



COURSE

# Constructed Languages

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Twelve chapters on the history, kinds and design of constructed languages.

12 Chapters

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Generated with Claude

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# Constructed Languages

Course 1 · Chapter 1 · What Is a Conlang?

Most languages were never designed. English, Hungarian and Japanese grew over centuries as millions of speakers talked, borrowed and changed things, with nobody in charge. A

**constructed language**, or **conlang**, is the opposite case: a language that one person or a small group deliberately designed, usually by writing down its sounds, grammar and vocabulary before anyone spoke it. This chapter draws the map for the whole course: what counts as a conlang, why people build them, and the three main families they fall into.

## HOW THIS COURSE WORKS

The course assumes you have met some of the languages on this site: *Esperanto* (Esperanto Basic Conversation 1) and *Klingon* (Klingon Grammar 1 and Klingon Basic Conversation 1), and the basic ideas of *Introduction to Linguistics*. Each chapter uses those languages as worked examples. The first seven chapters survey the kinds of conlang and their history; Chapters 8 to 12 turn to how a language is built, how it lives, and how you can make one of your own.

## Natural and Constructed

A **natural language** is one that arose through ordinary use by a community: it has no founder and no date of birth. A **constructed language** has a founder (or a committee), a design document and a moment when it was first published. The line is not perfectly sharp, because natural languages are shaped by planning in many places:

| EXAMPLE            | WHAT WAS PLANNED                                                                                                                                             | IS THE LANGUAGE A CONLANG?                                              |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| Standard languages | Spelling reforms, dictionaries and an official standard are set by academies and governments                                                                 | No: the underlying language grew naturally                              |
| Modern Hebrew      | An ancient written language was revived as an everyday spoken language in the late nineteenth and twentieth centuries, with new words coined for modern life | No: it was revived from an existing language, not designed from scratch |
| Esperanto          | Everything: sounds, grammar and a starting vocabulary were published in 1887 by L. L. Zamenhof                                                               | Yes                                                                     |

| EXAMPLE | WHAT WAS PLANNED                                                                | IS THE LANGUAGE A CONLANG? |
|---------|---------------------------------------------------------------------------------|----------------------------|
| Klingon | Designed by the linguist Marc Okrand for the Star Trek films, from 1984 onwards | Yes                        |

A useful test is origin, not size. Ask: *was this language put together on purpose, by named people, before it had speakers?* If yes, it is a conlang, however many people speak it now.

## Why People Build Languages

Almost every conlang has one or more of four main motives. Naming them makes the rest of the course easier to follow, because the motive explains most of the design choices.

| MOTIVE            | THE GOAL                                                   | WHAT THE DESIGN EMPHASISES                                    |
|-------------------|------------------------------------------------------------|---------------------------------------------------------------|
| Communication     | Let people who share no language talk to each other fairly | Easy to learn: regular grammar, familiar roots, simple sounds |
| Logic and thought | Test an idea about language, thought or meaning            | Precision: no ambiguity, a grammar tied to logic              |
| Art and fiction   | Give a fictional people a voice that sounds believable     | A distinctive sound, a feeling of history and culture         |
| Play              | Enjoy designing and using a language for its own sake      | Whatever the designer finds interesting                       |

## Three Kinds of Conlang

The motives line up with three commonly used labels. Conlang communities use them informally, so treat them as a map and not as sharp boxes:

### 1. Auxiliary languages (auxlangs)

An **international auxiliary language** is meant as a second language for everyone, a neutral bridge between speakers of different first languages. Esperanto is the best-known example. Chapter 2 traces the history that led to it, and Chapter 3 looks at Esperanto, Ido and Interlingua in detail.

## 2. Engineered languages (engelangs)

An **engineered language** is built to test or demonstrate a principle. Lojban, for example, was designed so that its grammar follows predicate logic and its sentences are unambiguous. Toki Pona, created by Sonja Lang and first published in 2001, tests a different idea: that a tiny vocabulary, on the order of a hundred and twenty words, can still carry meaning when words are combined and context does the rest. Chapter 4 explores both.

## 3. Artistic languages (artlangs)

An **artistic language** is built for beauty, a fictional world or the pleasure of invention. J. R. R. Tolkien's Elvish languages, Klingon, Dothraki and Na'vi all belong here. The designer does not aim at an easy international bridge: the aim is a language that feels as though a real people speak it. Chapters 5 and 6 cover artlangs for screen and page, and Tolkien's languages in particular.

| LANGUAGE            | KIND     | MAIN MOTIVE       | DESIGNER AND DATE (APPROX.)                                               |
|---------------------|----------|-------------------|---------------------------------------------------------------------------|
| Esperanto           | Auxlang  | Communication     | L. L. Zamenhof, 1887                                                      |
| Lojban              | Engelang | Logic and thought | The Logical Language Group, developing James Cooke Brown's earlier Loglan |
| Toki Pona           | Engelang | Logic and play    | Sonja Lang, 2001                                                          |
| Klingon             | Artlang  | Fiction           | Marc Okrand, from 1984                                                    |
| Quenya and Sindarin | Artlangs | Art, then fiction | J. R. R. Tolkien, from the 1910s onward                                   |

**WATCH OUT: KINDS OVERLAP**

Many conlangs fit more than one box. Esperanto is an auxlang, but its community also makes art in it. Klingon is an artlang for fiction, yet fans use it as a conversational hobby language. A designer's motives can also shift over time. Use the three labels to ask *what is this language mainly for?*, not to rule on exactly where it belongs.

## Is a Conlang a Real Language?

The answer depends on what you mean by "real", and linguists give a measured one. A conlang can have every design feature from *Introduction to Linguistics*, Chapter 1: arbitrary signs, a small set of sounds that make up many words, the ability to talk about absent things, and unlimited new sentences. In that sense a fully described conlang is a language. What it lacks at the start is the one thing the natural languages all have: a long history of speakers. That history changes a language by making it irregular, because speakers shorten, merge and reinterpret things over time. Designed languages start regular, and become less so only if enough people use them for long enough. Chapter 11 returns to this.

#### COMMON MYTHS

- **"A conlang has no grammar of its own."** Every serious conlang has one, and often a more explicit one than a natural language, because the designer had to write it down.
- **"Esperanto failed."** That depends on what success means. It did not become a universal second language, but it has a stable community, a large literature and international meetings. Chapter 3 returns to this.
- **"Klingon is just English with different words."** No: it has its own word order (object, verb, subject), prefix and suffix system, and sounds, all of which you may have met in Klingon Grammar 1.

## Hands-On Exercises

### EXERCISE 1

Sort five languages by kind and motive. For *Esperanto*, *Klingon*, *Lojban*, *Toki Pona* and *Quenya*, give the kind (auxlang, engelang or artlang) and the main motive (communication, logic and thought, art and fiction, or play), with one sentence of reason. Mark any language you think fits more than one kind.

 [View solution](#)

### EXERCISE 2

Apply the origin test. Decide whether each is a conlang, and explain: (a) Modern Hebrew; (b) Esperanto; (c) Standard German; (d) a language invented by two children to talk secretly; (e) Klingon.

 [View solution](#)

### EXERCISE 3

Write a one-sentence purpose statement for a language you might build, in the form "This language exists so that ...". Then say which kind (auxlang, engelang or artlang) it is, and name one design choice that follows from the purpose.

 [View solution](#)

### CHAPTER 1 QUICK REFERENCE

- **Natural language:** grew in a community, no founder. **Constructed language (conlang):** designed on purpose, by named people, before it had speakers
- Four motives: **communication, logic and thought, art and fiction, play**
- **Auxlang** = international bridge (Esperanto). **Engelang** = tests an idea (Lojban, Toki Pona). **Artlang** = beauty or fiction (Klingon, Tolkien's languages)
- The kinds overlap: ask what the language is *mainly* for
- A conlang can have every design feature of language; it starts regular and becomes irregular only with long use
- Origin test: put together on purpose, by named people, before it had speakers

### COMING NEXT

*Constructed Languages 2* goes back before Esperanto: the philosophical and universal languages of earlier centuries, the rise and fall of Volapük, and what the early designers wanted from a shared language.

# Constructed Languages

Course 1 · Chapter 2 · Before Esperanto

Esperanto was not the first constructed language, and it did not appear out of nowhere. For centuries before 1887, scholars, priests and inventors had tried to build better languages, for different reasons and with different methods. Most of those attempts failed to attract speakers, but each left an idea behind. This chapter follows four of them, in order, and then asks what the designers wanted and why their languages did not last.

## A NOTE ON DATES

The early history of conlangs is patchy, and different sources give different dates for the same language (for example, the date of the musical language Solresol is given as 1817 in some places and 1827 in others). This chapter gives the period and says so where the date is uncertain. Treat the dates as approximate.

## 1. A Private Language: Lingua Ignota

The earliest recorded constructed language is usually said to be the **Lingua Ignota** ("unknown language"), attributed to the twelfth-century abbess and writer Hildegard of Bingen. It survives as a word list with invented words for ordinary things, and a matching alphabet. Its purpose is uncertain: sources describe it as a private or mystical language, and there is no evidence that it was meant for conversation. It is a good first example of a motive from Chapter 1: *art and play* (and possibly devotion), rather than communication.

## 2. Philosophical Languages

In the seventeenth century a different dream appeared: a language that would describe the world correctly, not merely talk about it. In 1668 the English clergyman and scientist John Wilkins published *An Essay towards a Real Character, and a Philosophical Language*. Its idea was to divide everything that can be named into a hierarchy of categories and to build each word from the position of its thing in that hierarchy. A learner who knew the system could, in principle, work out roughly what a word referred to just by taking it apart. Leibniz, the German

philosopher and mathematician, dreamed of something even more ambitious: a universal "alphabet of thought" in which reasoning could be done by calculation.

The principle is easy to show with a toy scheme (invented here only for the exercises; it is not Wilkins's actual notation):

```
# Toy a priori scheme: the word is built from the thing's place in a category tree.
ba- animal      bi- plant      bo- mineral
-ka mammal      -ki bird       -ko fish

baka = animal + mammal = "a mammal"
baki = animal + bird   = "a bird"
biko = plant + (fish?) # the same ending means different things under different heads
```

Languages built this way are called **a priori** languages: their vocabulary is made up from a system, not borrowed from existing languages. Two difficulties show at once. First, every word has to be learned from scratch, because nothing looks familiar. Second, the classification is fixed, so it is only as good as the designer's idea of how the world divides, and that idea has to be right everywhere (the toy scheme above already breaks on a plant that has an animal-like name). Later chapters return to a priori and **a posteriori** (borrowed) vocabularies in Chapter 10.

### 3. A Language You Can Sing: Solresol

In the early nineteenth century the French music teacher François Sudre developed **Solresol**, a language whose whole vocabulary is built from the seven notes of the scale: *do, re, mi, fa, sol, la, si*. Words are made of one to a few notes, so the same message could be sung, played on an instrument, whistled, or written with coloured symbols. Sources date its first presentation to the 1820s, and it became known well beyond France in its day, though it appears never to have had fluent speakers.

Solresol is a good example of the design lesson: it was clever and different, but with only seven building blocks, words had to be long or confusingly similar. Related words also sounded alike by design, which meant a single misheard note could change the meaning completely. That is a trade-off every designer faces between a small, elegant sound system and a language that is easy to hear correctly.

## 4. The First Boom: Volapük

The first constructed language to gather a real international following was **Volapük** ("world speech"), created by the German priest Johann Martin Schleyer and first described in 1879, with the first book following soon after. For a few years it spread quickly: societies, journals and congresses appeared in several countries, and a congress in 1889 was held in Volapük itself.

Schleyer's design drew its roots mainly from English, with the spellings changed to fit the language, and he gave it a complex system of inflections. Learners found it hard. Schleyer also kept tight control of the language and resisted changes proposed by the movement's members. The result was splits and decline soon after the peak. The language never disappeared entirely, but it stopped being a mass movement within about a decade.

| LANGUAGE                 | PERIOD             | MAIN MOTIVE                     | VOCABULARY                                                      | MAIN WEAKNESS                                             |
|--------------------------|--------------------|---------------------------------|-----------------------------------------------------------------|-----------------------------------------------------------|
| Lingua Ignota            | 12th century       | Private, mystical               | Invented                                                        | Not meant to be used by a community                       |
| Wilkins's Real Character | 1668               | A language that mirrors reality | A priori: built from a category tree                            | Hard to learn; depends on one classification of the world |
| Solresol                 | Early 19th century | Universal and playful           | A priori: built from seven notes                                | Words too similar; hard to hear correctly                 |
| Volapük                  | 1879 onward        | International communication     | Mixed: roots from natural languages, changed beyond recognition | Complex grammar; the designer kept control                |

## What the Designers Wanted

Across four centuries and very different languages, the same hopes keep returning. They are the questions every later designer has to answer too:

- **Neutrality.** A language belonging to no nation, so that no group gains an advantage by speaking it.
- **Ease.** A grammar a learner could finish in months, not years.
- **Regularity.** No irregular verbs and no exceptions to memorise.

- **Precision.** In the philosophical tradition, a language in which a word's form shows its meaning.
- **Reach.** A language many people would actually adopt.

## Why These Languages Faded

| PROBLEM                        | WHERE IT SHOWED                         | LESSON FOR LATER DESIGNERS                                 |
|--------------------------------|-----------------------------------------|------------------------------------------------------------|
| Too hard to learn              | Wilkins's system, Volapük's inflections | Ease is not decoration: it is what gets people to start    |
| Nothing familiar to hold on to | A priori vocabularies                   | Borrowed roots (a posteriori) help beginners; Chapter 10   |
| Designer kept control          | Volapük                                 | A language needs a community that can shape it; Chapter 11 |
| No real community              | Lingua Ignota, Solresol                 | Without speakers, a language stays a project               |

### THE STEP THAT FOLLOWS

The next language in this story is the one you already know. Esperanto appeared in 1887, a few years after Volapük, and its designer took the opposite choices on most of the points above: familiar roots, a short regular grammar, and a language that its users, not its designer, would shape. Chapter 3 follows it, with Ido and Interlingua.

## Hands-On Exercises

### EXERCISE 1

Classify each vocabulary as *a priori* or *a posteriori*, and say why: (a) the toy scheme in this chapter (*baka*, *baki*); (b) Esperanto's *hundo* "dog"; (c) Solresol's note-words; (d) Klingon's *Hol* "language".

 [View solution](#)

### EXERCISE 2

Extend the toy category scheme from this chapter. Add a third head *be-* "tool" with endings *-ka* "cutting" and *-ki* "striking", form two new words, and then name one object (for example a spoon) that the scheme cannot place. Say what that shows about *a priori* languages.

 [View solution](#)

### EXERCISE 3

Write two short paragraphs. In the first, explain in your own words why a designer who keeps tight control of a language can harm its spread. In the second, give one reason a loose approach with no control could also cause problems.

 [View solution](#)

### CHAPTER 2 QUICK REFERENCE

- **Lingua Ignota**: twelfth century, Hildegard of Bingen; the earliest recorded conlang, a private or mystical word list
- **Philosophical languages** (Wilkins, 1668): words built from a category tree; *a priori* vocabulary
- **Solresol**: built from the seven notes; sung, played or whistled; never had fluent speakers
- **Volapük**: Schleyer, first described 1879; the first to gather an international following; declined within about a decade
- Recurring hopes: neutrality, ease, regularity, precision and reach
- Typical causes of failure: too hard, nothing familiar, designer control, no community
- *A priori* = vocabulary made up from a system; *a posteriori* = vocabulary borrowed from existing languages

### COMING NEXT

*Constructed Languages 3* looks at auxiliary languages in detail: Esperanto, Ido and Interlingua, what makes a language easy to learn, and what "success" means for a language that wants to be a bridge.

# Constructed Languages

Course 1 · Chapter 3 · Auxiliary Languages

An **auxiliary language** (auxlang) is a language designed as a second language for people who share no first language. Chapter 2 ended with Volapük, whose designer kept it too complex and too closely held. The auxlangs in this chapter are the answer to that failure: Esperanto first, then the two best-known languages that tried to improve on it, Ido and Interlingua. The chapter also asks the hard question the designers faced: what does it mean for a bridge language to *succeed*?

## Esperanto: A Short Regular Grammar

Esperanto was published in 1887 by the Polish-Jewish eye doctor L. L. Zamenhof, in a short book usually called the *Unua Libro* ("First Book"). Its grammar was meant to fit on a single page, and a later work, the *Fundamento de Esperanto* (about 1905), fixed the core of the language. At the first World Esperanto Congress in 1905, the Declaration of Boulogne recognised that book as the unchangeable foundation, while leaving the vocabulary and style open to growth. You have met the system in Esperanto Basic Conversation 1; here it is as a design:

| DESIGN IDEA                         | HOW ESPERANTO DOES IT                                                                       | EXAMPLE                                                                    |
|-------------------------------------|---------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|
| The word class is in the ending     | -o noun, -a adjective, -e adverb, -i verb (infinitive)                                      | <i>bono</i> "goodness", <i>bona</i> "good", <i>bone</i> "well"             |
| No irregular verbs                  | One ending per tense: -as present, -is past, -os future                                     | <i>mi amas / amis / amos</i> "I love / loved / will love"                  |
| Plural and object are marked simply | -j for plural, -n for the object                                                            | <i>Mi amas vin.</i> "I love you."                                          |
| Words are built, not memorised      | Affixes such as <i>mal-</i> (opposite), <i>-ej-</i> (place), <i>-ist-</i> (person who does) | <i>bona</i> → <i>malbona</i> "bad"; <i>lerni</i> → <i>lernejo</i> "school" |
| One sound, one letter               | Spelling follows pronunciation; stress is always on the next-to-last syllable               | <i>hundo</i> (HUN-do)                                                      |

The vocabulary was drawn mostly from the Romance and Germanic languages, which made many words recognisable to learners in Europe. That choice shows how to define the target audience: a European bridge first, a world language only as an ambition.

# Ido: A Reform

In 1907 an international committee, the Delegation for the Adoption of an International Auxiliary Language, considered Esperanto and several other proposals, and recommended adopting it subject to changes. The changed language, published soon after, was called **Ido** ("offspring" in Esperanto). Its supporters wanted to remove features they found awkward, such as the accented letters of Esperanto, and to make the vocabulary more regular and international. The creator of Esperanto, Zamenhof, and most Esperantists did not accept the changes.

The result is a classic split. Ido gained a loyal small community but never matched the size of Esperanto, and the quarrel between the camps cost both of them years. The lesson for designers is one from Chapter 2 in a new form: once a language has a community, reform is risky, because every change divides the speakers it was meant to help.

# Interlingua: A Naturalistic Approach

**Interlingua**, published in 1951 by the International Auxiliary Language Association (IALA), took a different route. Instead of building a regular system, its designers examined the vocabulary that the major European languages already share (largely from Latin and Greek) and made that common stock the language. The grammar was simplified, but the aim was a language a speaker of a Romance language could often understand on sight, with little or no study.

This divides the auxlangs into two design philosophies:

| APPROACH     | IDEA                                                             | STRENGTH                                                                   | WEAKNESS                                                              | EXAMPLE        |
|--------------|------------------------------------------------------------------|----------------------------------------------------------------------------|-----------------------------------------------------------------------|----------------|
| Schematic    | Build the language from a regular system, with a few fixed rules | Quick to produce, regular, and easy to <i>speak</i> after a short course   | Looks artificial; vocabulary choices can feel arbitrary               | Esperanto, Ido |
| Naturalistic | Take the words and patterns that natural languages already share | Easy to <i>read</i> at sight, especially for speakers of related languages | Harder to make fully regular; the shared stock favours Western Europe | Interlingua    |

**WATCH OUT: "EASY" HAS TWO MEANINGS**

A language can be easy to *understand* without study (Interlingua, if you know a Romance language) or easy to *learn to produce* (Esperanto, because the rules are few and regular). They are different goals and they pull in different directions. When someone says an auxlang is "easy", ask which kind, and for whom.

## What Makes a Language Easy to Learn?

Putting the three together gives a checklist that explains most of an auxlang's design. The first three are about the language, the last two about the learner's world:

- **Regular grammar:** no irregular verbs and few exceptions (Esperanto has almost none).
- **Phonetic spelling:** you can read it aloud and spell what you hear.
- **A word-building toolkit:** a small set of affixes that multiplies the vocabulary you learn.
- **Familiar roots:** the more of the vocabulary you already recognise, the faster you start (the benefit of an a posteriori vocabulary from Chapter 2).
- **Distance from your first language:** a speaker of French or Spanish finds Interlingua easier than a speaker of Japanese does. No auxlang is equally easy for everyone.

## What Counts as Success?

Zamenhof's dream was that Esperanto would become everyone's second language. It did not. But "did it replace English" is the wrong test for a bridge language, and the real question has several parts:

| TEST               | QUESTION                                          | HOW ESPERANTO DOES                                                                                  |
|--------------------|---------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Universal adoption | Did it become the world's common second language? | No                                                                                                  |
| A living community | Is it used every day by real people?              | Yes: international meetings, clubs, books, online use                                               |
| Learnability       | Can learners reach a useful level quickly?        | Often reported to take far less time than a natural language, though this is hard to measure fairly |
| Stability          | Is there a shared standard?                       | Yes, in the form of the <i>Fundamento</i> since 1905                                                |

| TEST            | QUESTION                         | HOW ESPERANTO DOES |
|-----------------|----------------------------------|--------------------|
| Native speakers | Do children grow up speaking it? | A small number do  |

**How many speakers?** This is hard to answer. Estimates of Esperanto speakers range from the tens of thousands to around two million, depending on what counts as a "speaker" and who is counting. Estimates for those who grew up speaking it as a first language are far smaller, in the low thousands at most. Treat any single figure as a rough guess, and ask where it came from.

#### COMMON MYTHS

- **"Esperanto is dead."** It has a living community, though a small one.
- **"Esperanto was meant to replace all other languages."** Zamenhof's aim was a neutral second language, kept alongside each person's mother tongue.
- **"An auxlang has to look like English."** The big ones draw mainly on Romance and Germanic roots, which can seem familiar to Europeans and less so to others.

## Hands-On Exercises

### EXERCISE 1

Build Esperanto words with the affixes. Using *bona* "good", *lerni* "to learn" and *libro* "book", form (a) the opposite of *bona* with *mal-*; (b) a word for "a place where one learns"; (c) the plural of *libro*; (d) "I will learn" with the future ending.

 [View solution](#)

### EXERCISE 2

Classify each design choice as schematic or naturalistic, and say which kind of "easy" (to understand, or to produce) it helps: (a) one verb ending for all verbs in the present tense; (b) using the Latin-derived word shared by French, Spanish and Italian for "house"; (c) a prefix that reverses the meaning of any word; (d) spelling changed to match the pronunciation.

 [View solution](#)

### EXERCISE 3

Judge Esperanto against the five success tests in the table. Give a one-sentence verdict for each, then write two sentences answering the question "Did Esperanto fail?" in a way that does not depend on just one test.

 [View solution](#)

### CHAPTER 3 QUICK REFERENCE

- **Esperanto**: Zamenhof, 1887 (*Unua Libro*); *Fundamento* about 1905; endings show the word class; no irregular verbs; affixes build words
- **Ido**: a reform (1907–08) of Esperanto; "offspring"; small community, and a damaging split
- **Interlingua**: 1951, IALA; a naturalistic language built from the vocabulary European languages already share
- **Schematic** = built from a regular system; **naturalistic** = taken from existing languages
- "Easy" can mean easy to understand or easy to produce
- Success is several tests: adoption, community, learnability, stability, native speakers
- Speaker counts are rough: tens of thousands to about two million depending on the definition

### COMING NEXT

*Constructed Languages 4* turns from languages built to talk to languages built to test an idea: Lojban's logical grammar, Toki Pona's tiny vocabulary, and what the Sapir-Whorf hypothesis says about whether language shapes thought.

# Constructed Languages

Course 1 · Chapter 4 · Engineered Languages

Chapter 3 looked at languages built to be spoken between people. An **engineered language** (engelang) is built for a different reason: to test an idea. The designer wants to know what happens to a language if one feature is pushed to an extreme. Is it possible to have a language with no ambiguity? How much can you say with a hundred words? This chapter follows two engelangas that answer those questions in opposite ways, then asks the big question behind both: does the language you speak shape the way you think?

## Lojban: A Language Built on Logic

### From Loglan to Lojban

**Loglan** was invented by James Cooke Brown, who began the work in 1955 and described it publicly in *Scientific American* in 1960. His aim was to examine whether language influences thought: if you gave people a language with a logical, unambiguous grammar, would it change how they reason? Disputes over the copyright of Loglan's words led a group of supporters to leave and found the **Logical Language Group**, who in 1986 decided to rebuild the entire vocabulary under a freely usable licence. The result was **Lojban** ("logical language"), with a baseline description completed in 1997 and published as *The Complete Lojban Language*.

### How Lojban Works

The core of Lojban is the same idea as the logic of predicates. A sentence is built around a **selbri** (the relation) and its **sumti** (the things it relates). Every relation word comes with a fixed list of **places**, in a fixed order, so you always know what each slot means.

```
# klama: x1 goes to x2 from x3 via route x4 using means x5
mi klama le zarci
I go the market
# "I go to the market." The unused places (from, route, means) are left unspecified.

# prami: x1 loves x2
mi prami do
I love you
```

The vocabulary is also built to a plan. The root words, called **gismu**, number in the region of a thousand and three hundred and were chosen to be as recognisable as possible to speakers of the world's most widely used languages. The small grammar words are **cmavo**. Compounds, **lujvo**, are built by gluing root words together by fixed rules. Above all, the grammar is designed so that a computer can parse any correct sentence in exactly one way: no sentence is grammatically ambiguous.

#### WATCH OUT: UNAMBIGUOUS GRAMMAR IS NOT UNAMBIGUOUS MEANING

Lojban removes *grammatical* ambiguity: there is only one way to read the structure of a sentence. It cannot remove *semantic* ambiguity entirely. A word can still be vague, and speakers can still say unclear things, because meaning depends on what people have in mind. The claim is "no structural ambiguity", not "no misunderstanding".

## Toki Pona: A Language With About a Hundred Words

### The Opposite Experiment

**Toki Pona** ("good language") was created by the Canadian linguist and translator Sonja Lang and first appeared online in 2001, with a full description in her book *Toki Pona: The Language of Good* (commonly called *pu*). Where Lojban adds precision, Toki Pona removes almost everything: the original book describes around 120 words, and a later dictionary lists 137 "essential" words along with some less-used ones. The idea is inspired by simplicity and positive thinking: what happens to expression when you have to say complex things with very simple building blocks?

### How It Works

There are no inflections, no articles, no plural and no tense. A word's job comes from its position, and a few small particles mark the structure. Meaning for anything not in the list is built by combining words, so a friend is a *good person*.

|                              |                                        |                                            |
|------------------------------|----------------------------------------|--------------------------------------------|
| <code>mi moku e kili.</code> | # I eat fruit.                         | (e marks the object)                       |
| <code>jan li moku.</code>    | # The person eats.                     | (li separates most subjects from the verb) |
| <code>jan pona</code>        | # friend                               | (jan "person" + pona "good")               |
| <code>toki pona</code>       | # good language / the language of good |                                            |

|                   | LOJBAN                                                      | TOKI PONA                                               |
|-------------------|-------------------------------------------------------------|---------------------------------------------------------|
| Idea being tested | Can grammar be made logically precise and machine-parsable? | How much can a tiny vocabulary express?                 |
| Vocabulary        | Large and growing (well over a thousand root words)         | Around 120 to 137 core words                            |
| Grammar           | Strict, explicit, fixed places for each relation            | Very loose: word order and context carry the meaning    |
| Ambiguity         | None in the grammar                                         | A lot, resolved by context                              |
| Typical use       | Logic, discussion, translation experiments                  | Everyday simple conversation, art and a close community |

## Does Language Shape Thought? The Sapir-Whorf Question

Loglan was meant to test what is called the **Sapir-Whorf hypothesis** or **linguistic relativity**: the idea that the language you speak influences the way you think. It comes in two forms:

| VERSION              | CLAIM                                                 | STATUS                                                                                                                 |
|----------------------|-------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| Strong (determinism) | Language <i>limits</i> what you can think             | Widely rejected: people can think things their language has no word for, and learn the words later                     |
| Weak (influence)     | Language <i>nudges</i> habits of attention and memory | Some experimental support in narrow areas, such as how colour terms or directions are described; the effects are small |

For engelang the question is practical. If the strong version were true, a language designed to remove ambiguity would make its speakers more logical, and a language with a handful of words would narrow their thinking. The evidence does not show either. What an engelang can fairly show is more modest: that a human language *can* work with a very different design, and that people can learn to use it. It tests what is possible in language, not how language shapes minds.

### COMMON MYTHS

- **"Lojban speakers can't be illogical."** No: logic in the grammar does not make speakers reason well.

- **"Toki Pona can't say complex things."** It can, but it takes more words and relies on context; precision costs words.
- **"Engelangs aren't real languages."** Both have communities, texts and conversation; whether a tiny community is enough is a fair question, but they work as languages.

## Hands-On Exercises

### EXERCISE 1

Read the Lojban sentences from this chapter. For *mi klama le zarci*, say which word is the selbri, which are the sumti, and which of the five places of *klama* (goer, destination, origin, route, means) are filled and which are left empty.

 [View solution](#)

### EXERCISE 2

Translate between English and Toki Pona using *mi, sina, jan, moku, kili, pona, e, li*: (a) "You eat fruit." (b) "The person is good." (c) "I am a good person." (d) *mi moku e kili*. Then say what the sentences show about how much grammar Toki Pona has.

 [View solution](#)

### EXERCISE 3

Design a small experiment to test whether Lojban speakers reason better than English speakers. State what you would measure, one problem with the experiment (such as who learns Lojban), and what result would count as support for the weak form of the Sapir-Whorf hypothesis.

 [View solution](#)

## CHAPTER 4 QUICK REFERENCE

- **Engelang** = a language built to test an idea

- **Loglan** (Brown, 1955; public 1960) was meant to test linguistic relativity; **Lojban** (Logical Language Group, rebuilt from 1986, baseline 1997) is its free successor
- Lojban: **selbri** + **sumti** with fixed places; roots **gismu**, grammar words **cmavo**, compounds **lujvo**; no grammatical ambiguity
- **Toki Pona** (Sonja Lang, online 2001, book 2014): about 120 core words; *mi moku e kili*
- Lojban removes *structural* ambiguity, not meaning's vagueness
- **Sapir-Whorf**: strong form (language limits thought) is widely rejected; the weak form (influence) has small, narrow support

#### COMING NEXT

*Constructed Languages 5* turns to languages made for stories: Klingon, Dothraki and Na'vi, how a language is commissioned for screen, and why a fictional language needs just enough language.

# Constructed Languages

Course 1 · Chapter 5 · Languages for Stories

The auxlangs of Chapter 3 aim for ease and the engelangs of Chapter 4 for an idea. The conlangs in this chapter aim for something else: to make a fictional people *sound real*. They are built for film, television and books, where an actor must speak lines, an audience must believe them, and a subtitle must be written. That changes what the designer builds, how much of it, and for whom. This chapter looks at three of the best-known: Klingon, Dothraki and Na'vi. Tolkien's languages, which work the other way round (the stories grew out of the languages), have Chapter 6 to themselves.

## Three Languages, Three Franchises

| LANGUAGE | FRANCHISE             | DESIGNER                                                                          | NOTES                                                                                                                                                                               |
|----------|-----------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Klingon  | Star Trek             | Marc Okrand, who designed it for the films from 1984 onward                       | A few Klingon words were spoken in earlier material, but the language as it is studied today is Okrand's                                                                            |
| Dothraki | Game of Thrones (HBO) | David J. Peterson                                                                 | George R. R. Martin's novels gave only a few Dothraki phrases; Peterson built the full language for the show. He also created Valyrian and co-founded the Language Creation Society |
| Na'vi    | Avatar (2009)         | Paul Frommer, a linguist, built on a small starting list from the film's director | The director supplied roughly the first thirty words; Frommer built the vocabulary and grammar                                                                                      |

## What a Commission Looks Like

A fictional language is a piece of professional work, usually done to a brief. The brief has requirements that an auxlang designer never faces:

- **It must sound right.** The producers have an idea of the people: a proud warrior culture, a nomad horse people, a forest-dwelling clan. The sounds must suggest it without sounding silly or like a known language.

- **It must be speakable by actors.** A line that is impossible to learn in a week will not be filmed. Actors are given lines with recorded pronunciation to follow.
- **It must be consistent.** Once a word is on screen, it cannot change. A fan will check, and the designer must be able to say why a sentence is right.
- **It must be able to grow.** A show may run for years. The language needs a grammar and word-building system that can produce new lines on demand.
- **It must be translatable.** Subtitles show a meaning, so each line has to be written with an English meaning and checked for sense.

## Just Enough Language

A film does not need a complete language; it needs the illusion of one. Designers speak of building *just enough*: a sound system, a grammar sketch, and a vocabulary large enough for the scenes. The difference between a fictional language and a real one is that the real one has to cover every topic its speakers talk about, while a fictional one only has to cover the scenes in the script. When a script needs a new idea, the designer coins a word on the spot.

### WATCH OUT: "A LANGUAGE" IS NOT THE SAME AS "A CODE"

Substituting English words with made-up ones, one for one, produces a cipher, not a language. What makes the languages in this chapter real is a *grammar of their own*: word order, how verbs and nouns change, how questions and negatives work. Klingon's object-verb-subject order and prefix system, which you studied in Klingon Grammar 1, is an example.

## Culture Built Into the Language

A fictional language does more than sound different: it shows what the people care about. Vocabulary is the clearest place. Klingon, as you saw in Klingon Basic Conversation 1, is rich in words for fighting, honour, ships and food, and thin in words for cafés, shops and hotels, which a Klingon society would not use much. The same gap in the opposite direction is a clue to the designer's world: a people who live in the forest will have more words for the forest, and Na'vi vocabulary and imagery draw on the life of a forest moon.

| WHAT THE WORLD NEEDS     | HOW THE LANGUAGE SHOWS IT                                                                  | EXAMPLE                                        |
|--------------------------|--------------------------------------------------------------------------------------------|------------------------------------------------|
| A warrior culture        | Many words for combat and honour; blunt commands; no word for "please" in the polite sense | Klingon <i>Qapla'</i> "success"                |
| A nomadic horse people   | Vocabulary built around horses, travel and open land                                       | Dothraki, as designed by Peterson for the show |
| A forest-dwelling people | Words and images from a living forest; a strong sense of connection to nature              | Na'vi, by Frommer                              |

## From Screen to Community

Once a fictional language is public, fans can learn it, and some do: Klingon has dictionaries, a long-running institute of learners and translations of literature, and the other two have followers too. This makes them different from a purely private artlang. The community then does some of what a natural speech community does: it asks questions, finds gaps, and tests the designer's answers. That feedback is the subject of Chapter 11, A Language Lives.

### COMMON MYTHS

- **"Klingon is English in disguise."** No: it has its own order, sounds and verb system.
- **"A fictional language is just a few phrases."** The best-known ones have full grammars and thousands of words.
- **"The designer decides everything forever."** Not once a community exists: fans ask, argue and propose, and the designer answers.

## Hands-On Exercises

### EXERCISE 1

Make a comparison table for Klingon, Dothraki and Na'vi with rows for the franchise, the designer, the people the language is for, and one thing the designer had to get right (for example, the sound, consistency or growth). Mark any row you could not fill from this chapter alone as "look it up".

 [View solution](#)

## EXERCISE 2

Write a short "brief" for a fictional language: the people (one sentence), three requirements from the list in this chapter, and the first ten words the script would need for a scene in a harbour tavern. Say which words you would invent first and why.

 [View solution](#)

## EXERCISE 3

Show how a fictional language reveals its culture. Using what you learned in Klingon Grammar 1 and Klingon Basic Conversation 1, list three features of Klingon (vocabulary, politeness, or grammar) that fit a warrior culture, and one thing a Klingon speaker would find hard to say.

 [View solution](#)

## CHAPTER 5 QUICK REFERENCE

- **Artlang for screen:** built to a brief for actors, audiences and subtitles
- **Klingon** (Marc Okrand, from 1984), **Dothraki** (David J. Peterson, for Game of Thrones), **Na'vi** (Paul Frommer, for Avatar, 2009)
- Requirements: sounds right, speakable, consistent, able to grow, translatable
- **Just enough language:** cover the scenes in the script, not every topic
- A real fictional language has its own grammar, not just a word-for-word code
- Vocabulary shows culture: Klingon is rich in war and honour, thin in cafés and hotels
- Fans turn a screen language into a community

## COMING NEXT

*Constructed Languages 6* turns to Tolkien: a man who invented languages first and wrote the stories to give them a home. It covers Quenya and Sindarin in outline and how an invented history lies behind them.

# Constructed Languages

Course 1 · Chapter 6 · Tolkien's Languages

Chapter 5 described languages built for a story that already existed. J. R. R. Tolkien worked the other way round. He was a professional philologist, a scholar of old languages, and he invented languages for pleasure from his youth. The stories of Middle-earth grew out of that work, to give the languages a world to live in. This chapter looks at the two best-known results, Quenya and Sindarin, at where their sounds came from, and at the most unusual part of the project: a language with an invented *history*.

## A Language Inventor First

Tolkien began making languages as a young man, in the 1910s, long before *The Hobbit* or *The Lord of the Rings*. He later described the invention of languages as the foundation of his work, and the stories as something made to provide a world for the languages, rather than the other way round. (This is a view he expressed in his own letters; the exact wording is worth reading in a collection of them.) That makes him a different kind of designer from the screen designers of Chapter 5: the motive is the one called *art and play* in Chapter 1, and the audience was at first himself.

**A NOTE ON DATES**

Sources differ on exactly when Tolkien's Elvish languages began (they give dates between about 1910 and 1917), because his early notebooks were reworked many times. This chapter says "from the 1910s" and treats the languages as ones that changed throughout his life.

## Two Elvish Languages

The two languages students meet first are **Quenya** and **Sindarin**. Tolkien deliberately gave each a different feel by building it on different real-language models:

|                   | QUENYA                                                                      | SINDARIN                                                      |
|-------------------|-----------------------------------------------------------------------------|---------------------------------------------------------------|
| Role in the story | An old, formal "high" language of the Elves; used for lore, poems and names | The everyday language of the Elves of the stories' main lands |

|                  | QUENYA                                                                                                                 | SINDARIN                                                           |
|------------------|------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| Main inspiration | Finnish for its sound and noun cases, with Latin as the base and some influence from Greek (Tolkien's own description) | Welsh                                                              |
| Sound and feel   | Open, flowing, vowel-rich                                                                                              | More consonant clusters, mutations of initial sounds (as in Welsh) |
| Example phrase   | <i>Elen síla lúmenn' omentielvo</i> "A star shines on the hour of our meeting"                                         | <i>Mae govannen</i> "well met"                                     |

Neither language is a complete modern language: Tolkien wrote vocabulary, grammar notes and poems, but he never produced a finished, fixed system, and he revised the languages repeatedly. Students of them have to work from his published notes, which is why the study is a branch of scholarship in its own right.

## A Language With a Family Tree

The truly unusual feature of Tolkien's work is that the languages are related *within the story*. They are not two unrelated codes: Tolkien imagined a common ancestor, and then derived both Quenya and Sindarin from it by an invented history of **sound change**, the way real languages like French, Spanish and Italian came from Latin. Different sound changes in different places explain why related words in the two languages look different but still resemble each other.

The method is easy to see with a toy example (invented for this chapter; it is not Tolkien's actual history):

```
# Toy ancestor language and two daughters, derived by sound rules.
```

| Ancestor | Rule A (daughter 1)<br>final vowels kept | Rule B (daughter 2)<br>final vowels lost; k > g between vowels |
|----------|------------------------------------------|----------------------------------------------------------------|
| kala     | kala                                     | kal                                                            |
| taka     | taka                                     | tag                                                            |
| nala     | nala                                     | nal                                                            |

A learner of the two daughters sees a pattern (one keeps final vowels, the other drops them) and can predict a word in one from a word in the other. That predictability is what gives Tolkien's languages their real-language feel, and it is why a later chapter on language change

(Chapter 11) calls him a model for how to give a conlang depth. Chapter 8 returns to the sound systems that make the style possible.

## Scripts and a World to Hold Them

Tolkien also made writing systems. In the stories the Elvish script **Tengwar** was invented by the Elf Fëanor, and an older angular alphabet, the **Cirth**, is used for inscriptions. Both are designed as scripts with systematic shapes: related sounds have related letter forms, which is a feature of real alphabets that conlang designers often borrow. The world around the languages (peoples, histories, geography) gave each language speakers, sayings and songs, and gave the language its reason to exist.

| FEATURE                  | SCREEN CONLANGS (CHAPTER 5)               | TOLKIEN'S LANGUAGES                            |
|--------------------------|-------------------------------------------|------------------------------------------------|
| Which came first         | The story and its brief                   | The languages                                  |
| Audience at first        | A film crew, actors, viewers              | The designer himself                           |
| Completeness             | Enough for the script, then grown by fans | Never finished; revised throughout his life    |
| History inside the story | Limited                                   | A family tree with sound changes and ancestors |

**COMMON MYTHS**

- **"Tolkien made languages to decorate his novels."** By his own account it was closer to the reverse.
- **"You can hold a conversation in Quenya or Sindarin."** Only in a limited way: the corpus is incomplete and some forms are guesses by later scholars and fans.
- **"They are the same language with different words."** No: they have different sounds, grammar and sources of inspiration.

## Hands-On Exercises

EXERCISE 1

Use the toy sound rules from this chapter. Starting from the ancestor words *mina*, *paka* and *lala*, write what each becomes in daughter 1 (final vowels kept) and in daughter 2 (final vowels lost; k becomes g between vowels). Then say which rule explains why *paka* becomes *pag* in daughter 2.

 [View solution](#)

## EXERCISE 2

Fill a table comparing Quenya and Sindarin on four rows: role in the story, real-language inspiration, example phrase and feel. Then answer in one sentence: why would a designer give two languages in the same world different models?

 [View solution](#)

## EXERCISE 3

Tolkien said the languages came first and the stories grew to hold them. Write a short plan for a language-first project: the language idea (one sentence), the people who speak it, and one story event your language would explain or require.

 [View solution](#)

## CHAPTER 6 QUICK REFERENCE

- Tolkien: a philologist who made languages from the 1910s; the stories grew to give them a world
- **Quenya**: formal "high" Elvish; Latin base with Finnish and Greek influence
- **Sindarin**: everyday Elvish; inspired by Welsh
- Both come from an invented common ancestor by invented sound changes
- Scripts: **Tengwar** (flowing) and **Cirth** (angular)
- The languages were never finished; studying them means working from his notes
- Examples: *Mae govannen* (Sindarin, "well met"); *Elen síla lúmenn' omentielvo* (Quenya)

## COMING NEXT

*Constructed Languages 7* asks what happens when the medium changes: signed, whistled and drummed conlangs and codes, and what we mean by language when it is not spoken.

# Constructed Languages

Course 1 · Chapter 7 · Beyond Speech

Every conlang so far has been a spoken one, with a written form. But language does not need a voice. Deaf communities use fully developed **sign languages**, some peoples whistle their speech across valleys, and designers have tried to build languages out of gestures, symbols and musical notes. This chapter asks a simple question with a tricky answer: what counts as a language when the medium changes? It also introduces a warning from the sign-language side: designing a language from a desk is much harder than it looks.

## A NOTE ON CARE

Sign languages are the languages of real communities, and the history of attempts to design signs for them is sensitive. This chapter describes constructed systems and what linguists have learned from them, and it separates them carefully from the natural sign languages that Deaf communities created and use. Where my sources are thin, the text says so.

## Natural Sign Languages Are Full Languages

Natural sign languages, such as British Sign Language and American Sign Language, are not gestures standing in for a spoken language. They have their own grammar, using space, movement, hand shape and facial expression, and they pass all the design features from *Introduction to Linguistics*, Chapter 1: arbitrary signs, a small set of meaningless parts (hand shape, location, movement) that combine into meaningful signs, the ability to talk about absent things, and unlimited new sentences. They are natural languages: they grew out of communities, not out of a plan.

A striking case is **Nicaraguan Sign Language**. It emerged when deaf children in Nicaragua, brought together in schools from the late 1970s, built a shared sign language among themselves, and each new group of children gave it more structure. It is one of the few cases where researchers have been able to watch a new language appear. It matters for conlangs because it shows the thing a designed language lacks at the start: a living community that shapes the language by using it.

# A Designed Sign Language: Gestuno

In the 1970s the World Federation of the Deaf, wanting a way for deaf people from different countries to talk at international meetings, compiled a vocabulary of about 1,500 signs (the figure in the 1975 book is 1,470) and called it **Gestuno**. It was a list of signs, with little or no grammar. When people tried to use it at a congress in the mid-1970s, many found it hard to understand.

What happened next is the lesson. Interpreters and deaf signers started using the signs together with ideas from their own sign languages, and added grammar, and the mix gradually became what is now called **International Sign**. It has little in common with the original published list. So a list of designed signs was not enough, and the language that worked came from use, not from the desk.

|         | GESTUNO (AS PUBLISHED)               | INTERNATIONAL SIGN (AS USED)                        |
|---------|--------------------------------------|-----------------------------------------------------|
| Origin  | A commission compiled the vocabulary | Developed informally by signers and interpreters    |
| Grammar | Almost none                          | Added by use, borrowing from natural sign languages |
| Result  | Hard to use at first                 | Used at international events today                  |
| Lesson  | A word list is not a language        | The community supplied the rest                     |

**WATCH OUT: SIGNING A SPOKEN LANGUAGE IS NOT A SIGN LANGUAGE**

Some systems were designed to put a spoken language, such as English, into signs word by word. These are codes for the spoken language, built on top of it, and they differ from natural sign languages, which have their own grammar. I describe this from general knowledge and have not looked up a specific system for this chapter.

# Whistled and Drummed Speech

A language can also be carried in a different sound. **Silbo Gomero**, from La Gomera in the Canary Islands, is a whistled form of Spanish that islanders used to send messages across ravines, over distances of several kilometres. UNESCO recognised it in 2009 as part of the world's intangible cultural heritage. It is not a constructed language: it is natural speech moved into a different medium. The same is true of drummed speech in parts of West Africa, where

drums imitate the tones of a tonal language (a detail I give from general knowledge). They matter here because they show that a language and its sound are separable: the same grammar can ride on speech, whistling or drums.

## Symbol and Musical Languages

Designers have also tried to build languages from symbols. **Blissymbols**, devised by Charles Bliss in the mid-twentieth century, is a system of pictorial signs for meanings, later adopted as a communication aid for people who cannot speak (from general knowledge; I did not search this). And Solresol from Chapter 2 is a language of seven musical notes that could be sung, played, signed or whistled. These show a different kind of conlang: one designed to be independent of any one medium.

| SYSTEM                   | MEDIUM                | NATURAL OR CONSTRUCTED? | NOTES                                                 |
|--------------------------|-----------------------|-------------------------|-------------------------------------------------------|
| British Sign Language    | Hands, face, space    | Natural                 | A full language of a Deaf community                   |
| Nicaraguan Sign Language | Hands, face, space    | Natural (newly emerged) | Grew among deaf children from the late 1970s          |
| Gestuno                  | Hands                 | Constructed             | Published list; became International Sign through use |
| Silbo Gomero             | Whistling             | Natural                 | A medium shift of Spanish                             |
| Solresol                 | Notes, signs, colours | Constructed             | Never had fluent speakers (Chapter 2)                 |
| Blissymbols              | Pictorial symbols     | Constructed             | Used as a communication aid                           |

## What "Language" Means When the Medium Changes

The pattern across this chapter is that the design features do not depend on sound. A language is defined by its structure, not by its channel: arbitrary signs, patterned parts, displacement and productivity can be carried by voice, hands, whistles or drums. The second pattern is the warning

from Gestuno and Solresol: a designed system becomes a living language only when a community uses it and reshapes it. Chapter 11, A Language Lives, takes up that point.

#### COMMON MYTHS

- **"Sign language is a universal gesture language."** No: there are many separate sign languages, with their own grammars, and signers from different countries do not automatically understand one another.
- **"Sign language is spoken language on the hands."** No: it has its own grammar, which is not a copy of the spoken language around it.
- **"Whistled speech is a code."** It is the same language as the spoken one, in a different medium.

## Hands-On Exercises

### EXERCISE 1

Classify each as natural or constructed, and as a full language, a code for another language, or a medium shift: (a) British Sign Language; (b) Gestuno as published in 1975; (c) Silbo Gomero; (d) Solresol; (e) International Sign as used today. Give a one-line reason for each.

 [View solution](#)

### EXERCISE 2

Explain in a short paragraph what Gestuno's history teaches a conlang designer. Use the words *vocabulary*, *grammar* and *community*, and say which of the three the original design lacked.

 [View solution](#)

### EXERCISE 3

Apply the design features from Introduction to Linguistics, Chapter 1 (arbitrariness, duality, displacement, productivity) to a sign language and to whistled Spanish. For each, say whether it has the feature and give a reason. What does this show about the role of the medium?

 [View solution](#)

## CHAPTER 7 QUICK REFERENCE

- Natural sign languages are full languages with their own grammar
- **Nicaraguan Sign Language**: emerged among deaf children from the late 1970s; a rare case of a new language appearing
- **Gestuno** (about 1,500 signs, 1975): a published list with little grammar; hard to use; became **International Sign** through use
- **Silbo Gomero**: whistled Spanish, recognised by UNESCO in 2009; a medium shift, not a conlang
- Symbol and musical systems: Blissymbols, Solresol
- Design features do not depend on sound
- A designed system becomes a language only when a community uses it

## COMING NEXT

*Constructed Languages 8* moves from history to design. It starts with the sound system: phonemes, syllable shapes and stress, and the writing systems conlangs use.

# Constructed Languages

Course 1 · Chapter 8 · Sound and Writing

The first seven chapters surveyed what conlangs are and why they exist. From here the course turns practical: *how would you build one?* The answer starts where every language starts, with its sounds, and with how those sounds are written down. This chapter also begins a small running project. Over Chapters 8 to 12 we will build a tiny language called **Meren** a step at a time, so that by Chapter 12 you have seen every decision made once.

**BEFORE YOU START**

This chapter uses ideas from *Introduction to Linguistics*, Chapters 2 and 3: phonemes (the sounds that distinguish words), syllables and stress. If any of those terms feel hazy, skim those chapters first.

## Step 1: Choose a Phoneme Inventory

A **phoneme inventory** is the list of sounds a language uses to tell words apart. Natural languages range from small to large: Hawaiian is usually described as having about thirteen sounds, and English has many more. A designer chooses a size, and that choice drives the feel of the language:

| LANGUAGE  | INVENTORY                                                                                          | EFFECT                                                            |
|-----------|----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| Toki Pona | Fourteen sounds: nine consonants ( <i>p t k s m n l j w</i> ) and five vowels ( <i>a e i o u</i> ) | Easy for almost any speaker; words are short and similar-sounding |
| Esperanto | Five vowels and around twenty-odd consonants, chosen from sounds common in European languages      | Easy for Europeans; designed as a neutral set                     |
| Klingon   | Harsh consonants ( <i>tlh, Q, q, gh, ' </i> ), few vowels and a throaty feel                       | Feels alien and warlike; hard for English speakers                |

Two rules of thumb. For an auxlang or an engelang, pick sounds that most speakers can make. For an artlang, pick sounds that suggest the people: soft and flowing for a water-folk, hard and clipped for a warrior caste. What you should avoid is a random handful of sounds with no pattern, because real languages have patterns (for example, if there is a *p* and a *t*, there is usually a *k*).

## Step 2: Choose Syllable Shapes

Next decide which sounds can sit together. A **syllable shape** uses C for a consonant and V for a vowel. Simple shapes give an easy, musical language; complex shapes give a crowded one.

| SHAPE         | MEANING                                        | EXAMPLE LANGUAGE AND WORD       |
|---------------|------------------------------------------------|---------------------------------|
| CV            | Only a consonant then a vowel                  | Hawaiian-style: <i>ka-la</i>    |
| (C)V(n)       | Optional consonant, a vowel, optional <i>n</i> | Toki Pona: <i>pona, ma, jan</i> |
| (C)(C)V(C)(C) | Clusters allowed on both sides                 | English: <i>strengths</i>       |

## Step 3: Choose Stress

Stress is the beat of a word. The simplest design is a fixed rule that never changes, so learners do not have to remember anything. Esperanto puts stress on the next-to-last syllable of every word; other designs use the first syllable, or the last. A free-stress language like English is harder, because stress has to be learned word by word.

## Our Running Example: Meren

For the rest of the course we build **Meren**, a small artlang for a river people. The design goal is a soft, flowing language that is easy to say. Here are the first three decisions.

```
# Meren, step 1: phoneme inventory
Consonants:  p  t  k  m  n  s  l  r  h
Vowels:      a  e  i  o  u

# Step 2: syllable shape (C = consonant, V = vowel)
(C)V(n)      # optional first consonant, a vowel, optional final n

# Step 3: stress
First syllable, always.

# Example words that fit the rules
mere  (ME-re)    tan  (TAN)    lioka  (LI-o-ka)    sepunu  (SE-pu-nu)
```

The rules are loose enough to build a vocabulary, and strict enough that a word breaking them (*strak*, with three consonants in a row) is plainly not Meren. That is the quality we want from a sound system: a pattern a speaker can feel.

## Step 4: Choose a Writing System

A conlang needs a written form. The designer's options match the types of writing in the real world:

| TYPE        | ONE SYMBOL STANDS FOR                    | REAL EXAMPLE       | CONLANG EXAMPLE                                                   |
|-------------|------------------------------------------|--------------------|-------------------------------------------------------------------|
| Alphabet    | A consonant or a vowel                   | Latin, Greek       | Esperanto, Toki Pona (Latin letters); Tolkien's Tengwar           |
| Syllabary   | A whole syllable                         | Japanese kana      | Some invented scripts                                             |
| Logographic | A word or idea                           | Chinese characters | Blissymbols (Chapter 7); Toki Pona's optional hieroglyphic script |
| Featural    | A shape that shows how the sound is made | Hangul (Korean)    | Designed scripts that copy this idea                              |

The simplest and most common choice is to use the **Latin alphabet** with a few adjustments, because readers already know it and it is on every keyboard. Esperanto did that, with six extra accented letters (*ĉ ĝ ĥ ĵ ŝ ŭ*), which also caused practical trouble on typewriters and early computers. Klingon is written for learners in the Latin alphabet with upper- and lower-case letters meaning different sounds (*q* and *Q* are two sounds), and it also has an official script for the screen. A designer chooses between reader familiarity and a script that looks like the culture.

Designed scripts exist in the real world too. **Hangul**, the Korean alphabet, was designed by scholars in the fifteenth century, and its letter shapes are based on the shape of the mouth and tongue when making each sound. It is the standard example of a designed writing system that succeeded. Tolkien's **Tengwar** (Chapter 6) uses the same featural logic: related sounds have related shapes.

**WATCH OUT: SPELLING IS DESIGN, TOO**

Decide the spelling rules early: one letter per sound, no silent letters, and no letter used for two different sounds. English spelling breaks all three, which is why it is hard for learners. A conlang that

copies English-style spelling inherits the problem. Also check your letters against a keyboard: an unusual symbol is a cost for every future user.

### COMMON MYTHS

- **"More sounds make a better language."** No: Hawaiian and Toki Pona show that small inventories work well.
- **"A conlang needs its own alphabet."** Most use Latin letters; a custom script is optional and costs readers effort.
- **"Random sounds sound alien."** They sound random. Real languages have patterns, and a pattern is what makes a sound system feel like a language.

## Hands-On Exercises

### EXERCISE 1

Use the Meren rules (nine consonants, five vowels, shape (C)V(n), stress on the first syllable). Check which of these are possible Meren words and mark the stressed syllable: *kasen*, *strik*, *nopu*, *aleta*, *tmo*, *ruhin*. For any that break the rules, name the rule.

 [View solution](#)

### EXERCISE 2

Design the sound system for a language of your own. Write a phoneme inventory, a syllable shape and a stress rule, then invent five words that fit and two that break the rules. Say what feel you were aiming for.

 [View solution](#)

### EXERCISE 3

Compare writing choices. For Esperanto, Klingon and Meren, give the script type, one advantage and one cost of the choice. Then decide whether Meren should use Latin letters or a custom script, and give two reasons.

## CHAPTER 8 QUICK REFERENCE

- Design order: **phoneme inventory** → **syllable shape** → **stress** → **writing system**
- Small inventories work (Hawaiian, Toki Pona with 14 sounds); choose sounds to suit the audience or the people
- Syllable shapes: CV, (C)V(n), clusters; simple shapes give a musical language
- Fixed stress (Esperanto: next-to-last syllable) is easy to learn
- Writing types: alphabet, syllabary, logographic, featural (Hangul, Tengwar)
- Most conlangs use Latin letters; a custom script is optional
- Spelling rules: one letter per sound, no silent letters, no double duty
- **Meren**: p t k m n s l r h + a e i o u; (C)V(n); first-syllable stress

## COMING NEXT

*Constructed Languages 9* builds grammar: word order, how words change (isolating, agglutinative, fusional), and the choice between regular design and natural-looking irregularity. We add the grammar of Meren.

# Constructed Languages

Course 1 · Chapter 9 · Building Grammar

Chapter 8 gave Meren its sounds. Now it needs a grammar: the rules for turning words into sentences. A grammar looks large, but a designer only makes a handful of big choices. Each one matches a contrast you met in *Introduction to Linguistics*, Chapters 4 and 5, so this chapter is partly a revision and partly a set of decisions to make.

## Choice 1: Word Order

The basic order of subject (S), verb (V) and object (O) is the first choice. Of the six possible orders, a few are very common, and the rest are rare:

| ORDER | EXAMPLE LANGUAGE                                      | PATTERN      |
|-------|-------------------------------------------------------|--------------|
| SVO   | English, Esperanto (default)                          | "I eat fish" |
| SOV   | Japanese, Turkish, Hungarian (neutral sentences vary) | "I fish eat" |
| VSO   | Welsh                                                 | "Eat I fish" |
| OVS   | Klingon                                               | "Fish eat I" |

Klingon's object-verb-subject order is a deliberate choice: it is very rare in natural languages and so it makes the language feel alien, which is the effect the designer wanted. The order also comes with other choices, since languages that put the verb last usually put the describing word before the noun and use **postpositions** (small words after the noun, such as "river-*in*") instead of prepositions. Keep these in step, because natural languages tend to line them up.

## Choice 2: How Words Change

The next choice is how much words change to show their job. This was the typology of Chapter 4 of the Introduction:

| TYPE          | HOW IT WORKS                                                       | EXAMPLE                               | GOOD FOR                                        |
|---------------|--------------------------------------------------------------------|---------------------------------------|-------------------------------------------------|
| Isolating     | Words do not change; separate small words do the work              | Toki Pona                             | Very easy to learn; relies on context           |
| Agglutinative | Each piece of meaning is a separate suffix, glued in a fixed order | Esperanto, Klingon, Hungarian         | Regular and easy to analyse                     |
| Fusional      | One ending carries several meanings at once                        | Latin, German, most Romance languages | Compact, but harder to learn and more irregular |

Most conlang designers choose **agglutinative**, because every suffix has one job, so a learner can build and take apart words by rule. That is the style of both Esperanto and Klingon.

## Choice 3: Plurals, Cases, Tense and the Rest

A grammar must say how it marks four things: number (one or many), role (who did what to whom), time, and negation and questions. Each can be marked by a suffix, a separate word, or word order:

| FEATURE      | ESPERANTO                  | KLINGON                                | TOKI PONA                      |
|--------------|----------------------------|----------------------------------------|--------------------------------|
| Plural       | suffix -j                  | suffix (-pu', -mey, -Du' by noun type) | none: context                  |
| Who did what | object suffix -n           | word order and verb prefix             | particles <i>li</i> , <i>e</i> |
| Tense        | verb endings -as, -is, -os | none: time words instead               | none: time words instead       |
| Negation     | word <i>ne</i>             | verb suffix -be'                       | word <i>ala</i>                |

## The Naturalism Dial

There is one more decision that is not about forms but about style. A fully regular grammar (every verb alike, no exceptions) is easy to learn but looks artificial. Natural languages are irregular in exactly the words people use most, because common words wear down over time: English *is/was/been*, Spanish *ser/soy/fue*. A designer chooses a point on a dial:

- **Fully regular:** best for an auxlang or an engelang.

- **A few irregularities in the most common words:** gives an artlang the feel of age. This is the dial that Chapter 6 on Tolkien described.

#### WATCH OUT: THE "RELEX" TRAP

A *relex* is a conlang that is English (or another language) with the words swapped for invented ones. The word order, the plurals, the idioms and even the sense of humour are all English. A good test: translate a sentence from your conlang word-for-word into English. If it reads as English, the grammar is not doing any work of its own. Real design makes the grammar different, not just the words.

## Meren Grammar: A Sketch

Here are the grammar decisions for Meren. They fit the river-people idea: a calm, regular language with the verb at the end, like the flow of a river. The few words are enough to build the examples; the full vocabulary comes in Chapter 10.

```
# Meren grammar sketch
Order:      subject - object - verb          (SOV)
Describing: the describing word follows the noun
Place words: follow the noun (postpositions)
Plural:     noun + -ra
Object:     noun + -n
Past:       verb + -sa      Future: verb + -ko      Present: bare verb
Negation:   ha before the verb
Question:   ke at the end of the sentence

# Words used below
mi "I"      si "you"      lio "fish"      mere "river"      teka "eat"      pasu "see"

Mi lion teka.           I fish-OBJ eat.           "I eat fish."
Mi lioran tekasa.       I fish-PL-OBJ eat-PAST.   "I ate fish (several)."
```

*Si merenn pasuko ke?*      # see exercise 1: this sentence has a mistake

*Mi lion ha teka.*      I fish-OBJ NEG eat.      "I do not eat fish."

Look for the mistake in the third example yourself: the first exercise asks you to find it. As planned in Chapter 8, stress falls on the first syllable of every word, so *tekasa* is TE-ka-sa.

#### COMMON MYTHS

- **"A conlang grammar must be fully regular."** Only if it is an auxlang or an engelang. An artlang can be irregular on purpose.
- **"SVO is the natural order."** It is the most familiar to English speakers, but SOV is at least as common among the world's languages.
- **"More grammar means a better language."** A small, consistent grammar is easier to learn and to use well.

## Hands-On Exercises

### EXERCISE 1

Find and fix the mistake in *Si merenn pasuko ke?* ("Will you see the river?"), using the Meren rules and the words in the sketch. Then translate: (a) "You see the fish." (b) "I did not see the river." (c) "Will you eat fish?"

 [View solution](#)

### EXERCISE 2

Describe the grammar type. For Esperanto, Klingon, Toki Pona and Meren, say whether each is isolating, agglutinative or fusional, and give the word order and one evidence from the chapter. Which two are closest in design?

 [View solution](#)

### EXERCISE 3

Add a naturalism touch to Meren. Choose one very common verb (for example "be" or "go") and give it an irregular form for the past tense. Explain why a language with a long history might have such an irregular word. Then apply the relex test to a Meren sentence of your choice.

 [View solution](#)

## CHAPTER 9 QUICK REFERENCE

- Design choices: **word order, word-change type, number/role/time/negation, naturalism**
- Orders: SVO (English), SOV (Japanese), VSO (Welsh), OVS (Klingon, rare)
- Types: **isolating** (Toki Pona), **agglutinative** (Esperanto, Klingon), **fusional** (Latin)
- Keep the pieces in step: a verb-final language usually has postpositions
- **Relex** = a conlang that is another language with the words swapped
- Naturalism dial: fully regular for auxlangs; a few irregularities for artlangs
- **Meren**: SOV; plural -ra; object -n; past -sa; future -ko; negation ha; question ke

### COMING NEXT

*Constructed Languages 10* builds vocabulary: roots, compounds and affixes, borrowing, a priori and a posteriori words, and how many words a language needs first. Meren gets its first word list.

# Constructed Languages

Course 1 · Chapter 10 · Building Vocabulary

A language with sounds and a grammar still has nothing to say until it has words. Vocabulary is the largest job in building a language, so the aim of this chapter is to make it smaller: choose the *right first words*, build as many others as you can from them, and decide where the roots come from. At the end Meren gets its first word list.

## How Many Words, and Which First?

Fluent speakers of natural languages know tens of thousands of words, but a conversation can start with a few hundred. Toki Pona (Chapter 4) shows the other extreme: around 120 core words and a great deal of combining. A designer does not write the dictionary all at once. They write it in order of usefulness.

A good starting point is a **core vocabulary list**. The best known is the Swadesh list, put together by the linguist Morris Swadesh in the mid-twentieth century from words that almost every language has: pronouns, numbers, body parts, basic actions and features of nature. It was made for comparing languages, but it also works as a checklist for a new one.

| ORDER | CATEGORY                                    | EXAMPLES                         |
|-------|---------------------------------------------|----------------------------------|
| 1     | Pronouns and question words                 | I, you, we, who, what            |
| 2     | Basic verbs                                 | eat, see, go, give, make, sleep  |
| 3     | Numbers                                     | one, two, three                  |
| 4     | Nature and surroundings                     | water, sun, tree, fish           |
| 5     | People and body                             | person, friend, hand             |
| 6     | Qualities                                   | big, small, good, bad, cold      |
| 7     | Words specific to the world of the language | for Meren: boat, net, river-bend |

## Where Do Roots Come From?

The two main sources were introduced in Chapter 2, and every designer makes this choice:

| SOURCE       | IDEA                                   | USED BY                                                  | EFFECT                                             |
|--------------|----------------------------------------|----------------------------------------------------------|----------------------------------------------------|
| A posteriori | Borrow roots from existing languages   | Esperanto, Interlingua                                   | Many words look familiar; quick start for learners |
| A priori     | Invent roots from your own sound rules | Klingon, Quenya, Toki Pona (mostly)                      | A distinct feel; every word must be learned        |
| Mixed        | Borrow some, invent others             | Lojban (roots drawn from several languages and reshaped) | Balance of familiarity and independence            |

The choice follows from the purpose set in Chapter 1: an international bridge borrows, an invented people invents. Meren is an artlang for a river people, so it takes the a priori route and builds all its words from its own sounds.

## Make Words Grow: Roots, Affixes and Compounds

The best way to shrink the dictionary is to let words build other words. Three tools do most of the work, and Esperanto and Klingon use all three:

| TOOL          | WHAT IT DOES                           | ESPERANTO                              | KLINGON                                |
|---------------|----------------------------------------|----------------------------------------|----------------------------------------|
| Affixes       | A small piece changes a root's meaning | <i>lerni</i> → <i>lernejo</i> "school" | <i>Suv</i> → <i>Suvwl'</i> "warrior"   |
| Compounds     | Two roots join to name a new thing     | <i>sunbrilo</i> "sunshine"             | <i>tlhIngan Hol</i> "Klingon language" |
| Word families | A root with many related forms         | <i>lern-</i> : learn, school, student  | <i>Hol</i> : language, speak           |

A good affix works on *many* roots. One agent suffix gives you "eater", "drinker" and "speaker" from three roots, so with fifty roots and five suffixes you can build a few hundred words.

## Meren: First Word List

Every word below follows the Meren sound rules from Chapter 8 (nine consonants, five vowels, syllables of the form (C)V(n), stress on the first syllable) and the grammar from Chapter 9. The word list is invented for this course.

```
# Meren first vocabulary (a priori, built from Meren sounds)
Pronouns:  mi I      si you    li he/she   mu we
Numbers:   ti one    nu two     ro three
Nature:    mere river  sapi water  kolu sun    simo moon
           kano tree  pira bird   lio fish    ana boat
People:    hamu person  nesa friend tohe house
Verbs:     teka eat    tano drink  pasu see    rua go
           pere make   nika give   loha speak sipu sleep  hana love
Qualities: luki big    mina small  sena good   kihi bad
           neku cold   pali warm

# Word-building affixes
-po  one who does the action    tanopo "drinker"  lohapo "speaker"
-lu  place for the action       sipulu "bedroom"  tekalu "dining place"
# compounds: first noun describes the second
merehamu = river + person = "river-person" (a Meren, the people's own name for themselves)
```

Now whole sentences are possible, combining Chapter 9's grammar with these words:

|                       |                                |                                 |
|-----------------------|--------------------------------|---------------------------------|
| Hamu sapin tano.      | person water-OBJ drinks.       | "The person drinks water."      |
| Mi anan pasusa.       | I boat-OBJ see-PAST.           | "I saw the boat."               |
| Mu lioran tekako.     | we fish-PL-OBJ eat-FUT.        | "We will eat fish."             |
| Li tohen luki pereko. | he/she house-OBJ big make-FUT. | "He/she will make a big house." |

#### WATCH OUT: CHECK FOR ACCIDENTS

With a small inventory, invented words can collide with meanings you did not intend: a word that sounds like an obscenity in a major language, or two words that differ only by a single sound and are easy to confuse (here *mi* "I" and *mina* "small" are close but different enough). Say each word aloud, check it against languages your audience speaks, and keep very frequent words clearly distinct from each other.

#### COMMON MYTHS

- **"You need a huge dictionary before you can use the language."** A few hundred well-chosen words, plus affixes, are enough to start.
- **"Invented words should sound exotic."** They should sound like the language: they follow the same sound rules as all the others.
- **"One word, one meaning."** Real words overlap and stretch. Allow a word to cover a range, as natural languages do.

## Hands-On Exercises

### EXERCISE 1

Check these proposed Meren words against the sound rules ((C)V(n), nine consonants, five vowels): *kanu, spira, hemo, tluka, lonan, sapit*. Say which are possible and which are not, and for each one that fails, name the rule.

 [View solution](#)

### EXERCISE 2

Use the Meren affixes. Form (a) a word for "seer" from *pasu*; (b) a word for "a place to eat" from *teka*; (c) a word for "river-fish" as a compound; (d) a word for "boat person" as a compound. Then translate "The seer drinks water" into Meren.

 [View solution](#)

### EXERCISE 3

Plan the first thirty words of a language of your own. List them in order of importance by the categories in this chapter, and say whether you borrow the roots (a posteriori) or invent them (a priori), and why that choice suits the language's purpose.

 [View solution](#)

## CHAPTER 10 QUICK REFERENCE

- Write vocabulary in order of usefulness: pronouns, basic verbs, numbers, nature, people, qualities, then world-specific words
- **Swadesh list**: a core vocabulary list of words almost every language has
- **A posteriori** (borrowed roots) suits bridge languages; **a priori** (invented roots) suits artlangs
- Grow words with **affixes, compounds and word families**
- Check new words against the sound rules and for accidental clashes
- **Meren**: about 40 first words; suffixes *-po* (one who) and *-lu* (place); compound *merehamu*

#### COMING NEXT

*Constructed Languages 11* asks what happens after the design: speakers, communities, literature, language change in a conlang and who decides what is correct. Meren gets its first speakers.

# Constructed Languages

Course 1 · Chapter 11 · A Language Lives

A finished design is not yet a living language. A grammar and a dictionary are a map, but a language needs people who travel it. Chapters 2 and 7 each ended with the same warning: Volapük, Solresol and Gestuno all had designs, but what decided their fate was community. This chapter is about that part of the story: how a conlang gets speakers, what keeps them together, who decides what is correct, and what happens when the language starts to change.

## The Life Cycle of a Conlang

| STAGE              | WHAT HAPPENS                                                                | EXAMPLE                                                                                                  |
|--------------------|-----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| 1. Design          | One person or a small group writes the sounds, grammar and first vocabulary | Zamenhof and Esperanto, 1887                                                                             |
| 2. First learners  | Early adopters learn it from the description and write the first texts      | The first Esperanto readers, Volapük's early clubs                                                       |
| 3. Community       | Clubs, journals, meetings and now websites hold the learners together       | The yearly Esperanto congress, from 1905; the Klingon Language Institute, from 1992                      |
| 4. Literature      | Original writing and translations show the language can carry real work     | Translations of Shakespeare and the Bible into Klingon (by the Klingon Language Institute, among others) |
| 5. Native speakers | Some children grow up speaking it; the language starts to change by itself  | A small number of Esperanto native speakers                                                              |

Many conlangs stop at stage 1 or 2. The ones that reach stage 3 usually did so because they gave people something to do together: a place to meet, a publication to read, a task to share.

## Meetings and Texts

The World Esperanto Congress has met every year since 1905, except during the two World Wars and the COVID-19 pandemic. It is held in a different city each year and attracts a few

thousand people. The Klingon Language Institute, founded in 1992, publishes journals and translations and also ran the Duolingo Klingon course. Both show what a community needs: a regular gathering, a way to publish, and a body that keeps the records.

## Who Decides What Is Correct?

A natural language has no ruler: usage decides, and dictionaries record what people already say. A conlang begins with a designer, so someone has to decide what happens when a speaker invents a new word or a new construction. The language communities have settled on four models:

| MODEL                           | HOW IT WORKS                                                                        | EXAMPLE                                                            | TRADE-OFF                                          |
|---------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------|----------------------------------------------------|
| Designer as authority           | The creator answers questions and publishes new words; what they publish is "canon" | Klingon and Marc Okrand                                            | Consistent, but the language depends on one person |
| A fixed foundation, open growth | A founding text fixes the core; everything else may grow                            | Esperanto's <i>Fundamento</i> (1905)                               | Stable core, but argument over what lies beyond it |
| An academy or committee         | A body rules on disputes and new words                                              | Esperanto also has an academy that advises on usage                | Orderly, but can be slow or resisted               |
| Open community                  | Usage decides; the founder's books are a starting point                             | Toki Pona's community, which has built extra words on the original | Lively, but can drift into dialects                |

There is no best model. Chapter 2 showed what happens when the designer keeps all control: Volapük split. The opposite problem, no shared core, makes a language fall apart. The models above are attempts to find a balance.

## Language Change in a Conlang

As soon as people use a language every day, it changes. Learners simplify what is hard, speakers shorten what is frequent, and slang appears. For a conlang this raises a new question: is a

change a *mistake* or *progress*? The answer depends on how many people make it and whether they understand each other. Three kinds of change appear in practice:

- **New words:** speakers coin them when the language lacks something. This is the healthiest kind of change and is usually welcomed.
- **New uses:** a speaker stretches a word or builds a new phrase, and others copy it. If it spreads, it becomes part of the language.
- **Drift:** sounds and endings wear down, and irregular forms appear. It happens slowly, and mostly when there are native speakers.

#### WATCH OUT: "CHANGED" IS NOT "BROKEN"

Natural languages change constantly and nobody concludes they are broken. A conlang that never changed would not be alive. The question for a community is not whether to allow change but how much change the shared core can take before speakers stop understanding each other.

## Meren: Its First Speakers

Imagine Meren has been released and a few dozen people have learned it from your description. They will need a way to grow it. A simple, workable plan for a small community follows the same steps as the larger ones:

# How Meren grows (a plan for a small community)

1. **Need** A speaker finds a gap: "we have no word for 'bridge'".
2. **Propose** They suggest a word that fits the sound rules: **papo** (or a compound: **me**
3. **Test** Other speakers use it for a few weeks; if it confuses, it is dropped.
4. **Adopt** The community's keeper adds it to the word list, marked "adopted".
5. **Record** Each adopted word is dated; the core grammar (Chapter 9) stays fixed.

# Governance: a fixed core + open vocabulary, like the Fundamento model.

This is the "fixed core, open growth" model. The grammar and the sound rules stay fixed, so the language remains learnable, and the vocabulary is free to expand as the people need it.

#### COMMON MYTHS

- **"A conlang with a community is no longer controlled by its creator."** Often the creator keeps a voice, as Okrand does for Klingon, but the speakers' usage matters more and more.
- **"Change means a conlang is dying."** Change is a sign of life.
- **"You need native speakers to count as a language."** No: many fully functioning languages have a majority of second-language speakers, though native speakers are what make a language change by itself.

## Hands-On Exercises

### EXERCISE 1

Match each language to a governance model and give one benefit and one risk: (a) Klingon; (b) Esperanto; (c) Toki Pona; (d) a language with no founder (invent one). Then say which model you think Meren should use, and why.

 [View solution](#)

### EXERCISE 2

Run the Meren word-coining process for the idea "bridge" or "market". Write each of the five steps for your word, check the proposed word against the Meren sound rules, and say what test you would use in step 3.

 [View solution](#)

### EXERCISE 3

Predict change. Suppose Meren is spoken for fifty years by a thousand people, some as a first language. Name three changes you would expect (one new word, one new use of an old word, one piece of drift) and say which of them the community should accept.

 [View solution](#)

## CHAPTER 11 QUICK REFERENCE

- Life cycle: **design** → **first learners** → **community** → **literature** → **native speakers**
- A community needs a gathering, a way to publish and a keeper of records
- World Esperanto Congress: yearly since 1905; Klingon Language Institute: founded 1992
- Governance: **designer as authority, fixed foundation, academy, open community**
- Change types: **new words, new uses, drift**; change is a sign of life
- **Meren**: fixed core grammar, open vocabulary; need → propose → test → adopt → record

#### COMING NEXT

*Constructed Languages 12* is the finale: a design checklist, a finished Meren sketch built from every chapter, advice on naming and sharing a language, and a recap of the course.

# Constructed Languages

Course 1 · Chapter 12 · Make Your Own

You have seen what conlangs are (Chapter 1), where they came from (Chapters 2 to 7), and how one is built (Chapters 8 to 11). This last chapter puts it together. It gives you a checklist you can use for any language, finishes the Meren sketch we have built a piece at a time, and ends with advice on naming, documenting and sharing a language of your own.

## The Design Checklist

Work through these in order. Each one points back to the chapter where it was explained, and each answer feeds the next:

| #  | QUESTION                                        | CHAPTER | MEREN'S ANSWER                                        |
|----|-------------------------------------------------|---------|-------------------------------------------------------|
| 1  | What is it for, and who for?                    | 1       | An artlang for a river people                         |
| 2  | What kind and motive?                           | 1 to 7  | Artlang; art and play                                 |
| 3  | Which sounds?                                   | 8       | p t k m n s l r h and a e i o u                       |
| 4  | Which syllable shapes and stress?               | 8       | (C)V(n); stress on the first syllable                 |
| 5  | How is it written?                              | 8       | Latin letters, one letter per sound                   |
| 6  | Word order and word-change type?                | 9       | SOV; agglutinative                                    |
| 7  | How are number, role, time and negation marked? | 9       | Suffixes -ra, -n, -sa, -ko; word ha; question word ke |
| 8  | How regular, how natural?                       | 9       | Regular, with room to add irregular common words      |
| 9  | Where do the roots come from?                   | 10      | A priori, from Meren sounds                           |
| 10 | Which words first, and how do they grow?        | 10      | About 40 core words; suffixes -po and -lu; compounds  |
| 11 | How will it live and grow?                      | 11      | Fixed core, open vocabulary                           |
| 12 | What is it called, and how is it documented?    | 12      | See below                                             |

## The Finished Meren Sketch

Here is Meren on one page, with every decision from Chapters 8 to 11 in one place. This is what a "language sheet" looks like: enough for someone else to learn the language and write a sentence.

```
# MEREN: a language sheet
```

```
Sounds      consonants  p t k m n s l r h          vowels  a e i o u
```

```
Syllables   (C)V(n)          Stress  first syllable          Writing  Latin letters
```

```
Order       subject - object - verb; describing word follows the noun; place words follow
```

```
Nouns       plural -ra      object -n      (lio, liora, lion, lioran)
```

```
Verbs       present: bare    past -sa      future -ko      negation: ha before the verb
```

```
Questions   ke at the end of the sentence
```

```
Build       -po one who    -lu place for    compounds: first noun describes the second
```

```
Words       mi si li mu | ti nu ro | mere sapi kolu simo kano pira lio ana | hamu nesa to  
            teka tano pasu rua pere nika loha sipu hana | luki mina sena kihi neku pali
```

```
# A short text
```

|                      |                                 |                            |
|----------------------|---------------------------------|----------------------------|
| Mi meren hana.       | I river-OBJ love.               | "I love the river."        |
| Mu anan luki pereko. | we boat-OBJ big make-FUT.       | "We will make a big boat." |
| Mu lioran tekako.    | we fish-PL-OBJ eat-FUT.         | "We will eat fish."        |
| Si meren pasuko ke?  | you river-OBJ see-FUT QUESTION. | "Will you see the river?"  |

### WATCH OUT: A NAME CAN BE AN ACCIDENT

The working name *Meren* is exactly the object form of *mere* "river". So *Mi meren hana* could mean "I love the river" or "I love Meren". That is the kind of clash Chapter 10 warned about, and a good designer looks for it before sharing. Here it is useful rather than harmful (the language of the river *is* the river), but it is worth deciding on purpose.

## Naming and Documenting

A name is the first thing anyone sees, so choose it with the same care as a word. Check it for accidental meanings, say it aloud, and decide whether it follows the language's own rules. Many

conlangs are named in themselves: *Esperanto* means "one who hopes", and *tlhIngan Hol* means "Klingon language".

Then write it down. A conlang that lives only in your head cannot be learned. A useful minimum is one document with:

- A **purpose statement** (two sentences).
- The **language sheet** like the Meren sheet above.
- A **word list** that you keep up to date, with each word marked as core, coined or adopted.
- A **sample text** with a word-for-word gloss and an English translation, like the four Meren sentences above.
- A **change log**: when each word was added or each rule changed, and why.

## Sharing a Language

A language becomes real when someone else uses it. The ways to start are small:

- **Teach a friend.** One speaker who can answer back is worth more than a hundred pages.
- **Write short texts.** A greeting, a story, a song. Texts show the gaps in the grammar.
- **Join a community of language makers.** There are societies and online groups for conlangers, such as the Language Creation Society, founded by David J. Peterson (the Dothraki creator from Chapter 5). They share designs, ask for feedback and run language-building challenges.
- **Be open about the rules for growth.** Say who decides, and how a new word is added (Chapter 11).

## Course Complete: What You Can Now Do

| CHAPTER              | YOU CAN ...                                                                    |
|----------------------|--------------------------------------------------------------------------------|
| 1 What Is a Conlang? | tell natural from constructed, and name the four motives and three kinds       |
| 2 Before Esperanto   | explain why Lingua Ignota, philosophical languages, Solresol and Volapük faded |

| CHAPTER                               | YOU CAN ...                                                                   |
|---------------------------------------|-------------------------------------------------------------------------------|
| 3 Auxiliary Languages                 | compare Esperanto, Ido and Interlingua, and judge a bridge language's success |
| 4 Engineered Languages                | describe Lojban and Toki Pona, and discuss linguistic relativity              |
| 5 Languages for Stories               | explain how a screen language is commissioned and what "just enough" means    |
| 6 Tolkien's Languages                 | describe Quenya, Sindarin and their invented history                          |
| 7 Signed, Whistled and Other Conlangs | separate sign languages, medium shifts and designed codes                     |
| 8 Sound and Writing                   | design a phoneme inventory, syllable shape, stress and spelling               |
| 9 Building Grammar                    | choose word order, word-change type and marking, and avoid a relex            |
| 10 Building Vocabulary                | plan a first word list and grow it with affixes and compounds                 |
| 11 A Language Lives                   | describe a language's life cycle, governance and change                       |
| 12 Make Your Own                      | complete a language sheet and share it                                        |

#### WHERE TO GO NEXT

The best next step is to try. Build a language sheet of your own using the checklist, then test it with a friend. For depth on single languages, see *Klingon Grammar 1* and *Klingon Basic Conversation 1* for an artlang with an official grammar, and *Esperanto Basic Conversation 1* for an auxlang you can speak. *Introduction to Linguistics* covers the ideas in Chapters 8 and 9 in more depth. Tolkien's Sindarin and Quenya are planned as courses of their own.

## Hands-On Exercises

### EXERCISE 1

Write a language sheet for a language of your own. Follow the checklist: purpose, kind, sounds, syllable shape, stress, writing, word order, marking, roots, at least twenty words and one affix. Add a four-line sample text with a gloss and a translation.

 [View solution](#)

## EXERCISE 2

Translate with the finished Meren sheet. Into English: *Si lion tekako ke?* and *Li sipulun pasusa*. Into Meren: "The person made a house." and "We did not see the moon." Then check each Meren sentence against the sound and grammar rules.

 [View solution](#)

## EXERCISE 3

Review a design. Take your language sheet from Exercise 1 and run three tests: (a) the relex test from Chapter 9, (b) the accidents test from Chapter 10, and (c) a naming check from this chapter. Write one improvement for each failure you find.

 [View solution](#)

## CHAPTER 12 QUICK REFERENCE

- Checklist: **purpose** → **kind** → **sounds** → **syllables and stress** → **writing** → **order and type** → **marking** → **regularity** → **roots** → **first words** → **growth** → **name and documents**
- A language sheet: sounds, writing, order, nouns, verbs, questions, word-building, words, sample text
- Check a name for accidental meanings (Meren is also the object form of *mere*)
- Document: purpose, sheet, word list, sample text with gloss, change log
- Share: teach a friend, write short texts, join a community, state the rules for growth