

Reconstructing a numeral classifier system for Proto-Tivoid?

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WOCAL 11, Nairobi 05.-09.08.2024

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

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

Tivoid gender systems by adnominal circumfixes

	Tiv	Ugare	Icheve	Itang	Evand
1	∅- -w- -ɣ̀	à-, ∅-, v- (-̀)	ù-, ò-, à-	`- (-̀), ù-	ð-, ò- (-̀)
2	m̀bà- -v̀	(v)à-, (v)é- (-́)	v- -v, ó-	ù-, ìy-, á- -v(́)	vá- -v
3	ú- -´	ú- (-´)	ó- -´, ú- -´	ú- (-´)	ú- -ú
5	í- -´	í- (-´)	í- -´, é- -´	í- (-´)	í- -´
6	á- -´	á- (-´)	á- (-´), é- (-´)	á- (-´), á- -á	á- -´, é- -é
6a	m̀- -m̀	à-, (-̀)	m̀í- -m̀í, m̀í- -m̀é	m̀- -m̀, má- -m	m̀ó- -m̀
7	í- -ɣ´	-	ké- (-ɰ´), (ɰ)í- -ɰ´	í- -ɣ(´)	kí- -k´, ké- -k´
8	í- -v´	-	vé- (v´), ví- -ví	í- -v(´)	ví- -v´
9	ì- -∅/-̀	∅-, k̀ù-, (-̀)	ì- -̀, è- -̀	ì- (-̀)	ì-, è- (-̀)
10	í- -´	í- (-´)	í- -´, é- -(é)	í- (-´)	í- -´, é- -´
12	-	-	(k)á- - ɰ(é)	-	ká- -k
14	ú- -v´	-	-	í- -v(´)	-
15	ú- -ɣ´, í- -ɣ´	-	(k)ú- -ɰé, ó- - ɰé	ú- -ɣ(´)	kú- -k

Tivoid gender systems by associative marker (AM)

	Tiv	Ugare	Icheve	Itang	Evand
1	$\dot{u} =$	$\dot{u} =$	$\dot{u} =$	$\dot{u} = = \dot{\quad}$	$\dot{u} =$
2	$\dot{m}\dot{b}\dot{a} =$	$(v)\acute{e} =$	$v\grave{e} =$	$\acute{a} = = v'$	$v\acute{a} =$
3	$\acute{u} =$	$\acute{u} =$	$\acute{u}w =$	$\acute{u} = = \acute{\quad}$	$\acute{u} =$
5	$\acute{i} =$	$\acute{i} =$	$\acute{i}y =$	$\acute{i} = = \acute{\quad}$	$\acute{i} =$
6	$\acute{a} =$	$\acute{e} =$	$\acute{a}y =$	$\acute{a} = = \acute{\quad}$	$\acute{a} =$
6a	$\dot{m}\dot{m}\dot{a} =$	$\grave{e} =$	$m\acute{a}y =$	$\dot{m} = = m'$	$m\acute{a} =$
7	$k\grave{i} =$	-	$k\acute{i}y =$	$\acute{i} = = \gamma'$	$k\acute{i} =$
8	$\dot{m}\dot{b}\dot{i} =$	-	$v\grave{i}y =$	$v\acute{i} = = v'$	$v\acute{i} =$
9	$\grave{i} =$	$\grave{i} =$	$\grave{i}y =$	$\grave{i} = = \grave{\quad}$	$\grave{i} =$
10	$\acute{i} =$	$\acute{i} =$	$\acute{i}y =$	$\acute{i} = = \acute{\quad}$	$\acute{i} =$
12	-	-	$(k)\acute{a}y =$	-	$k\acute{a} =$
14	$\dot{m}\dot{b}\dot{u} =$	-	-	$v\acute{u} = = v'$	-
15	$k\grave{u} =$	-	$k\acute{u}w =$	$\acute{u} = = \gamma'$	$k\acute{u} =$

Tivoid associative constructions

$[NP_{X_1}-N_1(-NS_{X_1})] CP_{X_1}(-AM-CS_{X_1}) = [NP_{X_2}-N_2(-NS_{X_2})] (= N_{Encl_1})$

Ugare: 1a *v-àn* *ù= nèr* *ù-nūà*
 1-child:1 1.AM 1.person 1-that
 ‘child of that man’

1b *b-w-án* *é= nèr* *ù-nān*
 2-1-child 2.AM 1.person 1-this
 ‘children of this man’

Icheve: 2a *ù-kē-ujī* *ùw-è=* *ù-nòl*
 1-woman-1 1-AM 1-person
 ‘wife of a person’

2b *v-ù-kē-vī* *v-è=* *ù-nòl*
 2-1-woman-2 2-AM 1-person
 ‘wives of a person’

Itang: 3a *ù-nòm* *ù-nà=* *ù-kwás*
 1-husband:1 1-AM 1-woman:1ENC
 ‘husband of a woman’

3b *á-nóm-óv* *á-nǎ-v=* *ū-kwás*
 2-husband-2 2-AM-2 1-woman:2ENC
 ‘husbands of a woman’

Evand: 4a *ò-kā* *ù=* *ù-nùm*
 1-woman 1 1-husband
 ‘woman of a husband’

4b *vá-ká-v* *vá=* *ù-nùm=í*
 2-woman-2 2 1-husband = 2ENC
 ‘wives of a husband’

Tivoid numeral classifier constructions

Morphosyntax: reanalysis of associative construction as classifier construction

[N₁ AM N₂] NUM > [CLF AM N] NUM

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

5	<i>ú-gbéndé</i>	<i>û-gwándè</i>	<i>ú-twǎm</i>	5’	* <i>ú-gwándè</i>	<i>ú-twǎm</i>
	3-CLF < muscle	3.AM:3-mussel	3-one		3-mussel	3-one
	‘one mussel’ (lit. ‘one muscle of mussel’)					

Tiv: numeral classifier *òr* (1/2) ‘person’ for insects

6	<i>òr</i>	<i>ù = ì-yìyě</i>	<i>mǎm</i>	6’	* <i>ì-yìyě</i>	<i>ì-myǎm</i>
	1: CLF < PERSON	1.AM = 10-black.ant:1.ENC	1:one		10-black.ant	10-one
	‘one black ant’					

restricted systems: no full lexical coverage

all classifiers are etymologically transparent, derived from full nouns

incipient stage of development

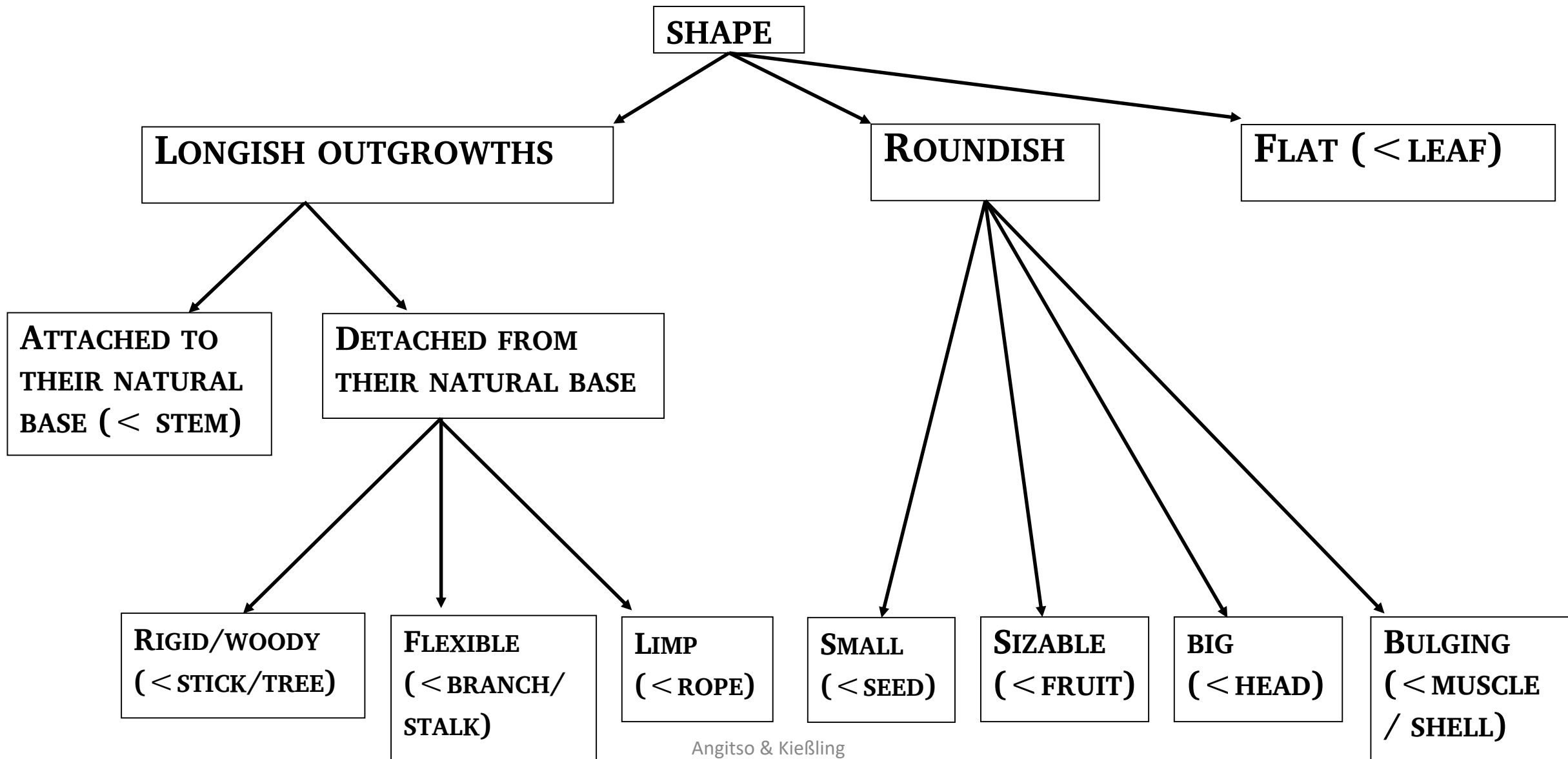
Cross-Tivoid comparison of numeral classifier nouns (1)

Range of application: examples	source meaning	Ugare	Tiv	Evand	Icheve	Itang	Proto-Tivoid reconstruction
longish outgrowth from a base (root): plantain, hair [...]	‘stem’	í-tjín (5/6)	í-tíné-´ (5/6)	ì-tìnē (9/6)	í-tíné (5/6)	í-tíné (5/6)	*í-tíné(-í) (5/6)
longish outgrowth separated from its base: spinach, pepper, (hair) [...]	‘branch’	ú-gbá: (3/6)	∅-gbá:-` (1/6)	-	-	ù-gbā (1/6)	*ù-gbá:-` ~ ú-gbá:-´ / á-gbá:-´ (1~3/6)
longish woody outgrowths detached from their base: pear, kolanut	‘wood’ / ‘stick’	ú-té: (3/10) ‘stick’	ú-kón ‘wood’	kí-té-k (7/8) ‘stick’	ó-kõn(ó) ‘wood’	ú-kón (3/10) ‘wood’	*kí-té-k(´) / ví-té- v(´) ‘stick’; *ú-kún(-)ú / í-kón(-?) ‘wood’
flexible plants detached from their natural base: cassava, bitterleaf, spinach [...]	‘stalk’	ú-té: (3/10)	ú-kón-´ (3/10) ú-góngúlú (3/10) ‘stalk’	kí-té-k (7/8)	í-gwõngwó (5/6) ‘stalk’	ú-kón (3/10) ‘stick’ ú-góngúlú (3/10) ‘stalk’	*ú-góngúl-ú (3/10)
creepers detached from their natural base	‘rope’	ú-yí (3/10)	ú-kól (3/10)	ó-yí (3/10)	ú-yí (3/10)	ú-kól (3/10) ú-mènd (3/10) ‘(plant) shoot’	*ú-kól-? / í-kól-? *ú-yí-? / í-yí-? (3/10)

Cross-Tivoid comparison of numeral classifier nouns (2)

Range of application: examples	source meaning	Ugare	Tiv	Evand	Icheve	Itang	Proto-Tivoid reconstruction
small globular objects: bean, nut, button, [...]	‘seed’	í-ǰǎy (5/6)	ì-sàṅgè (9/6)	è-sàṅgè (9/6) ‘seed’	è-sàṅgē (9/6)	ì-sàṅg (9/6)	*ì-sàṅgè-` / á-sàṅgè-´ (9/6)
ovate botanical products and formations (esp. from dough and liquid): potato, buns [...]	‘fruit’	∅-tàm (9/6)	í-tám-éy (7/6)	kí-tām-ék (7/8)	ké-tām-ék (7/8) wí-dúṅgwé-wí (7/8)	í-tám-íy (7/6)	*kí-tám-ék / ví-tám-év ~ á-tám-? (7/8~6)
big round(ish) fruits and vegetables: watermelon, melon, cabbage	‘fruit’, ‘head’	∅-tàm (9/6) ‘fruit’	í-tám-éy (7/6) ‘fruit’	wí-dúṅgwé-wí (7/8) ‘fruit’	kí-tó-w (7/8) ‘head’	í-tám-íy (7/6) ‘fruit’	
objects with curved or bulging outline: pod, mussel, kernel of nut types, tortoise shell [...]	‘muscle’	ú-ǵbéndé (3/6)	í-ǵbéndé-ǵ´ (7/6)	-	-	ì-ǵbēnd (9/6) ‘shell’	*kí-ǵbéndé-k ~ ú-ǵbéndé-? / á-ǵbéndé-? (7~3/6)
fingers of banana and plantain fruits of different types	‘finger’	-	-	-	ó-núm (3/10)	ù-nōm (3/6) ‘pointer’	-
flat objects: paper, picture, banknote [...]	‘leaf’	í-yán (5/6)	ú-ká-´ (3/10)	ó-ká (3/10)	ó-kāṅǵí (3/10)	ú-ká (3/10)	*ú-ká-? / *í-ká-? (3/10)
seeds of stone fruits: mango, cashew, African pear, raffia palm nut [...]	‘palm kernel’	kù-kwà (9/10) ‘palm nut’	ì-ké (9/6) ‘testicle’	-	ì-kō (9/6) ‘(palm)nut/s’	ì-kō (9/10) ‘palm nut’	*ì-kó / á-kó ~ í-kó (9/6~10)

Tivoid classifier categories



Longish outgrowths **attached** to vs. **detached** from their natural base

Classifier **í-tíné-(í)* (5/6) ‘stem’: LONGISH OUTGROWTHS **ATTACHED** TO NATURAL BASE

Ugare *í-tjín / é-tjín* (5/6) ‘stem’: *é-tjín* *û-fò* *ú-rùkpá*
6-CLF < STEM:6 6.AM:1-hair 6-two
‘two single strands of hair (in situ)’

Tiv: *í-tíné-´ / á-tíné-´* (5/6) ‘stem’: *á-tíné* *á* *ì-tjě:* *á-há:*
6-CLF < STEM:6 6.AM 5-hair:ENC 6-two
‘two single strands of hair (in situ)’

Tivoid: classifier **ù-gbá:-` / á-gbá:-´* (1/6) ‘branch’: LONGISH OUTGROWTHS **DETACHED**
FROM NATURAL BASE / SEPARATED FROM EACH OTHER

Ugare: *ú-gbá: / á-gbí:* (3/6) ‘branch’ *á-gbí:* *û-fò* *ú-rùkpá*
6-CLF < BRANCH:6 6.AM:1-hair 6-two
‘two single strands of hair (pulled out from their roots)’

Tiv: *gbā: / á-gbá:* (1/6) ‘branch’ *á-gbá-´* *á* *ĩ-tjě:* *á-há:*
6-CLF < BRANCH-6 6.AM 5-hair 6-two
‘two single strands of hair (separated from each other)’

Longish outgrowths **attached** to vs. **detached** from their natural base

Classifier **í-tíné-(í)* (5/6) ‘stem’: LONGISH OUTGROWTHS **ATTACHED** TO NATURAL BASE

Itang *í-tíné* *í = ù-sáy* *í-mòm*
5-CLF < STEM:5 5.AM = 1-spinach:ENC 5-one
‘one spinach plant (with roots)’ (lit. ‘one stem of spinach’)

Icheve: *á-tíné* *áy-ē* *è-lēlé* *á-fà:lē*
6-CLF < STEM:6 6-AM 1-spinach:ENC 6-two:6
‘two pepper plants’ (lit. ‘two stems of pepper’)

Tivoid: classifier **ù-gbá:-` / á-gbá:-´* (1/6) ‘branch’ ~ **ú-góngúl-ú* (3/10) ,stalk‘:

LONGISH OUTGROWTHS **DETACHED** FROM NATURAL BASE

Itang: *ù-dzā* *ù = ù-sáy* *ù-mòm*
1-CLF < BRANCH 1.AM = 1-spinach:ENC 1-one
‘one spinach plant (detached from its roots)’ (lit. ‘one branch of spinach’)

Icheve: *í-gwōngwó* *íy-ē* *è-lēlé* *í-mō*
5-CLF < STALK:5 5-AM 1-spinach:ENC 5-one-5
‘one spinach plant (detached from its roots)’ (lit. ‘one stalk of spinach’)

Longish outgrowths detached from their base: **RIGID** vs. **LIMP**

Classifier ***ú-kól-?** / **í-kól-?** (3/10) ‘rope’: **LIMP** LONGISH OUTGROWTHS DETACHED FROM THEIR BASE

Tiv: **í-kór** *í = à-tsāká* *í-tá:*
10-CLF < ROPE:10 10.AM = 1-potato:ENC 10-three
‘three sweet potato plants (ex situ)’

Itang: **í-kól** *í = à-tsāká* *í-tāl*
10-CLF < ROPE 10.AM = 1-potato:ENC 10-three
‘three sweet potato plants (ex situ)’

Classifier ***ú-kón(-)ú** / **í-kón(-?)** (3/10) ‘stick’ / ***kí-té-k(V)** / **ví-té-v(V)** (7/8) ‘tree’:

RIGID LONGISH OUTGROWTHS DETACHED FROM THEIR NATURAL BASE

Itang: **ú-kōn** *ú = mángòrò* *ú-móm*
3-stick 3.AM = 1.mango 3-one
‘one mango tree (ex situ)’

Tiv: **ú-kón** *ú* *mángòrò* *ú-móm*
3-stick 3.AM 1.mango 3-one
‘one mango tree (ex situ)’

Cross-Tivoid comparison of numeral classifier nouns

Etymology of classifiers for longish outgrowths

Meaning	LONGISH ATTACHED RIGID <i>*í-tíné(-î) (5/6)</i>	LONGISH DETACHED LIMP	LONGISH DETACHED RIGID	LONGISH DETACHED FLEXIBLE
Ugare	STEM	ROPE-1	STICK-1	BRANCH-1
Tiv	STEM	ROPE-1	STICK-2	BRANCH-1
Itang	STEM	ROPE-1	STICK-2	BRANCH-2 / STALK
Icheve	STEM	ROPE-2	STICK-2	STALK
Evand	STEM	ROPE-2	STICK-1	STALK

Cross-Tivoid comparison of numeral classifier nouns

Etymology of classifiers for roundish, curved and flat items

Meaning	ROUNDISH SMALL <i>*ì-sàngè-` / á-sàngè-´ (9/6)</i>	ROUNDISH SIZABLE <i>*kí-tám-ék / ví-tám-év (7/8)</i>	ROUNDISH BIG	BULGING	FLAT
Ugare	SEED	FRUIT		MUSCLE	LEAF-1
Tiv	SEED	FRUIT		MUSCLE	LEAF-2
Itang	SEED	FRUIT		SHELL	LEAF-2
Icheve	SEED	FRUIT	HEAD	-	LEAF-2
Evand	SEED	FRUIT		-	LEAF-2

Conclusion

**numeral classifier systems with restricted lexical coverage
concurrent to full fledged noun class system of Bantoid type
embryonic stage of development reflected in weak grammaticalisation:
classifier construction inherits the full spectrum of its source, i.e.
 associative construction**

**classifiers originate in synchronically coexisting nouns and retain all
 nominal properties (syntactic independence, gender assignment,
 number sensitivity, trigger of noun class agreement), hardly any
 indication of nominal decategorisation**

sole indicator: semantic generalisation

Conclusion: Proto Tivoid classifier nouns and their modern reflexes

Meaning	LONGISH ATTACHED < *STEM	LONGISH DETACHED < *STICK	ROUNDISH SMALL < *SEED	ROUNDISH SIZABLE < *FRUIT	FLAT < *LEAF
Proto-Tivoid	*í-tíné(-í) (5/6)	*kí-té-k(ǂ) / ví-té-v(ǂ) 'tree' (7/8) *ú-kún(-)ú / í-kón(-?) 'stick' (3/10)	*ì-sàngè-̀ / á-sàngè-́ (9/6)	*kí-tám-ék / ví-tám-év ~ á-tám-? (7/8~6)	*ú-ká-? / *í-ká-? (3/10)
Ugare	í-tjín (5/6)	ú-té: (3/10)	í-ǂǎy (5/6)	∅-tàm (9/6)	í-yán (5/6)
Tiv	í-tíné-́ (5/6)	ú-kón	ì-sàngè (9/6)	í-tám-éy (7/6)	ú-ká-́ (3/10)
Itang	í-tíné (5/6)	ú-kón (3/10)	ì-sàng (9/6)	í-tám-íy (7/6)	ú-ká (3/10)
Icheve	í-tíné (5/6)	ǂ-kǂn(ǂ)	è-sàngē (9/6)	ké-tām-ék (7/8) wí-dúngwé-wí (7/8)	ǂ-kǂngí (3/10)
Evand	ì-tìnē (9/6)	kí-té-k (7/8)	è-sàngè (9/6) 'seed'	kí-tām-ék (7/8)	ǂ-ká (3/10)

Thank you very much for your attention!

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