are articulated inside the mouth. The former group sounds fierce and

Table 1. The frequency of consonants

Manner of Articulation	Place of Articulation						
	bilabial	labio-dental	dental	alveolar	alveo-palatal	velar	glottal
plosive	/p/: 7 /b/: 25			/t/: 49 /d/: 5		/k/: 137 /g/: 36	
fricative		/f/: 0		/s/: 7 /z/: 0	/ʃ/: 25		/h/: 26
affricate					/tʃ/: 24 /dʒ/: 51		
tap/flap				/ɾ/: 26			
nasal	/m/: 12			/n/: 16			
semivowel	/w/: 17				/j/: 45		

passionate while the latter group sounds veiled and modest. Consonants articulated in the back part of the mouth can imply gloom, and voiced ones emphasize it. /t, k/ seem more suitable than /d, g/ because eras are named wishing for a bright future. Toyosawa (1990, p.121) explains that voiced consonants are stronger than plosives and both can express strength and extravagance. This means that voiced plosives can express extreme strength. Therefore, voiceless plosives /t, k/ are preferable for era names because they imply extravagance rather than strength. /d/ also serves a negative meaning such as in prefixes dis- or de- in English. A common image can exist between languages. /p/ doesn't occur in initials and it is used as a euphonic change brought by the preceding phoneme. The reason for the infrequency of /p/ is that it tends to be restricted in usage.

As for the fricatives, /ʃ, h/ appear highly frequently. However, there is merely one pair of a voiceless fricative and a voiced fricative as in /s, z/. Although both show lower frequency, voiceless /s/ is preferred over /z/. Similar to plosives, voiced consonants articulated inside the mouth are uncommon for era naming. The other fricatives aren't composed of pairs. Let us discuss each example: /f/ has never been used while /h/ has been adopted 26 times. It is unexpected that these consonants have a great disparity in the results because /f, h/ are categorized as the same column in a systematic table of the Japanese syllabary. Most of /h/ examples are followed by /o/, and there are 20 names with /ho/. A glottal /h/ is also articulated in the back of the mouth, which can be easily pronounced with

a back vowel /o/.

Concerning affricates, /tʃ, dʒ/ occupy superior positions in the ranking of frequency. However, the ratio of voiced and voiceless is opposite to that of plosive alveolars or velars and fricative alveolars. The frequency of the voiced affricate /dʒ/ almost doubles that of the voiceless affricate /tʃ/ though voiceless consonants are dominant in /t, d/, /k, g/, and /s, z/ as seen above. Affricates, which are obstruents as well as plosives and fricatives, sound less energetic and slightly weaker. /dʒ/ can imply profoundness without a negative image like /d/. According to Kido (2017, 2018), /tʃ/ is used more frequently than /dʒ/ in naming pets, dolls, and stuffed animals. /tʃ/ seems appropriate to express compactness or charm while /dʒ/ can symbolize graveness and gorgeousness. Nishihara (1979, p.72) insists that there are words beginning with /dʒ-/ which mean joyfulness and /dʒ-/ is primarily suitable to imply sudden movement, or reactionary motion which is similar to excitement.

Though the rest of the consonants show middling results, /j, r/ are frequently adopted in particular. These consonants are also articulated inside the mouth, that is, /r/ is an alveolar and /j/ is an alveo-palatal. Toyosawa (1990, p.122) states that 'r-series' expresses luxuriousness, forcefulness and affection. Names with /r/ seem to show admiration, respectability, and adorability. As for /j/, it appears as an individual consonant in three names out of the 45, [jo:ro:], [teNjo:], and [jo:wa] although the others occur as a contracted sound such as in [teNpjo:], [rjakuniN], and [buNkju:]. A semivowel /j/ mediates between a vowel and a consonant. It can function as a sonorous consonant effectively by emphasizing features of the following vowels or preceding consonants. The Japanese language has just five vowels, so such a consonant can work well to widen the variation of pronunciation. According to Takebayashi (1996, p.135) when a contracted sound is placed between a consonant and a vowel as in the combination of /CjV/, it doesn't change the mora. It sounds irregular and might provide prominence to the sound. It is remarkable that another semivowel /w/ has 17 examples where it is followed by a vowel /a/. All the names including /wa/ is spelt in the same kanji, which means peace or total. As seen above, Fujino (2019) insists that /wa/ delivers brightness and resonates highly. Iwanaga (2006, p.167) also describes /w/ as a grand scale and expansive. One of the 17 examples begins with /wa/ as in [wado:] while the others end with /wa/. These names can be categorized into two types. The first type includes a long vowel. There are 14 names such as

[wado:], [ʃo:wa] and [re:wa]. The second type is preceded by a syllabic nasal /N/. There are 3 names: [aNwa], [kaNwa], and [buNwa] which also emphasize the sonorous consonant by adding a long vowel or a syllabic nasal.

4. Conclusion

There are several phonetic tendencies seen in the naming of eras. Some rhythm patterns and phonemes are found to be preferred or typical. And 4-mora names are the most frequently adopted accounting for approximately 68%. As for phonemes, substantial numbers of the syllabic nasal and long vowels are found. The voiceless plosives /k, t/, the voiced affricate /dʒ/, the semivowel /j/ are also frequently employed. The collected results prove that these phonetic elements have the function of sound symbolism, and are not unexpected coincidences. These tendencies seem to represent positive and glorious meanings and are adopted because era names reflect the hope of a brilliant future for the new age. When the time comes, the government is required to make an urgent decision to name the era, so inspiration and impulse may account for some of the choices in naming. Sound symbolism relating to senses seems to work effectively to create an image of the new era.

In fact, it is unimaginable that the system of era-naming is still retained in Japan even as it has been abolished in other countries. The dominical year appears to be much more efficient when recording chronologically for convenience' sake. It is complicated to calculate years sometimes, for instance, the end of Heisei and the beginning of Reiwa are in the same year of 2019. However, it is easier for people to search their memory of era names rather than numbers and we can trace our own or Japan's history with era names. Era names become familiar to us by actually making daily use of them during our life. Moreover, we have opportunities to hear era names when learning about events in history. We can imagine and visualize the atmosphere of ancient times through their era names without living in those times or having visual references. Era-naming can assist people to construct those images through the use of sound symbolism.

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Appendix

A list of era names

No.	spelling in romaji	phonetic symbols	No.	spelling in romaji	phonetic symbols	No.	spelling in romaji	phonetic symbols
1	Taika	[taika]	84	Tenjo	[teNdʒo:]	167	Koei	[ko:e:]
2	Hakuchi	[hakutʃi]	85	Chojo	[tʃo:dʒo:]	168	Jowa	[dʒo:wa]
3	Shucho	[ʃutʃo:]	86	Hoēn	[ho:eN]	169	Kan'ō	[kaNo:]
4	Taiho	[taiho:]	87	Eiji	[e:dʒi]	170	Bunwa	[buNwa]
5	Kyōun	[kjo:uN]	88	Kōji	[ko:dʒi]	171	Embun	[eNbuN]
6	Wado	[wado:]	89	Ten'yo	[teNjo:]	172	Kōan	[ko:aN]
7	Reiki	[re:ki]	90	Kyuan	[kju:aN]	173	Joji	[dʒo:dʒi]
8	Yoro	[jo:ro:]	91	Nimbyō	[niNbjō:]	174	Oan	[o:aN]
9	Jinki	[dʒiNki]	92	Kyūju	[kju:dʒu]	175	Eiwa	[e:wa]
10	Tempyō	[teNpjō:]	93	Hōgen	[ho:geN]	176	Koryaku	[ko:rjaku]
11	Tembyō Kampo	[teNbjō: kaNpo:]	94	Heiji	[he:dʒi]	177	Eitoku	[e:toku]
12	Tembyō Shōho	[teNbjō: ʃo:ho:]	95	Eiryaku	[e:rjaku]	178	Shitoku	[ʃitoku]
13	Tembyō Hōji	[teNbjō: hō:dʒi]	96	Oho	[o:ho:]	179	Kakei	[ka:ke:]
14	Tembyō Jingo	[teNbjō: dʒiŋgo:]	97	Chokan	[tʃo:kaN]	180	Kō'ō	[ko:o:]
15	Jingo Keiun	[dʒiŋgo ke:uN]	98	Eiman	[e:maN]	181	Meitoku	[me:toku]
16	Hōki	[ho:ki]	99	Nin'an	[niNaN]	182	Oei	[O:e:]
17	Ten'ō	[teNo:]	100	Kao	[kao:]	183	Shōcho	[ʃo:tʃo:]
18	Enryaku	[eNrjaku]	101	Joan	[dʒo:aN]	184	Eikyo	[e:kjo:]
19	Daidō	[daido:]	102	Angen	[aŋgeN]	185	Kakitsu	[kakitsu]
20	Kōnin	[ko:niN]	103	Jishō	[dʒiʃo:]	186	Bun'an	[buNaN]
21	Tencho	[teNtʃo:]	104	Yowa	[jo:wa]	187	Hotoku	[ho:toku]
22	Jowa	[dʒo:wa]	105	Juei	[dʒue:]	188	Kyotoku	[kjo:toku]
23	Kajo	[kadʒo:]	106	Genryaku	[geNrjaku]	189	Kōshō	[ko:ʃo:]
24	Ninju	[niNdʒu]	107	Bunji	[buNdʒi]	190	Choroku	[tʃo:roku]
25	Saiko	[saiko:]	108	Kenkyū	[keNkju:]	191	Kanshō	[kaNʃo:]
26	Ten'an	[teNaN]	109	Shōji	[ʃo:dʒi]	192	Bunshō	[buNʃo:]
27	Jōgan	[dʒo:gaN]	110	Kennin	[keNniN]	193	Onin	[oniN]
28	Gangyō	[gaŋgjo:]	111	Genkyū	[geNkju:]	194	Bummei	[buNme:]
29	Ninna	[niNna]	112	Ken'ei	[keNe:]	195	Chōkyō	[tʃo:kjo:]
30	Kambei	[kaNbe:]	113	Jōgen	[dʒo:geN]	196	Entoku	[eNtoku]
31	Shotai	[ʃo:tai]	114	Kenryaku	[keNrjaku]	197	Meiō	[meo:]
32	Engi	[eŋgi]	115	Kenhō	[keNho:]	198	Bunki	[buNki]
33	Enchō	[eNtʃo:]	116	Jōkyū	[dʒo:kju:]	199	Eishō	[e:ʃo:]
34	Jōhei	[dʒo:he:]	117	Jō'ō	[dʒo:ō:]	200	Daiei	[daie:]
35	Tengyō	[teŋgjo:]	118	Gennin	[geNniN]	201	Kyōroku	[kjo:roku]
36	Tenryaku	[teNrjaku]	119	Karoku	[karoku]	202	Tembun	[teNbuN]
37	Tentoku	[teNtoku]	120	Antei	[aNte:]	203	Kōji	[ko:dʒi]
38	Owa	[o:wa]	121	Kangi	[kaŋgi]	204	Eiroku	[e:roku]
39	Kōhō	[ko:ho:]	122	Jōei	[dʒo:e:]	205	Genki	[geNki]
40	Anwa	[aNwa]	123	Tempukū	[teNpuku]	206	Tenshō	[teNʃo:]

41	Tenroku	[teNroku]	124	Bunryaku	[buNɾjaku]	207	Bunroku	[buNroku]
42	Ten'en	[teNeN]	125	Katei	[kate:]	208	Keicho	[ke:ʃo:]
43	Jogen	[dʒo:geN]	126	Ryakunin	[ɾjakuniN]	209	Genna	[geNna]
44	Tengen	[teNgeN]	127	En'o	[eNo:]	210	Kan'ei	[kaNe:]
45	Eikan	[e:kaN]	128	Ninji	[niNdʒi]	211	Shoho	[ʃo:ho:]
46	Kanwa	[kaNwa]	129	Kangen	[kaNgeN]	212	Keian	[ke:aN]
47	Eien	[e:eN]	130	Hoji	[ho:dʒi]	213	Jo'o	[dʒo:o:]
48	Eiso	[e:so]	131	Kencho	[keNtʃo:]	214	Meireki	[me:reki]
49	Shoryaku	[ʃo:ɾjaku]	132	Kogen	[ko:geN]	215	Manji	[maNdʒi]
50	Chotoku	[tʃo:toku]	133	Shoka	[ʃo:ka]	216	Kambun	[kaNbuN]
51	Choho	[tʃo:ho:]	134	Shogen	[ʃo:geN]	217	Empo	[eNpo:]
52	Kanko	[kaNko:]	135	Bun'o	[buNo:]	218	Tenna	[teNna]
53	Chowa	[tʃo:wa]	136	Kocho	[ko:tʃo:]	219	Jokyo	[dʒo:kjo:]
54	Kannin	[kaNniN]	137	Bun'ei	[buNe:]	220	Genroku	[geNroku]
55	Jian	[dʒiaN]	138	Kenji	[keNdʒi]	221	Hoei	[ho:e:]
56	Manju	[maNdʒu]	139	Koan	[ko:aN]	222	Shotoku	[ʃo:toku]
57	Chogen	[tʃo:geN]	140	Sho'o	[ʃo:o:]	223	Kyoho	[kjo:ho:]
58	Choryaku	[tʃo:ɾjaku]	141	Einin	[e:niN]	224	Gembun	[geNbuN]
59	Chokyu	[tʃo:kju:]	142	Shoan	[ʃo:aN]	225	Kampo	[kaNpo:]
60	Kantoku	[kaNtoku]	143	Kengen	[keNgeN]	226	Enkyo	[eNkjo:]
61	Eijo	[e:dʒo:]	144	Kagen	[kageN]	227	Kan'en	[kaNeN]
62	Tengi	[teNgi]	145	Tokuji	[tokudʒi]	228	Horeki	[ho:reki]
63	Kohei	[ko:he:]	146	Enkyo	[eNkjo:]	229	Meiwa	[me:wa]
64	Jiryaku	[dʒiɾjaku]	147	Ocho	[o:tʃo:]	230	An'ei	[aNe:]
65	Enkyu	[eNkju:]	148	Showa	[ʃo:wa]	231	Temmei	[teNme:]
66	Joho	[dʒo:ho:]	149	Bumpo	[buNpo:]	232	Kansei	[kaNse:]
67	Joryaku	[dʒo:ɾjaku]	150	Gen'o	[geNo:]	233	Kyowa	[kjo:wa]
68	Eiho	[e:ho:]	151	Genko	[geNko:]	234	Bunka	[buNka]
69	Otoku	[o:toku]	152	Shochu	[ʃo:tʃu:]	235	Bunsei	[buNse:]
70	Kanji	[kaNdʒi]	153	Karyaku	[kaɾjaku]	236	Tempo	[teNpo:]
71	Kaho	[kaho:]	154	Gentoku	[geNtoku]	237	Koka	[ko:ka]
72	Eicho	[e:tʃo:]	155	Genko	[geNko:]	238	Kaei	[kae:]
73	Jotoku	[dʒo:toku]	156	Kemmu	[keNmu]	239	Ansei	[aNse:]
74	Kowa	[ko:wa]	157	Engen	[eNgeN]	240	Man'en	[maNeN]
75	Choji	[tʃo:dʒi]	158	Kokoku	[ko:koku]	241	Bunkyu	[buNkju:]
76	Kajo	[kadʒo:]	159	Shohei	[ʃo:he:]	242	Genji	[geNdʒi]
77	Tennin	[teNniN]	160	Kentoku	[keNtoku]	243	Keio	[ke:o:]
78	Ten'ei	[teNe:]	161	Bunchu	[buNtʃu:]	244	Meiji	[me:dʒi]
79	Eikyu	[e:kju:]	162	Tenju	[teNdʒu]	245	Taisho	[taiʃo:]
80	Gen'ei	[geNe:]	163	Kowa	[ko:wa]	246	Showa	[ʃo:wa]
81	Hoan	[ho:aN]	164	Genchu	[geNtʃu:]	247	Heisei	[he:se:]
82	Tenji	[teNdʒi]	165	Shokyo	[ʃo:kjo:]	248	Reiwa	[re:wa]
83	Daiji	[daidʒi]	166	Ryakuo	[ɾjakuo:]			