

# 1 Why invent languages?

## Inventing languages

Okrent (2009) reviews (in a book for the general public) some of the history of invented languages.

There are a few different motivations that people might have in inventing a language, but a lot of them arose from the feeling that language could be improved upon. Languages are messy, often difficult to learn, with lots of exceptions, words that mean more than one thing, many ways to express the same meaning. Someone with a Whorfian outlook might imagine that if you could nail the language, the thought would be clarified. Alternatively, one might just find it to be an interesting intellectual pastime, or part of a creative endeavor in imagining fictional worlds.

## Goals

There are several aims that one might have. Here are a couple of big ones:

- Plausible (fictional)
- Precise in meaning, for scientific discourse
- Easy to learn, use, for *lingua franca*

## 1.1 Delgarno

### Delgarno's idea

Inspired by shorthand, he decided to try to create a kind of simple universal communication system, around 1657. He provided a list of 935 “radicals” with which he wrote a kind of a poem.

When I *sit-down* upon a *hie place*, I'm *sick* with *light* and *heat*  
For the *many thick moistures*, doe *open wide* my *Emptie* pores  
But when sit *upon* a *strong borrowed* Horse, I *ride* and *run* most *swiftly*  
Therefore if I can *purchase* this *courtesie* with *civilitie*, I *care* not the *hirers bararitie*  
Because I'm *persuaded* they are *wild villains*, *scornfully* *deceiving* *modest* men  
Neverthelesse I *allowe* their *frequent wrongs* and will *encourage* them with *obliging exhortations*  
Moreover I'll *assist* them to *fight* against *robbers* when I *have* my *long crooked* sword.

...

## Delgarno's radicals

The TABLE of Radicall verbs and adjectives

1. Ego

8. When I sit down upon a hie place, I'm sick with light and heat  
12. For the many thick mistwires, doe open wide my h'mptie pores  
16. But when I sit upon a strong barren of Hecle, I ride and run most swiftly  
20. Therefore I can purchase this courtage with civillite, I care not the h'ters bebarillie  
24. Because I'm persuaded they are mild violains, fearfully deceiving modest men  
28. Nevertheless I allow their frequent orange, and will encourage them with alluring exhortations  
32. Moreover I'll assist them to fight against robbers, when I have my long crooked sword.

2. Tu

6. Worthy friend be entreated, to extoll religion and bolyne  
10. F. true verger being found giveth a rich blessing  
14. B. your courage concealed in a prison, provokes fiers to pursue you  
18. T. baid firme your victory, against the heave burdens of despair  
22. B. the great sufferings of misery kills wicked servants  
26. N. you may constantly sell dewe, and continue till your idle questions  
30. M. you may remarke how chail virgins conceiv, and assist sleeping men with nakednes.

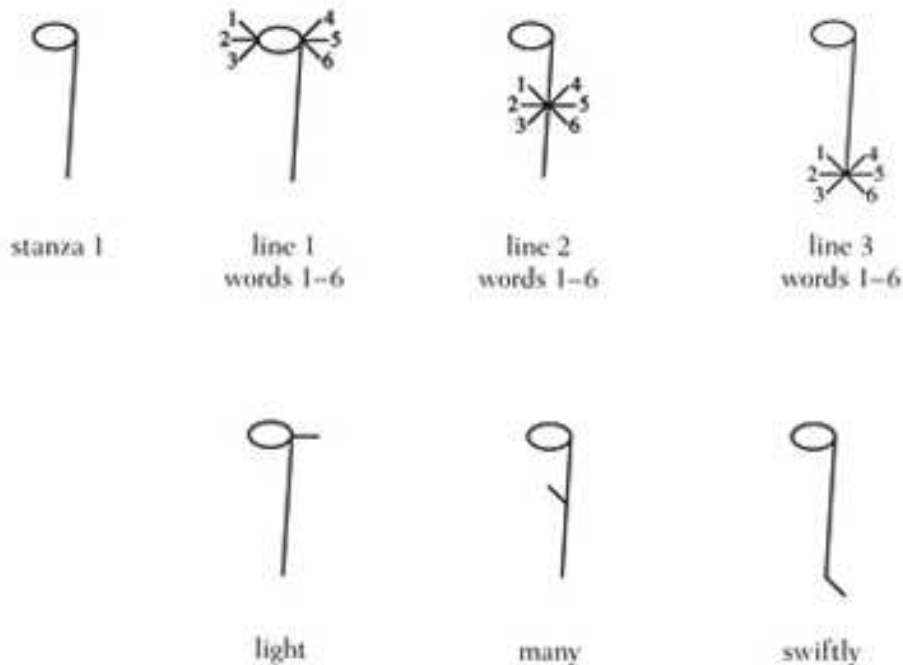
3. Ille

6. A wyse teacher knowes, what he affirms and understand's what he remembers  
10. F. he chooseth rather to scale prophecies, then to please angry lovers  
14. B. when he hears and sees clearly, they have promised to honour and thank him  
18. T. he therefore absolves them from false accusations, and praises their flourishing innocency  
22. B. hard beginnings of good, begot a lively growth  
26. N. he commanded presently to bind them, and led them away and hang and burn them  
30. M. he punished them so with hunger and thirst, that they eyed out eating is sweet.

4. Nos

6. We'll call this old mad man, and tieke him till he fast for laughter  
10. F. he doeth much mischief, he doeth much harme, he doeth much wrong, he doeth much ill  
14. B. he doeth much mischief, he doeth much harme, he doeth much wrong, he doeth much ill  
18. T. he doeth much mischief, he doeth much harme, he doeth much wrong, he doeth much ill  
22. B. he doeth much mischief, he doeth much harme, he doeth much wrong, he doeth much ill  
26. N. he doeth much mischief, he doeth much harme, he doeth much wrong, he doeth much ill  
30. M. he doeth much mischief, he doeth much harme, he doeth much wrong, he doeth much ill

## Delgarno's writing system

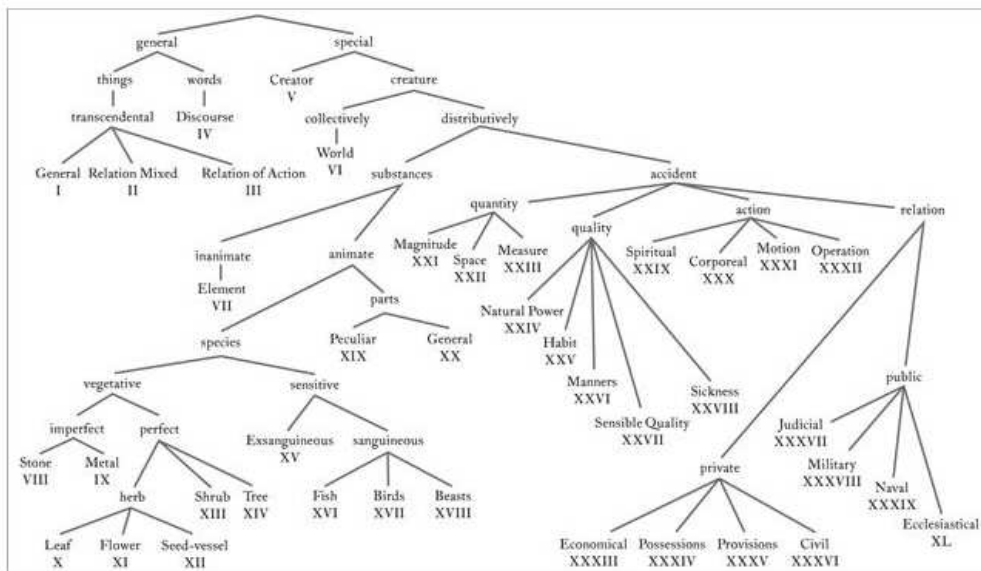


## 1.2 Wilkins

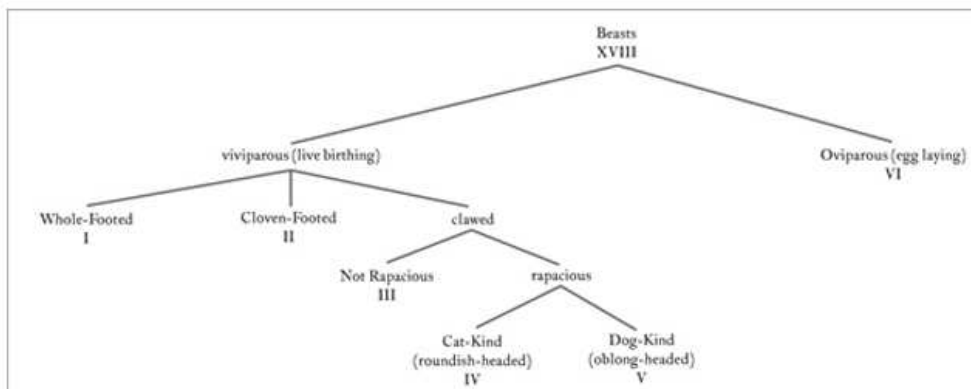
### Wilkins' version

John Wilkins (*An Essay Towards a Real Character and a Philosophical Language*) did something similar, around the same time, but instead of just pointing into an arbitrary memorized poem, he attempted to have the position indicated carry some intrinsic meaning, so to that end he attempted to map out the universal categories.

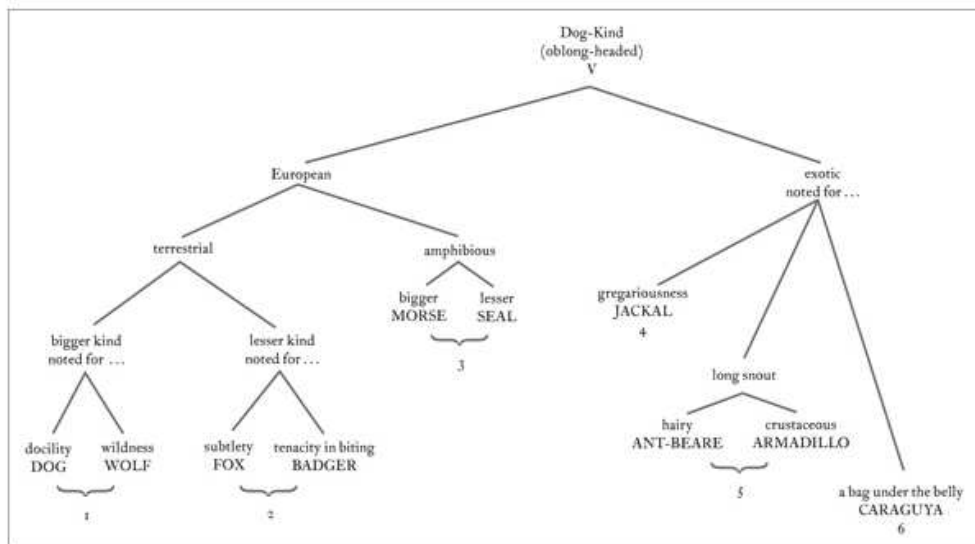
### Wilkins' categories



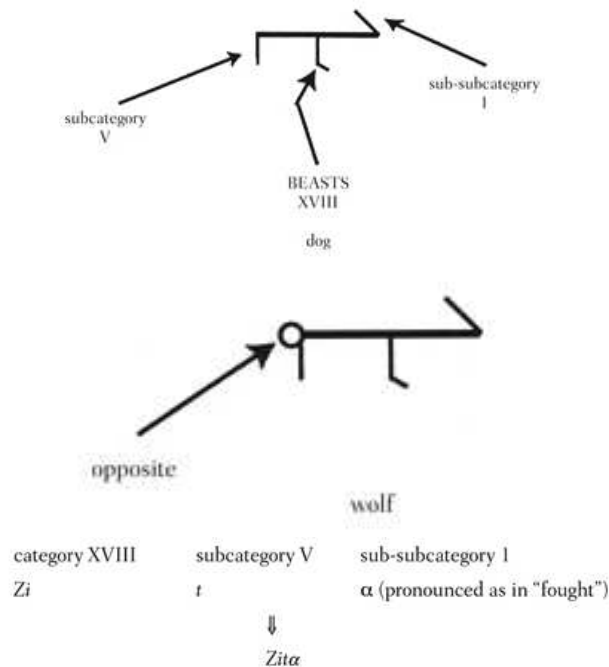
### Wilkins' beasts



### Wilkins' oblong-headed beasts



## Wilkins' dogs/wolves



## It is clear

Okrent (2009) details the trouble trying to translate ‘It is clear...’—there are many different concepts that could go with the English word ‘clear.’ Not hindered from being known. Plain, manifest. Plain: homely? frank? flat-lands? Not obscure. Manifest.

Wilkins had created something that wasn't really useful or on the mark in terms of his goal in creating the invented language, but did manage to lay the groundwork for the thesaurus.

## **2 Esperanto**

### **Zamenhof**

Esperanto is an artificial language created by Ludwik Zamenhof at the end of the nineteenth century. The environment was a mostly mutually hostile mix of Russians, Poles, Germans, Jews, each speaking a separate language. As a teenager, he started developing Esperanto, the hope being that things would settle down if everybody had a language in common. Published in 1887, and based largely on his own experience and knowledge of Polish, Yiddish, Russian, German, Hebrew, Latin, French.

### **Enthusiasm**

The idealism behind Esperanto (a “language of peace”, but cf. (3)) was probably the main thing that made it essentially successful. But it did become a kind of culture unto itself, there are conferences, an international network, rock stars of a kind, etc.

Incidentally, Tivadar Schwartz, an active Esperantist from Hungary who changed his family name to Soros (‘will soar’), escaped to Switzerland with his son in 1947 and attended the Esperanto universal congress in Bern. Tivadar later returned to Hungary, George went to England and was for a while fairly dedicated to the Esperanto cause, though later pretty much left it behind in amongst all of the becoming unbelievably wealthy.

### **Bergen's (2001) study**

Bergen (2001) documented a couple of things about Native Esperanto, which we covered some weeks ago (the example given there was that the aspectual prefixes, used in Standard Esperanto, seem to have been completely abandoned by the Native Esperanto speakers).

Here's another one. The accusative case, a source of deep contention within Esperanto circles.

### Esperanto accusative

The case in Esperanto works thusly: nominative is unmarked (1), prepositions are used (2), and *-n* marks direct objects and adjectives (3) and adverbial complements expressing ‘motion towards’ 4 (cf. dative?).

- (1) La granda knabo estas en via ĉambro.  
The big boy is in your room.
- (2) Mi donos ĝin al la granda knabo.  
I will give it to the big boy.
- (3) Mi piedbatis la grandan knabon.  
I kicked the big boy.
- (4) Mi iros hejmen.  
I will go home.

### Controversy

“As early as 1895, following much discussion about the accusative’s utility and its learnability, Zamenhof put the decision up to a vote to retain it or not... The Esperantists of the day decided in favour of maintaining it, but fifteen years later, the accusative, among other features of Esperanto, led to a separatist movement that would result in the daughter language Ido...”

Bergen (2001) did find that there was not much deviation from SVO order in NE, so the functional import of accusative-marking (the possibility of freer word order) may not be useful. And Bergen also found that there was a wide range of use in possible environments—with a strong correlation to the other language the children speak (languages with accusative marking → use of NE *-n*).

## 3 Loglan

### Loglan

James Cooke Brown had the idea of testing the Sapir-Whorf hypothesis by creating an artificial language separate from culture, and set out to create a little logical language (Loglan), which he published a sketch of in *Scientific American* in 1960. The idea here was that it was a language calibrated to logic. Good for science.

- (5) radaku    da kangu u        da blanu  
 all-x-that x   dog    if-then x   blue  
 ‘All dogs are blue.’

### Loglan in practice

- (6) Nora Tansky, Bob LeChavalier 1987
- a. mi prami tu  
 ‘I love you’
  - b. .i mi djica lepo mi kansa tu  
 ‘I desire the state of being with you’
  - c. .i mi cuxna lepo mi speni tu  
 ‘I choose the state of being married to you’
- (7) I    uu                    no                    mi djano lepo                    ba  
 and I’m-sorry-that it-is-not-the-case-that I   know the-event-of something-x  
 sitfa                                    be  
 being-the-location-of something-y.  
 ‘I’m afraid I don’t know where anything is.’

### Lojban

Brown himself was a bit of a loose, protective cannon, it seems. Failing to get an NSF grant, he made a huge stink, pretty much ensuring no future public fundability. He ran a Loglan Institute with an iron fist that pretty much drove everyone away. Eventually, to dodge Brown’s copyright claims, Loglan-88 was created by “relexifying” Loglan, then renaming it Lojban. Brown eventually lost his ownership case in court, but it’s not really clear if a language can be legally owned in this way even now.

### Okrent on Lojban

“There are at least twenty ways to say ‘and’ in Lojban. But that’s nothing compared with what happens when you get into ‘or’ and ‘if’... Frankly, the thought of trying to capture Lojban in a nutshell for you—something I have tried to do with the languages I’ve discussed in previous chapters—fills me with despair. There is just so much. The language is specified to within an inch of its life.”

“‘How many Lobjanists does it take to change a broken light-bulb?’ goes the old Lojban joke. ‘Two: one to decide what to change it into and one to decide what kind of bulb emits broken light.’ The further I waded into Lojban, the more everything I heard seemed to be filtered through the sensibilities of a bratty, literal-minded eight-year old. . .”

“I didn’t see much live conversation at Logfest, but I did see a little. It goes very, very slowly. It’s like watching people do long division in their heads.”

## 4 Art

### Klingon

Klingon was invented (for *Star Trek*, of course) by Marc Okrand. It’s supposed to sound “harsh, guttural, and alien” but it still uses sounds that are for the most part unremarkable in human languages.

“The alien character of Klingon doesn’t stem so much from the sounds it uses as from the way that it violates the rules of commonly co-occurring sounds. There’s nothing extraordinary about the sounds from a linguistic standpoint. You just wouldn’t expect to find them all in the same language.” (Okrand, p.c. to Okrent)

### Okrand

Okrand happened to have been enlisted to help with *Star Trek II* to create some lines of Vulcan that could be believably overdubbed over a scene shot in English, which put him first in the linguist line when someone producing *Star Trek III* decided they wanted some scenes in Klingon. It had to be tough-sounding, and he had to include a couple of pre-existing words. Knowing what *Star Trek* fans were like, Okrand decided to work out a full grammar.

### Principles

“Klingon both flouts and follows known linguistic principles, and its real sophistication lies in the balance between the two tendencies. It gets its alien quality from the aspects that set it apart from natural languages: its phonological inventory of sounds that don’t normally occur together, its extremely rare basic word order of OVS (object-verb-subject). Yet at the same time it has the feel of a natural language.” (Okrent)



### Agglutinating

Klingon is an agglutinating language, building words by affixing morphemes to roots in sequence. Klingon proverb: *Dubotchugh yIpummoH* ‘If it is in your way, knock it down.’ Or *Nobwl’a’pu’qoqvam’e’ nuHegh’eghrupqa’moHlabe’law’II’neS SeH’eghtaHghach’a’na’chajmo’* ‘The so-called great benefactors are seemingly unable to cause us to prepare to resume honorable suicide (in progress) due to their definite great self-control’ (David Barron, winner of the longest possible three-word Klingon sentence contest).

- (8) du -bot -chugh yl -pum -moH  
it-you block if imperative fall cause  
‘If it blocks you, cause it to fall!’

### Great self control

- (9) nob -wl’ -’a’ -pu’ -qoq -van -’e’ nu- Hegh -’egh -rup -qa’  
give -er aug pl so-called these topic them-us kill self ready resume  
-moH -laH -be’ -law’ -II’ -neS SeH -’egh -taH -ghach  
cause can not apparently in-progress hon control self continue nominalizer  
-’a’ -na’ -chaj -mo’  
aug def their due-to  
‘The so-called great benefactors are seemingly unable to cause us to prepare to resume honorable suicide (in progress) due to their definite great self-control’

### A solution to an artistic problem

“Klingon is the solution to an artistic problem, not a linguistic one.” This is another of the reasons for creating a language, just as an intellectual/artistic exercise.

One can hardly not mention J.R.R. Tolkien here, with his creation of an entire family of languages and historical derivation processes by which the different languages were related.

Or, one might add constraints for interest. Aeo (only vowels), Ilish (spoken by hypothetical sea creatures that communicate by electrical shocks with coordinates).

## Na'vi

A recent example would be Na'vi, invented for *Avatar* by Paul Frommer (but constrained by James Cameron to use certain words already invented, to sound pleasant but alien, and to be possible for humans to learn/speak).

Given these constraints, Na'vi winds up being more an unlikely language than an impossible/alien one.

## 5 Ridiculous considerations, an attempt at course-topic-relevance

### Why are alien languages so much like human languages?

There's one easy answer: The only alien languages we have any experience with were invented by humans.

But, also, one thing this brings to mind is the common current philosophical underpinnings of syntactic theory of late: human language is an optimal solution to a kind of simple engineering problem. There is thought. To externalize this thought, there needs to be a mechanism to relate thought and sound. That's grammar. Grammar is built on the simple ability to create linguistic representations from one another recursively (so a VP can be created by combining a V and NP, etc.). If this program succeeds, the complexity and properties of human language come down to a natural result of recursion, logic, and physiology of externalization.

### Engineering

To the extent that the same very simple constraints hold of aliens, we might actually anticipate that the end result would be similar. The physiology part is probably the biggest variable—the means of externalization.

But, it's not such a big stretch to suppose that many of the universals of word order, and even the more esoteric universals of, e.g., subject vs. adjective agreement, might be universals of not-just-human language. Then again.

### Why study Elvish?

BULA recently hosted a lecture entitled “Why study Elvish?” given by Marc Zender (Harvard). And I can't completely reconstruct the answer, though in part it was a demonstration of just how sophisticated and intricate Tolkien's inventions

were, and so to a certain extent studying Elvish (and the related languages) provides insights into Tolkien's ideas about how languages are related and evolve. Perhaps he noticed novel things about human languages that he incorporated, but just hid his observations away within his languages. But, more likely, studying Elvish is more like appreciating art than it is about learning something substantive about human language. Noticing generalizations here is rewarding in that you can feel a closer connection to Tolkien's mind, but that's about it.

### **Language universals**

Certainly, many who invent languages are aware of many of the proposed language universals, which are used (e.g., Klingon, Na'vi) to inform choices (both in accordance and against absolute universals or universal tendencies), but many also draw on their own hypotheses based on languages they know something about. And which could easily be wrong.

To the extent that we understand nativization processes, it might be revealing to discover what children do with invented languages, insofar as they may well be able to distinguish the possible from the impossible aspects.

## **References**

- Bergen, Benjamin K. 2001. Nativization processes in L1 Esperanto. *Journal of Child Language* 28: 575–595.
- Okrent, Arika. 2009. *In the land of invented languages: Esperanto rock stars, Klingon poets, Loglan lovers, and the mad dreamers who tried to build a perfect language*. New York: Spiegel Grau.