Literacy: An International Handbook

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Languages and Scripts in Contact: Historical Perspectives

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Historically, literacy has spread through contact between peoples who spoke written languages and those who did not. Contact results from trade, religious proselytizing, and schooling, the last often in cases of conquest and occupation. Three thousand years ago there were an estimated half million bands, tribes, chiefdoms, and states—all independent political units. Today, there are about six thousand languages spoken in around two hundred countries. Languages are thus now in contact more than ever.

The Spread of Writing

Writing was invented independently at least twice. Some scholars hold that all early writing systems in the Old World derive from a single invention (around 3200 B.C.E.) that was spread by culture contact. The writing of the ancient Indus civilization, around 2500 B.C.E., for example, may have been stimulated by contact with traders from the Middle East. Others argue that writing was invented independently in what is today Iraq, Egypt, India, and China.

There is general agreement that writing was invented independently in the New World, specifically in Mexico. The Olmecs developed a writing system of at least 182 glyphs, and the system was widespread in Mexico by 600 B.C.E. (King 1994). In fact, there may have been as many as fifteen different writing systems in pre-Hispanic Mexico. The spread and development of indigenous writing systems were cut short by the arrival of Europeans in the sixteenth century and the subsequent destruction of nearly all pre-Columbian manuscripts. (Indigenous writing has continued in Mexico and elsewhere in Latin America since 1521, but in the alphabetic script brought by the conquerors from Europe.)

The early scripts of the Middle East evolved into syllabaries and alphabets used in writing languages across the world. These are more generally called *phonographic* systems; that is, they comprise characters that represent a set of phones, or sounds. The writing system invented in China during the Shang period (1750–1040 B.C.E.) remained *logographic-syllabic*; it comprises characters that represent words and syllables. This system evolved into the characters used, in various forms, for

writing Chinese, Japanese, Korean, and Vietnamese.

Phonographic Scripts

The earliest writing system, known as cuneiform, is logographic-syllabic and dates to the late fourth millennium B.C.E. from Mesopotamia in what is today Iraq. It was developed to write Sumerian and was later adapted by the Akkadians, a Semitic population, to write their own, entirely different language. Various logographic-syllabic scripts continued to be developed in the third and second millennia B.C.E. throughout the ancient Near East and Mediterranean area, including Egypt, Turkey, and Greece (Morpurgo Davies 1986).

By 1100 B.C.E., speakers of Semitic languages (Phoenician, Hebrew, Aramaic) had developed a script that contained symbols representing consonants. (The grammar of Semitic languages does not require the full marking of vowels.) Modern Arabic and Hebrew scripts are both derived from the early Semitic.

Historically, Jews have been an isolated ethnic-religious group within multiethnic states and have adapted Hebrew (maintained in religious study) to write the national languages they spoke. These included Yiddish (derived primarily from German), Judeo-Arabic (spoken by Jews across the Arabic-speaking world), Judeo-Spanish (based on Spanish before 1492 when the Jews were expelled from Spain), and Judeo-Tat (spoken by perhaps twenty thousand Jews in Russia and Azerbaijan) (Harris 1994). In these cases, the social isolation of an ethnic group, in constant economic contact with dominant groups, produced corpora of written works that encouraged and supported literacy—and that were wholly inaccessible (written in Hebrew characters) to members of the dominant cultures.

Arabic is among the most widely used alphabetic scripts, having spread with Islam. Besides Arabic, the script is used for writing other languages used by Muslim populations: Pashto, Farsi, Kurdish, Urdu, Sindhi, for example, and several Berber languages. From 1300 to 1928 C.E., Arabic script was used for writing Turkish (written today with a Roman-based script), and Arabic is now becoming an alternative to Cyrillic scripts for writing the Turkish and Iranian languages of the former Soviet Union (Kaye 1996). One form of Arabic, Maltese, is written with a Roman script, the consequence of Christian influence. Although modern Persian (Farsi) is written in Arabic script, ancient Persian was written with a Semitic (Aramaic) script beginning in the second millennium B.C.E. Persians brought their script to Altaic peoples (Turks, Mongols) during the sixth through eighth centuries C.E. (Kara 1996).

Around 750 B.C.E., the Greeks adapted one variety of the Semitic script (probably Phoenician), adding some symbols for vowels and consonants that were needed for writing Greek. This innovation produced the alphabet, a writing system on which many modern scripts are based. Some of the earliest Greek texts were written right to left, showing the influence of contact with Semitic-speaking peoples, but writing left to right was established by around 500 B.C.E.

Through conquest and trade, the ancient Greek script was adapted by speakers of Phrygian, Lycian, Lydian, Coptic, and Etruscan, all long extinct. The Etruscan alphabet was adapted by the Romans and may also have been the stimulus for the development of the Germanic and Scandinavian runes in the first century C.E. Germanic runic script was brought by the Anglo-Saxons to England, possibly as early as the fifth century C.E.

Adaptations of the Greek alphabet also spread through efforts at religious conversion. Bishop Wulfila translated the Bible into Gothic during the fourth century C.E., devising early Gothic script from Greek characters. An Armenian alphabet was developed early in the fifth century C.E. by

Bishop Mesrop Mashtots (St. Mesrop) to make it easier for people to read the liturgy. In the ninth century, St. Cyril (hence the term *Cyrillic alphabet*) and his brother St. Methodius translated the Bible into Slavonic, adapting the Greek alphabet and adding some characters as needed.

Today, varieties of Cyrillic are used for writing Russian, Ukrainian, Bulgarian, and Serbian, and Cyrillic has been adapted to writing over fifty non-Slavic languages, including Moldovan, Tajik, Kazakh, Uzbek, Tatar, Azeri, Kirghiz, and Abkhaz, as well as Chuckchee and other tribal languages of the Russian Far East (Comrie 1994).

The Roman alphabet was adapted to the writing of many modern European languages (French, German, English, Welsh, Lithuanian, Polish, Estonian, Hungarian, and Basque, among others). It was also adapted for writing Chinese (Pinyin), Japanese (Romaji), Vietnamese (Quoc Ngu), and hundreds of so-called preliterate, indigenous languages in Africa, Indonesia, New Guinea, North and South America, Australia, and the Pacific. These are "so-called preliterate, indigenous" languages because popular literacy was made possible only beginning in the fifteenth century when the invention of movable type put the cost of books within reach of millions of people. Thus, when St. Augustine arrived in England in 597 C.E., a few Anglo-Saxons might have been able to write in Germanic runic script, but it would be another hundred years before Old English would be written with a variant of Roman script. To be sure, by 1300, English peasants would regularly use written documents for the conveyance of land (Clanchy 1979). However, in the sixth century, Old English was a preliterate and indigenous language.

Modern South Asian scripts are derived from the Brahmi script, dating to at least the fifth century B.C.E. The script may have been an adaptation of a Semitic prototype, or it may have been an indigenous invention (Coulmas 1989). The most widely known of the Brahmi-derived scripts is Devanagari, used for writing Hindi. Sikhs who speak Panajabi use the Gurumkhi script, whereas others use Devanagari. Varieties of the Brahmi script (Khmer, Tibetan, Thai, Sinhalese, for example) followed the spread of Buddhism (Gair 1986).

Logographic Script

There are no strictly logographic scripts, but Chinese relies heavily on logographs. By the third century B.C.E. Chinese was being standardized, and dictionaries were compiled in the first century C.E. (Modern Mandarin Chinese dictionaries show more than 60,000 characters, but 2,400 characters account for 99 percent of all characters in modern Chinese texts. See Mair 1996 for a review of the history of Chinese writing.)

Koreans began using Chinese characters to write Korean in the fifth century C.E. The indigenous Korean phonographic writing system, Hangul, was introduced by King Seycong in 1444 C.E. to make it easier for people to become literate. In 1949, despite its close political association with China, North Korea abolished the use of Chinese characters in public writing, again to extend literacy. South Korean newspapers still use Chinese characters, and schoolchildren learn nearly two thousand characters before graduating from high school (see Taylor this volume).

For some scholars, the alphabet represents the pinnacle of achievement in the evolution of scripts (Gelb 1963; Havelock 1982). The Japanese case makes it clear, however, that the rate of literacy depends not on the nature of the writing system (phonographic versus logographic-syllabic) but rather on the availability of long-term schooling.

The Japanese began adopting Chinese characters, or Kanji, during the third or fourth century C.E., probably via Korea. By the early sixth century, Korean scholars (of Confucian classics and of medicine) were going to Japan to teach the children of royalty. By 608 C.E., Prince Shōtoku began

sending students to China, and they brought back many Chinese texts. Much Chinese culture (music and food, in addition to writing) was adopted in Japan, particularly by the elite, during the seventh and eighth centuries.

Two syllabaries, Hiragana and Katakana, were developed in the ninth century. Katakana evolved from auxiliary marks used by Buddhist monks who were reading Chinese texts and is used in conjunction with Kanji. Hiragana is used entirely on its own, but it developed primarily as a women's script, just as Hangul in Korea was initially rejected by the elite and became a vehicle for literary expression among some people who would otherwise have remained illiterate.

The Japanese were introduced to Roman script in the late sixteenth century by European missionaries and eventually developed two competing systems of Romaji. During the U.S. occupation, from 1945 to 1952, the U.S. Education Mission to Japan pushed Romaji in the belief that Kanji could only be understood by a small, and thus privileged, class. By 1950, Romaji was taught (along with Kanji and Kana) in Japan, but after the occupation it was rejected. Today, it is taught briefly in grade school and is used for writing the names of streets, train stations, and large corporations—that is, words and phrases that need to be understood by foreigners.

Industrialization and growing prosperity in Japan today are tied to literacy, and literacy is based on a very complex script. Japanese students, like their South Korean counterparts, learn about two thousand characters (in addition to the two Kana syllabaries and Romaji) before leaving high school. Contact with Chinese was responsible for literacy in the first place. The high literacy rate in Japan today, however, is the result neither of the introduction of Kana in the ninth century nor of the romanized script in the seventeenth but of universal schooling through grade twelve in Kanji and Kana.

On the other hand, the Vietnamese case makes it clear that, in countries with few economic resources, rapid literacy in fewer than twelve years of schooling is more easily accomplished with romanized scripts than with Chinese characters. The Vietnamese were introduced to Chinese characters during the thousand-year Chinese colonial period, from 111 B.C.E. to 939 C.E. The Chinese did not actively introduce their writing system to Vietnam, but Buddhist and Confucian clergy used Chinese characters to write what is known as Sino-Vietnamese—material written in classical Chinese but pronounced, when read aloud, with Vietnamese sounds (De Francis 1977).

A character-based writing system for Vietnamese was established among the elite by the fourteenth century. The system, called Chu Nom, had two sets of characters: In one set, the pronunciation in Chinese represented similar-sounding Vietnamese words; the other set was composed of a Chinese logograph and an additional component showing the native speaker of Vietnamese how to pronounce the logograph in Vietnamese.

The French Jesuit Alexandre de Rhodes went to Vietnam in 1624 and in 1651 produced a Vietnamese-Portuguese-Latin dictionary and a catechism in Vietnamese, all in a special Roman-based script he devised. The script, Quoc Ngu, was favored by the French during their rule (1861–1945), because it was easier for administrators to learn than either classical Chinese or Chu Nom. For precisely this reason, the Chu Nom system was used for anticolonial resistance literature during the French colonial period.

By the end of World War I, Chu Nom and classical Chinese had become subjects of scholarly research, much as ancient Greek and Latin were studied in Europe. Some nationalist leaders urged continued use of Chinese characters, but some resistance leaders, like Ho Chi Minh, advocated adopting Quoc Ngu for mass literacy. From 1926 to 1930, some forty Quoc Ngu journals appeared, and the first novel was published in Quoc Ngu in 1925. In 1945, immediately after the declaration of

independence against the French, Ho Chi Minh launched a campaign of mass literacy explicitly to enlist people in the struggle against the colonials.

Literacy and Stimulus Diffusion

Although war, occupation, trade, and proselytization have all played significant roles in the direct spread of scripts (and, therefore, of literacy), "stimulus diffusion" has also been important. In stimulus diffusion, language contact brings the *idea* of writing and literacy, but the development of a script is then entirely local. Rather than adapting a Semitic script, the ancient Harappans of the Indus civilization may have gotten the *idea* of writing from trade with Semitic-speaking peoples and then developed their own script independently.

Perhaps the most famous recent case of stimulus diffusion is the invention around 1820 of the Cherokee syllabary by Sequoyah, a Cherokee who was not literate in English. He borrowed freely from Roman, Cyrillic, and Greek scripts in devising a set of symbols that could be used for writing Cherokee (Walker 1981). There are many other locally developed scripts. Several of the Munda tribal languages of central India developed their own writing systems in this century (Zide 1996). Early in this century, Silas John, an Apache, created a writing system for his language (Basso and Anderson 1975), as did King Njoya, in Cameroon, for Bamun.

The Pahawh script for writing Hmong (Smalley et al. 1990) was developed by Shong Lue Yang, an illiterate peasant in 1959. (He may have worked with some literates of Lao, but he claimed that he received his ideas for a writing system in divine revelation.)

Vai is spoken by about 100,000 people, mostly in Liberia. A native Vai script was apparently developed in the 1830s by a group of native speakers of the language, the leader of which, Dualu Bukele, claimed to have been presented a book in a dream by white men. The Vai had been in contact with Portuguese traders, perhaps as early as the end of the fifteenth century (Scribner and Cole 1981; Dalby 1967). Scribner and Cole (1981) estimated that about 20 percent of the adult male population were literate in Vai script, 16 percent were literate in Arabic, and 6 percent were literate in English. Many adult men were literate in more than one script, and Vai literates were reported to sometimes write English and Arabic with Vai script. Arabic was used for writing out prayers in Vai and much less for secular purposes.

Schooling and Multiple Literacies

Much language contact today is through bilingual schooling in which speakers of minority languages become literate in one of the major literary languages of the world. Chinese, English, Spanish, Russian, Hindi, and Arabic are first or second languages for 55 percent of the world's population. Economic and political forces create the desire to abandon one's minority language. Schooling and literacy in one or more national languages, however, contribute to the process of language extinction for minority languages. Of some 220 Indian languages still spoken in Mexico, 17 are nearing extinction.

In Mexico's bilingual education program, indigenous language instruction is used in the early grades as a vehicle for teaching fluency and literacy in Spanish. Bilingual education, however, does not lead to literacy in indigenous languages. One reason is that there is hardly anything for speakers of indigenous languages to read, once they are out of school. Recently, some Mexican Indians have begun printing books in their own languages—using adaptations of Roman script and the technology of desktop publishing. This case exemplifies the continuing influence of language contact and the effect of new technologies on the spread of literacy (Bernard 1996). It is too early to tell if this program will have the effect hoped for by its initiators—that is, slowing the rate of extinction among

small languages by making those languages vehicles for the creation of literature.

Multiple literacy is apparently becoming more common today, especially in the postcolonial Third World. The economies of Anglophone and Francophone countries in Africa, for example, depend on continued use of and widespread literacy in English and French, respectively. In 1996, Lusophone countries formed an international union. Millions of people in Brazil, Angola, and Mozambique speak one or more nonliterary indigenous languages, but trade among Lusophone countries (comprising 175 million people) will be facilitated by writing and by common language.

Wagner's (1993) research in Morocco shows the ease with which multiple literacy can be achieved. Differences in mother tongue (Arabic or Berber) provided no long-term advantage to rural children who were learning to read French. This finding is particularly striking since French and Arabic differ radically in lexicon, syntax, and script. This provides support for the interdependence thesis (Cummins 1979): that learning to read in any language produces skills that are transferable to any other language, thus making it easier for children to become biliterate or multiliterate. The cultural and political-economic conditions under which the interdependence thesis works (that is, when literacy skills are actually transferable from one language to another) are a topic of considerable interest and discussion (Verhoeven 1994). Nevertheless, in an era of economic globalization and cultural heterogeneity, multiple literacy (rather than language homogenization) appears to be spreading rapidly.

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