

## SEJONG'S THEORY OF LITERACY AND WRITING<sup>1</sup>

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King Sejong's language planning was a great human experiment that achieved success because it was based on a sound theory of literacy and writing. Sejong's theory of 'good linguistic fit' had both scientific and humanistic motivations. Sejong wanted to provide all Koreans with a simple tool to record and read their own language, be it Korean or Sino-Korean. He hoped to alter the very concept of literacy from the ability to read (and to a lesser extent to write) literary Chinese to the ability to write and read Korean. Compared to the passive and reading-oriented literacy of the time, Sejong's vision was of a universal creative literacy, in which expressing one's ideas in writing was the central issue: Literacy is not only for the purpose of reading and composing high literature, but for daily use and for all communicative needs. Sejong believed that universal literacy results from the simplicity and easy learnability of the writing system. Simplicity does not mean superficial economy. What makes sense because it is relatable to something already known, consciously or subconsciously, is what is simple. Such a system must consist of a minimal number of motivated, distinctive signs. Sejong's own writings observe his morphophonemic orthographic principle that if meaningful units show consistent shapes, they are easier to read. The Korean writing system reflects phonological features that are psychologically salient for Korean speakers, exactly because it was invented with a goal of universal literacy and sophisticated understanding of Korean linguistic structures.

### 1. Introduction

The reign of King Sejong the Great (1397–1450, r. 1418–1450), the fourth monarch and exemplary Confucian sovereign of the Chosŏn kingdom or Yi dynasty (1392–1910), was characterized by an extraordinary level of cultural and scientific creation (Kim-Renaud 1992/97a). Sejong has long been Korea's cultural hero, but in recent years, the international community — albeit a small minority — has begun to recognize and embrace Sejong as a historical figure who advanced the human condition. Today, the word *Sejong* evokes high intellectual and cultural standards, and is widely chosen as a name for everything from a simple tea room and a beauty parlor to a major cultural center, a scientific research institute, and a university in Korea, and in the international arena, from weekend schools for ethnic Koreans, to an endowed chair at Columbia University, and a multinational music ensemble formed by Juilliard graduates.

Of all of Sejong's achievements, the Korean alphabet, known as *Han'gŭl* [The Han (Korean/Great/Unique) Script] today, has received the most serious attention and even praise from the world.<sup>2</sup> The Korean alphabet stands out not only because of the certain historical identification of its inventor and the time of invention, but also because of the recording of the theoretical underpinnings behind its invention. The alphabet, originally called *Hunmin Chŏng'ŭm* [Correct Sounds for the Instruction of the People], suddenly announced in the 12<sup>th</sup> month of Sejong's 25<sup>th</sup> year (December 1443/January 1444) with no prior mention, was officially proclaimed in 1446. The proclamation document, also called *Hunmin chŏng'ŭm*<sup>3</sup> was a kind of handbook for learning the alphabet, as well, with explanatory treatises and examples called *Hunmin chŏng'ŭm haerye* [Explanations and Examples of the Correct Sounds for the Instruction of the People, *Haerye* hereinafter]. Sejong's theory of literacy, which is linguistically and sociolinguistically motivated, is simply but clearly laid out in these two texts.

However, the original proclamation document was missing for a long time. Its miraculous recovery in 1940 was indeed one of the most significant events in recent Korean — and human — history. In 1997 UNESCO voted to include this document in its Memory of the World register.<sup>4</sup> Almost a decade before then, in 1989, UNESCO had established the King Sejong Literacy Prize, to be awarded to organizations that have helped fight illiteracy. The conference at the distinguished University of Illinois, which brought together so many eminent scholars of writing systems or grammatology (Gelb 1952, Daniels 1996:3) to commemorate the 600th anniversary of Sejong's birth, is another testimony to the tribute the global academic world is paying him for his linguistic and humanistic contribution.

In his monumental 1966 doctoral dissertation — published as a book in 1998 — Professor Ledyard discusses two opposing positions on Sejong's motives for inventing the alphabet taken by leading Korean scholars (all titles are dropped hereinafter):

- (1) a. Popular Literacy in Korean (Ch'oe Hyŏnbae 1940/71)  
Alphabet as a tool for writing and reading in Korean for every Korean;
- b. Literacy in Chinese (Yi Sungnyŏng 1958)  
Alphabet as a device to teach Korean people Literary Chinese.

Ledyard concludes that Sejong may have had both purposes in mind (Ledyard 1998:169). There certainly was 'a growing consciousness of the national language in the first four decades of the 15<sup>th</sup> century', and its need was felt for popular education projects including agricultural and medical books (Ledyard 1998:127-8). However, Ledyard (1998:131) and many other scholars (e.g., Ramsey 1992/97:49, Finch 1999:94) have claimed that, although one incentive for the invention of the alphabet may have been the encouragement of widespread literacy, the ultimate goal would have been moral education of the people rather than reading itself. When the Chinese classics became accessible to commoners, women, and children with the help of an easy writing system, thought Sejong, the basic moral principles of the Three Bonds (*samgang*) — filial piety, loyalty to king, and wifely constancy — would be upheld and everyone could live in harmony with the 'natural' order of

the Confucian universe. In fact, one of the first translation projects for which Sejong wanted to use the new alphabet was *Samgang haengsil* to [Illustrated True Stories of the Practice of the Three Bonds], a primer on the three Confucian virtues (Ledyard 1997a:34-5).

In recent essays (Ledyard 1997a:35, 1997b:34), Ledyard notes that, in Sejong's time and for quite a while thereafter, the concept of illiteracy in the strict sense applied only to the ability to read *hanmun* or classical literary Chinese.<sup>5</sup> As a compelling piece of evidence, Ledyard mentions an inscription written in Korean on the narrow side of a tombstone dating from 1536, whose main text is in Chinese. The text in *han'gŭl* is addressed to *kŭl morŭnŭn saram* 'people who do not know writing' and threatens severe punishment to anyone who violates the stone (Ledyard 1997b:34).

It is claimed in this paper that Sejong's purpose in devising a new script was to provide all Koreans with new, simple marks and a tool to record their oral language, be it Korean or Sino-Korean, as well as to read what was to be recorded using the new tool. Therefore, Sejong was hoping to alter the very concept of literacy from the ability to read (and to write to a lesser extent) literary Chinese, THE writing for Koreans at the time of the invention of the alphabet, to the ability to write and read transcription by means of the new script of what was actually spoken by Koreans. Compared to the rather passive, reading-oriented literacy of before, Sejong's vision was of a much more active and creative literacy, in which expressing one's ideas in writing was the central benchmark.<sup>6</sup>

Sejong thus was the first known advocate of *ŏnmun ilch'i* [Unification of the Spoken and Written Language], which was picked up again only at the end of the 19th century as it became a slogan of an enlightenment movement among patriotic Koreans, following a similar one in Japan, read *gembun itchi* in Sino-Japanese for the same Chinese characters (Coulmas 1988:198). In this sense, the new language policy may be considered more than a 'reform' as indicated in the title of Ledyard's book (1998). It was a linguistic coup d'état.<sup>7</sup>

My hypothesis about Sejong's motives for the invention of the alphabet, therefore, has some commonality with both models of thinking presented in (1), but departs from each of them in important ways. I also adopt the 'universal literacy' hypothesis, but with one crucial difference: For Sejong, Sino-Korean words and phrases were also Korean, assimilated into the Korean language even if they were of Chinese origin, and as long as they were used and could be read in Korean, Sino-Korean words could be written in the newly invented alphabet just like any other 'pure' Korean expressions. In fact, even the very name of the new alphabet, *Hunmin Chŏng'ŭm*, was not 'pure Korean', but Sino-Korean.

The King thus did not try to eliminate all existing Sino-Korean words and phrases, as did some fervently nationalistic linguists engaged in the 'purification' movement centuries later, during the Japanese occupation and afterwards — and quite recently in North Korea, which has been furiously practicing the philosophy of 'self-reliance' (*Chuch'e* ideology) (H. Sohn 1997:194-5). For example, Ch'oe's seminal book (1940/71) has two titles, one in pure Korean *Han'gŭlgal*, and the

other in Sino-Korean *Chǒng'ŭmhak*, both meaning 'The Study of the Korean Language'. The special word *han'gŭl* has now become part of modern vocabulary, but today — six decades after it was coined — almost no one has adopted the 'pure Korean' morpheme *-gal* (</*kal*), which was ostensibly proposed to replace the Sino-Korean bound morpheme *-hak* 'learning'. In fact, most similar attempts to replace Sino-Korean words with pure Korean have proven to be futile. People have rather opted for the Sino-Korean terms, which became much too familiar to their ears to abandon them for the newly introduced long-lost vocabulary, even if such specific expressions ever existed.<sup>8</sup>

On the other hand, I do not think Sejong's ultimate goal in the invention of the alphabet would have been to help people become literate in classical Chinese. If anything, literary Chinese, as the only written communication medium that existed at that time, was used to explain the new script. At least initially, instruction in the new script was in literary Chinese for those who had been literate in the Chinese writing system, which was used to explain the new script. Though instruction was in literary Chinese for those already literate in the Chinese writing system, ironically as a result of this program Chinese was to become a true foreign language — though, for various reasons, not immediately. Thus, the new writing system was not just for 'illiterate people', but for all Koreans. It was a kind of transcription system supplied to those who did not know Chinese characters to write down, in Korean, Sino-Korean expressions which they knew when given in Korean pronunciation.

The new writing system, it would naturally have been thought, could be used for teaching Chinese as well. This conviction was explicit in the Preface to *Haerye* by Chǒng Inji (sometimes called Postface because it appears at the end of the book):

- (2) The Korean alphabet for teaching Chinese according to *Haerye*  
 ... Using these in understanding books, one can know the meaning.  
 Using them in hearing litigation, one can get the circumstances  
 right ... (Tr. Ledyard 1998:320).

In this paper I draw evidence supporting the hypothesis just presented from three main sources: Sejong's preface to *Hunmin chǒng'ŭm*, the description and rationale of the Korean alphabet as explained in *Haerye*, and samples of early publications using the new alphabet by Sejong himself or by others who wrote under Sejong's close supervision.

## 2. Sejong's preface to *Hunmin chǒng'ŭm*

Sejong's theory of literacy and writing is simply but eloquently summarized in his Preface to *Hunmin chǒng'ŭm*, a concise and direct message, simple, but filled with humanity and dignity. For Ledyard (1998:170) and many others, it is 'of a greatness commensurate with the alphabet itself'. The hypotheses laid out in the introductory remarks are further developed by the main text of *Hunmin chǒng'ŭm*, which clearly demonstrates how a limited set of simple symbols can have a generative power to express the whole language. Explanations of linguistic principles and

specific examples also follow to introduce the new writing system in a way that made sense to 15<sup>th</sup>-century Koreans, and does to other readers, including today's Koreans with a little help. The frequently quoted preface to *Hunmin chŏng'ŭm*, which is recited by every schoolchild in Korea, reads as follows:

(3) Preface to *Hunmin chŏng'ŭm*

The sounds of our country's language are different from those of the Middle Kingdom and are not smoothly communicable with literary (Chinese) characters. Therefore, among my people, there are many who, though they have something they wish to tell, are never able to express their feelings [in writing]. Commiserating with this, I have newly designed twenty-eight letters. I desire only that everyone acquire them easily, to make them convenient and comfortable for daily use. [Tr. my own]

Sejong's motive for inventing the alphabet thus was clearly universal literacy. His theory of literacy and that of the relationship between literacy and writing were basically as follows:

- (4) a. Literacy is for everyone, and a matter of human rights, necessary for basic comfort. Those without it are to be pitied and helped;  
 b. Literacy is being able to EXPRESS one's own feelings in writing;  
 c. Literacy is enhanced by a writing system with a good linguistic fit;<sup>9</sup>  
 d. Literacy is enhanced by a sound-based writing system;  
 e. A simple writing system enhances literacy.

Sejong, an exemplary Confucian ruler with a true concern for his subjects, held a concept of literacy quite different from what was understood or expected in his day and for a long time afterwards. As Ramsey (1992/97:49) points out, in Sejong's time, universal literacy was generally not only considered unnecessary, but also inappropriate and undesirable. Many in power even considered it politically dangerous to give the general populace the empowerment of reading, and especially writing. But Sejong believed that illiteracy causes discomfort and inconvenience, and that, for the harmony and order of the nation, all his subjects should become literate.<sup>10</sup> That is why the customary term chosen for *Hunmin Chŏng'ŭm* was *ŏnmun*, (諺文) 'vernacular script' or the 'script for everyone'. This word is often translated as 'vulgar' script, e.g., by DeFrancis (1989:189), Hannas (1997: 304), Cho (MS), and Choi 1999, relying on the initial translation by Ledyard 1966.

However, as the name of the organization for the alphabet-related work established shortly after the promulgation of the alphabet was *Ŏnmunch'ŏng* [Vernacular Script Commission], it must be understood that there was no derogatory meaning associated with the term, at least in the beginning.<sup>11</sup> The word, of course, has since gained a pejorative connotation from the general perception of its being too simple and used by those who were illiterate in literary Chinese. However, in most cases it was simply a term to refer to Korean writing in contrast to Chinese, as shown in the title of *Ŏnmun chi* [Treatise on the Korean Alphabet], a famous linguistic work by Yu Hŭi (1773–1837). It is probably for this reason that Ledyard

linguistic work by Yu Hŭi (1773–1837). It is probably for this reason that Ledyard revised his translation of the name of the organization, *Ōnmunch'ōng*, from 'Vulgar Script Headquarters' (1966:102) to 'Vernacular Script Commission' (1998:139).

Many scholars have claimed that Sejong invented the new alphabet only for those 'illiterate' people who did not know Chinese characters. The word *umin* (愚民) in the Preface has been translated as 'stupid people' (Ledyard 1966:224), 'simple people' (Ledyard 1998:277) or 'ignorant people' (Ramsey 1992/97:49) who do not know Chinese characters, in agreement with the interpretation by the majority of Korean scholars, including Kim Min-su (1957:3), Kang Sinhang (1987/90:89), and Hō Ung (1997:17). However, I agree with Yu Chang-gyun (1978:9) who thinks that *umin* refers to all subjects of the king. It also seems illogical to say, 'Among the illiterate people, there are many who cannot write down what they want to say'. Only if we interpret the word *umin* to mean something like 'my dear/poor people' would the sentence in the Preface make sense.<sup>12</sup>

The cause of rampant illiteracy — or at best extreme inconvenience and discomfort experienced even by those who were literate — Sejong claimed, was the lack of linguistic fit between the vernacular and written (classical literary Chinese) languages. Although Korea is geographically contiguous to China, the Korean language is very different from Chinese, not only genetically, but also typologically. In the 2000 years or more since Chinese writing was introduced to Korea, Koreans have developed various ways to smooth the reading of Chinese classics as well as the recording of Korean vernacular. It was clumsy, even painful to use Chinese characters to write down Korean, a polysyllabic, agglutinative language with many grammatical affixes, with a canonical word order of Subject-Object-Verb — so unlike Chinese, an isolating language with the Subject-Object-Verb word order, in which many words consist of monosyllables and the syntactic relationships between words are shown by their order or by means of free-standing particles. Sejong clearly understood that writing systems are language-related and that typological differences of such a magnitude demand completely different systems. Chinese characters are probably more fitting for isolating and predominantly monosyllabic languages like Chinese, as noted by Coulmas (1997:26), but extremely cumbersome for agglutinative and polysyllabic languages like Korean and Japanese.

Sejong realized that not only the syntactic structures but, perhaps more importantly, the phonological structures of Chinese and Korean differed. Although equally unrelated typologically and genetically to Chinese, the Japanese language could be written by modifying a few Chinese characters, but Korean could not. Crucial here is the fact that Japanese syllable structure was so simple that, with a mere 50 signs derived from Chinese characters, all Japanese syllables could be covered. Korean syllable structure, on the other hand, was so complex that 1000 symbols would not have sufficed (K. Yi 1975:30–1).<sup>13</sup> Many Korean scholars think that this problem was a blessing in disguise, as it forced Koreans to keep searching for a system that would work better for them.

After various experiments to overcome the dilemma, especially in the forms of three different, but related systems, called *Hyangch'al* 'Local Letters', *Kugyöl* 'Oral Formulae', and *Idu* 'Clerk Readings', many Koreans finally found it simpler just to write in classical written Chinese, a kind of translated equivalent of what they wanted to say in Korean.<sup>14</sup> Thus they were living in a special kind of diglossia, speaking Korean, but writing in written Chinese translation (K. Yi 1975:22, Cho MS).

So, when Sejong said in his Preface, '... among my people, there are many who, though they have something they wish to tell, are never able to express their feelings [in writing],' he might have included among those 'poor' people even some presumably literate ones, because of the inherent difficulty of being a special sort of bilinguals. In fact, more than a century earlier, Ch'oe Hae (1287-1340) lamented the linguistic obstacle Koreans encountered in writing, if with a little pride for having overcome it valiantly, as he wrote in *Tongmun sŏn*, a collection of Korean writings written in Chinese (cited in Cho MS):

- (5) As writing by necessity bases itself on speech, Chinese scholars do not waste their energy because their writing is based on the native foundation. On the other hand, Koreans with their spoken language so distinct from Chinese, need to exert efforts a thousand-fold, even though the innate talents might be great. However, since the universal principles apply everywhere, a Korean masterpiece cannot be compared less favorably to a Chinese classic.

The situation of Sejong's time is well expressed, of course, in the famous Preface of Chŏng Inji to *Haerye*:

- (6) The need for a new national script according to *Haerye*:

... Since the languages of the outer kingdoms have their own speech sounds but lack characters for them, they have borrowed the characters of the Middle Kingdom to take care of their needs. This has been like a haft that ill fits its socket; how could they have been applied without difficulties? (Tr. Ledyard 1998:318)

Coulmas (1988:196) also lets us hear the voice of frustration over a similar situation of diglossia in Japan and a similar call for reform expressed by Nishi Amane in the first issue of the journal *Meiroku zasshi*, which played a central role in the enlightenment movement of the early Meiji period:

- (7) ... in our letters at present ... it is improper for us to write as we speak, as well as improper to speak as we write, since the grammars of speech and writing in our language are different. (Nishi 1875?/1976)

It is clear then that Sejong's new writing system was a direct attempt to sever the long-held, uneasy liaison between spoken Korean and written Chinese. By insisting on the necessity of a close fit between the spoken and written language, Sejong was putting forth his theory of writing and literacy. Even if Chinese characters were not so complicated, 'there is wide agreement that one's first language is

an easier starting point for literacy learning than a second language' (Coulmas 1997:27). But, then, the Chinese writing system had two further points posing fundamental problems for literacy. First, it is not sound-based, and even for various speakers of Chinese, a certain amount of diglossia was created. Second, Chinese characters are in fact complex, and often open to different interpretations. What Sejong is saying in his Preface, then, is that writing in Chinese is a stumbling block for literacy in Korea, not only because it is a writing system for a foreign language, but also because of its inherently 'undesirable' character as a script.

What are then the characteristics of an optimal writing system for literacy? First of all, Sejong claimed, a sound-based system has a better linguistic fit. Second, the writing system should be simple and easy to learn and use. Sejong dared to design such a system within a vision for a civilized society, where everyone was literate. In the history of writing, it is rare that a totally new writing system is invented by a known individual and establishes itself as the written language of a nation. Such a feat is even considered unthinkable according to some experts on writing systems (e.g., DeFrancis 1989:215 and Coulmas 1989:3).<sup>15</sup> But it is exactly what Sejong achieved (K. Lee 1997).

Some have misunderstood the statement by Ledyard (1997a:61-2) that some of the most 'cogent and ingenious' discussions on the design features of consonant letter shapes such as depictions of speech organs and cosmological explanations of vowel shapes are 'ex post facto rationalization', as saying that some randomly chosen shapes were made to look systematic or scientific by some forced justification later (e.g., Finch 1999:93). The Korean alphabet, however, does not consist of symbols that are arbitrarily selected to signify specific sounds, as is the case with nearly all other alphabets. The iconic relationship between the letters and the sounds they represent is consciously constructed, and it is clearly explained in *Haerye* accompanying the original proclamation document. In the next section some of the linguistic units represented in the Korean writing system are briefly reviewed.

### 3. Literacy and the linguistic fit

The hypothesis underlying the invention of the Korean alphabet was this: If systems are both cogent and relatable, they are easy to learn and use. Sejong also believed that native speakers have subconscious knowledge of linguistic units, and a writing system that represents various phonological aspects of the language iconically is easier to learn and use. There is no better source than *Haerye* for understanding Sejong's linguistic analyses supporting his theory of writing and literacy. Details concerning the principles behind the invention, accompanied by explanations and examples, are provided in this official commentary by the royal commission headed by Chông Inji. In fact it is this document that leads linguists to say that 'even if the inspiration for the letter shapes were to be found elsewhere than the articulatory gesture alone — and that is far from being proved — the genius of analysis that the alphabet represents remains undiminished' (Ramsey 1992/97:47).<sup>16</sup>

The first and most important event that led to the invention of the alphabet was the discovery that a syllable could be divided into three major parts, Initial (onset), Medial (vowel nucleus), and Final (coda), and that the same sound occurred in the Initial and Final positions of a syllable (Kim-Renaud 1997b:161-2). Thus was born the alphabetic system. This is clearly mentioned in *Haerye*. With the understanding of the Medial's distinctness from the Initial or Final, the first broad categorization of sounds was made, vowels vs. consonants. As Smith, Meredith, Pattison, & Sterling (1984:109) point out, 'the consonant/vowel distinction is central to most theories of speech perception, where the syllable (a vowel surrounded by consonants) is a good candidate for the smallest unit that exhibits acoustic invariance across different phonetic contexts'. *Han'gŭl*, written in syllable blocks with visually very different consonant and vowel letters, then seems to reflect this important aspect of speech perception.

*Han'gŭl* is the only alphabet which has clearly recognizable, distinct shapes for the two major categories of letters: Consonants are represented by very geometric shapes, while vowel letters consist of symbols made of either a horizontal or vertical line and a dot (a short line now). The following inventory of the Korean alphabet as used today will clearly show this:

(8) *Han'gŭl* symbols currently in use<sup>17</sup>

a. CONSONANTS

|             | LABIAL  | CORONAL | PALATAL | VELAR   | LARYNGEAL |
|-------------|---------|---------|---------|---------|-----------|
| TENSE OBST. | ㅍ /pp/  | ㅌ /tt/  | ㅊ /cc/  | ㅋ /kk/  |           |
|             |         | ㅍ /ss/  |         |         |           |
| ASP. OBST.  | ㅍ* /p*/ | ㅌ* /t*/ | ㅊ* /c*/ | ㅋ* /k*/ | ㅎ /h/     |
| LAX OBST.   | ㅍ /p/   | ㅌ /t/   | ㅊ /ch/  | ㅋ /k/   |           |
|             | ㅅ /s/   |         |         |         |           |
| NASAL       | ㅁ /m/   | ㄴ /n/   |         | ㅇ /ng/  |           |
| LIQUID      | ㄹ /l/   |         |         |         |           |

b. VOWELS<sup>18</sup>

| NONBACK   |         | BACK      |         |
|-----------|---------|-----------|---------|
| UNROUNDED | ROUNDED | UNROUNDED | ROUNDED |
| ㅣ /i/     | ㅟ /ü/   | ㅡ /i/     | ㅜ /u/   |
| ㅓ /e/     | ㅛ /ö/   | ㅑ /ö/     | ㅝ /o/   |
| ㅕ /æ/     |         | ㅓ /a/     |         |

In *Haerye*, the design principles of all letter shapes and their usage are clearly presented. Consonantal forms are iconic, or 'motivated' (Haas 1976), as they are either a depiction of articulatory activity, or the symbolic representation of the place of articulation in the case of consonants (C. W. Kim 1980/88, 1997, Sampson 1985, Kim-Renaud 1997b). For example, all apical sounds (sounds pro-

nounced at the tip of the tongue) contain the basic graphic shape ㄷ, representing the tongue touching the alveolar ridge, as can be seen in the letters, ㄴ (n), ㄷ (t), ㅌ (t'), ㅌ (tt), and ㄹ (r/l).

Once the basic letterform was designed, shapes for related sounds were created, again by a clearly defined system of modification. It is generally held that a given distinctive feature can be represented in a sound with varying degrees of strength (Stevens & Keyser 1989:81), and the Korean writing system seems to capture this fact nicely. For example, the principle of *kahoek* 'stroke addition' is explained in *Haerye*. The five basic letters, chosen from the gentlest/softest series among the consonants, were expanded with a set of systematically added strokes to create related, but phonologically stronger consonants.<sup>19</sup> *Haerye*'s description and explanation of how this system works, rightly called 'the crown jewel of Sejong's alphabetic theory' by Ledyard (1997a:40), is given in (9).

(9) Explanation of the design of the letters.<sup>20</sup>

For the initial consonants there are seventeen letters in all.

The molar sound ㄱ [k] depicts the outline of the root of the tongue blocking the throat.

The lingual sound ㄴ [n] depicts the outline of the tongue touching the upper palate.

The labial sound ㅁ [m] depicts the outline of the mouth.

The incisor sound ㄷ [s] depicts the outline of the incisor.

The laryngeal sound ㅇ [h] depicts the outline of the throat.

The pronunciation of ㅋ [k'] is a little more severe than that of ㄱ [k], therefore a stroke is added.

ㄴ [n] then ㄷ [t],      ㄷ then ㅌ [t'];

ㅁ [m] then ㅂ [p],      ㅂ then ㅃ [p'];

ㄷ [s] then ㅈ [ch],      ㅈ then ㅉ [c'];

ㅇ [h] then ㅇ [?],      ㅇ then ㅎ [h].

The principle of adding strokes in accordance with the pronunciation is in all cases the same; only ㅇ [ng] constitutes an exception. The semilingual sound ㄹ [l] and the semi-incisor sound ㅅ [z] likewise depict the outline of the tongue and the incisor, only the form is altered; in these cases the principle of adding strokes does not apply. (Tr. Ledyard 1997a:39-40)

Vowel forms, on the other hand, are designed with obviously contrasting shapes to represent contrasting groups of sounds, which are crucial in some of the most salient phonological phenomena in Korean, such as vowel harmony and sound symbolism. Vowel symbols are therefore formed out of various combinations of three basic symbols in East Asian cosmology: a dot (·) representing Heaven, a horizontal line (—) Earth, a vertical line (|) Man. Vowel symbols thus

created pair off neatly the groups of vowels distinguished by vowel-harmony rules. Different classes of sounds are categorized with terms from age-old East-Asian cosmology, such as *yin* and *yang* (see Kim-Renaud 1997b for details on this and other phonological phenomena represented in the alphabet).

Some linguists, e.g., Finch (1999:93) and W. Kim 1983, have rightfully posed the question as to why different principles were applied to creating the vowel letterforms from those for consonantal forms. For example, why was the speech organ theory applied to designing consonants, and not vowels? Why did the principle of adding strokes (*kahoek*) apply to consonantal letterforms, and why did a different combinatory principle — rather than the *kahoek* principle — apply to vowels?

It seems to me that these differences again reflect some crucial knowledge of the phonological behavior of both consonantal and vowel sounds. Consonantal points of articulation are in general easier to identify, because of the oral contact, and to describe them in terms of speech organs is much easier than it is for vowels. Modern phonological studies have shown that there is usually a different phonological 'strength' scale among consonants, but not among vowels — at least not as transparently as in consonants. In *han'gŭl* the consonantal strength scale plays a crucial role in very important language-specific phonological alternations, such as sound symbolism and various tensification phenomena (Kim-Renaud 1974/95). In *han'gŭl*, the stronger a consonant, the more strokes it has (Kim-Renaud 1997b:164).

On the other hand, in vowel phonology, vowels are divided into different harmonic groups, crucial in such phonological alternations as sound symbolism and affix alternations (Kim-Renaud 1976). Even here, the symbols are not just arbitrary choices, but iconically reflect their phonological contrasts by contrasting mirror-image letter shapes. Thus the bright vowels, explained by the philosophical term, *yang*, have a shape representing the sky/heaven above the earth or to the right of the human being, and the dark vowels by the shapes showing the sky/heaven under the earth or to the left of the human being (for further details, see Kim-Renaud 1997b).

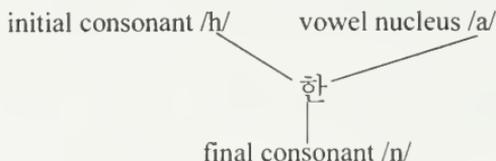
The semivowels /w/ and /y/ were shown to be essentially vowels, forming an integral part of the nuclei. Their shapes vary depending on their relative position within a syllable, and again there is a certain degree of iconicity in their form and size, representing their phonological status. Structural differences between the two vowels are also well represented in the writing system, as shown by C. W. Kim 1997.

In explaining various phonological relationships that hold among different sounds, which are reflected in different groups of graphemes, Chinese cosmological references are brought in to facilitate teaching the populace. From today's point of view, some of the explanations might look difficult, unnatural, and even pedantic. But, for 15th-century Koreans and for all learners of the new alphabet, these were readily understood concepts for which no clarification was needed, regardless of learners' social or gender status.

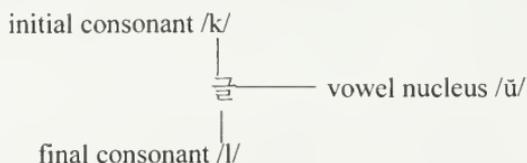
In *han'gŭl*, as in all East Asian scripts, and unlike other alphabets, letters are assembled in syllable blocks of equal sizes. For example, the name of the alphabet *Han'gŭl* (/han-kŭl/) is written as  $\text{한글}$ , not linearly (rendered 'on-line') as  $\text{ㅎ} \text{ㄷ} \text{ㄹ}$  (h) ㅈ (a) ㄴ (n) ㄱ (k/g) — (ŭ) ㄹ (r/l). When the syllable nucleus (a simple vowel or a diphthong) has a vertical long line as in the syllable  $\text{한}$ , the initial consonant is placed at the left side of it. When the nucleus has a horizontal long line, as in the syllable  $\text{글}$ , or consists of just a dot, the initial consonant is placed above it. Consonants in the coda position appear below the nucleus in all cases. The following schema demonstrates how the two different vowel nuclei call for different spatial arrangements for the consonants within the syllable:

(10) *Han'gŭl* (/han-kŭl/) in Korean writing

a. /han/ 'Han [Korea/great/one and only]'



b. /kŭl/ 'writing'



The fact that *han'gŭl* is written in syllable blocks is often given as evidence that Korean writing has been influenced by Chinese characters and cannot be considered completely original. Koreans have indeed formed some kind of aesthetic preconception of what written language should look like, and their familiarity with and appreciation of Chinese characters certainly should have played an important role, even when a totally different system was being devised. For example, just as in Chinese, depending on the number of components within a syllable, the size and shape of each element within it are adjusted so that the resulting form is always more or less of the same size; thus each syllable is harmonious with others in appearance. The stroke order of various elements within the syllable also follows conventional practice in writing Chinese characters. However, the 'influence' stops there, for the Korean syllable is different in most fundamental ways from any Chinese character in every structural aspect.

Before examining syllabic writing in Korean, an important premise needs to be understood. Although *han'gŭl* is written in syllable blocks, it is not a syllabary, as it has been labeled by some scholars, e.g., Taylor 1980. Any number of syllables could be generated based on the alphabetic inventory and the prescribed combinatory order. Just because modern Korean writing convention requires separation of words by spaces, Taylor 1980 also adds that *han'gŭl* is even a 'logography in a limited sense'. The perception is based on such monosyllabic words as  $\text{훈}$  <hŭlk>

'earth, dirt'. But any number of such examples can occur in any language and cannot be cited as evidence for the existence of a 'system'. Hannas (1997:58) also notes Martin's observation on Korean orthography that it 'incorporates representation of phoneme components, phonemes, morphophonemes, syllables and — to the extent that certain morphophonemic shapes (such as 꽃 'flower') are unique shapes — morphemes' (1972:83). However, these matters of orthographic conventions should not be confused with the basic structure of the writing system.<sup>21</sup>

What distinguishes *han'gŭl* from all other kinds of alphabetic writing wherein letters are assembled into syllabic units is that in a Korean syllable the vowel nucleus is the central element and consonants are placed around it. In most other systems using a spatial arrangement of letters into syllable blocks or syllable-like assemblage, the vowels are subordinate to the consonants in 'graphic weight' (Finch 1999:80). For example, in what Daniels calls *abugidas* (1990, 1996:4), such as the Ethiopic script of Amharic and the Devanagari script of Sanskrit and Hindi, each consonantal letter represents the consonant sound followed by an unmarked vowel, most commonly /a/, and combinations of that consonant with other vowels are represented by graphic elements added onto that consonantal letter (McCawley 1997:5-6).<sup>22</sup> As McCawley notes, an important difference between *han'gŭl* and *abugidas* such as Devanagari is that, in *han'gŭl*, not only does the individual consonantal letter not represent a corresponding consonantal sound with an unmarked vowel, as it does in *abugidas*, but consonantal letters in *han'gŭl* are not even allowed to stand by themselves, except in special cases where an individual symbol is discussed or used as part of a kind of number system — as in English *a, b, c, d, ...* to order things; a *han'gŭl* consonantal letter only appears together with a specific vowel letter (McCawley 1997:6).

*Han'gŭl* clearly shows that a vowel can form a syllable by itself, and therefore can stand by itself, but the fact that consonants cannot be pronounced easily without the support of a vowel is reflected in the writing in which no consonant forms a full syllable by itself. However, Sejong thought that the basic syllable has a CV structure, considered by the majority of linguists today as the most unmarked or natural syllable shape. And, in *han'gŭl*, when there is no initial consonant, an empty symbol (a circle) is inserted in the consonantal slot, as the examples in (8b) show. Of course, aesthetic consideration is important in this case, as the syllables filling both of the slots of C and V are more balanced with just enough complexity in them than they would have been, had they consisted of vowels only.

Another crucial — although often missed — characteristic is that there is a linear order among different elements within the syllable. Thus, even though the whole syllable comes into a visual field as a block, there is a clear indication as to what sound comes first and what next, etc. Certainly, when Taylor (1980:72) says, 'there are virtually no "disabled" readers in Korea,' she is exaggerating. I have discussed elsewhere some acquisition data in which the writing mistakes involve the wrong ordering of letters within a syllable. For example, a six-year-old wrote 명마 <möng-ma> for 엄마 <öm-ma>, interchanging the first and last letters of the first syllable (Kim-Renaud 1997b:181).<sup>23</sup> This is a kind of mistake that occurs in linearized writing, of course.

There have been many attempts in recent times to deblock or linearize (render 'on-line') Korean writing both in and outside Korea (King 1997), probably under the assumption that only then would *han'gŭl* be a true alphabet, just like the Western alphabet. However, many adherents of the linearization movement did not realize that, within the syllable block, the placement of different letters of the alphabet was not random and arbitrary.

There is also an a priori notion that syllable blocks make writing more complex and hard to decipher. However, as Coulmas (1989, 1997) has noted, a superficial appearance of simplicity may not be directly related to efficiency in reading. C.W. Kim (1997:151) agrees, pointing out that extra distinguishing 'landmarks' and 'perceptually salient visual cues', which at first glance might look like complication, seem to aid reading. In an experiment he carried out with a colleague, comparing two modes of *han'gŭl* writing — one conventional (in syllable blocks) and the other 'deblocked' and linearized (rendered 'on-line') — they found that respondents (students learning Korean as a foreign language) took as much as two and a half times as long to read linearized script as to read *han'gŭl* in syllable blocks (Kim & Sohn 1986).

In fact, M. E. Wrolstad (1980:5), like many writing theorists, finds *han'gŭl's* 'use of spatial units (or letters) of varying visual/syllabic complexity' its most interesting aspect as a system of writing. Taylor (1980:71) discusses psycholinguistic advantages of syllables over phonemes, as they are thought to be 'easier to develop and to learn than an alphabet'.<sup>24</sup> Taylor also directs our attention to other psycholinguistic findings, such as how young children find it easier to segment words into syllables than into phonemes (Lieberman, Shankweiler, Fisher, & Carter 1974) and the espousal by some psychologists (e.g., Gleitman & Rozin 1973) of the use of some form of a syllabary in teaching reading to English-speaking children.

Sejong wanted to invent a writing system first of all for Koreans, as explained in his Preface to *Hunmin chŏng'ŭm*. However, every effort was made to make the system universally applicable. The alphabet and suprasegmental markers were devised as a transcription system that could be used to cover Chinese as well, the language of the country that represented the entire civilized outside world for Koreans at the time. Sejong devised special symbols to accommodate the transcription of Chinese sounds not present in Korean (Ledyard 1997a:39). Such an idea was, of course, incomprehensible at best — but more likely considered a heresy — to intellectuals of Sejong's time. This attitude is clearly noticeable in the infamous anti-alphabet memorial of Ch'oe Malli. Ch'oe, who — as Ledyard (1998:137) notes — held the highest purely academic rank in the College [of Assembled Worthies] in early 1444, said:

- (11) ... Although from ancient times customs and local usages have differed within the Nine Lands, there has never been a case of separately making a script based on the local speech. Only types like the Mongols, Tanguts, Jurchens, Japanese and Tibetans have their own graphs. But these are matters of the barbarians, and not worth talking about. ... To now separately make the Vernacular Script is to abandon

China and identify ourselves with barbarians. This would be what they call forsaking the perfume of storax for the dungball pushed by the beetle. How can this fail to have great implications for our civilization! (Tr. Ledyard 1998:141)

Ch'oe Malli's memorial did not impress Sejong, who was firm in his conviction and his new vision of a civilized society, a vision based on his competence, humanity, and hard work. He continued to pursue his alphabet project with utmost seriousness and determination. He was the first to want to put his theory of writing and literacy into practice. Immediately after the promulgation of the alphabet, Sejong put his own talented princes and scholars of the College of Assembled Worthies to work on various alphabet projects, while continuing to work on it himself.

#### 4. Early alphabet projects and orthographic conventions

King Sejong, with his broad interest and concern for the people, was engaged in multiple publishing projects. A number of significant works published during his reign covered a wide range of fields encompassing agriculture, law, medicine, geography, history, calendrical mathematics, linguistics, literature, music, the Confucian classics, and Buddhist literature.<sup>25</sup> And many of them were closely connected to his alphabetic work.<sup>26</sup> In all these endeavors — whether new compositions, translation projects, or transliteration projects — the new alphabet provided a crucial tool for transcribing the Korean pronunciation of the texts in question.

The first orthographic decision the new alphabet users had to make was on the degree of abstractness of the alphabet in writing. Should they transcribe what is actually pronounced and heard? If not, how deep should the underlying representations be? This is an issue that certainly would have been heatedly debated at the early stage of field-testing of the new alphabet, but unfortunately there is no record of what kinds of issues and theories the king and his scholar-officials would have discussed with each other. There is one place, however, where an orthographic rule is clearly noted. It is again in *Haerye*'s section on the 'Explanation of the Final Consonants,' given in (12):

(12) Coda consonantal constraint according to *Haerye*

...it will suffice to use [only] the eight letters ㄱ k, ㅇ ng, ㄷ t, ㄴ n, ㅂ p, ㅃ m, ㅅ s, and ㅆ l for the terminal [phonemes]. (Tr. Ledyard 1998:306)

According to *Haerye*, eight Final consonants are said to be 'sufficient'. The number of consonants appearing in a syllable-final position, therefore, is much smaller than the number of consonantal phonemes in the inventory. Other consonants are not prohibited from appearing there, but it is said that they are not needed. What this means is that the authors of *Haerye* were fully aware of a particular phonological constraint concerning syllable-final consonants in Korean. It is by now well known that no coda consonant is released unless there is a vowel following it. This is a direct cause for neutralization of various syllable-final consonants (cf. Kim-Renaud 1974/95, 1978). The authors of *Haerye* knew, therefore, that the three consonants ㄱ /k/, ㄱ ㅏ /kʰ/, and ㅋ /kh/, for example, are all pro-

nounced the same — as an unreleased [k=] in syllable-final position, because unreleasing erases/neutralizes all cues for aspiration and tenseness of the consonants.

The symbol for /s/, 入, which would have been pronounced as an unreleased [t=], just as today, thus represented as many as ten underlying phonemes, 入 /s/, 从 /s'/, Δ /z/, ㄷ /t/, ㄷ' /t'/, ㅌ /th/, ㅌ' /c/, ㅌ' /c'/, ㅌ' /ch/, and ㅌ' /h/.<sup>27</sup> This is exactly what the *Haerye* authors understood. And it is no wonder that they wanted to make it a rule to write down what was actually pronounced, rather than different basic underlying forms. So, the number of consonants appearing in coda position has been drastically reduced. By doing so, they thought they were following their King's idea of making writing as close to spoken language as possible. This perception of the new alphabet as one which could transcribe any sound is well expressed in Chǒng Inji's Preface, as shown in (13):

(13) Chǒng Inji's preface on the alphabet as a transcription system

Insofar as the phonology of characters is concerned, clear and muddy can be distinguished. In matters of music and singing, the twelve semitones may be successfully harmonized. There is no application not provided for, no destination they do not reach. Even the sound of the winds, the cry of the crane, the crackle of fowl and the barking of dogs — all may be put into writing. (Tr. Ledyard 1998:320)

However, what the king had in mind was clearly different from what his scholar-officials understood. Two creative works in which the king was directly involved, one written by him and the other written under his close supervision, are particularly significant from the point of view of orthography. The very first work written in the new alphabet was a literary piece, a dynastic hymn called *Yongbiöch'ön ka* [*Song of the Dragons Flying to Heaven*, between 1445 and 1447], often abbreviated as *Yongga* [*Dragon Song*] in Korean. *Yongga* is a monumental work of a cycle of 125 cantos comprising 248 poems, which was compiled on King Sejong's order to eulogize his ancestors, including his grandfather and the founder of the Chosŏn dynasty (1392-1910). It is a rare piece of art, epic prose poetry that is sung and danced, filled with history and historical allusion (P. Lee 1975). Written both in Korean and Chinese, this work is frequently seen as a kind of field test of the newly invented alphabet. Ledyard even finds it possible that the *Yongbiöch'ön ka* 'itself was the final and decisive stimulus to the invention of the alphabet' (1997a:35). In *Yongga*, the Korean text appears first, followed by an elaborate annotation in Chinese; finally a Chinese translation of the Korean text appears as a kind of clarification.<sup>28</sup>

From a linguistic point of view, it is also an epoch-making piece of literature, in which for the first time the written language gives a direct clue as to the spoken language of the time. It was also the first practical application of the newly invented alphabet, which was expected to follow a particular set of orthographic principles laid out in *Haerye*. Curiously, however, *Yongga* did not follow a shallow or phonemic transcription as instructed in *Haerye*, but a morphophonemic principles very much like today's.<sup>29</sup> In *Yongga*, syllables with final consonants not indicated in *Haerye* abound, as examples (14) and (15) show (from K. Lee

1997:21-2). Vowel forms in (14) and (15) have been slightly modified, dots having been replaced by short lines as in Modern Korean.

|      |    |           |             |
|------|----|-----------|-------------|
| (14) | 꽃  | <koc>     | 'flower'    |
|      | ㄷ  | <kaz>     | 'edge'      |
|      | 빛나 | <pichna-> | 'to shine'  |
|      | 좃  | <coch->   | 'to follow' |
|      | 첫  | <chöz>    | 'first'     |

This orthographic practice is very much like today's. Such unusual syllable shapes for Sejong's time also occur in another important work called *Wörin ch'ön'gang chi kok* [Songs of a Moon Shining on a Thousand Rivers, 1448]. Again some examples from Ki-Moon Lee (1997:22) are given in (15)

|      |    |           |            |
|------|----|-----------|------------|
| (15) | 꽃  | <koc>     | 'flower'   |
|      | ㄷ  | <kaz>     | 'edge'     |
|      | 낮  | <nac>     | 'daytime'  |
|      | 낱  | <nath>    | 'piece'    |
|      | 맞나 | <machna-> | 'to meet'  |
|      | 웃  | <uz->     | 'to laugh' |
|      | 첫  | <chöz>    | 'first'    |

*Wörin ch'ön'gang chi kok* is generally thought to provide the most valuable material for the study of language and literature along with *Yongga*. It is well known that Sejong composed *Wörin ch'ön'gang chi kok*. This collection of more than 500 epic poems praising the greatness of Sakyamuni, was based on *Sökpö sangjöl* [Episodes from the Life of the Buddha, 1447], composed by Prince Suyang (later King Sejo) upon Sejong's command in memory of his Queen, who had died a year earlier. In *Wörin ch'ön'gang chi kok*, the main text is written completely in *han'gül*, including Sino-Korean words and morphemes. As if clarifying the meaning, Chinese characters in small size are attached like footnotes.

Ki-Moon Lee (1997:22) notes that, out of many early texts written in *han'gül* only these two works which have had Sejong's greatest attention did not follow the orthographic principle described in *Haerye*. It is noteworthy, as Lee says, that all other writings of the period followed the shallow orthographic rules prescribed by *Haerye*, including *Sökpö sangjöl*, which inspired Sejong to write his *Wörin ch'ön'gang chi kok*.

What Sejong knew, and others did not, was that the letters of the alphabet could be used at different levels of abstractness. The symbols could be used as phonetic transcriptions, like the IPA, or as a kind of morphophonemic writing, as with English spelling. Sejong's theory of writing and literacy was that if meaningful units show consistent shapes they are easier to read. So, no matter how many variant forms a morpheme would take, the constant shape would make its recognition much easier than reading all kinds of different symbols representing various actual phonetic realizations. Because native speakers would have applied appropri-

ate morphophonemic rules without even thinking, the resulting forms would have been very close to the actual pronunciation. And this is exactly what Sejong must have meant when he said the spoken and written language should be unified.<sup>30</sup>

In an agglutinative language, morpheme boundaries are often not as clearly marked as in isolating languages. Modern Korean orthography does include spaces between phonological words, but a word can consist of various morphemes, usually one major lexical class plus affixes. Writing in syllables is one way of marking the boundary, and writing underlying representations rather than surface forms make such boundaries clearer. It is for this reason that many older people who have learned a substantial number of Chinese characters and grew up using them find it easier, in fact, to read mixed script, rather than pure *han'gŭl*.

In both *Yongga* and *Wŏrin ch'ŏn'gang chi kok* such an effort to make the meaning clearer can be found. The two texts take a radically different approach in this. *Yongga* mixes Chinese characters freely in the Korean text. Whenever a lexical item is Sino-Korean, Chinese characters are written in and there is no *han'gŭl* anywhere to help their reading. *Wŏrin ch'ŏn'gang chi kok*, on the other hand, is written completely in Korean, but every Sino-Korean morpheme written in a *han'gŭl* syllable has just below it a Chinese character in reduced size, as if a backstage prompt. Both cases manifest a belief that giving some visual prominence to major lexical items enhances reading. *Wŏrin ch'ŏn'gang chi kok*, written by King Sejong, is bolder in indicating that Chinese may be helpful as clarification, but is not essential for Korean literary life. In *Yongga*, the practice seems to imply that using both systems may be not only a nice compromise, but also something totally feasible. So, in Sejong's own composition only, the whole text is written completely in Korean script. Although Sejong probably acknowledged the need for continued use of some Chinese characters for enhanced comprehension, it is possible to see that his ultimate goal was for Koreans to write only in Korean. Chinese would still need to be learned to be part of the civilized world, but only as a foreign language, as English is for Koreans today.

Indeed, the newly invented alphabet was put to use as an aid for learning Chinese. Immediately after the proclamation of the alphabet in 1443/4, a commission was appointed to transliterate the sound glosses of a Yüan-dynasty rhyming dictionary. The first publication by the Commission was *Tongguk chŏng'un* [The Correct Rhymes of the Eastern Country], a rhyming dictionary of Chinese characters used by Koreans, which was compiled at Sejong's command by Sin Sukchu, Ch'oe Hang, and Sŏng Sammun in 1447 and printed in 1448. The book was distributed to schools throughout the country.

The Chinese character readings in *Tongguk chŏng'un* realize Sejong's idea of standardizing Sino-Korean. However, they are based on a compromise between what he thought were the ideal Chinese readings of the characters and the actual readings used in Korea. Ledyard (1997a:41) says the work is today considered 'an artificial and theoretical reform that failed to accommodate the actual pronunciations of the time'. Martin (1997:264) disagrees, however. 'The king was not seeking so much to supplant the popular pronunciations given by Koreans to the Chi-

nese words that were in common use as to inform them of the richer system of distinctions that were appropriate to the characters used in Chinese texts: in effect, a reconstruction of Middle Chinese phonology in terms of the Korean sound system as represented by the hankul [*han'gŭl*] symbols, and quite pronounceable by Koreans of his day. (It was three centuries later that Bernhard Karlgren did something similar in terms of the phonetic symbols of the Swedish Alphabet Society).

Finally, the new alphabet was used in translating Buddhist books and Chinese classics. According to Ledyard (1998:338), no fewer than 17 Buddhist — some of them truly major — works were written or translated between 1447 and 1496. *Han'gŭl* in these works increasingly abandoned phonemic writing and showed more morphophonemic spellings.<sup>31</sup> Also, the shapes of the letters of the alphabet were becoming less and less geometrical and increasingly rounded due to the use of brush in writing.

One of the most important works in translation at another popular level was *Tusi ōnhae* [Vernacular Translation of Tu's Poems], a compilation of Tu Fu's poems by Cho Wi in 1481, at King Sŏngjong's command, and revised and reprinted in 1632. This literary publication for the general public is important from the linguistic and orthographical points of view, because the Korean text reflects various historical changes that have occurred in Korean, such as the loss of certain phonemes, some changes in the accentual system. Here Chinese characters are also mixed in Korean writing, and as in *Yongga*, none of the characters are given Korean readings. Slowly the mixed writing was accepted as the most convenient and comfortable system for use by the educated class. However, little by little the irresistible comfort and convenience of *han'gŭl* in daily use, illuminated by national consciousness, would make writing completely in *han'gŭl* not only acceptable, but also desirable.

## 5. Conclusion

The foremost requirement for literacy expressed by King Sejong is proper linguistic fit between the spoken language and the writing system representing the language. Sejong points out in the Preface of the proclamation document of the newly invented alphabet that the mismatch between the spoken language and the written language is the cause of rampant illiteracy among the people of his time. Second, a writing system that is sound-based makes a better linguistic fit. Third, literacy is for all people, not just a chosen few. King Sejong regards literacy as part of the human-rights issue, and he commiserates with people who are unable to express themselves in writing. Fourth, true literacy is achieved only when one can express oneself in writing actively and creatively, and not with passive recognition or guessing of the meaning of characters. Universal literacy is directly related to the simplicity and easy learnability of the writing system. Simplicity does not mean superficial economy. Things that make sense, because they are relatable to something already known, consciously or subconsciously, are what is simple. Such a system must consist of a minimal number of distinctive signs, which again are 'motivated'. Finally, literacy is not only for the lofty purpose of reading and composing high literature, but for daily use and for all communicative needs.

Because the Korean writing system is phonetically and semantically motivated, and because the system reflects some important phonological alternations, the alphabet is easy for Korean speakers to learn and to use. Sejong's orthographic principle, which modern orthography follows both in North and South Korea, was that *han'gŭl* letters are to represent what Chomsky (1964:68) called the 'systematic phonemic level'. As morphemes are transparent in Korean orthography, it is easy to read. Korean morphophonemics is complex, and morphophonemic writing, showing consistent shapes for morphemes, seems to facilitate computer treatment of written Korean, as well. Writing in syllable blocks has helped make morpheme boundaries clearer, and therefore is a way of facilitating readability.<sup>32</sup>

Sejong viewed the alphabet he invented essentially as a broad transcription system to record the Korean language or the Korean pronunciation of another tongue. The phonetic basis of the newly invented writing system is a natural consequence of several different but converging factors. Kang (1987/90) sees four important issues that concerned Sejong — adding (16d) to the similar list by Yu (1978) — as the king embarked on a major language reform:

- (16)
- a. Creation of a national writing system
  - b. Standardization of Sino-Korean pronunciation
  - c. Correct understanding of Chinese pronunciation
  - d. Study of other foreign languages

In order to fulfill all these requirements, what they needed was a kind of transcription system that would be most natural to a Korean ear and tongue.

Sejong's dream of completely replacing Chinese with the Korean alphabet might not have met with immediate response, especially among the conservative elite. And he may have allowed a transition period of mixing in Chinese characters to clarify many Sino-Korean-based vocabulary items.

A profoundly scientific scholar, Sejong believed in testing his theory by putting his ideas to work. Sejong was personally involved in various publishing projects, including creative work, translation, and transliteration projects in which the new alphabet was used. Sejong was a sage king who discovered talented people and nurtured them to perform great works at his side. Even then, he was so far ahead of his time that even the most loyal subjects did not always share his true vision.

It took 500 years, until they were at the point of losing their sovereignty, for the Korean people to realize at the official level what a precious gift the wise king had bestowed upon them. However, already in his time, those illiterate people (*kŭl morŭnŭn saram*) mentioned by Ledyard (1997b:34), and cited at the beginning of this paper, to whom the tomb inscription in *han'gŭl* was addressed, were literate. It's just that neither they nor the so-called literati knew it. In this sense, Sejong's theory of writing and literacy was proving itself to be correct even in earlier times. In fact, soon enough even the literati, in addition to women and monks, began writing in *han'gŭl* whenever their true feelings needed to be put down in writing.

The most eloquent approval of Sejong's theory of writing and literacy is found, of course, in today's universal literacy.

In spite of the existence of the document explaining the linguistic theory behind the invention of the alphabet, some scholars are less than sanguine about many of the recent analyses, which they believe are theorizing after the fact. One of the most recent and strident voices is that of Finch (1999:94):

(17) ... It is more likely, then, that the theory grew out of the resemblance that the shapes of certain letters suggested to articulatory gestures than that there was a preconceived notion from what was perceived, abstractly in most instances, as the general geometrical form of certain speech organs and articulatory gestures, of what the letters should look like. If there had been such a preexisting theory about the shapes of speech organs and articulatory gestures, there should be evidence for it in the Chinese phonological literature that King Sejong and the compiler of the *Haerye* were familiar with.

It is remarkable that Finch should believe his rather random 'derivation' of *han'gŭl* consonantal letterforms from 'Phags-pa letters by impressionistic 'simplification' methods — absolutely bereft of any consideration of Korean phonology — should be more plausible. Exactly because there had never been any theory about the shapes of speech organs and articulatory gestures in the Chinese phonological literature or anywhere else, King Sejong's creation was a true invention based on his genius.

Coulmas (1997:20-1) also agrees with Olson 1993, who states that the concept of writing as transcription is critically flawed, because 'it assumes that the inventors of writing knew what they were doing, that is, that they were aware of the structural units of language — words, syllables, moras, phonemes and the like — which needed to be represented in writing'. And, again, these are exactly the kinds of things Sejong was aware of when designing the new script, and that fact is well recorded.

Coulmas (1997:21ff), very much in agreement with Olson 1993, tries to carry linguistic relativism to writing, suggesting that different writing systems make us see linguistic structure differently. Writing thus provides a conceptual model for speech, beyond being an ancillary means of transcription of speech. As an example, Coulmas mentions that many Germans are convinced that the word-final obstruents in German such as *Tag* [ta:k] and *Hand* [hant] are voiced. He thinks they are led to this belief by the orthography, which uses letters for voiced stops (Coulmas 1997:21). This again seems to me to put the cart before the horse. Those spellings were chosen, to begin with, because native speakers know the final consonants of the underlying forms are voiced. In fact, they do not even know that they are devoiced in that environment, so automatic and spontaneous is the phonological alternation. That is exactly the kind of subconscious knowledge of which King Sejong wanted to take advantage in inventing the system. This is what I meant when I said the Korean writing system reflects phonological features that are psychologically salient for Korean speakers (see comments by Martin 1997: 268 on

Kim-Renaud 1997b). Research conducted in English, Serbo-Croatian, and Hebrew discussed in Frost 1992 and others also suggests that 'orthographic depth indeed has a strong psychological reality' (Frost 1992:272).

Finally, it is difficult not to notice that the kinds of writing systems and literacy rate in different societies do not seem to indicate that there is a close relationship between the two. Coulmas (1997:28-29) notes that literacy in Taiwan is much higher than in China, where abbreviated characters are taught, and that Japan enjoys near universal literacy, although its system is so involved, compared to some other countries with very simple writing systems.

The typological fit between writing and spoken language could also be at issue. For example, Lindsey Eck (personal communication) notes, as does Hannas (1997:75-9), that Vietnamese shares many typological characteristics with Chinese. Like Chinese, it is an isolating language whose forms are not inflected and whose grammar is based largely on the order in which morphemes appear in sentences. It is also a tonal language with monosyllabic morphology, in which the syllable plays a crucial role as a basic phonological and morphological unit, like Chinese. Vietnamese syllables are almost always morphemes, presumably good candidates for writing in Chinese characters (Hannas 1997:79). However, Vietnamese saw its literacy so impeded by the unsuitability of Chinese-based writing that literacy waited till European missionaries introduced the Latin alphabet.<sup>33</sup>

Clearly many factors beyond the choice of writing system lead to a high literacy rate. Things like respect for knowledge, degree of learning, and economic and political systems that call for a fully literate society will play a crucial role, as Coulmas (1977:29) points out. On the other hand, it would be absurd to say that writing and literacy have little to do with each other. Jaffré (1997b:33) also questions whether the complexity of the writing system is really not a significant variable in the literacy equation. He notes that even among Romance languages, French children encounter many more problems in mastering writing than, say, Spanish or Italian children do. In fact, in another article, Coulmas (1988:194) himself quotes a Japanese linguist Kindaichi Haruhiko (1957:5), who said: 'European children generally learn how to read and write their own language in two years in Italy, three years in Germany, and in Great Britain, where it takes longest, five years. In Japan, even after six years in elementary school and three years in junior high school, a pupil cannot adequately understand the newspaper', Unger 1987 goes so far as to say that 'what masquerades as universal literacy in Japan is a facade ...' [quoted in Hannas 1997:285]. The Vietnamese and Turkish 'success' in literacy with a radical experimentation with the Latin alphabet must say something about the alphabetic system of writing, and its linguistic fit.<sup>34</sup>

In comparison, Korean children really take very little time to learn to read and write. Nowadays, almost all Korean children know how to read before even getting to school (Taylor & Taylor 1983:86).<sup>35</sup> How easy *han'gŭl* is to learn was already mentioned in Chŏng Inji's Preface to *Haerye*:

(18) Chŏng Inji's Preface on the easy learnability of *Han'gŭl*

Although only twenty-eight letters are used, their functional applications are endless. They are simple and fine, reduced to the minimum, yet universally applicable. Therefore intelligent people can understand them before the morning is over, and even the simple can learn them in a decade of [ten] days. (Tr. Ledyard 1998:319-20)

This passage depresses some of my students, but even foreigners appreciate the simplicity of the writing system, as they try to learn Korean, and thank its creator.

Some Koreans, e.g., Hyun-Bok Lee (1992), have advocated that *han'gŭl* should become a kind of international phonetic alphabet with a modification of letters in its inventory. It certainly is feasible to create what may very well be a more logical and easier system than the one by the IPA. However, just as King Sejong said at the outset, a good linguistic fit between written and spoken languages is most crucial for literacy and writing. Newly created symbols to accommodate all kinds of foreign sounds certainly would have no meaning to Korean speakers and readers. It certainly is not a good idea to learn a foreign language using the Korean alphabet, even if it could be fine-tuned, as a heavy Korean accent will be guaranteed. An early attempt to make the Korean alphabet a true phonetic transcription system for international use was not very successful and thus was quickly abandoned. *Han'gŭl* is a system for the Korean language. And only as Korean writing will its qualities be fully appreciated.

King Sejong's coup of bold language planning was a great human experiment, which culminated in tremendous success, exactly because it was based on a sound theory of literacy and writing. Sejong's theory of 'good linguistic fit' had both scientific and humanistic motivation. Today, with *han'gŭl*, Koreans are fully enjoying a comfortable literary life, just as Sejong wished and his theory predicted. The classless concern by this man of a distant era in a very class-conscious society for improving everyone's daily life through effective science and good government is still powerfully relevant today; Sejong's vision of a civilized society in which everyone is literate is now shared by the world, with the establishment of the Sejong Literacy Award at UNESCO.

There are two broad concerns about the future of *han'gŭl*. One frequently asked question these days is, in this globalizing world in which the internet and other communication channels make English a language of choice, will Koreans eventually abandon *han'gŭl* (Cho MS)? Most likely not. Again, linguistic fit will be a major issue here. Koreans might opt for true bilingualism, Korean + a foreign language, but would not go back to the painful days of digraphia. Even in e-mail messages, people rarely romanize Korean, but just write in English when they use a computer not equipped with Korean-language software. Romanization is not one-to-one in any commonly used system (see Appendix 4 in Kim-Renaud 1997a), and Koreans find it very cumbersome to use any of those available now.

Another issue concerns whether language change will cause separation between spoken and written languages in Korean. *Han'gŭl* has proven to be remarkably good in this respect. For example, even with great changes, such as mo-

nophthongization, the script adjusted sound values of letterforms very well to fit the new phonemic inventory, and a rich array of new front vowels has been effortlessly accommodated by the writing system. Some ongoing changes, such as the merger of mid and low front vowels (Hong 1991) and bi-syllabification of front round vowels, may create distance between the spoken and written languages. At the same time written forms also influence pronunciation, as is well known. For *han'gŭl* to maintain its good linguistic fit, periodic orthographic reforms will be necessary, like the ones Koreans have had during the last century. Here again, Sejong's scholarly approach backed by strong empirical work should serve as a model. If necessary, data from various forms of the vernacular language are collected in a systematic manner and scientifically analyzed before applying the information to orthographic renovations, then *han'gŭl* can be expected to keep its linguistic fit.

### NOTES

<sup>1</sup> A revised version of the paper presented under the title 'King Sejong's Theory of Literacy' at the Symposium on Literacy and Writing Systems in Asia Commemorating the 600th Anniversary of the Birth of King Sejong of Korea, The Center for Advanced Study, University of Illinois, Urbana-Champaign, May 1-2, 1998.

The McCune-Reischauer system of romanization is used in this paper. I am indebted to Victor H. Mair for drawing my attention to the recent publication by Roger Finch 1999. I also thank Lindsey Eck for his most helpful comments and suggestions on the first draft of this paper.

<sup>2</sup> The word *han'gŭl* is supposed to have been first used by Chu Si-gyŏng in 1910. Ch'oe (1940/71:52) offers three different meanings — 'one [and only] or unique', 'great,' and 'correct' — for the syllable *han* in *han'gŭl*. The rather unusual interpretation of 'correct' for *han* is an effort to relate it to the syllable *chŏng* (correct) of the original name *Hunmin Chŏng'ŭm*.

<sup>3</sup> However, in English translation, following Ledyard's (1966), the two are distinguished. The book has only one initial letter capitalized, while the name of the alphabet has two capitalized letters. The Korean writing system in general, regardless of the period, will also be called *han'gŭl* throughout the paper.

<sup>4</sup> Also so voted was *Chosŏn wangjo sillok* [Veritable Records of the Chosŏn dynasty], a result of long tradition inspired by Confucian historiography of keeping a faithful record of the actions of the rulers, officials, and the people, and the actions of man and nature (Peterson 1992:15).

<sup>5</sup> Many Korean- and Japanese-studies specialists share this view, as well. Indeed, 'true writing' (眞書) in traditional East Asia meant literary Chinese (Jones 1999:175). As Hannas (1997:51) says, *han'gŭl* 'for most of its history was regarded as a poor person's substitute for *real* writing, which was either classical Chinese (*hanmun*) written in characters or stilted Korean written in Chinese characters used — as in Japanese — to represent Korean sounds or as symbols for Ko-

rean synonyms' (51). Finch (1999:85) even translates *Hunmin Chǒng'ŭm* as 'The Correct Sounds for Teaching the People to Pronounce Chinese Characters' (85), with an interpolation of 'to Pronounce Chinese Characters,' certainly due to a similar idea.

<sup>6</sup> Coulmas (1997:25) thinks that the title of the new script, *Hunmin Chǒng'ŭm* [Correct Sounds for the Instruction of the People], has the 'reading' perspective rather than writing, but does not offer any specific argument for or discussion on this view.

<sup>7</sup> Along with most writing theorists of today (Gelb 1952, Vacheck 1973, Sampson 1985, Catach 1988a), I regard written language as a form of language, departing from the Saussurian and structuralist tradition of considering only the spoken forms as true language (Saussure 1972, Bloomfield 1933). Note, however, the nature of the relationship between written and spoken languages as well as the possibility of recognition of their coequal status with respect to language varies depending on scholars (Catach 1988b, Jaffré 1997a, Hannas 1997:231-40).

<sup>8</sup> Hannas (1997:51) describes a continued practice of neologism based on Sino-Korean roots as follows: '... the availability of rules of redundancy allows [Chinese] character-literate Koreans to go on borrowing and inventing new Sinitic terms, digging the hole even deeper'. Clearly Hannas joins the 'purification' school, which refuses to recognize that the use of Sino-Korean roots is not a continued borrowing, but rather important evidence for their nativization, just as some Latin roots have become very productive in neologism in English and other languages.

<sup>9</sup> The expression 'linguistic fit', as used in Kim-Renaud (1997a:ix) and Coulmas (1997:20), is based on the premise that the constituents of writing systems represent units of the language rather than conceptual elements.

<sup>10</sup> Ahn (1997b), after carefully examining the original text, reinterprets the expression *p'yŏnŏiryong* (便於日用) in the Preface of *Hunmin chǒng'ŭm* as 'comfortable/convenient for daily use', with more emphasis on 'comfort' than 'convenience'. Ahn notes that Sejong believed that being literate gave a person a true feeling of 'comfort'. Thus this expression refers to more psychological COMFORT and peace of mind rather than just physical CONVENIENCE.

<sup>11</sup> Of course the word 'vulgar', especially in talking about a kind of language, originally had the meaning of 'vernacular', as in Vulgar Latin and Vulgar Arabic (Mitchell 1982:124). However, in translating *ŏnmun*, the word 'vulgar' has been invariably given a pejorative meaning in recent literature, and therefore should be avoided.

<sup>12</sup> In traditional East Asia, referring to people close to one as 'stupid' or 'mediocre' in a self-deprecating way is not unusual. Such expressions as 'my stupid son' or 'my ignorant wife' were very much part of the polite language.

<sup>13</sup> Actual figures are different depending on linguists who count the number of syllables differently. e.g., about 1,100 for Hannas 1997, 2,000 for Taylor 1980, but 11,000 for Kim-Renaud 1997, and 10,250 for Martin 1972.

<sup>14</sup> For more detailed descriptions of these systems, see Ledyard 1998:31–83 and Fabre 1980. In these writings, existing Chinese characters were applied phonetically to represent Korean sounds, particularly those for grammatical particles and phrases, as well as proper nouns.

<sup>15</sup> However, Coulmas (1989:118) notes elsewhere in his book that Sejong 'is credited with providing his people with what is probably the most remarkable writing system ever INVENTED [emphasis mine]'.

<sup>16</sup> Evaluating various 'inspiration' hypotheses is beyond the scope of this paper. See Ahn 1997a, Ledyard 1998, W. Kim 1983, H. Yi 1990, Song 1998, and Finch 1999 for some interesting hypotheses and discussions on the topic.

<sup>17</sup> In this inventory of the alphabet, symbols appearing in // are phonemic representations, /C<sub>i</sub>C<sub>i</sub>/ representing a fortis consonant, /C'/ a heavily aspirated consonant, /ng/ a velar nasal consonant, and /i/ a high back unrounded vowel. The phonological analysis of the Korean language is basically the same as the one found in Kim-Renaud 1974/95, but the symbols used there are slightly different. *Obst.* stands for 'Obstruent' and *Asp.* for 'Aspirated'.

<sup>18</sup> Vowel letters are represented next to circles occupying an empty consonantal slot to show their relative position vis-à-vis consonants within a syllable. The short lines in the vowel forms were originally small dots. They soon evolved into short strokes, clearly as a consequence of writing in brush, the medium of calligraphy in East Asian tradition. Some of the many forced arguments made by Finch for his hypothesis of a 'Phags-pa origin of *han'gŭl* suffer from the fact that he is not aware of the original shapes, such as the dots in vowel letters. For example, he says, '... the Korean letter u, a horizontal stroke with a shorter perpendicular stroke written down from the middle of it is very much like the hP'ags-pa ['Phags-pa] letter for initial o- without the two diagonal strokes'. (Finch 1999: 91)

<sup>19</sup> There exist in *han'gŭl* some apparent anomalies and unusual phonetic characteristics in certain letter shapes. Even the *Haerye* authors were aware of some of these, as seen in the last part of the text given in (9). Other hypotheses (S. Lee 1997), including the aesthetic consideration, have been proposed. Phonological behaviors of graphically related symbols, such as the ones in the 'throat sounds' also offer possible explanations (e.g., Kim-Renaud 1997b:166-8). Finch (1999: 92) rightly says that bilabial position 'can hardly be called <<square>>' and the symbol for <s> 'should be an upright <<V>>, not an inverted <<V>>' if it were depicting the actual articulation. Indeed, because of the difficulty of creating unambiguous symbols depicting the actual articulation of these consonants, Sejong chose instead symbolic representations for the speech organ that is involved in the articulation of each of the sounds. In doing so Sejong chose as basic shapes from two familiar Chinese characters: the square for the mouth (口) and the inverted 'V' within the character meaning 'teeth' (齒).

<sup>20</sup> For different interpretations and discussions on specific sounds and variations, see articles in Kim-Renaud 1997a, including Ledyard 1997a.

<sup>21</sup> Various scholars, e.g., Wrolstad 1976, Olson 1982, and Hannas 1997, have pointed out the word as a visible and not oral linguistic concept. Writing specialists such as Jaffré 1988 also inform us of the linguistic significance of phonetically indistinguishable written (or unwritten) devices, such as the French feminine marker *e*, capitalization, and blank space in writing, but I regard the question of the degree of abstractness in the phonological representation, such as the case of the French feminine marker *e*, as belonging to the domain of orthography.

<sup>22</sup> Dividing consonantal scripts into two groups, Daniels (1990, 1996:4, 2000) has named the consonant-only type *abjad* (a name derived from the first four letters of the Arabic script) and the other, such as the Ethiopic script of Amharic and Devanagari script of Sanskrit and Hindi, *abugidas* (a name derived from the first four consonants of the Ethiopic script).

<sup>23</sup> In contemporary Korean, the symbol 'o' represents [ŋ] in syllable-final position and nothing in syllable-initial position, but the two were distinct at the time of the invention of the alphabet. The nasal had a short vertical stroke above the circle.

<sup>24</sup> Unfortunately, Taylor constantly confuses the word 'syllable' with 'syllabary'. That *han'gŭl* is not a syllabary was pointed out earlier.

<sup>25</sup> Sejong's projects included improving printing techniques, both in xylography (wood blocks) and typography using movable metal type. See P. Sohn 1992/1997 for various innovations in this area during Sejong's reign.

<sup>26</sup> For an extensive discussion on the early history of the Korean alphabet, which includes various alphabet projects, see Ledyard (1998:323-99).

<sup>27</sup> The letter  $\Delta$  /z/ fell into disuse in the course of history, as /z/ has been lost as a distinctive sound in Korean.

<sup>28</sup> There is no consensus as to which one of the Korean and Chinese texts was written first or to whether they were written simultaneously. Whatever is the case, the actual publication puts the Korean text first.

<sup>29</sup> Strictly speaking, *han'gŭl* orthography today represents what Chomsky (1964:68) called the 'systematic phonemic level,' not unlike what Aronoff 1978 termed 'lexical representation'. In both North and South Korea, therefore, a string is written phonemically, except when it is further analyzable into smaller morphological units, in which case the underlying forms are given (H. Sohn 1997:194).

<sup>30</sup> A similar notion must have been behind what is often considered a shocking claim by Chomsky & Halle (1968:49) that English is an 'ideal' representation of the underlying structure of the English language (cf. DeFrancis 1989:205, Hannas 1997:243).

<sup>31</sup> Ledyard (1998:338) considers morphophonemic orthography more 'practical', but not as 'theoretical'. The prevalent idea of the period when Ledyard wrote his dissertation (Ledyard 1966) was that phonemic writing was an ideal type. Ki-Moon

Lee, one of the authorities Ledyard consulted, also held this view at the time, but changed his stance soon afterwards (K. Lee, personal communication).

<sup>32</sup> Research by Hulme, Snowling, & Quinlan 1991 (reported in Ainsworth-Darnell 1998:104) shows that the children who learn to read the fastest are those that are conscious of symbol-sound relationships at the letter, rime, and whole-word levels. Iksop Lee 1985 also discusses how semantic decoding is aided by writing in syllable blocks.

<sup>33</sup> DeFrancis (1977:54 cited in Hannas 1997:85) says that the first 'systematic scheme for romanization of Vietnamese' is found in Fr. Alexandre de Rhodes' *Annamese-Portuguese-Latin Dictionary*, which appeared in Rome in 1651, the first known published work in romanized Vietnamese. However, educated Vietnamese preferred writing in French, especially during the Colonial period, and it is only with the French departure in 1954 that 'the native language became the primary means of intellectual communication at all levels', which explains their 'success' story in literacy (DeFrancis 1989:243).

<sup>34</sup> The Pinyin system for Chinese is another example, except that, owing to the existence of massive language variation in Chinese, many Chinese still do not escape the diglossic situation.

<sup>35</sup> According to Sakamoto & Makita 1973 (cited in Henderson 1982:210), Japanese children also learn the syllabary before entering school. Certainly, one could say the zeal for education is more responsible for this early achievement, nevertheless, one cannot help noticing the simplicity of the syllabary and *han'gŭl*. For example, note that even Japanese children do not have kanji before going to school, and knowing the syllabary is not sufficient for a Japanese person to be functionally literate in Japanese, while knowing *han'gŭl* can be for a Korean.

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