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### Ahmina Graves

Comparisons Between Chinese and Japanese Characters: A Look at the Effect of Writing Systems and Writing Reforms on the Chinese and Japanese Languages

04/20/2018

#### Abstract

The complexity of the Chinese and Japanese writing systems has intrigued those in the West from their first encounter with the characters. Though the two languages are very different, they share components of their writing systems that have been adapted to each language. This paper looks at the differences and similarities between the two strikingly different languages, as well as the effects on literacy the complexity of the orthographies has had in East Asia. The reforms created by each respective government and the motivations behind these reforms is also explored, as well as the future of the use and form of these characters in Asia and around the world. The goal of this research paper is to help non-native Japanese and Chinese speakers to understand the reasoning behind the use of the characters in their respective language, as well as to look at the current and past usage of the characters.

#### Introduction

Since Western nations, Chinese characters—known as 汉字 hanzi in Chinese and 漢字 kanji (Sino-Japanese characters) in Japanese—have both intriguing and puzzling to outsiders. From the first interactions of the West with China, Europeans were intrigued by the complexity of writing Chinese. Today the influence of Chinese characters among Westerners continues, due in large part to their novelty. Contemporary Americans and Europeans sometimes see them as fashionable and cool—many people get tattoos of characters that they can't read, and the true meanings of these characters written on their tattoos can sometimes be comical. Meanwhile, Chinese and Japanese language speakers find it strange to see Westerners making such a fuss over their orthographic system. As a Westerner intrigued by these characters, I sought to find out more about them and their usage in Chinese and Japanese—two radically different languages that happen to share, at least in part, a writing system.

Many characters commonly used in both languages are semantically identical. Because of the complicated nature of reading and writing these characters, Chinese and Japanese are two of the hardest languages for Westerners to learn. The plethora of characters—in China, one needs three to four thousand characters to be literate—is a major reason Westerners think of Chinese and Japanese as extremely difficult languages. This paper will look at the reforms that each country has gone through in respect to their writing systems and will discuss how these changes affected literacy rates. It also will briefly discuss the interesting cases of Korea and Vietnam, two countries that once used Chinese characters for writing in their respective languages, but reformed their orthographic systems so that currently, they both use a completely different

system of writing. Table 1 gives a few examples of the differing use of the same characters in Japan and China.

China	Japan	Usage
书	書	Book (China)
		To Write (Japan)
汤	湯	Soup (China)
		Hot Water (Japan)
先生	先生	Mr. (China)
		Teacher (Japan)
手纸	手紙	Toilet Paper (China)
		Letter (Japan)
勉强	勉強	To do with difficulty (China)
		To study (Japan)

Table 1: Differing Usage of the Same Character in China vs. Japan

First, however, an introduction to the origins of Chinese characters and their spread is in order. Seeing these differences and understanding the reasoning behind their changes in each country illustrates how much language has evolved to fit different places, cultures, and historical settings.

#### **Characters' Beginnings**

To those without any knowledge of the Chinese language, Chinese characters appear pictographic, similar to ancient Egyptian hieroglyphics. Many people mistakenly think of them as pictures that simply represent the meaning of a word. However, hanzi are not strictly

pictographic. Chinese characters are, in fact, logographic, meaning that the characters represent words as opposed to sounds. English is a phonetic orthography, meaning that each combination of letters in a word indicates the pronunciation of that word. Though some characters have pictographic origins, such as the characters for sun, mountain, and moon, pictures cannot represent more abstract concepts or grammatical markers. Figure 1 shows a few examples of characters in use today that have pictographic origins. Characters often consist of multiple, different parts; for instance, a single character might have a part that indicates the pronunciation of the character, and another part that conveys the meaning of the character, like the character for mother in Chinese, 妈 (ma). The right side of the character represents the pronunciation, 母, while the left side represents the meaning of female, 女. However, not all characters have both parts. Some characters have one but not the other, and sometimes, the components of a character may have no apparent indication of the meaning of the character or the pronunciation whatsoever. For example, the character 电 in 电话 (telephone), has no indicator of the pronunciation or the meaning of the character.

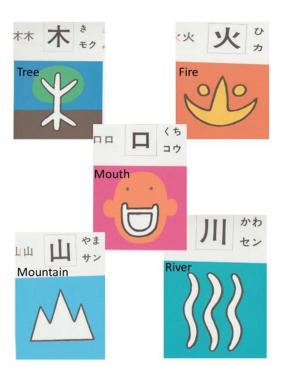


Figure 1: Examples of Pictographic Characters (Compiled from Toda 2002)

The Japanese languages uses characters inherited from China, and so kanji are composed of these same parts, but the pronunciation indicator composed usually will not help the Japanese reader, because that pronunciation indicator developed in another language. As Japanese domesticated hanzi and matched them to words in their language, kanji came to have two or more pronunciations: the on ("sound") reading, which is derived from the Chinese pronunciation, and the kun ("meaning") reading, which is typically derived from indigenous Japanese vocabulary that talk about the same concept. As if this was not complicated enough, sometimes a single kanji might have multiple on readings, derived from different Chinese dialects and pronunciations that the Japanese encountered at different points throughout history.

Today's Chinese script evolved from the earliest known writing of Chinese characters, the oracle bone script. The earliest form of Chinese writing is dated back to about 1200-

1050B.C.E., the Shang Dynasty (Li, Branner, et al. 2011), and was a series of pictures written on shells and bones. From the pictures etched into the bones, Chinese characters have slowly transformed into the characters currently in use today. Though the first encounter of these bones in the modern age is unclear, according to one story, in 1899, two men discovered that an ingredient to the medicine they were taking was "dragon bones". On these dragon bones were writings that resembled modern Chinese characters. One of the men wrote a book about these strange bones, which led archaeologists to trace them to a burial site in Anyang, Hunan Province. There, they discovered thousands more bones similar to the original "dragon bones", containing thousands of different characters (Taylor and Taylor 1995). The characters evolved into different scripts, from the oracle bone script to bronze script, then small seal, clerical, and finally regular. There are the grass and running style as well, which are more like cursive and mostly used in calligraphy. Figure 2 shows the evolution of the characters over time.



Figure 2: Evolution of Chinese Characters (Source: Evolution of Chinese Characters—Omniglot)

#### Use in Japan

The Japanese language is unique in that it employs the use of hiragana, katakana, and kanji. Before the use of hiragana and katakana syllabaries—a writing system in which symbols are written to represent a syllable rather than a singular sound—became common, Japanese was written exclusively in kanji by scholar. However, it was difficult to accurately represent the sounds in Japanese with only kanji, as Chinese words are monosyllabic, while words in Japanese almost always consist of multiple syllables. Chinese is also a tonal language, like Vietnamese or Thai, while Japanese is not. In addition, the syntax of Chinese is profoundly different from Japanese, as the verb usually comes after the object and at the end of a sentence in Japanese, while the verb comes after the subject of the sentence in Chinese. As a result, two scripts based on Chinese characters were integrated into the Japanese language—hiragana and katakana along with kanji. Japanese is unique in that it uses two syllabary writing systems (kana) as well as a logographic system (kanji). Kanji is mostly used to write nouns and verb stems, while hiragana is used to write grammatical markers and forms of verbs, and katakana is used to write words derived from foreign languages as well as technical words such as scientific words.

Kanji is said to have been adopted into the Japanese language around 4 A.D. When Chinese scholars came to Japan during this time, they brought their culture with them. Teaching the Japanese about Buddhism and writing, as well as giving them different objects such as swords or pottery bearing the characters helped introduce Chinese characters into Japanese society. As it became popular for nobles and scholars to learn about Chinese culture, the use of

Chinese characters spread, along with Buddhism and other aspects of Chinese culture. By the ninth century, kana were integrated, completing the Japanese writing system.

#### Brief Overview of Usage in Korea and Vietnam

Though the characters began in China, they migrated across East Asia, being used prominently in Korea and Vietnam as well. Characters are used only throughout Chinese-speaking regions and Japan today, however. These characters are no longer used in Vietnam and Korea, and have been replaced by different orthography in each respective country.

In Korea, 한자 hanja or Chinese characters, are said to have been introduced by Chinese immigrants between 108 B.C.E. and 313 A.D. Koreans were the first—besides Chinese-speaking regions—to widely use Chinese characters as adapted to their language. Similar to Japan later on, hanja was used among scholars and the highly educated, meaning that the poor of the population were illiterate. The oldest stone monument in Korea was erected in 85A.D. can be seen in present-day North Korea. Chinese characters were introduced as a means to teach the Korean population about Buddhism, Confucianism, and other traditional Chinese arts and activities, similar to its introduction in Japan. The influence of Chinese characters also led to new words being created in the Korean language, known as Sino-Korean. Sino-Korean is the Koreanadapted pronunciation of Chinese words. Sino-Korean was widely promoted, and many Korean words were replaced with Sino-Korean words. Hanja was mostly used phonetically, meaning that characters were used for their pronunciation rather than their meaning (Taylor and Taylor). Though hanja is mostly written as its' Chinese counterpart, there are a few simplified hanja for the sake of grammatical particle markers, since the Korean language has syntax that is more similar to Japanese than Chinese. Hanja was abolished by the South Korean government in the

1970s, but use of hanja continues on a small scale. Today, hanja has been replaced by the hangul script, which was created in 1443 by King Sejong. Hanja is used sparingly in some newspaper, and children are required to learn some of the characters in school.

In Vietnam, the Chinese character writing system is referred to as Chữ Nôm, or "Southern script." The Vietnamese people used Chinese characters as their official writing system starting in the 10th century (Omniglot). As Vietnam was ruled by China for over one thousand years, it became inevitable that the influence of Chinese characters would be seen in the writing system and language in Vietnam. The current writing system in Vietnam, Quốc Ngữ, was created by a French missionary who wished to write the Bible and other religious texts for the Vietnamese converts in the 17th century. However, Chinese characters were still used throughout Vietnam until the 1940s, when Quốc Ngữ became widely used and Chữ Nôm was abolished. Along with traditional Chinese characters, there were new characters created especially for the Chữ Nôm script. These characters, such as the character for the number seven, retained components of their original Chinese counterparts. Figure 2 shows a sample of Chinese characters created especially for Vietnamese. Later, we will explore the reasoning for the eventual replacement of Chinese characters in Vietnamese and Korean societies.



Figure 2: Vietnamese-created characters (Source:Omniglot)

#### **Literacy and Writing Reforms**

Hanzi was first standardized by Emperor Qin around 3 B.C.E. into the small seal script. Qin was also the first emperor to require literacy as part of an emperor's official training. From the time the Qin emperor called for literacy to become essential, policies have been put in place to ensure literacy in both Chinese-speaking and Japanese societies. Given the history of the creation and usage of Chinese characters throughout Asia, a common issue that the societies in which Chinese characters have been in use have encountered is that of widespread illiteracy. In 2015, the literacy rate in China was 96.4%(World Bank). While there were no official numbers put out by databases, Japan's literacy rate is said to be at 99% (Index Mundi). The official literacy rate for Japan was difficult to find. While these high literacy rates are impressive given the complicated writing systems in use by these countries, the literacy rates were not always this high. The definition of literacy is still blurred in China, especially, as literacy is said to be defined as being able to write and read 1500 characters, though the official definition was difficult to find (Pinyin News). The widespread illiteracy in these countries led the governments of Japan and China to undergo several character reforms throughout history.

The characters in use today in China are simplified and known as 简体字 (*jiantizi*). However, traditional characters, 繁体字(*fantizi*) are still in use in Macau, Hong Kong, and Taiwan. Jiantizi characters were modified from their original forms when the Communist Party came into power during the Cultural Revolution in China. The Communist Party's priority was

to improve literacy in mainland China. Because of the history of only the upper class being literate, the Communist Party sought to make literacy accessible to all, regardless of their socioeconomic status.

The first and only writing system in Taiwan consisted of a Romanized alphabet (Chiung 2007). However, due to the acquisition of Taiwan by China, hanzi came to be the official writing system, and Mandarin the official dialect of the island. During the occupation of Taiwan by China, policies were put in place that Taiwanese could not use their native dialects, only Mandarin, and they must use hanzi.

The first modern reform in Japan was in 1956, after World War II. In Japan, the government reduced the amount of characters in use, while in China, the character's form was changed. This means that the number of strokes needed to write a character was significantly reduced.

Before the reform of the Cultural Revolution however, a scholar named Qian Xuantong proposed a method for shortening characters in 1920. His reasoning for shortening the characters was that he believed that Chinese students wrote more slowly than their Japanese counterparts and aimed to increase writing speed. In shortening the characters, he proposed that they be changed in eight different categories. The first category was adopting ancient characters. The second, adopting customary characters. He also proposed adopting cursive forms, phonetic loan characters from ancient books, adopting popularly used phonetic loan characters, adopting new phonetic characters, adopting new characters with the same meaning, and adopting characters with shortened strokes (Bökset 2006). Table 2 shows examples of characters proposed in each category of Qian's reform suggestion.

Category	Original Character (Before Qian's Reform suggestion)	New Character  (According to Qian's Reform Suggestion)	Meaning
Adoption of simpler, ancient form	韋	П	enclosure
Adoption of Customary Character	丹豊 月豆	体	body
Adoption of Cursive Form	東	东	east
Adoption of Phonetic Character seen in Ancient Books	拱	共	together
Adoption of Popularly Used Phonetic Loan Character	<b>敬</b>	京	surprise
Adoption of New Phonetic Loan Characters	預	予	in advance
Adoption of New Characters with the Same Meaning	鬼	(not in use)	ghost, demon
Adoption of New Characters with Shortened Strokes	厲	厉	strict, severe

Table 2: New Characters proposed by Qian Xuantong (Compiled from Bökset 2006 and Imafuku 2012)

Following Qian's list of simplified characters, numerous sets of simplified characters were proposed. Those for the reform of characters even proposed a Latin-based script in replacement of hanzi. Though the Latin script was rejected during the Cultural Revolution, Mao Zedong, the leader during the time, recognized the need for a reform in Chinese writing, and the Education Ministry decided to reform the Chinese script by using already created short forms as well as cursive forms of characters. Some of the characters were too similar to others, however, and the official list of simplified characters was revised several times throughout the years.

Today, mainland China uses simplified characters, while Taiwan and Hong Kong continue to use traditional characters. Table 3 compares traditional and simplified characters

Traditional (Used in	Simplified (Used	Meaning
Hong Kong and	in Mainland China)	
Taiwan)		
學	学	To Study
或	国	Country
漢字	汉字	Hanzi (Chinese
		characters)
讀	读	To Read
說	说	To say

#### **Table 3: Simplified vs. Traditional Characters**

Though reforms of the Chinese writing system in mainland China were supported by the government, many scholars and literary fans were not welcoming of the upcoming script reforms. During the Conference of Issues on Intellectual Elements in 1956, Mao Zedong, leader of the People's Republic of China, gave his thoughts on the disagreement of many on reforming hanzi, especially in replacing it with a Latin-based script. He said that while the general public has agreed with reforming hanzi, scholars and professors have disagreed, arguing that hanzi is the best writing system in the world and it cannot be changed. The problem with replacing the characters with a Latin alphabet, they said, is that it was created by foreigners while hanzi was created by the Chinese people. Therefore, characters should continue to be in use, no matter how difficult they are to learn. Other complaints against the writing reform were that aesthetic value in calligraphy would be lost, and that classical literature could not be fully enjoyed if written in non-traditional characters (Zhao and Baldauf 2008).

The writing system also went through several reforms in Japan. The first call to reform was before the Meiji Period, in 1866. The eventual founder of the Japanese postal system, Maejima Hisoka, wrote a petition to the last shogun to abolish kanji in favor of using kana (Unger 1996). Romanization of the Japanese language was also proposed, and by 1866, there were two possible systems of romanization, one being the Hepburn romanization system. During the Meiji Period (1868-1912), the government standardized written Japanese, making it so that kana spellings corresponded with the modern pronunciation of Japanese, rather than the spelling according to historical rules. In 1946, the Toyo Kanji List was introduced by the government and contained 1,850 characters. Characters not on the list were prohibited from use in official government documents. Citizens were free to use characters not on this list, but were encouraged

to use characters on the Toyo List (Premaratne 2015). The Joyo Kanji list was introduced in 1981 to correct problems encountered in the Toyo List, as well as adding new characters for use.

Though literacy was a major motivating factor in both Chinese and Japanese reforms, nationalism, and the confirmation of being a superior people, was also a factor in reform. The so-called Ideographic Myth, which stated that kanji corresponded to ideograms and that this system was so complex that only those of the utmost intelligence could master it. During World War II, the Japanese writing system was promoted as justification for Japan being the rightful leaders of Asia (Unger 1990). In China, there are ancient myths that declare that hanzi is sacred, and that hanzi should be regarded as special and sacred. This myth played in Chinese culture until very recently, with elders often saying to children who threw away paper with hanzi written on it to respect the characters, saying "Pay respect to your characters and paper" ("敬惜字 纸")(Zhao and Baldauf 2008).

After the writing reforms, literacy in China improved significantly. In 1982, the adult literacy rate was at 66%, while it is at 95% today (World Bank). The education system in both China and Japan focuses its' curriculum on passing national examinations, which most likely further motivates the government to focus on literacy. During the Program for International Student Assessment—an international exam that looks at different academic capabilities of students across the world—a randomly selected group of Japanese high school students ranked 8th in reading comprehension, while students from Shanghai, China ranked 1st, due to education reforms taking place in the city. From looking at the increased literacy rate in China, and the high rankings of Chinese and Japanese students in reading comprehension, it is clear that the reforms that took place in both of these countries were successful.

#### **Destiny of the Characters**

With writing systems going through so many changes in China, Japan, and other countries where characters are used, it is interesting to ponder the fate and future of kanji and hanzi. As we have seen, characters were replaced by simpler alphabets in Korea and Vietnam and underwent significant reforms in China and Japan. Will characters undergo further reform in China and Japan, or perhaps be replaced by simpler writing systems? Or will characters become more widely used in the Western hemisphere due to China's growing importance in the world economy?

Chinese is another increasingly popular language for non-native speakers to learn.

Mandarin is the dialect of choice for many new Chinese language learners, and the emergence of China as an economic superpower suggests Chinese—the Mandarin dialect in particular—may be a valuable language for businessmen. China continues to intrigue Westerners and also contributes to the popularity of Chinese. China shows no signs of declining as a world economic superpower, and Chinese may become more widely available to Western students in primary and secondary schools.

As we enter the age of globalization, the world is becoming smaller, and learning a second or third language is easier than ever before. In fact, as a consequence of globalization, it has become imperative that people learn a second or third language. With the dominance of Japan in the world economy during the 1990s, it is no surprise that Japanese became popular. Also, the worldwide popularity of anime and manga has also contributed to the popularity of learning Japanese. With the 2020 Olympics in Tokyo approaching, the question of how the Japanese language will change to accommodate foreigners coming into the country has been raised.

The 2020 Olympics in Tokyo may bring temporarily changes to the way Japanese is written in the public sphere. That is, during the Olympics, kanji may be seen less in road signs and other public areas in Tokyo. In preparation for the Olympics, the Tokyo government is pushing for more English. Local governments are putting English road signs are being put in place, training more English interpreters, and hiring more English teachers. Instead of expecting visitors to learn Japanese, the government in Tokyo is trying to make things easier for visitors coming for the Olympics. In the spirit of making visitors more comfortable, romaji—Japanese written out in the Latin alphabet—may become more widely used in the public instead of kana and kanji. The widespread use of romaji may revert back to of kana and kanji when the Olympics is over. However, the increase in international visitors during and after the Olympics may prompt officials to write more official signs in romaji and kana, instead of kanji to accommodate those who may not be familiar with the Japanese language. As for the future of kanji in Japanese society as a whole, there are no plans to simplify or get rid of kanji.

Because of the popularity of Japanese pop culture, and the economic power of China, it seems likely that kanji and hanzi may become a more common sight in society. As far as learning characters goes, Westerners have been attracted to the novelty of characters, and the difficulty of learning and memorizing them has deterred some, but many still persist. If Chinese and Japanese are taught as Spanish is in the United States—as early as elementary school and maybe even in middle school—characters may not be as difficult as many assume. Children will have had time to get used to them, and will have a solid foundation for learning numerous characters

In China, will characters continue or become obsolete? China's dominance of the world economy will definitely lead to more people learning Chinese, just as the rise of the Japanese

economic superpower led to more people around the world learning Japanese in the 1980s and 1990s. Chinese is already taught alongside popular languages such as Spanish and French in some American high schools and middle schools.

From 2008-2012, the adult literacy rate in China was reported as 95% (UNICEF). In 1982, the literacy rate was just 66% (World Bank). Because of this trend of rising literacy, the characters may not be reformed by further simplifying them, but rather by slowly reintroducing more traditional forms of commonly used characters. A factor in increasing literacy may be technology. In an article in The Atlantic, Sarah Zhang praises the system for typing characters in mainland China, saying how much more efficient it is to type Chinese characters than English words, as the computer is able to predict which character the user is trying to type by just typing the first or second pinyin letters. Zhang also talks about how it is faster to type Chinese on computers and smartphones than it is to type in English using the QWERTY keyboard. The efficiency in typing Chinese characters may mean Chinese characters will not be phased out in the increasingly technology-centered world.

#### **Conclusion and Further Questions**

There are further questions regarding the topic of literacy and learning disabilities not covered in this paper. It would be interesting to do a deeper study into the literacy rate of Japan. Since there are no official statistics available online, it would be interesting to research how literacy is measured and recorded in Japan. At what point in their educational career is a person considered "literate" in Japanese society? Do learning disabilities such as dyslexia exist in any way in Japanese society, and if so, how does the educational system assist those that may have this disability? On the topic of dyslexia, there was a study done in the 1970s with second grade children in an American inner city (Rozin, Poritsky, and Sotsky 1971). The children had trouble

reading the alphabet, and were tutored to read Chinese characters. The children were given a set of characters and memorized only the meaning of the characters in English. After several weeks of tutoring, the children were able to read English sentences written only in Chinese characters. Though they were tutored in reading the English alphabet, the students still had trouble reading. From this study, a look into how Chinese-speaking children learn hanzi and how American children may benefit from learning characters instead of the alphabet. A look into how the brain processes writing systems that use characters versus writing systems that use an alphabet may also be needed.

The orthographies of China and Japan are indeed fascinating and have a long history. Though the characters started in China, they were adopted by many countries in East Asia, and remain successfully integrated into the Japanese language. Because of the vast number of characters that exist, literacy has been an issue that the governments East Asia have encountered countless times. Some countries, such as Korea and Vietnam, decided to forgo the Chinese writing system altogether for a new one, while Chinese-speaking countries as well as Japan decided to simplify the characters or reduce the number of characters in use. In Japan and China, however, literacy was not the only motivating factor in reforming the writing systems.

Nationalism also played a large part in reinforcing the use of characters. Nevertheless, the numerous reforms of the characters aided in increasing literacy rates in China and Japan. In today's globalized society, characters may be re-introduced to Chinese and Japanese societies for the sake of preserving a national identity, as well as making the languages easier to learn for those who may be interested in learning Chinese and Japanese. Given the rich history of hanzi and kanji, their existence will continue well into the future.

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