

Lexicon and orthography

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Sound system vs. writing systems

- All human languages have a naturally evolved sound system
- Not all languages have written script
- Writing systems did not evolve slowly
→ Often come into existence at particular moments in history
- Children acquire speech but not reading and writing without instruction

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General Properties

All writing systems require:

- Set of defined base *symbols*, individually named *graphemes*
- Set of rules, assigning *meaning* to the base elements
- A language to be recalled by the interpretation of the *symbols*
- Physical means of distinctly representing the *symbols* by application to a permanent medium

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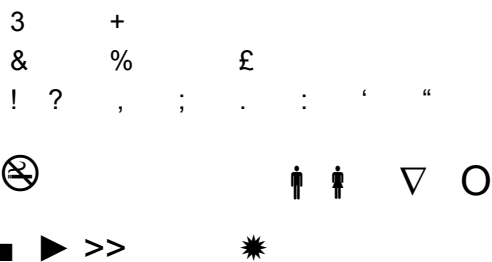
Signs and language

- Relationship between written signs and the meaning people want to express
- Writing systems are divided over what written sign represents:
→ sound-based systems: links signs directly to spoken language, written symbols correspond to sounds of speech
→ Meaning-based systems: symbols correspond with words or meanings

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Use of symbols



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Basic Terminology

Grapheme

Atomic unit, minimally significant
e.g. majuscule, minuscule, punctuation, numerals

Allograph

Individual variations of a same grapheme
e.g. a, a, a, a, a

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History of writing systems

- Student's presentation

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Non-sound based writing systems

- Use of 'characters' rather than 'letters'
 - Primary examples: Chinese, Japanese
 - Iconic representations of the real world is source of Chinese writing system
- Many Chinese characters based originally on drawings of most striking features

In theory...

- Same logographic sys for different languages
 - The meaning is inherent to the symbol

In practice...

- Syntactical constraints and different semantics
 - Reduced portability

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Chinese

- More than stylized pictures are required to cover a language
- Characters needed for abstract concepts
- Combinations of characters to reach different meaning e.g. combination of character for 'person' and 'base' becomes character for 'body'
- Use of homophony to reduce characters

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Chinese

- 90% of Chinese characters formed by combining two types of characters:
 - One of 214 'radicals'
 - Phonetic character
- Modifications to the system: *Common People's Thousand Character Lesson*
- Official simplification of shape of many characters (since 1956)

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Chinese

- Character system mirrors language characteristics:
 - Abstract concepts such as 'past' and 'plural' are expressed by inflectional morphemes in languages like English
 - Chinese expresses those concepts by an independent word
 - Character writing system works well for Chinese since the form of a word never changes

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Japanese

- Adaptation of Chinese characters
 - Series of changes necessary to accommodate differences between the languages
- Resulted in three types of Japanese writing systems
- Kanji
 - Kana
 - Hiragana

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Japanese Kanji

- Many words derive from Chinese because not only the character but the whole word was borrowed
- Chinese character was attached to Japanese word with same meaning
- Kanji characters also used to represent sounds irrespective of meaning but connection between sound and meaning eroded when pronunciation changed

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Sound-based writing systems

- Systems that relate written signs to spoken sounds
- Writing corresponds systematically to sounds
 - Match each separate sound with a letter
→ alphabetic
 - Each written sign represents a syllable

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Syllabic systems

- Syllabary: set of written symbols representing *syllables*.
- Syllable: typically represents a *consonant* sound followed by a *vowel* sound.
 - CV - structure
- There is no systematic graphic similarity between phonetically related characters

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Syllabic system

- Suited to languages with relatively simple syllable structure.
 - Japanese: 50-60 syllables
 - Cherokee: 85 syllables
 - Hawaiian: 162 syllables
 - Yoruba: 582 syllables
 - English: 1000s syllables
 - Thai: 23 638 syllables

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Japanese kana and hiragana

- Adapt kanji characters from different sources to produce signs for each syllable
- Most kana signs represent a syllable with a CV-structure e.g. *ka, mu, wo*
- Hiragana simplified whole kanji characters from handwriting
 - A whole sentence can be written in hiragana thus completely substituting kanji characters
 - Main use: show grammatical forms (adaptation of a writing system designed for a language without inflectional endings)

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Alphabetic systems

- Alphabet: small set of symbols representing a *phoneme* of a spoken language.
- Perfectly phonological alphabet:
 - 1 Phoneme ↔ 1 Letter
- But languages evolve independently from the writing systems, the degree of association can vary.

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Consonant-based systems

- Changing the vowels of a word to show a change of tense for example: basic characteristic of Semitic languages
- Root of the word is sequence of consonants
- Lack of vowels not a problem → can be predicted from context because they are part of the grammar not of word structure

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Consonant-based systems

Abjad – Alif Ba Jim Dal (order of arabic's consonants)

- First alphabet, one symbol per consonant
- Only characters for *consonantal* sounds
- Derived from Semitic: morphemic structure makes *vowels'* symbols redundant

Abugidas – first four characters of an order of the Ge'ez script

- One sign = consonant + inherent vowel
- Following vowels indicated by consistent modifications (rotation \ diacritical marks)
- Derived from Semitic

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Consonant-based systems

- Lack of vowels corresponds to syllable structure of the languages
- CV syllable structure is represented easily in consonant-only alphabet → reader knows that each pair of consonants is separated by a vowel

bb → *baba*

→ **ebb*

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Consonant and vowel systems

- 65 main writing systems (Gaur (1984): *History of Writing*. London: British Museum)
- Most familiar alphabets:
 - Roman: A a E e D d
 - Greek: Δ Π Θ Φ Ω
 - Cyrillic: Д Ж И Л Я

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English spelling

- Long historical evolution → writing system does not accurately represent the sounds
e.g.: dental fricative 'th' /θ/ *theme*
/ð/ *them*
→ only one letter in English
- Two main problems in development of modern English spelling system:
 - Major changes in pronunciation system since 14th century
 - Persistent attempts to change spelling

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Writing systems

- Written languages can be linked to the spoken form in several ways
- However pure a writing system might be to start with → end up as mixtures of elements of meaning, single sounds or base forms of words (e.g. Chinese characters incorporate pronunciation, Roman letters become 'silent' etc.)

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Languages in the World



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