Phonological and Semantic Gender Differences in English and Japanese Given Names[1]

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Abstract

Japanese speakers can tell the gender of unfamiliar given names even when they hear them for the first time, although it is difficult for non-native speakers of Japanese. This indicates two things: (i) there are phonological gender differences in Japanese given names, and (ii) they (or at least some of them) are language-specific.

The present study compares gender differences found in Japanese given names with those in English and reveals that the majority of the gender differences found in Japanese given names do not play a major role in determining gender in English given names. The gender markers found in both English and Japanese given names are the phonological marker "monosyllabic" as a masculine feature and the semantic marker "flower and plant names" as a feminine feature. Longer names also indicate gender in both English and Japanese given names, but they indicate different sex: feminine in English and masculine in Japanese.

Cross-linguistic comparisons need to be done in the future to find out which of the gender markers in English and Japanese given names are commonly used in other languages and, if they are not used, how different they are between languages.

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1. Introduction

Japanese parents keep creating given names. Meiji Yasuda Seimei, a life insurance company in Japan, annually publishes the most popular given names for the newborn babies of the year. The name list contains newly created names that many of Japanese speakers are not familiar with. Interestingly, Japanese speakers can tell the gender of the unfamiliar names even when they hear them for the first time, although it is quite difficult for non-native speakers of Japanese. This indicates two things: (i) there are phonological gender differences in Japanese given names, and (ii) they (or at least some of them) are language-specific.

I have been working on gender in Japanese given names and observed: (i) there are five types of phonological gender differences that determine the gender of Japanese given names, (ii) the phonological gender differences can be ranked based on their role in determining gender, (iii) although it is in a very limited way, semantics plays a more significant role than phonology and kanji, i.e. Chinese characters, in determining gender, and (iv) kanji also play a role in determining gender but less than phonology and semantics.

Cross-linguistic comparisons have not been done, however, and it has not been explained if all the gender differences found in Japanese given names are specific to Japanese, and if not, which are and which are not. In the present study, I will compare English and Japanese given names and discuss how gender is marked in English and Japanese given names.

This paper is structured as follows. Section 2 introduces five previous studies dealing with gender in English given names. Section 3 discusses gender in Japanese given names and compares English and Japanese given names. Finally, this study concludes in section 4.

2. Gender in English Given Names

This section reviews five previous studies concerning gender in English given names: Slater et al. (1985), Cutler et al. (1990), Lieberson et al. (1995), Cassidy et al. (1999), and Wright et al. (2005).

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2.1. Slater and Feinman (1985)

Slater and Feinman (1985) is a milestone in this area of study. In this study, they analyze given and preferred names of 267 male and 222 female students and reveal that the following seven phonological gender differences are statistically significant. One, female names tend to have more phonemes than male names, which is only marginally significant. Two, female names have more syllables than male names. Three, the ratio of open syllables is higher in female than male names. Four, most female and male names have strong stress on the first syllable. Female names, however, have strong stress on a non-initial syllable more often than male names. Five, female names are more likely to end in a vowel or a sonorant consonant than male names. Six, among names starting with a consonant, male names have a larger percentage of voiced beginnings. Seven, among names ending in vowels, male names have a significantly higher percentage of endings with the high central unrounded vowel than female names.

Ending sounds more often reveal gender differences than beginning sounds. This structural asymmetry is due to the fact that "English generally focuses on word endings to convey syntactically mandatory markers such as plural or tense, (e.g., cat*s* and start*ed*) or to convert one class to another (e.g., adjective to noun, in *rich* to rich*ness*)" (p. 438).

In this study, Slater and Feinman also compare given names with preferred names and conclude that, in the shift to preferred names, both male and female names move in the direction of "ideal" structure, which is a monosyllabic ending in a consonant.

2.2. Cutler, McQueen, and Robinson (1990)

Comparing with the nouns having one to five syllables in English, Cutler, McQueen, and Robinson (1990) discuss given names (783 male and 884 female names) in English. They compare given names with nouns, but not with the entire vocabulary in English, because names belong to the class of nouns.

With respect to gender differences in given names, they find that the following three phonological gender differences are statistically significant. One, female names are far more likely to have unstressed initial syllables than male names. Two, female names are longer than male names. This asymmetry is observed in hypocoristics as well. Three, female names are more likely than male names to contain [i], the high front tense vowel.

They also notice the importance of cross-linguistic comparisons. They refer to French names and point out, "in French, which is prosodically quite different from English, the small class of monosyllabic names is very often male (*Jean*, *Paul*, *Yves*, *Marc*, *Luc*, *Jacques*)" and "male names tend to begin with a (phonologically heavier) closed syllable (*Alphonse*, *Pascal*, *Marcel*) more often than female names do (with the proviso that the formation of female from male names is more productive in French than in English)" (p. 481).

2.3. Lieberson and Mikelson (1995)

Focusing on African American names, Lieberson and Mikelson (1995) conduct an experiment: subjects (White and African American) are given a list of 16 unique African American names (8 male and 8 female names) and are asked to guess the sex of each name. In this experiment, they find that "[n]ot only is there a high degree of consensus about the gender conveyed by most names, but the majority guess was usually correct (in 13 of the 16 names)" (p. 934).

Then, they examine the most popular African American and White names in New York and reveal the following four phonological gender differences. One, female names are more likely to end in an *a*-sound than male names. Two, the name-initial [š] is more common in

female names than in male names. Three, female names ending in a hard *d*-sound are not found. Four, the *s*-ending is more common in male names than in female names.

2.4. Cassidy, Kelly, and Sharoni (1999)

Concerning phonological gender differences in English given names, Cassidy, Kelly, and Sharoni (1999) conduct eight experiments and examine the following three questions. How informative are phonological gender differences in English given names? Have English speakers learned phonological gender differences? Does knowledge of phonological gender differences affect name usage? In the experiments, they find that phonological gender differences can be learned by a connectionist network.

In this study, they explain the evolution of unisex names in English. The unisex names sound more feminine than the average male names. "The vast majority of unisex names were originally restricted to males but then became extended to females" (P.373).

2.5. Wright, Hay, and Bent (2005)

In pairs of names, male names tend to precede female names. Wright, Hay, and Bent (2005) investigate this bias and argue that phonology, gender, and frequency play a role in determining preferences for name ordering.

In this study, they analyze the 500 most popular male names and the 500 most popular female names of 1998, which are taken from the *Baby Zone* website (http://www.babyzone.com/). They reveal that the following five phonological gender differences are statistically significant. One, female names are longer than male names: female names average 2.4 syllables, while male names average 2.1 syllables. Monosyllabic male names are more common than female counterparts. Two, female names are more likely than male names to end in vowels, particularly schwa. Three, male names are more likely to begin with voiced obstruents than female names. Four, male names are more likely to end in consonant clusters than female names. Five, among monosyllabic names, female names are more likely to contain long vowels or diphthongs than male names.

2.6. Summary

The phonological gender differences observed in the above studies are grouped in (1) and summarized in (2). In the next section, English given names are compared with Japanese given names.

(1) (a) First Syllables

- Among names starting with consonants, male names have a larger percentage of voiced beginnings (Slater and Feinman (1985)).
- The name-initial [š] is more common in female names than in male names (Lieberson and Mikelson (1995)).
- Male names are more likely to begin with voiced obstruents than female names (Wright, Hay, and Bent (2005)).

(b) Last Syllables

- Female names are more likely to end in a vowel or a sonorant consonant than male names (Slater and Feinman (1985)).
- Among names ending in vowels, male names have a significantly higher percentage of endings with a high central unrounded vowel than female names (Slater and Feinman (1985)).
- Female names are more likely to end in an *a*-sound than male names (Lieberson and Mikelson (1995)).

• Female names ending in a hard *d*-sound are not found (Lieberson and Mikelson (1995)).
• The *s*-ending is more common in male than in female names (Lieberson and Mikelson (1995)).
• Female names are more likely to end in vowels than male names, particularly schwa (Wright, Hay, and Bent (2005)).
• Male names are more likely to end in consonant clusters than female names (Wright, Hay, and Bent (2005)).

(c) Length (Structures)
• Female names tend to have more phonemes than male names, which is only marginally significant (Slater and Feinman (1985)).
• Female names have more syllables than male names (Slater and Feinman (1985)).
• The ratio of open syllables is higher in female than in male names (Slater and Feinman (1985)).
• Female names are longer than male names. This asymmetry is observed in hypocoristics as well (Cutler, McQueen, and Robinson (1990)).
• Female names are more likely than male names to contain [i], the high front tense vowel (Cutler, McQueen, and Robinson (1990)).
• Female names are longer than male names: female names average 2.4 syllables, while male names average 2.1 syllables. Monosyllabic male names are more common than female counterparts (Wright, Hay, and Bent (2005)).
• Among monosyllabic names, female names are more likely than male names to contain long vowels or diphthongs (Wright, Hay, and Bent (2005)).

(d) Stress
• Most female and male names have strong stress on the first syllable. Female names, however, have strong stress on a non-initial syllable more often than male names (Slater and Feinman (1985)).
• Female names are far more likely to have unstressed initial syllables than male names (Cutler, McQueen, and Robinson (1990)).

(2) Gender Differences in English Given Names

	Masculine	Feminine
First Syllables	· Voiced Consonants	· [š]
Last Syllables	· High Central Unrounded Vowel · *s*-ending · Consonant Clusters	· Vowels (*a*-sound, schwa) · Sonorant Consonants · No Hard *d*-sound
Length (Structures)	· Monosyllabic Names	· Longer (More Phonemes or Syllables) · Open Syllables · [i], the high front tense vowel · Long Vowels or Diphthongs (in monosyllabic names)
Stress		· Unstressed Initial Syllables

3. Gender in Japanese Given Names

Gender in Japanese given names has not received much attention in the literature and not many studies have been done. In previous studies, Kindaichi (1988) claims that the alveolar stop /t/ sounds masculine and the bilabial nasal /m/ sounds feminine, and Makino (1999) claims that nasal sounds are feminine.

I have been working on gender in Japanese given names and my previous studies reveal the following. Japanese given names show five types of phonological gender differences: first syllables, last syllables, heavy syllables, palatalized consonants, and length (Mutsukawa 2005, 2008, 2009). Phonological gender differences do not equally determine gender, but they can be hierarchically ordered based on their contribution in determining gender (Mutsukawa 2007, 2009). Moraic parts of syllables do not play a major role in determining gender whereas syllables play a crucial part in determining the gender of Japanese given names (Mutsukawa 2006). Although it is in a very limited way, semantics plays a more significant role in determining gender than phonology and kanji, i.e. Chinese characters, and kanji also play a role in determining gender but less than phonology and semantics (Mutsukawa 2008). In the rest of this section, discussing gender in Japanese given names, the gender differences found in Japanese given names are compared with those in English given names.

First syllables in Japanese given names show the following gender differences. One, vowels in initial position, particularly name-initial /a/, are female. Two, the voiceless velar stop /k/ in name-initial position is more common in male than in female names. Three, the voiceless alveolar fricative /s/ in name-initial position is more common in male names. But name-initial /sa/ is more common in female than in male names. Four, the voiceless alveolar stop /t/ in name-initial position is masculine. Five, the voiceless glottal fricative /h/ is found in both male and female names. But, there are no male names starting with /hu/ or /ho/. Name-initial /hu/ and /ho/ are feminine features. Six, nasal sounds in name-initial position are feminine. Seven, the alveolar liquid /r/ is found in both male and female names. In male names, /ryuu/ and /ryoo/ are common, whereas they are not found in female names, and /ri/ is most common in female names. Eight, the velar glide /w/ in name-initial position is a feminine feature. Finally, the voiced alveolar stop in name-initial position is masculine and the voiced alveo-palatal affricate in name-initial position is feminine, although the voiced alveo-palatal affricate is an allophone of the voiced alveolar stop /d/.

First syllables in English given names also show gender differences: name-initial voiced consonants in male names and name-initial [š] in female names. But the gender markers found in English given names do not play a major role in determining gender in Japanese given names, and vice versa.

Last syllables in Japanese given names reveal gender differences. Last syllables in Japanese given names have been changing over time. First, the masculine features /si/ and /zi/ are observed in male names only from 1906 to 1985. Second, the masculine features /ke/, /ta/, and /to/ are observed in male names only after 1965. Third, name-final /ko/, which is a feminine feature, has become less popular. Fourth, the female feature /ka/ is observed only after 1965 and the female feature /na/ has been popular since 1986. Fifth, name-final /mi/ is a feminine feature. Sixth, the name-final onsetless syllable /o/ was a masculine feature from 1906 to 1965. It has, however, been a feminine feature since 2001. Seventh, name-final /ki/ is observed in both male names (1946–) and female names (1966–). But it is more common in male names. Eighth, name-final /ma/ has been found only in male names since 2002. Finally, /ku/ is a masculine feature.

Six gender differences, three masculine features (the high central unrounded vowel, *s*-ending, and consonant clusters) and three feminine features (vowels (*a*-sound and schwa), sonorant consonants, and no hard *d*-sound), are observed in last syllables in English given names. But the gender markers found in English given names are not so relevant in determining gender in Japanese given names, and vice versa.

Heavy syllables and palatalized consonants indicate gender in Japanese given names. Heavy syllables are masculine and have become more popular. The majority of heavy syllables appear in the first syllables, and palatalized consonants are observed only in heavy

syllables. Interestingly, palatalized consonants are observed only in male names from 1906 to 1945 and since 1986, while they are found only in female names from 1946 to 1985. I assume that palatalized consonants are masculine because they are more common in male names; heavy syllables, where palatalized consonants appear, are masculine.

Gender differences regarding heavy syllables and palatalized consonants are not observed in English given names. They play no role in determining gender in English given names.

Length and structures indicate gender in Japanese given names. Male and female names are different with respect to length. First, there are male names consisting of four or more morae. But, female names consisting of four or more morae are not found. Second, monosyllabic male names have become common since 1986. Third, the mean length of given names also shows a gender difference. Male names are longer than female names in general. With respect to the number of morae, male names are 3-mora long or longer, while female names are 3-mora long or shorter. With respect to the number of syllables, male names have become shorter. The structure $\sigma_{\mu}\sigma_{\mu\mu}$, where the final sound is /n/, is used only for female names.

Among the five gender differences in English given names with respect to length and structures, monosyllabic names are masculine in English as well as in Japanese given names. Longer names, which are masculine in Japanese given names, however, are feminine in English given names. The other three gender markers in English given names regarding length and structures, i.e. open syllables, the high front tense vowel [i], and long vowels or diphthongs in monosyllabic names do not play a major role in determining gender in Japanese given names.

Semantics is relevant in determining gender in Japanese given names. When a given name is homophonic to a flower or plant name, it always sounds feminine regardless of its phonological characteristics. When a flower or plant name is a part of a given name, however, semantics is less important, and the gender is phonologically determined.

Gender differences with regard to semantics in English given names are not discussed in previous studies. But, flower and plant names are used as given names in English and they are all female names (e.g. *Cherry, Daisy, Lily, Marguerite, Rose*). Semantics plays a role in determining gender in English, and flower and plant names are feminine in English as well as in Japanese given names.

4. Conclusion

The gender differences found in English and Japanese given names are summarized in (3) and (4). The gender features discussed in the present study are not shared except two features: one phonological and one semantic. The phonological gender feature shared is the feature "monosyllabic", which is masculine in both English and Japanese given names, while the semantic feature shared is the feature "flower and plant names", which is feminine in both English and Japanese given names. Longer names indicate gender in both English and Japanese given names. But they indicate different sex: they are feminine in English given names but masculine in Japanese.

The present study compares the gender differences found in Japanese given names with those in English given names, and reveals that the majority of the gender markers found in Japanese given names are less important in determining gender in English given names, and vice versa. In future research, I would like to analyze given names in other languages to examine how gender is marked. Cross-linguistic comparisons need to be done to find out which of the gender markers in English and Japanese are commonly used in other languages and, if they are not used, how different they are among languages.

(3) Gender Differences in English Given Names

	Masculine	Feminine
First Syllables	· Voiced Consonants	· [š]
Last Syllables	· High Central Unrounded Vowel · *s*-ending · Consonant Clusters	· Vowels (*a*-sound, schwa) · Sonorant Consonants · No Hard *d*-sound
Length (Structures)	· Monosyllabic Names	· Longer (More Phonemes or Syllables) · Open Syllables · [i], the high front tense vowel · Long Vowels or Diphthongs (in monosyllabic names)
Stress		· Unstressed Initial Syllables
Semantics		· Flower and Plant Names

(4) Gender Differences in Japanese Given Names

	Masculine	Feminine
First Syllables (Onset Cs)	· k- (especially *ke*) · s- (especially *soo* and *shoo*) · t- (especially *ta*) · ry- (*ryuu* and *ryoo*) · d-	· Onsetless Syllables (especially *a*) · sa- · h- (*hu* and *ho*) · Nasals (*m*- and *n*-) · d^z- · w-
Last Syllables	· o (–1965) · si, zi (–1985) · ki (1946–) · ke, ta, to (1966–) · ma (2002–) · ku	· ko, mi · ka (1966–) · na (1986–) · o (2001–)
Heavy Syllables	· Yes	· No
Palatalized Cs	· Yes (1906–1945, 1986–)	· Yes (1946–1985)
Length (Structures)	· $\sigma_{\mu\mu}$ · Names with Four or More Morae	· $\sigma_{\mu}\sigma_{\mu}$ · $\sigma_{\mu}\sigma_{\mu\mu}$ (ending in /n/)
Semantics		· Flower and Plant Names

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