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An Unlikely Retention

Hugh Paterson III
&
Kenneth S. Olson

How I got involved, my lack of field experience.

Respect for Reid, Blust, Wolff, Zorc.

Kenneth S. Olson, Jeff Mielke, Josephine Sanicas-Daguman, Carol Jean Pebley, Hugh Paterson III

Our hypothesis is that phonetic detail in allophones is relevant to reconstruction of proto phonemes. When we abstract away from the articulation to the level of the phoneme and then reconstruct based on the phoneme we lose information relevant reconstruction.

Where does it fit?

PAn

- R-L-D-y of Van der Tuuk and Conant

  R - Bikol
  L - Tagalog [tag]
  D - Malay
  y - Bantoanon [bno], Romblomanon [rol]

RLD from conant
y examples from Zorc

Where does it fit?

Otto Scheerer (1920) Über einen Bemerkenswerte L-Stellvertreter im Dialeckt von Aklán auf der Insel Panáy.

Shows that the Aklano "velarized segment" is also a reflex of the R-L-D consonant.

RLD from conant
y examples from Zorc

Aklano Data

	English [eng]	Kagayanen [cgc]	Aklano [akl]
WORD INITIAL	earthworm	ǥaˈǥagu	łago
	wide, broad	ˈǥapad / ˈmǥapad	łāpad / ma-łāpad
WORD MEDIAL	rope	kaˈǥat	kałat
	palm of hand	ˈpaǥad	pāład
	eight	ˈwaǥǥu	wału
	path	ˈdaǥan	dāłan
	down, below, also under	daˈǥɨm	i-dāłum
	house	ˈbaǥaj	bałay
WORD FINAL	thick	ˈdakmɨǥ	dāmuł
	itch (v)	kaˈtɨǥ	katuł
	boast	ˈbugaǥ	pa-bugał

The Aklano segment is a little bit ambiguous in the literature.

Zorc says it is a velar fricative but revises this to say it is a semi-vowel. I suspect it is velar without frication.

Retention

Gallman (1983) - Innovation

Reid (1973) - Innovation

Payne (1978) - Retention

On the Periphery

1.

On the Periphery

Lower Tanudan Kalinga [klm]
Butbut Kalinga [kyb]
Limos Kalinga [kmk]
Lubuagan Kalinga [knb]
Virac, Southern
Catanduanes Bicolano [bln]
Kagayanen [cgc]
Karaga Mandaya [mry]
Sangab Mandaya [myt]
Kalagan [kqe]

Lubuagan Kalinga
Butbut Kalinga
Limos Kalinga
Lower Tanudan Kalinga
Virac, Southern Catanduanes Bicolano
Kagayanen
Karaga Mandaya
Sangab Mandaya
Kalagan

1.

Markedness

2.
It is typologically marked (rarity.)
Piraha, Wuvulu, and Central Hongshuihe Zhuang
It is articulatorily marked (difficulty)
interdentals are more marked in aqisition
It is socially marked.

Markedness

Typologically marked (rarity)

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Markedness

Typologically marked (rarity)

Articulatorily Marked (difficulty)

Socially marked (Unliked)

2.
It is typologically marked (rarity.)
Piraha, Wuvulu, and Central Hongshuihe Zhuang
It is articulatorily marked (difficulty)
interdentals are more marked in aqisition
It is socially marked.

Social Pressure as Motivation for Phonological Change

Kalagan
Cebanu

Harmon 1977

Social Pressure as Motivation for Phonological Change

[kqe]   The Shameful L   Erika Arcenas (2004)

Kalagan
Cebanu

Harmon 1977

Social Pressure as Motivation for Phonological Change

[kqe]   The Shameful L   Erika Arcenas (2004)

[myt]   Sangab Mandaya   Andy Gallman (1983)

Kalagan
Cebanu

Harmon 1977

Social Pressure as Motivation for Phonological Change

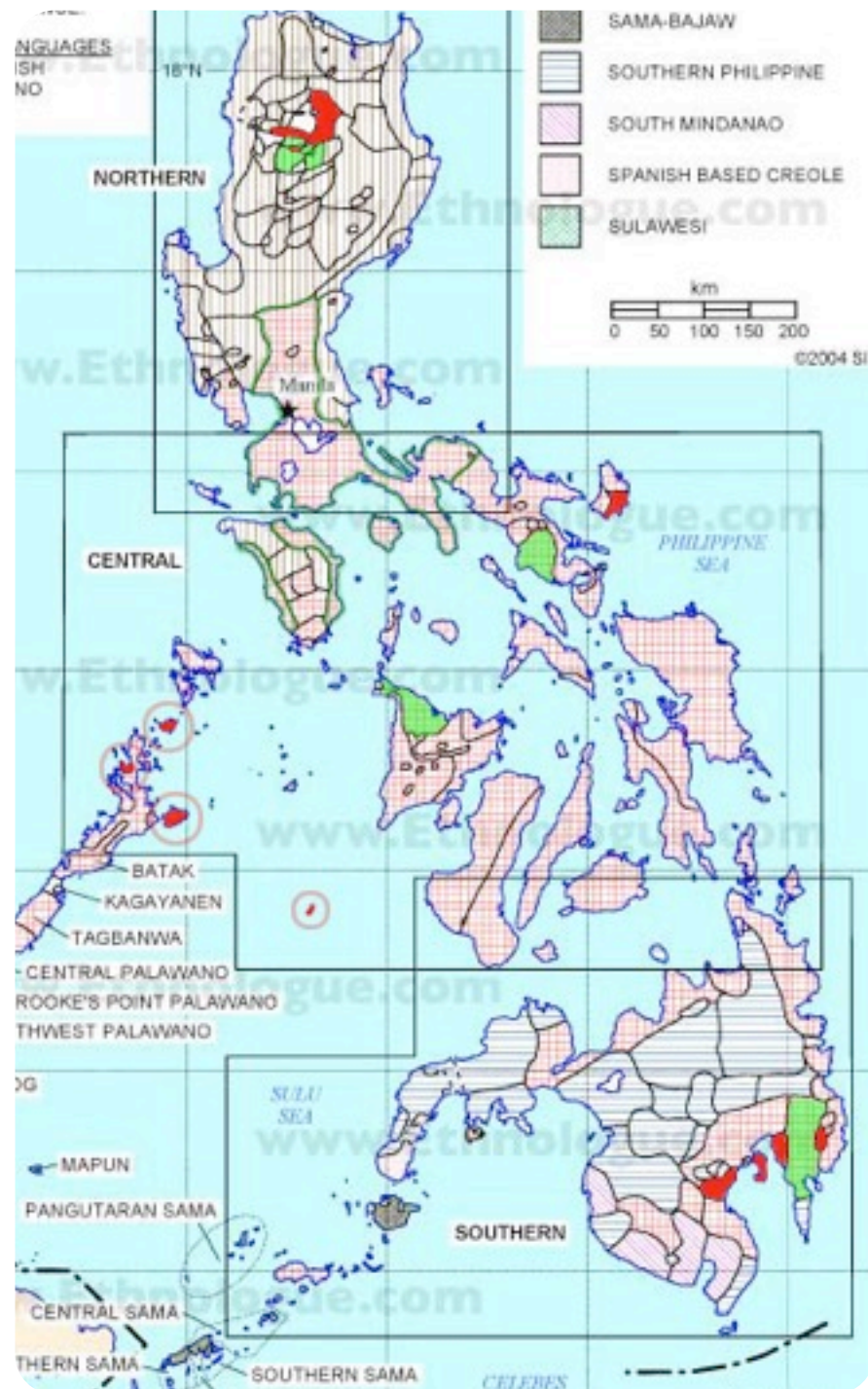|		
[kqe]	The Shameful L	Erika Arcenas (2004)
[myt]	Sangab Mandaya	Andy Gallman (1983)
[cgc]	Teased by Tagalog speakers	Carol Pebley (2009)

Kalagan
Cebanu

Harmon 1977

Language Spread

Language Spread

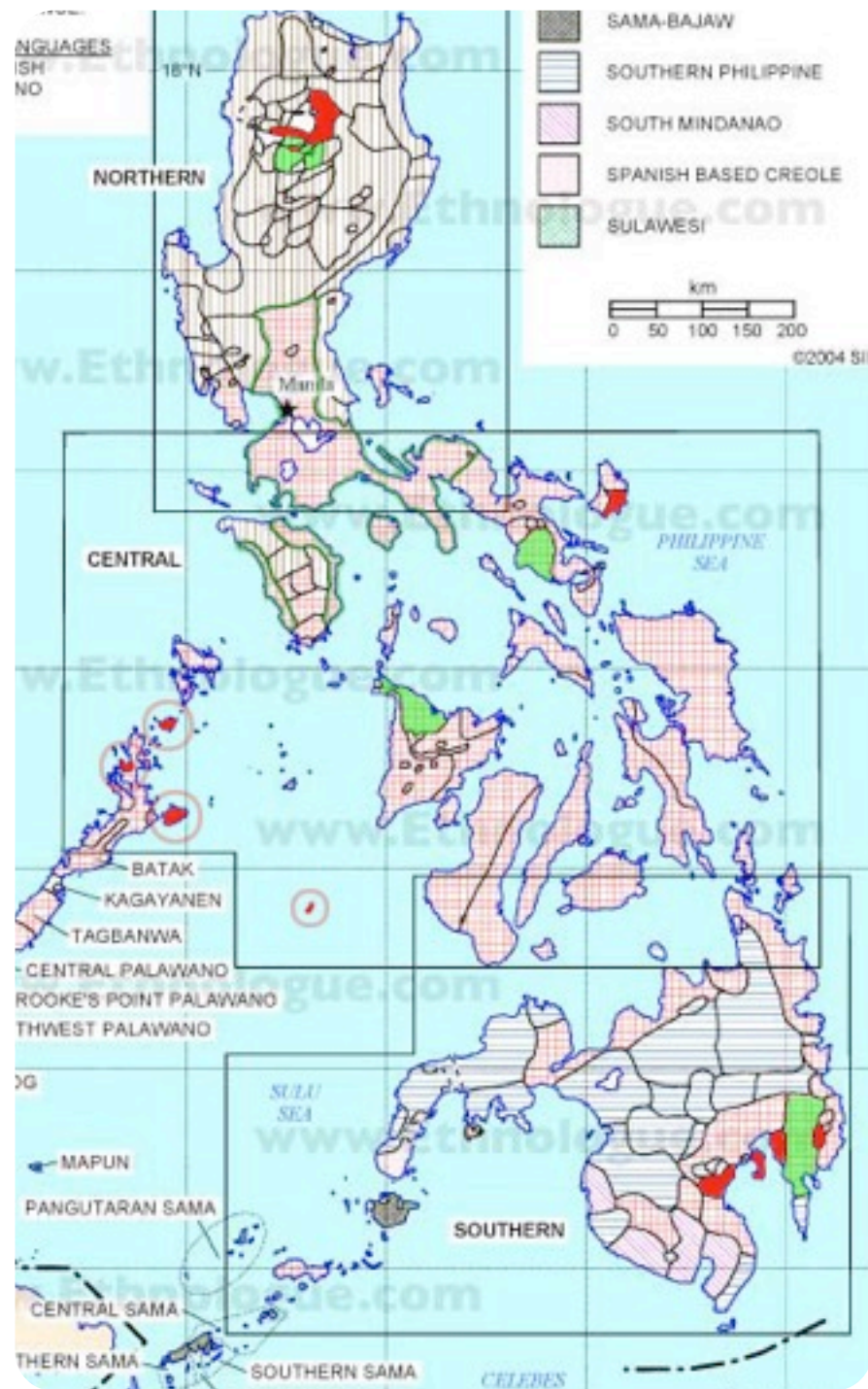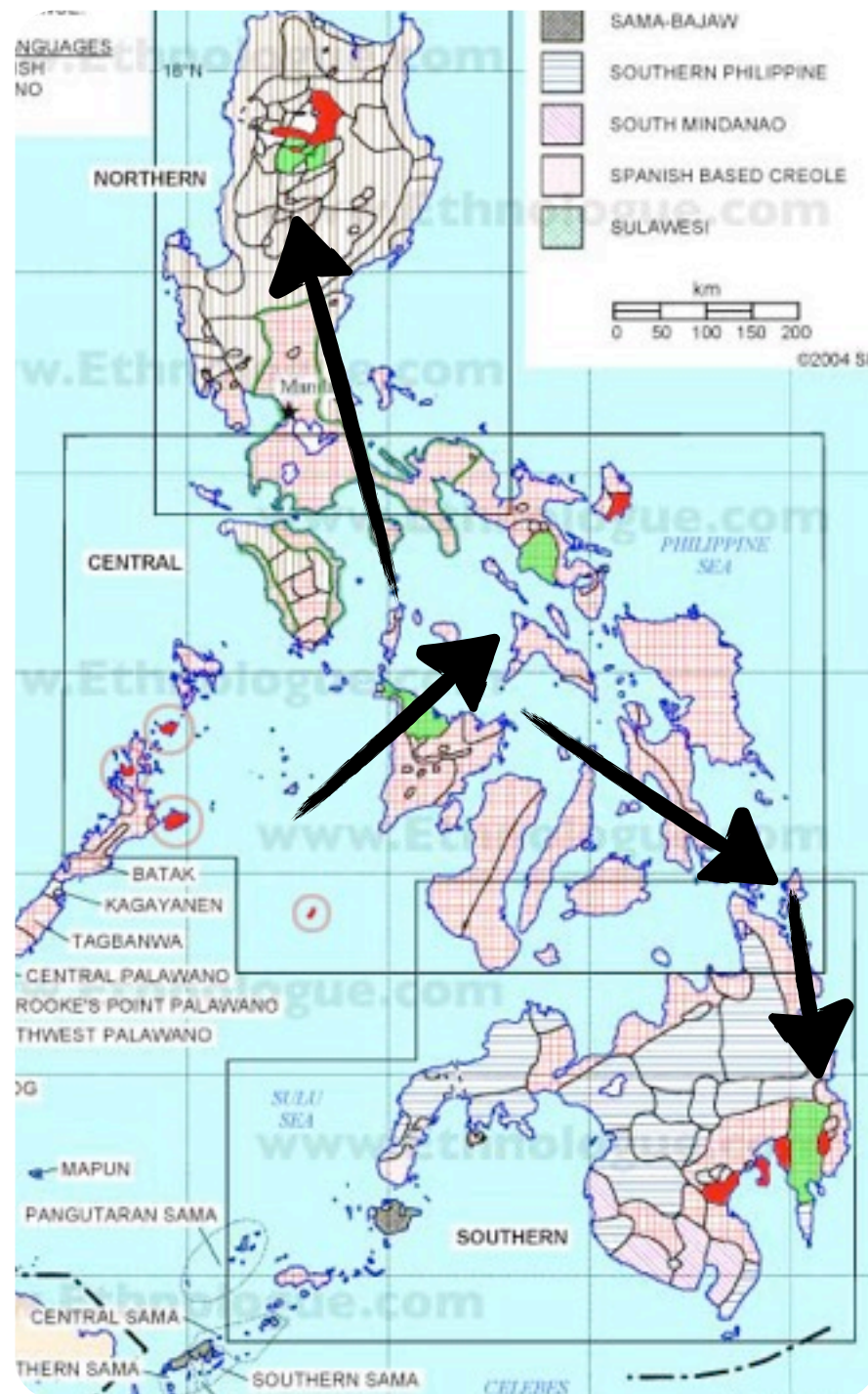# Language Spread

Language Spread
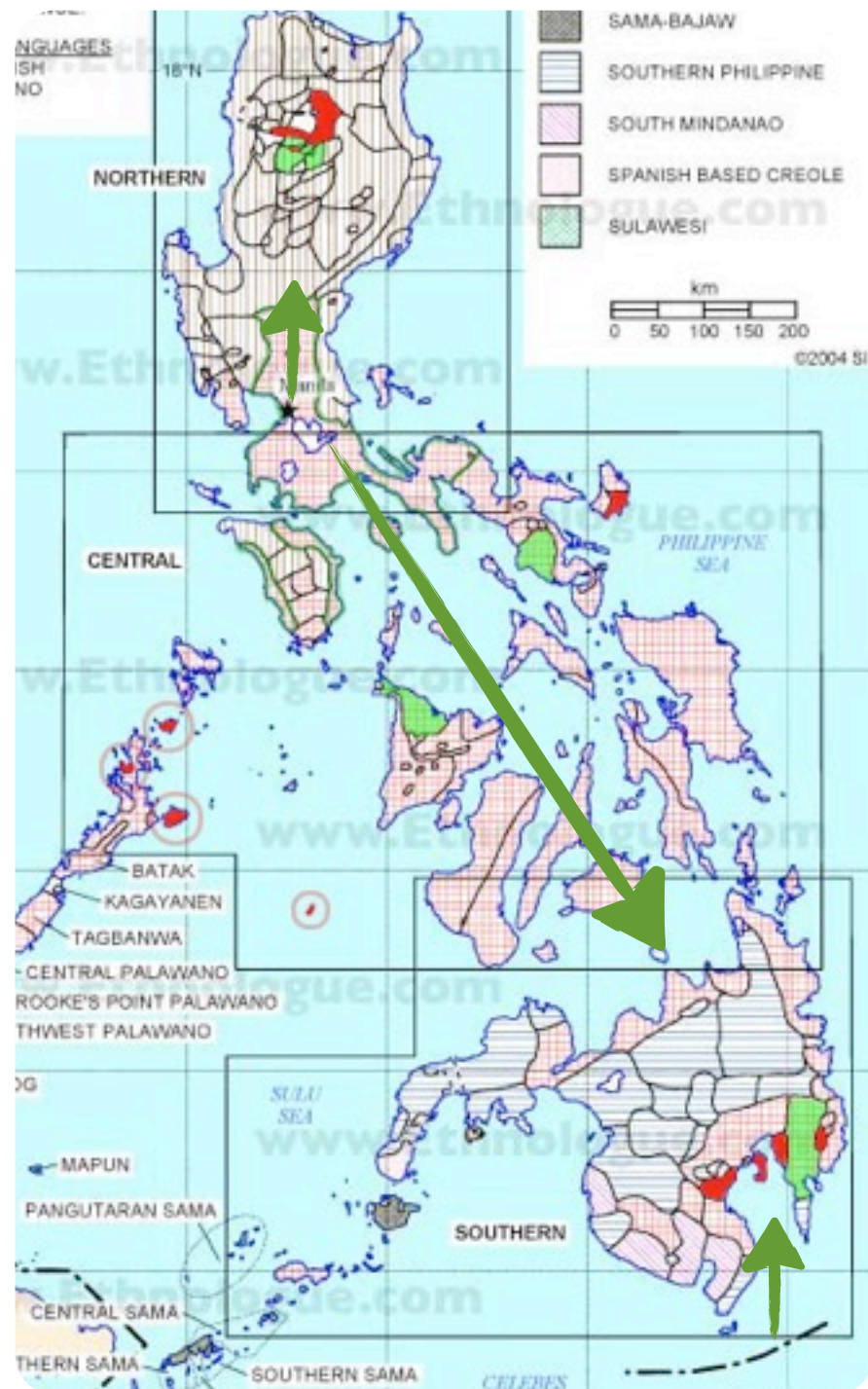
Language Spread

Language Spread

Language Spread

Language Spread

Language Spread

Language Spread

Culture Spread

Distribution with another approximant

3.

Another Approximant
   a. voiced velar fricative [ɣ] and [ɫ]
   b. voiced retroflex approximant [ɻ]
   c. voiced retroflex lateral approximant [ɭ]
   d. Alternation with null

Put some illistratory data in? (bone)

Distribution with another approximant

The Interdental Approximant

3.

Another Approximant

   a. voiced velar fricative [ɣ] and [ɫ]

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Distribution with another approximant

The Interdental Approximant

Another Approximant

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Put some illistratory data in? (bone)
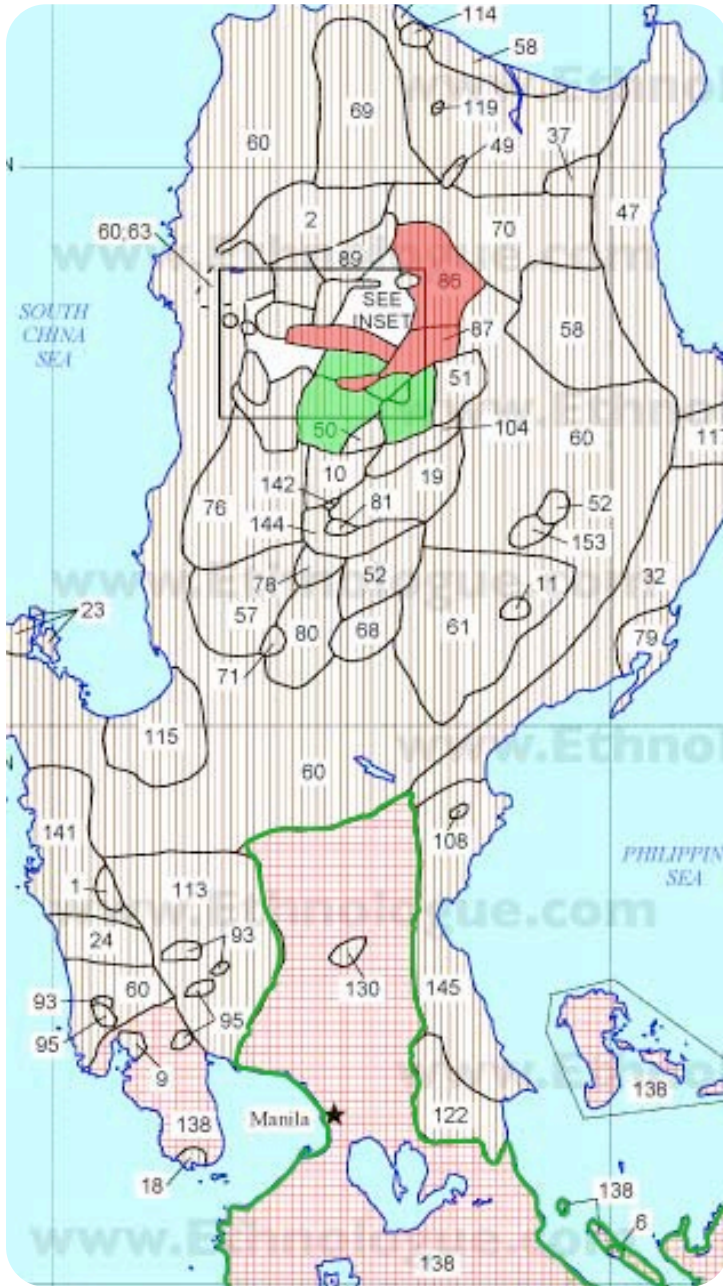
Some Data

English	Bone	Head	Trail, Road	Moon	worm	seed
Butbut	tuˈŋɚ	hʷaˈʔag	ˈʧaɖan	ˈhʷuɖan	ʔoˈɖ̥aŋ	hʷuˈʔoɻ
Lubuagen	tuŋ-ʔeɖ	ˈʔuɖ̥u	ˈkeɖ̥sạ	ˈbuɖan	ḳuˈɖ̥aŋ	ßuḳeɖ
Majukayong	ˈtuŋʔaɖ	ˈʔuɖ̥u	ˈqaɖ̥sa	sɔˈɖ̥ag	ˈqɔɖaŋ	ˈvuqaɖ
Minangali	tungʔaɖ	ʔuɖ̥u	ʔaɖ̥sa	soɖag	batoɖ	buʔoɖ

Different Philippine subgroups

Northern Distribution

[kmk] Limos Kalinga
[kml] Minangali
[knb] Lubuagen
[kyb] Butbut

[bnc] Central Bontoc
[kmd] Majukayong
[kgh] Upper Tanudan Kalinga
[ksc] Southern Kalinga
[blw] Balangao
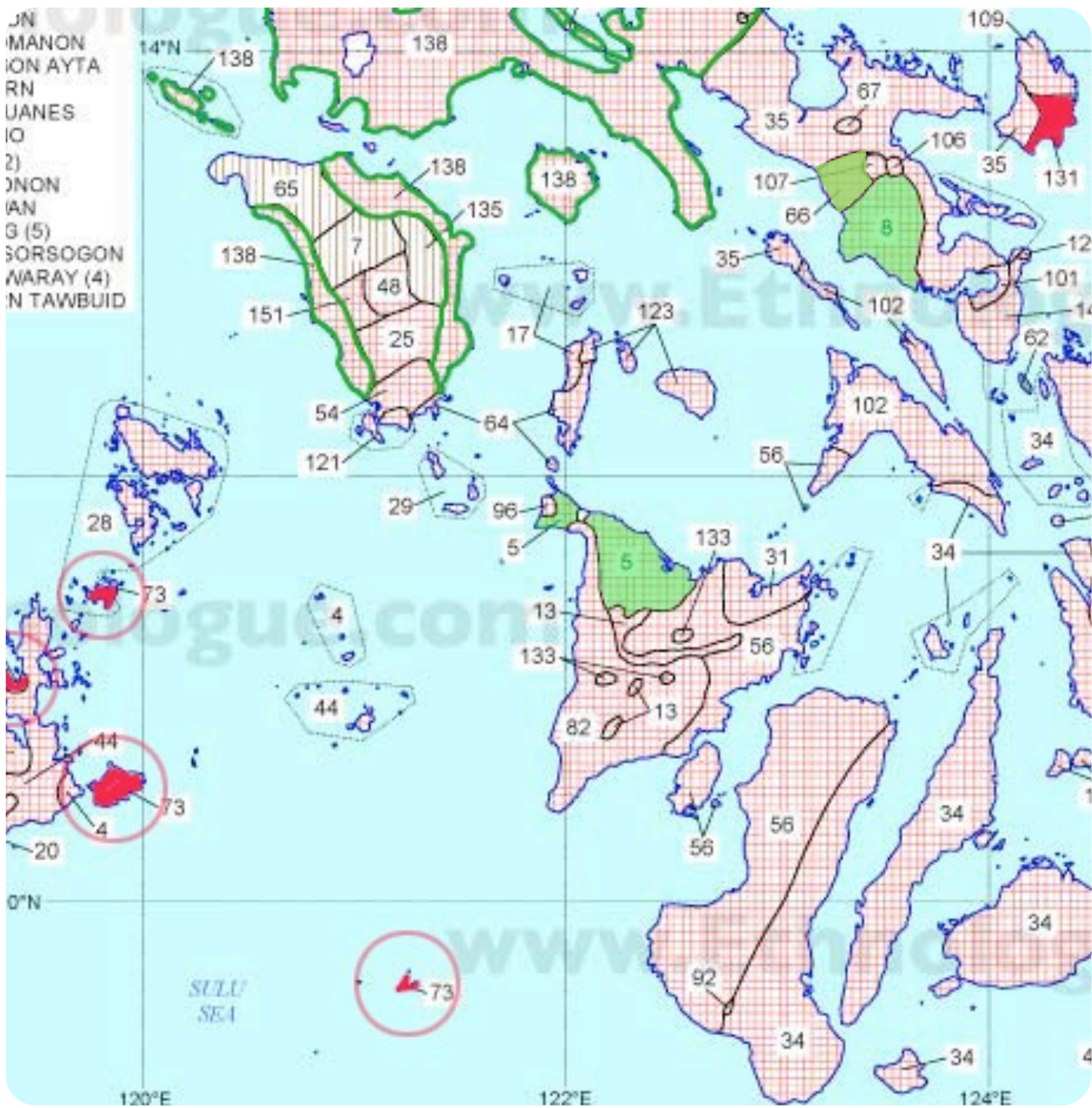
Southern Distribution
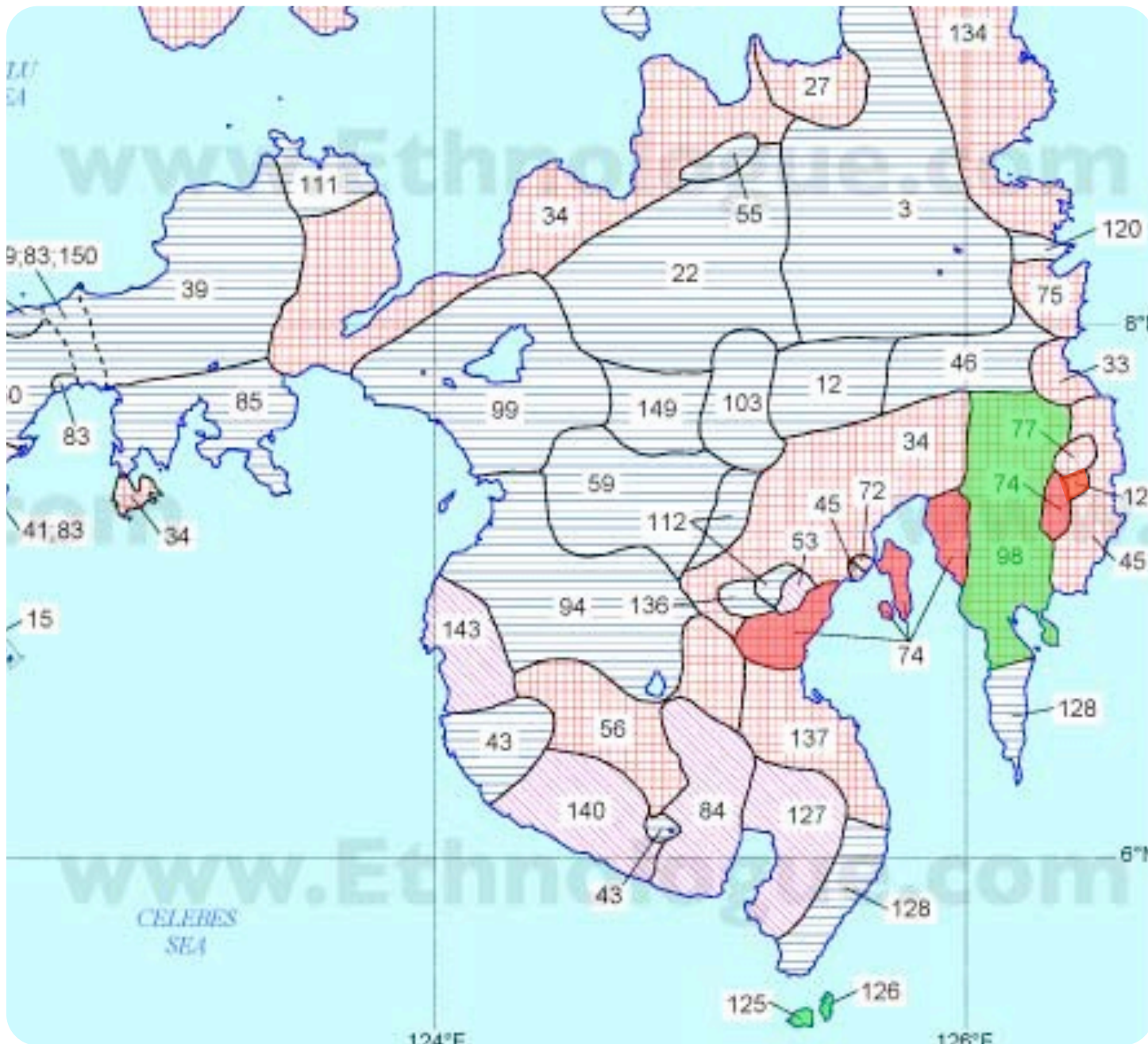
[kqe]   Kalagan
[myt]   Sangab Mandaya
[mry]   Karaga Mandaya

[msk]   Mansaka
[sxn]   Sangir
[snl]   Sangil

Central Distribution

[bln]   Southern Catanduanes Bicolano

[cgc]   Kagayanen

[bto]   Iriga
[bhk]   Buhi'non
[akl]   Aklano

Some Better Data

| English	Butbut	Lubuagen	Majukayong	Minangali	Kagayanen	Kalagan	Southern Catanduanes Bicolano	Blust (1999)
[eng]	[kyb]	[knb]	[kmd]	[kml]	[cgc]	[kqe]	[bln]	[PAn]
three	tuˈðu	tiˈðu	tuˈðu	tuðu	ˈtallo	toðo	tuðu	*telu
moon	ˈhʷuðan	ˈbuðan	sɔˈðag	soðag	ˈbuðan	boðan	buðan	*bulaN / *qiNas
path	ˈtʃaðan	ˈkeðsa	ˈqaðsa	ʔaðsa	ˈdaðan	daðan	daða	*zalan
house	---	---	---	---	ˈbaðaj	baðaj	---	*ʀumaq
deep	---	---	---	---	ˈdaðɨm	maðaðom	haðaðum	---
eggplant	---	---	---	---	---	taðom	taðung	---
eight	---	---	---	---	ˈwaððu	waðo	waðu	---
itch	---	---	---	---	kaˈtɨð	katoð	katuð	---
palm of hand	---	---	---	---	ˈpaðad	paðad	paðad	---
man (adult male)	laˈðaʔi	leðaki	laˈðaqi	laðaʔi	mama	---	laðki	---
worm	ʔoˈðaŋ	ku̱ˈðaŋ	ˈqɔðaŋ	batoð	lulagu	---	---	*kulay
seed	hʷuˈʔoɻ	βuḵeð	ˈvuqað	buʔoð	lisu	---	---	---
blood	ˈtʃaða	ˈtʃaða	ˈdaða	daða	ˈlɨŋŋɨssa	---	---	*daʀaq

Data Interpretation

- The language of prestige does not use the interdental.

Lens to interpret the data

Some strategies for change

- Coronal assimilation   [l]

- Aklano Velarization   [ɬ]

- Glottal stop replacement / deletion [ʔ] / [Ø]

- Retroflexion   [ɻ],[ɭ]

Some strategies for change

[ʔ]   [ɹ]   [ɫ]   [l]
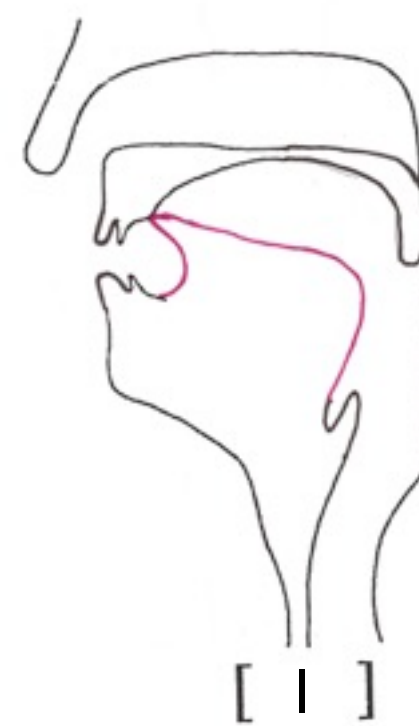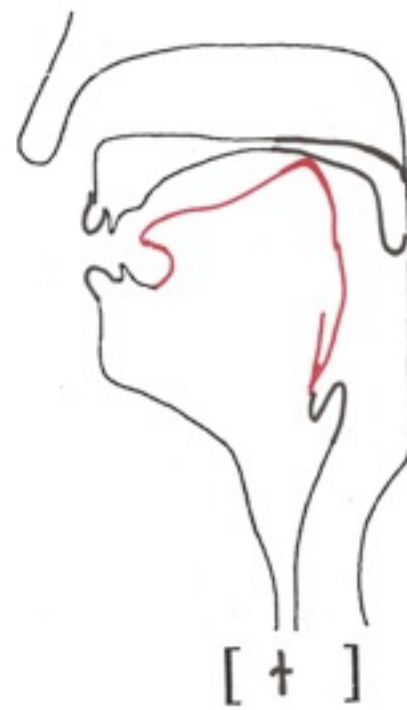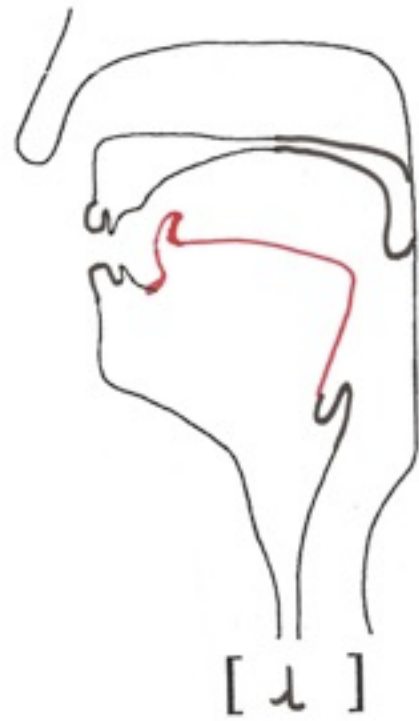
Some strategies for change

What it all means

- Re-construct an alternation between interdental and *l or reconstruct the interdental

Why is this an unlikely retention?

1. Socially <u>Unliked</u>

2. "endangered" articulation.

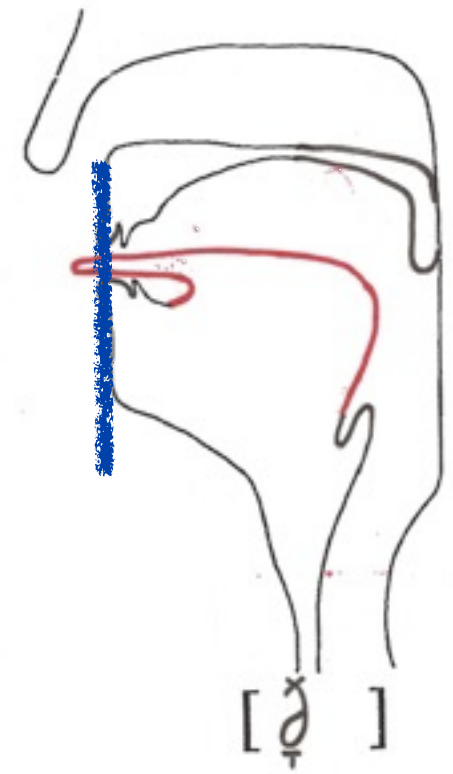3. It is an <u>unlikely</u> candidate to advance to the status of "proto-articulation" in comparative studies when compared with other candidates due to its rarity in each sub-group. (Gallman 1983, Harmon 1977, McFarland 1974, Reid 1973)

1. Due to social pressure to not show the tongue when speaking (the mocking of speakers using the interdental approximant), this articulation is currently not preferred. It is not liked, in a sense "<u>unlikely</u>" or unliked. (Arcenas 2004, Gallman 1983, Harmon 1977)
2. It is <u>unlikely</u> that in the future the sound will be retained due to language shift and social pressure resisting the articulation. It is an "endangered" articulation.
3. It is an <u>unlikely</u> candidate to advance to the status of "proto-articulation" in comparative studies when compared with other candidates due to its rarity in each sub-group. (Gallman 1983, Harmon 1977, McFarland 1974, Reid 1973)

Questions

a. voiced velar fricative [ɣ] and [ɬ]

- Aklano [akl]: Zorc (1968: 45, 1969: 33) states that the velarized segment [ɬ] in Aklano "changes to /l/ in the environment of an /i/-sound". There is some inconsistency in the literature as to the exact articulation of this sound. Zorc (1968) classifies this sound as a velar fricative. Zorc (1995) classifies this sound as a velar semi-vowel following Chai (1971). We suspect that this segment is a velar approximant or a velarized approximant, without frication.
- Buhi'non [bhk]: McFarland (1974: 31-2, 6) states that [ɣ] does not occur next to /i/, though one counter example was given.

b. voiced retroflex approximant [ɻ]

- Eastern Bontoc [bkb]: Fukuda (1997: 15) states that /l/ has the variant [ɽ] when it is not contiguous to /i/ or /e/. [ɽ] is a mid central retroflexed vocoid.
- The Guinaang variety of Central Bontoc [bnc]: (Aoyama & Reid 2006: 145-6, Reid 1963: 23)

Olson et al. (2009) describes the following languages as also having a voiced retroflex approximant:

- Madukayong Kalinga [kmd] (Ignacio Magangat p.c.)
- Upper Tanudan Kalinga [kgh] (Glenn Machlan p.c.)
- Balangao [blw] (Shetler 1976)
- Mansaka [msk]: (James & Kathleen Dorn p.c.). Abrams (1963: 199) discusses the [l]~[r] alternation suggesting one possible view to be that "[l] occurs utterance initial, after consonants and after /i/; [r] occurs elsewhere".

c. voiced retroflex lateral approximant [ɭ]

- Southern Kalinga [ksc] Graydon (1975, 1979) states that this is an allophone of /l/.
- Sangiré [snl]: Maryott (1977) simply states that /ɭ/ contrasts with /l/.
- Tiruray [tiy]: Post (1966: 565) states that "/l/ is a voiced alveolar lateral with a retroflexed allophone [ɭ] in syllable final position".
- Proto-Sagiric: Snoddon (1984: 41-3) reconstructs Proto-Sagiric /l/ to have two allophones [ɭ] and [l.]

d. Alternation with null

- Dibabawon [mbd]: Forster (1963)
- Tagalog [tag]: (Conant 1911: 71) w insertion after R-L-D loss.
- Ø May also be realized as lengthening of the vowels in some words which had /l/.

Another Approximant

Soberano, Rosa. 1980. The dialects of Marinduque Tagalog. Pacific Linguistics series B no. 69. Canberra: Australian National University.

p.155
"Differences in vowel and consonant occur also within the same dialect. In Gasan and Buenavista, /l/ ~ /r/ and /g/ ~ /d/ in the terms for 'piece';. kapilanggut ~ kapiranggut ~ kapilandut; /g/ ~ /l/ in the terms for 'scream': quga:sik ~ qula:sik ~ qulapsik. In Boac and Mogpog, /n/ ~ /l/ as in 'five-centavo piece': bagun ~ bagul; /u/ ~ /i/ in 'smashed' and 'dented': tumiq ~ timiq. In Santa Cruz and Torrijos (EM), the word for 'prick' has three variants: tulusuk ~ tursuk ~ tusluk, also showing /l/ ~ /r/, and a difference in the phonological order of phonemes in the case of the last term. Likewise in many ideolects all over the island, /t/ ~ /k/ in the word for 'egg': qitlug ~ qiklug."

- Pangutaran Sama [slm]: (Walton 1979: 200) The voiced alveolar lateral /l/ has two variants. The non-retroflexed form [l] occurs syllable initial and in intervocalic, [ˈlaře] 'hot pepper', [ˈdulaw] 'saffron'; the retroflexed variant [ḷ] occurs syllable final [ˈhaḷgaq] 'price', [ˈkatiḷ] 'itchy'. r = flap
- Sibitu Sama [ssb]: (Allison 1979: 78) "The phone /l/ is a resonant with a voiced retroflexed alveolar lateral allophone [ḷ] and a voiced alveolar lateral allophone[l]. The retroflexed lateral [ḷ] occurs only as a syllable coda (1) before pause, or (2) before a consonant in the following word. It never occurs as a syllable onset. The non-retroflexed alveolar lateral [l] occurs freely as syllable onset. As syllable coda it occurs on la the first member of a geminate cluster, or in word final position before a initial vocoid in the following word. The following rule applies:

/l/ --> { ḷ / { (C) V__/#/ ,
             (C) V__C,
              C ≠ /l/ ,
             (C) V__/+/C}

                    l / elsewhere}"

It is interesting to note that this language also has a voiced alveopalatal nasal [ny], which only occurs in the syllable onset position and does not form consonant clusters.

- [bdg] Bonggi (Boutin 1993: 111) has to allophones of /l/ in the same words.

Another Approximant

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stated the environment for loss as 'intervocalic', e.g. Knk. *?uwat,* Bon. *?ulat* 'vein'; Knk. *búwan,* Bon. *búlan* 'moon'. He did not account for the many cases in which *l* is not lost intervocalically, e.g. Knk. *díla* 'tongue', *dúlig* 'spine', *?íli* 'village'. Nor did he account for loss of *l* which was not intervocalic, e.g. Knk. *?ágew,* Bon. *?algew* 'sun, day', Knk. *?a??u,* Bon. *?al?u* 'pestle'; Knk. *deppag,* Bon. *deplag* 'cliff'. Loss of *l* finally in some words was also not accounted for by Conant, e.g. Knk. *buka,* Bon. *bukal* 'wild pig'; Knk. *?abe,* Bon. *?abel* 'weave'; Knk. *?ábu,* Bon. *?ábul* 'drive away'.

Evidence for the phonological rules which operated to bring about these changes can be found by examining the synchronic rules affecting *l* in Bontoc and other Igorot languages.

(a)   The Bontoc *l.* With the exception of the dialect spoken in Bontoc town and the barrios south of Bontoc such as Talubin and Bayyo, all dialects of Bontoc have two variants for the *l* phoneme. This is true also of Samoki across the river from Bontoc, and less than 1 kilometer from the poblacion. A description of this variation first appeared in Reid 1963. The description given at that time outlined the environment in which the [l] variant occurred as follows:

(i) word initially, e.g. [láta] 'kerosene can', [liŋ?ag] 'life, spirit'.

(ii) adjacent to [i], but not [y], e.g. [?íla] 'see', [čálig] 'iron plough share', [papil] 'paper'.

(iii) as the second member of a consonant cluster which has for its first member any consonant occurring at the alveolar or interdental points of articulation, or any other consonant preceded by *i,* e.g. [naputlak] 'broken', [nakaslaŋ] 'mixed', [tinlɛk] 'hole made by boring', [figlá?in] 'to force', [?umiblay] 'to rest'.

(iv) preceding another alveolar lateral continuant, e.g. [fallíta] 'crowbar', [čallik] 'Dalican (village name)'.

The other variant, [r], a retroflexed low central semi-vowel, was described as being in complementary distribution with [l].

Since it is clear that the rules which are currently operative to bring about this variation were added at a period in the history of the language when there was an undifferentiated *l* (the result of the falling together of **R,* **r,* and **l*), it seems more natural to state the environments in which the change took place, rather than those in which the change did not take place as in the above description.

The following rules are necessary.

Bon. 1. l $>$ r / $[^{V}_{+grave}]$ ($[+grave]$) ____

Bon. 2. r $>$ l / ____ $[^{V}_{-grave}]$

Bon. 3. r $>$ l / ____ l [-grave]

Bon. 4. l $>$ r / r ____

three protophonemes. As in the previous section, Bontoc (Guinaang dialect) or other Igorot languages which have retained the *l* reflex in all positions will be used to verify the Kankanay loss.

The first rule states that the change takes place following any non-front vowel (i.e. *a*, *e* ([i]), and *u*) whether or not there is an intervening labial or velar consonant. This accounts for the [r] in the following forms: [fara] 'lungs', [čira] 'outside', [čúraw] 'kind of basket', [fubruŋ] 'reeds', [saŋrag] 'roast in a pan; [sančar] 'vat', [?iŋir] 'nose', [čurčur] 'push', [kurpi] 'fold over', [kartib] 'scissors'.

However, Rule 1 also produces such non-occurring forms as the following: *[?ári], *[farlig] and *[?arlan].

Rule 2 changes [r] back to [l] where the immediately following vowel is front, producing the correct form [?áli] 'come'.

Rule 3 is an [l] assimilation rule which operates only in the environment of a following front vowel, producing the form [fallig] 'Barlig town'.

Rule 4 is an [r] assimilation rule which operates on any [rl] sequence unaffected by Rule 3, i.e. in the environment of a following mid or back vowel, producing the form [?arran] 'a male spirit'.

The validity of this formulation of the rules is supported by the errors usually made by speakers of the dialect in Bontoc poblacion when imitating the speech of the dialects in which [r] occurs. They usually modify their own system by adding Rule 1, but rarely add Rule 2, with the result that [?inmálikayu] 'you (pl.) have come' is frequently imitated as [?inmárikayu]. A similar error probably accounts for the reason Barlig barrio is spelled as it is on all the maps. It is actually pronounced with a geminate *l* medially. In this instance Rule 3 has not been added. Likewise, Dalican barrio, pronounecd [čallik], is sometimes called Darlik by speakers of the Bontoc poblacion dialect.

(b) The Kalinga *l*. Geiser (1958:16–17) describes two variants for Kalinga *l*. The description is similar to that given for Bontoc, with environments stated for the occurrence of the [l] variant, and [λ] occurring elsewhere. The [λ][18] variant is described as 'a central resonant oral, produced by relaxing the tongue and placing the tip either behind the lower front teeth, or behind the lower lip' (Geiser 1958:17).

There are two main differences between the distribution of the Kalinga variants of *l* and that of the Bontoc variants. One is that in Kalinga there are no geminate sequences of [λλ] corresponding to Bontoc [rr][19].

In Kalinga then, there is no rule equivalent to the Bontoc Rule 4, and Rule 3 is generalized so that an [λl] sequenee becomes [ll] in all environments:

Kla. 3. λ > l / ____ l

The second difference is that [l] does not become [λ] when it is part of a re-duplicative sequence, even though its environment would otherwise result in a change,

[18]Geiser uses the symbol [i] in his published description of Kalinga phonemes (1958). The [λ] symbol appears in his grammatical sketch of Kalinga (Geiser 1961).

[19]Geiser only cites one example where such a sequence occurs not adjacent to *i*. The form is [?allóŋ] 'animal's nose ring'. This is probably an adaptation of English *earring*, note Bon. [?alliŋ] 'store-bought earring'. The *o* vowel in Kalinga is a regular reflex of a proto-Igorot high central vowel.

e.g. [ʔulʔullitom] 'You (sg.) tell a story.'. In Bontoc, Rule 1 applies in a reduplicative sequence as elsewhere, e.g. [ʔumarʔáli] < [ʔáli + $C_1V_1C_2$- + -um-] 'coming'. However if the initial consonant of the base is not a glottal stop, subsequent rules change the final consonant of the reduplicative prefix to glottal stop, and then metathesize the resulting cluster. This rule sequence also operates when the final consonant of the reduplicative prefix is w or y, e.g. bali + $C_1V_1C_2$- > [farfali] > [faʔfali] > [fabʔali][20] 'deceive'; dáwat + $C_1V_1C_2$- > [čawčáwat] > [čaʔčáwat] > [čadʔáwat] 'receive'; báyu + $C_1V_1C_2$- > [fayfáyu] > [faʔfáyu] > [fabʔáyu] 'pound rice'.

(c)　The Balangaw l. The variants of Balangaw l are described by Shetler. Her description is as follows:

The lateral consonant is voiced and has two allophones; l [l] a lateral continuant which occurs word initially and in alveolar environments. An alveolar environment is defined as: (1) contiguous to a front vowel; (2) a preceding alveolar consonant in a consonant cluster; (3) a front vowel preceding a non-alveolar consonant in a consonant cluster . . . [r] a mid-central retroflexed vocoid which occurs word medially and finally and in non-alveolar environments . . . (Shetler 1966:5).

The examples given by Shetler indicate that [rr] clusters do not occur, as in Kalinga. Blw. kallontay 'rubber band' is pronounced with a medial sequence of [ll]. Balangaw then contains Rules 1 and 2 as in Bontoc and Kalinga. Rule 4 does not occur and Balangaw Rule 3 is equivalent to Kalinga Rule 3.

Blw. 3. r > l / ____ l

The data given by Shetler (1964:9) show the same processes operating in Balangaw reduplication as in Bontoc, e.g. Blw. bawat + $C_1V_1C_2$- > babʔawet 'play with a top'; daya + $C_1V_1C_2$- > dadʔaya 'a little bit above'; ballat + $C_1V_1C_2$- > babʔallat 'do some weeding'.

(d)　The Ifugao l. Newell (1956:529) describes three variants of the Guhang Ifugao l. The distribution statements are somewhat different from those described above for Bontoc, Ifugao, and Balangaw. They are as follows:

The allophone [l] occurs syllable initial followed by central and back vocoids /a/, /u/ and /o/ . . . It occurs syllable final followed by [l] (i.e. as the first member of an identical cluster) . . . [ʔʌllán] /ʔallán/ 'giant, monster'.
　　[l] is a lateral flap . . . It occurs syllable initial preceding front vocoids /i/ and /e/ . . . [pʄʌle̯] /bale/ 'house'.
　　The allophone [r] occurs syllable final except preceding [l]. [ʔʌrkɔ̂] /ʔalgo/ 'sun'; [ʔʌtɣɔ̌ʔr] /ʔadól/ 'body' . . . [pángr] /pángel/ 'chin' (Newell 1956:529).

Although similarities do appear between the distribution of the Ifugao l variants and those already described for the other Igorot languages, it is not easy to formulate a set of rules which can adequately account for the data and still be shown to have developed from the rules already formulated for the other languages. No attempt will be made in this paper to propose such rules, since it should be fairly evident that they are probably the result of rule changes which took place after the separation of the Igorot languages.

[20] Bon. [f] and [č] are syllable initial variants respectively of b and d;

Reid (1973)

1. l > r / V[+grave] ([+grave])_____

2. r > l / _____ V[-grave]

3. r > l / _____ l [- grave]

4. l > r / r _____

1. [l] word initially

2. [l] adjacent to [i]

3. [l] as the second member of a consonant cluster which it's first member is alveolar or interdental or a consonant preceded by [i]

4. [l] preceding another alveolar continuant

1. l > r / V[+grave] ([+grave])
2. r > l / _____ V[-grave]
3. r > l / _____ l [- grave]
4. l > r / r _____

[l] word initially
[l] adjacent to [i]
[l] as the second member of a consonant cluster which it's first member is alveolar or interdental or a consonant preceded by [i]
[l] preceding another alveolar continuant

[r] elsewhere

grave relates to backness +grave = +back

Environments

Gieser (1958: 16) provides a complementary distribution statement for the [l] ~ [ɻ̪] alternation in the Guinaang variety of Lubuagan Kalinga. In Lubuagen the sound [l] occurs in the following four environments:

      a. word-initial position

      b. geminate cluster

      c. word-medially when preceded by a coronal consonant (...VC___V...)

      d. contiguous to [i]

The interdental approximant [ɻ̪] occurs in all other environments in Guinaang, including intervocalically (but not contiguous to [i]), syllable- or word-finally, and word-medially when preceded by a labial or velar consonant.

next to /i/ & next to apical

	Virac	
day (daytime)	aḑdaw	ḑd
	Kagayanen	
run	ˈdḑagan	dḑ
know (a fact)	ˈnḑaman	nḑ
fry with little oil or no oil (to)	ˈsanḑag	nḑ
seashell (Kind of)	ˈtḑaba	tḑ
dip something into (to repeatedly)	ˈtɨḑtɨḑ	ḑt
Road	Majukayong	ḑs

	Butbut	
dirty	ʔaˈḑisaw	
	Lubuagen	
good	ˈbibiḑu	
breast	biḑukuŋ	

Suggestions for (inter)dental Genesis

- a [+ back] segment is in the position required for a [-back] segment so fronting occurs.

Implications for Phonotactics

- +/- Back distinction necessary for syllables.

Blust on Wuvulu

- /alo/ [ál̪o] ~ [álo] 'sun'

  In all known etymologies, Wuvulu /l/ reflects POC *l. The peculiar allophony by which *l became interdental when adjacent to a high vowel apparently remains clearer in the dialect of Onne village than in that of Aunna. Although this subphonemic change is perhaps as puzzling as the conditioning of velar obstruent allophones by the height of adjacent vowels, it will not concern us further in this paper.

Not *R?

English	Blood	big	Night
Butbut	ˈtʃaɖa	tʃaˈoɻ	laˈhʷi
Lubuagen	ˈtʃaɖa	tʃakeɖ	laˈᵬi
Majukayong	ˈdaɖa	ˈdɔqɔɖ	laˈvi
Minangali	daɖa	daʔoɖ	labi
Tagalog	duˈgo	malaˈki	gaˈbi
Iriga	roˈgoʔ	daˈkələ	gabˈ-i
Buhiˈnon	roˈgo	daˈkə-ə	gaˈbi
Kagayanen	ˈliŋɲissa		ˈkiłɨm
Aklan	duguʔ		bagʔu
PAn	*daʀaq	*ma-ʀaya	*beʀŋi