

ANNOUNCING THE EMERGENCE OF LUYANJA

By

©K.B. Kiingi, PhD

E-mail Address: kbalubuliza@arts.mak.ac.ug ;
kibuukakiingi@yahoo.com

August 2012

ANNOUNCING THE EMERGENCE OF LUYANJA

To date there is no fully functional African language. By full functionality I understand that the language in question can be used as a vehicle of scientific, technological, economic and legal discourse in any university department, factory, bank, and court of law. Consequently, in view of the well- documented dearth of advanced terminologies in all African languages, the linguistic emancipation of African countries will only be achieved through systematic development of the requisite terminologies. The objective pursued in this paper is to announce the emergence of a fully functional Bantu language, and, as a corollary, to predict that the terminological maturation of a Bantu language is telescopic into one generation instead of, say, five generations from now. The language being introduced here is, undeniably, an extrapolation of Luganda, an Interlacustrine Bantu language; but, for reasons that will transpire later towards the end of this paper, it does not befit the label “Luganda”.

For the purpose of presenting key expression –formation rules of the language, I shall employ the following inventory of symbols.

1. (a) N = noun
- (b) Nst = nominal stem (i.e. either noun or adjective stem)
- (c) N^{pf} = nominal prefix
- (d) N^{sf} = nominal suffix
- (e) V = verb
- (f) V^{rt} = verb root
- (g) V^{af} = verb affix
- (h) V^{sf} = verb suffix

On truncating a noun or verb, I obtain

2. (a) $N > N^{st}$
- (b) $V > V^{rt}$

The rules for generating complex expressions are stated as in (3), and are exemplified in (4) - (7).

3. (a) $N^{pf} + N^{st} \longrightarrow N$
- (b) $N^{st} + V^{sf} \longrightarrow V^{rt}$
- (c) $V^{rt} + V^{af} \longrightarrow V^{rt}$
- (d) $V^{rt} + N^{sf} \longrightarrow N^{st}$

4. (a) engabo "shield" N
- (b) -gabo N^{st}
- (c) -gabofaan- V^{rt}
- (d) -gabofaana "shield-like"
i.e. "thyroid" N^{st}

5. (a) okuwandiika "write" V
- (b) -wandiik- V^{rt}
- (c) -wandiikan- V^{rt}
- (d) -wandiikanyi N^{st}
- (e) omuwandiikanyi "fellow writer" N

6. (a) omuwandiisi N
- (b) -wandiisi N^{st}
- (c) -wandiisiwan- V^{rt}
- (d) -wandiisiwany N^{st}
- (e) omuwandiisiwany 'co-writer' N

⋮

7.	(a)	okuwandiika	“write”	V
	(b)	-wandiik-		V ^{rt}
	(c)	-wandiisizing-		V ^{rt}
	(d)	-wandiisizinzi		N st
	(e)	ekiwandiisizinzi	“circumscriber”	N

In what follows, I present about 120 affixes of the language. I shall adopt a simple procedure of five steps:

- the language affix
- the morpheme realized by the affix (where necessary)
- the English rendition(s) of the affix
- expressions in the language
- English equivalents.

SOME AFFIXES OF THE LANGUAGE

	Language affixes	Morphemes	English Renditions	Expressions in the Language with English Equivalents
8	-(i)zing		“circum-”, “peri-”	olukolobozezinga “circumference” olupimizinga “perimeter” -wagizinga “circumpolar” -ezizinga “circumlunar” -yubazinga “circumsolar” omuwandiisizinga “circumscriber”
9	-ta.V^{rt}, ta.Nst.w		“a-”, “an-”, “dis-”, “non-”, “in-”, “un-”	Omutakristowa “non-Christian” omutanoonyeleza “non-researcher”
10	-(w)ok, -(w)uk -(w)ol, -(w)ul		“de-”, “counter-”, “contra-”, “anti-”, “dis-”, “cata-”	okukaziwula “defeminize” ekigambululo “contradiction”
11	-(e)beg	[LOCATIVE] [BACKWARDS]	“meta-”, “after-”, “post-” “retro-”	-gendebezi “retrogressive” -kolebega “retroactive” -wetebege “retroflex” okuyogelebega “retrodict”
12	-(e)bel	[LOCATIVE]	“ante-”, “fore-”, “pro-”, “pre-”	ekisengebela “ante-room”
13	-(o)gob	[TEMPORAL]	“meta-”, “post-”, “-wise”	-saawogoba “clockwise” -talogoba “post-war” endabagoba (=metatheoria) “metatheory” ekitegeezogoba “metastatement” -zaalagoba “postnatal”
14	-(a)saal	[TEMPORAL]	“ante-”, “fore-”, “pre-”, “pro-”	-talosaala “antebellum”, “pre-war” -zaalasaala “antenatal” (or “prenatal”)
15	-(i)ling		“quasi-”	-saayansilinga “quasi-scientific” akasilikitulinga “quasiparticle” -munyeenyelinga “quasi-stellar” kristalilinga “quasicrystal”

16	-(e)dyek	“pseudo-“	ssaayansidyeka kalojjakumanyadyeka omulojjakumanyadyeka	“pseudoscience” “pseudoscience” “pseudoscientist”
17	_(a)faan	“-form”, “-oid”, “-like”, “-shaped”	omuntufaana -tabifaana -olutimafaana	“humanoid” “ramiform” “cardioid”
18	-(i)kiik, -(a)sal	“trans-“, “cross-“, “dia-“, “per-“ “	-salansalo okubuuzikiika	“cross-border” “cross-examine”
19	-(u)lul	“trans-“, “extra-“, “ultra-“	-Atlantikalula	“trans-Atlantic”
20	-(u)lun	“cis-“	-Atlantikaluna	“cis-Atlantic”
21	-(a)nkan	“iso-“, “equ-“	-minzaaninkana okwankaniza	“equilibrium” “assimilate”
22	-(i)kiz	“-ism”	obuwangakiza obukulukizuza	“tribalism” “ageism”
23	-(a)tab	“inter-“	-tabansonda -tabantalo	“diagonal” “interwar”
24	-(j)kiis	“omni-“, “pan-“, “all-“	-lyikiisa -Afrikakiisa -likiisa	“omnivorous” “pan-African” “omnipresent”
25	-(w)an	“con-“, “syn-“, “co-“, “coeno-“, inter-“	okuwasana obulayiniwana okutabilana obulamuwana	“intermarry” “collinearity” “concentrate” “symbiosis”
26	-(e)seg	“para-“	olulimisega -lalesega engabofaanasega	“paralanguage” “parallel” “parathyroid”
27	-(a)laan	“juxta-“, “anchi_’	okuteekalaana	“juxtapose”
28	-(a)wal	“tele-“	ennywiwanawala	“telecommunication”
29	-(o)bol	“mal-“, “ill-“, “dys_“, “caco-“	omukolobola	“dysfunction”

30	-(u)lung		“eu-“, “calli-“	olwogelulunga	“eulogy”
31	-(o)sob, -(u)bub		“mis-“, “caco-“	okubalosoba okutabanyosoba	“miscalculate” “mismatch”
32	-(u)tuuk, -(i) simb		“ortho-“, “rect(i)-“	entabilosimba empandiikatuuka -sondasimba	“orthocenter” “orthography” “orthogonal”
33	-(u)myuk		“vice-“, “pro-“	omukulumyuka	“vice-principal”
34	-(a)lal		“hetero-“, “allo-“	ekivugolala -lalesega	“allophone” “parallel”
35	-(e)kis		“crypto-“	omukomyunistikisa	“cryptocommunist”
36	-(a)ggy		“neo-“	obunnamatwaleggya	“neocolonialism”
37	-(w)um		“endo-“	omugumbawuma	“endoskeleton”
38	-(u)mil	[DIRECTED]	“endo-“	-bugumumila	“endothermic”
39	(e)bwel		“exo-“, “ecto-“	ekimelabwela obutwabwela eddibabwela	“ektophyte” “exotoxin” “ectoderm”
40	-(a)v, -(a)wav, -(u)kuv, -(u)muv, -(i)giv		“ab-“, “apo-“, “ex-“	okuyubakuva	“aphelion”
41	-(a)lag		“ad-“	-mwalaga	“adoral”
42	-(o)sook		“proto-“, “ur-“, “arche-“	Oluntusooka Olunnagermanisooka Olugermanisooka	“Proto-Bantu” “Proto –Germanic” “Proto-German”
43	-(a)saan		“-worthy”	-etegezasaana	“noteworthy”
44	-(a)gal		“to be inclined to(wards)”	okuddukagala okupimagala	“to be inclined to run” “to be inclined to measure”
45	-(a)mal		“per-“, “ex-“	okuddukamala okupimamala	“to complete running” “to complete measuring”
46	-(w)un		“dis-“, “se-“	-biwiwuna	“discarnate”

47	-(o)lojj		“logy”, “-ics”, “-nomy”, “-nomics”	okusasuluna kalojjabilamu kalojjamuntu kalojjandwadde	“disburse” “biology” “humanics” “nosology”
48	-al		“-esce”	okudukala okupimala	“to begin running” “to begin measuring”
49	-(a)wanv		“longi-”	-ntuwanva	“longitudinal”
50	-(e)lemy		“-proof”	-lemyamulilo -lemyamazzi -lemyabubbi	“fireproof” “waterproof” “burglarproof”
51	-(e)nnyin		“self-”, “auto-”	obutwanyina kalojjabulamunnyina okukolinyina	“autotoxin” “autobiography” “automate”
52	-(o)kom	[DISCONTINUATIVE]	“-stasis”	obusaayikomya ekibugumyokomya	“haemostasis” “thermostat”
53	-(i)ng		“poly-”, “multi-”, “many-”, “-alia”, “-ana”, “-pedia”	ollusondanga ekigambonga omuntunga ekitebelezinga omunywinga omukwaninga omutebenga	“polygon” “lexicon” “population” “theory” “community” “society” “polyhedron”
54	-(u)nnus		“semi-”, “hemi-”, “demi-”, “half-”, “pen(e)”	ollukulungonnusa omukulungonnusa	“semicircle” “hemisphere”
55	-(u)ggul		“epi-”, “super-”, “supra-”, “hyper-”, “over-”, “up-”	entabiluggula ekimelaggula	“epicenter” “epiphyte”
56	-(u)ngul	[SURFACE]	“epi-”	eddibangula okukroomunguza	“epidermis” “to chromate”
57	-(u)muk	[DIRECTED]	“exo-”	-bugumumuka	“exothermic”

58	-(a)wans		“sub-“, “infra-“, “under-“, “hypo-“, “down-“	omugumbamuka ekiteekawansa ek kubowansa -myufuwansa nnyinibyamawansa	“exoskeleton” “hypothesis” “subway” “infrared” “undersecretary”
59	-(w)ug	[AUGMENTATIVE]	“poly-“, “many-“, “multi-“, “myriad-“, “mega-“, “macro-“ “arch-“, “over-“, “super-“, “supra-“, “up-“, “hyper-“, “maxi-“, “giga-“, “sur-“	wattiwuga kabakawuga kalojjanfunawuga omuseetwewuga	“megawatt” “king of kings” “macroeconomics” “hyperplane”
60	-(w)ak	[DIMINUTIVE]	“sub-“, “infra-“, “under-“, “hypo-“, “mini-“, “micro-“, “down-“, “-let”, “-kin”, “-ock”, “-ette”, “-ling”, “-cule”	kabakawaka mmolewaka kalojjanfunawaka endabisowaka ollukulungofaanawaka	“kinglet” “molecule” “microeconomics” “microscope” “hypocycloid”
61	-(i)kil -(i)kilikil	[+EXCESSIVE] [++EXCESSIVE]		endabisowakikila endabisowakilikila -tondowalikivu -tondowalikilikivu -kambwekivu	“ultramicroscope” “micromicroscope” “hypersensitive” “ultrasensitive” “ultrastrict”
62	-(a)ddal	[TOTALITY]			
63	-(o)wol	[GRADUALNESS]		theoria ya okusikilowola	“theory of evolution”
64	-(a)dd		“re-“	okukoladda -kolazzi okuyungululadda okuzimbanadda obuzimbanadda	“react” “reactive” “reanalyze” “reconstruct” “reconstruction”
65	-(a)gaan		“anti_“, “counter-“, “contra-“	-saawagaana	“anticlockwise”, “counterclockwise”

			-kristogaanyi ekiwakanogaana	"antichristian" "counterargument"
66	-(wal		okugiwala	"oogenesis"
67	-(i)nyiit	[INTENSIVE]	okuwolinyiita	"rapid cooling"
68	(o)lu-	\mathbb{R}^1	olubanga	"line"
	(o)llu-	\mathbb{R}^2	olusoke	"spectrum"
	(o)mu-	\mathbb{R}^3	ollubanga	"area"
			omubanga	"volume"
69	-(o)zomb		ekilamuzomba	"amphibian"
70	-(i)yit		olupimayita	"diameter"
71	-(e)wet		amalwaleweta	"ankylosis"
72	-(u)wunj		-kuluwunja	"plagiotropous"
73	-(a)kk		-kulakka	"catadromous"
74	-(w)ut	[INSUFFICIENT]	asidiwuta	"insufficient amount of acid"
75	-(u)bul		ensaayibula	"anaemia"
76	-(a)kat		eddibakata	"mesoderm"
			But: mesoni	"meson"
77	-(e)ppek		-langippeka	"monochromatic"
78	-(e)nyot		obufuzinyota	"oligarchy"
79	-(i)kim		-kulakima	"homomorphic"
80	-(o)nn		ekiwandiikonna	"hologram"
			Ekikalililonna	"the Holocaust"
			Ekyokyonna	
81	-(u)tund		elinnyatunda	"meronym"
82	-(e)beb		-tabibeba	"ramiferous"
			-kalibeba	"uriniferous"
83	-wik ~ -wek		-tabiwika	"ramiparous"
			-giwika	"oviparous"
84	-(a)yak		amayingoyaka	"arthritis"

			amendayaka amatimayaka	“enteritis” “carditis”
85	-(e)lem, -(u)lwal		“dys-“ , “-algia” , “-odynia” amasomelema	“dyslexia”
86	-(a)lwal		“path-“ , “-osis” , “-asis” amalwaleweta	“ankylosis”
87	-(i)lin		“-ous” , “-ate” , “-aceous” , “-ose” -nnyolina	“dentate”
88	-(a)f		“-al” , “-(i)an” -nnyofa	“dental”
89	-(u)kump		“circum-“ , “peri-“ akayubakumpa	“perihelion”
90	-(a)wag		“pro-“ -Obotewaga	“pro-Obote”
91	-(w)el, -(w)il		“-ary” , “-ery” , “-arium” ekigambowela ekizaabuwila ekizziwila omuzziwila	“dictionary” “goldmine” “aquarium” “building holding aquaria”
92	-(i)zib		“ob-“ okuzimbiziba -zimbiziba	“obstruct” “obstruent”
93	-(a)tat	[CEASELESSLY]	okuddukatata	“to run ceaselessly”
94	-(i)pim	[ACADEMIC]	“-metry” , “-metrics” kapimansi kapimamulilo	“geometry” “pyrometry”
95	-(i)ndiik	[ACADEMIC]	“-graphy” , “-graphics” kandiikankuluze	“lexicography”
96	-(a)bal	[ACADEMIC]	“calculus” kabanjawulo	“differential calculus”
97	-(u)fug	[ACADEMIC]	“management” kafugakwetala	“business management”
98	-(i)yig	[ACADEMIC]	“studies” Kayigaafrika	“African Studies”
99	-(o)noony	[ACADEMIC]	“research” Kanoonyamilimu	“Operational Research”
100	-(i)yiik	[ACADEMIC]	“engineering” Kayiiyamashiini	“Mechanical Engineering”
101	-(o)kol		“-facient” , “-poiesis” -bugumukola	“caefacient”
102	-(o)kkon		“laevo-“ olwatikakkona	“sinistral fault”
103	-(o)ddy		“dextro-“ ekitimawiloddy	“dextrocardia”
104	-(e)beet		“platy-“ -twebeetilina	“platycephalous”

105	-(e)geeny		“-aster”	omukolokosigeenyi	“criticaster”
106	-(o)yong	[CONTINUATIVE]		okuwoloyonga	“to continue cooling”
107	-(e)keew	[REDUCTIVE]		-zitokeewa	“lighter”
108	-(o)gond		“malaco-”	olugumbagonda	“osteomacia”
109	-(u)kul	[MATURATION]		okusajjakula	“to mature as a man”
110	-(e)semb	[FINALITY]		okuzanyesemba	“to play the final”
111	-(u)tuk	[SUDDEN HAPPENING]		okunafuwutuka	“to weaken suddenly”
				okufutuka	“to die suddenly”
112	-(a)lak	[WITH SUCCESS]		okuzanyalaka	“to play with success”
				okufunalaka	“to obtain”
113	-(e)lek	[NEUTRALITY]		okutegezeleka	“to inform with indifference”

The following ten affixes are listed with only their English equivalents.

114	-(b)em		“mon(o)-”, “uni-”
115	-(i)bil		“di-”, “bi-”
116	-(a)sat		“tri-”
117	-(b)an		“tetra-”, “quadri-”
118	-(a)taan		“pent-”, “quint-”
119	-(a)kaag		“hex(a)-”, “sex(i)-”
120	-(a)sanv		“hept-”, “sept-”
121	-(a)naan		“oct-”
122	-(b)end		“non-”
123	-(u)kum		“deka-”, “deca-”

The affix **-(i)kil** [+EXCESSIVE] together with its reduplicated form **-(i)kilikil** [++EXCESSIVE] (see 61)) leads to the articulation of conceptual gradation, a key element in the general thought system of a natural scientist. Table 1 exhibits expressions for cardinal numbers and numeral determiners. It is easily noted that all the given numeral expressions except “ 10^{15} **(a)kasekila** , 10^{18} **(a)kasekilikila**, 10^{21} **(a)kkase** , 10^{24} **(a)kkasekila** ” are in everyday use. The gradation in Table 1 is therefore referred to as nonsystematic.

Table 1: Nonsystematic Gradation

1	emu	- mu	10^2	(e)kikumi
2	bbili	-bili	10^3	(o)lukumi
3	ssatu	-satu	10^4	(a)kakumi
4	nnya	-na	10^5	(a) kasiliivu
5	ttaano	-taano	10^6	(a)kakadde
6	(o)mukaaga		10^9	(a)kawumbi
7	(o)musanvu		10^{12}	(a)kase
8	(o)munaana		10^{15}	(a)kasekila
9	(o)mwenda		10^{18}	(a)kasekilikila
10	(e)kkumi		10^{21}	(a)kkase
			10^{24}	(a)kkasekila

The affixes **-(w)ug** , **-(w)ak**, **-(j)kil** and **-(i)kilikil** [see (59), (60) and (61)] combine to express the systematic gradation of units as stipulated by the International Union of Pure and Applied Physics (IUPAP). Table 2 shows the systematic gradation of units.

Table 2: Systematic [Système International] Gradation

10 ²⁴	(e)lli...wugikilikil	Y	yotta-	10 ⁻¹	ekyekkumi	d	deci-
10 ²¹	(e)lli...wugikil	Z	zeta-	10 ⁻²	ekyekikumi	c	-centi
10 ¹⁸	(e)lli...wug	E	exa-	10 ⁻³	(a)ka-	m	milli-
10 ¹⁵	(e)lli-	P	peta-	10 ⁻⁶	(a)ka...wak	μ	micro-
10 ¹²	(e)li...wugikilikil	T	tera-	10 ⁻⁹	(a)ka...wakikil	n	nano-
10 ⁹	(e)li...wugikil	G	giga-	10 ⁻¹²	(a)ka...wakikilikil	p	pico-
10 ⁶	(e)li...wug	M	mega-	10 ⁻¹⁵	(a)kka-	f	femto-
10 ³	(e)li-	k	kilo-	10 ⁻¹⁸	(a)kka...wak	a	atto-
10 ²	(e)kikumi	h	hecto-	10 ⁻²¹	(a)kka...wakikil	z	zepto-
10 ¹	(e)kkumi	da	deca-	10 ⁻²⁴	(a)kka...wakikilikil	y	yocto-
10 ⁰	emu						

In Tables 3 and 4 I exemplify nonsystematic and systematic gradation of units respectively.

Table 3: Exemplifying Nonsystematic Gradation

1m	mmetro emu	10 ⁶	mmetro kakadde
2m	mmetro bbili	10 ⁹	mmetro kawumbi
:		10 ¹²	mmetro kase
10m	mmetro kkumi	10 ¹⁵	mmetro kasekile
100m	mmetro kikumi	10 ¹⁸	mmetro kasekilikila
1000m	mmetro lukumi	10 ²¹	mmetro kkase
10,000m	mmetro kakumi	10 ²⁴	mmetro kakasekila
100,000m	mmetro kasiliivu		

Table 4: Exemplifying Systematic Gradation

10 ²⁴ m	ellimetrowugikilikila	limu	10 ⁻¹ m	ekyekkumimetro	kimu
10 ²¹ m	ellimetrowugikila	limu	10 ⁻² m	ekyekikumimetro	kimu
10 ¹⁸ m	ellimetrowuga	limu	10 ⁻³ m	akametro	kamu
10 ¹⁵ m	ellimetro	limu	10 ⁻⁶ m	akametrowaka	kamu
10 ¹² m	ellimetrowugikilikila	limu	10 ⁻⁹ m	akametrowakikila	kamu
10 ⁹ m	ellimetrowugikila	limu	10 ⁻¹² m	akametrowakikilikila	kamu
10 ⁶ m	ellimetrowuga	limu	10 ⁻¹⁵ m	akkametro	kamu
10 ³ m	ellimetro	limu	10 ⁻¹⁸ m	akkametrowaka	kamu
10 ² m	mmetro	kikumi	10 ⁻²¹ m	akkametrowakikila	kamu
10 ¹ m	mmetro	kkumi	10 ⁻²⁴ m	akkametrowakikilikila	kamu
10 ⁰ m					

If the *Système International* affixes are assimilated to the language, a much more economical mode of expression is obtained.

Table 5: More Economical Exemplification of Systematic Gradation

10 ²⁴ m	yottametro	emu	Ym	10 ⁻¹ m	desimetro	emu	dm
10 ²¹ m	zettametro	emu	Zm	10 ⁻² m	sentimetro	emu	cm
10 ¹⁸ m	exametro	emu	Em	10 ⁻³ m	millimetro	emu	mm
10 ¹⁵ m	petametro	emu	Pm	10 ⁻⁶ m	mikrometro	emu	µm
10 ¹² m	terametro	emu	Tm	10 ⁻⁹ m	nanometro	emu	nm
10 ⁹ m	gigametro	emu	Gm	10 ⁻¹² m	pikometro	emu	pm
10 ⁶ m	megametro	emu	Mm	10 ⁻¹⁵ m	femtometro	emu	fm
10 ³ m	kilometro	emu	km	10 ⁻¹⁸ m	attometro	emu	am
10 ² m	hektometro	emu	hm	10 ⁻²¹ m	zeptometro	emu	zm
10 ¹ m	dekometro	emu	dam	10 ⁻²⁴ m	yoktometro	emu	ym
10 ⁰ m	mmetro	emu	m				

Compare “10⁻²⁴m **akkametrowakikilikila kamu**” with “10⁻²⁴m **yoktometro emu**”; clearly, the latter form is preferable.

The language I have presented in the foregoing displays four prominent characteristics. First, it is indisputably based on Interlacustrine Bantu; more exactly, it is a seamless extrapolation of an already living language Luganda. Second, the language is obviously standardized. Third, the language purports to be ethnolinguistically neutral. Fourth, it is potentially functional in all key domains of discourse.

Although cognate to Luganda, the language focused on this paper is not Luganda in the traditional sense of the label. I name it “Luyanja”. It befits the label “Luyanja” because “Luyanja” inheres or is incorporated in the concept of **nnyanja** “the Great Lakes” refers to the Interlacustrine region. But because

Luyanja is fully functional, unlike any other Bantu language of which we know, I trust that it will not occasion any palpably tribalistic disquiet, resentment or even outright attack on the part of both first-language and second -language speakers of Luganda. Lest my claim to full functionality of Luyanja be derisively dismissed, I do not, by any stretch of the imagination , suggest that the requisite terminologies of, say, logic, mathematics physics, chemistry, biology, applied science, economics and law are already in place. Rather, it is the precise existence of a term-coining system of algorithms derivable from the language that sustains my claim, for an algorithm entails mere routine.