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Writing Systems

Understanding How Humans Record and Use Language

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What is writing?

- Is it the same thing as language?
- Can a language exist without writing?
- Can someone know a language without knowing how to read it?
- Can the same language be written in more than one script?

Writing is a system for representing language visually.





Language vs. Writing vs. Symbols

- Emojis are symbols that communicate meaning, but they do not let us write any sentence we want.
- Writing systems must be flexible enough to represent linguistic expressions.

Why Did Writing Develop?

- Administrative work (Mesopotamia)
- One of the earliest known writing traditions developed in Mesopotamia.
- Early cuneiform was used for:
 - recording goods
 - counting quantities
 - tracking labor
 - economic transactions



Writing Was Invented More Than Once

- Major early writing traditions include:
 - Egyptian hieroglyphs
 - Chinese writing
- These systems developed in different cultural and historical contexts.
- There is no single universal path from “primitive” writing to “advanced” writing (parity).
- Writing systems are shaped by:
 - language structure
 - social needs
 - materials
 - tools
 - culture



Activity 1

- Try writing without writing
- Represent these sentences using only pictures:
 - Three students will return to the river tomorrow.
 - All of the apples in the cart were gone by the time I returned.



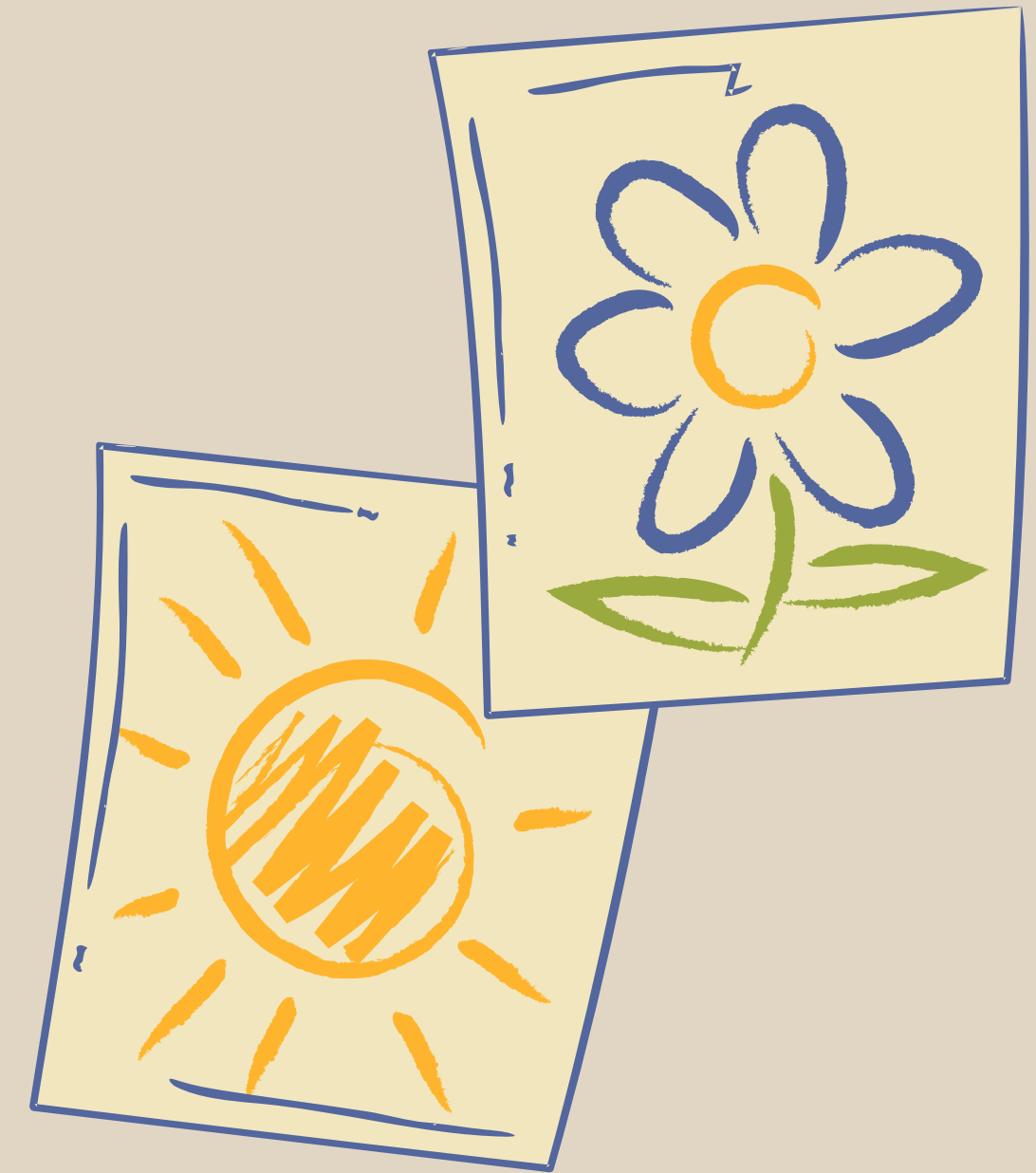


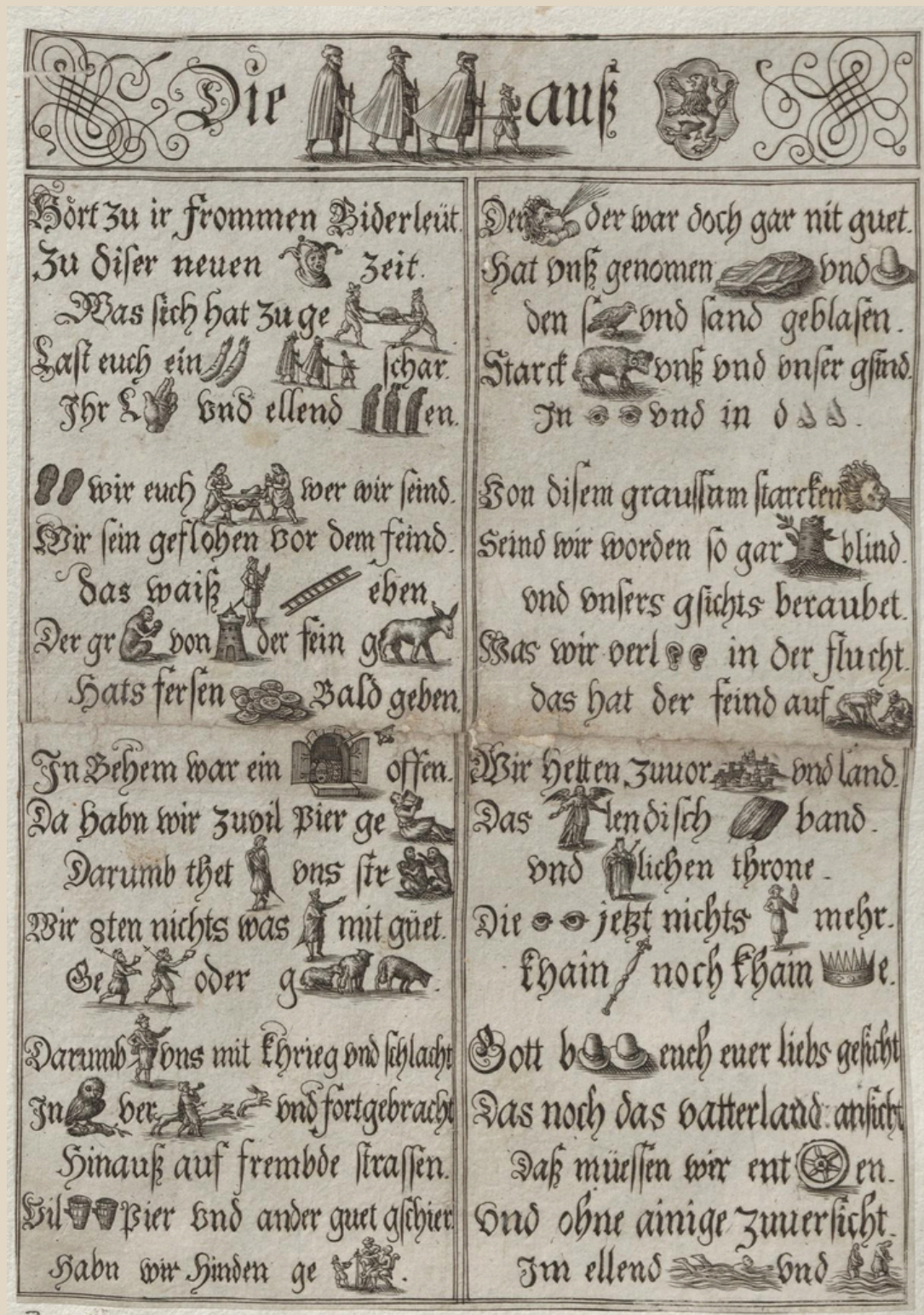
Activity 11

- Write a sentence and pass it to the person on your left.
- Draw the sentence that was handed to you and fold paper so only the picture is visible.
- Repeat!

From Pictures to Signs

- Writing can begin with signs that resemble objects, but over time signs often become more abstract.
- The meaning of nouns and verbs may be easy to express, but abstract ideas and grammar are harder.





The Rebus Principle

- A sign can represent its sound, not just its meaning.
- Example:
 -  = eye
 - But it can also represent the sound /aɪ/.
- This allows a symbol to help write words that are difficult to draw.
- The rebus principle helps writing move from pictures toward language.

Meaning-Based vs. Sound-Based Writing

- Most real writing systems combine meaning and sound in different ways.
- Example:
 - 女 = “female/woman”
 - 马 = mǎ “horse”
 - 妈 = mā “mother”



How can a writing system represent an entire language?

- A mature writing system often needs ways to represent:
- Meaning
 - A sign can represent a word or morpheme.
- Sound
 - A sign can represent all or part of a pronunciation.
- Additional information
 - Some signs can help the reader identify what kind of word or meaning is intended.

Why Add Meaning Clues?

- two / to / too
- Context can help, but writing systems may also preserve or add information about meaning.
- Does writing have to be a perfect transcription of speech?
- Writing can represent information about:
 - pronunciation
 - morphology
 - history

Writing Has Conventions

- Direction
 - English: left to right
 - Arabic: right to left
 - Ancient Greek scripts (Etruscan, Sabaean), Avoiuli: boustrophedon
 - Traditional Chinese: vertically
- Word boundaries
- Capitalisation

The Material Shapes the Script

Material / Tool	Possible influence
Clay + reed stylus	wedge-shaped impressions
Stone + chisel	relatively angular monumental forms
Brush + ink	variable strokes and flowing forms
Palm leaves	shapes adapted to the writing surface
Pen + paper	fast cursive forms

Writing System Types

- Pictographic / Ideographic
 - an object or action → pictographic
 - an abstract idea → ideographic
 - usually in contexts where there is a need to convey some idea that is not specific to a particular language
 - many such symbols are widely used across cultures
 - eg. traffic and public signage

Writing System Types

- Logographic
 - represents a word
 - usually logographic systems have their origin in picto- or ideographic systems, but the characters have evolved over time, losing their similarity with the real-life representation of the words they designate
 - In Chinese:
 - ☉ → 日
 - ☾ → 月

Writing System Types

- Syllabaries
 - a syllable is represented as a whole
 - no clear relationship between characters denoting syllables that share some vowels or consonants
 - cannot be further divided into smaller components
- Logo-syllabaries
 - Chinese

	<i>a</i>	<i>i</i>	<i>u</i>	<i>e</i>	<i>o</i>
∅	ア	イ	ウ	エ	オ
<i>k</i>	カ	キ	ク	ケ	コ
<i>s</i>	サ	シ	ス	セ	ソ
<i>t</i>	タ	チ	ツ	テ	ト

Japanese katakana

Writing System Types - Alphabets

- Abjad
 - a symbol represents a consonant, while vowels are not written at all or shown as diacritic
 - Semitic languages, such as the Arabic and Hebrew scripts
- Abugida/Alphasyllabary
 - a symbol represents a consonant + inherent vowel + diacritics
 - South and South-East Asian languages

	∅	<i>u</i>	<i>ū</i>	<i>a</i>	<i>ā</i>	<i>i</i>	<i>ī</i>
∅		◌ْ	◌ُوْ	◌َ	◌َا	◌ِ	◌ِي
<i>b</i>	ب	بْ	بُوْ	بَ	بَا	بِ	بِي
<i>s</i>	س	سْ	سُوْ	سَ	سَا	سِ	سِي

	<i>a</i>	<i>aa</i>	<i>i</i>	<i>ii</i>	<i>u</i>	<i>uu</i>	<i>e</i>	<i>ai</i>	∅
∅	◌	◌ာ	◌ိ	◌ီ	◌ု	◌ူ	◌ေ	◌ဲ	◌်
<i>k</i>	က	ကာ	ကိ	ကီ	ကု	ကူ	ကေ	ကဲ	က်
<i>s</i>	ဆ	ဆာ	ဆိ	ဆီ	ဆု	ဆူ	ဆေ	ဆဲ	ဆ်

Writing System Types - Alphabets

- Cree Syllabics
 - used to write aboriginal languages of Canada
 - Instead of diacritics, but by rotating the character (by 90°, 180° or 270°) or by mirroring it, depending on its shape.

Rotation

	<i>a</i>	<i>e</i>	<i>i</i>	<i>o</i>
∅	◁	▽	△	▷
<i>p</i>	<	∨	∧	>
<i>t</i>	⊂	∪	∩	⊃

Mirroring

	<i>a</i>	<i>e</i>	<i>i</i>	<i>o</i>
<i>k</i>	b	q	ρ	d
<i>m</i>	L	7	Γ	┘
<i>n</i>	Q	⌞	σ	⌚

Writing System Types

- Featural Systems
 - character highlights the phonetic or phonological features of the sounds it designates
 - Korean hangul
 - $p = \text{ㅍ}$
 - $p^* = \text{ㅍ*}$
 - $p^h = \text{ㅍᄒ}$
 - $m = \text{ㅁ}$
 - bilabial sounds

Activity

<http://naclo.org/resources/problems/2015/N2015-D.pdf>

Conlang

- Development
- Type of System
- Characteristics

Group 1

1. Leon
2. Nova
3. Mac

Group 2

1. Athena
2. Lucas
3. Lewis

Group 3

1. Audrey
2. Alvin
3. Angelina

Group 4

1. Stella
2. Evan

Linguistics + Language

Myths

Many animal species have
languages much as people
do, like prairie dogs.

**People from the American
Midwest, like Michigan, have the
most neutral accent
of any English speakers.**

The Hopi language has “no words, grammatical forms, construction or expressions that refer directly to what we call ‘time,’” and as a consequence native speakers of Hopi cannot understand the way Europeans conventionally segment time into past, present, and future.

**Without the work of English teachers, the authors of
style manuals, and other
conscientious persons to enforce the rules of English,
the language would decay
and deteriorate, an idea discussed [here](#) and [here](#).**

**English is descended from
Latin, like most other
languages.**

**Many primitive indigenous
cultures speak simple
languages, some with only
a few hundred words**

**Most of the world's languages
will be extinct within the next
century.**

Further reading:
Language Myths
Edited by Laurie Bauer &
Peter Trudgill

Conlang

1. Language name
2. Speakers
3. Location
4. Modality
5. Three design goals

Writing System

- Development
- Type of System
- Characteristics

**Before class next week,
submit work to Canvas**