

The genetic classification of Cicipu

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Previous published classifications (Gerhardt 1989, Williamson and Blench 2000, Gordon 2005) have placed Cicipu (aka ‘Western Acipa’, Ethnologue code awc) in the Basa-Kamuku branch of West Kainji (Benue-Congo). These classifications were based on scanty linguistic evidence, and recent work on Cicipu (McGill 2007, submitted) suggests that Cicipu has, superficially at least, much more in common with the Kambari branch of West Kainji. The purpose of this paper is to show that Cicipu should indeed be regarded as a member of the Kambari branch. I consider evidence from several different sources: lexicostatistics (§1), isoglosses (§2), sound correspondences (§3), the noun class systems (§4), pronouns (§5), and phonology (§6). In §7 I conclude that the similarities between Cicipu and the Kambari subgroup of West Kainji (Benue-Congo) are unlikely to have come about as a result of language contact, and in §8 I present a revised subclassification of Kambari.

1 Lexicostatistical analysis

Because of the general uncertainty regarding Cicipu's position within West Kainji, I considered it worthwhile to carry out preliminary lexicostatistical analysis on all the available West Kainji wordlists, the results of which are reported below. The limitations of lexicostatistical analysis are well-known; in particular, comparison based on phonetic similarity rather than established sound correspondences is problematic, in part because historical linguistics has not provided with us a reliable technique to determine phonetic similarity (see Harrison 2003 for discussion). Although the numbers presented here should be taken with a large pinch of salt, the overall picture agrees with the evidence offered in the subsequent sections, which are concerned with more reliable means of determining genetic relatedness.

1.1 Methodology

Most of the wordlists used in this comparison were collected by Steve and Sonia Dettweiler using the standard 228-item list discussed in chapter 1. These were supplemented with largely comparable wordlists as shown in Table 1.

Table 1: Sources for West Kainji lexicostatistical comparison

Language	Dialect	Source
Cicipu	Tirisino	My fieldnotes
	Tikumbasi, Ticuhun	Dettweiler and Dettweiler (2002a)
Tsuvadi		Camburn (n.d.)
Central Kambari		Hoffmann (1963)
Eastern Acipa	Bobi, Randegi	Dettweiler and Dettweiler (2002a)
Shama		Dettweiler and Dettweiler (2002a)
Hungwəryə		Dettweiler and Dettweiler (2002a)
Kamuku	Cinda, Kuki, Regi	Dettweiler and Dettweiler (2002a)
Pongu	Cagere, Casu, Azhiga	Dettweiler and Dettweiler (2002b)
Basa		Blench (1991)
C'Lela	Dabai	Dettweiler and Dettweiler (2005)
Duka	Rijau	Dettweiler and Dettweiler (2003)
Ut-ma'in	Ror	Regnier (2003)
Lopa		Blench (n.d. d)
Laru		Blench (n.d. c)
Reshe		Dettweiler and Dettweiler (2002c)

Cognate sets were identified manually in the same way as Dettweiler and Dettweiler (2002a), namely by inspection of the available phonetic transcriptions, rather than the more robust method of establishing sound correspondences. The lexical similarity percentages were calculated by SIL's Wordsurv program based on these cognate sets.

1.2 Results

In addition to comparisons involving Cicipu, I have included all the percentages calculated, mainly for the reader's interest. Thus Table 2 shows lexical similarity percentages for twenty-two West Kainji varieties, including three Cicipu dialects, two Kambari varieties, and eleven varieties from Basa-Kamuku: Eastern Acipa (2), Shama, Hungwəryə, Kamuku (3), Pongu (3) and Basa. It should be stressed that the figures given are intended as nothing more than *a rough indication* of the structure of the group. Where the Dettweilers gave lexical similarities I have included them as subscripts in the relevant cells. As can be seen they are generally in agreement with my results.

As a general point, it is interesting to note how low the figures are across the group as a whole, particularly the Lake languages in the final three columns. There are only three obvious candidates for subgrouping – Cicipu/Kambari, and then the Basa-Kamuku (Eastern Acipa, Shama, Hungworo, Kamuku, Pongu, and Basa) and Northwest (C'Lela, Duka, and U_tma'in) groups. Each of these groupings is highlighted in the table.

For the present discussion, the main thing to note from Table 2 is that Central Kambari and Tsvadī both reach 50%+ similarity when compared with the Cicipu dialects, whereas no non-Kambari variety scores more than 25%. Although not included in the calculation, a separate manual comparison of the Cicipu wordlists with data taken from the Western Kambari dictionary (Stark 2004) gave very similar results to the other two Kambari varieties.

2 Isoglosses

Lexical similarity figures are not by themselves strong evidence for subgrouping hypotheses. Hypothetically two languages could belong to separate branches of a classificatory tree, but still share a large amount of lexical material preserved from the ancestor of the whole group (e.g. Proto-West-Kainji in this case). What is really required for subgrouping is evidence of innovation which occurs in all the languages of the subgroup being considered, but nowhere else in the larger group. As far as we are concerned then, lexical innovations shared by Cicipu and Kambari but not by any other West Kainji languages support the hypothesis that Cicipu and Kambari share a common ancestor, provided that they are not likely to be the result of language contact. Lexical innovations shared only by Cicipu and Kamuku, on the other hand, detract from this hypothesis. In the event, the 228-item wordlists yield sixty Cicipu/Kambari isoglosses:

Table 3: Cicipu/Kambari isoglosses

Gloss	Cicipu Tirisino	Cicipu Ticuhun	Cicipu Tikumbasi	Tsvadī	Central Kambari
<i>ash</i>	kù-kómó	ko-koma	ko-komɔ	hɔ-hɔmɔ	óɔ-kkwómó
<i>bark [n]</i>	ká-sĩĩ			he-sheĩ	
<i>belly</i>	kò-túmó	ko-tumo	kə-time	ho-tsumo	óə-tsímó
<i>burn</i>	kullo	kulə	kule	huloso	kulə
<i>bury</i>	cidonu	u-jidɔnu	u-jidenu	cidīhi	cìdō
<i>cave</i>	kà-ppàtá	kə-pəta	kə-pətə	ha-ppata	
<i>chicken</i>	kù-tóɔ	ku-towu	ku-to	mɔ-tɔhu	mó-tǔɔ
<i>come</i>	aya	aya	aya	aya	
<i>compound</i>	kw-á'à	kw-a'a	kwa'a	u'wa	ùu-'wâ
<i>corpse</i>	kà-kkwái	ka-kwe	ka-kwē	ho-hwoi	kwêəkwê

<i>cough</i>	cere	cere	cere	hele	kyelu
<i>count</i>	cete	u-cete	u-citi	ece	kyècê
<i>crocodile</i>	kù-yùpù	kwə-yɪpu	ku-yupu	h(w)-ipũ	w-ɪipũ
<i>dance</i>	ze'ě	ku-ze'ũ	ku-zi'ũ	zhe'wě	jě'ě
<i>darkness</i>	cì-yímbì	ci-ɪmbi	ci-ɪmbi	i-rumbu	
<i>dew</i>	tì-'ízá	tə'iza	t-iza	a-'iza	àa-'izâ
<i>egg</i>	kò-kɔ̃ɔ	ko-koɔ̃	ko-ko	hɔ-hɔwɔ	ɔɔ-kɔ̃wɔ̃
<i>eight</i>	kù-ríllò	ku-rilo	ku-rele	kullo	kùnlè
<i>evening</i>	kù-ríví	nu-kərivɪ	ɪŋ-kurivɪ	u-livu	úu-lívú
<i>fear</i>	wó-ɔvɔ̃ɔ	wɔvɔ̃	wovo	hw-ɔvɔ̃	w-ɔvɔ̃
<i>feather</i>	kà-sĩĩ	ka-sĩĩ	ka-si'i	ha-shi'ĩ	áa-sshĩĩ
<i>give</i>	caa	cana	caana	kana	caa
<i>good</i>	tì-lípāi	tɪ-lɪpāy	tɪ-lɪpāy	tsu-lɔbɔi	úu-lɔbɔ́nɔ
<i>hand</i>	kù-cíyè	ku-cee	ku-cie	hw-ere	ùu-kyèrê
<i>hear</i>	uwa	uwa	uwa	uwa	ùwwâ
<i>heart</i>	kò-dũu	ko-duu	ka-du	ho-du	
<i>heel</i>		ko-civo	ka-cibi	ho-ccuvo	əə-ccívə
<i>hot</i>	ù-sídí	u-sidí	u-sidí	u-shidí	úu-sídúu
<i>jump</i>	toɖuwo	u-təduo	ma-təduɛ		tɔɖɔ
<i>knee</i>	kò-lúu	ko-luu	kɛ-lu'	ho-lu	əə-lú
<i>laugh</i>	zɔɔsɔ	u-zoso	tɪ-zo'o	zɔsɔ	zɔ'ɔsɔ̃
<i>milk</i>	ma-ini ¹			me-eni	
<i>mosquito</i>	sìpíyú	sɪpiyu	sɪpiyu	vi-shipuru	shìpìrú
<i>name</i>	à-húlá	yula	i-yula	hola	áa-lá
<i>new</i>	sáavínà	savi-nə	savu	savu	sa'avu
<i>night</i>	kà-hĩĩ	ka-hĩĩ	ka-hĩĩ	ha-hāi	àa-yĩi
<i>nine</i>	kùtítí	kutɪti	kutɪti	hucicin	kúccí
<i>person</i>	z-zá	za	za	vu-za	z-za
<i>pour</i>	tũu	tũu	tũ	tsũ	tsũ
<i>pull</i>	yɔnɔ	u-yəno	u-yono	rɔnɔu	rɔnɔ
<i>root</i>	kà-yáyù	ka-yayu	ka-yayu	ha-ralu	àa-ràlú
<i>rope</i>	kà-mángá	ka-maŋga	ka-maŋga	ha-munga	áa-múŋgá
<i>sand</i>	kù-yũyũ	ku-yũu	kũ-yu	ha-ĩyu	àa-yyũ
<i>scratch</i>	havila	havila	havi	kovoro	kavira
<i>say</i>	dama		u-dama	damma	dàmmâ
<i>seed</i>	c-cũ'ũ	i-cu'u	i-cũ'ũ	i-ci'ũ	cũ'ũ

1 This was recorded in Dettweiler and Dettweiler (2002a), although I did not encounter it during my fieldwork.

<i>sit down</i>	doonu	dənu	u-dənu	donõu	dènû
<i>soup</i>	kù-sá'ã	ku-sa'a	ku-sa'a	u-sa'ã	ùu-sãn'ã
<i>stool</i>	kò-dóntú	kɔ-dontu	ka-dentu	ho-dontsu	
<i>stranger</i>	vó-mócí	vu-moci	vo-moci	va-moci	mmócĩ
<i>suck</i>	suvo	u-səvo	u-sive	shivo	
<i>swim</i>	doosonu	ku-dosu	ku-dəsi	do'osou	dəəsə
<i>tail</i>	kù-'ízá	ku-'iza	ku-'iza	hw-izã	w-ĩizã
<i>throw</i>	vayu			vareu	vàarî
<i>tooth</i>	ká-ngá	ka-ŋga	a-ŋga	ha-nga	áa-ŋgá
<i>tree</i>	ù-dǎngà	u-dǎnga	u-dǎnga	u-dǎnga	ù-dǎngâ
<i>war</i>	rú-umá	ruma	ruma	ly-uma	
<i>white</i>	'uyo	'uyo	'uye	'uri	'ùrî
<i>wind</i>	ù-pépi	u-pepi	u-pepi		úu-pépu
<i>wing</i>	kù-vélù	ka-velu	ka-velu	u-velu	ùu-vèlû

Conversely, I have only been able to find one Cicipu/Kamuku isogloss, for the verb 'say'.

Table 4: Cicipu/Kamuku isogloss

Gloss	Cicipu Tirisino	Cicipu Tichun	Basa	Kamuku Cinda
<i>say</i>	hyãa	u-hã'ã	hĩe	hyama

In summary, the evidence from isoglosses strongly favours the hypothesis that Cicipu is more closely related to Kambari than Kamuku.

3 Sound correspondences

The evidence from isoglosses just presented may seem compelling enough by itself. However shared lexical innovations are not the only kind of evidence relevant to subgrouping exercises. If we could demonstrate that a sound change occurred during the hypothetical lifetime of Proto-Kambari – i.e. before Cicipu and the Kambari languages had diverged from their putative common ancestor – and that this sound change has affected no other language in West Kainji, then this is evidence in favour of a Cicipu/Kambari subgroup.

3.1 Lack of sound correspondences between Cicipu/Kambari and the rest of West Kainji

Unfortunately this has not proved possible. This is partly due to the paucity of relevant data, but it also reflects a more general problem of comparative linguistics. There are methodological and practical difficulties with the subgrouping enterprise, discussed in detail by Harrison (2003:

232-239). Subgrouping is different from the test of genetic relationship because we are looking for shared *innovation* rather than shared retention, and it can be very difficult to decide between the two. To illustrate the problem, consider the words for *tortoise* in various Cicipu/Kambari and Kamuku languages:

Table 5: 'Tortoise' in Cicipu/Kambari and Kamuku

Cicipu	Tsuvađi	C. Kambari	E. Acipa Randeggi	Kamuku	Hungwəryə	Shama
cù-kúlú	mo-hulu	má-kúlú	kyi-kuru	a-'uru	u-'uru	i-'uru

In the Cicipu/Kambari languages the second root consonant is **l**, while in the four Kamuku languages it is **r**. There is a sound correspondence, but it only holds between two branches of West Kainji, and it is impossible to tell whether the **l** is an innovation or a retention. Looking at the *first* root consonant now, the original form is likely to have been **k*, with **k** > **h** and **k** > **ʔ** being two independent (and cross-linguistically common) progressions. So there is perhaps some limited evidence for the separation of Eastern Acipa from the other three Kamuku languages (a hypothesis supported by the lexicostastical figures in Table 2), but none supporting a Cicipu/Kambari or Cicipu/Eastern Acipa subgroup. A large proportion of the cognate sets involving Cicipu/Kambari and other branches of West Kainji are of this nature, and are thus useless for determining genetic subgrouping.

Things are not much better when we look at correspondences involving at least three of the four branches of West Kainji. For a start this severely limits the number of cognate sets we can consider (recall from Table 2 that Cicipu and Kambari have a very low lexical similarity with languages from the other West Kainji branches). Moreover the results of the comparisons are usually inconclusive – there are several examples like the word for *stone* where the two forms **tari** and **tali** are seemingly randomly-distributed across the group.

For cognates shared across all four branches of West Kainji, I have only been able to find a single case that supports the thesis put forward in this paper:

Table 6: 'Mountain' in languages from all branches of West Kainji

Cicipu Tirisino	Kambari Western	Kambari Central	Tsuvađi	Basa	E. Acipa Bobi	Kamuku	Shama	C'Lela	Laru
kù-sāa	ku-sā	ma-sāasā	ma-sā	i-sheme	ki-sham	sham	sham	sèmè	sámá

Here the nasalised **ã** in Cicipu/Kambari corresponds to the sequence **am** in the rest of West Kainji².

2 The word for 'ten' is another candidate. This word, which seems to be an isogloss delimiting West Kainji from the rest of Benue Congo, is reconstructed by Blench (n.d. a) as *#-kuNpa* for Proto-West Kainji. The **p** is long in Cicipu (**kúppá**), Central Kambari (**kùppá**), and Tsuvađi (**úppá**), and short in all other languages we have data for. However since we do not have reliable transcriptions for the Kamuku cluster, it is also possible that geminate consonants in

On the other hand, there is also one example, *die*³, where Cicipu/Kambari (minus Tsuvadi) and Eastern Acipa can be set apart from the other languages because of their **k**:

Table 7: 'Die' in languages from all branches of West Kainji

Cicipu Tirisino	Kambari Western	Kambari Central	Tsuvadi	Basa	E. Acipa Bobi	Kamuku	Shama	C'Lela	Reshe
k ^w oo	k ^w uwə	k ^w uwə	huwo	'wo	'uk	'wə	'wu	wə	wi

However this does not provide evidence for a close genetic relationship between Cicipu and Eastern Acipa, as the direction of change is likely to have been in the **k^w** > **ʔ^w** > **w** direction, and in the **k^w** > **h** direction for Tsuvadi. Note the parallel with the cognate set for *tortoise* discussed above – again the similarities between Cicipu and Eastern Acipa are likely to be due to *retentions* rather than shared innovation. This is a pattern which we will see again when we look at the respective languages' noun class systems.

It is disappointing not to have found support for a Cicipu/Kambari subgrouping from sound change. Perhaps if a larger data set was compared then it would be easier to find such evidence, but even then the problems highlighted by Harrison may still apply. Despite the elusiveness of telling sound correspondences, it is clear from the lexical similarity figures and more importantly from the isoglosses that the Cicipu and Kambari lexica are very similar to each other when compared to the rest of West Kainji. This could have come about in two ways. Either Cicipu and Kambari share a common ancestor and the isoglosses are retentions from that ancestor, or the similarities came about through contact. In §7 I will present a number of general arguments in favour of the genetic hypothesis and against the contact hypothesis, but in the meantime we will take a closer look at the phonetic form of the Cicipu/Kambari cognate sets, since the nature of the similarities has some bearing on how they might have come about.

3.2 Sound correspondences between Cicipu and Kambari

The application of the comparative method to identify recurrent sound correspondences between cognates helps to ensure that the similarities perceived between putative cognates are not due to language contact, at least not in the recent past. However, since loanwords may also undergo change when they move from the source language to the target language, the existence of sound correspondences is not always evidence of a *genetic* relationship. One way to mitigate against this effect is to look for sound correspondences that are less likely to have been conditioned by differences in the phonologies of the two languages, based on what we know about the present-day

those languages were missed.

3 cf. widespread Niger-Congo **ku-** (Blench n.d. b: 35).

systems.

Therefore in this section I will present the sound correspondences between Cicipu and Kambari in two subsections. First I will list those that could have arisen either through borrowing or through historical change, and then those which point towards historical change. Note that the claim being made here is *not* that the correspondences presented here are limited to the Cicipu/Kambari group; indeed, most of them can be found in other branches of West Kainji. Instead it is being argued that, given the similarities between Cicipu and Kambari already noted, the existence of these correspondences between Cicipu and Kambari demonstrates that the two languages must have shared these cognates for a long enough period of time for the sound change to occur. I will consider only sound changes which have at least three tokens, based on a comparison of Cicipu and Central Kambari lexicons of approximately a thousand words each⁴. Tsvadi (and sometimes Western Kambari) equivalents are given where known, but these transcriptions are orthographic and in some cases may under-represent the phonemic structure of the words.

3.2.1 Ambiguous sound correspondences

It turns out that the best-attested sound correspondences between Cicipu and Central Kambari are in fact compatible with either of the explanations mentioned above, since they involve Central Kambari phonemes not found in Cicipu. For the sake of completeness I will list these correspondences before turning to the more relevant cases. The sound correspondences illustrated in Tables 8-12 are thus of the ambiguous kind: /ts/, /ʃ/, /ə/, /ɪ/, and /kʲ/ are all phonemes or acceptable sequences of phonemes in Central Kambari, but not in Cicipu. Consequently these sound correspondences could be the result of either a genetic relationship or a contact relationship.

⁴ The glosses are not by any means identical, but there is a large amount of overlap. The Central Kambari data was provided by David Crozier from his unpublished fieldnotes.

Table 8: *ts~t* Central Kambari/Cicipu correspondences

Gloss	<i>pour</i>	<i>belly</i>	<i>obtain</i>	<i>buttock/ thigh</i>	<i>three</i>	<i>mat</i>	<i>saliva</i>
Tirisino	tũu	kò-túmó	tiyo	kà-gúutù	tâatù	ì-táatú	mò-tõo
C. Kambari	tsũ	é- tsímó	tʃirə	àa-gùtsù	tà'àtsú	íi-vá'átsú	mè-tsě
Tsuvađi	tsũ	ho-tsimo	tsuro	ha-ggutsu	ta'otsu	i-vatsu	mo-tsoo

Gloss	<i>buy</i>	<i>ear</i>	<i>we</i>	<i>go back</i>	<i>sleep</i>
Tirisino	tila	kù-tívì	óttù	gitu	la t t a
C. Kambari	tsila	ùu-tsìvû	ətsú	gitsə	la n ts a
Tsuvađi	tsela	u-tssuvu	òtsú		la ts a

Table 9: *sh~s* Central Kambari/Cicipu correspondences

Gloss	<i>redness</i>	<i>fart</i>	<i>feather</i>	<i>pestle</i>	<i>song</i>	<i>rainy season</i>	<i>twin</i>
Tirisino	ù-sílá	suwõ	kà-sĩĩ	ù-sĩi	ì-sípá	ru-úsi	mè-pésé
C. Kambari	ùu-shìlî	shuwə	áa-sshĩĩ	úu-shĩrĩ	íi-shípá	lyùushî	mè-píshè
Tsuvađi	u-shiili		ha-shi'ĩ	ma-shĩ	vi-shipa	lyuushi	

Gloss	<i>four</i>	<i>wring</i>	<i>rot</i>	<i>mosquito</i>	<i>weep</i>
Tirisino	nósì	pisa	sama	sìpíyú	sõo
C. Kambari	nóəshĩ	pisha	shama	sshìpìrû	shõ
Tsuvađi	noshĩ	pusa	shama	vi-shipiru	

Table 10: *a~o* Central Kambari/Cicipu correspondences (plus: sit down, swim, ant, we, belch, burn, illness, boil, cook/stir, fall, fart, six, monitor, black, hole)

Gloss	<i>belly</i>	<i>die</i>	<i>spirit</i>	<i>shea tree</i>	<i>mother</i>	<i>blindman/ blindness</i>
Tirisino	kò-túmó	koo	k-kíísó	ù-ríyò	ono	cì-yímbó
C. Kambari	á-tsímá	kuwə	k-kwíísá	àə-llíyà	ənô	íi-rímbá
Tsuvaɖi	ho-tsimo	huwo		u-liyo		i-rumbo

Gloss	<i>fever</i>	<i>saliva</i>	<i>obtain</i>	<i>mouth</i>	<i>porridge</i>	<i>back</i>
Tirisino	kò-vínò	mò-tǔo	tiyo	ù-nóo	kù-nó'ò	kù-cínó
C. Kambari	ii-vɛnê	mə-tsǔ	tsirə	ùu-nê	ùu-nə'ê	úu-cíné
Tsuvaɖi		mo-tssso	tsuro	u-no		u-cino

Table 11: *i~i* Central Kambari/Cicipu correspondences

Gloss	<i>hot</i>	<i>shave</i>	<i>boil</i>	<i>buy</i>	<i>obtain</i>	<i>ear</i>	<i>stick</i>	<i>fever</i>
Tirisino	ù-síɖí	pina	hino	tila	tiyo	kù-tívi	kú-sílú	kò-vínò
C. Kambari	úu-síɖúu	pina	pina	tsila	tsirə	ùu-tsɛvú	ùu-sílù	ii-vɛnê
Tsuvaɖi	u-shiɖi	puna		tsela	tsuro	u-tssuvu	u-sulu	

Gloss	<i>shroud</i>	<i>smithing</i>	
Tirisino	kù-míná	kwiiima	
C. Kambari	úu-míná	mà-rɛmá	
Tsuvaɖi			

Table 12: *k/ky~c* Central Kambari/Cicipu correspondences

Gloss	<i>charcoal</i>	<i>palm tree, k.o.</i>	<i>sheep</i>	<i>cough</i>	<i>hand</i>
Tirisino	kà-cínà	kà-ccémé	c-c'ò	cere	kù-cíyè
C. Kambari	àa-kyìnà	è-kkémè	k-kyò	kyelu	ùu-kyèrê
Tsuvaɖi	ha-hina		vi-hyɔ		hw-ere

As observed above, all of these sound correspondences could hypothetically be effects of borrowing. Nevertheless we should note that the existence of such sound changes does not actually argue *against* the Cicipu/Kambari grouping hypothesis. To take the /ts~/t/ correspondence as an example, if we assume for the moment that Cicipu and Kambari did have a common ancestor 'Proto-Kambari' with *ts, then when this /ts/ phoneme was lost in Cicipu we would not be surprised to find words that used to contain /ts/ now have /t/ instead. Likewise with /sh~/s/, and so on. In

short, these sound changes do not help us to decide between a contact relationship or a genetic subgroup consisting of Kambari and Cicipu.

3.2.2 Correspondences which are probably due to historical sound change

The following sound correspondences provide better evidence for the subgroup hypothesis, since they involve phonemes that can be found today in both Cicipu and Central Kambari.

Table 13: *l-r* Central Kambari/Cicipu correspondences

Gloss	<i>cough</i>	<i>evening</i>	<i>bone</i>	<i>thing</i>	<i>six</i>	<i>thirst</i>	<i>black</i>
Tirisino	cere	kú-ríví	kè-téré	ì-ríi	tóríhìn	ká-kurí	ù-rúmó
C. Kambari	kyelu	úu-lívú	éé-télé	ìi-lî	táǎlí	áa-kurí	úu-límé
Tsuvaɖi			he-tele	i-li	toli	ha-huli	u-lima

Gloss	<i>stone</i>	<i>man</i>	<i>they</i>
Tirisino	kà-táarí	va-árì	éré
C. Kambari	áa-táalí	va-àlí	élé
Tsuvaɖi	ha-tali	v-ali	èlé

The words for *cough* and *evening* are believed to be shared innovations across Kambari/Cicipu – *stone*, *bone*, *six*, *black* and *man* are known not to be. For glosses with cognates in other West Kainji languages, [r] is a lot more common than [l], and so the sound change may be in the direction $r > l$, with the Kambari forms being innovations.

Table 14: *r~y* Central Kambari/Cicipu correspondences. Plus: obtain, belch, blind man.

Gloss	<i>iron</i>	<i>pull</i>	<i>root</i> ⁵	<i>throw</i>	<i>mosquito</i>	<i>hand</i>	<i>white</i>	<i>road</i>
Tirisino	y-yúmò	yɔnɔ	kà-yáyù	vayu	sìpíyú	kù-cíyè	'uyono	ùu-yáa
C. Kambari	r̥m̥û	rɔnɔ	àa-ràlù	vara	shìp̥r̥ù	ùu-kyèr̥ê	'ùr̥î	úu-ré
Tsuvaḍi	vu-rum	rɔnau	ha-ralu	varihi	vi-shipuru	hw-ere	'uri	u-re
Western	vi-yum		ka-ralu	vara	ka-supiyu	ku-kiye	əri	u-ye

Gloss	<i>seven</i>	<i>flour</i>	<i>beer</i>	<i>yam</i>	<i>can</i>	<i>cook/stir</i>	<i>rain</i>	<i>fall</i>
Tirisino	tíndàyà	ci-íyá	mò-yóo	cì-yóo	guya	yoono	yɔ'ɔ	yuwo
C. Kambari	cìndèré	y-íírá	mó-ró	mò-r̥ó	gura	rɔnə	rɔ'ɔ	riyə
Tsuvaḍi	cindere	h-iira	mo-ro	hirɔ	gura	rono	rɔ'wɔn	rihyo
Western	cindere	k-iyá	mə-rə	mo-yō		yənə	yo'o	

Iron, pull, root, throw, mosquito, hand, and white are believed to be shared innovations across Kambari/Cicipu. *Seven* and *road* are known not to be.

Table 15: *ʔ~Ø* Central Kambari/Cicipu correspondences

Gloss	<i>new</i>	<i>laugh</i>	<i>three</i>	<i>mat</i>
Tirisino	sáavínà	zɔɔsɔ	táatù	ì-táatù
C. Kambari	sá'ávú	zɔ'ɔsɔ	tà'àtsú	íi-vá'átsú
Tsuvaḍi	ssavo	zɔsɔ	ta'ɔtsu	i-vatsu

New and *laugh* are believed to be shared innovations across Kambari/Cicipu. *Three* is widespread across Benue-Congo – some of its other cognates in West Kainji have the glottal stop, others don't. The phonologically unmarked direction of change would be *ʔ* > *Ø*, with the Cicipu forms being innovations.

Table 16: *Nasal vowel~Oral vowel* Central Kambari/Cicipu correspondences

Gloss	<i>tail</i>	<i>hole</i>	<i>yam</i>
Tirisino	kù-ízá	k-óocì	cì-yóo
C. Kambari	wi-ĩzã	w-õcĩ	mó-r̥õ
Tsuvaḍi	hwizã		hirɔ

Tail is believed to be a shared innovation across Kambari/Cicipu, while *yam* is known not to be. The natural direction of change would be *Ṽ* > *V*.

5 Note the correspondence between /y/ and /l/ in the second stem consonant of 'root'. This sound change may have come about as a double application of the changes /l~/r/ and /r~/y/ – however this is the only such correspondence I have been able to find.

Table 17: *j~z* Central Kambari/Cicipu correspondences

Gloss	<i>dance</i>	<i>wake up</i>	<i>oscillate</i>
Tirisino	ze'ě	zungwa	ziito
C. Kambari	jen'ě	jũwã	jitsə
Tsuvadi	zhe'wě	zhihwa	

Dance is believed to be a shared innovation across Kambari/Cicipu, while *wake* is believed not to be.

Table 18: *z~d* Central Kambari/Cicipu correspondences

Gloss	<i>squirrel</i>	<i>hyena</i>	<i>put</i>
Tirisino	mà-kùdâa	cù-kúndú	duwa
C. Kambari	mà-kùzâ	má-kúunzú	zuwa
Tsuvadi			dzuwa

Table 19: *c~t* Central Kambari/Cicipu correspondences

Gloss	<i>seven</i>	<i>nine</i>	<i>count</i>
Tirisino	tíndâyà	kùtítí	cete
C. Kambari	cìndèré	kùccí	kyɛɛ
Tsuvadi	cindere	ucĩ	ece

These are all believed to be shared innovations across Kambari/Cicipu.

Table 20: *ə~i* Central Kambari/Cicipu correspondences

Gloss	<i>you (s)</i>	<i>you (pl)</i>	<i>faeces</i>
Tirisino	ìvó	ído	t-ñi
C. Kambari	évu	éđú	ə-əyǽ

There are many more correspondences which seem unlikely to be the result of processes arising directly from language contact, but I have only listed the ones with at least three tokens.

4 Noun class systems

The *Ethnologue* (Gordon 2005) states about Cicipu that “Morphological evidence suggests its affiliation with the Kamuku language cluster”. On the contrary, the morphological evidence points in the same direction as the evidence from isoglosses: towards a grouping of Cicipu with the Kambari languages. In particular, the noun class systems of the languages in question provide the clearest evidence for a shared ancestor covering the Cicipu and the Kambari cluster, but not

Kamuku. Explicit analyses of noun class systems are available for many West Kainji languages – in particular for Tsuvadĩ (Lovelace 1989) and Central Kambari (Hoffmann 1963) from the Kambari cluster, and Pongu (MacDonell 2007) and Basa (Blench 1991) from the Basa-Kamuku cluster. It is also possible to tentatively reconstruct noun class systems for other Basa-Kamuku languages, given the wordlists in Dettweiler and Dettweiler (2002a).

4.1 *Cicipu and Kambari*

The Cicipu and Central Kambari systems are shown first, in the form of affix nets showing the noun class prefixes and singular and plural pairings.

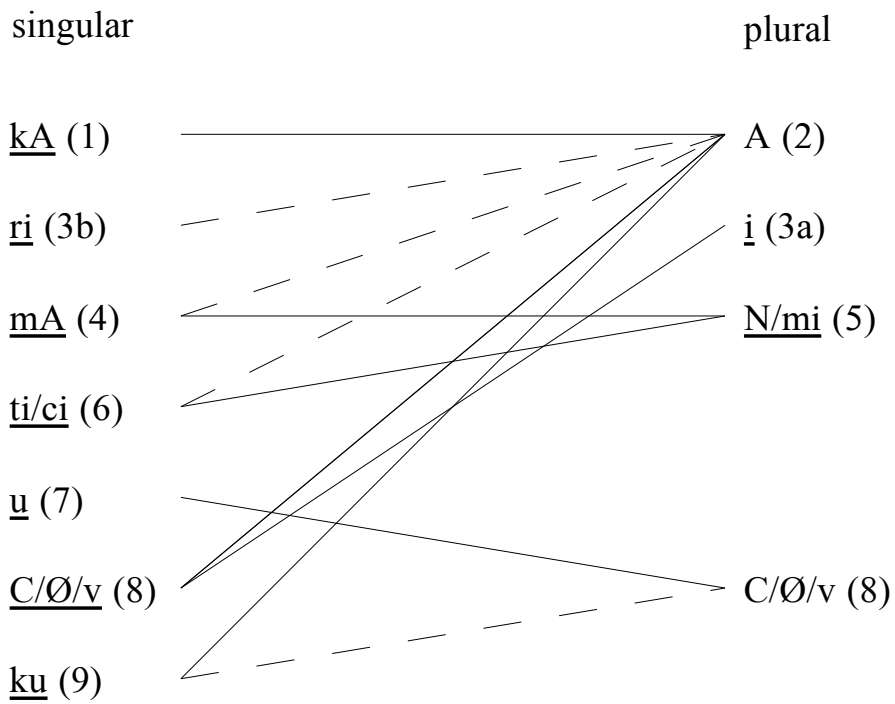


Figure 1: Cicipu noun class system

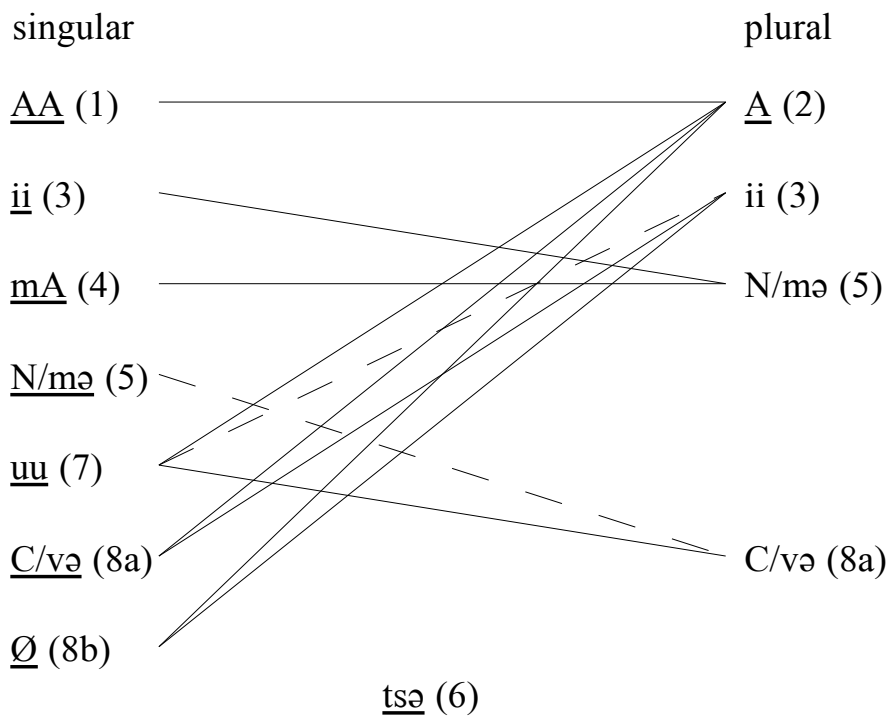


Figure 2: Central Kambari noun class system (De Wolf 1971)

There are obvious similarities between Figure 1 and Figure 2. Each of the eight noun classes in Central Kambari has an analogue in Cicipu, and the corresponding prefixes are either identical or very similar, as can be seen from Table 21. Most of the classes have reflexes in De Wolf's (1971) reconstruction of the Proto-Benue-Congo (PBC) noun class system, and these are shown in the last column, along with the corresponding Bleek-Meinhof numbers (cf. Williamson 1989: 38).

Table 21: *Cicipu and Kambari noun class prefixes*

	Cicipu	Western Kambari	Tsuvađi	Central Kambari	Proto-Benue-Congo⁶
1	ka	ka	ha	aa	*li- (5), *ka- (12)
2	a	a	a	a	*bà- (2), *a- (6)
3	i	i	i	i	*í- (4, 10)
4	ma	ma	ma	ma	*ma- (6A)
5	mi	mu	mu	mə	<i>innovation</i>
6	ti	tsu	tsu	tsə	*ki- (7)
7	u	u	u	u	*ú- (3), *ku (15), *bu- (14)
8	Ø/v	Ø/vi	Ø/vi	Ø/və	*ù- (1), *í- (4, 10), *i- (9)
9	ku	ku			*ku- (15)

The two systems are remarkably similar, the major difference being NC9 **ku-** in Cicipu, which is absent from most varieties of Kambari (the exception being Western Kambari). NC9 nouns in Cicipu belong either to gender 9/2, or to the unpaired ('single') gender 9. When the paired Cicipu nouns have Kambari cognates, these generally appear in gender 7/2 or 7/8 in Tsuvađi and Central Kambari, shown in Table 22 and Table 23 respectively.

Kambari 7/2 is a reflex of PBC **ku-/a-* (e.g. 'ear', 'hand', and 'tail') and in these cases it seems the **k** has been preserved in Cicipu yet lost in Central Kambari, with Tsuvađi **h** representing a state of transition. Kambari 7/8, on the other hand, is largely a reflex of PBC **u-/i-*. The 9/2 Cicipu items corresponding to these Kambari 7/8 nouns therefore seem to have *acquired* the **k** in a later development e.g. PBC **ú-sene* 'back' > Central Kambari **úu-cínó**, Cicipu **kù-cínó**.

6 The Kambari/Proto-Benue-Congo comparison comes from De Wolf (1971: 69).

Table 22: Cicipu 9/2 nouns corresponding to Kambari 7/2

Gloss	Cicipu	Western Kambari	Tsuvađi	Central Kambari
<i>wing</i>	kù-vélù	ku-velyu	he-velu	ù:-vèlù
<i>tail</i>	kù-'ízá		hw-izã	w-ĩ:zã
<i>quiver</i>	kù-đri			ú:-ĩri
<i>hole</i>	kù-ocì			w-õ:cĩ
<i>hand</i>	kù-cíyè	ku-kiye	hw-ere	ù:-kyèrè
<i>ear</i>	kù-tívì	ku-tsuvu	u-tssuvu	ù:-tsìvù
<i>crocodile</i>	kù-yúpù			w-ĩ:pũ
<i>shroud</i>	kù-míná	ku-minya		ú:-míná

Table 23: Cicipu 9/2 nouns corresponding to Kambari 7/8

Gloss	Cicipu	Western Kambari	Tsuvađi	Central Kambari
<i>back</i>	kù-cínó	ku-cinə	u-cino	ú:-cínó
<i>soup</i>	kù-sá'ã	ku-sa'ã	u-sa'a	ù-sã'ã
<i>shade</i>	kù-líllú	ku-lu	uu-lulu	ú:-lúlú
<i>compound</i>	kw-á'à		u-'wa	ù-'wâ
<i>evening</i>	kù-rívì	ku-livi		ú:-lívú
<i>stirring-stick</i>	kù-sílú		u-sulu	ù:-sìlù
<i>voice</i>	kù-đɔɔ			ù:-đyô
<i>broom</i>	kù-vísù		hw-izu	w-ì:zù

Other minor differences include:

- A correspondence between Central Kambari /ə/ and Cicipu /i/ in NC5, NC6, and NC8. The /ə/ phoneme does not occur in Cicipu, and the /ə/~i/ correspondence is also found in lexical items.
- Correspondence between Kambari /ts/ and Cicipu /c/ in NC6. Actually the Kambari prefix has two allomorphs: **c-** before front vowels, and **ts-** otherwise⁷
- The NC1 prefix has progressed from **kA-** > **hA-** > **AA-**⁸, where **A** is an under-specified vowel of unit length. **ka-* has been reconstructed for Proto-West-Kainji (De Wolf 1968), and is also retained in Eastern Acipa (see below).
- The 6/5 Cicipu pairing does not occur in Kambari

⁷ This is not a language-wide phonological restriction since the two phonemes contrast in lexical items.

⁸ In sound correspondences involving lexical items, Central Kambari has retained the **k** along with Cicipu, whereas the Tsuvađi consonant has weakened to **h**. For noun class prefixes, however, Central Kambari is more like Tsuvađi in that the NC1 and NC9 prefixes have undergone lenition.

- The 3/5 Central Kambari pairing does not occur in Cicipu

Cognates are usually found in the same class across the languages. Out of a total of 56 nominal Central Kambari/Cicipu cognates found in the Dettweilers' 228-item wordlist, 39 are found in the same class in each language. Of the remaining 17, 11 involve _{NC9}, which has merged with _{NC7} in the Kambari languages, thus leaving only 6 nouns unaccounted for⁹. Table 24 shows cognate examples from noun classes 1-8:

Table 24: Cicipu/Kambari cognates across noun classes 1-8

Class	Gloss	Cicipu	Western Kambari	Tsuvaḍi	Central Kambari
1	<i>root</i> <i>belly</i> <i>feather</i> <i>tooth</i>	kà-yáyù kò-túmó kà-sĩĩ ká-ngá	ka-ralu kə-tsumə ka-shin ka-nga	ha-ralu ho-tsumo ha-shi'ĩ ha-nga	à:-ràlù é:-tsímó á:-sshĩĩ á:-ngá
2	<i>roots</i> <i>bellies</i> <i>feathers</i> <i>teeth</i>	à-yáyù ò-túmó à-sĩĩ á-ngá	a-ralu ə-tsumə a-shin		à-ràlù é-tsímó á-sshĩĩ á-ngá
3	<i>seeds</i> <i>ground</i>	ì-cũ'ũ ì-dáa	i-cu'u i-dfika	i-ci'ũ i-dfaha	ì-cũ'ũ í:-dáa
4	<i>bird</i>	mà-nnú	ma-nu	ma-nnu	ma-nú:nù
5	<i>birds</i>	mì-nnú	n-nu		n-nú:nù ¹⁰
6	<i>charcoal</i>	cì-cínà	ci-kina		tsì-kkyinâ
7	<i>tree</i> <i>skin</i>	ù-dǎngà ù-kwãa	u-kpã	u-dǎnga u-hwãa	ù:-dǎngâ ú:-kwã
8	<i>man</i> <i>woman</i>	v-áarì k-káa	v-ali vu-ka	v-ali va-ha	v-à:lî k-kâ

_{NC1} is a complex merger of PBC **ka-* and **li-* and we will return to it at the end of this section. _{NC6} is phonetically similar to PBC **ti-*, but since there is no overlap in content De Wolf suggested that it should be considered an innovation. Semantically, however, it has a lot in common with PBC **ki-*, and according to Hyman (2003: 55) this prefix has developed into alveo-palatal affricates in many Bantu languages (cf. the _{NC6} Kambari forms above)¹¹.

⁹ Note that because most of the classes have a certain amount of semantic coherence, this is not a strong argument for a genetic relationship between the two languages.

¹⁰ *mi-* and *n-* are allomorphs of the _{NC5} prefix in both Cicipu and Kambari. *mi-* occurs before long consonants, *n-* before short consonants. The difference in the table therefore reflects the difference in the first consonant of the roots, rather than a difference in the prefix system.

¹¹ See also Welmers (1973: 169).

4.2 *Tsuvaḍi and Western Kambari*

Tsuvaḍi noun classes are extremely similar to those of Central Kambari, except that in Tsuvaḍi the NC1 noun prefix and agreement markers take the form **hA-** rather than **AA-**.

The Western Kambari noun class system shares properties with both Cicipu and Central Kambari. In common with Cicipu, it has NC9 **ku-** and therefore also has nine noun classes. Similarly, the NC1 prefixes share the same form as Cicipu, **kA-**, and like Cicipu there is no sign of the 3/5 gender. On the other hand, the 7/2 gender is attested (as in Central Kambari) while the 6/5 Cicipu gender is not.

The **kA-** and **ku-** forms are both preserved from Proto-Kainji **ka-* and **ku-* respectively (De Wolf 1968, 1971). Because they are retentions rather than innovations, the similarities between Cicipu and Western Kambari in this respect are not evidence for a subgroup involving these languages. Rather, the loss of **ku-* and the lenition of **ka-* in the other Kambari languages may point to a common ancestor including them but excluding Western Kambari.

4.3 *Basa-Kamuku*

We now turn to (undisputed) members of the Basa-Kamuku cluster: Pongu, Basa, Kamuku (Cinda dialect), and Eastern Acipa (Bobi dialect). This group is again internally very similar, but it turns out to be quite different from Cicipu and the Kambari languages. Other than Pongu, I have constructed the affix nets from the data available in the available wordlists.

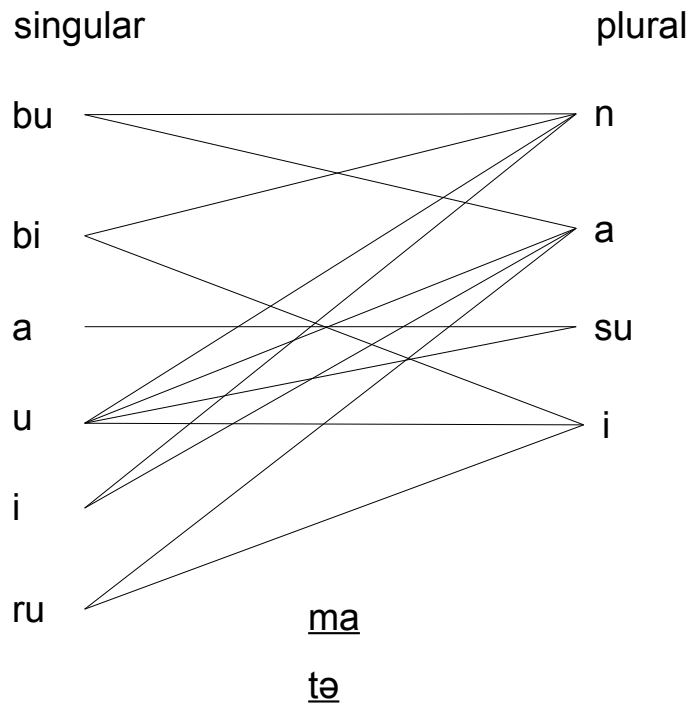


Figure 3: Pongu noun class system (MacDonell 2007)

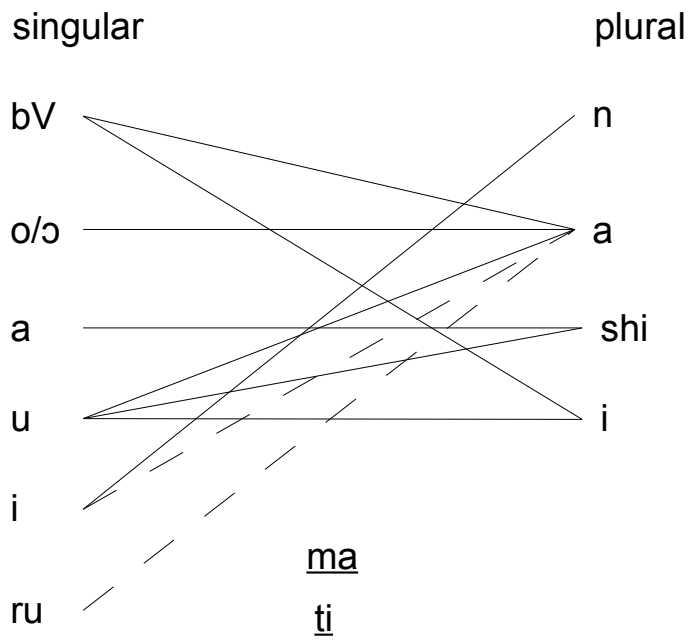


Figure 4: Basa noun class system

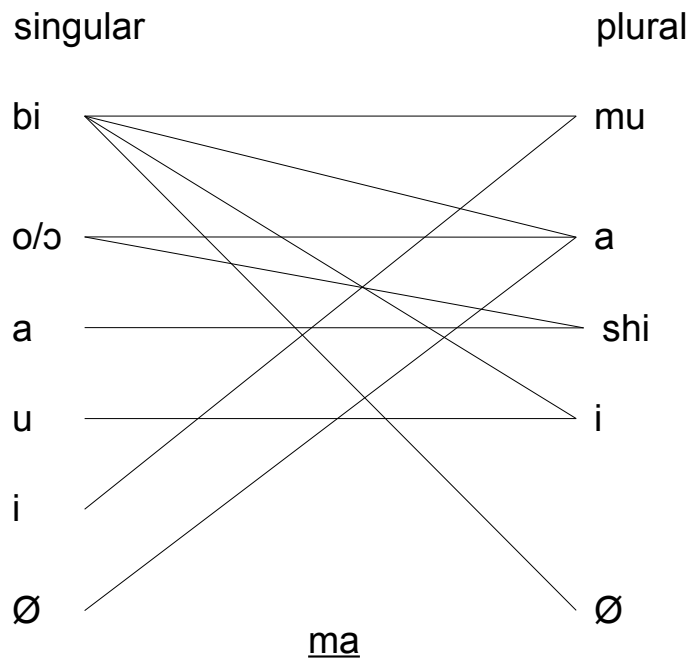


Figure 5: Kamuku (Cinda dialect) noun class system

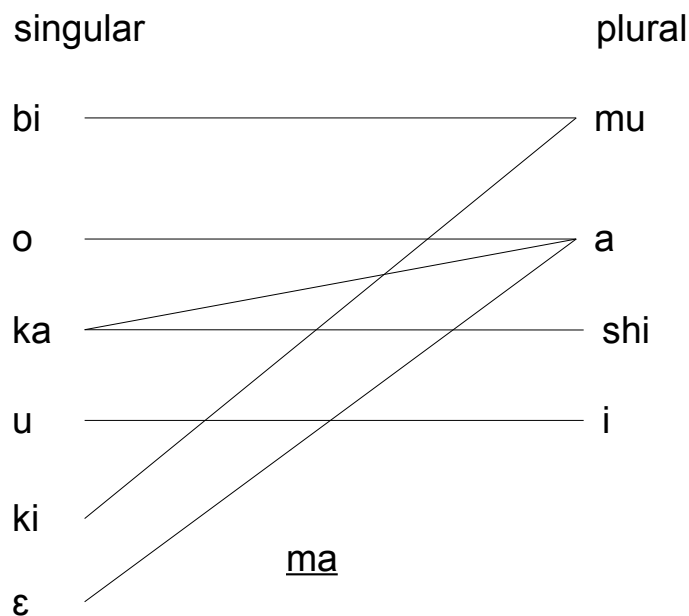


Figure 6: Eastern Acipa (Bobi dialect) noun class system

It can be seen from Figures 3-6 that the noun class systems of these four languages share several properties not found in the Kambari/Cicipu languages. Firstly, all four Basa-Kamuku languages have an 's'-type plural class (either **shi-** or **su-**) not found in Cicipu/Kambari. This is always paired with **ka-** and/or **u-**. Secondly, the 'person and animals' class is of the form **bV-** in each Basa-Kamuku language, corresponding to the **vi-/C-/∅-** NC8 in Cicipu/Kambari. Third, in three out of four Basa-Kamuku languages there is an 'o'-type class which pairs with **a-**, unattested in Cicipu/Kambari.

Finally, the **u-/i-** pairing occurs in all four Basa-Kamuku languages, but not in Cicipu (although it is marginal in Central Kambari).

There is one similarity between Cicipu and Eastern Acipa which is not found in many other present-day West Kainji languages, and this is the occurrence of the singular class **ka-**, paired with **a-** in Cicipu, and with either **a-** or **shi-** in Eastern Acipa. De Wolf (1971: 169) remarks that this appears to be an unusual reflex of a distant merger between Proto-Benue-Congo **li-* and **ka-*, since a 'ka'-type prefix is also found in a number of Plateau languages: **ka-** in Kagoro, **ha-** in Birom, and **ki-** in Rukuba. De Wolf observes the difficulty in reconciling the widespread distribution of the **ka-** prefix covering **li-* meanings, with the equally widespread retentions of the **li-* prefix. The retention of **ka-** in both Cicipu and Eastern Acipa is interesting, but it is not evidence that the two languages form part of the same subgroup. Instead these **ka-** classes are likely to be retentions of the earlier state suggested by De Wolf. All the Kambari languages also have this prefix, although the **k** has been lost in some varieties: **ka-** (Western Kambari, Tsikimba) > **ha-** (Tsuvađi) > **aa-** (Central Kambari).

In summary, the evidence from the various languages' noun class systems clearly supports the hypothesis that Cicipu shares a common ancestor with the Kambari cluster.

5 Pronouns

The independent personal pronouns are given in Table 25 for a number of West Kainji languages. It can be seen that the Cicipu forms are much closer to the Kambari languages than either Kamuku or Pongu.

Table 25: West Kainji independent pronouns¹²

	Cicipu	Tsuvađi	Central Kambari	Kamuku	Pongu	Reshe	Duka	C'Lela
1ps	àmú	òmú	ómú	gemu	gèmì	ámé	mε-ka	mi
2ps	ìvó	òvú	évú	gabú	gà	áhó	wɔ-ka	vo
3ps	èví	èyí	áyí	bwa	bùbwà	úwàndò	wə-ka	unwa
1P DUAL								cin
1pp ¹³	òtú	òtsú	átsú	gətu	gó:tù	átsó	Incl. tε-ka Excl. na-ka	cwan cinna
2pp	ìdó	òdó	édú	gəhi	gó-hĩ	ánó	nɔ-ka	nwa
3pp	èré	èlé	élé	hyə'ə/aba	àbà	ábù	ε-ka	ən'a

12 The Tsuvađi pronouns were provided by Joshua Bako from Katede near Galadima, a native speaker of Tsuvađi. Thanks to Katharine Spencer for the Kamuku data (p.c. 2009).

13 Duka and C'Lela make a distinction between inclusive and exclusive 'we'. Apparently only C'Lela has a 'dual' pronoun as well as singular and plural.

6 Phonological evidence

Long consonants are found in West Kainji but they seem to be restricted to Kambari, Cicipu, and the Northwest branch¹⁴. They occur perhaps marginally in Pongu (MacDonell 2007: 14), and not at all in Basa (Blench 1991: i). In the Northwest languages long consonants seem to be only root-medial (and consequently word-medial).

In Cicipu and Kambari, however, long consonants may also occur at the *start* of noun roots. Some examples of long consonants in Central Kambari, Tsuvadĩ and Cicipu are given in Table 26.

Table 26: Root-initial long consonants in Cicipu and Kambari

Gloss	Cicipu	Tsuvadĩ	Central Kambari
<i>cave</i>	kà-ppàtá	ha-ppata	
<i>bird</i>	mà-nnú	ma-nnu	
<i>ashes</i>	kù-kkómó		kó-kkómó
<i>shirt</i>	mè-ttégù		mà-ttúgù
<i>cloud</i>		he-lleshe	è-lléshè

As well as root-initial long consonants (which always occur with a non-null prefix), word-initial long consonants can arise from morphophonological processes. This was noted by Hoffmann (1963) for Central Kambari, and the same is true for Cicipu. A few examples are given below – note the corresponding *vi-* prefix in Tsuvadĩ.

Table 27: Nouns in Cicipu and Central Kambari with **word-initial** long consonants

Gloss	Cicipu	Central Kambari	Tsuvadĩ
<i>woman</i>	k-káa	k-kâ	va-ha
<i>sheep</i>	c-c'ó'ò	k-kyõ	vi-hyõ
<i>cow</i>	n-náa	n-nâa	vu-nahañ
<i>daughter-in-law</i>	z-zéné	j-jéné	vi-zhene

The available sources on other West Kainji languages show no sign of either root-initial long consonants or the “lengthening” noun prefix, whether in the Basa-Kamuku or Northwest branches of West Kainji. According to Blench (n.d. a: 5), “Kambari is clearly distinguished from the other West Kainji languages by a pervasive system of long-short consonant distinctions found in initial position in noun-stems but medially in other word-classes”. Root- and word- initial long consonants are rare cross-linguistically, and so it is unlikely that they would arise by chance in the two languages. Again assuming that the similarity is not due to language contact, this shared phenomenon supports the hypothesis that Cicipu and Kambari had a shared common ancestor.

¹⁴ See Blench (n.d. a) for West Kainji subclassification.

De Wolf (1971) gave a putative historical derivational path from Proto-Benue-Congo to the present day Central Kambari **C-**_{NC8} allomorph. We are now in a position to re-evaluate De Wolf's hypothesis, given the new data from Cicipu which was presented in McGill (submitted), especially the existence of parallel **C-/Ø-/vi-** allomorphs for the 2_{PS} prefix. In the Tirisino dialect of Cicipu there are 2_{PS} and 3_{PS} object clitics **C-** corresponding to the normal complement pronoun **vu** (3_{PS}), and **vi** (3_{PS}), and also that 2_{PS} subject prefixes have the allomorphs **C-**, **Ø-**, and **vi-**. The evidence from Tikula and the Kambari languages presented below suggests that the **C-** allomorphs are derived from a sound change affecting an original **vi-**.

De Wolf's suggestion was based on evidence from the Central Kambari noun class prefixes made available by Hoffmann (1963, 1965), and on his own reconstruction of the Proto-Benue-Congo noun class system. In Kambari (and also Cicipu) _{NC8} nouns form either the singulars of gender 8/2 (**C-/a-**) and 8/3 (**C-/i-**), or the plurals of 7/8 (**u-/C-**), corresponding to the Proto-Benue-Congo genders **ù-/*ba*, **ì-/*í-*, and **ú-/*i-* respectively. De Wolf (1971: 68) suggests that **ù-* and **í-* may both have evolved into **C-** by the following series of steps:

i* > *ii* > *yi* > *y-* and then *y-C* becomes **C-C

u* > *uu* > *wu* > *w-* and then *w-C* becomes **C-C

De Wolf's derivation ignores the fact that both the **u-* derived **C-** prefix and the **i-* derived **C-** prefix have a vowel-initial _{NC8} allomorph **v-**¹⁵. Similarly we can see from Table 28 that for the Kambari 2_{PS} subject agreement prefix in the Kambari languages (Tsuvaḍi and Central Kambari), we again find **vu-** or **vi-** instead of the Cicipu **C-**.

15 The same pair of allomorphs is also found in the _{AG8} agreement prefixes (not listed in).

Table 28: Distribution of **C-** morpheme in four Kambari cluster varieties

	Gloss	Tsuvađi	C. Kambari	Tikula	Tirisino
NC8 prefix before V	<i>man</i>	v- (v-ali)	v- v-àalí	v- v-áarì	v- v-áarì
NC8 prefix before C	<i>sheep</i>	vi- vi-hyɔ	C- k-kyôn	C- c-côɔ	C- c-có'ò
2s RLS subject prefix	<i>you wove</i>	vu- vù-dáavà	vi- vì-dávà	C- ɸ-dávà	C- ɸ-dávà
2s IRR subject prefix	<i>you should weave</i>	vu- vú-dàavà	vi- vì-dávà	vu- vú-dàvà	C- íɸ-dávà or víɸ-dávà
2s object suffix	<i>he saw you</i>	?	-u w-èené-ù	-vu w-índà-vù	-vu w-índà-vù
3s object suffix	<i>he saw him</i>	?	-i w-èené-ì	-vi w-índì-vì	-vi w-índì-vì
2s object suffix NEG	<i>he didn't see you</i>	?	-u w-èené-ù-shì	C- w-índà c-cé	C- w-índà c-cé
3s object suffix NEG	<i>he didn't see him</i>	?	-i w-èené-ì-shì	?	C- w-índì c-cé

To be feasible a derivation should be able to explain the **v-** allomorph before vowel-initial stems, the co-occurrence of the **vi-/C-** allomorphs in apparently unrelated morphemes, and the cross-linguistic and cross-dialectal correspondence between **vi-** and **C-** for various morphemes.

The **C-** allomorph by its nature has no single phonetic realisation; instead it has as many phonetic variants as there are consonants. Consequently it does not seem possible to derive a unitary **vi-** morpheme (for example. the Tsuvađi NC8 prefix occurring before consonants) from a reconstructed proto-Kambari ***C-** without recourse to suppletion. However the number of different and seemingly unrelated environments involved (NC8 and AG8 prefixes, 2PS realis and irrealis prefixes, 2PS and 3PS object clitics) rules out suppletion as a possible explanation. Instead we should be looking for a more general and a *phonological* sound change. The most promising interpretation of this data is that the original form in all these cases was not an exotic consonant-doubling ***C-**, but rather a more prosaic ***vi** (or perhaps more probably ***vì**). Under this analysis, Tsuvađi is the most conservative variety. In Central Kambari the ***vì** has changed to **C-** for noun and agreement prefixes only, but the verb system has not been affected¹⁶. In the Tikula dialect of Cicipu the change has occurred in the realis 2s subject prefix, and the 2s object clitic has developed before the negator **cé**

16 This kind of grammatically-selective phonological change is fairly common cross-linguistically (Paul Kerswill, p.c.). In fact it is found elsewhere in Central Kambari – the NC1 prefix **ka-** (Cicipu, Western Kambari, perhaps Proto-West-Kainji (De Wolf 1968)) has become **aa-** in present-day Central Kambari, but lexical /**k**/s have been unaffected by this change.

and possibly before certain adverbs. The irrealis 2s subject prefix remains unchanged however. Tirisino is the least conservative variety, with the change from **vi** to **C-** taking place in all the environments discussed (_{NC8} and _{AG8}, 2s realis and irrealis subject, 2s and 3s object)¹⁷.

While De Wolf's derivation in (50) therefore seems to be wrong in its details, the route he suggested from CV- to C- is quite probable. His derivation can be revised as follows:

**vi-C > *v-C > C-C*

Prefixes with the intermediate form in this progression do in fact exist in the northwest group of West Kainji languages (which includes Duka, C'Lela, and ut-Ma'in). In these languages, instead of the **CV** prefixes found in Cicipu and Kambari, prefixes with consonants are of the form **C(°)**, in other words a consonant followed (in certain predictable contexts) by a short transitional schwa vowel. Examples from C'Lela include *v-gyu* 'finger' and *v-yala* 'bean' (Dettweiler n.d.: 24).

We might ask why these noun prefixes appear to be more stable in the northwest languages, and have not progressed to the latter stage of the progression suggested in (51), while conversely there is no trace of the intermediate form in any environment in any of the Kambari cluster varieties. The answer may lie in the fact that the two groups of languages also differ in their syllable structure. CVC syllables are common in the northwestern languages, and there are not many restrictions as to which consonants can appear in the coda. In Cicipu and Kambari only nasal consonants can appear in codas, and then only word-medially before a non-continuant. Consequently consonant clusters are far more frequent and varied in the northwestern languages than in the Kambari cluster. Words such as *v-gyu* and *v-yala* are therefore less 'out-of-place' in the northwestern languages than they would be in Kambari cluster languages, and so they may experience less pressure to simplify their syllable structure.

An alternative, but less likely explanation, is that the lengthening prefixes came about through the contraction of reduplicated plurals, such as the reduplicated variants of 7/8 plurals mentioned in McGill (submitted). Apart from not dealing with the 2ps and 3ps affixes discussed above, it is not clear how a reduplication process affecting plurals would come to also apply to singulars, which make up the majority of _{NC8} nouns.

Finally, we may also speculate on how the *root*-initial long consonants in Cicipu and Central Kambari have come about. Root-initial long consonants and the special _{NC8} **C-** allomorph are peculiar to the Kambari/Cicipu branch of West Kainji, and so it would make sense for them to be related historically. This subject was touched on in the discussion on the gender of loanwords in

17 The Tirisino 2ps irrealis prefix (**vi**)**C-** is problematic for the analysis being put forward here, since it contains both a **vi-** and the lengthening prefix **C-** which is supposed to derive from the **vi-**. It may be that this is the result of a renewing of the prefix, analogous to the situation with the Bantu pre-prefixes.

McGill (2007); loanwords seem to begin their lives in gender 8/3 (or 8/2 sometimes for nouns with human referents) e.g. **g-gwándà** 'pawpaw' from *gwanda*, but as they become more entrenched they may move to other genders such as 1/2 or 4/5, *taking with them* the long consonant associated with the _{NC8} form of the noun – the _{NC8} **C-** allomorph thus being reanalysed as part of the root. In fact, it seems likely that *all* root-initial long consonants in Kambari and Cicipu came about in this way, not just loanwords – a suggestion supported by the apparent absence of any root-initial consonants in genders 8/2 or 8/3 themselves. The Cicipu word **k-kámbà** 'rib, 8/3' has a cognate with a root-initial long consonant in Central Kambari **à-kkám̀b̀ù** (1/2), which suggests the process has continued to some extent after the languages diverged. The exact reason *why* these nouns would move in the first place is not clear, but De Wolf (1971) has shown that there has been a general historical movement into 1/2 from other genders.

7 Language contact

Roger Blench (p.c. 2006) has remarked on the striking similarity of the Cicipu/Kambari isoglosses mentioned above, and which are listed in the appendix. Given that the overall lexical similarity between the two languages is not that high (approximately 50%), one might expect the two sets of forms to have diverged to a greater extent. Blench therefore suggested that Cicipu may have acquired the superficial appearance of a close genetic relationship with Kambari through contact. If this suggestion is true, then the similarities in the noun class systems and pronouns noted above must have also come about through language contact.

With the data now available for Cicipu, this suggestion seems unlikely, particularly given that the 228-item wordlist consists of 'core' vocabulary, and was designed to avoid items prone to borrowing. Nevertheless Thomason (2001: 63-65) has observed that *anything* can be borrowed from one language to another. This includes 'core' lexical items, and it is also possible for languages to replace significant portions of their morphology with systems from another language. However this kind of heavy borrowing is not the norm, and requires a high *intensity* of contact (linguistic factors are also relevant but not as important, according to Thomason). She characterises intensity as a kind of cultural pressure depending on the time the two groups have been in contact, relative group size, and the direction of socio-economic forces (2001: 66), and it is my view that there is unlikely to have been sufficient pressure of this kind to account for all the changes. In the rest of this section I will briefly give reasons for this view, and also give a possible explanation for the perceived 'suspicious' similarity between Cicipu and Kambari cognates.

Naturally there is contact between the Acipu and their immediate neighbours the Avadí (the native speakers of Tsvadí), and this is likely to have been the case for a hundred years and more, if

indeed they have ever been out of contact (Mathews 1926 comments on various well-established social relations between the Acipu and neighbouring groups). The Acipu areas I visited in the Tirisino and Tidipo dialect areas were dotted with Avadĩ settlements, often not much larger than a single homestead. A fair number (but by no means all) of the Avadĩ I met spoke Cicipu, and Tsuvadĩ seems to be the most common second language spoken by the Acipu of that area. At a festival I attended on Korisino a significant minority of the songs were either in Tsuvadĩ, or had Cicipu words mixed with Tsuvadĩ. However Cicipu/Tsuvadĩ bilingualism is by no means universal, and the L2 is usually learned imperfectly by members of both groups.

Although the Avadĩ outnumber the Acipu significantly (approximately 6:1), there is little reason to think that socio-economic factors are relevant, given the ubiquity of Hausa as a trade language in this area. Likewise there is no reason to think that the Acipu have an especially positive attitude towards the Tsuvadĩ language. If anything, the opposite is more likely to be true, since the Avadĩ people as a whole are even more remote and less touched by modernisation than the Acipu. In fact the factors Thomason cites apply far more to Hausa than to Tsuvadĩ, and indeed Hausa has had a significant effect on the lexicon and syntax of Cicipu (see chapter 4), something that is particularly evident in the speech of younger Acipu. However it has not yet affected the core lexical vocabulary of Cicipu speakers to a significant degree (for example only 10 of the 202 Tirisino items in Dettweiler and Dettweiler (2002a) were Hausa loans), and it does not appear to have influenced the morphological forms of the language at all.

Thomason singles out pronouns (2001: 76-83) and inflectional morphology (2001: 76-77) as features that are unlikely to be borrowed, other than in situations of high-intensity language contact, and of course it is precisely these features that have been shown to be similar in Cicipu and Kambari. Features such as nominal morphology, which are “deeply embedded in elaborate interlocking structures”, are rarely borrowed (Thomason 2001: 76). For Kambari noun prefixes and their accompanying concords to supplete Kamuku originals is likely to require more intensity of contact than we have reason to suppose is (or was) the case.

To address the specific comment made by Blench i.e. that the Cicipu/Kambari isoglosses are suspiciously similar in form, three points can be put forward. First, the sound correspondences mentioned in §3 above are found in the isoglosses as well as in other cognates. The fact that there are sound correspondences at all implies that the two languages have had a considerable period of time to diverge since they shared identical forms – if the similarities are due to contact then this cannot have been recent. In the absence of any evidence about previous contact between the groups, it seems that intensive language contact would have been less likely in the past, given much smaller populations, less mobility, and less economic activity.

Secondly, differences between cognates are often caused by changes in the syllable structure of words. While Cicipu and Kambari do not allow codas in lexical and nominal roots, other West Kainji languages do, for example Duka, Kamuku, Eastern Acipa, and especially Utma'in. Consequently in these languages there is the possibility of the loss of a final vowel to form CVC roots from CVCV, and then CV roots from CVC. This possibility is likely to contribute to the divergence of cognates. Conversely, there is no such pathway open to Cicipu and Kambari, and therefore less potential for divergence.

Finally, the close similarity between Cicipu and Kambari lexical items is only an argument for language contact rather than genetic relationship if it does not extend beyond Cicipu/Kambari isoglosses. If Cicipu and Kambari did belong to different subgroups, then we would expect the Cicipu and Kambari forms of cognates found throughout West Kainji to be relatively divergent compared to isoglosses restricted to the two languages. This hypothesis can be tested by determining whether the degree of phonetic similarity between cognates is higher if (i) they form part of an isogloss delimiting Cicipu/Kambari, or if (ii) they have further cognates in other West Kainji languages. The comparison in Table 29 was performed with Cicipu/Central Kambari cognate pairs. 'Identical' means that the forms are phonetically identical (more precisely, that the transcriptions in the wordlists were identical), 'nearly identical' is a rough-edged category containing cognate pairs that I judged to differ by only one phonological feature, and 'similar' covers all other cognates.

Table 29: Degree of phonetic similarity versus whether the cognates concerned are Cicipu/Kambari isoglosses

	Isoglosses	Non-isoglosses
Identical	14 (25%)	9 (21%)
Nearly identical	15 (27%)	14 (33%)
Similar	26 (47%)	20 (47%)
Total	55 (100%)	43 (100%)

It can be seen that the distribution of isoglosses and non-isoglosses is more or less the same, showing that the 'suspicious' similarity between Cicipu and Kambari cognate pairs is not restricted to isoglosses, but is also found in cognates that occur throughout West Kainji.

Note that this state of affairs does not actually provide evidence *against* the contact hypothesis, since it is plausible that when two genetically-related languages come into renewed contact, existing cognates will experience pressure to resemble each other more than they did before. It is not impossible that the Cicipu lexicon *as a whole* has 'reconverged' to become more like

Kambari because of wholesale borrowing, although if that were the case we might expect to find more intra-language cognate pairs, such as *brother/fraternal* and *fourth/quarter* in English. I have not been able to identify any such examples. Nevertheless the existing situation is just what we would expect to find if Cicipu and Kambari were close genetic relatives. Thus the *need* to argue for language contact to explain the similarities is removed – it is simpler to assign Cicipu to the Kambari subgroup of West Kainji.

8 Revised classification

In summary, we have seen evidence from the lexicon, grammar, and phonology to support the hypothesis that Cicipu should be placed in the Kambari branch of West Kainji. In particular the similarity of the Cicipu and Kambari noun class systems is more likely to come from a close genetic link rather than language contact.

Figure 7 is presented as a revised subclassification of Kambari, based on the structure previously presented in Blench (n.d. a)¹⁸.

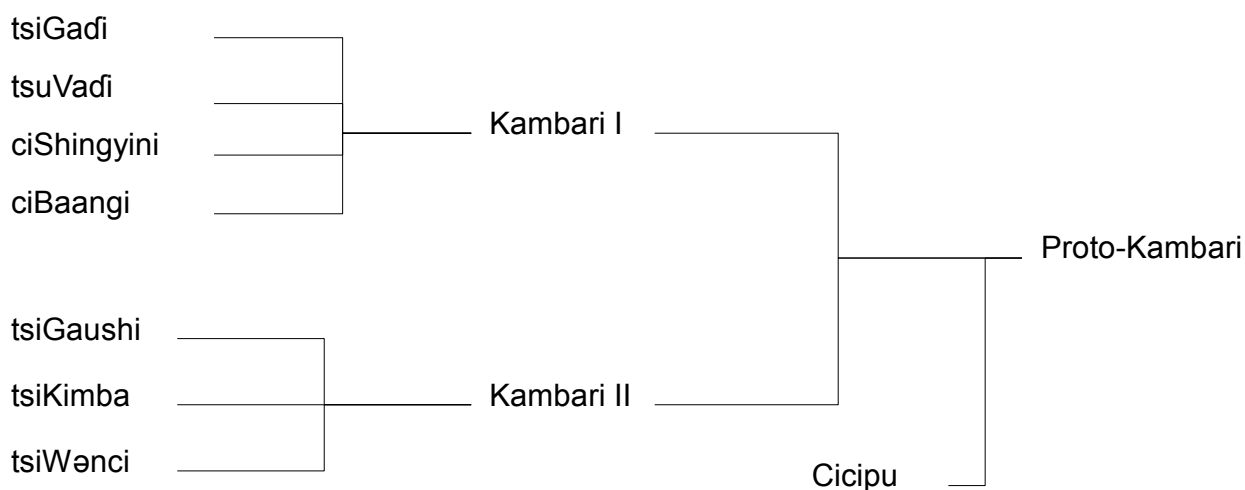


Figure 7: Revised Kambari subclassification tree, based on Blench (n.d. a: 5)

Exercises in subgrouping are neither simple nor even methodologically sound at the best of times (Harrison 2003: 232-239), and the task is made that much more difficult in this case by reliance on unpublished manuscripts, and especially by the dearth of information on the Basa-Kamuku languages. Nevertheless there does not seem to be too much room for doubt given the multiple converging sources of evidence documented here. In fact, the reader may wonder why the language was classified with Kamuku in the first place. The explanation for this may lie in the similarity of the autonyms for 'Western Acipa' (Cicipu) and Eastern Acipa, as well as cultural similarities which

¹⁸ The latest version of Blench (n.d. a) has been updated to reflect the changes suggested in this section.

set the Acipu and the Kamuku apart from the Kambari (including folk histories of origin). It is to be hoped that the revised subgrouping in Figure 7 will be reflected in the next edition of the *Ethnologue*, as well as assisting with the long-term task of reconstructing Proto-West Kainji.

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