ki

mini-language
documentation

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Rationale

ki is a contructed 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/xikiliki

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

Content

Phonology & Orthography

■ 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	/ɒ́/
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

pi ᴜ	rq ᴔ	bii ᴌ	xqq ᴖ
ty ℓℓ	so ℴℴ	dyy ℓℯ	zoo ℓℯ
ke ᴌ	cu ℯℓ	gee ℓℓ	juu ℓℓ
fa ᴌℓ	wh ℯℓ	vaa ℓℓ	lhh ℓℓ

*Loans

Foreign words go through phonetic & morphological conversion.

Phonetic Conversion

Phonemes not already part of the phonemic inventory of ki are listed here with ki converts.

Loan	ki
	i
	e
	ɛ
	a
	ɒ
	ɔ
	u
	ə

Loan	ki	Loan	ki
	p		b
	t		d
	k		g
	f		v
	r		x
	s		z
	c		j
	w		l

Morphological Conversion

- like numbers, indicating length

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.

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 mulitple 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

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

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

- 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"

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!).

Lexicon

| Special Lexicon

- ■ Interrupt regular syntax

Numerics
Protocol 1

First root is "s_num10" ('KNP10'), proceeded by a byte: first bit ('overflow') signifies a proceeding numeric byte. All non-overflow bits constitute a N*7-bit binary value (N = amount of bytes).

Protocol 2.0 & 2.1

First root is "s_num20" (base-10, 'KNP20') or "s_num21" (base-16, 'KNP21'), proceeded by 4-bits: the n̲umeric's floored logarithm, proceeded by 4-bits: 0x8 for negative or 0x0 for positive; plus 0x4 for decimal. The proceeding log(n) digits are of consonants & vowels by their numeric value. If decimal, the next 4-bits' value expresses amount of precision digits.

- ■ Pad with vowel <i> when necessary

- ■ Expresses -16^{16} to 16^{16}

Periodic Elements

First root is "o_element", then expressed as the number of protons using KNP20. 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
male	final	p
female	link	d
female	final	t
unknown	link	g
unknown	final	k

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

*Proper Nouns

Mono-Roots

- Adhere to normal syntax
- Root value is hexidecimal, regular
- Orthography 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		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/it	make/create/make_exist	this/it

R	O	Noun	Verb	Adjective
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	Noun		
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

R	O	Noun	Verb	Adjective
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	know_person	public
31	fy	female		
32	fe	male		
33	fa	child		young

R	O	Noun	Verb	Adjective
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
49	rì	meeting	meet	met

R	O	Noun	Verb	Adjective
4A	ré	education	teach	learned
4B	rá			
4C	rò			
4D	ró			
4E	rú			
4F	rù	tool		
Nature				
50	si	water	drink	wet
51	sy	life/animal	live	alive
52	se	plant	grow	
53	sa	heat	take/recieve	hot
54	sq	cold	give	cold
55	so	land		
56	su	sky	fly	big
57	sh			
58	sí			
59	sì	mountain		
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			
62	ce			

R	O	Noun	Verb	Adjective
63	ca			
64	cq			
65	co			
66	cu			
67	ch			
Literacy & Leisure				
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				
70	wi	m_grammar		
71	wy			
72	we	m_travel		
73	wa	m_emotion		
74	wq	m_abstract		
Special & Omni- Roots				
75	wo	s_num10		
76	wu	s_num20		
77	wh	s_num21		
78	wí	o_colour		

R	O	Noun	Verb	Adjective
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
02	pe	prospective		prospective/

R	O	Noun	Verb	Adjective
				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				
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				
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/ determination

R	O	Noun	Verb	Adjective
15	to	offer/invite	invite/offer	can/shall/will/offer/invite
16	tu	request	request	could/request
17	th	possibility		could/may/maybe/might/possibility
18	tí	slight_possibility		could/may/maybe/might/slight_possibility
19	tì	permission	permit/allow/let	can/could/may/permission
1A	té	prohibition	prohibit	don't/avoid/prohibition
1B	tá	obligation	obligate	must/obligation
1C	tò	advice/suggestion	advise/suggest	should/ought/shall/suggestion
1D	tó	intention	intend	intended/intention
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/nothing
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		
3B	fá	greater_equal		

R	O	Noun	Verb	Adjective
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			

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	article (lingustics)	
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
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	

- 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 Celcius	K+273.15	d
L	litre	10^{-3} 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	KNP20 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".

Bitfield Morphology: **XAS**MKKFF **X**0000000

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	Amicibility	0 amicible, 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			
01000	py	cat			

Examples

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