# kilo

## mini-language documentation

Patrick Bowen

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## Rationale

ki is a constructed language, described oligosynthetic, with the primary goal of being the fastest-to-speak language in the world. To try and achieve this I have taken a digital-first approach, ensuring full use of phonological combination. I have taken care to keep the language easy-to-learn, with a small grammar. Always looking for feedback on lexicon!

Email:  phun@pm.me

Telegram:  t.me/vikiliki

Community:  reddit.com/r/conlangs

Dedicated to:  Mikhailah Yap Rañada

## Issues

There are numerous issues with this conlang, listed here for future reference:

- The lack of /m/ & /n/, the use of /θ/ & /ð/

- Use of tones

- Strict word-order

- The need to memorise consonant/vowel numeric values

- The need to mentally alter consonants depending on word order (needing active one-word lookahead)

  - Could offload this onto vowel tone, but using the first phoneme aids immediate mental lexicon recall

- Lack of phonetic redundancy measures

- Extreme similarity between lexicon

- Script doesn't distinguish between C & V

- Underlying principle is digital - inhumane

Sections marked with an *asterisk are
incomplete.

# Content

## Conventional Representation

■ Note consonant voicing

### Latin Consonants

| # | Ch | IPA | # | Ch | IPA |
|---|----|-----|---|----|-----|
| 0 | p | /p/ | 8 | b | /b/ |
| 1 | t | /t/ | 9 | d | /d/ |
| 2 | k | /k/ | A | g | /g/ |
| 3 | f | /f/ | B | v | /v/ |
| 4 | r | /θ/ | C | x | /ð/ |
| 5 | s | /s/ | D | z | /z/ |
| 6 | c | /ʃ/ | E | j | /ʒ/ |
| 7 | w | /w/ | F | l | /l/ |

### Latin Vowels

| # | Ch | IPA | # | Ch | IPA |
|---|------|-----|---|-------|-----|
| 0 | i i | /i/ | 8 | ii í | /í/ |
| 1 | y y | /e/ | 9 | yy ì | /é/ |
| 2 | e e | /ɛ/ | A | ee é | /ɛ́/ |
| 3 | a a | /a/ | B | aa á | /á/ |
| 4 | q q | /ɒ/ | C | qq ò | /ó/ |
| 5 | o o | /ɔ/ | D | oo ó | /ɔ́/ |
| 6 | u u | /u/ | E | uu ú | /ú/ |
| 7 | h h | /ə/ | F | hh ù | /ə́/ |

# Native Script

- One consonant & vowel to each native char

- For foreign words, an underdot can be used on vowels for human readability

| ∩ | ⊍ | ∟ | ∪ | ⎺� | ⊃ | ∫ | ⊲ |
|---|---|---|---|---|---|---|---|
| ∏ | ∿ | ⊂ | ⊌ | ∏ | � | ⌐ | 8 |
| pi | ty | ke | fa | rq | so | cu | wh |
| bí | dì | gé | vá | xò | zó | jú | lù |
| 00 | 00 | 00 | 00 | 01 | 01 | 01 | 01 |
| 00 | 01 | 10 | 11 | 00 | 01 | 10 | 11 |
| 10 | 10 | 10 | 10 | 11 | 11 | 11 | 11 |
| 00 | 01 | 10 | 11 | 00 | 01 | 10 | 11 |

# *Foreign Words

Foreign words, to be used in ki, go through phonetic & morphological conversion. Though ki doesn't have many native phonemes, it makes exceptions for foreign ones.

Refer to *Proper Nouns & Foreign Words* to see how to express a full word in ki.

| Foreign | ki |
|---|---|
| | i |
| | y |
| | e |
| | a |
| | q |
| | o |
| | u |
| | h |

| Foreign | ki | Foreign | ki |
|---|---|---|---|
| | p | ʙ | b |
| ʈ c | t | ɟ | d |
| q | k | ɢ ɣ ʀ | g |
| ɸ | f | β | v |
| ɬ | r | ʒ | x |
| | s | | z |
| ʂ | c | ʐ | j |
| | w | ɭ ʟ | l |
| n ɳ ɲ ŋ ɴ | pp | j ʎ | jj |
| m ɱ | bb | r ɾ ɽ ɻ ɹ | ll |

ʔ ç ʝ x ɣ χ ʁ ħ ʕ ɦ ʊ ɰ

## Glossing

The English literal description of ki is called a "gloss". Apostrophes (') are prefixed to mark optional genres, double quotes (") are suffixed to Multi-/Omni-Roots, and commas (,) are suffixed to mark verbs.

# Alternate Representations

## Morse Code Style (time + 2-bit)

- Dot is 1 length, dash is 2 length, letter seperator is 3 length

- Ordered by length

- Dot (.) is preferred over dash (-)

- L denotes length

| # | Code | L | # | Code | L | # | Code | L | # | Code | L |
|---|------|---|---|------|---|---|------|---|---|------|---|
| 0 | . | 1 | 4 | -. | 3 | 8 | -.. | 4 | C | ..-. | 5 |
| 1 | - | 2 | 5 | ... | 3 | 9 | -- | 4 | D | .-.. | 5 |
| 2 | .. | 2 | 6 | ..- | 4 | A | .... | 4 | E | -... | 5 |
| 3 | .- | 3 | 7 | .-. | 4 | B | ...- | 5 | F | ..... | 5 |

# Tap (time + 1-bit)

- Ordered by length
- L denotes length

| # | Code | L | # | Code | L | # | Code | L | # | Code | L |
|---|------|---|---|------|---|---|------|---|---|------|---|
| 0 | . . | 2 | 4 | .. .. | 4 | 8 | ... .. | 4 | C | .... .. | 5 |
| 1 | . .. | 3 | 5 | ... . | 4 | 9 | .... . | 4 | D | ... .... | 5 |
| 2 | .. . | 3 | 6 | . .... | 5 | A | .. .... | 4 | E | .... ... | 5 |
| 3 | . ... | 4 | 7 | .. ... | 5 | B | ... ... | 5 | F | .... .... | 5 |

*Whistle

*Musical

# Syntax & Morphology

ki is made of 'sentences'.

## Syntax

Sentences are made of three 'genres': <u>noun</u>, <u>verb</u>, <u>adjective</u>. Each is a 'word'. Each sentence has a fixed pattern:

... (noun) noun (adj) verb (adj) noun ...

- Genres in parenthesis are <u>optional</u>, opposed to <u>regular</u>, marked by morphology.

- Until <u>period</u> is reached, the pattern will repeat at the ...

- Optional genres extend while marked

- adj apply to the preceding word

- Multi- and Omni-Roots extend over multiple words, and generally must fit each word into syntax; Special Lexicon interrupt normal syntax

- Adjacent numerics are treated as a list, by default as a set of separate options

# Morphology

Words are made of 'bits', and correspond to a digital 8-bit byte. The first 4 bits is a consonant, the second 4 bits is a vowel.

- The first bit is 1 for optional, otherwise 0. The proceeding 7 bits constitute the 'root'

- Omni-Roots possess more complex morphology than Multi-Roots

- It is optional, but recommended, for speakers to double the length of a verb's vowel, and for writers to append a comma (,) after a verb

- It is optional, but recommended, to put a space between all words except roots in the same Multi-/Omni-Root

## Semantics

### *Genre Semantics & Transitivity

Whereby: (nouns) Subject, Object, Pronoun; (other) Verb, Adjective.

| Pattern | Semantics & Transitivity |
|---|---|
| S…VOO… | S does V to O's<br>…which do V to O's… |
| SVPOVP. | S does V1 to P<br>who does V2 with O to P |
| SVPO | S does V to P with O |
| SVPOV | S does V to P with O<br>P does V to O |
| SVOOVP. | S does V1 to O's<br>P does V2 to O's |
| SVOOVPOO | S does V1 to O1's<br>P does V2 to O2's with O1's |
| PVObyVPO | P1 does V1 to O1<br>by P2 doing V2 to O2 |
| SVOPV. | S does V1 to O<br>which P does V2 to |
| SVOPVPOO | |

| Pattern | Semantics & Transitivity |
|---------|--------------------------|
| SVOGO | S does V to O1, O2 related |

- pronoun ambiguity

- or SVOOV[by]SVOVO..., or OV[by]SVOOVOO..., or SVOPV (e.g. I like her me listen).

### *Examples

PVObyVPO – I show, work 'good 'by speak, him it

I show good work by him saying about it

SVPOV - I determine 'needed I water eat "I must determine how to eat water"

SVOPV - I love 'really what I have "I really love what I have"

SVOGO - I make paper 'to book

### Noun Semantics

Contiguous nouns are of their proceeding;

e.g. cat bird = cat of bird | bird's cat

This rule permeates all multi-nouns;

e.g. person school = person of school | teacher

■ Default article is definite

# Miscellaneous

## *Possession

thing my

## *Imperative

- Made by stating the possible scenario (e.g. You clean the bath!).

## Special Lexicon

■ Interrupt regular syntax

### Numerics
### Bases 10 & 16

First root is "s_num10" (base-10, 'KN10') or "s_num16" (base-16, 'KN16'), proceeded by 4-bits: the numeric's floored logarithm up to 0x7, then 0x7-15 for a negative number's absolute logarithm. The proceeding $\log_b|n|$ digits are of vowels & consonants by their numeric value.

■ Pad with <i> when necessary

■ Expresses $-16^7$ to $16^7$

■ Two numerics together are an integer and its decimal

## Periodic Elements

First root is "o_element", then expressed as the number of protons using KN10. If number supplied is 0, it is the noun "element".

## Kinship

First root is "o_kinship", then move through relations from subject to kin.

| Kinship | Link | C |
|---|---|---|
| male | link | b |
| | final | p |
| female | link | d |
| | final | t |
| unknown | link | g |
| | final | k |
| late male | link | v |
| | final | f |
| late female | link | x |
| | final | r |

| Kinship | V |
|---|---|
| partner | i |
| sibling | y |
| parent | e |
| child | a |
| friend | o |
| neighbour | u |
| stranger | q |

## *Proper Nouns & Foreign Words

First root is "s_name", then first morpheme is the bitmask of the word, whereby multiple 1's in a row denote multiple consonants in a row, delimited by 0's representing up to 1 vowel only. For example: "birmingham" /bɜːrmɪŋəm/ becomes <bhlpibhp> (CVCCVCVC), 0000000010110101.

# Mono-Roots

- Adhere to normal syntax

- <u>R</u>oot value is hexadecimal, regular

- <u>O</u>rthography is Latin word

- Includes frequent grammar roots

- Yellow highlights provisional/currently unused, grey highlights unusable

| R | O | Noun | Verb | Adjective |
|---|---|------|------|-----------|
| Pronouns & Evidentials | | | | |
| 00 | pi | me/I/my | am/is | thanks |
| 01 | py | you/your/hello | are/is_plu | please |
| 02 | pe | they/them/their/ her/him/his/she/ he | | evi_direct |
| 03 | pa | me_you_them | | evi_non_vis |
| 04 | pq | | | evi_inferred |
| 05 | po | | | |
| 06 | pu | self | | evi_speculated |
| 07 | ph | each_other | | evi_hearsay |
| Articles | | | | |
| 08 | pí | obj_near_me/this | | a/an |
| 09 | pì | obj_near_you | | the |
| 0A | pé | obj_near_us/this/ | make/create/ | this/it |

| R | O | Noun | Verb | Adjective |
|---|---|------|------|-----------|
| | | it | make_exist | |
| 0B | pá | obj_far_us/that | | that |
| 0C | pò | plu_near_me/these | | plural |
| 0D | pó | plu_near_you | | plu_the |
| 0E | pú | plu_near_us/these | make_happen | these |
| 0F | pù | plu_far_us/those | | those |

## Descriptors

- 'who' includes all beings ever animate
- Inclusion begs question

| R | O | Noun | Verb | Adjective |
|---|---|------|------|-----------|
| 10 | ti | what/who | | what/who |
| 11 | ty | which | | which |
| 12 | te | where | | where |
| 13 | ta | when | | when |
| 14 | tq | how | | how |
| 15 | to | why/question | ask | why |
| 16 | tu | much/many | | much/many |
| 17 | th | really | | really/very |

## Conjunctions

| R | O | |
|---|---|---|
| 18 | tí | and/also |
| 19 | tì | xor |
| 1A | té | or |
| 1B | tá | nand |
| 1C | tò | nor |

## Tenses

| R | O | Noun | Verb | Adjective |
|---|---|---|---|---|
| 1D | tó | past | became | past |
| 1E | tú | present | become | present |
| 1F | tù | future | will_become | future |
| **General** | | | | |
| 20 | ki | ki/said | say/speak/tell | said |
| 21 | ky | yes/true | make_true/fix | true |
| 22 | ke | no/false | make_false/ break | false/not/ negative |
| 23 | ka | | | |
| 24 | kq | existence | exist | exists |
| 25 | ko | | | |
| 26 | ku | want | want | wanted |
| 27 | kh | need | need | needed |
| 28 | kí | ability | | able |
| 29 | kì | success | succeed | successful |
| 2A | ké | challenge | challenge | challenging |
| 2B | ká | ease | determine/ figure_out | easy |
| 2C | kò | | | |
| 2D | kó | | | |
| 2E | kú | | | |
| 2F | kù | | | |
| **Humanity** | | | | |
| 30 | fi | person/human | know_person | public |
| 31 | fy | female | | |
| 32 | fe | male | | |

| R | O | Noun | Verb | Adjective |
|---|---|------|------|-----------|
| 33 | fa | child | | young |
| 34 | fq | adult | | old |
| 35 | fo | body | feel | |
| 36 | fu | | | |
| 37 | fh | food | eat | hungry |
| 38 | fí | mind | know | known |
| 39 | fì | house | | |
| 3A | fé | display/show/vista | display/show | viewable |
| 3B | fá | clock | watch | watched |
| 3C | fò | possession | have/possess | possessed |
| 3D | fó | | | |
| 3E | fú | love | love | loved |
| 3F | fù | building | | |
| Concepts | | | | |
| 40 | ri | time | | little |
| 41 | ry | space | | same |
| 42 | re | thought/belief | believe/think | thought/believed |
| 43 | ra | history/story | | |
| 44 | rq | class | class | classed |
| 45 | ro | | | |
| 46 | ru | random | | other |
| 47 | rh | fact | know_fact | known |
| Human Activities | | | | |
| 48 | rí | work | work | result |

| R | O | Noun | Verb | Adjective |
|---|---|------|------|-----------|
| 49 | rì | meeting | meet | met |
| 4A | ré | education | teach | learned |
| 4B | rá | | | |
| 4C | rò | | | |
| 4D | ró | | | |
| 4E | rú | | | |
| 4F | rù | tool | | |

## Nature

| R | O | Noun | Verb | Adjective |
|---|---|------|------|-----------|
| 50 | si | water | drink | wet |
| 51 | sy | life/animal | live | alive |
| 52 | se | plant | grow | |
| 53 | sa | heat | take/receive | hot |
| 54 | sq | cold | give | cold |
| 55 | so | land | | |
| 56 | su | sky | fly | big |
| 57 | sh | | | |
| 58 | sí | mountain | | |
| 59 | sì | death | kill | dead |
| 5A | sé | | | |
| 5B | sá | movement | move/go | moved |
| 5C | sò | | | |
| 5D | só | planet | see | good |
| 5E | sú | air/wind | blow | windy |
| 5F | sù | | | |
| 60 | ci | | | |
| 61 | cy | | | |

| R | O | Noun | Verb | Adjective |
|---|---|---|---|---|
| 62 | ce | | | |
| 63 | ca | | | |
| 64 | cq | | | |
| 65 | co | | | |
| 66 | cu | | | |
| 67 | ch | | | |

## Literacy & Leisure

| R | O | Noun | Verb | Adjective |
|---|---|---|---|---|
| 68 | cí | book | read | |
| 69 | cì | word | write | written |
| 6A | cé | | | |
| 6B | cá | | | |
| 6C | cò | | | |
| 6D | có | | | |
| 6E | cú | | | |
| 6F | cù | game | play | |

## Listed Multi-Roots

| R | O | |
|---|---|---|
| 70 | wi | m_grammar |
| 71 | wy | s_name |
| 72 | we | m_travel |
| 73 | wa | m_emotion |
| 74 | wq | m_abstract |

## Special & Omni- Roots

| R | O | Noun | Verb | Adjective |
|---|---|---|---|---|
| 75 | wo | s_num10 | | |
| 76 | wu | s_num16 | | |
| 77 | wh | | | |

| R | O | Noun | Verb | Adjective |
|---|---|------|------|-----------|
| 78 | wí | o_colour | | |
| 79 | wì | o_precise | | |
| 7A | wé | o_datetime | | |
| 7B | wá | o_kinship | | |
| 7C | wò | o_taxonomy | | |
| 7D | wó | s_element | | |
| Null & Period | | | | |
| 7E | wú | null | | |
| 7F | wù | period | | |

# Grammar Roots

- Begins with root "m_grammar"

- Adhere to normal syntax

- Includes less frequent grammar roots

- Frequent grammar roots are in Mono-Roots

| R | O | Noun | Verb | Adjective |
|---|---|------|------|-----------|
| Aspects | | | | |
| 00 | pi | progressive/ imperfect | do | progressive/ imperfect/ happening |
| 01 | py | perfective | complete | perfective/ complete |

| R | O | Noun | Verb | Adjective |
|---|---|------|------|-----------|
| 02 | pe | prospective | | prospective/will_happen |
| 03 | pa | inceptive/start | start_act | started_act |
| 04 | pq | inchoative | start_be | started_be |
| 05 | po | cessative/end | stop_act/stop_be | stopped_act/stopped_be |
| 06 | pu | habitual/habit | | often |
| 07 | ph | pausative/pause | pause | paused |
| 08 | pí | resumptive/resumption | resume | resumed |

## Comparison

| R | O | Noun | Verb | Adjective |
|---|---|------|------|-----------|
| 09 | pì | negative | make_negative | not |
| 0A | pé | equative/copula | make_equal | equal |
| 0B | pá | comparative/comparison | compare | more_than |
| 0C | pò | superlative | make_most | most |
| 0D | pó | sublative | make_least | least |
| 0E | pú | similarity | make_similar | like/as |
| 0F | pù | | | |

## Mood & Condition

| R | O | Noun | Verb | Adjective |
|---|---|------|------|-----------|
| 10 | ti | condition | | if_then/if/condition |
| 11 | ty | | | would |
| 12 | te | deduction | | should/ought/deduction |
| 13 | ta | ability | | can/ability |
| 14 | tq | determination | | will/shall/ |

| R | O | Noun | Verb | Adjective |
|---|---|---|---|---|
| | | | | determination |
| 15 | to | offer/invite | invite/offer | can/shall/will/offered/invited |
| 16 | tu | request | request | could/requested |
| 17 | th | possibility | | could/may/maybe/might/possible |
| 18 | tí | slight_possibility | | could/may/maybe/might/slightly_possible |
| 19 | tì | permission | permit/allow/let | can/could/may/allowed |
| 1A | té | prohibition | prohibit | don't/avoid/prohibited |
| 1B | tá | obligation | obligate | must/obligated |
| 1C | tò | advice/suggestion | advise/suggest | should/ought/shall/suggested |
| 1D | tó | intention | intend | intended |
| 1E | tú | | | |
| 1F | tù | | | |

## Preposition

| 20 | ki | because | | |
|---|---|---|---|---|
| 21 | ky | of/about | | |
| 22 | ke | for | | |
| 23 | ka | by | | |
| 24 | kq | but/however | | |

| R | O | Noun | Verb | Adjective |
|---|---|---|---|---|
| Number & Size | | | | |
| 25 | ko | plural | | see 'plu_near_me' |
| 26 | ku | paucal/ something | | some/paucal |
| 27 | kh | none/nothing | | none |
| 28 | kí | all/everything | | all/every |
| 29 | kì | any/anything | | any |
| 2A | ké | much | | much |
| 2B | ká | little | | see 'time' |
| 2C | kò | many | | many |
| 2D | kó | few | | few |
| 2E | kú | big | | see 'sky' |
| 2F | kù | small | | small |
| Arithmetic | | | | |
| 30 | fi | open_bracket | | |
| 31 | fy | ordinal/power | | |
| 32 | fe | division | | |
| 33 | fa | multiplication | | |
| 34 | fq | addition | | |
| 35 | fo | subtraction | | |
| 36 | fu | modulo | | |
| 37 | fh | num_equal | | |
| 38 | fí | close_bracket | | |
| 39 | fì | greater_than | | |
| 3A | fé | less_than | | |

| R | O | Noun | Verb | Adjective |
|---|---|---|---|---|
| 3B | fá | greater_equal | | |
| 3C | fò | less_equal | | |
| 3D | fó | | | |
| 3E | fú | | | |
| 3F | fù | num_inequal | | |

# Multi-Roots

- ∎ Adhere to normal syntax

- ∎ Glossed as <word">

## Emotions

First root is "m_emotion", then one word.

| English | O | English | O | English | O |
|---|---|---|---|---|---|
| happy | pi | sad | ki | bad | ri |
| optimistic | py | hurt | yj | tired | ry |
| peaceful | pe | humiliated | ke | weak | re |
| accepted | pa | guilty | ka | stressed | ra |
| confident | pq | despairing | kq | busy | rq |
| proud | po | vulnerable | ko | let down | ro |
| playful | pu | lonely | ku | bored | ru |
| surprised | ti | fearful | fi | angry | si |
| excited | ty | scared | fy | mad | sy |
| amazed | te | anxious | fe | frustrated | se |
| confused | ta | insecure | fa | disgusted | sa |
| startled | tq | rejected | fq | sceptical | sq |
|  |  | nervous | fo | distant | so |

## *Time, Space, & Travel

First root is "m_travel", then one word.

| O | Noun | Verb | Adj |
|---|------|------|-----|
| **Time** | | | |
| **pi** | now | | now |
| **py** | then | | then |
| **pe** | again | | again |
| **pa** | soon | | soon |
| **pq** | ever | | ever |
| **po** | instantly | | instantly |
| **pu** | suddenly | | suddenly |
| **ph** | | | |
| **pí** | while/during | | |
| **pì** | earlier/ago | | |
| **pé** | since | | |
| **pá** | finally | | |
| **pò** | forever | | |
| **pó** | meanwhile | | |
| **pú** | later | | |
| **pù** | | | |
| **ti** | start/firstly | | |
| **ty** | whenever | | |
| **te** | N st/nd/rd | | |
| **ta** | N times | | |
| **tq** | eventually | | |
| **to** | consequently | | |

| O | Noun | Verb | Adj |
|---|------|------|-----|
| **tu** | finish/lastly | | |
| **th** | | | |
| Space | | | |
| **tí** | here | | |
| **tì** | there | | |
| **té** | anywhere | | |
| **tá** | nowhere | | |
| **tò** | source | | |
| **tó** | destination | | |
| **tú** | among | | |
| **tù** | | | |
| **ki** | inclusion/with | include | with/included |
| **ky** | in | | |
| **ke** | out | | |
| **ka** | on/over | | |
| **kq** | off | | |
| **ko** | beside | | |
| **ku** | opposite | | |
| **kh** | | | |
| **kí** | high | | high |
| **kì** | low | | low |
| **ké** | above | | above |
| **ká** | below | | below |
| **kò** | | | |
| **kó** | | | |
| **kú** | | | |

| O | Noun | Verb | Adj |
|---|------|------|-----|
| kù | | | |
| Mixed | | | |
| fi | start/go | | |
| fy | stop | | |
| fe | continue | | |
| fa | up | | |
| fq | down | | |
| fo | up to/until | | |
| fu | thus_far | | thus_far |
| fh | | | |
| fí | before/previously | | |
| fì | after/next | | |
| fé | in front | | |
| fá | behind | | |
| fò | middle/between | | |
| fó | left | | |
| fú | right | | |
| fù | | | |
| ri | to/toward | | |
| ry | from/away | | |
| re | at/upon | | |
| ra | beyond | | |
| rq | against | | |
| ro | along | | |
| ru | across/around | | |
| rh | through | | |

| O | Noun | Verb | Adj |
|---|------|------|-----|
| **rí** | far/far_away | | |
| **rì** | long | | |
| **ré** | close/near | | |
| **rá** | short | | |
| **rò** | succession | | |
| **ró** | | | |
| **rú** | | | |

- rotation based (roll, spin, etc)

## Abstract

- First root "m_abstract"

- Contains roots with strongly abstract verbs, nouns, and adjectives

| O | Noun | Verb | Adj |
|---|------|------|-----|
| pi | application | apply | applied |
| py | document | document | documented |
| pe | carry | carry | carried |
| sy | forgotten_thought | forget | forgotten |

## Generic

- Uses pre-existing Mono-Roots

- To use as verbs, use verb "make" with these as the object

| Roots | Noun | Adjective |
|-------|------|-----------|
| sky cold | hell | |
| person education | teacher | |
| building education | school | |
| word word | sentence | |
| word life | language | |
| word life word | translation | |
| time movement | speed/pace | fast/quick |
| work false | cheat | cheating/cheaty |

| Roots | Noun | Adjective |
|---|---|---|
| class word | ling_article | |
| word time | speech | |
| time word | fluency | fluent |
| word below" | subtitle | subtitled |
| life random | fortune | fortunate |
| person water | hero | heroic |
| person plant | farmer | farmable/arable |
| possession success | prize | |
| mind adult | wisdom | wise |
| person person | crowd | |
| house house | village | |
| mind village" | fame | famous |
| child plant | seed | |
| child air | pollen | |
| child sky | star | |
| heat animal sky | feather | feathered |
| mountain body | chest | |
| mountain body female | breast | |
| animal water | fish | |
| planet life | world | |
| land sky | dust | |
| person movement | footstep | |
| movement food | bite | |
| food water | soup | |
| mountain house | city | |

| Roots | Noun | Adjective |
|---|---|---|
| book time | newspaper | |
| person book | writer | |
| person book time | journalist | |
| water animal | milk | |
| | cooking | |

# Omni-Roots

■ Most adhere to normal syntax

## *Colours

First root is "o_colour", one word proceeds.

| C | Texture |
|---|---------|
| p | flat & opaque |
| t | flat & transparent |
| k | reflective |
| f | glittery |
| r | dynamic shadows |
| s | sandy/furry/grassy |
| c | bumpy |
| w | jagged |

| V | Colour | RGB |
|---|--------|-----|
| i | black | 000 |
| y | grey | 888 |
| e | white | FFF |
| a | maroon | 800 |
| q | red | F00 |
| o | green | 080 |
| u | lime | 0F0 |
| h | navy | 008 |
| ii | blue | 00F |
| yy | olive | 880 |
| ee | yellow | FF0 |
| aa | teal | 088 |
| qq | aqua | 0FF |
| oo | purple | 808 |
| uu | fuchsia | F0F |
| hh | transparent | - - - |

## Units & Powers

- Interrupts normal syntax – must be treated as a whole regular noun

First root is "o_precise", one word proceeds.

The consonant is unit, the vowel is power.

| Ch | English | Quantity | C |
|-----|---------|----------|---|
| A | ampere | electric current | p |
| K | kelvin | temperature | k |
| s | second | time | s |
| m | metre | length | m |
| kg | kilogram | mass | g |
| cd | candela | luminous intensity | c |
| mol | mole | substance amount | l |
| V | volt | W/A | v |
| W | watt | J/s | w |
| °C | degree Celsius | K+273.15 | d |
| L | litre | $10^{-3} \text{ m}^3$ | t |
| rad | radian | $1/2\pi$ | n |
| ° | degree | $\pi/180$ | b |
| J | joule | $kg \cdot m^2 \cdot s^{-2}$ | j |

| English | Power | V | English | Power | V |
|---------|-------|---|---------|-------|---|
| deca | $10^1$ | i | deci | $10^{-1}$ | ii |
| hecto | $10^2$ | y | centi | $10^{-2}$ | yy |
| kilo | $10^3$ | e | milli | $10^{-3}$ | ee |
| mega | $10^6$ | a | micro | $10^{-6}$ | aa |
| giga | $10^9$ | q | nano | $10^{-9}$ | qq |
| tera | $10^{12}$ | o | pico | $10^{-12}$ | oo |
| peta | $10^{15}$ | u | femto | $10^{-15}$ | uu |
| exa | $10^{18}$ | h | atto | $10^{-18}$ | hh |

Mostly from the *International System of Units*.

## *Dates & Time

First root is "o_datetime", then ≥1 morphemes.

## Frames

| CV | Frame | CV | Frame | Description |
|----|-------|----|-------|-------------|
| Amounts | | | | |
| pi | minute | pq | month | KN10 amount proceeds; V+0x8: next (+n), prev (-n) |
| py | hour | po | year | |
| pe | day | pu | decade | |
| pa | week | ph | century | |
| Days of the week | | | | |
| ti | mon | tq | fri | V+0x8: next/prev |
| ty | tue | to | sat | |
| te | wed | tu | sun | |
| ta | thur | | | |
| Months | | | | |
| ki | jan | kii | jul | |
| ky | feb | kyy | aug | |
| ke | mar | kee | sept | |
| ka | apr | kaa | oct | |
| kq | may | kqq | nov | |
| ko | jun | koo | dec | |

## Expressions

yyyymmdd (big endian)

## Taxonomy

Life forms are categorised by superficial traits, and then encoded into a 3 morpheme word, first root being "o_taxonomy".

Bit-field Morphology: **XAS**<u>**MKKFF**</u>  **X**<u>**0000000**</u>

Underlined show unique identifier.

| Abb. | Name | Data |
|------|------|------|
| X | --- | (Part of normal morphology) |
| A | Age | 0 young, 1 adult |
| S | Society | 0 collective, 1 individual |
| M | Amicability | 0 amicable, 1 hostile |
| K | Kingdom | 00 plant, 01 insect, 10 animal, 01 microscopic |
| F | Features | 00 walks, 01 flies, 10 swims, 11 burrows |
| 0 | ID number | Unique identifier |

| MKKFF | # | English | MKKFF | # | English |
|---|---|---|---|---|---|
| Insects | | | | | |
| 00101 | pi | bee | 10101 | pi | wasp |
| 00111 | pi | black_ant | 10111 | pi | red_ant |
| Animals | | | | | |
| 01000 | pi | dog | 11010 | ko | crocodile |
| 01000 | py | cat | | | |

I ate the same food he ate.

How did you get here?

The children said they had eaten the plant

child 'the_plu 'past say, they plant eat,

■ Note how the subject is made past, and so the whole sentence happened in the past

**ka fó vó ki, pe gi mi,**

Does anyone have a sentence for me to translate?

person 'who have, word word make, me translation"

**yi lidi dí, fìfì pé, pi dacida**

My biggest success is me being alive

'success my 'most is, 'alive me

■ Note how the adjective is applied to the verb

**gyy pi libò pe, zi pi**

Thirty plus sixteen is fourty-six

30 plus, 16 'equals 46


I don't include many

I include", 'few

■ Note how <include> is spread across both the adjective and the verb to form the verb

**pi ljfq, ca**

I forgot to tell him about it again.

I tell, !forgotten !again him it !about

■ Note the transivity of "it" for the verb "tell"

**pi ki, zy lebe pe pé ligy**