Change with Continuity in the Boro-Garo Languages[1]

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The Boro-Garo languages of northeastern India form one of the most clearly bounded and longest recognized subgroups of Tibeto-Burman. The group includes Boro, Dimasa, Tiwa, Rabha, Koch, and Deuri in Assam; Garo, Atong and the soon to become extinct Ruga in the Garo Hills; and Kok Borok to the south in the state of Tripura. The fact that these have been recognized as forming a subgroup at least since the publication, in 1903, of Volume III Pt. II *Specimens of the Bodo, Naga, and Kachin Groups* of Grierson's *Linguistic Survey of India* testifies to the obvious similarities among these languages. Nevertheless, a comparative study of the Boro-Garo languages shows that many of their features are, in fact, subject to considerable change. The similarities that we find in the present languages are, in part, the result of reintroduction of features that had been lost at an earlier stage of the language, rather than shared retentions. It can almost seem as if the forces for change that introduce diversity are counterbalanced by other forces that push the languages back in direction from which they came.

Borrowing

Some changes are undone by simple borrowing. A clear example is the reintroduction of syllable initial *l*- in Garo after an earlier *l*- and *r*- had fallen together as *r*-. In Boro and Tiwa, *r*- and *l*- contrast as syllable initial consonants, but the Garo cognates of these words always have -*r*, never *l*-: Tiwa and Boro *láŋ*-, Garo *raʔ-aŋ* 'take away'. In the 1950's I knew many Garo villagers who used *r*- in borrowed words even when source language had *l*-: *rem* '(kerosene) lamp'; *rao* 'gourd' from Bengali *lao.*[2] Other Garos, many of whom had had more formal schooling than my village friends, easily pronounced these words as *lem* and *lao*. My impression is that the *l*- pronunciation has, in recent years, spread until it has nearly eliminated the older *r*- pronunciation of these borrowed words. Many words that were borrowed from either English or Bengali are now pronounced with *l*- by nearly everyone, and a full account of modern Garo

phonology would have to include *l-* as a possible initial, although it is still a relatively uncommon one. The loss of an older contrast has been reversed by borrowing.

Vowels offer a more complex example. Boro and Rabha each have six contrasting vowels, the usual *i, e, a, o* and *u,* plus a high back unrounded *ɯ* of the kind found in many of northeastern Indian Tibeto-Burman languages. This "sixth" vowel is found, for example, in Boro *dɯ́* '(cooking) pot', and *dɯ̀ŋ-* 'numeral classifier for long things', and in Rabha *mɯ́n* 'body hair' and *tɯ́-pa* 'up to, until'.[3] Garo has all six of the these vowel phones, but the high back unrounded [ɯ] occurs only in closed syllables, while (except for borrowings) [i] occurs only in open syllables: [mi] 'rice'; [mɯk] 'eye'; [bi-bɯk] 'intestine'; [bɯt-chi] 'egg'. In other Garo words, [ɯ] and [i] are in perfect complementary distribution. It was this complimentary distribution that allowed the developers of Romanized Garo, just over one hundred years ago, to make the entirely sensible decision to use the letter 'i' for both [ɯ] and [i]. This causes very little confusion, since the two phones occur in different contexts. Since syllable boundaries are not marked in orthographic Garo, however, it does lead to occasional ambiguities. *Mite* 'spirit, god' might stand for either [mɯt-e] or [mi-te], but Garo readers know the word well, and they know that it should be pronounce [mɯt-e]. They need no help from the spelling. Occasional ambiguities such as this one are well compensated for by avoiding an odd extra letter.

Clearly, an older *ɯ and an older *i fell together in Garo. When occurring in open syllables, *ɯ's became modern [i], while closed syllables *i's became [ɯ]. Boro retains the contrast, and the shifts can be seen in Boro-Garo cognates: Boro *gɯ-sɯm* 'black' has the older pronunciation, with the high back unrounded *ɯ* in both syllables. The Garo cognate is *gi-sim* [gi-sɯm], which retains the high back unrounded vowel in the second (closed) syllable, but the vowel of the first (open) syllable has changed to [i]. Boro *pín* [pin] 'return', on the other hand has a high front vowel in a closed syllable, but this has become a high back *un*rounded vowel in Garo: *pil?-* [pɯl?], also meaning 'return'. (Syllable final Boro *-n* regularly corresponds to *-l* in Garo, and the Garo glottal stop corresponds consistently to a high tone in Boro.) In all cases, orthographic Garo uses the letter 'i'. This is entirely appropriate because of the complementary distribution of the two phones.

Garo has, however, borrowed heavily from Bengali, and among the borrowings are a number of words that have high-front-unrounded [i], in closed syllables. Even fifty years ago, any Garo who wanted to say 'three o'clock' had to use a borrowed Bengali form: [tin ba-ji]. This includes the word *tin* 'three' with a high front vowel in a closed syllable, something that is never found in older Garo words. (Garos have a perfectly adequate numbering system of their own, but for reasons that remain mysterious to me, they always tell clock time with Bengali numbers, and use English for telephone numbers and for school classes: *ek baji, dui baji, tin baji*, *kles wan, kles tu, kles tri,* and so on.) *Tin* 'three' and a few other borrowed words have brought along their original front unrounded [i] in closed syllables, and so broken up the older pattern of perfect complimentary distribution of [i] and [ɯ]. If we were to consider these to be Garo words, we would have to say that closed syllables can, once again, have any of six contrasting vowels. Unlike Boro, however, Garo never has high back unrounded [ɯ] in an open syllable.

Boro *r*-Clusters

An example of reversion to an earlier pattern that does not involve borrowing can be seen in the loss of *r* from Boro clusters. Tiwa, Garo, and Rabha all have a considerable number of words with *r*-clusters. The *r* is regularly absent from the Boro cognates of these words, and the clear inference is that an older *r* has been lost from Boro. A few examples selected from a much larger number are given in the table.

	Tiwa	Boro	Garo	Rabha
wing, feather	kráŋ	gàŋ	graŋ	krèŋ
horn	króŋ	gòŋ	groŋ	kròŋ
morning	phrûŋ	pùŋ	priŋ	
buy	prê-	bài-	bre-	prì-
classifier for swallows	krok-	go-rot-	grok-	gròk-
stretch out, (rope, etc.)		sɯŋ-	sriŋ-	srɯŋ-

The loss of *r* from Boro clusters is so consistent that it is surprising to find a few Boro words that do have *r*-clusters. The most persuasive example is the word for 'salt', which is *soŋ-kri* in Boro, and which has a fine *r*-cluster in the second syllable. This is surely cognate with Tiwa *khâ-ri*, Garo ka-ri, and Rabha *kha-rì*. What has clearly happened is that an older two syllable word lost a vowel in Boro, and it was thereby reduced to a single syllable. Perhaps the vowel loss was encouraged by the acquisition of an the initial syllable, *soŋ-*, but it may be just as likely that the new syllable was added to give bulk to a newly shortened word. Another example is the word for 'sky' which is *raŋ-ká-raŋ* in Rabha but *no-khraŋ* in Boro. Again, a vowel has been lost from Boro so that two syllables have been collapsed into one. *r*-clusters were lost, only to find their way back into the language.

Garo Diphthongs

Like clusters, diphthongs have also been both lost and gained. In many examples, the monophthongal Garo *e* in open syllables corresponds to the diphthongal *ay* or *ai* of the other languages. Following the preferences of the speakers, I transcribe this diphthong as 'ay' in Tiwa, but as 'ai' in Boro and Rabha, but both spellings represent very similar diphthongs. All three languages have front rising off-glides.

	Tiwa	Boro	Garo	Rabha
banana leaf	láy	lái-	reʔ-sal, eʔ-sal	rái-, r´(e)-
buy		bài-	bre-	
plough	wây		we-	bài-
husked rice	rôŋ	mai-roŋ	me-roŋ	mai-rùŋ
plant (v)	káy-	gái-	geʔ-	kái-

Similarly, where Tiwa and Boro have a diphthong that rises to high back rounded (spelled 'aw' in Tiwa but 'ao' in Boro), Garo has a back and rounded but undiphthongized *o*. Back rising diphthongs and front rising diphthongs, then, have both been reduced to mid vowels in Garo.

	Tiwa	Boro	Garo	Rabha
oil	thâw	tào	to	tho-cì, thu-cì
throw, shoot	kâw- 'throw away'	gào-	go-	kò-

It seems clear that the language that was ancestral to those we find today had two rising diphthongs, one that rose to the front and a second that rose to the back. Both of these are preserved in Tiwa and Boro, and the front rising diphthong has also been preserved in Rabha, In Garo, they have been reduced to mid-front *e* and mid-back *o*. Rabha, like Garo, sometimes reduces *aw to *o*. The fact that diphthongs rarely occur in closed syllables in any of these languages accounts for the fact that *e* and *o* are much less common in Garo closed syllables than in open syllables. Many *e*'s and *o*'s in Garo open syllables derived from *ay and *aw.

Given the regularity by which *ay and *aw became monophthongs in Garo, one might expect Garo to lack these diphthongs entirely, and, indeed, rising diphthongs are much less common in Garo than in Tiwa, Boro or Rabha. Nevertheless, Garo does have diphthongs, or at least vowel sequences that act like diphthongs, in a number of words and the best established of these are phonetically similar to the very diphthongs that we know to have been lost from Garo at an earlier stage of its history. Where do these Garo diphthongs come from?

Garo phonology requires neither a syllable initial nor a syllable final consonant, so any two vowels can follow each other without an intervening consonant. It might be possible to find examples of all twenty five vowels sequences that could be formed by a sequence of two of the five vowels, perhaps including even repetitions of the same vowel. Some of these sequences would be quite rare, and many would be found only where they are obviously derived from the vowels of adjacent morphemes. *Ua* 'that' (nominative) and *ia* 'this' (nominative), for example, are obviously constructed from the bases *u-* 'that' and *i-* 'this' to which the nominative suffix of monosyllabic pronouns, *-u,* has been added. Compare *i-ko* 'this' (accusative) and *u-ko* 'that' (accusative). It is hardly necessary to consider *ua* and *ia* as diphthongs. Rather, each word has two syllables, each of which represents a different morpheme. The most common two-vowel sequences, however, are *ai* and *au*. Since these occur in some very common words where they lack

any apparent derivation from separate morphemes, it is tempting to interpret them as diphthongs rather than as vowel sequences: *mai* 'what', *-tai-* 'again', *mik-au-a* 'wake up', *ai-ao* 'wow!' Phonetically, Garo *ai* and *au* seem indistinguishable from the lost *ay and *aw that have turned into modern Garo *e* and *o*. Diphthongs have been lost only to be regained. Garo *ai* and *au* are much less common than the phonetically similar diphthongs in the other languages, but they have found their way back into Garo.

Tiwa Diphthong Formation

Garo is regaining two diphthongs for its phonological stock, but Tiwa is in the process of forming a whole batch of them. One way this is happening is by the fusion of a suffix to the final vowel of a base word. When Tiwas write their language, they use *-o* for the future suffix whenever the verb to which it is attached ends in a consonant: *mán-* 'get', *mán-o* 'will get'. When the suffix follows a word-final vowel, however, the Tiwas themselves write *-w*. This convention reflects the diphthongal nature of the complex vowels that result from this suffixation: *phî* 'come' becomes *phîw* 'will come'. The future form has a strong glide that moves decisively back from a high front unrounded position to a high back rounded position. Diphthongs are formed from other vowels in the same way. The *o* of *shó* 'reach' is monophthongal and lower mid in position, while the vowel of *shów* 'will reach' has an off-glide that rises slightly to yield a diphthong that is very much like the vowel of English *show*, at least as pronounced in this writer's American dialect. *-uw* is longer than simple *-u* and it is even higher and more rounded.

-ow and *-uw* appear to develop only as a result of suffixation. *iw, -ew,* and *-aw*, on the other hand, are also found in single morphemes where they give no sign of having resulted from suffixation. The Tiwa word for 'mother-in-law' is *níw*. This is a single unanalyzable morpheme in the present-day language. The Garo cognate, however, shows us that this word was originally formed from two morphemes. The parts of Garo *ni-o* 'mother-in-law' can still be recognized, just barely, in the second syllable of *ma-ni* 'father's sister' and in the first syllable of *o?-bit-de* 'father-in-law'. The Tiwa word, too, must have been derived from what were originally two separate words or, at least, separate morphemes, but the vowels have now been completely fused into a diphthong.

The locative suffix is homophonous with the future suffix, and like the future, Tiwas write it as *-o* after consonants, but as *-w* after vowels. When it follows a vowel, the *-w* and the vowel merge to form a diphthong just as they do in the diphthong formed by the future suffix. The diphthong of *chûw* 'in the rice beer', where the *-w* is the locative marker, is higher, more rounded, and slightly longer than the simple vowel of the unsuffixed *chû*. *héw* 'here' has a frozen form of the locative marker, but *-ew* is also found in morphemes that cannot be analyzed into distinct parts: *kêw* 'wheat' and *lêw* 'continuously'. Even a few words that have been borrowed from Assamese, such as *têw* 'god', have the same diphthong.

The best established of the *-w* diphthongs is *aw*, as in *câw* 'winnow', *kâw* 'throw away', and *na-náw* 'yonger sister'. Unlike most Tiwa diphthongs, *aw* has a regular correspondence with the other languages, as we have already seen with diphthong loss in Garo: Tiwa *thâw*, Boro *tào*, Garo *to*, Rabha *thò* 'good tasting, pleasant'. *aw* also occurs in words borrowed from Assamese: *lâw* 'gourd', *nâw* 'boat'. *aw*, then, must have long been a part of the Tiwa phonological system, but it is now being joined by a whole clutch of new diphthongs.

Except for *i*, all the Tiwa vowels can form diphthongs not only with a *w* off-glide, but also with a *y* off-glide that moves to a high, front, unrounded position. Some of the *y*-diphthongs are formed when the subordinating suffix, *-e*, is added to a verb base that ends with a vowel. After a consonant this suffix is pronounced *-e* but after a vowel it becomes a *y*-glide, as in *ráy lí* 'become hard', from *rá* 'hard' followed by the subordinating suffix, and followed in turn by *lí* 'become'.

Whether or not one chooses to call all of these sequences "diphthongs" is largely a matter of definition. As diphthongization proceeds, there must inevitably come a time when the vowels resemble diphthongs in some respects, but still act as sequences of two vowels in other respects. The Tiwa diphthongs are what we should expect when catching the process at mid point.

Conclusions

What are we to make of all these changes and all this back-tracking? Borrowing has reintroduced sounds that had been lost at an earlier stage. Consonant

clusters have been simplified only to be reintroduced when vowels are lost. Diphthongs have been simplified in some languages but new ones have been formed in others. The more things change, it seems, the more they remain the same. It would be excessively mystical to imagine that there is some sort of magnetic attraction that pulls these languages back to their underlying form. Surely languages can differentiate without limit. Nevertheless the typology of these languages may make some kinds of changes easier than others. Perhaps *ay* and *aw* really are simpler, in some sense, than other diphthongs. Even after being lost they may relatively easily find their way back into the language. Perhaps *r*-clusters are phonetically easier than other kinds of initial consonant clusters so that they, too, can be reestablished relatively easily.

Whatever the case, the moderrn Boro-Garo languages would resemble each other less closely if the varied changes that they have undergone would only stay changed. Their common ancestry is not the only reasons for their similarities. Some changes have been undone.

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Notes

[1] The examples used in this paper derive from joint work that I have done in collaboration with U. V. Joseph. In particular, the data on Tiwa diphthongs is drawn from Joseph's work, but I am greatly indebted to him for all aspects of the paper. Our comparison of the phonology of Tiwa, Boro, Garo, and Rabha is given in much fuller form than is possible in this paper in Joseph and Burling 2006.

[2] The Garo Hills lie between the Goalpara district of Assam in the north and the Mymensingh district in what is now Bangladesh in the south. The Garos always speak of the language spoken at the foot of their hills as "Bengali" but the dialects of Mymensingh and Goalpara, are less different from one another than, for example, the dialect of Bengali spoken in Calcutta and the dialect of Assamese spoken in upper Assam. From the borrowers' point of view, it makes little difference whether the source of the borrowings is considered to be Assamese or Bengali, but I will follow Garo practice and refer to it as "Bengali".

[3] In Tiwa, Boro, and Rabha, the acute accent '◌́' represents a high tone. The circumflex of Tiwa '◌̂' represents the falling tone, while Boro and Rabha '◌̀' represent a low tone.