Peh-oe-ji, Childish Writing?

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Abstract
Peh-oe-ji means the scripts of vernacular speech in contrast to the complicated Han characters of wenyen (classical Han writing). Peh-oe-ji was originally devised and promoted for the purpose of religious sermons. Peh-oe-ji was introduced to Taiwan by Western missionaries in the second half of nineteenth century, and it was widely used among the church people prior to 1970s. Among its users, women were the majority. Those women did not command any literacy except Peh-oe-ji. This phenomenon reflects the fact that the traditional women with lower social status were not likely to be educated with Han characters, and they had to choose the ‘childish’ but easily learned Peh-oe-ji if they wished to be able to read and write. This paper provides a linguistic account of the Peh-oe-ji writing system and examines the relationships among the orthographic users, literacy, and society in the case of Taiwan.

1. Introduction

Tai-oan-hu-sia" Kau-hoe-po (Taiwan Prefectural City Church News; TPCCN), the first newspaper of Taiwan was published in the romanized Peh-oe-ji writing system in 1885. Reverend Thomas Barclay, the editor and publisher of TPCCN mentioned about the Peh-oe-ji in the first issue of TPCCN "do not look down the Peh-oe-ji, do not regard it as a childish writing..." Barclay's comment on Peh-oe-ji has pointed out the general people’s bias against the romanization in the Han character dominated society of Taiwan.

Taiwan is currently a Hanji (Han character) dominated society. The majority of the public press of Taiwan, such as newspapers, periodicals, textbooks, and government documents are all written in Hanji. Moreover, students in Taiwan are taught to regard Hanji as the "Guozi 國字 (national characters)." Students are expected to have good
knowledge of Guozi, and are required to use Guozi exclusively while they are writing. As a consequence, for example, an English name "Clinton" will be converted into "柯林頓" in modern Mandarin writing. Although Hanji has dominated the orthography of Taiwan for a while, the romanized Sinkang writing system was implemented in the seventh and eighteenth century, and another Peh-oe-ji romanization has been used since the nineteenth century for particular groups. Most of the people of Taiwan under KMT's Chinese education system might feel surprised if they knew that Sinkang writing had occurred in Taiwan prior to the adoption of Hanji as the official written language by Koxinga regime. They might also be surprised of the fact that the first public newspaper of Taiwan was published in orthography other than Han characters.

This paper provides a linguistic account of the Peh-oe-ji writing system and examines the relationships among the orthographic users, literacy, and society in the case of Taiwan.

2. Historical Development of Romanization in Taiwan

Since the early seventeenth century, there occurred several different writing systems along with political regimes in Taiwan. Table 1 provides readers with a general idea of the relationship among political status, language, and orthography since 1624 in Taiwan.
Table 1. Relation between language and political status in Taiwan.

<table>
<thead>
<tr>
<th>Period</th>
<th>Political status</th>
<th>Spoken Languages</th>
<th>Writing Systems**</th>
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<tbody>
<tr>
<td>-1624</td>
<td>Tribal society</td>
<td>Aboriginal</td>
<td>Tribal</td>
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<tr>
<td>1624-1661</td>
<td>Dutch colonialism</td>
<td>Aboriginal/Taiwanese*</td>
<td>Sinkang (新港文)</td>
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<td></td>
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<td></td>
<td>Classical Han (文言文)</td>
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<tr>
<td>1661-1683</td>
<td>Koxinga colonialism</td>
<td>Aboriginal/Taiwanese</td>
<td>Classical Han</td>
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<td></td>
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<td></td>
<td>Sinkang</td>
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<tr>
<td>1683-1895</td>
<td>Ch'ing colonialism</td>
<td>Aboriginal/Taiwanese</td>
<td>Classical Han</td>
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<td></td>
<td>Koa-a-chheh (歌仔冊)</td>
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<td>Peh-oe-ji</td>
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<td></td>
<td></td>
<td></td>
<td>Sinkang</td>
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<tr>
<td>1895-1945</td>
<td>Japanese colonialism</td>
<td>Aboriginal/Taiwanese/Japanese</td>
<td>Japanese</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Classical Han</td>
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<td>Colloquial Han (in Taiwanese)</td>
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<td></td>
<td>Colloquial Han (in Mandarin)</td>
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<td></td>
<td>Peh-oe-ji</td>
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<td>Kana-Taiwanese (臺式假名)</td>
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<tr>
<td>1945-</td>
<td>(post) KMT colonialism</td>
<td>Aboriginal/Taiwanese/Mandarin</td>
<td>Chinese (Mandarin)</td>
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<td></td>
<td></td>
<td></td>
<td>Taiwanese</td>
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<td></td>
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<td></td>
<td>Aboriginal</td>
</tr>
</tbody>
</table>

* Taiwanese means Hakka-Taiwanese and Holo-Taiwanese here.

** The order of listed writing systems in each cell of this column do not indicate the year of occurrences. The first listed orthography refers to the official written language adopted by its relevant governor.

The historical development of romanized writing systems for Taiwanese languages can be divided into two eras. The first era of romanization is Sinkang writing, which occurred in the first half of the seventeenth century during the Dutch occupation of Taiwan, and ends up in the early nineteenth century. The second romanization is Peh-oe-ji writing, which has existed in Taiwan since the second half of nineteenth century.

Sinkang Romanization (1624-early nineteenth century)

Sinkang writing was the first romanization and the first writing system in the history of Taiwan. It was devised by Dutch missionaries and employed to the writing of Siraya,
an indigenous language in southwest plain of Taiwan. Sinkang romanization\(^1\) was not well documented until the discovery of so-called "Sinkang Bunsu 新港文書" or "Sinkang manuscripts" in the nineteenth century.

Conversion to Christianity as well as exploiting resources were important purposes of Dutch during their occupation of Taiwan. As Campbell described, "during that period they [i.e., Dutch] not only carried on a profitable trade, but made successful efforts in educating and Christianising the natives; one missionary alone having established a number of schools and received over five thousand adults into the membership of the Reformed Church" (Campbell 1903:vii). The natives around Sinkang\(^2\) were first taught Christianity through the learning of the Romanization of Sinkang dialect. There were some textbooks and testaments written in Romanized Sinkang, such as the "The Gospel of St. Matthew in Formosan Sinkang Dialect and Dutch (Het Heylige Euangelium Matthei en Jonannis Ofte Hagnau Ka D'llig Matiktik, Ka na Sasoulat ti Mattheus, ti Johannes appa. Overgetet inde Formosaansche tale, voor de Inwoonders van Soulang, Mattau, Sinckan, Baeloa, Tavokan, en Tevorang.)," which was translated and published by Daniel Gravius in 1661 (Campbell 1996; Lai 1990: 121-123).

After Koxinga drove the Dutch out from Taiwan, the Roman scripts were still used by those plain tribes for a period. There were several manuscripts found after those native languages had disappeared. Those manuscripts were written either in languages of native aborigines or in bilingual texts with Romanization and Han characters. Most of the manuscripts were either sale contracts, mortgage bonds, or leases (Naojiro Murakami 1933:IV). Because most of those manuscripts were found in Sinkang areas and were

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1 Although romanized writing in indigenous language had been mentioned in earlier historical materials such as "Chulo Koanchi 諸羅縣志 Topographical and Historical Description of Chulo 1717," and "E-tamsui-sia Kiagi 下淡水社寄語 A Glossary of the Lower Tamsui Dialect 1763," romanization in Sinkang was not well known until the discovery of Sinkang manuscripts.

2 Sinkang (新港), originally spelled in Sinkan, was the place opposite to the Tàiyúan where the Dutch had settled in 1624. The present location is Sin-chhi of Tainan county (新市, 台南縣).
written in Sinkang language, they were named Sinkang Manuscripts (新港文書) by scholars, or *Hoan-a-khe* (番仔契 the contract of barbarians) by the public (Lai 1990: 125-127).

**Figure 1. Sinkang Manuscripts adopted from Murakami (1933).**

There are 141 examples of Sinkang Manuscripts discovered to date, the earliest manuscript dated 1683, and the most recent one dated 1813. In other words, those indigenous people continued to use the Romanization for over a century-and-a-half after the Dutch had left Taiwan (Naojiro Murakami 1933:XV).

**Peh-oe-ji Romanization (1865-present)**

If Sinkang writing represents the first foreign missionary activities in Taiwan, then the development of *Peh-oe-ji* (白話字) reveals the comeback of missionary influences after the Dutch withdrawal from Taiwan.

More and more missionaries came to preach in China in the seventeenth century, even though there were several restrictions on foreign missionaries under the Ch'ing Dynasty. The restrictions on foreign missionaries were continued until the Treaty of
Tientsin (天津條約) was signed between Ch'ing and foreign countries in 1860. Taiwan, at that time, was under the control of Ch'ing Dynasty, therefore, foreign missionaries were allowed after that treaty. Consequently, the first mission after the Dutch, settled in Taijoan-hu (台灣府) by missionary James L. Maxwell and his assistants in 1865 (Hsu 1995:6-8; Lai 1990:277-280).

Before missionaries arrived in Taiwan, there were already several missionary activities in southeast China. They had started developing Romanization of some languages such as Southern Min and Hakka. For instance, the first textbook for learning the Romanization of the Amoy dialect, Amoy Spelling Book (Tngoe hoan ji chho hak) was published by John Van Nest Talmage in 1852 in Amoy. That Romanization was called Poe-oe-ji in Taiwan. It means the script of vernacular speech in contrast to the complicated Han characters of wenyen.

Peh-oe-ji was originally devised and promoted by missionaries for religious purposes. Consequently, most of its applications and publications are related to church activities. Those applications and publications of Peh-oe-ji since the nineteenth century can be summarized into the following six categories:

- Peh-oe-ji textbooks
- Peh-oe-ji dictionaries
- Translation of the Bible, catechisms, and religious tracts
- Peh-oe-ji newspaper
- Other publications, such as physiology, math, and novels.
- Private note-taking or writing letters, etc.

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3 Present Tailam city (台南).
4 Amoy was a dialect of Southern Min, and was regarded as mixed Chiang-chiu and Choan-chiu dialects. The Amoy dialect was usually chosen by missionaries as a standard for Southern Min.
5 《唐話番字初學》.
6 John van Nest Talmage was named 打馬字, 1819-1892.
There were several dictionaries of Peh-oe-ji, such as "A Dictionary of the Hok-keen Dialect of the Chinese Language, According to the Reading and Colloquial Idioms" by Walter H. Medhurst in 1837, the "Chinese-English Dictionary of the Vernacular or Spoken Language of Amoy, with the Principal Variations of the Chang-chew and Chin-chew Dialects," by Rev. Carstairs Douglas in 1873. The currently most popular romanized dictionary in Taiwan, "E-mng-im Sin Ji-tian (A Dictionary of the Amoy Vernacular Spoken throughout the Prefectures of Chin-chiu, Chiang-chiu and Formosa)" edited by Rev. William Campbell, was first published in Taiwan by Taiwan Church Press in 1913 (Lai 1990; Ang 1996).

The first New Testament in Romanized Amoy (Lan e Kiu-chu Ia-so' Ki-tok e Sin-iok) was published in 1873, and the first Old Testament (Ku-iok e Seng Keng) in 1884. The wide use of Poe-oe-ji in Taiwan was promoted by the missionary Reverend Thomas Barclay while he published monthly "Tai-oan-hu-sia' Kau-hoe-po (Taiwan Prefectural City Church News)" in July 1885. In addition to publications related to Christianity, there were some other publications written in Peh-oe-ji, such as "Pit Soan e Chho Hak (Fundamental Mathematics)" by Ui-lim Ge in 1897, "Lai Goa Kho Khan-ho-hak (The Principles and Practice of Nursing)" by G. Gushue-Taylor in 1917, the novel "Chhut Si-Soa (Line between Life and Death)" by Khe-phoan Te in 1926, and the collection of commentaries "Chap-hang Koan-kian (Opinions on Ten..."

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8 《廈門音新字典》
9 《咱的救主耶穌基督的新約》
10 《舊約的聖經》
11 《台灣府城教會報》Taiwan Prefectural City Church News has changed its title several times, and the recent title (1988) is Taioan Kau-hoe Kong-po (台灣教會公報 Taiwan Church News). It was published in Peh-oe-ji until 1970, and thereafter it switched to Mandarin Chinese (Lai 1990: 17-19).
12 《內外科看護學》
13 《出死線》

Issues") by Poe-hoe Chhoa (蔡培火) in 1925.

Usually, the religious believers apply Peh-oe-ji writing to their daily life after they acquire the skill of romanization. For example, they may use Peh-oe-ji as a skill of note taking or writing letters to their daughters or sons or friends in addition to reading the Bible. Peh-oe-ji was widely used among the church\textsuperscript{14} people in Taiwan prior to 1970s\textsuperscript{15}. Among its users, women were the majority. Most of those women did not command any literacy except Peh-oe-ji. Today, there are still some elder women who read only Peh-oe-ji.

Although Peh-oe-ji was originally devised for religious purposes, it is no longer limited to religious applications after the contemporary Taibun\textsuperscript{16} movement was raised in the 1980s. Peh-oe-ji has been adopted by many Taibun promoters as one of the romanized writing systems to write Taiwanese. For example, famous Taibun periodicals such as Tai-bun Thong-sin (台文通訊) and Taibun Bong-Po (台文周報) adopt Peh-oe-ji as the romanization for writing Taiwanese. In addition, there were recently a series of novels translated from world literatures into Peh-oe-ji in a planned way by the members of 5% Tai-ek Ke-oe\textsuperscript{17} (5% Project of Translation in Taiwanese) since 1996.

In short, the Peh-oe-ji was the ground of Romanization of modern Taiwanese colloquial writing. Even though there were several different Romanizations for writing

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\textsuperscript{14} Especially the Presbyterian Church in Taiwan (台灣基督長老教會).

\textsuperscript{15} Taioan Kau-hoe Kong-po (Taiwan Church News), which was originally published in Peh-oe-ji, switched to Mandarin Chinese in 1970. I use this year as an indicator to.

\textsuperscript{16} 台文. Taibun literally means Taiwanese literature or Taiwanese writing. It refers to the orthography issue in the movement of Taiwanese language since 1980s. For details of the modern movement of written Taiwanese, see Chiung (1999:33-49).

\textsuperscript{17} 5%台譯計劃. In November of 1995, some Taiwanese youths who were concerned about the writing of Taiwanese decided to deal with the Taiwanese modernization and loanwords through translation from foreign language into Taiwanese. The organization 5% Project of Translation in Taiwanese was then established on February 24, 1996. It's members have to contribute 5% of their income every month to the 5% fund. The first volume includes 7 books. They are Lear Ong, Kui-a Be-chhia, Mi-hun-chhiun e Kui-a, Hoa-hak-phin e Hian-ki, Thi"-kng Cheng e Loan-ai Ko'-su, Pu-ho'-lang e Lek-su, and Opera Lai e Mo'-sin-a, were published by Tai-leh (台笠) press in November 1996.
Taiwanese, many of them were derived from Peh-oe-ji. The use of Peh-oe-ji and its derivations were more popular than other systems of Romanization.

Figure 2. Tai-oan-hu-sia" Kau-hoe-po, issue 1, in 1885.

Figure 3. First page of Peh-oe-ji Bible (Sin-Ku-Iok e Seng-Keng, 1995 version).

3. Socio-cultural Factors of Developing Peh-oe-ji

The orthographic issue in Taiwan is not a unique case in Asia. We may first look at other orthographic cases in Han cultural areas, where they had the same historical
tradition of using Han characters, and then turn to the case of Taiwan in order to have a better perspective on the development and influence of Peh-oe-ji.

**Socio-political Background in Hanji Sphere**

Hanji cultural areas, such as Vietnam, Korea, Japan, Taiwan, and China, used Han characters and the classical Han writing style before the twentieth century. However, there were great changes before the advent of the twentieth century. In Vietnam, Han characters and its derivative characters, Chu Nom (字喃), which had been adopted as writing systems for more than a thousand years in Vietnam, were officially replaced by the Romanized Chu Quoc Ngữ in 1945, the year of the establishment of the Democratic Republic of Viet Nam. The Chu Quoc Ngữ was developed on the basis of Romanized Vietnamese writing, which was originally developed by missionaries\(^\text{18}\) in the seventeenth century. In Korea, Han characters were finally replaced by Hangul (諺文) after World War II. Hangul, the Korean script, which analyzes syllables into three parts including initial, middle, and final sounds, was originally designed and promulgated by King Sejong in 1446. In Japan, the syllabary Kana (假名) system was gradually developed after Japan's adoption of Han characters; although Han characters are not completely replaced by Kana, the number of Han characters used by Japanese decreased from thousands to 1,945 frequently used characters in 1981. As for China, although writing reform has been in process since the late period of the nineteenth century, Han characters are still widely used and taught in the national education system. It seems that Han characters will still be the dominant orthography at least for the present (cf. Chiung 1997; Defrancis 1950, 1977, 1990; Norman 1991; Hannas 1997).

Regarding the orthographic reforms in Taiwan, Vietnam, Korea, and Japan, we may examine them in two respects. First of all, from the perspective of domestic literacy and anti-feudalism: China’s main influences on these countries included the use of the Han characters.

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18 Usually, Alexandre de Rhodes is referred to as the inventor of Vietnamese Romanization.
character, Buddhism, Confucianism, the imperial examination system (科舉制度), and an official government system (文官系統). According to the Han characters and the imperial examination system, the books of Confucius and Mencius were accorded the status of classics among scholars and mandarins who assisted the emperor or king in governing his people. Everyone who desired to become a scholar or mandarin had to learn to use Han characters and read these classics and pass the imperial examination, unless he had a close relationship with the emperor. However, the classics were not only difficult to read (i.e., Han characters) but also hard to understand (i.e., the text), because the texts were written in classical Han writing (文言文 wenyan) instead of colloquial speech (白話 Baihua). In other words, because most of the people were farmers who labored in the fields all day long, they had little interest in learning Han characters. As a consequence, a noble class and a peasant class were formed and the classes strengthened the feudal society. This complication of Han characters could be well expressed with the old Taiwanese saying “Hanji na thak e-bat, chhui-chhiu to phah si-kat (漢字若讀會 bat, 嘴鬚就打死結).” It means that you can’t understand all the Han characters even if you studied until you could tie your beard into a knot. In short, the demand for widespread literacy was the advising factor pushing reform of writing systems.

In contrast with the internal factor of literacy, the external factor was the political interaction between China and those countries. Historically, both Korea and Vietnam were once occupied by China. As for Japan, even though she was never directly occupied, Japan was forced to adopt many things from China under the influences of the grand Han dynasty (漢朝) and Tang dynasty (唐朝) in the history of China. That is to say, the Chinese people had the dominant status in Han cultural areas. Consequently, the reform of written language against classical Chinese writing would be considered as a violation of the Chinese Empire. For instance, while Korean Hangul was designed, Mal-li Choe (崔萬裏), the chief of scholars, opposed the new writing system. He wrote a voluminous letter to King Sejong, as follows:

In the first place it is a violation of the principle of maintaining friendly relations with China, to invent and use letters which do not exist in China. (Lee 1957: 4)

In the second half of nineteenth century, Western colonialism came to the Han cultural areas. As a result, China was no longer able to dominate these areas. She was even unable to defend herself from the Western invasions. On the other hand, the rise of modern nationalism against the Western colonialism in these areas, forced those people to consider their national transitions from a feudal society to a modern society. To achieve this purpose, considering a writing reform to reduce the population of illiterate people became an important job. In addition, the nationalism against colonialism also caused Vietnam, Korea, Japan, and Taiwan to reconsider their relationships with China. That is to say, they had to maintain the vassal relationship with China or become a politically and culturally independent country. Under the influence of literacy and independence, Vietnam, Korea, and Japan were successful in the great changes from Han character to Chu Quoc Ngu, Hangul, and Kana. However, in China, although there were many proposed orthographic designs since the late period of the nineteenth century, such as Qie-yin-zi\(^{19}\) (切音字), Quan-hua Zi-mu\(^{20}\) (官話字母), and Latinization, Han characters have been only successfully simplified so far. The pattern of writing reforms in Asia is the same as Gelb mentioned in his famous book about the world's writing reforms, "in all cases it was the foreigners who were not afraid to break away from sacred traditions and were thus able to introduce reforms which led to new and revolutionary developments" (Gelb 1952: 196).

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\(^{19}\) Designed by Zhuang-Zhang Lu (盧戇章) in 1892 in Amoy. See Png (1965: 8-10).

\(^{20}\) Designed by Zhao Wang (王照) in 1900. See Png (1965: 10-13).
Sociolinguistics of Peh-oe-ji

From the perspective of literacy, it is not surprising that Peh-oe-ji would occur in Taiwan. Because romanized Peh-oe-ji writing is much easier than the classical Han writing, it provides general people a convenient tool to acquire literacy. Poe-hoe Chhoa (蔡培火 1927) points out that writing in Han characters is a heavy burden for most Taiwanese. He therefore advocates using Taiwanese Romanization to liberate the illiterate. He mentions the relationship between new Taiwan and Roman scripts in his book "Opinions on Ten Issues\(^{21}\)," which was published in 1925.


We Taiwanese have 3.6 millions of population, but only two hundred thousand of them are literate. Isn't it too few? What are the reasons? One is that we think little of literacy; another reason is that the ruler is not sincere to promote education; and the third is that the orthography [i.e., Hanji] and language are too difficult to learn literacy.

In the Hanji dominated society, being able to command Hanji is considered intelligent and prestigious. On the other hand, literacy other than Hanji is regarded as underground and vulgar. Among the Peh-oe-ji users, the majority were women who did not command any Han character or orthography except Peh-oe-ji. This phenomenon reflects the fact that the traditional women with lower social status were not likely to be educated with Han characters, and they had to choose the 'childish' but easily learned Peh-oe-ji if they wished to be able to read and write. General people's bias against

\(^{21}\) "Chap-Hang Koan-Kian (十項管見 Opinions on Ten Issues)" was entirely written in Peh-oe-ji.

Peh-oe-ji was observed by Rev. Thomas Barclay, the editor and publisher of TPCCN. He mentioned the Peh-oe-ji in the first issue of TPCCN, as follows:


Because your traditional Han characters are too difficult to learn, only a few of you can read and write. That's why we have tried to print books in Peh-oe-ji, so you will be able to read easily…do not think you do not have to learn Peh-oe-ji if you already knew Hanji, neither look down the Peh-oe-ji, nor regard it as a childish writing.(Barclay 1885)

Although Romanization is much more efficient than Han characters, Romanization is not widely accepted by people in Taiwan. Writing in Roman script is regarded as the Low language in digraphia\(^{22}\), There are several reasons for this phenomenon:

First, people's preference for Han characters is caused by their internalized socialization. Because Han characters have been adopted as the official orthography for two thousand years, being able to master Han characters well is a symbol of scholarship in the Han cultural areas. Writing in scripts other than Han characters may be regarded as childish writing.

Second, misunderstanding of the structure and function of Han characters has enforced people's preference for Han characters. Many people believe that Han characters are ideally suited for the Han language family, which includes the Taiwanese language; they believe that Taiwanese cannot be expressed well without Han characters because

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\(^{22}\) Digraphia, as parallel to Ferguson's (1959) idea of diglossia, has been defined by Dale (1980:5) as "the use of two (or more) writing systems for representing a single language," or by DeFrancis (1984:59) as "the use of two or more different systems of writing the same language." See Chiung 1999; TiuN 1998; DeFrancis 1984; and Dale 1980.
Han characters are logographs and each character expresses a distinctive semantic function. However, DeFrancis (1990) has pointed out that it is just a myth to regard Han characters as logography. Detailed discussion on this issue is presented in the following section.

The third reason that Peh-oe-ji is not widespread in Taiwan, is because of political factors. Symbolically, Han characters are regarded as a symbol of Chinese culture by Taiwan's ruling Chinese KMT regime. Writing in scripts other than Han characters is forbidden because it is perceived as a challenge to the Chinese culture and Chinese nationalism. For example, the Romanized New Testament "Sin Iok" was once seized in 1975 because the Romanization Peh-oe-ji was regarded as a challenge to the orthodox status of Han characters.

4. A Linguistic Account of Peh-oe-ji

Missionaries' linguistic efforts on the romanization are reflected in various romanized dictionaries. Medhurst's "A Dictionary of the Hok-keen Dialect of the Chinese Language" published in 1837 is considered the first existing romanized dictionary of Southern Min compiled by western missionary (Ang 1996:197-259). Douglas' "Chinese-English Dictionary of the Vernacular or Spoken Language of Amoy" of 1873 is regarded as the remarkable dictionary of influence on the orthography of Peh-oe-ji (Ang 1993b:1-9). After Douglas' dictionary, most romanized dictionaries and publications followed his orthography without or with just minor changes. Generally speaking, missionaries' linguistic efforts on Southern Min and Peh-oe-ji have reached a remarkable achievement since Douglas's dictionary (Ang 1993:5). William Campbell's dictionary "E-mng-im Sin Ji-tian (1913)," which was the first Peh-oe-ji dictionary published in Taiwan, is the most widespread romanized dictionary in Taiwan. This dictionary has been published in fourteen editions by 1987.

The following list consists of some examples of the variations of spelling among these three dictionaries.
Since "E-mng-im Sin Ji-tian" is the most widespread romanized dictionary in Taiwan, its inventory of Taiwanese consonants, vowels, and tone marks are given in Table 2, Table 3, and Table 4 for readers' reference (cf. Cheng and Cheng 1971).

Table 2. Inventory of Taiwanese consonants in the spelling of Peh-oe-ji, based on the dictionary of E-mng-im Sin Ji-tian.

<table>
<thead>
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<th>Peh-oe-ji</th>
<th>Hanji samples</th>
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<tbody>
<tr>
<td>b</td>
<td>門 bun</td>
<td>[b]</td>
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<tr>
<td>ch</td>
<td>曾 cheng</td>
<td>[ts]</td>
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<tr>
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<td>出 chhut</td>
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<td>ng</td>
<td>長 tng</td>
<td>[ŋ]</td>
</tr>
</tbody>
</table>

23 Tone marks in the column of Hanji sample are excluded from its orthography.

24 This is a flap sound.
Table 3. Inventory of Taiwanese vowels in the spelling of Peh-oe-ji, based on the dictionary of *E-mng-im Sin Ji-tian.*

<table>
<thead>
<tr>
<th>Peh-oe-ji</th>
<th>Hanji samples</th>
<th>I.P.A</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>阿 a</td>
<td>[a]</td>
</tr>
<tr>
<td>e</td>
<td>矮 e</td>
<td>[e]</td>
</tr>
<tr>
<td>i</td>
<td>伊 i</td>
<td>[i]</td>
</tr>
<tr>
<td>o'</td>
<td>烏 o'</td>
<td>[o]</td>
</tr>
<tr>
<td>o</td>
<td>蚵 o</td>
<td>[ɔ]</td>
</tr>
<tr>
<td>u</td>
<td>有 u</td>
<td>[u]</td>
</tr>
</tbody>
</table>

Table 4. Inventory of tone marks in the orthography of Peh-oe-ji, based on the dictionary of *E-mng-im Sin Ji-tian.*

<table>
<thead>
<tr>
<th>Hanji</th>
<th>Peh-oe-ji</th>
<th>IPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>君 kūn</td>
<td>kun kut</td>
<td>˥</td>
</tr>
<tr>
<td>滾 kùn</td>
<td>kún</td>
<td>˧</td>
</tr>
<tr>
<td>槌 kut</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>骨 -</td>
<td>kūn</td>
<td>-</td>
</tr>
<tr>
<td>裙 -</td>
<td>kut</td>
<td>-</td>
</tr>
</tbody>
</table>

25 The different usages between /ts/ and /ch/ in the spelling of Peh-oe-ji is based on vowel position. That is, /ts/ preceding back vowels such as "tso," and /ch/ preceding front vowels such as "chi."

26 Central un-rounded middle vowel.
Classification of Writing Systems

Traditionally, people regard orthography as either logographic or phonographic writings. For example, Han characters are considered logographic or ideographic writing, and English alphabets are phonographic or phonetic writing according to general people's traditional ideas about writing systems. However, this kind of distinction between logographic and phonographic writings is not always accurate and appropriate because neither consists of only logographic or phonographic symbols in its writing. For instance, most people regard Han characters as ideograms because of the fact that every character contains its own semantic meaning. However, Li (1992:21) has pointed out that the semantic-phonetic principle, which employ both semantic and phonetic radicals in the structure of Han character, has increased from 27% (11th century B.C.) to 90% (12th century A.D.). In other words, most of the existing Han characters contain both semantic and phonographic components.

If Han characters are logographs, the process involved in reading them should be different from phonological or phonetic writings. However, research conducted by Tzeng et al. has pointed out that "the phonological effect in the reading of the Chinese characters is real and its nature seems to be similar to that generated in an alphabetic script" (Tzeng et al. 1992:128). Their research reveals that the reading process of Han characters is similar to phonetic writing. DeFrancis (1996:40) has pointed out that Han characters are "primarily sound-based and only secondarily semantically oriented." In DeFrancis'
opinion, it is just a myth to regard Han characters as logography. He even concludes that "the inefficiency of the system stems precisely from its clumsy method of sound representation and the added complication of an even more clumsy system of semantic determinatives" (DeFrancis 1996:40).

In contrast to the traditional concept of writing systems, Gelb (1952) and Smalley (1963) have pointed out a remarkable classification of orthography. That is, orthographic systems should be classified based on the sound units they represent. Under this norm, orthographies can be grouped into four levels, i.e. morpheme, syllabic, phonemic, and phonetic writings, which represent the sound units of morphemes (or words), syllables, phonemes, and phonetic features. Han characters are the best examples of morphemic writing because each Han character can be a morpheme or a word and combines with other characters to form new words. Japanese Kana is an example of syllabic writing. In the Kana syllabary, each symbol represents a corresponding syllable sound, and symbols are combined together to form multi-syllabic words. Phonemic writing systems are more widespread than others in the world's existing writing systems. Examples of phonemic systems are Korean Hangul, Peh-oe-ji, Vietnamese, English, and many other western languages. In phonemic writing, each symbol represents its corresponding phoneme sound. As for phonetic writing, it reflects all the detailed features of sound difference. This is usually the job a phonetician does to transcribe spoken language data into written form for linguistic analysis. Many people confuse phonemic with phonetic writing, and treat phonemic writing as phonetic writing.

After clarifying the classification of different orthographic systems, what will we know about the advantages and disadvantages of these four systems? The first concern to
this question is the efficiency of the writing. Generally speaking, a smaller sound unit represented by a unique symbol will be more efficient than a bigger representative unit. In other words, a phonemic writing is overall more efficient than syllabic writing, and syllabic writing is more efficient than morphemic writing. The reason is because human languages always have a limited number of consonants and vowels (these sounds can be regarded as phonemic units), and a higher number of phonemic combinations (to form syllables) and an even greater number of syllabic combinations (to form multi-syllabic words). For example, in Taiwanese there are 18 consonants and 6 vowels (see Table 2 and Table 3), and they are represented by only 17 alphabets in the Peh-oe-ji phonemic writing. However, there are around 15,000 Han characters collected in the E-mng-im dictionary, and 47,035 in the Kangxi Dictionary (康熙字典 1716). Consequently, the high number of Han character becomes a burden on its learner, and may cause some further problems as Chen pointed out "to a large responsible for the country's high illiteracy and low efficiency, and hence an impediment to the process of modernization" (Chen 1994:367).

As for phonetic writing, although it transcribes smaller sound units than phonemes, it does not increase the degree of efficiency. The primary reasons are that a phonetic transcription is more complicated than a phonemic one, and a native speaker may not be aware of the different phonetic features, which require highly trained ears to detect. Consequently, as Smalley (1963:5) says "a genuinely phonetic writing system can never be the basis for a popular orthography." Therefore, phonetic writing is not widespread except among linguists.

30 In terms of DeFrancis (1990), the Han writing system is a form of morphosyllabic writing.

Evaluation of the Peh-oe-ji

Smalley (1963:34-52) has proposed five criteria of an adequate writing system. We may examine the Peh-oe-ji writing system based on Smalley's criteria listed as follows:

(in order of importance)

- Maximum motivation for the learner, acceptance by its society, and controlling groups such as the government.
- Maximum representation of speech.
- Maximum ease of learning.
- Maximum transfer.
- Maximum ease of reproduction.

All the strengths and weaknesses of Peh-oe-ji come from its nature of phonemic writing. In terms of efficiency, the ease of learning to read and write Peh-oe-ji becomes a higher motivation than Hanji for its learners. In the former agricultural society, most people were peasants who labored in the fields all day long, and they had little interest in learning complicated Han characters. In contrast to Han characters, the ease of learning Peh-oe-ji provides those farmers a good opportunity to acquire literacy. This is one of the reasons why there are a certain amount of people who do not command any Han characters except Peh-oe-ji. Although Peh-oe-ji has maximum motivation for individual learners, it may not have the same motivation for the Han dominated society and government. Chiung's (1999) empirical studies of 244 college students' attitudes toward various contemporary Taibun writing schemes have revealed the fact that Mandarin and Hanji educated college students tend to favor Han characters more than Roman scripts.

31 Huang (quoted in Xu 1992:70) estimated that by 1955 a total of 115,500 people in all Southern Min speaking areas such as Hokkian, Malaysia, and Taiwan could use Peh-oe-ji. 32,000 of them were Peh-oe-ji users in Taiwan.

As for the attitudes of the Chinese KMT government (1945-2000), Peh-oe-ji is not only excluded from the national education system, but is also restricted on its daily use. For instance, the romanized *Sin Iok* (New Testament) was once seized by KMT in 1975, because Hanji was considered the only national orthography, and romanization was regarded as a challenge to KMT's Chinese nationalism.

To have a maximum representation of speech usually requires a good linguistic analysis on the language before devising its orthography. Campbell's "E-mng-im Sin Ji-tian" of 1913 has shown the achievement of missionaries' linguistic knowledge on Amoy or Taiwanese. Campbell's choice of symbols for representing Taiwanese consonants and vowels are listed in Table 5 and Table 6 based on their articulation manners and places. In Campbell's dictionary, he uses a total of 24 symbols to represent 23 Taiwanese phonemes (i.e., consonants and vowels), and those symbols consist of only 17 roman letters. Campbell's analysis and choice of symbols are pretty accurate and efficient at some certain levels in terms of modern linguistics. For example, he primarily assigns a single letter (except /ch/) to a phoneme. The letters he assigned to sound segments are very close to the IPA system (International Phonetic Alphabet), which is adopted by many contemporary linguists for transcribing linguistic data. If it is difficult to avoid having two letters representing a phoneme, he tries to make the symbol easy and have rules to follow up. For example, 'h' indicates 'aspiration' when it is attached to p, t, k, or ch, and it represent glottal stop when it occurs in the final position of a syllable. Other than these two situations, 'h' refers to a glottal fricative sound.

Overall, Campbell's choice of phonemic symbols is pretty good. The only controversial point is the alveolar voiceless affricate sounds. What Campbell distinguishes between 'ch' and 'ts' is actually 'phonetic' rather than 'phonemic' differences.
In his orthography, 'ch' occurs if followed by a front vowel, and 'ts' occurs in any other situation. It is clear that 'ch' and 'ts' are in a complementary distribution. That is to say, he could choose either 'ch' or 'ts' to represent the phonetically different but phonemically identical segments.

**Table 5. Representative symbols for Taiwanese consonants in Peh-oe-ji.**

<table>
<thead>
<tr>
<th></th>
<th>bilabial</th>
<th>alveolar</th>
<th>velar</th>
<th>glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>voiceless stop</td>
<td>p / ph</td>
<td>t / th</td>
<td>k / kh</td>
<td>h</td>
</tr>
<tr>
<td>voiced stop</td>
<td>b</td>
<td>g</td>
<td></td>
<td></td>
</tr>
<tr>
<td>voiced flap</td>
<td>l</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>voiceless fricative</td>
<td>s</td>
<td></td>
<td></td>
<td>h</td>
</tr>
<tr>
<td>voiceless affricate</td>
<td>ch(ts)/chh</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>voiced affricate</td>
<td>j</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>voiced nasal</td>
<td>m</td>
<td>n</td>
<td>ng</td>
<td></td>
</tr>
</tbody>
</table>

**Table 6. Representative symbols for Taiwanese vowels in Peh-oe-ji.**

<table>
<thead>
<tr>
<th></th>
<th>front</th>
<th>central</th>
<th>back</th>
</tr>
</thead>
<tbody>
<tr>
<td>high</td>
<td>i</td>
<td>u</td>
<td></td>
</tr>
<tr>
<td>mid</td>
<td>e</td>
<td>o</td>
<td>o'</td>
</tr>
<tr>
<td>low</td>
<td></td>
<td>a</td>
<td></td>
</tr>
</tbody>
</table>

In addition to the choice of phonemic symbols, the spelling in Campbell's dictionary is also pretty simple. His fundamental principle of spelling is to do phonemic transcriptions of spoken language. That is, write down phonemically what you hear. His second principle is to treat Peh-oe-ji as an independent orthography once the spelling of words are confirmed, instead of a supplementary phonetic tool to the learning of Han...
characters. In Campbell's opinion, the spelling of the romanized Bible (1873) was considered the official orthography of Peh-oe-ji. Therefore, as Campbell described in the preface of his dictionary, "none of the current words whose spelling differs from that standard were taken in." He made efforts to maintain that existing Peh-oe-ji orthography. The issue of spelling of Peh-oe-ji is still controversial among some of its users Today. For example, people have tried to replace the existing forms such as 'ian,' 'oa,' and 'eng,' with 'en,' 'ua,' and 'ing.'

Although romanized Peh-oe-ji has the strengths of maximum representation and efficiency, many people suspect its capacity of being used as an independent orthography because they thought that romanization is too deficient to differentiate homophones. Such questions to the romanization of Asian languages have been raised for a long while since the nineteenth century in the Hanji cultural sphere (cf. DeFrancis 1990; Hannas 1997; Chen 1999). As matter of fact, romanization can differentiate homophonous morphemes as well as Han characters. It just depends on how the spelling of the romanization is devised in order to make semantic distinctions. For example, in English, see and sea are spelled in different ways to refer to different things with the identical pronunciation. To, too, and two is another example from English. As for Taiwanese, for example, Kho-kun (科根) is proposed by Kheng-Chiu Tan as a system to write Taiwanese. Basically, Tan defines 60 categories with 60 simple symbols to refer to different semantic categories of words. He adds a symbol to each romanized Taiwanese word, so readers can distinguish the different meaning from the same pronunciation of the words. Although adding rules or affixes to spelling may increase the capacity of differentiating homophones, it can also increase the degree of difficulty of spelling, and thus reduce the efficiency and ease of learning the romanization. To what extent these methods will be applied to a romanized
writing just depends on how the designers evaluate their costs and benefits.

Maximum of transfer is another virtue of Peh-oe-ji. Since Peh-oe-ji consists of roman letters, and roman script is the most widespread orthography (Zhou 1997:3) among the world's writing systems, Peh-oe-ji users will have a more knowledgeable approach to the orthographies of other romanized languages such as English.

From the perspective of the reproduction of orthography, reproducing romanized Peh-oe-ji is even easier and more efficient than Han characters (recalling that there are a total of 47,035 characters in the Kangxi Dictionary). Compared to the small amount of roman letters and diacritic marks in the Peh-oe-ji writing, Han characters are much more difficult to be reproduced such as in typographic composition (DeFrancis 1996:19-21). In the information age, although personal computers can easily reproduce Han characters, dealing with Han characters still involves more troubles than dealing with roman scripts, such as compatibility, OCR, and machine translation.

5. Conclusion

Compared to the complicated Han writing, the romanized Peh-oe-ji is easier and much efficient to learn to read and write. Today, although many Taibun promoters have made efforts to promote Peh-oe-ji writing, its use is primarily still limited to church people and some Taibun writers. The main reasons are 1) general people's bias against orthography other than Han characters, 2) people's misunderstanding of the nature of Han characters, and 3) political restrictions on romanization. Since Hanji is exclusively taught in the national education system of Taiwan, and most people are skilled in Modern Mandarin Writing, it might be not so easy for Hanji users to accept romanization as an official orthography. However, for future generations who have not been educated in Hanji, they may choose to use romanization rather than Hanji if they have the opportunity.

to make a decision. For example, if the current *Bopomo*, which is taught through the national education system in Taiwan, can be replaced by romanization, the circumstance of using romanization will increase the possibility of promoting romanized Taibun. The roman script might be in competition with Han characters, or even replace Han characters if romanization is taught with Han character at the same time when students enter elementary school.
References
Chiung, Wi-vun Taiffalo. 1998. The influence of Hanji on Taiwanese people's linguistic perception (漢字對台灣人 e 語言認知 e 影響). Presented at 4th Annual North America Taiwan Studies Conference, University of Texas at Austin, TX.
Chiung, Wi-vun Taiffalo. 1999. Language Attitudes toward Taibun, the Written Taiwanese. MA thesis: The University of Texas at Arlington.


