Chapter IV

Comparison of the Phonological Systems of Kui, Bruu and So

From even a quick perusal of the phonological inventories and systems of Kui, Bruu and So described in Chapter III, it will be obvious that the three languages share a great deal in common in regards to word and syllable structure, and register, consonant and vowel systems.

However, to determine exactly which phonological units - consonants, vowels, registers - the languages share or do not share, to what degree they agree or differ in the occurrence or distribution of these units within syllables and words, and other significant phonological features which they do or do not share, a systematic comparison will be made of their phonological systems, their phonological units and the distribution of these units.

4.1 Syllables

Kui, Bruu and So all agree in having

a. monosyllabic and disyllabic words

b. syllables of two types: presyllables and main syllables, and of the same shape, i.e. cv(c)- and N- for presyllables and C(C)V(C)(C) or C(C)V̀(C)(C) for main syllables

c. a usually predictable feature of stress falling on the main syllable with a concomitant phonetic shortening of the presyllable or phonetic lengthening of the main syllable, i.e. the presyllable is shorter, the main syllable longer.

Differences lie in the consonants and vowels that can fill positions in the presyllable cv(c)-.

Kui : c- = p t c k ? , ph th ch kh , b , m , s
r l j

Bruu : c- = p t c k ? , ph kh , b , m ɲ , s
r l

So : c- = p t c k ? , ph th kh m , s h
r l

Kui : -v- = a

Bruu : -v- = a u i

So : -v- = a u i

Kui : -c = m

Bruu : -c = m n ŋ r

So : -c = m n ŋ

Kui : N- = m̥ n̥ ɲ̥ ŋ̥

Bruu : N- = m̥ n̥ ɲ̥ ŋ̥

So : N- = m̥ n̥ ɲ̥ ŋ̥

All three languages agree in p t c k ? , ph kh , m , s r l occurring as c-, a occurring as -v-, and m as -c.

The differences for c- are

a. Kui and So agree in also having th ; Bruu does not.

b. Kui and Bruu have b ; So does not.

c. Kui has ch and j ; Bruu and So do not.

d. Bruu has ɲ ; Kui and So do not.

e. So has h ; Kui and Bruu do not.

The differences for -v- are

a. Bruu and So also have u and i ; Kui does not. In

Bruu i is rare and in So i is restricted to si- and ci-.

b. In contrast to Bruu, u in So is restricted to ku-, and u and i in So vary to a.

All three languages agree in having m occur as -c. The differences are

a. Bruu and So also have n and ŋ ; Kui does not.

b. Bruu also has r ; Kui and So do not.

All three languages in having m̩ n̩ ɲ̩ ŋ̩ occur as N-.

A feature in Kui, not shared by Bruu or So, is a strong tendency for presyllables to be dropped, i.e.

cv(c)'C(C)V(C) C(C)V(C) or N'C(C)V(C)

resulting in monosyllabic forms, sometimes with changes in initial consonants of the main syllable.

4.2 Registers and Nasalization

Kui, Bruu and So agree in having a register contrast between normal voice quality (1st Register) and breathy voice quality (2nd Register) in main syllables.

The phonetic features accompanying register differences seem to vary somewhat among languages, but at the phonological level they will not be considered as significant.

In addition, Bruu and So share a similar feature in having contrasts between nasalized vowels, or syllables, and non-nasalized ones, which Kui does not have.

4.3 Consonants

4.3.1 Initial and Final Consonants

Kui, Bruu and So do not agree in their total number of consonants: 23, 20 and 21 respectively, all of which can occur initial-

ly in 1st Register main syllables.

However, Kui and So do agree as to how many of their consonants can occur finally in 1st Register main syllables: 14. In contrast, only 12 of the Bruu consonants can occur finally.

Of more siginifance,however, are the similarities and differences in the composition of the consonant systems.

Kui, Bruu and So all agree in having

a. 5 voiceless unaspirated stops: p t c k ʔ

b. 3 voiceless aspirated stops: ph th kh

c. 2 voiced stops: b d

d. 4 voiced nasals: m n ɲ ŋ

e. 2 voiceless fricatives: s h

f. 4 voiced approximants: w r l j

In addition, Kui and So agree in also having another voiceless aspirated stop: ch , although in So its occurrence is restricted.

Furthermore, Kui also has a voiced palatal stop ɟ and a voiceless fricative: f , the phonological status of which is marginal.

For consonants that can occur finally, Kui and So are in complete agreement, namely

p t c k ʔ

m n ɲ ŋ h

w r,l j

Bruu differs from Kui and So in having no occurrences of c and ɲ finally.

All three languages agree in the non-occurrence finally of the voiced and voiceless aspirated stops and the voiceless fricative s.

4.3.2 Initial Consonant Clusters

In the initial consonant cluster position of main syllables: C_1C_2-, all three languages agree on -C_2- being restricted to r or l. They also agree in allowing the occurrence of p b t k in the C_1- position, so that they have in common the clusters pr pl br bl tr kr kl.

The differences and similarities in $C_1 + C_2$ combinations involve additional clusters.

a. Kui and So agree in also having phr khr khl (although these are rare in Kui), which Bruu does not.

b. Bruu and So agree in also having thr , which Kui does not.

c. Kui also has phl , which neither Bruu nor So have.

d. So also has dr , which neither Kui nor Bruu share.

None of the languages allow the combinations tl thl.

Altogether, the, Kui, Bruu and So have a total of 11, 8 and 12 initial consonant clusters, respectively.

4.3.3 Final Consonant Clusters

In the final consonant cluster position of main syllables: -C_1C_2, Bruu and So agree in allowing only w and j in the -C_1 position and ? and h in the -C_2 position. However, So has only w? j? jh whereas Bruu has all four possibilities: w? wh j? jh. Kui allows no final consonant clusters.

4.3.4 Distribution of Initial Consonants and Initial Consonant Clusters with Registers

Kui, Bruu and So agree in allowing any initial consonant or initial consonant cluster to occur initially in 1st Register main syllables.

Also they agree in allowing no voiceless aspirated stops or voiced stops - either singly or in clusters, no (voiceless) fricatives, nor (voiceless) glottal consonants to occur initially in 2nd Register main syllables.* In other words, no voiceless consonants, except p t c k , nor voiced stops can occur in such an environment.

It thus follows - and all three languages agree - that the only consonant clusters occurring initially in 2nd Register main syllables are pr tr kr pl kl.

4.4 Vowels

4.4.1 Vowel Inventories

Kui, Bruu and So all agree in having 11 monophthongs with short and long contrasts in 8 positions, yielding a total inventory of 22 monophthongs.

Bruu and So agree in having 5 diphthongs: iə ɯə uə ia ua , whereas Kui has only 3: ia ua ɯa.

4.4.2 Distribution of Vowels with Registers and Final Consonants and Final Consonant Clusters

In all three languages, most or all of the short vowels (11), most or all of the long vowels (11), and most or all of the diphthongs (3 in Kui and 5 in Bruu and So) can occur in main syllables with either 1st Register or 2nd Register. For each language, this results in a staggering number of vowel nuclei, even if we consider the gaps in actual occurrence.

Thus, a thorough analysis and description of the distri-

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* Kui and Bruu do have a few words (7 and 4, respectively) with initial h and 2nd Register; So has 2nd Register words with both h (6) and ʔ (10).

bution of the vowels in these languages would be not only too detailed and complicated to handle in this thesis but also too lengthy. It goes without saying, then, that a detailed comparison of the vowel distributions would be out of the question.*

This is not to say that such analyses and comparisons would not yield definite patterns - both parallel and non-parallel ones - among the languages. They certainly would. One such example is that in all three languages 2nd Register vowels (short, long and some diphthongs - except in Kui) are less common than their 1st Register counterparts. Perhaps the more siginificant pattern is all three languages also agree in ìa and ùa being more common than ia and ua, respectively, an exception to the general pattern.

Other general patterns are revealed, with some disagreement in details. In the three languages all final consonants can occur with either 1st Register or 2nd Register vowels. They agree in the high frequency of occurrence of short vowels before ʔ h and ŋ and of long vowels and diphthongs in open syllables. Kui and So agree in having many restrictions on vowels occurring before c ɲ, which are not found finally in Bruu. All three languages agree in the non-occurrence of back vowels with w and of the front vowels with j.

As for final consonant clusters, which Kui does not have, and of which Bruu and So share only wʔ jh and jʔ , there seems to be agreement between the two languages only in the occurrence of both 1st Regsiter and 2nd Register short non-front vowels with jh and jʔ. Bruu also has 1st and 2nd Register long non-front vowels and diphthongs occurring with these two final consonant clusters.

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* Vowel systems in many other Mon-Khmer languages present similar complications.

By summarizing the similarities of the phonological systems of Kui, Bruu and So in a very general way, the differences that exist can more easily be dealt with.* Then, in some cases maybe broad explanations can be suggested concerning the differences. Finally, perhaps tentative conclusions can be reached concerning the relationships among the three languages.

First, and most obvious I think, are the similarities in the register systems. The minor differences seem to lie in phonetic details. One siginificant difference, though, is that Bruu and So, but not Kui, have a contrastive feature of nasalization.

Second, the vowel systems are practically identical except that Bruu and So share 2 diphthongs not found in Kui. Moreover, lathough only a few general patterns were pointed out, vowel distribution with registers and final consonants is quite similar.

Third, syllable and word structure are practically the same. No doubt, the differences in presyllable consonants and vowels are of some siginificance. They probably involve not only lexical borrowing but also phonological and morphological developments which are not within the scope of this thesis to investigate.

Ignoring the more or less even number of the three languages' non-shared consonants occurring in the c- position of cv(c)-presyllables, Bruu and So do share the u and i in the -v- position as well as the additional nasal consonant n ŋ that can fill the -c position, no matter what explanations could be offered for their existence. In short, there are a few features of the presyllable that

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* See chart of Shared and Non-Shared Phonological Features in Kui, Bruu and So on the following page.

Shared and Non-Shared Phonological Features

in Kui, Bruu and So

Phonological features	Kui	Bruu	So
1. register system	X	X	X
contrastive nasalization		X	X
2. vowels	X	X	X
2 additional diphthongs		X	X
general vowel distribution patterns with registers and final consonants	X	X	X
3. syllable/word structure	X	X	X
(1-2 non-shared c- occurring in cv(c)- presyllables)	(X)	(X)	(X)
presyllables with u and i as -v-		X	X
presyllables with n ŋ as -c		X	X
presyllables with r as -c		X	
tendency to drop or reduce cv(c)- presyllables	X		
4. consonants	X	X	X
initial f	X		
initial J	X		
initial ch	X		X
final c , ɲ	X		X
5. initial consonant clusters	X	X	X
additional phr khr khl	X		X
additional thr		X	X
additional dr			X
additional phl	X		
6. final consonant clusters		X	X
additional wh		X	
7. distribution of C- and CC- with registers	X	X	X

Kui clearly does not share with the other two languages.

Another, but not less important, difference is the tendency in Kui to drop (or reduce) presyllables so that disyllabic words become monosyllabic ones. Perhaps this is due to the unstressed nature of presyllables or to influence from surrounding monosyllabic languages; in any case, this development has not taken place in Bruu and So.

Fourth, the consonant inventories are almost the same. The differences lie in Kui and So having ch , which Bruu does not share. Also, Kui has f and J , which Bruu and So do not have. Whatever the explanations for the presence of these features, they do set the languages apart.

Another feature which set Kui and So apart from Bruu is that the latter does not have final palatals c and ɲ.

Fifth, the differences among the languages regarding initial consonant clusters involve additional shared and non-shared clusters in Kui and So. Kui and So share some additional clusters but not others. This clearly sets them apart from Bruu and apart from each other. However, the fact that So shares an additional clusters with Bruu but that Kui does not share any additional ones with Bruu likewise sets Kui apart from the two other languages.

Sixth, the presence of final consonant clusters in Bruu and So, but not in Kui, serves further to set the former two languages apart from the latter. These rather unusual phonological features are however not shared totally: So does not have wh. Nor do the two languages agree very much regarding the occurrence of 1st and 2nd Register vowels with the shared final consonant clusters.

Finally, the three languages are in complete agreement

regarding the occurrence in main syllables of initial consonants and initial consonant clusters with the two registers.

Briefly then, Kui, Bruu and So have in common a register system, an inventory of vowels, syllable and word structure, an inventory of consonants, an inventory of initial consonant clusters, the distribution of initial consonant and consonant clusters with registers, and, finally, the distribution of vowels with registers and final consonants.

The divergencies - some shared, some non-shared - however, are not small in number.* In terms of numbers, they can be illustrated thus:

Kui non-shared divergencies : 4

Kui-Bruu shared divergencies : 0

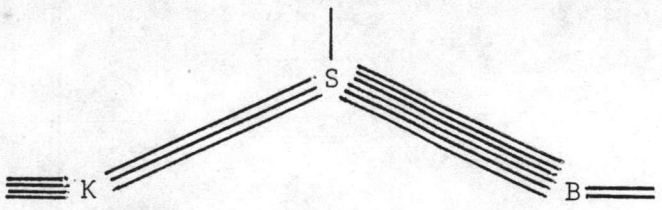
Kui-So shared divergencies : 3

Bruu-So shared divergencies : 6

Bruu non-shared divergencies : 2

So non-shared divergencies : 1

and by this diagram (in which the numbers are represented by lines):



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* Here "divergency" refers to a phonological feature not common to all three languages.

"shared divergency" refers to a feature found in two of the languages but not in the third.

"non-shared divergency" refers to a feature unique to one of the three languages.

Based on the number of shared divergencies, we can say that Bruu and So are genetically closer to each other than either is to Kui because they share 6 divergencies. Kui and So only 3, and kui and Bruu share none. Moreover, Kui has 4 divergencies not shared with the two other languages, which further sets it apart.

In this comparison, no weight distinction has been made among the various divergencies, implying that all are equally important as criteria for drawing conclusions on genetic "closeness" or "separateness" among the three languages. Perhaps we must question this assumption: are some of the divergencies major, and others minor? Then, another question arises as to how one judges the relative weight of each divergency. We may need to seek answers to these questions. Maybe the determination of functional load within each language's phonological system can be used to decide the relative weight of a given divergent feature. However, these matters are definitely beyond the scope of this thesis.

Nevertheless, the comparative method of historical linguistics provides another means for determining genetic relationships among given languages: the comparison of genetically shared lexical items (i.e. those assumed to be inherited from a common ancestor), in order to discover systematic phonological agreements and disagreements among those languages. It is this approach that will be used in the following chapter as a means of further defining the genetic relationships among Kui, Bruu and So.