BA(c)K to numbers

Some remarks and precisions on number and gender in a few Bak languages

Guillaume Segerer – Berlin, Nov. 30, 2018

1. How I have understood G&F's approach

- Traditional view of 'noun classes' involves:
  - noun morphology (for ex. prefixes)
  - concord ~ agreement (i.e. a set of forms triggered by the head noun)
  - pairings (singular / plural correspondances)

- G&F approach
  - renaming:
    - 'noun morphology' > 'noun form class'
    - 'agreement' > 'agreement class'
    - 'pairings' > 'declension' > 'deriflection'
  - **addition of 'gender', i.e. pairings of agreement patterns**
  - proposal to analyse those 4 'systems' separately

1. How I have understood G&F's approach

- ## A first problem (highlighting mine)
  - p.2: "Gender is **understood here in terms of Corbett (1991)**, namely as systems of noun classification (also called categorization) that are **reflected** by **agreement**."
  - P.8: "[the present approach] **is opposed to Corbett's (1991) approach**, which [...] distinguishes on the one hand between 'controller gender' and 'target gender'"

    Corbett's 'controller gender' = G&F's 'declension' ? > 'deriflection'
    Corbett's 'target gender' = 'G&F's 'gender' ?

1. How I have understood G&F's approach

- A second problem (highlighting mine)

  p.5 (footnote 4): "Typically, **transnumeral** nouns like infinitives, locatives and non-count nouns for masses, liquids, abstracts etc. **do not have different number forms**"

  > What about 3-number contrasts in Nyun (sg. / count pl. / unlimited pl.) or in Joola (sg. / pl. / collective)?

  > What about other unusual number contrasts? (singulative / collective)

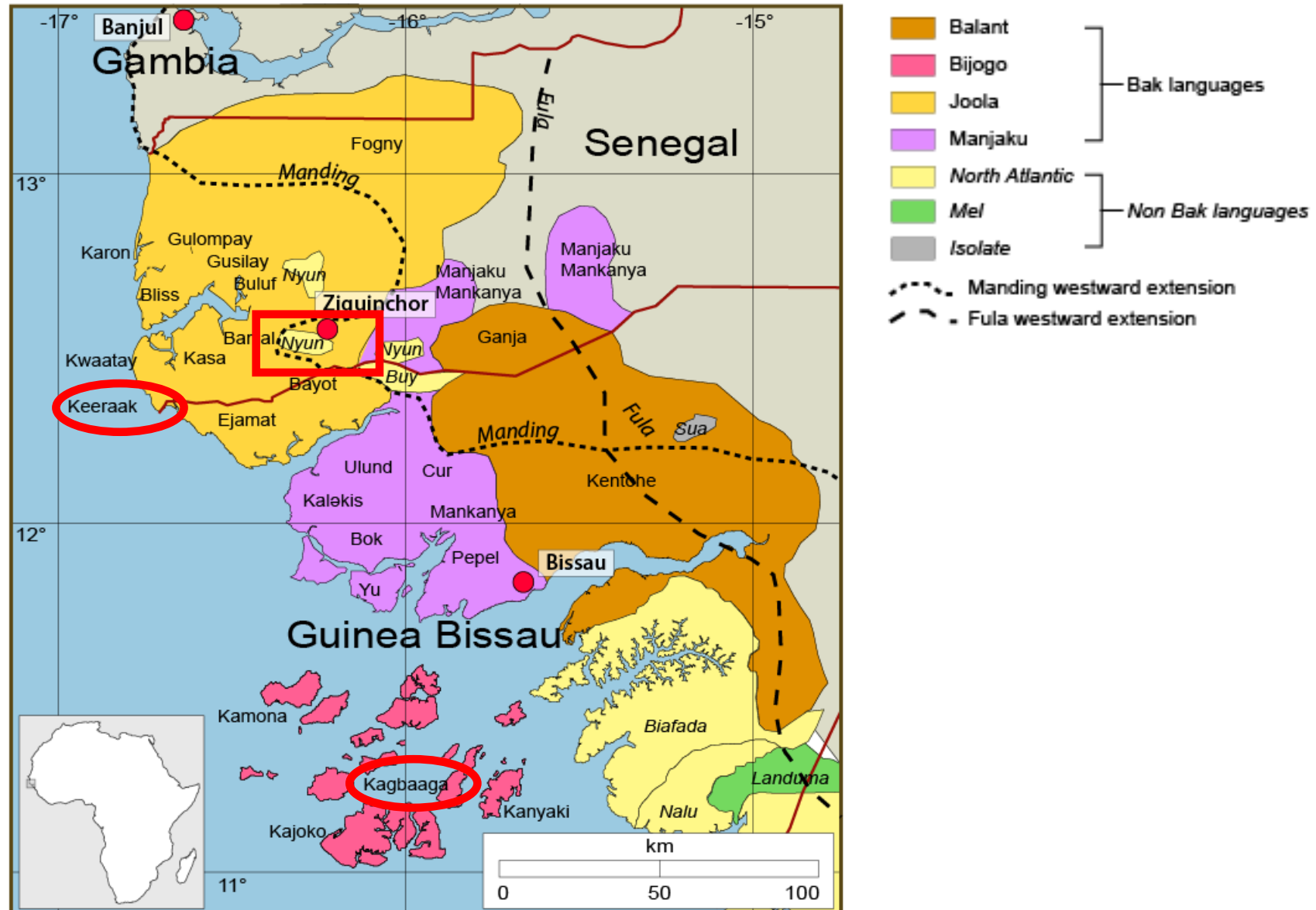 **> What about variation in class assignment?**

Aim of the talk

Overview of complex number features

Exemplified by Atlantic languages

With more details about Kagbaaga (Bijogo) and Keeraak (Joola), both belonging to the Bak branch.

The Bak languages: situation

1. Nyun (Gubëeher, data from Cobbinah 2012)

3-way number contrast in Nyun: singular / count plural / unlimited plural

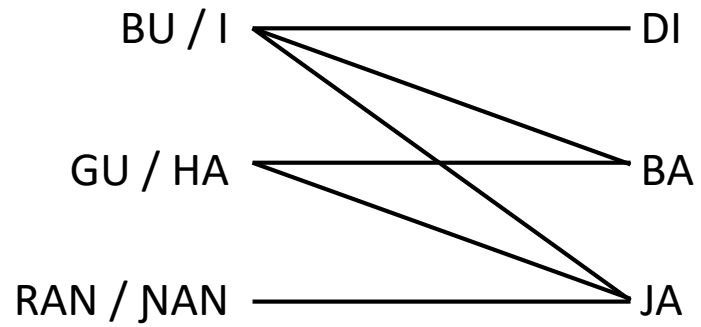| Singular	Count plural	Unlimited plural	Gloss
bu-óóg	i-óóg	di-óóg	'baobab fruit'
bu-limo	i-limo	di-limo	'orange fruit'
bu-taata	i-taata	ba-taata	'sweet potato'
bu-menteŋ	i-menteŋ	ba-menteŋ	'tomato'
bu-suulut	i-suulut	ja-suulut	'snake'
bu-pan	i-pan	ja-pan	'buzzard'
gu-goori	ha-goori	ba-goori	'cowry'
gu-silo	ha-silo	ba-silo	'earring'
gu-tiŋgilen	ha-tiŋgilen	ba-tiŋgilen	'cheek'
gu-lihan	ha-lihan	ja-lihan	'stick/wood'
gu-fos	ha-fos	ja-fos	'grass'
gu-er	ha-er	ja-er	'fish scale'
rën-jëm	ñën-jëm	jë-jëm	'frog'
rëŋ-guux	ñëŋ-guux	jë-guux	'crab with one claw'

3-way number contrast in Nyun: singular / count plural / unlimited plural

	Singular		Count plural		Unlimited plural	Gloss
BU	bu-óóg	**I**	i-óóg	**DI**	di-óóg	'baobab fruit'
	bu-limo		i-limo		di-limo	'orange fruit'
	bu-taata		i-taata	**BA**	ba-taata	'sweet potato'
	bu-menteŋ		i-menteŋ		ba-menteŋ	'tomato'
	bu-suulut		i-suulut	**JA**	ja-suulut	'snake'
	bu-pan		i-pan		ja-pan	'buzzard'
GU	gu-goori	**HA**	ha-goori	**BA**	ba-goori	'cowry'
	gu-silo		ha-silo		ba-silo	'earring'
	gu-tiŋgilen		ha-tiŋgilen		ba-tiŋgilen	'cheek'
	gu-lihan		ha-lihan	**JA**	ja-lihan	'stick/wood'
	gu-fos		ha-fos		ja-fos	'grass'
	gu-er		ha-er		ja-er	'fish scale'
RAN	rën-jëm	**ɲAN**	ñën-jëm		jë-jëm	'frog'
	rëŋ-guux		ñëŋ-guux		jë-guux	'crab with one claw'

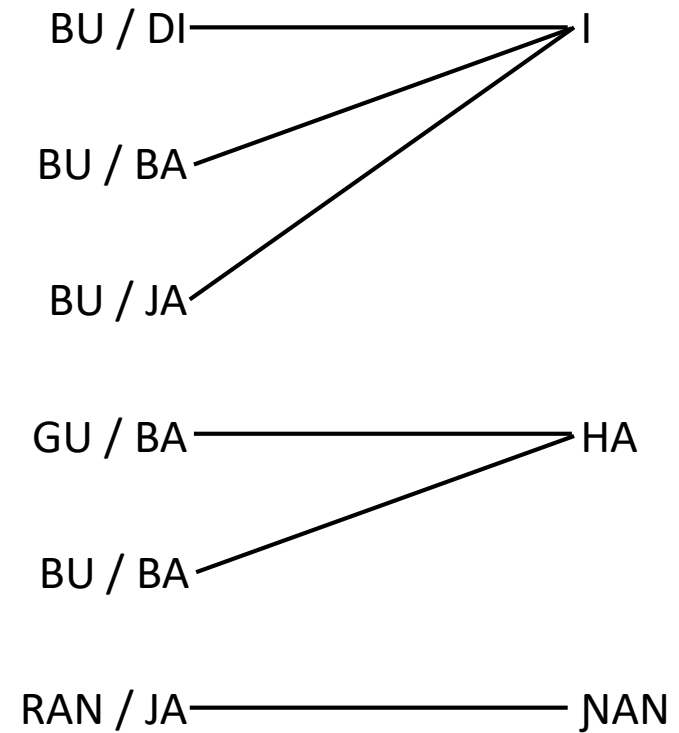# 3-way number contrast in Nyun: singular / count plural / unlimited plural

sg / count pl.   unlim. pl.

BU / I ——————— DI

GU / HA ——————— BA

RAN / ɲAN ——————— JA

sg / unlim. pl.   count pl.

BU / DI ——————— I

BU / BA

BU / JA

GU / BA ——————— HA

BU / BA

RAN / JA ——————— ɲAN

3-way number contrast in Nyun: singular / count plural / unlimited plural

sg / count pl.   unlim. pl.

   RAN / ɲAN ——————————— JA

OR

sg / unlim. pl.   count pl.

   RAN / JA ——————————— ɲAN

3-way number contrast in Nyun: singular / count plural / unlimited plural

sg / count pl.   unlim. pl.

RAN / ɲAN ——————— JA

sg / unlim. pl.   count pl.

RAN / JA ——————— ɲAN

Singular	Plural		Gloss
rën-nób	ñën-nób		'bundle'
rëŋ-kébul	ñëŋ-kébul		'hip'
rën-dimb	ñën-dimb		'veranda'
raŋ-kot	ñaŋ-kot		'woven mat'
ram-basa	ñam-basa		'mat'
ran-daŋk	ñan-daŋk		'large palm tree'
ran-no	ñan-no		'bad person'
raŋ-kulux	ñan-kulux		'rooster'
rë'-liim	ñë'-liim		'type water bird'

Singular	Count plural	Unlimited plural	Gloss
rën-jëm	ñën-jëm	jë-jëm	'frog'
ram-maasix	ñam-maasix	ja-maasix	'crab with two claws'
rëŋ-kókól	ñëŋ-kókól	jë-xókól	'type crab'
rëŋ-guux	ñëŋ-guux	jë-guux	'crab with one claw'
rë'-siŋ	ñë-'siŋ	jë-siŋ	'type crab'

> **Unlimited plural is an addition to an otherwise 'standard' sg/pl pairing > collective**

Cobbinah 2012: 280, 287

Number values and Noun forms in Nyun (Gubëeher)
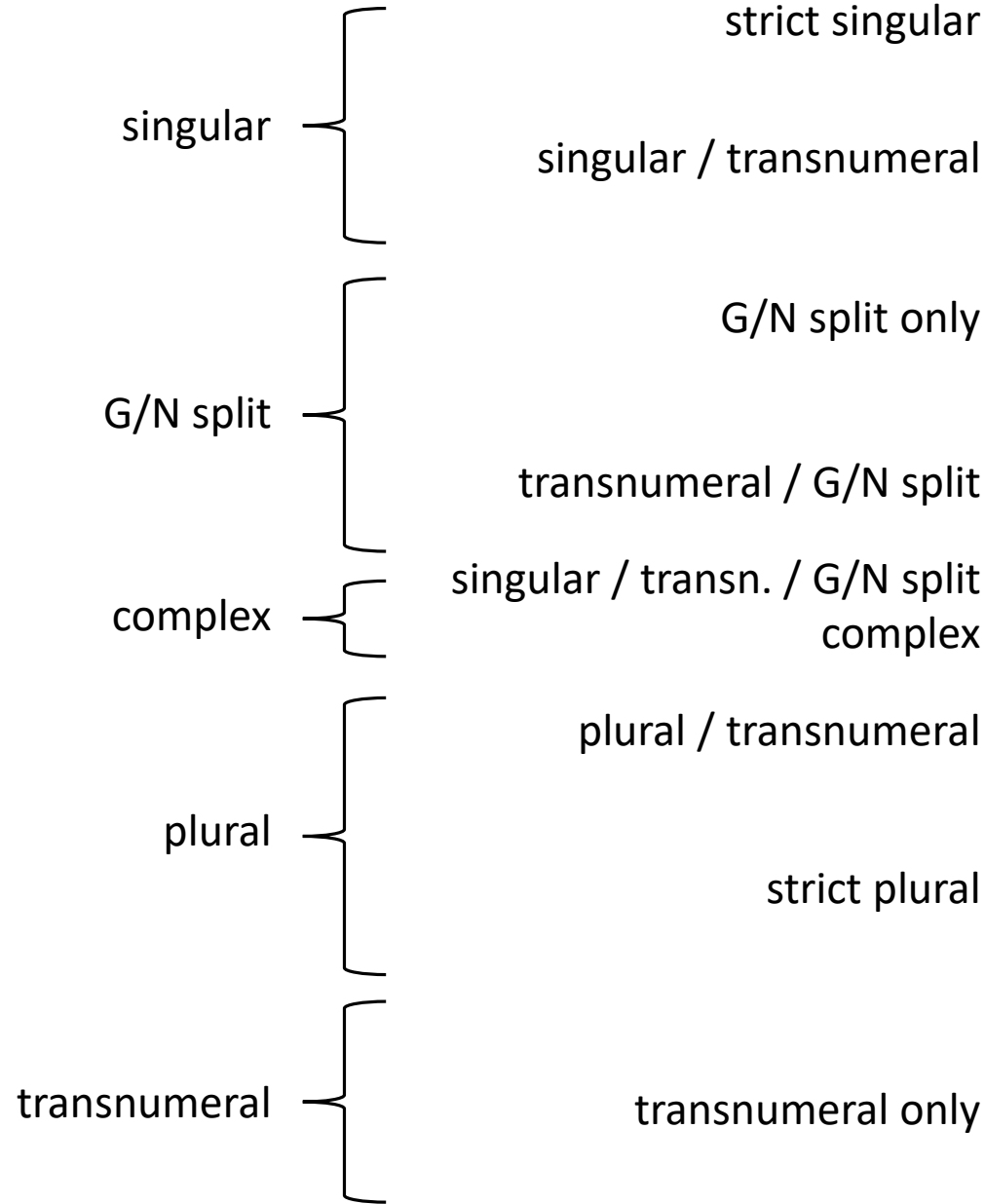
NF	SINGULAR		PLURAL			TN
	sg	sgS	Cp	Up	pl	
ran	x					
u	x					
bu	x					x
gu	x					x
ko	x					x
si	x					x
sin	x					x
fa		x				
ho		x				
hu		x				
kan		x				
a		x				x
fun		x				x
ji		x				x
ta		x				x
bi	x	x				x
ja		x		x	x	x
ba		x		x		x
di				x		x
ñan			x		x	x
mun					x	x
ha			x		x	
i			x		x	
in					x	
ñan					x	
ño					x	
da						x
din						x
hapi						x
jan						x
ti						x
kun						x

Tree structure (left to right):

- **singular**
  - strict singular
  - singular / transnumeral
- **G/N split**
  - G/N split only
  - transnumeral / G/N split
- **complex**
  - singular / transn. / G/N split complex
- **plural**
  - plural / transnumeral
  - strict plural
- **transnumeral**
  - transnumeral only

Keeraak (NC, Atlantic, Bak, Joola) – personal data (2009-2019)

3-way number contrast in Keeraak: singular / plural / collective

NF inventory   A   **B**   **BA**   **E**   **H**   **HA**   J   JA   **K**   **KA**   BUK   **M**   MA   Ɲ   S   **U**

KA / U / BA   ka-ɬɛɬ-ak / ʊ-ɬɛɬ-aw / ba-ɬɛɬ-ab 'shell sp.'

KA / U / B   ka-rɪŋ-ak / ʊ-rɪŋ-aw / bʊ-rɪŋ-ab 'thorn'

KA / U / E   ka-jahand-ak / ʊ-jahand-aw / ɛ-jahand-ay 'palm leaf'

J / M / BA   jɪ-lʊʊf-aj / mʊ-lʊʊf-am / ba-lʊʊf-ab 'small house'

H / K / E   hʊ-gɛrɛta-ah / kʊ-gɛrɛta-ak / ɛ-gɛrɛta-ay 'peanut'

H / K / BA   hʊ-ɔt-ah / kʊ-ɔt-ak / ba-ɔt-ab 'star'

E / S / HA   ɛ-nɔɔl-ɛy / sɪ-nɔɔl-as / ha-nɔɔl-ah 'ant sp.'

E / S / B   ɛ-lɔl-ɛy / sɪ-lɔl-as / bʊ-lɔl-ab 'termite'

E / S / BA   ɛ-mɛɛra-ay / sɪ-mɛɛra-as / ba-mɛɛra-ab 'arrow'

B / U / E   bʊ-hɛndʊwa-ab / ʊ-hɛndʊwa-aw / ɛ-hɛndʊwa-ay 'plant sp.'

3-way number contrast in Keeraak: singular / plural / collective

NF inventory   A **B** **BA** **E** **H** **HA** J JA **K** **KA** BUK **M** MA Ɲ S **U**

sg / pl   collective

B / U ———— **E**

KA / U

H / K ———— **B**

E / S ———— BA

J / M ———— HA

B / U / E	bʊ-hɛndʊwa-ab / ʊ-hɛndʊwa-aw / ɛ-hɛndʊwa-ay 'plant sp.'
KA / U / BA	ka-ɬɛɬ-ak / ʊ-ɬɛɬ-aw / ba-ɬɛɬ-ab 'shell sp.'
KA / U / B	ka-rɪŋ-ak / ʊ-rɪŋ-aw / bʊ-rɪŋ-ab 'thorn'
KA / U / E	ka-jahand-ak / ʊ-jahand-aw / ɛ-jahand-ay 'palm leaf'
H / K / E	hʊ-gɛrɛta-ah / kʊ-gɛrɛta-ak / ɛ-gɛrɛta-ay 'peanut'
H / K / BA	hʊ-ɔt-ah / kʊ-ɔt-ak / ba-ɔt-ab 'star'
E / S / HA	ɛ-nɔɔl-ɛy / sɪ-nɔɔl-as / ha-nɔɔl-ah 'ant sp.'
E / S / B	ɛ-lɔl-ɛy / sɪ-lɔl-as / bʊ-lɔl-ab 'termite'
E / S / BA	ɛ-mɛɛra-ay / sɪ-mɛɛra-as / ba-mɛɛra-ab 'arrow'
J / M / BA	jɪ-lʊʊf-aj / mʊ-lʊʊf-am / ba-lʊʊf-ab 'small house'

> **> As in Nyun, the 3rd 'number value' is 'added' to an otherwise standard sg/pl pairing.**

Other marginal number contrasts (singulative ~ collective ? ~ generic ?)

NF inventory   **A**   **B**   BA   E   H   HA   J   JA   **K**   **KA**   BUK   M   **MA**   **Ɲ**   S   **U**

KA / B   ka-fɛɛs-ak / bʊ-fɛɛs-ab 'rice chaff'

A / U   a-yaaj-aw / ʊ-yaaj-aw 'piece of wood ~ wood'

KA / K   ka-lɔlɔbɔɔr-ak / kʊ-lɔlɔbɔɔr-ak 'noise'

MA / U   ma-ɬɛgɛn-am / ʊ-ɬɛgɛn-aw 'truth'

M / U   mʊ-kʊʊk-am / ʊ-kʊʊk-aw 'brain'

Ɲ ~ U   ɲɩ-kʊl-aɲ / ʊ-kʊl-aw 'funeral dance'

Keeraak: variation in class assignment

NF inventory **A** **B** BA **E** H HA **J** **JA** K **KA** BUK **M** MA Ɲ S U

KA ~ B   ka-sanj-ak ~ bʊ-sanj-ab / ʊ-sanj-aw 'tree sp.'

E ~ JA   ɛ-mpal-ay ~ ja-mpal-aw / ba-mpal-ab 'bird sp. (dove)'

Ɲ ~ J   ɲi-səng-əɲ ~ ji-səng-əj 'ornament, decoration' (no plural)

A ~ J   jɪ-maɲ-aj ~ a-maɲ-aw / ba-maɲ-ab 'small piece of iron'

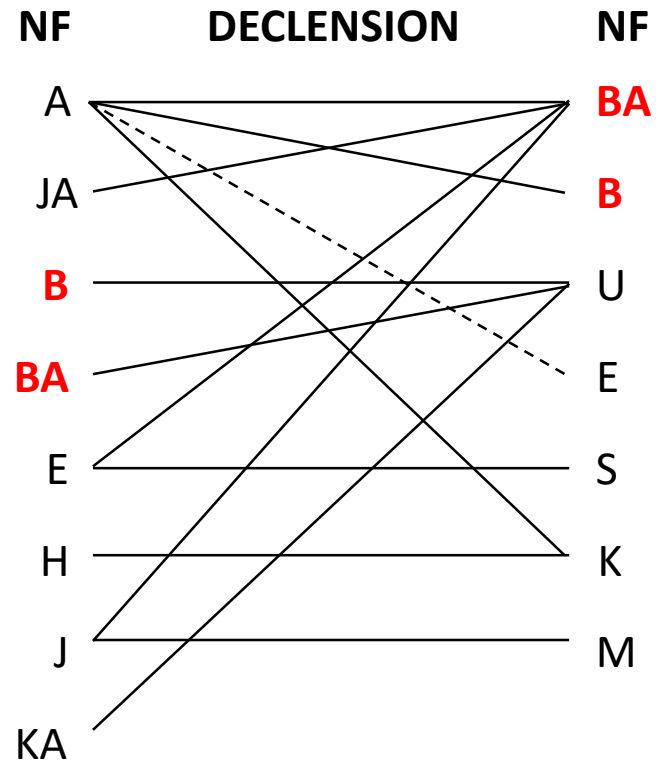J ~ JA   ji-hiiriir-əj ~ jə-hiiriir-əw / bə-hiiriir-əb 'insect sp.'

A ~ E   a-kɪɪw-aw ~ ɛ-kɪɪw-ay / ba-kɪɪw-ab 'chick'

B ~ BA   bʊ-jɛk-ab ~ ba-jɛk-ab 'charcoal'

Singular only ? (when in plural, it might be a case of plural / collective contrast)

M ~ BA   ə-ruuk-əw / mu-ruuk-əm ~ bə-ruuk-əb 'bull (small)'
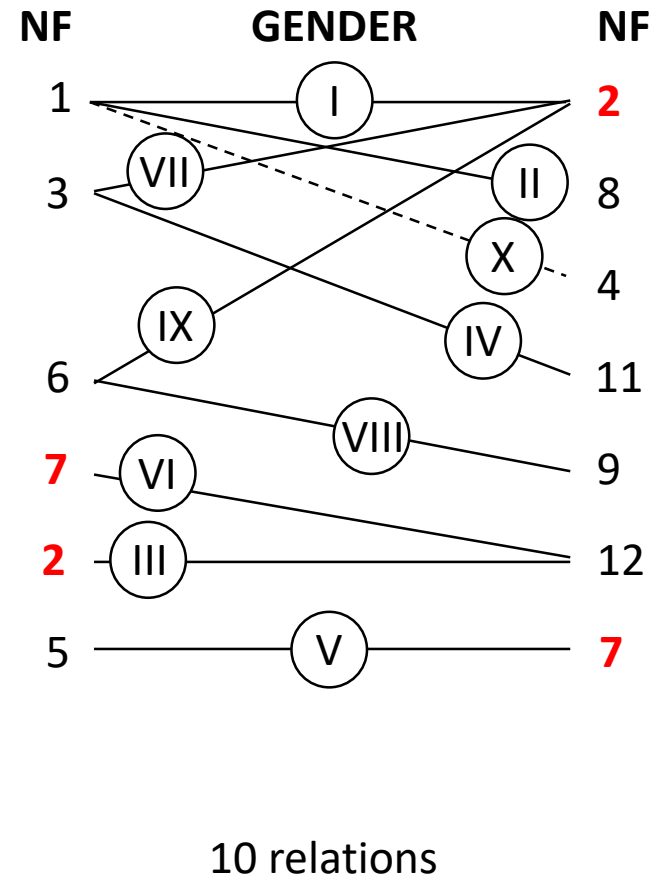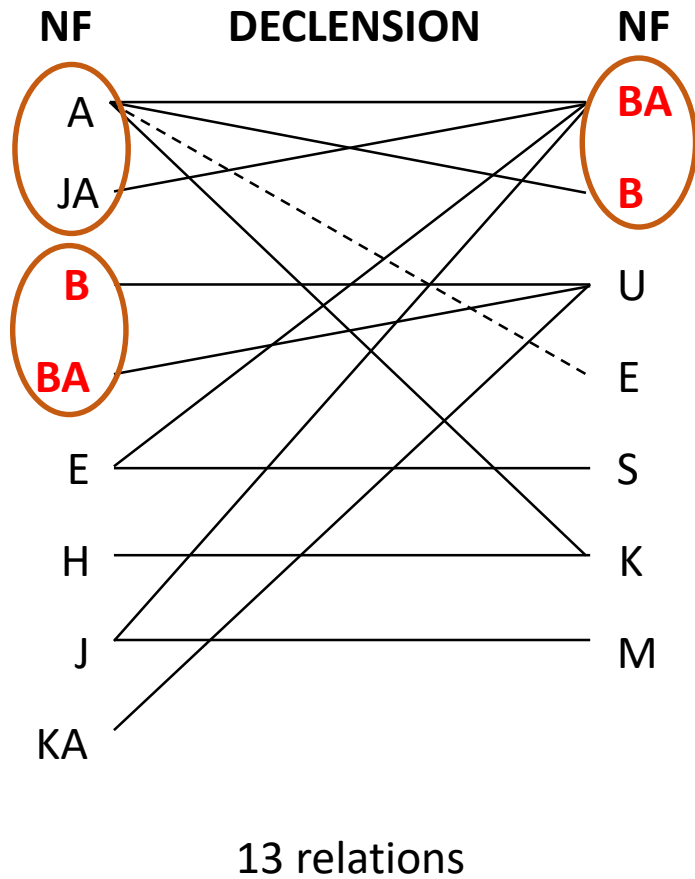
Keeraak – declension system

NF   **DECLENSION**   **NF**

A — BA
JA — B
B — U
BA — E
E — S
H — K
J — M
KA

13 relations

> 10 cases

NF   **DECLENSION**   **NF**

A — BA
JA — B
B — U
BA — BUK
E — S
H — K
J — M
KA — E
M
MA
N
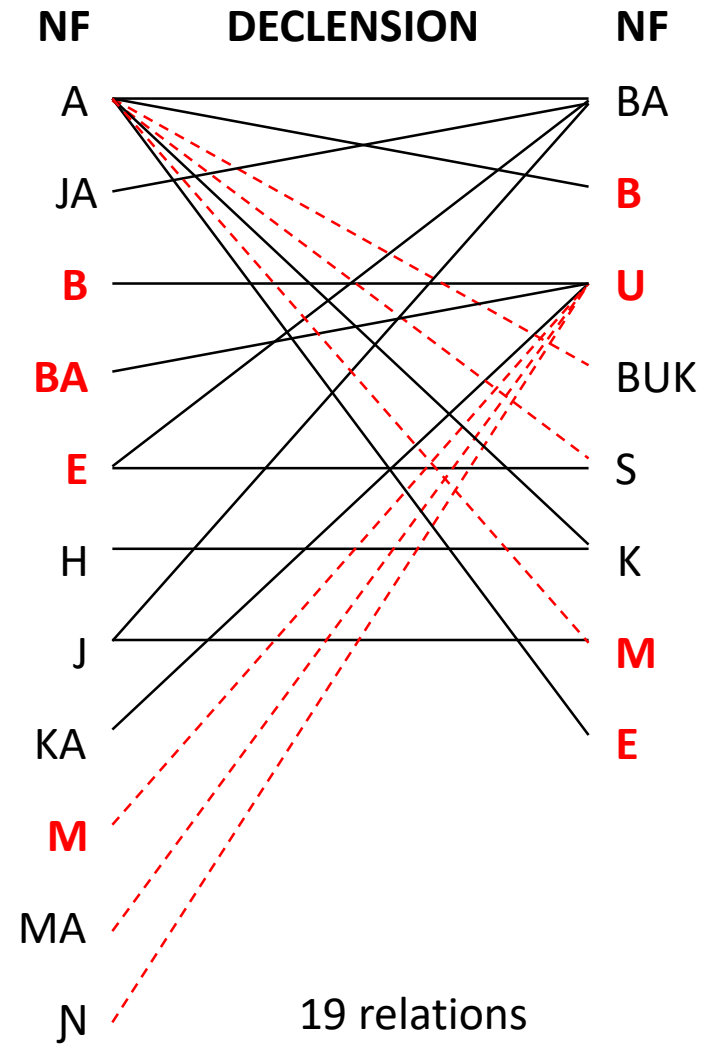
19 relations

Keeraak – declension *vs* gender

NF | DECLENSION | NF

A, JA, B, BA, E, H, J, KA → BA, B, U, E, S, K, M

13 relations

NF | GENDER | NF

1, 3, 6, 7, 2, 5 — I, VII, IX, VI, III, V, II, X, IV, VIII → 2, 8, 4, 11, 9, 12, 7

10 relations

> **10 cases**

AGR	WF
1	A, JA
2	B, BA
3	E
4	E/K
5	H, HA
6	J, JA
7	K, KA
8	BUK, K
9	M, MA
10	N
11	S
12	U
13	D
14	T

Keeraak – declension *vs* gender (including collective)
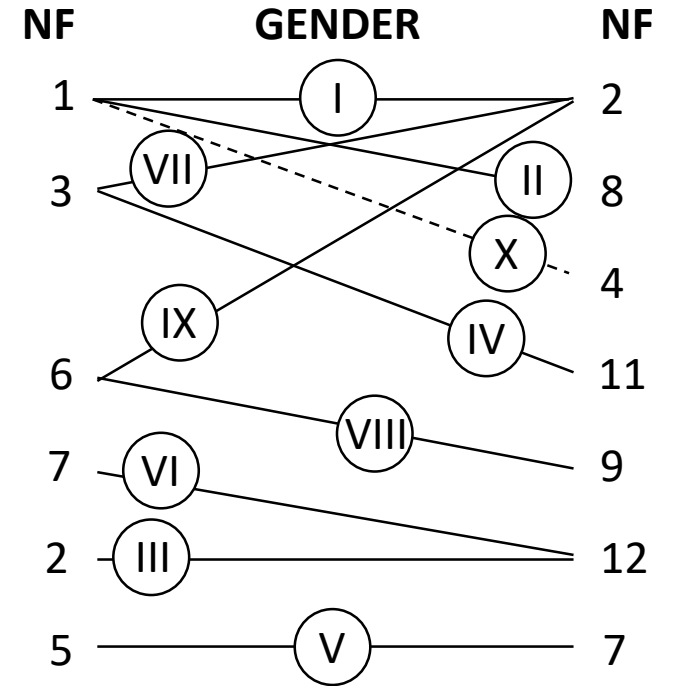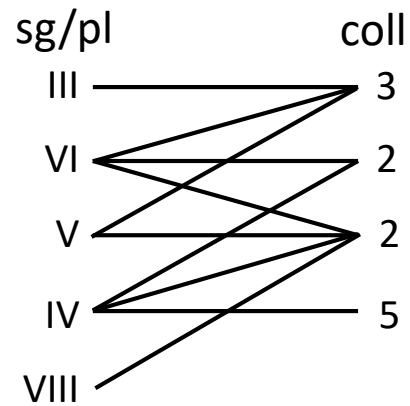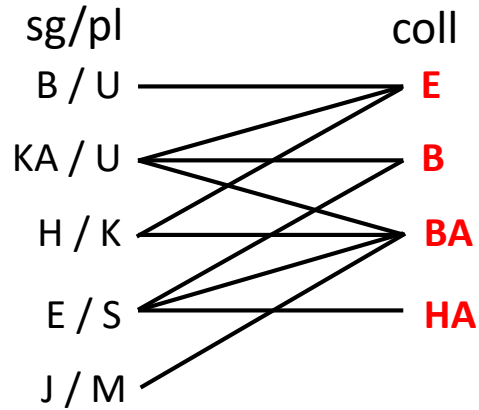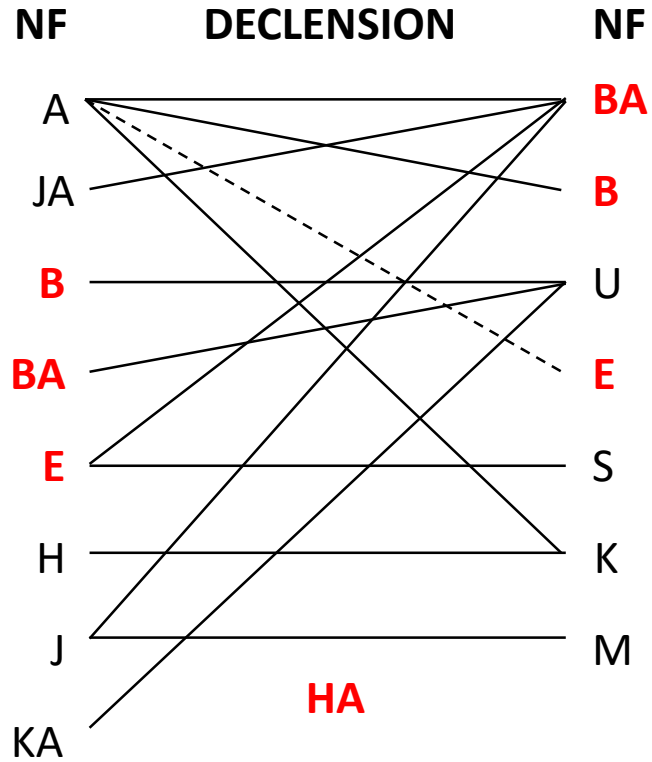
Keeraak – declension revisited

BEFORE

NF	DECLENSION	NF
A		**BA**
JA		**B**
B		U
BA		**E**
E		S
H		K
J		M
KA	**HA**	

AFTER

SG	COLL	PL
A (JA)	**B**	**B**, **BA**, **E**, K1
B, **BA**, KA	**E**	U
H	**BA**	K2
E	**HA**	S, **BA**
J, **BA**		M
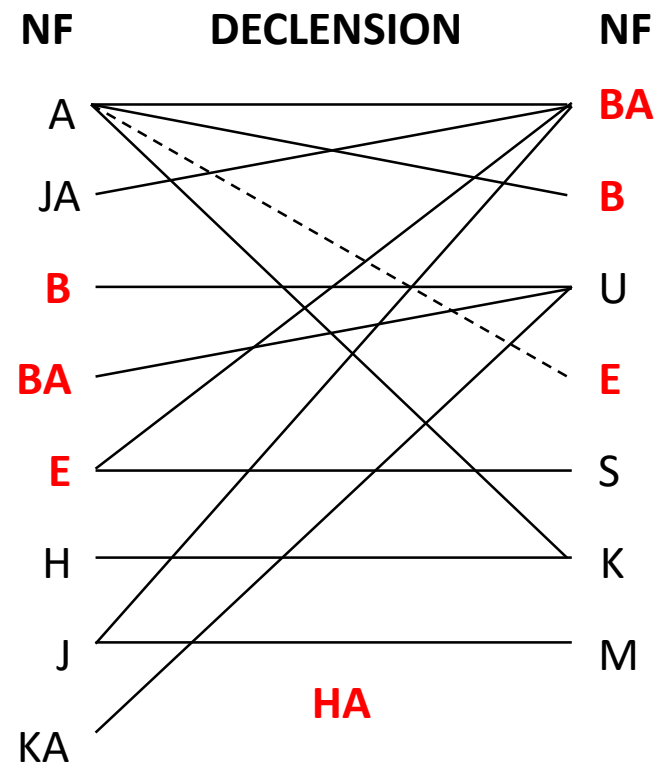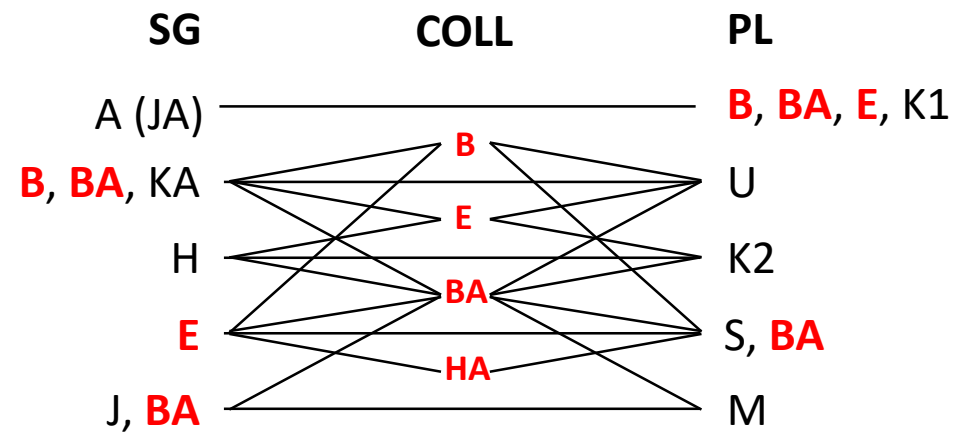
Keeraak (NC, Atlantic, Bak, Joola) – personal data (~2000 nouns)

		WF	SG	TN	CO	PL	AGR	AGR
non plural	strict singular	JA	63				A	1
		A	169				A	1
	extended singular	JA	70	1			J	6
		Ɲ	1	9			Ɲ	10
		J	39	11			J	6
		H	396	43			H	5
		MA	1	73			M	9
		KA	255	127			K	7
		E	349	88	8		E	3
complex		M	2	38		19	M	9
		BA	12	71	62	137	B	2
		B	100	79	19	48	B	2
non singular	mainly plural	U		3		366	U	12
		K		1		393	K	7
		S		8		325	S	11
	locative	D'		1			D	13
		T		1			T	14
	strict collective	HA			15		H	5
		E				24	E/K	4
	strict plural	BUK				1	BK/K	8
		K				59	BK/K	8

Kagbaaga (NC, Atlantic, Bak, Bijogo) – personal data (1996-1999)

Kagbaaga agreement

NF	NB	noun prefixes	SUBJ	CONN	PRON.	DEM1	DEM2	DEM3	DEM4
E	sg, co	Ø, e, ɛ	i-, ɛ-	ɛ-, m-	ɛg	ɛnɛ	ɛnu	ɛgan	ɛnna
I	pl, tn	i	i-	i-, m-	ig	inɛ	inu	igan	inna
O	sg	Ø, o, ɔ	u-, ɔ-	ɔ-, Ø	ɔg	ɔnɔ	ɔnu	ɔgan	ɔnna
U	sg, pl	Ø, u	u-	u-, b-, m-	ug	unɛ	unu	ugan	unna
YA	pl	ya	ya-	y(a)-, Ø	yag	yaanɛ	yanu	yagan	yanna
BA	tn	ba	ba-	?	?	?	?	?	banna
KA	sg	ka	ka-	k(a)-	kag	ɛnka	kanu	kan	kanna
KO	sg, pl	ko, kɔ, ku, kpa	ku-, kɔ-	k(u)-	kɔg	ɛnka	kunu	kan	kunna
M	tn, pl	M, ɲV	M-, m-	m-	ink	nnɛ	nnu	ngan	nna
MO	tn, pl	mo, mɔ, mu	mu-, mɔ-	m(u)-	mɔg	ɛmma	munu	man	munna
NV	sg	nV, ni	nV-, ni-	n(a)-	nɛg	ɛnna	nunu	nan	ninna
ŊA	pl (sg)	ŋa	ŋa-	ŋ(a)-	ŋag	ɛŋŋa	ŋanu	ŋan	ŋanna
ŊO	sg	ŋo, ŋɔ, ŋu	ŋu-, ŋɔ-	ŋ(u)-	ŋɔg	ɛŋŋa	ŋunu	ŋan	ŋunna
WO	tn	Ø	wu-, wɔ-	-	wɔg	wɔɔnɛ	?	wɔngan	wɔnna

Kagbaaga – declension *vs* gender
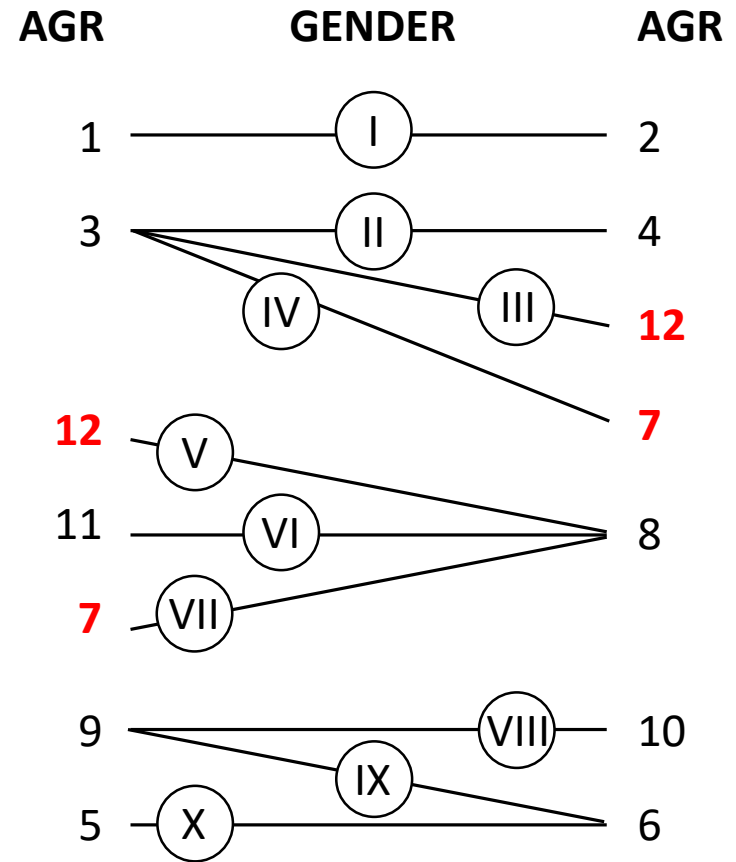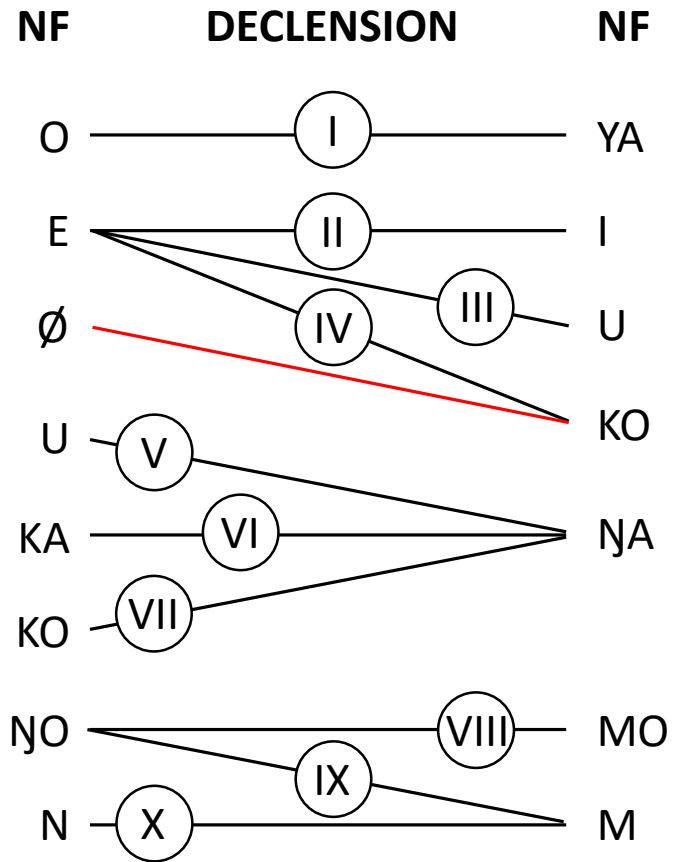
Kagbaaga – declension revisited
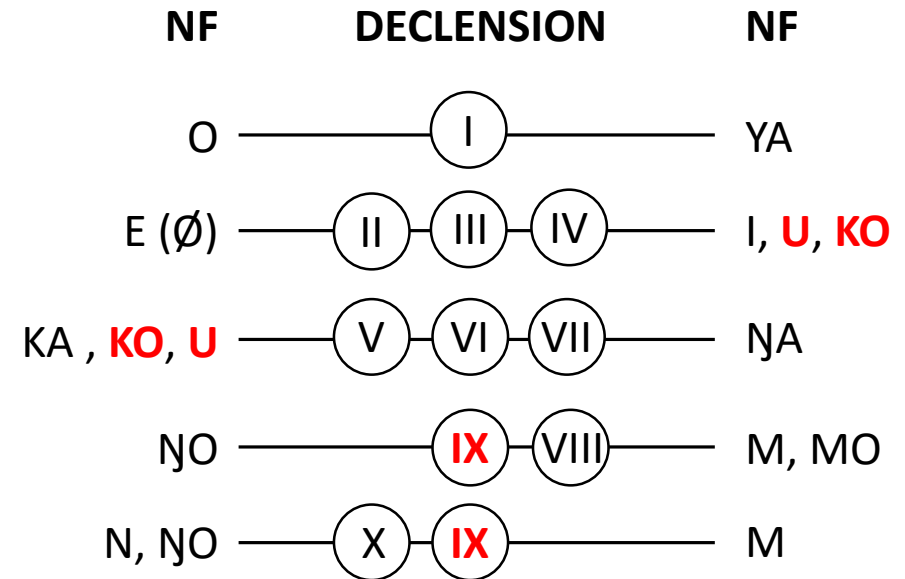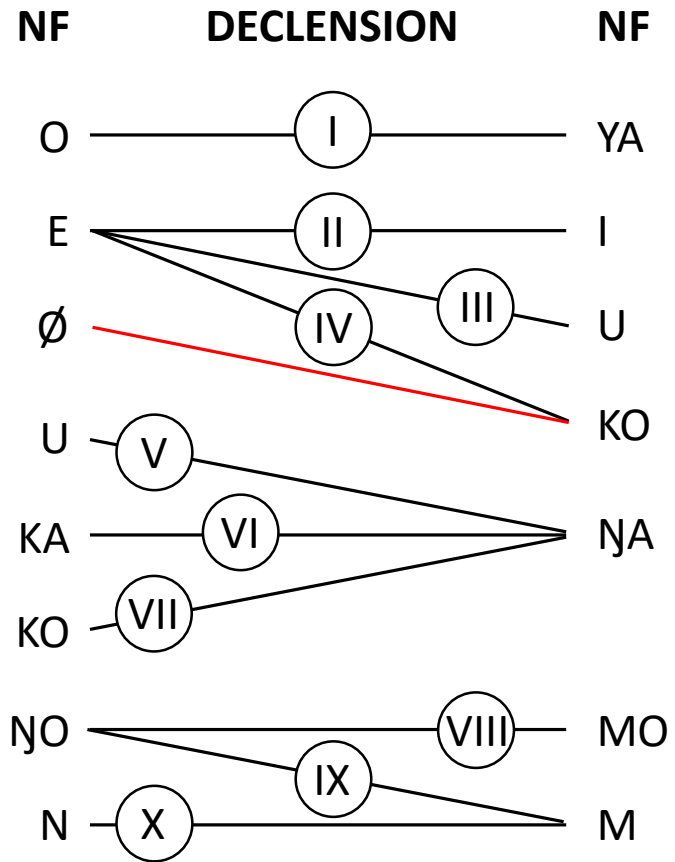
Kagbaaga (NC, Atlantic, Bak, Bijogo) – personal data (~1000 nouns)

WF	SG	TN	CO	PL	AGR
O	59				1
Ø	62				3
N	108	16			5
Ŋ	64	68 (+inf)			9
KA	172	48			11
E	156	21	8		3
KO	102	26		179	7
ŊA	1	10		297	8
U	24	7		10	12
I		2		28	4
M		19		120	6
MO		5		58	10
YA				59	2
BA		der			13
W		1			14

strict singular — O, Ø

non plural

extended singular — N, Ŋ, KA, E

complex — KO, ŊA, U

non singular

mainly plural — I, M, MO

strict plural — YA

pejorative — BA

locative — W

MERCI !