

LING 151: Writing Systems

1. Writing and Speech

The primacy of speech

Humans could speak before they could write
Speech develops before writing in children
→ Language is primarily a spoken rather than written phenomenon

The nature of the speech signal

As a general rule, speech is continuous sound. Actual silence between words is rare. Any writing system – even the International Phonetic Alphabet (IPA) – is an idealization: it idealizes segments from continuity.

Writing is not just written down speech

Sounds, words or concepts?

Not all writing systems attempt to represent the sounds of a language. Characters in writing systems can actually function as a number of different kinds of *sign*.

Types of signs:

- **icons** – ‘photographic’ representations, look like what they are supposed to represent
- **indexes** – recognizable ‘secondary’ aspects of a concept, often causes or consequences (e.g. condensation on a Cola bottle = coldness; smoke = fire)
- **symbols** – no direct relationship with what is meant, meaning is purely conventional, established and transmitted through culture

Writing characters:

- **Pictograms** (iconic representations – e.g. picture of fish = "fish")
- **Ideograms** (symbolic – e.g. triangle and circle on Polish toilets – or indexical – e.g. pictographic character for “eye” also comes to mean “see”)
- **Logograms** (character stands for a whole word)
- **Syllabograms** (character stands for a whole syllable)
- **Phonograms** (character stands for an individual sound in a language – e.g. letters of the alphabet)

Only the last two really attempt to represent spoken sounds.

Grapheme-phoneme correspondences differ between languages

Grapheme = a functional character family (cf. phoneme in spoken language)
Allograph = a variant representation of a grapheme (cf. allophone)
Graph = a neutral word for a character when not talking in terms of allography (cf. phone)

Example: [G], [g], [ɣ], [ɟ] and [ʝ] are allographs of the grapheme /g/

The same grapheme can represent different phonemes in different languages:

German: z -> /ts/

English: z -> /z/

Contrast the IPA, where the same character always represents the same sound.

Irregular spellings, homographs and homophones

Words are not always pronounced as they are written: e.g. irregular names:

Beauchamp = ([biˈtʃɑːm]), Cholmondely ([tʃɒmlɪ])

Words with the same spelling are sometimes pronounced differently; words with different spellings are sometimes pronounced the same:

- **homographs** are distinguished in speech but not writing: bass (fish) / bass (music)
- **homophones** are distinguished in writing but not speech: see/sea, great/grate

The role of codification

Standardization: Many languages have moved over time towards a standardized orthography. E.g., in the 16th century, Sir Walter Raleigh spelt his name in numerous ways, even in the same document (e.g. “Rawley”). Today we would always spell it “Raleigh”.

In some countries, orthography is a matter for government and law. For example, the German spelling reform of 1996.

Partly as a result of codification, different languages have evolved different methods of achieving the same effect. In modern English, we indicate emphasis by bold, italic, underlined or capitalized text. In German, at least until relatively recently, this was more commonly done by spaced-out letters – e.g. e m p h a s e s.

Similarly, punctuation marks differ: In English, we only write question marks and exclamation marks at the ends of sentences. In Spanish, they are also written at the beginnings, upside down.

Interference from other language levels: the role of grammar, pragmatics, etc.

Aspects of language other than pronunciation can affect how it is written down. For example, grammatical word class or ‘politeness’ (pragmatics).

In German, all nouns are written with initial capital letters. In present-day English, this usually only happens with proper nouns, though, in older times, capital letters on all nouns were quite common.

In German, there is always a comma placed before a *that* clause (e.g. She said, that she would come – *Sie sagte, daß sie kommen würde*). This is not normal in English.

In German, the ‘polite’ pronoun for “you” (*Sie*) is written with a capital letter when writing letters. This does not happen with other pronouns (although, until recently, it was also common for the other, ‘familiar’ “you” pronoun, *Du*).

2. Types of writing system

<u>Type:</u>	<u>Characters represent:</u>	<u>Examples:</u>
Pictographic/ Ideographic	concepts	very early writing “international” signs
Logographic	whole words	Chinese (primarily) Japanese (in part)
Phonographic:	sounds	
<i>Syllabic</i>	syllables	Japanese (in part) Early Greek (Linear B) Mayan
<i>Alphabetic</i>	individual sounds	English Later Greek Russian Korean

NB: There are very few “pure” systems – e.g., Japanese combines logographic (*kanji*) and syllabic (*hiragana/katakana*) systems. Korean is another mixed system: it is fundamentally alphabetic (it has characters for each distinct sound) but it writes the alphabetic characters together in syllabic groups.

3. Specific writing systems

You can do a lot worse than to look at the excellent introductions in this website, which covers more systems than we had time for on 151: <http://www.omniglot.com/>

Logographic systems

We looked at Chinese – see <http://www.omniglot.com/writing/chinese.htm> for details.

Syllabic systems

‘Natural’ syllabic systems include Mayan (Ancient Meso-American) and Ancient Near-Eastern Cuneiform (e.g. Hittite, Akkadian):

<http://www.omniglot.com/writing/mayan.htm>

<http://www.omniglot.com/writing/akkadian.htm>

Cree has an artificially created syllabary:

<http://www.omniglot.com/writing/cree.htm>

Pace Gelb and others, Egyptian hieroglyphs were almost certainly NOT syllabic.

We looked more closely at two languages which use(d) syllabic writing:

Linear B was a script used for writing early Greek (late 13th century BC). It came to light during excavations at Knossos, where it appeared on clay tablets. Other hoards of clay tablets were found elsewhere in Greece – e.g. Mycenae, Tiryns, Pylos, Thebes. The script is also sometimes found on vases. There are distinctive scribal hands, but it is recognizably the same writing system everywhere. (The script is known as Linear B because another closely related script was also found in Knossos, called Linear A. The language of Linear A is unknown. It does not appear to be Greek and may be a lost Minoan language.) After much cumulative effort by himself and other scholars, Linear B was finally deciphered as Greek by an architect called Michael Ventris in 1952. Linear B is primarily syllabic but also has a number of ideograms. These are mostly economic/agricultural concepts, as the majority of the Linear B inscriptions relate to administrative matters.

<http://www.omniglot.com/writing/lineara.htm>

<http://www.omniglot.com/writing/linearb.htm>

For an account of the decipherment, see:

Chadwick J. The decipherment of Linear B. Cambridge University Press, 1961.

Japanese is a mixed system. It uses Chinese logograms (*kanji*) in combination with two syllabic scripts – *hiragana* and *katakana*. It also, for some purposes, occasionally uses the Roman alphabet – *romanji*. The syllabaries are later developments – originally Japanese was written only with kanji. However, writing Japanese with kanji was problematic, since Japanese words inflect like words in English and German. The role of the syllabaries was initially to add these inflections to kanji characters. However, there is some evidence to suggest that syllabic writing is superseding kanji writing – there has been a noticeable reduction in the use of kanji characters over time. The hiragana syllabary is used mainly for inflections on kanji, the katakana script is used for a wider range of writing.

<http://www.omniglot.com/writing/japanese.htm>

Alphabetic systems

Historically, alphabetic writing was the last kind of writing to develop, having been preceded by pictographic and syllabic writing.

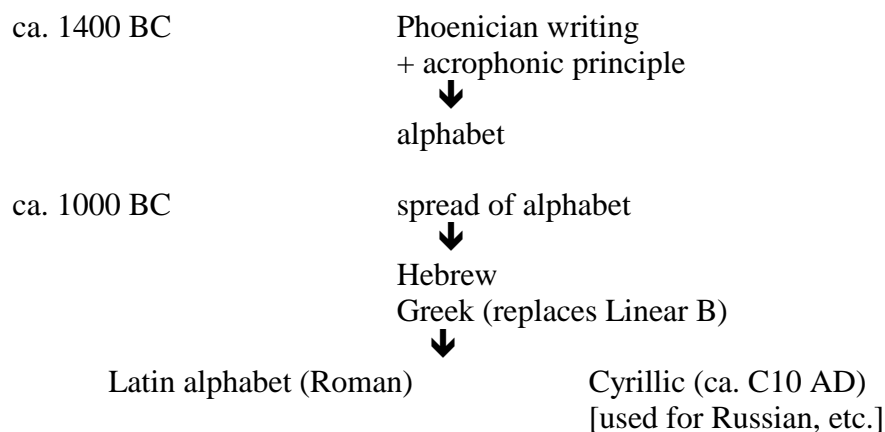
Two principles allowing the development of alphabetic writing:

Rebus principle – logographic characters representing certain words are extended to words which sound the same (homophones) – e.g. Sumerian pictograph *ti* (= arrow: ->--) also comes to represent *ti* (= life).

Acrophonic principle – logographic characters representing certain words are used to represent the first sound in those words – e.g. character for Semitic *beth* (house) comes to represent the first sound, /b/, in alphabets such as Hebrew.

Most alphabets write both vowels and consonants. Some normally write only consonants. For example, in Hebrew, only the consonantal root of the word is often written, so that different words may be represented by the same string of characters. The addition of vowels in Hebrew (by patterns of dots around the basic alphabetic characters and known as *pointing*) is normally only found in certain special text types, such as religious texts.

Development of the modern Western (Roman) alphabet



See also: <http://www.wam.umd.edu/~rfradkin/alphapage.html>

Korean

Korean has an interesting alphabet, as it is designed on linguistic (articulatory phonetic) principles. The Korean alphabet – *Hangul* (or *Hankul*) – was devised in the 15th century AD. Previously, Korean had been written using Chinese characters. The characters in the alphabet contain what are essentially pictographic representations of the place of articulation of the relevant sounds (dental, alveolar, velar, bilabial). In normal writing, the Korean alphabetic characters are combined into more complex syllabic groups, which can look like single characters to the untrained eye.

<http://www.omniglot.com/writing/korean.htm>

Shorthands

History of shorthand goes back to 4th century BC Greece. Well established by Roman times. Samuel Pepys used a 16th/17th century form of shorthand to write his diary.

a) Alphabetic shorthands

Attempt to simplify and reduce the number of strokes needed in normal long-hand writing. Typically also involve removing unnecessary letters (cf. vowel-less Hebrew

