

mini-language documentation

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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!

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Telegram: <u>t.me/vikiliki</u>

Community: reddit.com/r/conlangs

Dedicated to: Mikhailah Yap Rañada



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

- The lack of /m/ & /n/, the use of  $/\theta$ / &  $/\delta$ /
- 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

Issues 3

Sections marked with an \*asterisk are incomplete.

Issues

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# Phonology & Orthography

#### ■ Note consonant voicing

#### Latin Consonants

#	Ch	IPA	#	Ch	IPA
0	р	/p/	8	b	/b/
1	t	/t/	9	d	/d/
2	k	/k/	Α	g	/g/
3	f	/f/	В	V	/v/
4	r	/θ/	С	Χ	/ð/
5	S	/s/	D	Z	/z/
6	С	/ʃ/	Е	j	/3/
7	W	/w/	F		/\/

#### Latin Vowels

#	Ch	IPA	#	Ch	IPA
0	iі	/i/	8	ii í	/í/
1	уу	/e/	9	yy ì	/é/
2	ее	/ε/	Α	ee é	/έ/
3	аа	/a/	В	aa á	/á/
4	qq	/a/	С	qq ò	/à/
5	0 0	/ɔ/	D	00 Ó	/ጎ/
6	u u	/u/	Е	uu ú	/ú/
7	h h	/ə/	F	hh ù	/á/

#### Native Script

- One consonant & vowel to each native char
- For foreign words, an underdot can be used on vowels for human readability

# pi ty ke fa rq so cu wh bí dì gé vá xò zó jú lù 00 00 00 00 01 01 01 01 10 11 00 01 10 10 10 10 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
	У
	е
	а
	q
	0
	u
	h

Foreign	ki	Foreign	ki
	р	В	b
t c	t	ţ	d
q	k	GXR	g
ф	f	β	٧
4	r	В	Χ
	S		Z
Ş	С	Z	j
	W	l L	1
ппллли	рр	jΛ	jj
m m	bb	rrrll	П

**,** c**j** x & X R **p ,** p n m

#### 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 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) <u>Subject</u>, <u>Object</u>, <u>Pronoun</u>; (other) <u>Verb</u>, <u>Adjective</u>.

Pattern	Semantics & Transitivity		
SVOO	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			

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
- 14 Grammar

#### Miscellaneous

#### \*Possession

thing my

#### \*Imperative

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

# 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 <u>n</u>umeric'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
- $\blacksquare$  Expresses -16<sup>16</sup> to 16<sup>16</sup>

#### 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	С
male	link	b
maie	final	р
female	link	d
Тептате	final	t
	link	g
unknown	final	k
late male	link	٧
late male	final	f
late female	link	Χ
iate iemaie	final	r

Kinship	٧
partner	i
sibling	У
parent	е
child	а
friend	0
neighbour	u
stranger	q

#### \*Proper Nouns & Foreign Words

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#### Mono-Roots

- Adhere to normal syntax
- Root value is hexadecimal, regular
- Orthography is Latin word
- Includes frequent grammar roots
- Yellow highlights provisional/currently unused, grey highlights unusable

R	0	Noun	Verb	Adjective			
Pro	Pronouns & Evidentials						
00	рi	me/I/my	am/is	thanks			
01	ру	you/your/hello	are/is_plu	please			
02	pe	they/them/their/h er/him/his/she/he		evi_direct			
03	pa	me_you_them		evi_non_vis			
04	pq			evi_inferred			
05	ро						
06	pu	self		evi_speculated			
07	ph	each_other		evi_hearsay			
Ar	Articles						
98	рí	obj_near_me/this		a/an			
09	рì	obj_near_you		the			
0A	рé	obj_near_us/this/i t	make/create/m ake_exist	this/it			

R	0	Noun	Verb	Adjective		
0B	рá	obj_far_us/that		that		
9C	pò	plu_near_me/thes e		plural		
0D	рó	plu_near_you		plu_the		
0E	рú	plu_near_us/thes e	make_happen	these		
0F	рù	plu_far_us/those		those		
=	'w In	riptors ho' includes all bei clusion begs questi				
-	-	what/who		what/who		
	-	which		which		
		where		where		
		when		when		
_		how		how		
_		why/question	ask	why		
16		much/many		much/many		
17	th	really		really/very		
Co	nju	unctions				
18	tí	and/also				
19	tì	xor				
1A	té	or				
1B	tá	nand				
10	tò	tò nor				
Te	Tenses					
1D	tó	past	became	past		

R	0	Noun	Verb	Adjective
1E	tú	present	become	present
1F	tù	future	will_become	future
Ge	ene	ral		
20	ki	ki/said	say/speak/tell	said
21	ky	yes/true	make_true/fix	true
22	ke	no/false	make_false/bre ak	false/not/negati ve
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/figu re_out	easy
2C	kò			
2D	kó			
2E	kú			
2F	kù			
Humanity				
		person/human	know_person	public
31	fy	female		
32	fe	male		
33	fa	child		young

R	0	Noun	Verb	Adjective
34	fq	adult		old
35	fo	body	feel	
36	fu			
37	fh	food	eat	hungry
		mind	know	known
39	fì	house		
ЗА	fé	display/show/vist a	display/show	viewable
3В	fá	clock	watch	watched
3C	fò	possession	have/possess	possessed
3D	fó			
3E	fú	love	love	loved
3F	fù	building		
Со	nc	epts		
40	ri	time		little
41	ry	space		same
42	re	thought/belief	believe/think	thought/believe d
43	ra	history/story		
44	rq	class	class	classed
45	ro			
46	ru	random		other
47	rh	fact	know_fact	known
Hι	ıma	an Activities		
48	rí	work	work	result
49	rì	meeting	meet	met

R	$\circ$	Moun	Verb	Adjactiva
		Noun	verb	Adjective
4A	ré	education	teach	learned
4B				
4C	rò			
4D	ró			
4E				
4F	rù	tool		
Na	tu	re		
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				
_		movement	move/go	moved
5C				
_	só	<u> </u>	see	good
_		air/wind	blow	windy
5F				
60				
61	су			
62	ce			

R	0	Noun	Verb	Adjective		
63	ca					
64	cq					
65	СО					
	cu					
67	ch					
Lit	era	acy & Leisure				
68	Сĺ	book	read			
69	СÌ	word	write	written		
6A	cé					
6B						
6C						
6D						
_	cú					
6F	cù	game	play			
Lis	ste	d Multi-Roots				
70	wi	m_grammar				
71	wy	s_name				
72	we	m_travel				
_		m_emotion				
74	wq	m_abstract				
Sp	Special & Omni- Roots					
75	wo	s_num10				
76	wu	s_num20				
77	wh	s_num21				
78	Wĺ	o_colour				

R	0	Noun	Verb	Adjective		
79	wì	o_precise				
7A	wé	o_datetime				
7B	wá	o_kinship				
7C	wò	o_taxonomy				
7D	wó	s_element				
Nι	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	0	Noun	Verb	Adjective	
Aspects					
00	pi	progressive/imp erfect	do	progressive/im perfect/happen ing	
01	ру	perfective	complete	perfective/com plete	
02	pe	prospective		prospective/will	

R	0	Noun	Verb	Adjective	
				_happen	
03	pa	inceptive/start	start_act	started_act	
04	pq	inchoative	start_be	started_be	
05	ро	cessative/end	stop_act/stop_b e	stopped_act/st opped_be	
06	pu	habitual/habit		often	
07	ph	pausative/pause	pause	paused	
08	рí	resumptive/resu mption	resume	resumed	
Comparison					
09	рì	negative	make_negative	not	
0Α	рé	equative/copula	make_equal	equal	
0B	pá	comparative/co mparison	compare	more_than	
9C	рò	superlative	make_most	most	
0D	рó	sublative	make_least	least	
0E	рú	similarity	make_similar	like/as	
0F	рù				
М	000	I & Condition			
10	ti	condition		if_then/if/condit ion	
11	ty			would	
12	te	deduction		should/ought/d eduction	
13	ta	ability		can/ability	
14	tq	determination		will/shall/deter mination	

R	0	Noun	Verb	Adjective
15	to	offer/invite	invite/offer	can/shall/will/o ffered/invited
16	tu	request	request	could/requeste d
17	th	possibility		could/may/may be/might/possi ble
18	tí	slight_possibility		could/may/may be/might/slightl y_possible
19	tì	permission	permit/allow/let	can/could/may/ allowed
1A	té	prohibition	prohibit	don't/avoid/pro hibited
1B	tá	obligation	obligate	must/obligated
10	tò	advice/suggesti on	advise/suggest	should/ought/s hall/suggested
1D	tó	intention	intend	intended
1E	tú			
1F	tù			
Pre	epo	osition		
20	ki	because		
21	ky	of/about		
22		for		
_	ka	-		
24	kq	but/however		
Nι	ıml	ber & Size		
25	ko	plural	manar Doots	see

R	0	Noun	Verb	Adjective			
				'plu_near_me'			
26	ku	paucal/somethi ng		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					
Ar	ith	metic					
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					
3C	fò	less_equal					

R	0	Noun	Verb	Adjective
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	0	English	0	English	0
happy	pi	sad	ki	bad	ri
optimistic	ру	hurt	уj	tired	ry
peaceful	рe	humiliated	ke	weak	re
accepted	ра	guilty	ka	stressed	ra
confident	pq	despairing	kq	busy	rq
proud	ро	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	S0

# \*Time, Space, & Travel

First root is "m\_travel", then one word.

0	Noun	Verb	Adj			
Time						
рi	now		now			
ру	then		then			
pe	again		again			
pa	soon		soon			
pq	ever		ever			
ро	instantly		instantly			
pu	suddenly		suddenly			
ph						
рí	while/during					
рì	earlier/ago					
рé	since					
pá	finally					
pò	forever					
рó	meanwhile					
рú	later					
рù						
ti	start/firstly					
ty	whenever					
te	N st/nd/rd					
ta	N times					
tq	eventually					
to	consequently					

0	Noun	Verb	Adj			
tu	finish/lastly					
th						
Sp	Space					
tí	here					
tì	there					
té	anywhere					
tá	nowhere					
tò	source					
tó	destination					
tú	among					
tù						
ki	inclusion/with	include	with/included			
ky	in					
_	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						

0	Noun	Verb	Adj
kù			
Mi	xed		
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		
	in front		
_	behind		
_	middle/between		
	left		
fú	right		
fù			
ri	to/toward		
ry	from/away		
re	at/upon		
ra	beyond		
-	against		
ro	· · J		
_	across/around		
rh	through		

0	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

0	Noun	Verb	Adj
pi	application	apply	applied
ру	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	
mountain house	city	
book time	newspaper	

Roots	Noun	Adjective
person book	writer	
person book time	journalist	

- cooking

# Omni-Roots

■ Most adhere to normal syntax

#### \*Colours

First root is "o\_colour", one word proceeds.

С	Texture		
р	flat & opaque		
t	flat & transparent		
k	reflective		
f	glittery		
r	dynamic shadows		
S	sandy/furry/grassy		
С	bumpy		
W	jagged		

٧	Colour	RGB
i	black	000
У	grey	888
е	white	FFF
а	maroon	800
q	red	F00
0	green	080
u	lime	0F0
h	navy	008
ii	blue	00F
уу	olive	880
ee	yellow	FF0
aa	teal	880
qq	aqua	0FF
00	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	С
Α	ampere	electric current	р
K	kelvin	temperature	k
S	second	time	S
m	metre	length	m
kg	kilogram	mass	g
cd	candela	luminous intensity	С
mol	mole	substance amount	I
V	volt	W/A	٧
W	watt	J/s	W
°C	degree Celsius	K+273.15	d
L	litre	$10^{-3} \text{ m}^3$	t
rad	radian	1/2π	n
0	degree	π/180	b
J	joule	kg·m²·s−²	j

English	Power	٧	English	Power	٧
deca	$10^{1}$	i	deci	10-1	ii
hecto	10 <sup>2</sup>	У	centi	10-2	уу
kilo	10³	е	milli	10-3	ee
mega	10 <sup>6</sup>	а	micro	10-6	aa
giga	10 <sup>9</sup>	q	nano	10-9	qq
tera	1012	0	pico	10 <sup>-12</sup>	00
peta	1015	u	femto	10 <sup>-15</sup>	uu
exa	1018	h	atto	10-18	hh

Mostly from the *International System of Units*.

#### \*Dates & Time

First root is "o\_datetime", then  $\geq 1$  morphemes.

#### Frames

CV	Frame	CV	Frame	Description		
Am	Amounts					
pi	minute	pq	month	KNP20 amount		
ру	hour	ро	year	proceeds;		
ре	day	pu	decade	V+0x8: next (+n),		
pa	week	ph	century	prev (-n)		
Day	ys of the	wee	ek			
ti	mon	tq	fri			
ty	tue	to	sat	VIOVO: novt/prov		
te	wed	tu	sun	V+0x8: next/prev		
ta	thur					
Мо	nths					
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: XASMKKFF X0000000

Underlined show unique identifier.

Abb.	Name	Data		
X		(Part of normal morphology)		
Α	Age	0 young, 1 adult		
S	Society	0 collective, 1 individual		
М	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	рi	bee	10101	рi	wasp		
00111	рi	black_ant	10111	рi	red_ant		
Animals							
01000	рi	dog	11010	ko	crocodile		
01000	ру	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