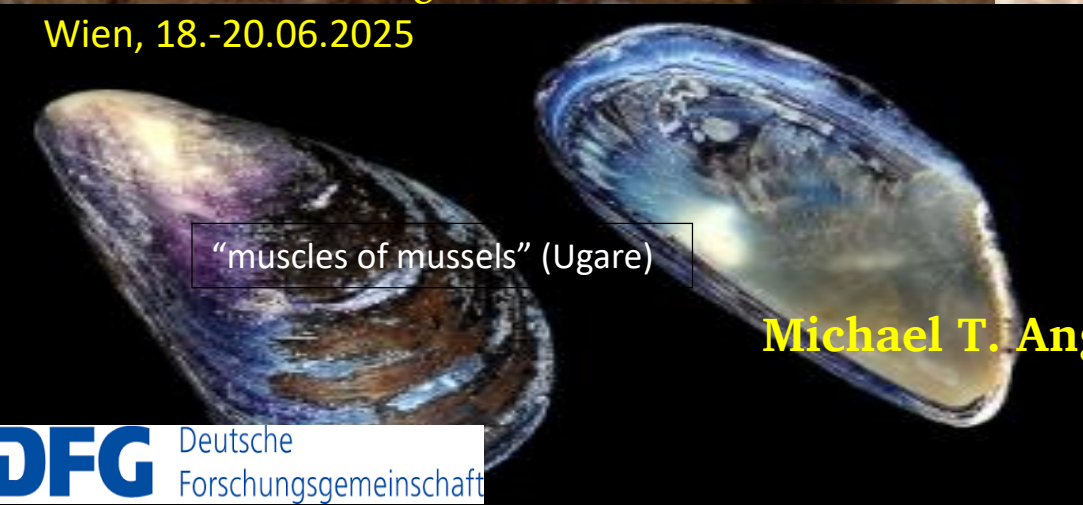


Two concurrent systems of nominal classification in Tiv



26. Afrikanistinnentag
Wien, 18.-20.06.2025



“muscles of mussels” (Ugare)

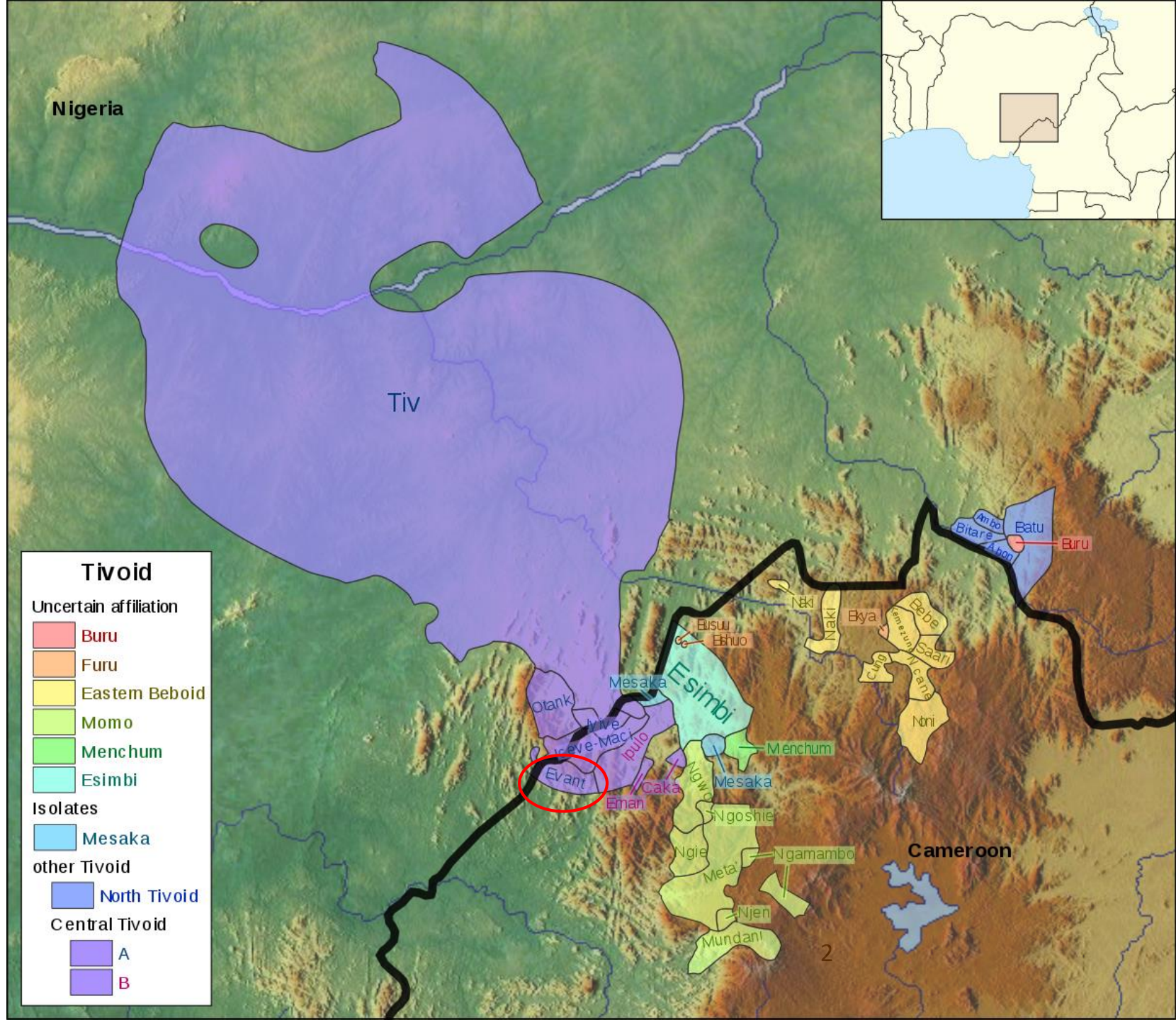
Michael T. Angitso & Roland Kießling



„Persons of bees“ (Tiv)

Program

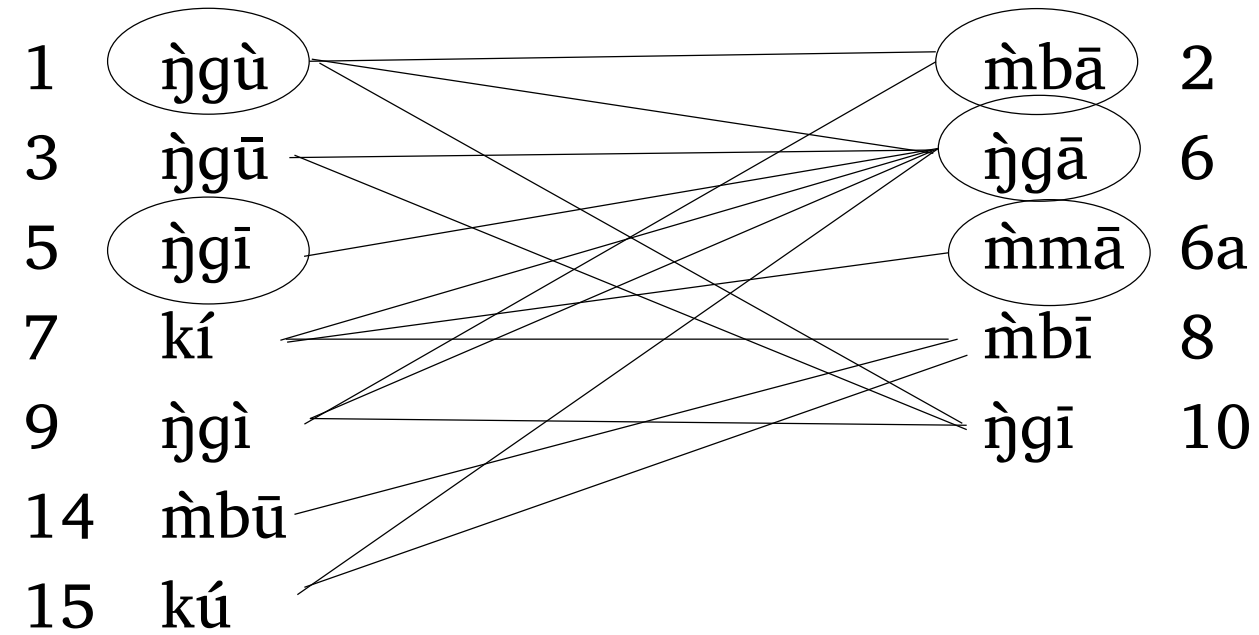
- Tiv and the distribution of related Tivoid languages in Nigeria / Cameroon
- Bantoid gender system, various Tivoid complexities (e.g. circumfixation of adnominal class markers)
- Emergent numeral classifier system
- Concurrency of both systems (Fedden & Corbett 2017)



Tiv noun class system: noun affixes and concords

	NAx	Pronominal proclitics		enclitic	Dem	Aux	Poss	Num	Adj/ Def	example
		AM, REL	SM							
1	∅-, à-, m̃-, w-, -m, (w)án-, òr- [...]	ù =	á =	=´	ṛgù-	ṛgù	(w)´ - ´	´ - ´ - ´	-´	k < w > āsē ‘woman’ òr ‘person’
1a	∅- -pé, ∅- -pè	pè =								mà-pè ‘(some)place’
2	m̃bà- -v´, m̃bā- -v´, ú- -v´ [...]	m̃bā =	vé =	= v´	m̃bà-	m̃bā	´ - -v´	ú- -´	-v´	kásé-v ‘women’
2a	ì- -´, í- -´							í- -´		ì-òr ‘people’
3	ú- -´	ú =	ú =	=´	ṛgū-	ṛgū	w´ - -´	ú- -´	-´	ú-kón ‘tree’
5	í- -´	í =	í =	=´	ṛgī-	ṛgī	y´ - -´	í- -´	-´	íy-wēn ‘stone’
6	á- -´	á =	á =	=´	ṛgā-	ṛgā	´ - -´	á- -´	-´	á-wēn ‘stones’
6a	m̃- -m̃	m̃má =	m̃mā =	= m´	m̃mà-	m̃mā	´ - -m̃	m̃- -´	-m̃	m̃-kōn-ùm ‘chairs’
7	í- -y´	kī =	kī =	= y´	kì-	kí	y´ - -y´	í- -´	-y´	í-kyōn-ũy ‘chair’
8	í- -v´	m̃bí =	m̃bī =	= v´	m̃bì-	m̃bī	´ - -v´	í- -´	-v´	í-yǎ-v ‘bellies’
9	ì- (-´)	ì =	ì =	=´	ṛgì-	ṛgì	y´ - -´	ì- -´	-´	ì-ṇām ‘animal’
10	í- -´	í =	í =	=´	ṛgī-	ṛgī	y´ - -´	í- -´	-´	í-ṇām ‘animals’
14	ú- -v´	m̃bú =	m̃bū =	= v´	m̃bù-	m̃bū	´ - -v´	ú- -´	-v´	ú-táhá-v ‘power’
14a	í- -v´							´ - -´		í-yǎ-v ‘belly’
14b	ú- -y´						w´ - -y´	´ - -´	-y´	ú-tú-y ‘night’
15	ú- -y´	kū =	kū =	= y´	kù-	kú	w´ - -y´	ú- -´	-y´	ú-wé-y ‘hand’

Tiv gender system



Numeral classifiers

1a *í-tíné* *í* *ì-tfê = ´* *í-myõm*
 5-CLF < stem:5 5.AM 5-hair = CL 5-one:5
 ‘one hair’ (Lit: ‘one stem of hair’)

*1b **ì-tfê* *í-myõm*
 5-hair:5 5-one:5

2a *á-ngáhá:* *á* *ì-kyón* *á-hãr*
 6-CLF < leg:6 6.AM 7-shoe:CL 6-two:6
 ‘two shoes’ (lit: ‘two legs of shoe’)

*2b **á-kón* *á-hãr*
 6-shoe:6 6-two:6

sortal classifiers (vs. mensural classifiers), applied to nouns of high countability, based on haptic features of the enumerated item, e.g. long and thin shape of hair, subdividing the inventory of count nouns into semantic classes (Gil 2005)

restricted system: no full lexical coverage, incipient stage of development

most classifiers are etymologically transparent, derived from full nouns, e.g. *í-tíné* / *á-tíné* (5/6) ‘stem’

Morphosyntax: reanalysis of associative construction

N₁ N₂ NUM > CLF N NUM

Quantification by numeral without additional classifier

2a	<i>í-tíné</i> 5-stem:5 'one stem'	<i>í-myōm</i> 5-one:5
2b	<i>á-sángé</i> 6-seed:6 'two seeds'	<i>á-hār</i> 6-two
2c	<i>kásé-v</i> 2:woman-2 'three women'	<i>ú-tār</i> 2-three:2
2d	<i>í-nām</i> 10-animal:10 'four animals'	<i>í-nîn</i> 10-four

Associative constructions: morphosyntax and semantic functions

(a) Possessive relationship
gàmbē ù tǒr
1.bed 1.AM 1.king:CL
'bed of a king'

(b) Part-whole
í-tyō-úy kí òr = ǒy
7-head-7 7.AM 1.person = 7:CL
'head of a person'

(c) Material-composition
tsūà ù ì-nāă
1:pot:1 1.AM 5-soil:CL
'pot of clay'

(d) Location
í-nām í ù-tōhó
10-animal:10 10.AM 3-bush:CL
'animals of the bush'

(e) Classification
í-tíné í ì-tsê = ' í-myōm
5-CLF < stem:5 5.AM 5-hair = CL 5-one:5
'one hair' (Lit: 'one stem of hair')

Numeral classifiers that lack lexical source nouns

Classifiers *gwà:* ~ *á-gā:* (1/6) SLENDER FLEXIBLE, *ì-dzīngà* ~ *á-dzínɡá:* (9/6) SLENDER RIGID

- 6a *gwà:* *ù* *ì-tfê = '* *mǎm*
 1.SLENDER.FLEXIBLE 1.AM 5-hair = CL 1:one
 ‘one hair’
- 6b *á-gā:* *á* *m̄-yà = '* *á-hār*
 6- SLENDER.FLEXIBLE:6 6.AM 6a-intestine = CL 6-two:6
 ‘two intestines’
- 6c *gwà:* *mǎm*
 1.SLENDER FLEXIBLE 1:one
 ‘one slender flexible item (of what had been mentioned before, e.g. hair or intestines)’
- 7a *ì-dzīngà* *ì* *ù-kōn = '* *ì-myǎm*
 9-SLENDER RIGID 9.AM 3-stick = CL 9-one
 ‘one stick’
- 7b *á-dzínɡá* *á* *à-fānú = '* *á-hār*
 6-SLENDER RIGID 6.AM 1-match = CL 6-two:6
 ‘two matches’

Numeral classifiers: sortal vs. mensural

Categories	Source meanings
Sortal classifiers	‘person’, ‘stem’, ‘rope’, ‘branch’, ‘stick’, ‘fruit’, ‘muscle’, ‘seed’, ‘leaf’, ‘testicle’, ‘leg’, ‘ear’, ‘amulet’, SLENDER FLEXIBLE, SLENDER RIGID, PLANT OUTGROWTH, FLESHLESS SEED, BLADE WITHOUT HANDLE
Mensural classifiers	‘sprout’, ‘arm’, BANDED PILE, UNBANDED PILE, BANDED ROOFING GRASS , BIG COAGULATION, SMALL COAGULATION, PIECE OF ANIMAL WITH LIMB, PIECE OF LIMBLESS ANIMAL, SLICE OF SOIL, SLICE FROM COMPACT MASS, BIG CONCAVE
Evaluative quantifiers, “scantifiers”	‘grains’, ‘handleless blade’, SLENDER FLEXIBLE

Sortal classifiers

classifier source forms	meaning: range of application
òr ~ ì-òr (1/2) ‘person’	small insects found in swarms and one sliced food item: bee, lice, black ant (of a certain type), vertically sliced okra [...]
í-tíne ~ á-tíne (5/6) ‘stem’	longish outgrowths from a base (root): plantain, hair [...]
gbà: ~ á-gbà: (1/6) ‘branch’	longish outgrowth separated from its base: hair, branch, spinach [...]
ú-kōr (3/10) ‘rope’	creeping plants separated from its base: potato, beans, cucumber [...]
í-tyām-éy ~ á-tám (7/6) ‘fruit’	ovate botanical products and small ovate formations, especially from dough and liquid: potato, buns [...]
í-gbéndé-y ~ á-gbéndé (7/6) ‘muscle’	objects with curved or bulging outline: pod, mussel, kernel of nut types, tortoise shell [...]
ì-jàngè ~ á-sāngē (9/6) ‘seed’	small globular objects: bean, nut, button, stone [...]
ì-kyē ~ á-ké (9/6) ‘testicle’	seeds of stone fruits: mango, cashew [...]
ú-kwā ~ í-kyā (3/10) ‘leaf’	flat objects: banknote, page, paper [...]
ú-kōn ~ í-kyón (3/10) ‘stick’	longish woody outgrowth separated from its base: cassava, bitterleaf, cashew [...]
ú-ṅúhá:y ~ á-ṅgáhá: (15/6) ‘leg’	footwear: shoe, socks, slippers
ú-tó-y ~ á-tó (15/6) ‘ear’	earrings of various types
ì-kpyāy ~ á-kpáy (15/6) ‘amulet’	big plant pods: iron-wood, locust beans [...]
gwà: ~ á-gā: (1/6) SLENDER FLEXIBLE	Slender flexible items: hair, rope, thread [...]
ì-dzīngà ~ á-dzín-gá: (9/6) SLENDER RIGID	Slender rigid items: matches, (broom) twigs, stick [...]
ú-mēndē (3/10) PLANT OUTGROWTH	Plants growing outside the soil, or various yam plants separated from their base: yam, water yam, yellow yam [...]
ì-gbyōngūl ~ á-gbóngúl (9/6) FLESHLESS (TANGIBLE) SEED	seeds of stone fruits: mango, cashew [...]
ú-gbéngé: ~ á-gbéngé: (1/6) BLADE WITHOUT HANDLE	handleless blades: cutlass, knife, hoe [...]

Sortal classifiers: examples

í-tyām-éy ~ *á-tám* (7/6) ‘fruit’

- | | | | |
|-----|--|--|-------------------------|
| (a) | <i>í-tyām-éy</i>
7-CLF < fruit-7
‘one bun’ | <i>kí = kwēsé = y</i>
7.AM = 1.bun = 7.CL | <i>í-mōm</i>
7-one:7 |
| (b) | <i>á-tām</i>
6-CLF < fruit:6
‘two buns’ | <i>á = kwēsé</i>
6.AM = 1.bun:CL | <i>á-hār</i>
6-two:6 |

ú-kwā / *í-kyā* (3/10) ‘leaf’

- | | | | |
|-----|--|---|------------------------------|
| (c) | <i>ú-kwā</i>
3-CLF < leaf
‘one picture’ | <i>ú = fòtó</i>
3.AM = 1:picture:CL | <i>ú-mōm</i>
3-one:3 |
| (d) | <i>í-kyā</i>
10-CLF < leaf:10
‘three pictures’ | <i>í = fòtó</i>
10.AM = 1:picture:CL | <i>í-tyār</i>
10-three:10 |

Mensural classifiers

classifier source forms	meaning: range of application
ì-kyávě: / á-kávě: (9/6a) SKEWERED LIMBLESS ANIMAL(S)	Big limbless animals skewered in convex form: ìʃũ fish, ìyō snake [...]
ú-kwā / í-kyā (3/10) ‘leaf’	food wrapped in leaves, ákpùkpā ‘pudding’, àgìdī ‘pudding (of a type)’
ì-kyà: / á-kā: (9/6) BANDED PILE	Items marked in bundles: ú-kôn ‘(fire)wood’, àʃwē roselle, [...]
ú-ílé / á-ílé (3/6) BANDED ROOFING GRASS	bundle of spear grass: ú-húlá ‘spear grass’
bàmbê / á-bámbě (1/6) BROKEN PIECE	Items that are broken generally or come in large sheets: síŋi ‘ceiling’, zínkì ‘roofing sheet’
tíhì / á-tíhí (1/6) unBANDED PILE	Items with (ir)regular shapes and chunks piled up: ì-kyōndú ‘fabric’, ú-kôn ‘(fire)wood’ [...]
ú-súmé-y / á-súmé (15/6) ‘bunch’	Items that come in natural bunch, î-víré 'palm fruit', àyàbà 'banana' [...]
ì-dzèn / á-dzēn (9/6) BIG COAGULATION	Big coagulates of (semi) liquid items: á-wámbē ‘blood’, áṅgbyō: ‘mud’, núnē ‘locust beans’ [...]
ì-kyò:y / á-kpóǒy (9/6) SMALL COAGULATION	Small coagulates of (semi) liquid items: á-wámbē ‘blood’, áṅgbyō: ‘mud’, núnē ‘locust beans’ [...]
ú-wé-y / á-vé (15/6) ‘hand’	Pieces of fabric long enough to go round the waist: àbèdā ‘wrapper’, ì-kyōndú ‘fabric’, àṅgè: ‘Tiv traditional wear’ [...]
ì-kpà / á-kpā (9/6) ‘bag’	Packages of items: àʃānū ‘matches’, bā: ‘salt’, m-ṅgér-èm ‘water’ [...]
ú-tómbō / í-tyómbō (3/10) ‘sprout’	Skewered food: ìʃũ ‘fish’, ìṇàm ,meat‘, í-fyàm ‘frog’
[...]	[...]

Overlap of classifier functions

	mensural	sortal	evaluative
‘leaf’	+	+	-
‘fruit’	+	+	-
‘muscle’	+	+	-
SLENDER FLEXIBLE	-	+	+
HANDLELESS BLADE	-	+	+

- (a) Sortal classifier usage of *ú-kwā̃* / *í-kyā̃* (3/10) ‘leaf’

ú-kwā̃ *ú* = *fòtó* *ú-mōm*
 3-CLF < leaf 3.AM = 1:picture:CL 3-one:3
 ‘one picture’

- (b) Mensural classifier usage of *ú-kwā̃* / *í-kyā̃* (3/10) ‘leaf’

ú-kwā̃ *ú* = *á-kpùkpá* *ú-mōm*
 3-CLF < leaf 3.AM = 1-pudding:CL 3-one
 ‘one pudding’

- (c) *í-kyā̃* *í* = *á-kpùkpā* *í-tyā̃*
 10-CLF < leaf 10.AM = 1-pudding:CL 10-three
 ‘three puddings’

Nominal classifier usage of numeral classifiers

- (a) í-tṣě í híà
5-hair:5 5.SM burn
'Hair got burnt.'
(a single hair, a strand of hair, a tuft of hair, hair attached to the head or detached from it) ...
- (b) í-tíné í ì-tṣě í híà
5-CLF < stem:5 5.AM 5-hair:CL 5.SM burn
'A single hair (in a strand or tuft, still attached to its base) got burnt.'
- (c) gbā: ù ì-tṣě ù híà
1:CLF < branch:1 1.AM 5-hair:CL 1.SM burn
'A single hair (detached from its base) got burnt.'

Aspects of grammaticalisation

- semantic generalisation of numeral classifier items:
MUSCLE > objects with curved or bulging outline
LEAF > flat objects
SEED > small globular objects
[...]
- nominal decategorisation (loss of lexical source meaning)
SLENDER FLEXIBLE, SLENDER RIGID [...]
- gender re-assignment (marginal): “scantifier” *ú-gbéngé*: (3/6)
‘oddly single item’ adopts gender from canonical classifier of
“scantified” item (9/6)
- emergence of a special syntax (that conforms with claims of word
order universals in classifier constructions (< Greenberg 1977))

Aspects of grammaticalisation: Gender re-assignment

“Scantifier” *ú-gbéngé:* (3/6) ‘oddly single item’ seems to adopt the gender from the canonical classifier of the “scantified” item

- (a) *ú-gbéngé:* *ú = ǒr* *ú-mǫm*
 3-ODDLY.SINGLE:3 3.AM = 1.person:CL 3-one:3
 ‘one oddly single person’
- (b) *á-gbéngé:* *á = ì-ǒr* *á-hār*
 6-ODDLY.SINGLE:6 6.AM = 2-person:CL 6-two
 ‘two oddly single people’
- (c) *ì-gbyēngē:* *ì = àbā:tfá:* *ì-mǫm*
 9-ODDLY.SINGLE:9 9.AM = 6.letter:CL 9-one
 ‘one oddly single letter’
- (d) **ú-gbēngē:* *ú = àbā:tfá:* *ú-mǫm*
 3-ODDLY.SINGLE:3 3.AM = 1.letter:CL 3-one:3
 ‘one oddly single letter’
- (e) *ì-fàngè* *ì = àbā:tfá:* *ì-mǫm*
 9-CLF < seed:9 9.AM = 6.letter:CL 9-one
 ‘one letter’

Aspects of grammaticalisation: emergence of special syntax

(a) CLF N NUM

ná = m̐ á-sáŋgē á = m̐-kě á-hār
give = 1SG 6-CLF < seed:6 6.AM = 6a-pepper = CL 6-two
'Give me two pepper fruits!'

(b) N CLF NUM

ná = m̐ m̐-kè-m̐ á-sáŋgē á-hār
give = 1SG 6a-pepper-6a 6-CLF < seed:6 6-two
'Give me two PEPPER fruits!' (Lit. 'Give me PEPPER, two seeds!')

Word order universals in classifier constructions (Greenberg 1972, Allen 1977, Aikhenvald 2000):

N CLF NUM, N NUM CLF (adjacency of CLF and NUM)

But not: *CLF N NUM, *NUM N CLF

Degree of interdependency of concurrent systems of nominal classification

Calculation of their orthogonality score (Fedden & Corbett 2017)

Number of cells filled – minimum cells filled : **61-17 = 44** **= 0,18**

Possible cells - minimum cells filled: $255-17 = 238$

[illegible]

Gender of nouns that take numeral classifier *ì-fàngè* ~ *á-sāngē* (9/6) ‘seed’

Sg	pl	Meaning	gender
súlè	ù-sùlè	‘coin/s’	1/2
à-bìkwīnī	m̀bà-àbīkwīnī	‘earring/s’	1/2
gō	ù-gō	‘kolanut/s’	1/2
bā:	ù-bā:	‘salt/s’	1/2
gàrī	ù-gàrī	‘cassava flake/s’	1/2
ú-wâ:làwā		‘sand’	3
í-ywēn	á-wēn	‘stone/s’	5/6
í-kyúvá	á-kúvá	‘button/s’	5/6
í-níḡhō	á-níḡhō	‘cowrie/s’	5/6
í-ḡē	á-ḡē	‘eye/s’	5/6
í-kyē	á-kē	‘palm nut/s’	5/6
-	á-bá:tḡā:	‘letters’	6
-	m̀-ḡè-m̀	‘pepper’	6a
í-náré-y	-	‘money, earring’	7
í-gbyú:l-ũy	á-gbú:l	‘granule/s’	7/6
í-ḡndú-y	á-sōndū	‘lump/s (in food)’	7/6
í-ní-y	á-ní	‘tooth/teeth’	7/6
í-tḡí-y	m̀-tḡímbí-m̀	‘tablet/s’	7/6a
í-yō-y	m̀-yó-m̀	‘iron (balls in bearing)/s’	7/6a
ì-gbyò	á-gbō	‘bullet/s’	9/6
ì-gbyô:	á-gbô:	‘gravel/s’	9/6
ì-ḡà	á-sā	‘bead/s’	9/6
ì-tḡivān	á-tsívān	‘pox/s, wart/s’	9/6
ì-fàngē	á-sāngē	‘cataract/s’	9/6
ì-kyē	á-kē	‘testicle/s’	9/6
ì-liē	á-liē	‘bitterkola/s’	9/6

Conclusion

**incipient numeral classifier system parallel to other Tivoid languages
(Evand, Ugare [...])**

concurrent to full-fledged noun class system of Bantoid type

**restricted lexical coverage (single criterion of list in Her et al. 2022
not met by Tiv)**

**most classifiers originate in synchronically co-existent nouns and
retain all nominal properties (syntactic independence, gender
assignment, number sensitivity, trigger of noun class agreement)**

**classifier construction inherits the full spectrum of its source, i.e.
associative construction**

**indications of incipient grammaticalisation: semantic generalisation of
numeral classifier items, nominal decategorisation (loss of lexical
source meaning), emergence of a special syntax**

Conclusion

Position of Tiv in the typology of African numeral classifier systems

	Ejagham	Evand	Ugare	Tiv	Ngəmba	Kana
semantic generalisation of CLF	+	+	+	+	+	+
all CLFs retain syntactic independence	-	+	+	-	-	-
all CLFs retain PL form	+	+	+	+	-	-
all CLFs retain gender of source noun	+	+	+	(+)	-	n.a.
CLF construction parallels associative construction in all respects	+	+	+	-	-	-
broad lexical coverage of CLFs	-	-	-	-	-	+

Many fruits of thanks und ein Bündel Dank

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