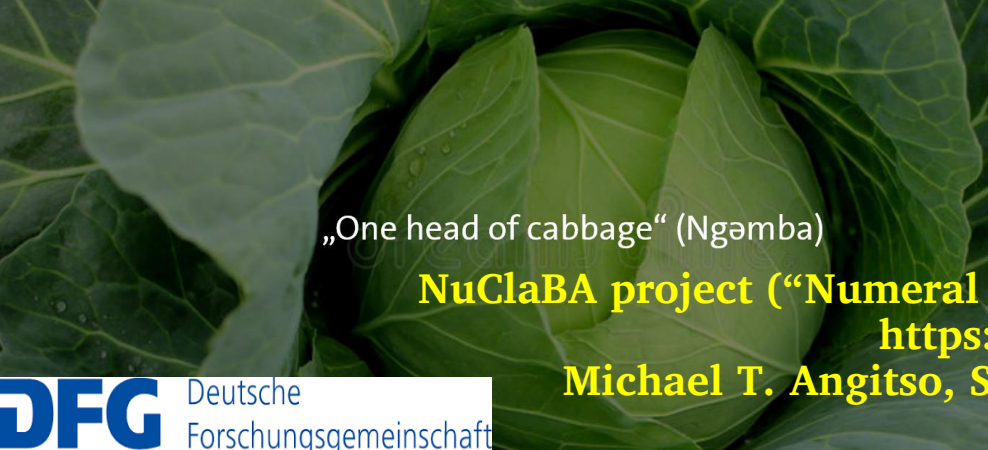


How to become a numeral classifier in Benue-Congo: comparative and areal perspectives



„One head of cabbage“ (Ngəmba)



„Persons of bees“ (Tiv)

NuClaBA project (“Numeral classifiers of the Benue-Congo languages of Africa” DFG)
<https://nuclaba.blogs.uni-hamburg.de/>

Michael T. Angitso, Solange Mekamgoum, Roland Kießling (Hamburg)
Frankfurt a.M., 19.04.2024

Outline

Relevance

Nominal classification: gender/noun class systems vs. classifier systems

Quantification, countability: sortal vs mensural classifiers

Exemplifications:

Cross-River: Ogoni (Kana)

Eastern Grassfields: Bamileke (Ngəmba)

Tivoid (Tiv, Ugare, Evand)

Emergence of numeral classifier as a category: grammaticalisation

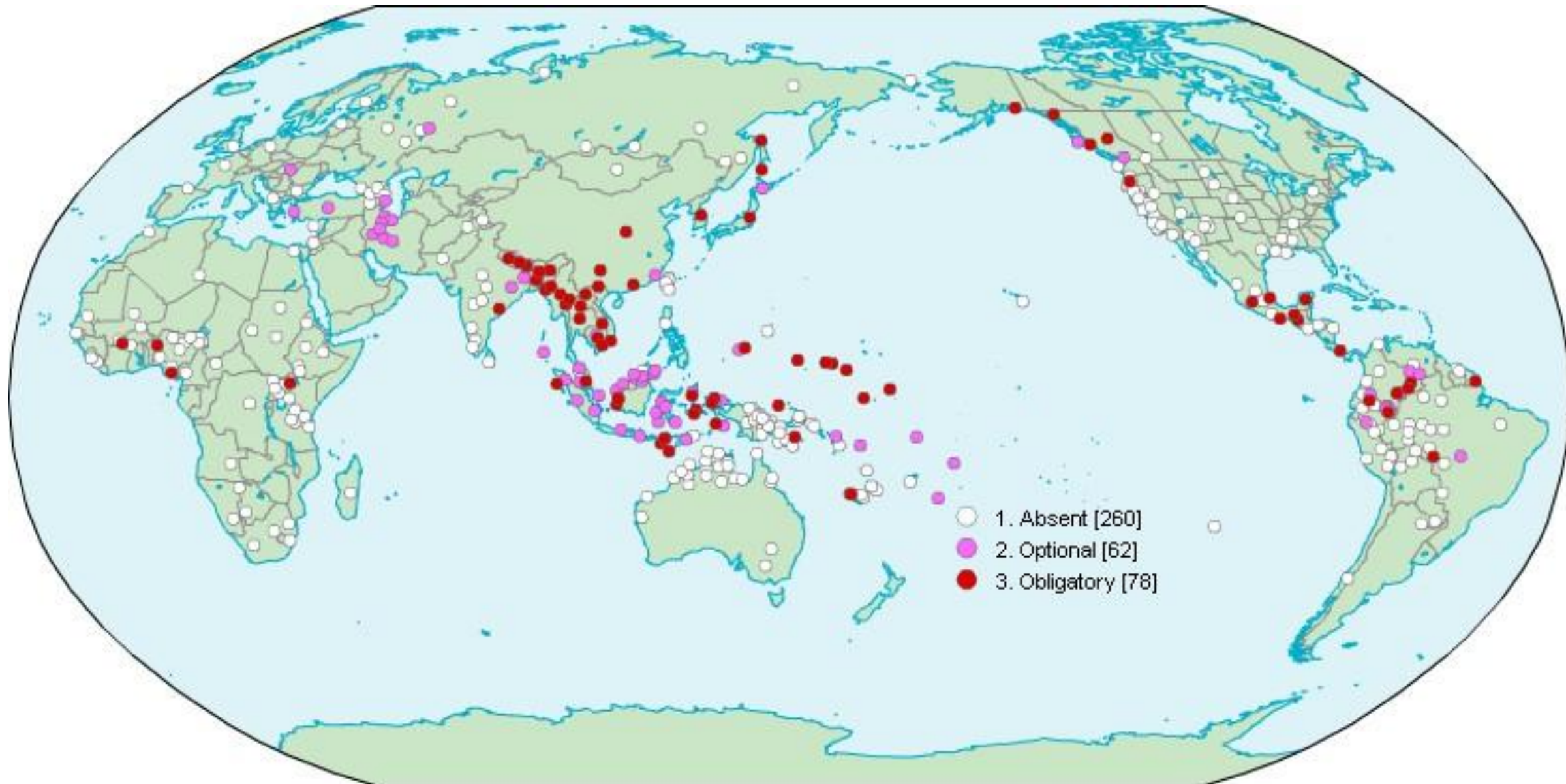
Semantic properties

Syntactic properties of numeral classifier constructions in Benue Congo

Comparative and areal perspectives

Conclusion

Numeral classifiers world wide (WALS)



Gil, David. 2005. Numeral Classifiers. In: Haspelmath, Martin, Matthew S. Dryer, David Gil & Bernard Comrie (eds.), *The World Atlas of Language Structures*, Oxford & New York: Oxford University Press, 226-229.

Attestations of numeral classifier systems in Benue-Congo, so far

Cross River:

Ogoni: Kana, Tee, Gokana, Baan, Eleme

Lower Cross: [??]

Upper Cross: [??]

Tivoid: Tiv, Ugare, Evand, [...]

Grassfields:

Eastern: Bamileke: Ngəmba, Ngiemboon, Ngwe, [...]

Nun: Bafanji, Bali-Mungaka, [...]

Western: Ring: Isu, [??]

Menchum: [??]

Momo: [??]

Ekoid: Ejagham, [??]

Mamfe: Denya, [??]

?Beboid

?Yemne-Kimbi

?Jukunoid

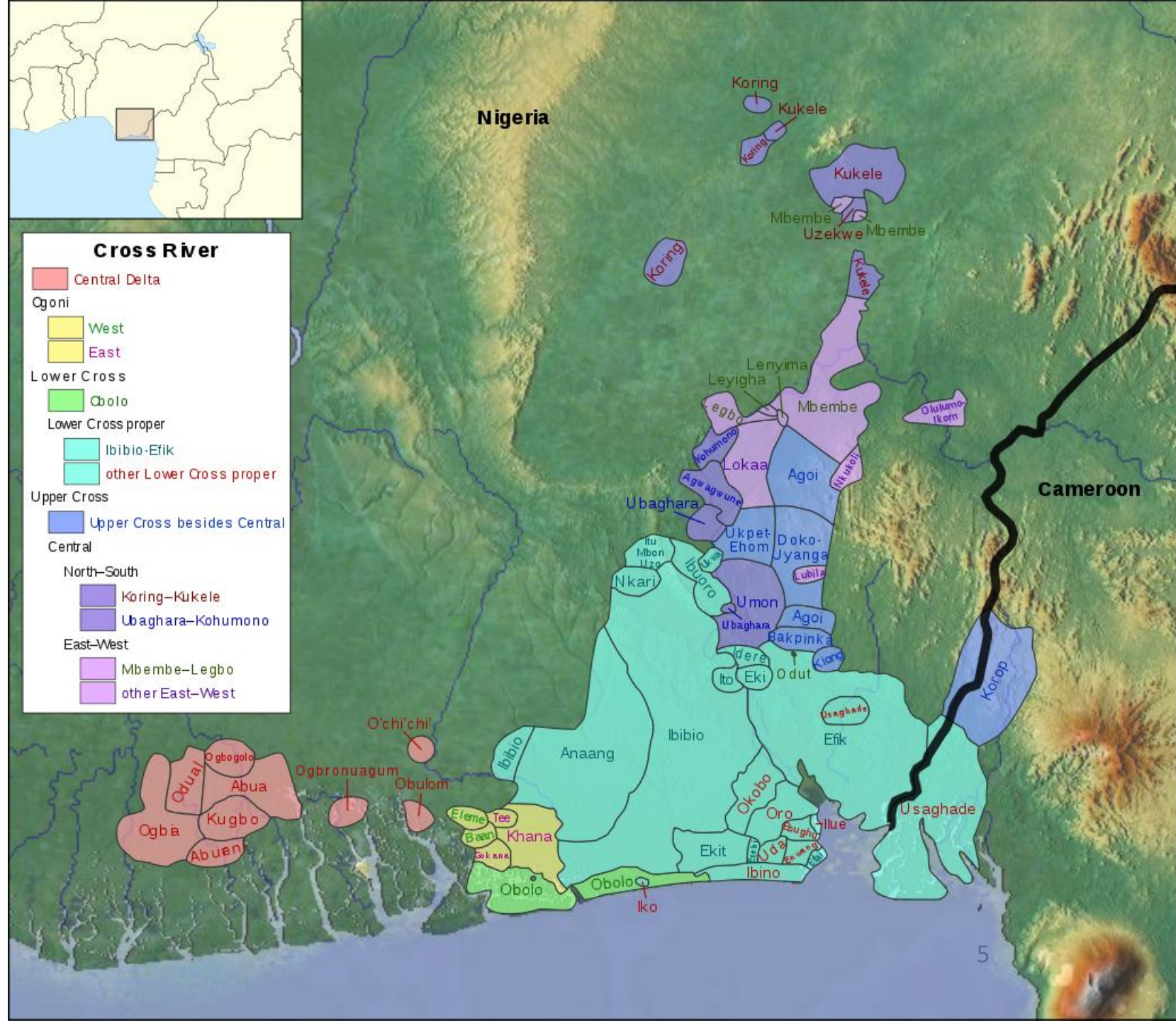
?Plateau

?Kainji

?Jarawan

?Northern Bantoid

Cross River



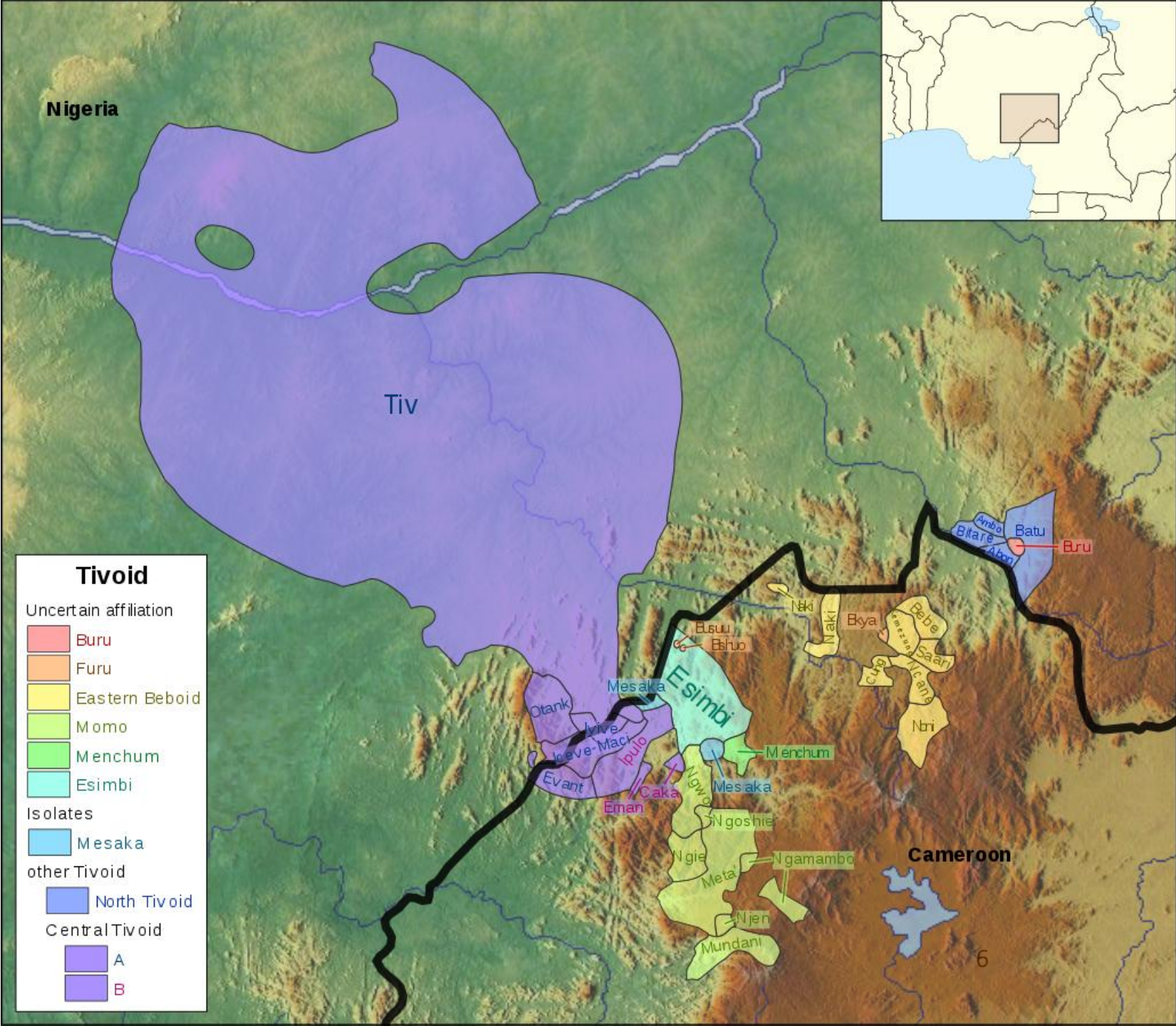
Kana and Ogoni: Ikoro 1994, 1996

Tivoid

Tiv:
Angitso 2020

Ugare:
Angitso & Kießling fc

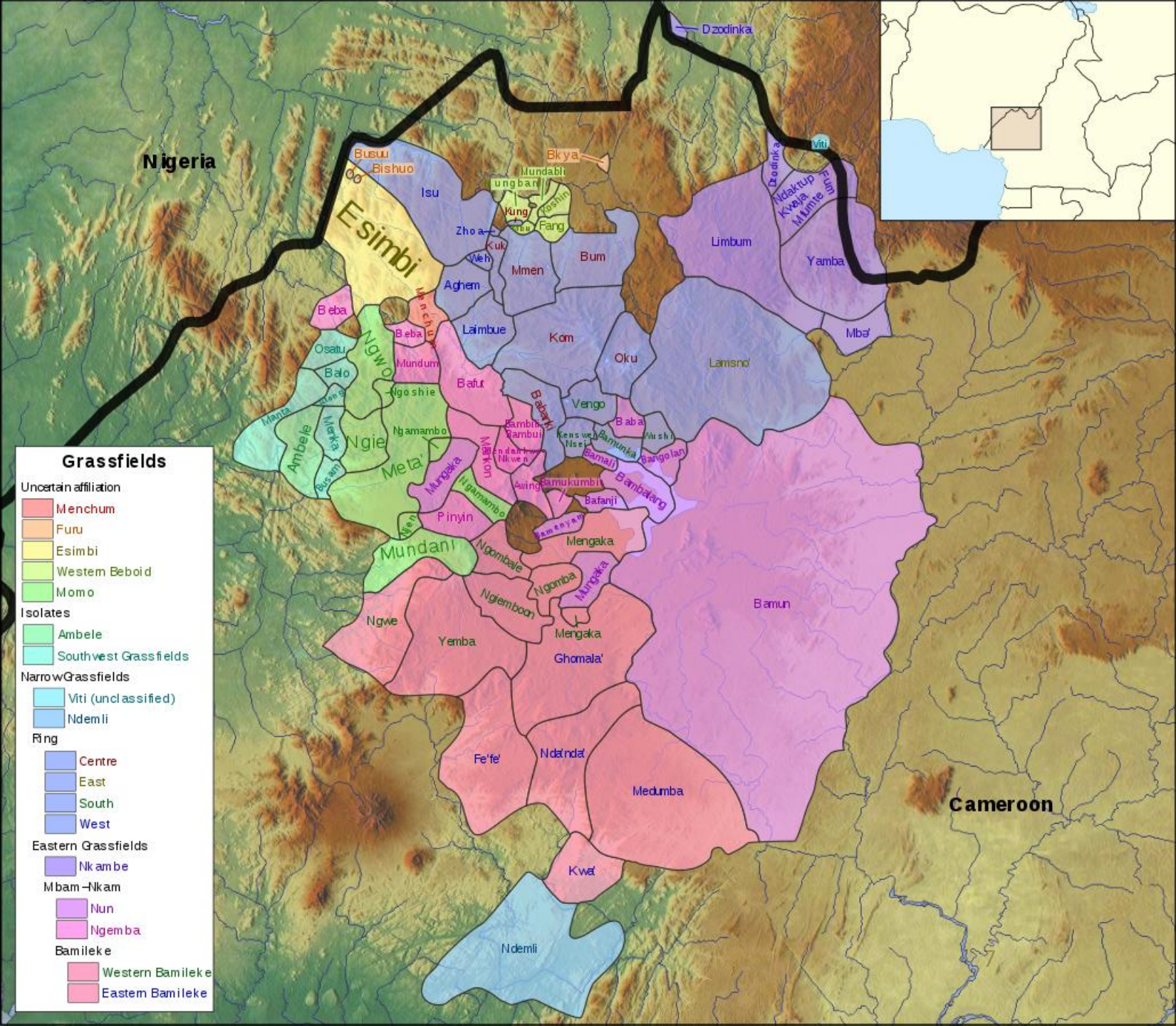
NuClaBA



Grassfields Bantu

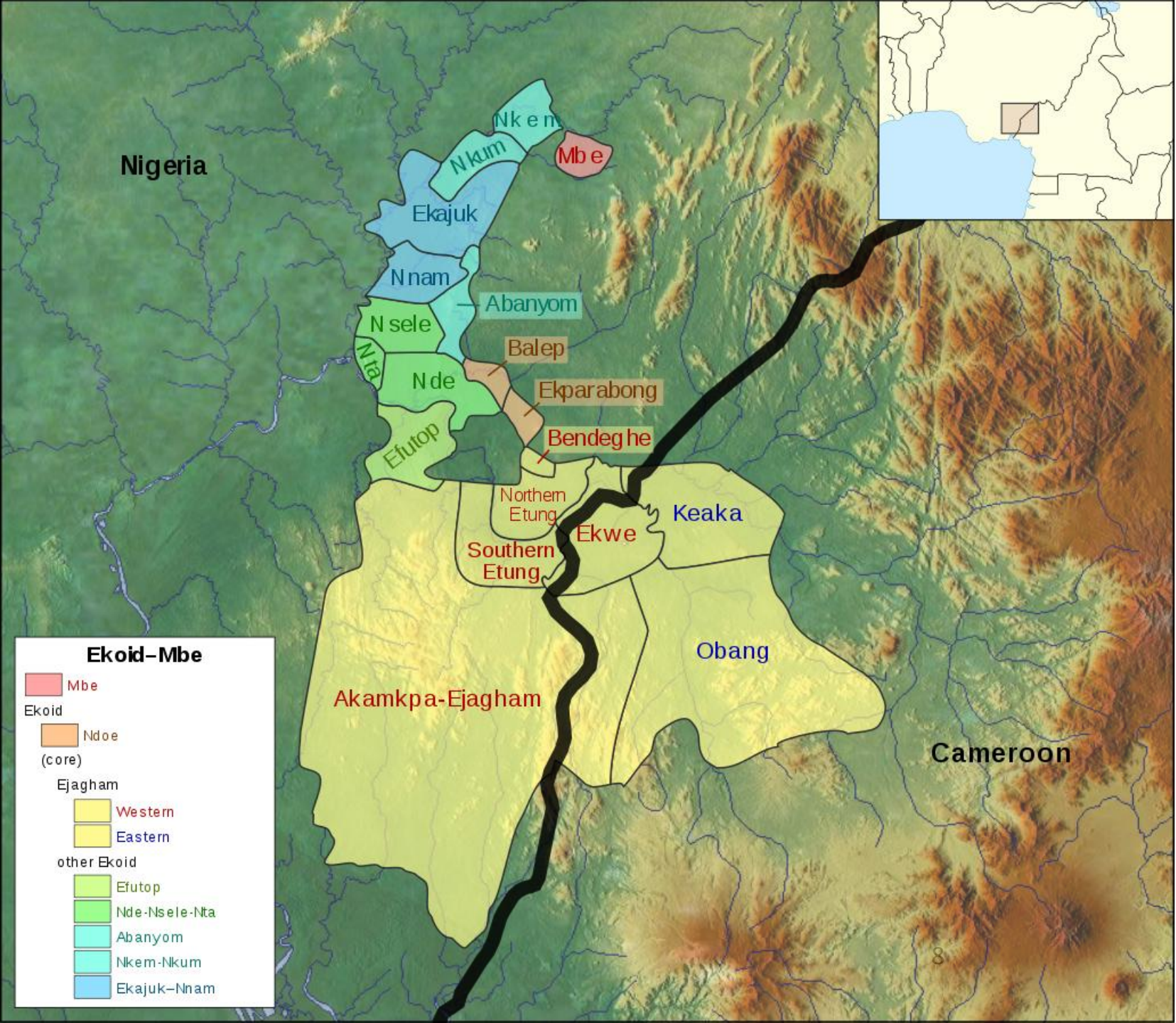
Nun:
Bafanji: Hamm 2010

Bamileke:
Ngiemboon: Vinogradov 2009
Ngemba: Mekamgoum &
Kießling fc
NuClaBA

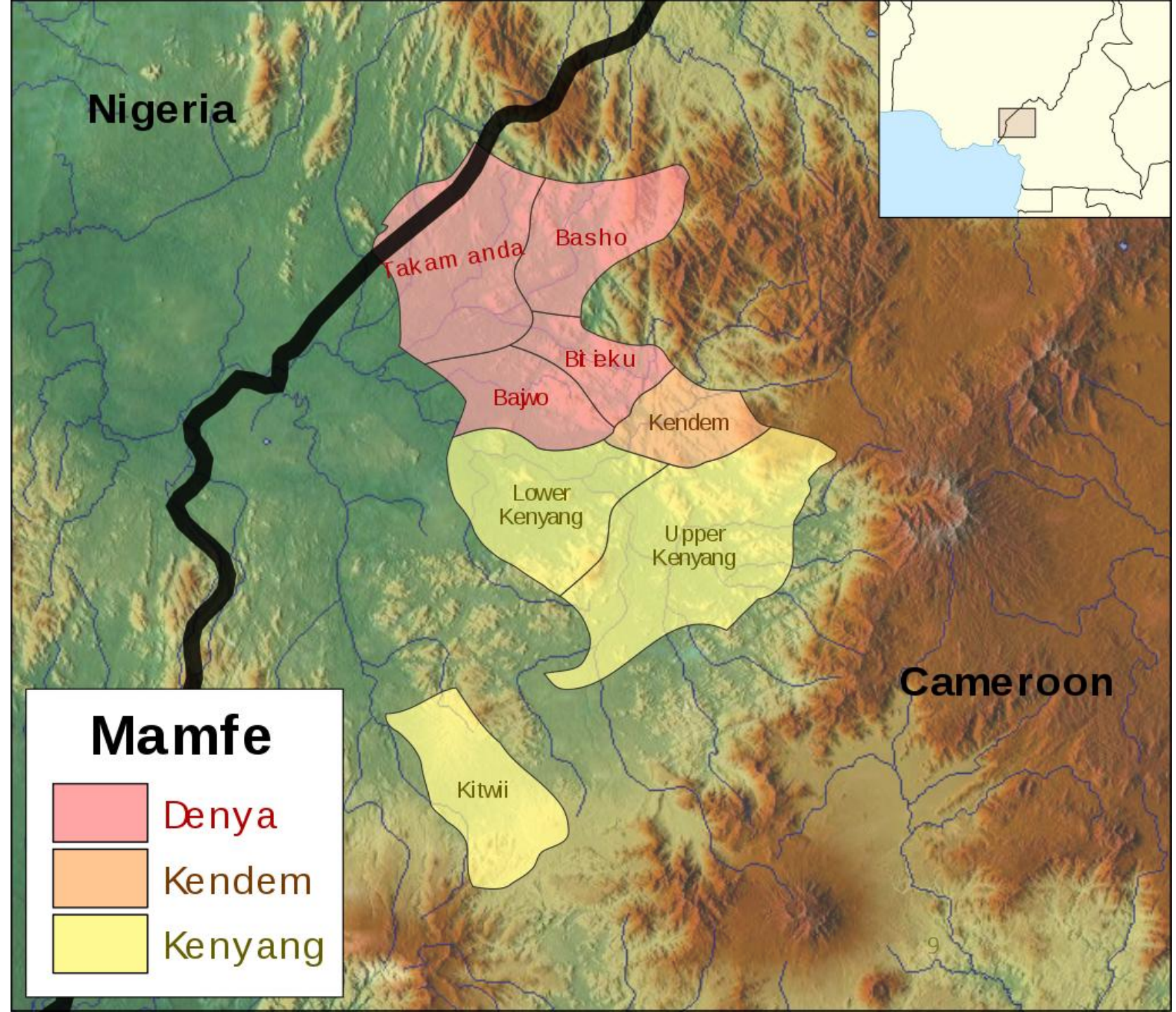


Ekoid

Ejagham:
Watters 1981



Nyang / Mamfe



Denya:
Kießling 2018

Attestations of numeral classifier systems in Benue-Congo, so far

Range of application (lexical coverage) of numeral classifiers: **maximal** vs. **minimal/eingeschränkt** vs. **marginal**

Cross River:

Ogoni: **Kana, Tee, Gokana, Baan, Eleme**

Lower Cross: [??]

Upper Cross: [??]

Tivoid: **Tiv, Ugare, Evand**, [...]

Grassfields:

Eastern: Bamileke: **Ngəmba, Ngiemboon, Ngwe**, [...]

Nun: **Bafanji, Bali-Mungaka**, [...]

Western: Ring: **Isu**, [??]

Menchum: [??]

Momo: [??]

Ekoid: **Ejagham**, [??]

Mamfe: **Denya**, [??]

?Beboid, ?Yemne-Kimbi, ?Jukunoid, ?Plateau, ?Kainji, ?Jarawan, ?Northern Bantoid

Why has the presence of numeral classifier systems in these languages gone unnoticed for a long time?

- range of application of numeral classifiers
- degree of semantic resolution in first sketch grammars

Evand (Tivoid) numeral classifier exemplifications

Obligatory classifier *kí-tām-ék* (7/8) ‘fruit’ required in quantification:

1a *kí-tām-ék* *k* = àkàrà = *k* *kí-mǎ-k*
7-CLF < FRUIT-7 7.AM = 1.beancake = 7.ENC 7-one-7
‘one beancake’ (lit. ‘one fruit of beancake’)

1b *ví-tām-év* *v* = àkàrà = *v* *ví-álǎ-v*
8-CLF < FRUIT-8 8.AM = 1.beancake = 8.ENC 8-two-8
‘two beancakes’ (lit. ‘two fruits of beancake’)

Quantification without classifier:

2a *kí-tām-ék* *kí-mǎ-k*
7-CLF < FRUIT-7 7-one-7
‘one fruit’

2b *vá-kásé-v* *vá-tāt*
2-woman-2 2-three
‘three women’

2c *í-nǎm* *í-tāt*
10-animal.10 10-three.10
‘three animals’



Numeral classifier exemplifications from Benue Congo

Ugare (Tivoid): numeral classifier *ú-gbéndé* (3/6) ‘muscle’ for items with bulging shape:

3 *ú-gbéndé* *û-gwándè* *ú-twăm*
3-CLF < muscle 3.AM:3-mussel 3-one
‘one mussel’ (lit. ‘one muscle of mussel’)

Tiv (Tivoid): numeral classifier *ì-sàṅgè* (9/10) ‘seed/grain’ for small items:

4 *ì-sàṅgè* *ì* *à-bá:tfá* *ì-mǎm*
9-CLF < seed 9.AM 6-letter 9-one
‘one letter’ (lit. ‘one seed/grain of letters’)

Ngəmba (Eastern Grassfields): numeral classifier *njáṅ* (3/6) ‘stick’ for longish rigid objects:

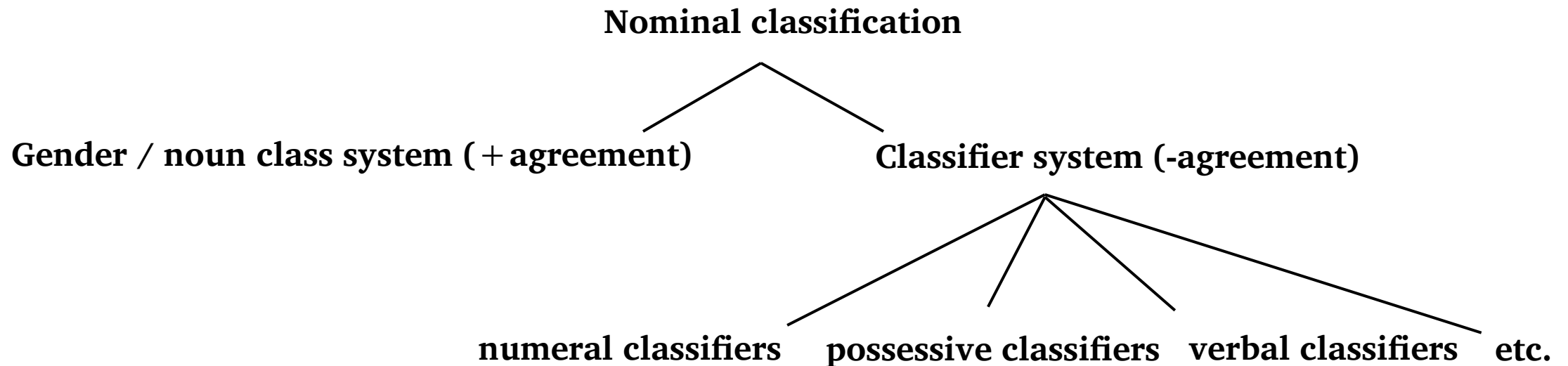
5 *mè-sǎṅ* *mé* *njáṅ* *ppa* *wwù*
6-teeth child CLF < STICK two fall
‘Two of the child’s teeth have fallen out.’ (lit. ‘two sticks of child’s teeth ...’)

Nominal classification

Nominal classification: “morphosyntactic systems that impose a classification on their nominal lexicon” (Seifart 2010)

Main criteria:

- (a) presence of agreement (genders/noun classes) vs. absence of agreement (classifiers)
- (b) morphosyntactic locus of the classificatory element, which defines a number of types of non-agreeing classifiers, e.g. numeral classifiers, possessive classifier, verbal classifiers etc.



Noun classes / Genders vs. classifiers

	Noun classes / genders	Classifiers
size	small finite set	large number
realisation	closed grammatical system (agglutinative/fusional)	free forms (isolating)
scope	marking is never entirely within the noun word	never any reference outside the noun phrase

Gender:

sex-based: Indo-European, Afroasiatic, Central Khoisan, Hadza, Eastern Nilotic

non-sex-based: Bantu/Benue-Congo/Niger-Congo, Taa

both: Ijoid, Zande [...]

Classifiers:

Sino-Tibetan, Thai, Korean, Japanese [...]

[Ogoni, Tivoid, Eastern Grassfields, Ekoid, Nyang ...] [Eastern Mande], [Gur]

Japanese classifier system (Matsumoto 1993)

animate:

human: *nin*, *mei*

animal: *hiki* (default), *too* (big), *wa* (wings)

inanimate (*ko* 'piece')

shape: *hon* (long), *suji* (thin), *mai* (flat), *men* (flat, firm), *tsubu* (globular)

function: *dai*, *choo*, *ki* (utensil, machine), *ken*, *mune* (houses), *seki*, *soo* (ship),
satsu (printed matter), *hai* (container) [...]

<i>hebi</i>	<i>ga</i>	<i>san-biki</i>	<i>iru</i>
snake	NOM	three-CLF < animal >	be
'There are three snakes.' (Downing 1996: 67)			

Countability

Mensural vs. **sortal** classifiers (Gil 2005):

mensural classifiers: provide nouns of low countability with a unit of measure

sortal classifiers apply to nouns of high countability, “dividing the inventory of count nouns into semantic classes, each of which is associated with a different classifier” (Gil 2005: 226)

Mensural classifiers for quantification of nouns of low countability:

6 (a) German:

fünf Glas Bier
five CLF:GLASS beer
‘five glasses of beer’

(b) Japanese:

go-hai-no biiru
five-CLF:CONTAINER-GEN beer
‘five glasses of beer’

Sortal classifiers for quantification of nouns of high countability:

7 (a) German:

Da sind zwei Fisch-e.
there are two fish-PL
‘There are two fish.’

(b) Japanese:

Sakana-ga ni-hiki iru.
fish-NOM two-CLF:ANIMAL be
‘There are two fish (alive).’

Variability in application of numeral classifiers

Japanese: Classifier distinction for **animate** vs. **inanimate/shape**:

8a Fish viewed as living being:

Sakana-ga ni-hiki iru.
fish-NOM two-CLF:ANIMAL be
'There are two fish (alive).'

8b Fish viewed as product:

Kare-wa sakana-o ni-hon kat-ta
he-TOP fish-AKK two-CLF:INANIMATE.LONG buy-PAST
'He has bought two fish.'

Kana (Ogoni, Cross River)

Kana numeral classifiers 1 (Ikoro 1996: 89ff.)

form	lexical source	range of application
<i>bēē</i>	‘fruit’	bulb-like objects, seed-like objects, offshoot, offspring
<i>té</i>	‘tree’	wooden objects > vehicles of transportation
<i>ḡwũ</i> (pl. <i>míóḡó</i>)	‘child’	young animates (without reference to birth positions)
<i>kō</i>	‘bunch’	objects of bunch- or package-form
<i>ásúú</i>	‘grain’	individual units extracted from a bunch
<i>àkpò</i>	‘heap’	objects with irregular shape in heaps or chunks
<i>děē</i>	‘eye’	spot- or dot-like objects
<i>ákpá</i>	‘skin’	objects of flat shape
<i>kũm</i>	‘stock’	objects of a stock or a bunch: palmtree, plantain (stock), beehive
<i>kérè</i>	‘half’	objects segmented into parts: farmland, stick, fish, cloth, excrement
<i>kà</i>	‘mother’	default classifier for “entities, animals and things”: basket, drum, stereo-set, bag, wife
<i>ákpó</i>	‘length’	inanimate objects which possess a trunk: tree, liquids (water, wine) (when referred to as trickle), leg, penis, flame
<i>ápéé</i>	‘piece of’	pieces of objects, splashes of liquids: yams (slice), water, urine, fire (spark)
<i>ábá</i>	?	objects with tube-like shape: yams, cassava
<i>àpā</i>	?	conically-shaped objects: leaf, tooth, breast, mucus
<i>ákpé</i>	?	objects with vertically high extension: wall, fence, compound
[...]	[...]	[...]

Kana numeral classifiers 2

Sortal numeral classification with *bēè* ‘fruit’ (Ikoro 1996: 91)

- | | | | | |
|-----|------------|------------|------------|----------------|
| (a) | <i>bàè</i> | <i>bēè</i> | <i>ídè</i> | ‘two cocoyams’ |
| | two | CLF:FRUIT | cocoyams | |
| (b) | <i>lòb</i> | <i>bēè</i> | <i>bíǎ</i> | ‘ten noses |
| | ten | CLF:FRUIT | nose | |
| (c) | <i>bàè</i> | <i>bēè</i> | <i>ṇwí</i> | ‘two children’ |
| | two | CLF:FRUIT | child | |

Sortal numeral classification with *té* ‘tree’ (Ikoro 1996: 91f.)

- | | | | | |
|-----|------------|-----------|----------------|---------------------|
| (a) | <i>tāà</i> | <i>té</i> | <i>náā</i> | ‘three guns’ |
| | three | CLF:TREE | gun | |
| (b) | <i>lòb</i> | <i>té</i> | <i>fá̃</i> | ‘ten vehicles’ |
| | ten | CLF:TREE | vehicle | |
| (c) | <i>tāà</i> | <i>té</i> | <i>ítòbtòb</i> | ‘three motorcycles’ |
| | three | CLF:TREE | motorcycle | |

Sortal numeral classification with *ákpá* ‘skin’ (Ikoro 1996: 96)

- | | | | |
|------------|-------------|-------------|----------------|
| <i>bàè</i> | <i>ákpá</i> | <i>àkíà</i> | ‘two biscuits’ |
| two | CLF:SKIN | biscuit | |

Kana numeral classifiers 3

míí „wine“ and *zóó* „palm nut“ with varying classifiers (Ikoro 1996: 97f.)

- | | | | | |
|-----|-------------------|-----------------------|------------------------|--------------------------|
| (a) | <i>zǐǐ</i>
one | <i>ǎkpó</i>
length | <i>míí</i>
wine | ‘one drop of wine’ |
| (b) | <i>zǐǐ</i>
one | <i>ǎpéé</i>
part | <i>míí</i>
wine | ‘one splosh of wine’ |
| (c) | <i>zǐǐ</i>
one | <i>kūùm</i>
stock | <i>zóó</i>
palm nut | ‘one stock of palm nuts’ |
| (d) | <i>zǐǐ</i>
one | <i>kōò</i>
bunch | <i>zóó</i>
palm nut | ‘one bunch of palm nuts’ |
| (e) | <i>zǐǐ</i>
one | <i>bēè</i>
fruit | <i>zóó</i>
palm nut | ‘one palm nut’ |

Ugare (Tivoid)

Ugare numeral classifiers: overview

Ugare classifier types and their source meanings

	source meanings of classifier items
sortal classifiers	STEM, BRANCH, SEED, PALM NUT, FRUIT, LEAF, MUSCLE, STICK, EAR
mensural classifiers	BUNDLE, LEAFY BUNDLE, HEAP, HALF, BUNCH, GLUED FLAT SURFACE
evaluative quantifiers	FISHING HOOK, FIBRE, GRAINS

Ugare **sortal** numeral classifiers: overview

classifier source forms	meaning: range of application
í-tsín / é-tsín (5/6) ‘stem’	longish outgrowths from a base (root): plantain, hair, [...]
ú-gbá: / á-gbé: (3/6) ‘branch’	longish outgrowths separated from its base: hair, branch, spinach, [...]
í-ǰǎy / á-ǰĩy (5/6) ‘seed’	small globular objects: bean, nut, button, seed, [...]
kù-kwà / í-kwǎ (9/10) ‘palm nut’	seeds of stone fruits: mango, cashew
ø-tàm / á-těm (9/6) ‘fruit’	ovate botanical products and formations, especially from dough: potato, buns, [...]
í-yán / á-yĩ:n (5/6) ‘leaf’	flat objects: banknote, page, paper, food wrapped in leaves, [...]
ú-gbéndé / é-gbéndé (3/6) ‘muscle’	objects with curved or bulging outline: pod, mussel, kernel of nut types, tortoise shell, [...]
ú-té: / í-té (3/10) ‘stick’	longish rigid objects (esp. food items): cassava, cricket, [...]
ú-tú / é-tú (3/2) ‘ear’	convex items and fittings into them: mushroom, earring

Ugare sortal numeral classifiers: examples

Classifier *í-fǎy* (5/6) ‘seed’ for small roundish / globular objects

- (a) *í-fǎy* *â-lú* *í-twǎm* ‘one bean seed’ (lit. ‘one seed of beans’)
5-CLF < SEED 5.AM:6-beans 5-one
- (b) *á-fǎy* *â-kúhá* *á-tárén* ‘three buttons’ (lit. ‘three seeds of buttons’)
6-CLF < SEED 6.AM:6-button 6-three

Classifier *í-tsín* (5/6) ‘stem’ for longish outgrowths connected to their base

- (c) *í-tsín* *û-nòúú* *í-twǎm* ‘one plantain plant’ (lit. ‘one stem of plantain’)
5-CLF < STEM 5.AM:3-plantain 5-one
- (d) *é-tsín* *û-fò* *ú-rùkpá* ‘two (strands of) hair’ (lit. ‘two stems of hair’)
6-CLF < STEM 6.AM:1-hair 6-two

Classifier classifier *ú-gbá:* (3/6) ‘branch’ for longish outgrowths separated from their base

- (e) *ú-gbá:* *ê-ndérí* *ú-twǎm* ‘one spinach (without root)’ (lit. ‘one branch of spinach’)
3-CLF < BRANCH 3.AM:1-spinach 3-one
- (f) *á-gbé:* *û-fò* *ú-rùkpá* ‘two strands of hair (without roots)’ (lit. ‘two branches of hair’)
6-CLF < BRANCH 6.AM:1-hair 6-two

Ugare evaluative quantifiers (EQ)

source forms	evaluative quantifier meaning: range of application
ú-gbéngéří / é-gbéngéří (3/6) ‘fishing hook’	counterexpectual low number, pejorative (‘just one/few useless single item(s) of X’)
ú-gàří / á-gèří ~ é-gěř (3/6) ‘fiber’	counterexpectual low number, plural, non-pejorative (‘just some few single items of X’)
ú-fiám (3) ‘grain’	multitude, innumerable quantity: fine grains, people, coins

- (a) *ìndì ò-tfûn é-gbéngéří î-nó ú-rùkpá á-nĩn?*
 who 3.SG-sell 6-EQ <FISHING.HOOK 6.AM:10-yam 6-two 6-this
 ‘Who is selling these two wretched single yams?’
- (b) *ìndì ò-tfûn é-gěř î-nó ú-rùkpá á-nĩn?*
 who 3.SG-sell 6-EQ <FIBRE 6.AM:10-yam 6-two 6-this
 ‘Who is selling these two scanty yams?’

Ngəmba (Eastern Grassfields)

Ngəmba numeral classifiers 1

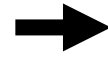
Ngəmba classifier types and their (source) meanings

	(source) meanings of classifier items
sortal classifiers	KERNEL, HORN, STICK, STAIN, HEAD, GRAIN, WELL/BOREHOLE, < BUCKLED >, < LONGISH-FLEXIBLE >, < SIZABLE-ROUNDISH TUBER >
mensural classifiers for aggregation	PILE, PACKAGE, BUNCH, POD, TUFT, < HAND >
mensural classifiers for partition	MORSEL, LUMP, SPROUT, SHORT PIECE, SLICE, FRAGMENT, FLAT SIDE, MEAGRE PORTION, < EXTENDED PART >

Ngəmba sortal classifiers **with** transparent etymology

classifier (source form)	meaning: range of application
<i>m̥baŋ</i> (1/6) ‘kernel’	small roundish objects: groundnut, bean, corn, rice, taro, palmnut, macabo, African plum, person [...]
<i>ndón</i> (3/6) ‘horn, whistle’	oblong objects : sweet yellow yam, African plum, okra, a type of fibrous tuber, groundnut pod, <oblong containers> like ampoules and small flacons for medicininal products.
<i>nján</i> (3/6) ‘stick’	longish rigid objects: wood, broom, tooth, hair, injection (shot of injected fluid), word , grass and vegetable.
<i>ŋgòem</i> (?/6) ‘grain’	smallish grainy objects with curvy outlines: nut, bean, corn, fish, cricket, mosquito, worm, word [...]
<i>pǎp</i> (7/6) ‘stain’	flat objects: leaf, plot of land, textile ,iron sheet, plank [...]
<i>tǎ</i> (7/6) ‘well, borehole’	sizable roundish objects: avocado, orange, pineapple, coconut, papaya, mango, onion, tomato, bigger stone, well [...]
<i>tthwó</i> (7/6) ‘head’	sizable roundish objects: cabbage, pineapple, papaya, faeces, soil, salt, stone.

Exemplification
of sortal classifier
with transparent
etymology:



classifier	generalised classifier meaning and range of application
<i>mbán</i> (1/6) 'kernel'	small roundish objects: <u>small tubers</u>: small taro and macabo <u>grains</u>: rice, bean, corn, pepper , roundish_spices_ <u>nuts</u>: groundnut , palmnut <u>fruits</u>: African plum <u>small stones</u> <u>person</u>

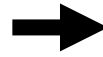
(2) *zhzhí nduní tstsɔ tso mbán tɛ̀*
 3SG alone eat African.plum CLF <KERNEL five
 'S/he alone ate five African plums.'

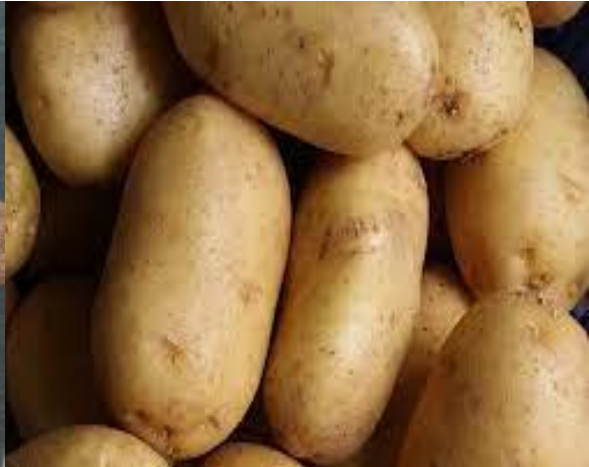
(3) *má ηwak n-jó pò ndǎ? mbán nàghám*
 1SG arrive N-see people only CLF <KERNEL ten
 'I arrived and met only a meagre number of ten people.'

Ngəmba sortal classifiers **without** transparent etymology

classifier (source form)	meaning: range of application
<i>ngút</i> (9/6)	offshoot-like object or splash of liquid: mushroom, splosh of water.
<i>nò?</i> (1/6)	objects with a non-straight buckled shape: banana, plantain, sweet potatoes, cassava, worm
<i>ntè</i> (9/6)	long flexible string-like objects: thread, liana, cable
<i>tóém</i> (7/6)	sizable roundish solid tubers: macabo, taro, Irish potato

Exemplification
of sortal classifier
without
transparent
etymology:



classifier	range of application	
<i>tóém</i> (7/6)	Small oblong tubers	
Macabo	Taro	Potatoes
		

- (4) *kù?ú* *tóém* *ppá* *wíí* *nəkəŋ*
 macabo CLF.OBLONG.TUBER two just cooking.pot
 ‘There are still two macabos in the cooking pot.’

- (5) *mé* *pfet* *məcítà* *tǝém* *nákkhwà*
 child eat potato CLF.OBLONG.TUBER four
 ‘The child has eaten four potatoes.’

A comparative perspective on numeral classifier systems in Benue Congo

Semantic properties of numeral classifier categories

Morphosyntactic properties of numeral classifier constructions

Grammaticalisation: How to become a numeral classifier

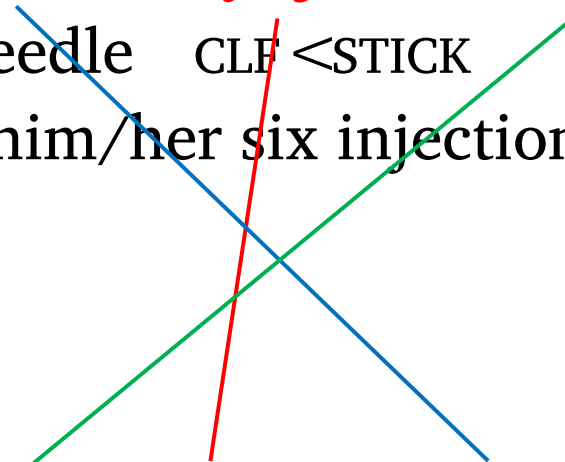
Semantics of numeral classifier categories

Category	Benue Congo attestations (source model)
globular small	SEED (Proto-Tivoid * <i>ĩ-sàŋg-ĩ</i>), KERNEL (Ngəmba), GRAIN (Ngəmba), PALMNUT (Tivoid)
globular / ovate sizable	FRUIT (Proto-Tivoid * <i>kĩ-tām-ék</i> (7/6~8), Ngəmba <i>tóém</i> (7/6)), HEAD (Ngəmba), WELL/BOREHOLE (Ngəmba)
longish (rigid)	STICK (Proto-Tivoid * <i>ú-kón-´</i> (3/10), Ngəmba: <i>nján</i> (9/6)), HORN (Ngəmba)
longish flexible	?? (Ngəmba: <i>ntè</i> (9/6))
longish offshoot (connected to base)	STEM (Proto-Tivoid * <i>ĩ-tín-é</i> (5/6)), ?? (Ngəmba: <i>ngút</i> (9/6))
longish offshoot (separated from base)	BRANCH (Tivoid: Ugare, Evand, Tiv:-), Ngəmba: -
flat	LEAF (Proto-Tivoid * <i>ú-ká-´</i> (3/10)), PEEL (Tivoid), STAIN (Ngəmba)
buckled, curved, bulging	MUSCLE (Proto-Tivoid * <i>ú-gbéndé-´</i> (3/6)), ?? (Ngəmba: <i>nò?</i> (1/6)), EAR (Tivoid)

Syntactic aspects of numeral classifier constructions in Tivoid and Eastern Grassfields

Syntactic properties of NumCl constructions: Ngəmba 1

N [CLF NUM]

- (a) *lôktă sǒp ssá? njàŋ ntòghó nəl i*
doctor prick needle CLF <STICK six on O3SG
'The doctor gave him/her six injections.'
- 

[NUM CLF] N

- (b) *lôktă sǒp ta? njàŋ ssá? nəl i*
doctor prick one CLF <STICK needle on O3SG
'The doctor gave him/her one injection.'
-

Syntactic properties of NumCl constructions: Ngəmba 2

- (a) *lôktă sǒp ssá? nəl i lé?-a ta [njàŋ tòghó]*
 doctor prick needle on O3SG day-PROX until CLF <STICK six
 ‘The doctor gave him/her as much as six injections today.’
- (b) *lôktă sǒp ssá? nəl i lé?-a βə ndă? [tà? njàŋ]*
 doctor prick needle on O3SG day-PROX EMPH only one CLF <STICK
 ‘The doctor gave him/her just one injection today.’
- *(c) *lôktă sǒp ssá? [njàŋ] *nəl—i tòghó]*
 doctor prick needle CLF <STICK on O3SG six
- *(d) *lôktă sǒp [tà? *ndă? njàŋ] ssá? nəl i*
 doctor prick one only CLF <STICK needle on O3SG

Syntactic universals of NumCl constructions

Typological generalisations on numeral classifier constructions:

- (a) adjacency of numerals and classifiers (Aikhenvald 2000, Allen 1977),
- (b) immediate constituency of classifier and numeral (Dixon 1986; Aikhenvald 2000: 105)

“[...] a classifier concatenates with a quantifier [...] to form a nexus that cannot be interrupted by the noun it classifies.” (Allan 1977: 288, following Greenberg 1972)

Four possible constituent orders:

- (a) [NUM CLF] N,
- (b) N [NUM CLF],
- (c) [CLF NUM] N,
- (d) N [CLF NUM]

“These orders exhaust all possibilities – numerals and classifiers are always adjacent.”
(Aikhenvald 2000: 104–105)

***CLF N NUM, *NUM N CLF**

Syntactic properties of NumCl constructions: Tivoid

[CLF N] NUM

(a) Evand

mó-yā-m̃

mé = t̃ākàsē = m̃

má-álǎ-m

6a-CLF < FINGER -6a 6a.AM = 7.plantain.(sp.) = 6a.ENC

6a-two-6a

‘two plantains (of a particular type)’ < *ké-tóákásé-k* (7/8) ‘plantain (sp.)’
(lit. ‘two fingers of plantain’)

(b) Ugare

ú-gbéndé

û-gwándè

ú-twǎm

3-CLF < muscle 3.AM:3-mussel 3-one

‘one mussel’ (lit. ‘one muscle of mussel’)

(c) Tiv

ì-sàngè

ì

à-bá:tǎ

ì-mǎm

9-CLF < seed 9.AM 6-letter 9-one

‘one letter’ (lit. ‘one seed/grain of letters’)

Legend:

NPx adnominal noun class prefix, NSx adnominal noun class suffix, CPx concordial noun class prefix, CSx concordial noun class suffix, AM associative marker, CLF classifier (noun), NEncl noun class enclitic

Syntactic properties of NumCl constructions: Evand (Tivoid)

Classifier constructions derive from associative constructions:

[**CLF** AM **N**] **NUM** < [**N₁** AM **N₂**] **NUM**

(a) Associative construction (Evand):

vè-k̄ *vé* = *mùl* = *ǔv*

2-cup 2.AM = 6a.water = 2.ENC

‘cups of water’ < *mó-múl-ùm* (6a) ‘water’

(b) Classifier construction (Evand):

mó-ȳ-m̄ *mé* = *t̄àkàsē* = *m̄*

má-álǎ-m

6a-CLF < FINGER-6a 6a.AM = 7.plantain.(sp.) = 6a.ENC 6a-two-6a

‘two plantains (of a particular type)’ < *ké-tóákásé-k* (7/8) ‘plantain (sp.)’

[[NP_{x₁}-CLF-NS_{x₁}] [AM₁ = (NP_{x₂}-)N-NS_{x₂} = NEncl₁]] CP_{x₁}-NUM-CS_{x₁}

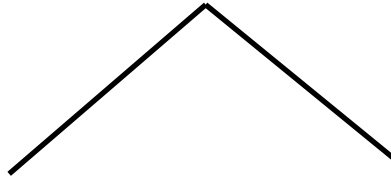
Legend:

NP_x adnominal noun class prefix, NS_x adnominal noun class suffix, CP_x concordial noun class prefix, CS_x concordial noun class suffix, AM associative marker, CLF classifier (noun), NEncl noun class enclitic

**How to become a numeral
classifier?**

Functional split in grammaticalisation

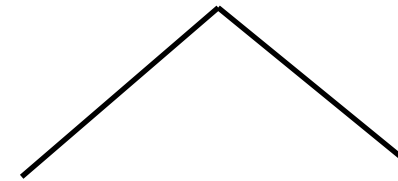
Noun: lexical meaning A



Noun:
lexical meaning A

Classifier:
generalised meaning A'

í-fǎy (5/6) 'seed' (Ugare)

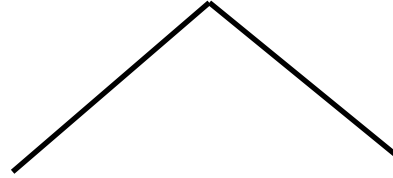


í-fǎy (5/6) 'seed'

í-fǎy (5/6) small
globular item

Functional split indexed by nominal decategorisation

Noun: lexical meaning A:
tthwó (7/6) 'head' (Ngəmba)



Noun:
lexical meaning A:

- syntactic independence
- number distinction
- trigger of agreement
- accepts modifiers

Classifier:
generalised meaning A'

- ~~-syntactic independence~~
- ~~-number distinction~~
- ~~-trigger of agreement~~
- ~~-accepts modifiers~~

Nominal decategorization of Ngəmba *tthwó* (7/6) ‘head’ in classifier function:

(1) Nominal usage:

(a) *má wě tà? tthwó*
1SG have one head
,I have one head.’

(b) *ɲè kà má-tthwó mím-ppa wè*
person NEG 6-head 6N HUM -two have
‘Nobody has two heads.’

(2) Classifier usage:

(a) *má tstsɔ tà? tthwó nánássi*
1SG eat one CLF <HEAD pineapple
‘I have eaten one pineapple.’

(b) *má tstsɔ nánássi tthwó ppa*
1SG eat pineapple CLF <HEAD two
‘I have eaten two pineapples.’

Nominal decategorization of Ngəmba classifiers: overview

classifier	syntactic independence	Number distinction	Gender agreement	Additional modifiers
mbaŋ (3/6) ‘kernel’	+	-	-	-
ndóŋ (9/6) ‘horn, whistle’	+	-	-	-
njáŋ (9/6) ‘stick, string’	+	-	-	-
ŋgòem (9/6) ‘grain’	+	-	-	-
păp (7/6) ‘stain’	+	-	-	-
tă (7/6) ‘well’	+	-	-	-
tthwó (7/6) ‘head’	+	-	-	-
ŋgút (9/6)	-	-	-	-
nò? (1/6)	-	-	-	-
ntè (9/6)	-	-	-	-
tóem (7/6)	-	-	-	-

Towards a typology of numeral classifier systems in Benue Congo

	Ogoni (Kana)	Eastern Grassf. (Ngəmba)	Tivoid
scope	maximal	restricted	restricted
concurrent gender system	-	+	+
CLFs form unit with ...	N	NUM	N
CLFs retain properties of head nouns in associative constructions	+	+	+
all CLFs have co-existent source noun	-	-	- (Tiv) / + (others)
CLFs retain PL form	-	-	+
CLFs trigger gender agreement	n.a.	-	+
CLFs accommodate additional modifiers	?	-	+

Many fruit(s) of thanks und ein Bündel Dank

NuClaBA project (“Numeral classifiers of the Benue-Congo languages of Africa”)

<https://nuclaba.blogs.uni-hamburg.de/>

References

- Aikhenvald, Alexandra. Y. 2000. *Classifiers. A typology of noun categorization devices*. Oxford: Oxford University Press.
- Allan, Keith. 1977. *Classifiers*. *Language* 53: 285-311.
- Angitso, Michael T. 2020. *A descriptive study of the Tiv nominal morphology*. Hamburg: unpublished PhD thesis.
- Angitso, Michael Terhemen & Roland Kießling. Forthcoming. ‘Muscles of mussels’ and ‘hooks of bananas’ - the (incipient) numeral classifier system of Ugare (Tivoid, Cameroon/Nigeria). *Proceedings of the 24th Afrikanistentag, Frankfurt a.M., 01-03.07.2021*.
- Gil, David. 2005. “Numeral classifiers”. In *The World Atlas of Language Structures*, Martin Haspelmath, Matthew S. Dryer, David Gil and Bernard Comrie (eds.), 226-229, Oxford and New York: Oxford University Press.
- Greenberg, Joseph H. 1972. “Numeral classifiers and substantival number: problems in the genesis of a linguistic type”. *Working Papers in Language Universals* 9: 1-39. [reprinted in Greenberg (1990: 166-193)]
- Ikoru, Suanu M. 1996. *The Kana Language*. Leiden: CNWS.
- Kießling, Roland. 2018. Niger-Congo numeral classifiers in a diachronic perspective. In: McGregor, W. B. & Wichmann, S. (eds.), *The Diachrony of classification systems*, 33–76. John Benjamins, Amsterdam.
- Matsumoto, Y. (1993): Japanese numeral classifiers. *Linguistics* 31: 667-713.
- Watters, John R. 1981. *A Phonology and Morphology of Ejagham*. Los Angeles: UCLA.