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Title: Synchronic and diachronic dimensions of the tone system of Galoⁱ

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1. Genetic and areal context

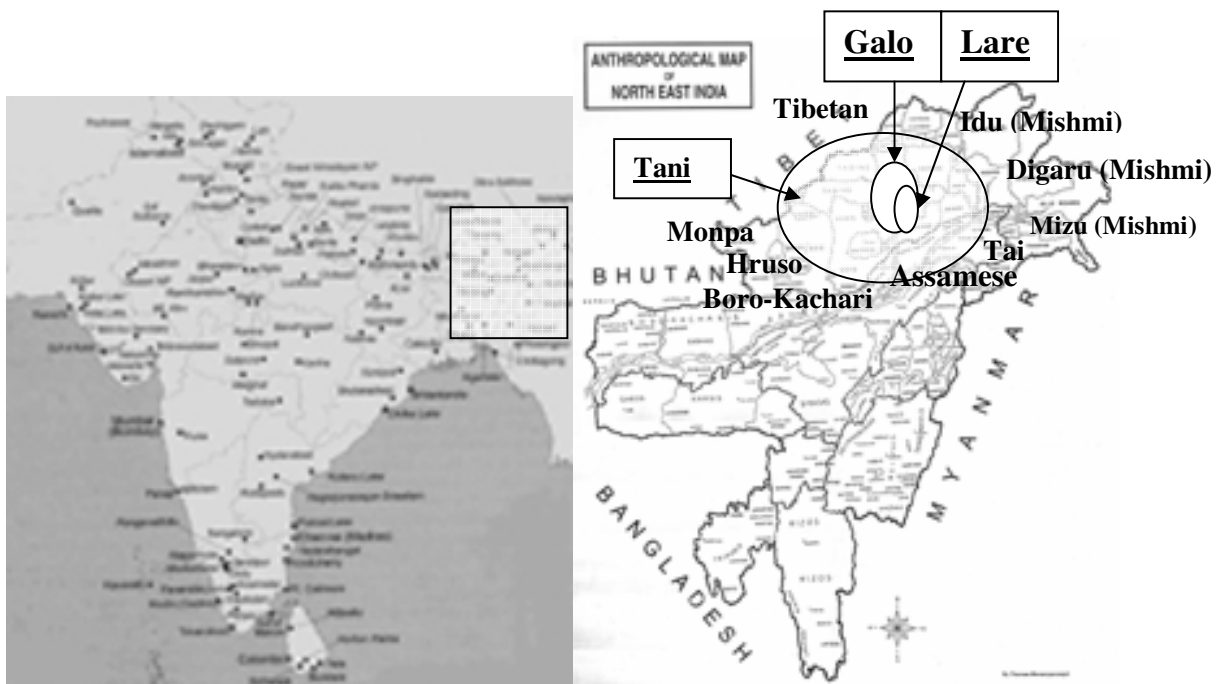


Figure 1 – Geographical and linguistic context of Lare Galo

ⁱ This work forms a part of the author’s PhD dissertation, Post (in progress) *A Grammar of Galo*. The principal dialect under investigation is the Daari (Daring) subdialect of Lare Galo, a.k.a. (Adi) Gal(l)ong. Primary fieldwork has been conducted in Galo villages in the lower West Siang district of Arunachal Pradesh, Northeast India. My principal Galo consultants are Mr. Iigo Ribaa, Mr. Miili Nyodu, and Mr. Tomo Ribaa; I thank them for their contributions to this work.

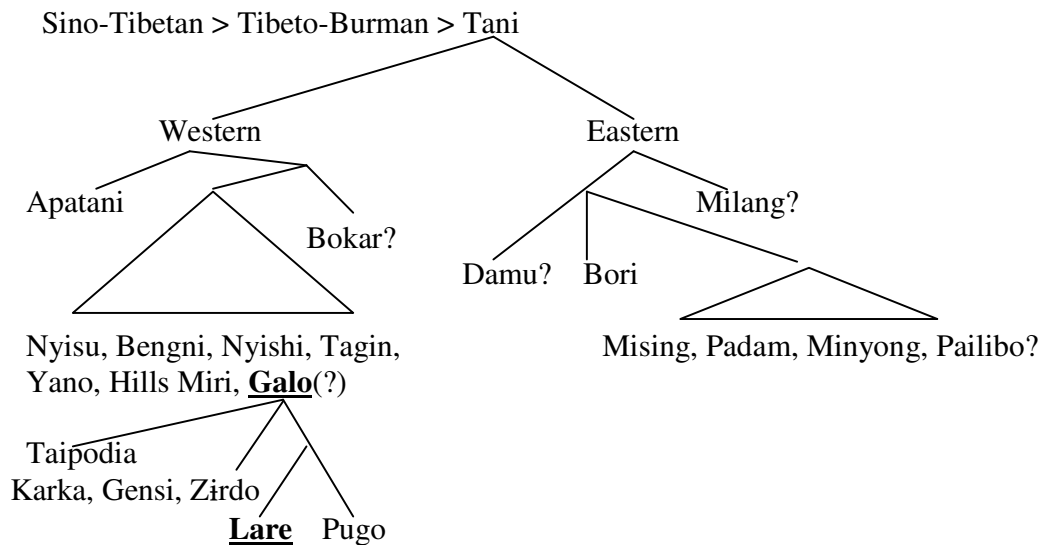


Figure 2 – Provisional Tani subgroupings (based on Sun (1993))

Population: ~ 30,000-40,000 (Adi) Galo(ng) tribespeople. **Economy:** *jhum* cultivation, animal husbandry, landowning, government welfare. **Religion:** indigenous religious tradition *Donyi Polo* (“sun-moon”) declining, Christianity rising rapidly. **Major dialects:** Lare, Pugo. Lare most widespread and diverse, relatively conservative. Pugo relatively innovative, areally more limited, minor prestige status. Innumerable subdialects, some probably transitional with neighboring languages. Survey needed. **Language contact/bilingualism:** Assamese, Hindi highest, English, Nepali, Boro present. Language of education, government officially English, actually Hindi. Much lexical, some structural borrowing from Indic languages (or English via Indic). Possible tonoxodus in some areas. **Endangerment:** Galo socio-economically dominant in their area; inward migration officially restricted. Galo spoken regularly in-village; some schoolchildren abandon Galo for Hindi. Overall, survival prospects relatively good.

2. Grammatical sketch

Morphological typology: Synthetic, agglutinative. Extensive verb morphology (suffixes); nominal morphology mainly phrasal enclitics. **Constituent order:** AOV/SV (variable), varied modification (REL-N, N-NUM, DEM-N-DEM, postpositions). **Grammatical relations:** Subject/object are identifiable relations. Basically Nominative/Accusative case marking, with pragmatic (referentiality) and semantic (agency/affectedness) sensitivity. Case markers are demonstrative/pronoun-derived NP-enclitics. Pronouns, proper names, and ordinary noun-headed NPs marked differently. Contextually-recoverable arguments freely omitted. **Lexical classes:** Nouns, Adjectives, Verbs basic/non-derived, Adverbs derived from all three classes (most frequently, adjectives). Adjectives structurally closer to nouns, behaviourally closer to verbs. Intransitive, Transitive, Ambitransitive (S=A and S=O) and Ditransitive verb roots attested. **Closed classes:** pronouns, demonstratives, postpositions, phrase/clause linkers, constituent-final particles. **Verbal morphology:** vast array of derivational suffixes (> 300!), numerous markers of aspect and modality.

Epistemological/evidential/pragmatic status marked by verbal enclitics (particles); some also mark NPs. No verbal cross-referencing. Marginal S.A.P.-sensitive marking (\cong conjunct-disjunct marking) in imperatives and ‘iterative’ perfective only. **Finiteness and subordination:** Finite/nonfinite distinction robust. No synchronic verb-serialization. Clause nominalization (several types), clause chaining and adverbial subordination all rampant. **Prosody:** Root-driven word tone, strong-weak metrical foot, robust difference between phonological and grammatical “words”.

3. Structure of the lexicon: “root” and “word”

Roots	Words
Bound	Free
Usually monosyllabic	Usually disyllabic
Always simple	Usually complex
Lexically precategorical	Lexically assigned

Examples:

<i>lɬ</i> ‘red’	<i>jalɬ</i> ‘red (common)’
	<i>liɬɬ</i> ‘red (elaborate)’
	<i>maalɬ</i> ‘sweet potato’
	<i>aalɬ</i> ‘red (black) tea’
	<i>gɬɬ</i> ‘cockfeathers’
<i>nɛ</i> ‘leaf; plant’	<i>anɛ</i> ‘leaf (living)’
	<i>hiɬnɛ</i> ‘plant; tree’
	<i>paɬnɛ</i> ‘banana leaf’
	<i>nɛmɬ</i> ‘grass’
	<i>nɛjɛ</i> ‘damaged leaf’

Discussion: Modern Tani roots almost certainly reflect (Pre-)Proto-Tani lexemes. Although (Pre-)Proto-Tani lexicon was probably mostly monosyllabic, with productive patterns of prefixation and compounding, modern Tani languages have, to varying degrees, shifted to a basic disyllabism, in which these previously productive patterns have been largely lexicalized (Post in press). Some Western Tani languages such as Apatani and Bokar retain some simplex, monosyllabic nouns, adjectives (?) and verbs (Abraham 1985; Sun 2003). In Galo and in most Eastern Tani languages, few or no simplex, monosyllabic words occur.ⁱⁱ

ⁱⁱ In Galo, only two simplex, monosyllabic lexemes have been attested to date in a lexical corpus of almost three thousand words: *ɲi* ‘human being’ and *zɛ* ‘grue (green/blue)’.

3.1. Internal structure of lexemes

Nouns-----Adjectives-----Verbs

Prefixed root	Prefixed root	Root (Derivation) Inflection
Root-root compound	Root-root compound	
Two-term compound	Two-term compound	
Derived verb root	Derived verb root	
	Expressive reduplication	

3.1.1. Structure of nouns and adjectives

Type	PS	Term	Gloss	√1/PFX	Gloss	√2/SFX	Gloss
PFX-√	N	<i>akĩ</i>	'belly/guts'	<i>a-</i>	'PFX'	<i>kĩ-</i>	'guts'
PFX-√	ADJ	<i>ahòò</i>	'long/tall'	<i>a-</i>	'PFX'	<i>hòò-</i>	'long/tall'
√-√	N	<i>lɛ̀ɛ̀</i>	'toe'	<i>lɛ̀-</i>	'leg/foot'	<i>cɛ̀-</i>	'digit'
√-√	ADJ	<i>lɛ̀zìn</i>	'outstretched legs'	<i>lɛ̀-</i>	'leg/foot'	<i>zìn-</i>	'stretch'

Table 1 – Structure of basic nouns and adjectives

Compound	Gloss	Term 1	Gloss	Term 2	Gloss
<i>talɛ̀-kodée</i>	'climate; conditions'	<i>talɛ̀</i>	'sky'	<i>kodée</i>	'soil'
<i>hottúm-horɛ̀</i>	'wild animals'	<i>hottúm</i>	'bear'	<i>horɛ̀</i>	'boar'
<i>ác-abò</i>	'mature man'	<i>ací</i>	'elder brother'	<i>abò</i>	'father'
<i>mə̀rò-kenlòò</i>	'(in the) old days'	<i>mə̀ròò</i>	'yesterday'	<i>kenlòò</i>	'day before yesterday'

Table 2 – Structure of nominal and adjectival “two-term compounds”

3.1.2. Structure of verbs

Verb root	Gloss	Derivation(s)	Gloss	Inflection	Gloss
<i>dó-</i>	'eat'	<i>-mèn</i>	'AS.PLAY'	<i>-diuu</i>	Imperfective
<i>ĩn-</i>	'go/walk'	<i>-làa</i>	'ABLE.TO'	<i>-tó</i>	Perfective
<i>mèn-</i>	'say'	<i>-lèn</i>	'OUTWARD'	<i>-káa</i>	Perfect
<i>mɛ̀-</i>	'think'	<i>-tà</i>	'INCIPIENT'	<i>-dóo</i>	Stative
<i>jùp-</i>	'sleep'	<i>-h/sí</i>	'REFLEXIVE'	<i>-dàk</i>	Immediate
<i>hí-</i>	'die'	<i>-jàa</i>	'MORE.THAN'	<i>-làa</i>	Non-finite

Table 3 – Structure of verbs

4. Phonological versus grammatical “words”

1. *ə̀gɛ̀, aken-aken ə̀mne...zipɛ̀n hilà.*

ə̀gɛ̀ akèn-akèn ə̀m=ne zí-pèn-sí-làa

DST.IND one-one ACC=DAT give-SPRT-REFL-NF

Ph. Wd. []

Gr. Wd. []

'So, he gave (the fruit) to each and every one (of them).' (TR, FA 080)

5. Previous accounts of tone in Tani languages

1. Early missionaries and civil administrators: J. F. Needham (1886), R. C. Hamilton (1900), J. H. Lorrain (Lorrain 1995 [1910]). No direct analysis of tone/pitch-related phenomena.
2. Ray (1967). Nyishi tones partially described and consistently marked, although data extremely limited in quantity/scope.
3. “Language guides” and “grammars” produced by CIIL, NEFA/AP Directorates of Research: Das Gupta (Das Gupta 1963, 1969; 1977, 1980, 1983), Simon (1972), Abraham (1985; Abraham 1987), Prasad, Sastry and Abraham (1991), numerous others. Sporadic and elliptical references to tone; tones often not represented, incompletely represented, or contradictorily represented in data transcriptions. No full analyses.
4. Chhange (1992 (not seen, quoted in Sun (1993:80 fn. 84))). Disagreed with Ray’s (1967) analysis, described Nyishi as an atonal language.
5. Weidert (1987). Apatani and Pugo Galo tones described in some detail. Two “syllable tones” (high and low) identified for Apatani. Three word tones or “contouremes” described for Galo: high, low and level/rising. Data generally consistent and reliable. Expressed certainty that all Tani languages are tonal and exhibit categories which correlate to PTB “tonal” categories.
6. Sun (1993). Found tones in Na Bangni (Western), but thought the system was incipient and not fully developed. Published data not marked for tones. Reconstructed Proto-Tani segmental phonology, ~ 500 roots. Found data insufficient for reconstruction of tones, discussed possibility of post-Proto-Tani tonogenesis in some Tani languages.

Summary: Some sort of “tone” has been identified at least once by at least one investigator for almost all documented Tani languages. However, no comprehensive description of tone exists for any Tani language, and no basis for reconstructing Proto-Tani tones, nor any hard evidence for post-Proto-Tani tonogenesis in any Tani subgroup or individual language, has yet been discovered.

6. Galo tones 1 – synchrony

There is a large number (> 100) of full minimal pairs on tone in Galo. Many more near-minimal pairs may be found which are phonetically identical in isolation due to a Final Vowel Length Neutralization rule, but which segmentally contrast under enclisis: for example: *adó* ‘sound’ and *adóo* ‘distance’.

High		Low	
Term	Gloss	Term	Gloss
<i>ai</i>	‘fat/grease’	<i>ai</i>	‘spicy; chili taste’
<i>an</i>	‘leaf’	<i>an</i>	‘mother’
<i>daanam</i>	‘to target something’	<i>daanam</i>	‘to stumble and fall’
<i>iinam</i>	‘to warm oneself’	<i>iinam</i>	‘to descend’

Table 4 – Small selection of minimal pairs on tone

6.1. “Domains” of tone: underlying and surface TBUs

- 1) *underlying TBU*: lexical root
- 2) *surface TBU*: phonological word

Discussion: There are at least two levels of description relating to tones in Galo. The first is the (generally monosyllabic) lexical root. This is the level at which tones are arbitrarily specified or “listed” in the lexicon. The next level is the (generally polysyllabic) phonological word. This is the level at which tones are realized phonetically.

Underlying and surface TBUs do not necessarily share a one-to-one correspondence in Galo; that is, the *pitch contour* of a *phonological word* is not necessarily a direct reflection of the tones for which it or its formatives are underlyingly specified. Instead, a *tonal derivation* forms a part of the process of phonological word-formation.

6.1.1. Underlying TBUs

- 1) **High**
- 2) **Low**
- 3) **(Rising-falling)**

> 99% of underlying TBUs are specified for **High** or **Low** tones:

High: *lák-* ‘arm/hand’, *nǎ-* ‘leaf; plant’, *dó-* ‘eat’, *tú-* ‘kick’, *ín-* ‘go; walk’...

Low: *lǎ-* ‘leg/foot’, *nǎ-* ‘mother; large’, *dùu-* ‘sit; stay; live’, *cì-* ‘pain; disease’...

A very small number of lexical roots and grammatical markers with a marked pragmatic value (< 1 %) are underlyingly specified for a **Rising-Falling** tone:

Rising-Falling: *zâa-* ‘real; true’, *pâ-* ‘all/every’, *â-* ‘Hyperdistal demonstrative formative’
î- ‘Constituent-final focalizing particle’.

Underlying TBUs are: *lexical roots, pronouns, demonstratives, verb derivational suffixes, some if not all verb inflectional suffixes, some if not all particles and enclitics*

Underlying TBUs are (probably) not: *nominal/adjectival prefixes, some if not all verbal non-finite suffixes.*

6.1.2. Surface TBUs Part 1 – monosyllabic and disyllabic lexemes

- 1) **High**
- 2) **Low**
- 3) **(Rising-Falling)**

6.1.2.1. Simplex lexemes

Formative	Lexical form	Phonetic form	Pattern
ńí- human	ńí 'human'	[ńí ⁴³]	H → H
zèe green/blue	zèe 'green/blue'	[ze ⁴¹]	L → L
zâa	zâa	[za ⁴⁵²]	RF → RF

Table 5 – Tone assignment in simplex, monosyllabic lexemes

6.1.2.2. Complex lexemes

Formative 1	Formative 2	Lexical form	Phonetic form	Pattern
o- PFX	ó- vegetable	óo 'vegetable'	[oo ⁴³]	H → H [HH]
ə- PFX	ə- bamboo	əə 'bamboo'	[əə ⁴¹]	L → L [HL]
a- PFX	lák- hand/arm	alák 'hand/arm'	[a ³³ lak ⁴⁴]	H → H [HH]
a- PFX	lè- leg/foot	alè 'leg/foot'	[a ³⁴ lè ³¹]	L → L [HL]

Table 6 – Tone assignment in complex, disyllabic lexemes with one underlying TBU

Formative 1	Formative 2	Lexical form	Phonetic form	Pattern
lák- hand/arm	cóə- extension	lakcóə 'finger'	[lak ³³ cə ⁴⁴]	HH → H
lák- hand/arm	ċi- left	lakċi 'left hand/arm'	[lak ³⁴ ċi ³¹]	HL → L
lè- foot/leg	cóə- extension	ləcəə 'toe'	[lə ³⁴ cə ³¹]	LH → L
lè- foot/leg	ċi- left	ləċi 'left foot/leg'	[lə ³⁴ ċi ³¹]	LL → L

Table 7 – Tone assignment in complex, disyllabic lexemes with two underlying TBUs

6.1.3. Surface TBUs part 2 – prosodic phrases and tone sandhi

Sequences of two or more phonological words which form a prosodic unit are called “prosodic phrases.” In a prosodic phrase, an initial High toned phonological word does not govern the tone of any following term: H-H is phonetically realized [H-H], and H-L is phonetically realized [H-L]. However, an initial Low toned phonological word followed by a prosodically dependent term of any type projects a rising-falling sandhi tone over the entire prosodic domain.

Term 1	Term 2	Phrasal form	Phonetic form	Pattern
acín	óo	acín-óo	[a ³³ cin ⁴⁴ o ³³]	HH → HHHH
‘cooked rice’	‘vegetable’	‘prepared food’		
holóə	tasò	holó-tasò	[ho ³³ lə ⁴⁴ ta ⁴⁴ so ³¹]	HL → HHHL
‘large wildcat’	‘small wildcat’	‘wildcat’		
hodùm	talíi	hodùm-talíi	[ho ⁴⁴ dum ⁵⁵ ta ³³ li ¹¹]	LH → RRFH
‘barking deer’	‘flea’	‘deerflea’		
hilòo	məròo	hilò-məròo	[hi ⁴⁴ lo ⁵⁵ mə ³³ ro ¹¹]	LL → RRFH
today	yesterday	‘these days’		

Table 8 – Tone assignment in two-term compounds with two surface TBUs

6.2. Verbs

Derivation of surface verb tones is similar to derivation of noun and adjective tones as in §5.1. Verb derivational suffixes and most if not all verb inflectional suffixes are underlyingly specified for a High or Low tone, and derivation of verbal surface tones in general follows the principles stated above. However, the situation is somewhat complicated by the fact that a Galo verb carrying a large number of suffixes – constituting a single grammatical word – is typically divided into two or more phonological words of one, three, or (most often) two syllables each.

Verb root	Suffix	Lexical form	Phonetic form	Pattern
tú-	-káa	tukáa	[tu ³³ ka ⁴⁴]	HH → HH
kick	PF	‘has kicked’		
tú-	-dùu	tudùu	[tu ³⁴ du ³¹]	HL → HL
kick	IPFV	‘is kicking’		
pù-	-káa	pukáa	[pu ³⁴ ka ³¹]	LH → HL
tug	PF	‘has tugged’		
pù-	-dùu	pudùu	[pu ³⁴ du ³¹]	LL → HL
tug	IPFV	‘is tugging’		

Table 9 – Tone assignment in disyllabic verbs

Lexical form	Phonetic form	Pattern
tuzí kaakú tú-zí-káa-kú kick-BEN-PF-CMPL 'has finally kicked for someone'	[tu ³³ zi ⁴⁴ kaa ⁴⁴ ku ³³]	HH → HHHH
tuzí duukù tú-zí-dùu-kú kick-BEN-IPFV-CMPL 'is finally kicking for someone'	[tu ³³ zi ⁴⁴ duu ⁴⁴ ku ³¹]	HL → HHHL
tunù kaakú tú-nù-káa-kú kick-BREAK-PF-CMPL 'has finally kicked, breaking something'	[tu ⁴⁴ nu ⁵⁵ kaa ³³ ku ¹¹]	LH → RRFF
tunù duukù tú-nù-dùu-kú kick-BREAK-IPFV-CMPL 'is finally kicking, breaking something'	[tu ⁴⁴ nu ⁵⁵ duu ³³ ku ¹¹]	LH → RRFF

Table 10 – Tone assignment in verbs with more than two syllables

6.3. Summary of tonal derivations

tú-	-nù	-káa	-kú	← Concatenation
tunu		kaaku		← Grouping into phonological words
tunù		kaakú		← Derivation of surface TBUs from underlying TBUs
tunû	-	kaakù		← Derivation of surface tonal melody from surface TBUs

Table 11 – Summary of tonal derivations

6.4. Patterns of tone-assignment – one or more than one?

Do we need to specify one or two types of tone assignment template (pattern) in Galo?

$\geq 2 \sigma$	2σ (A, Same pattern)	2σ (B, Different pattern)
HH → HH [HHHH]	HH → HH [HH]	HH → H [HH]
HL → HL [HHHL]	HL → HL [HL]	HL → L [HL]
LH → LL [RRFF]	LH → LL [HL]	LH → L [HL]
LL → LL [RRFF]	LL → LL [HL]	LL → L [HL]

Table 12 – Patterns of tone-assignment – one or two?

Disyllabic terms with underlying HL structure behave the same as LH and LL terms (i.e., as L) in the assignment of surface tonal melodies. Therefore, rather than assume three word tone categories HH, HL, and LL, the second two of which are phonetically identical and behave identically, it seems more plausible to assume two word tone categories H and L – which mirrors the number of root tone categories – accepting the fact that an additional pattern exists at the level of surface tonal melody assignment. So, I reject hypothesis A (above table) and accept B instead.

7. Galo tones 2 – diachrony

7.1. Comparison of Post (this work) with Weidert (1987)

Weidert (1987) identified three word tones (“contouremes”) for Pugo Galo:

- 1) high-downstepped
- 2) high-low
- 3) high-rising

These seem to correspond to our 1) High 2) Low and 3) Low sandhi tone, respectively

<u>Pugo Weidert</u>	<u>Lare Post</u>	<u>Gloss</u>	<u>Correspondence</u>
alák	alák	‘hand/arm’	H ↔ H
anè	anè	‘mother’	L ↔ L
hèn-	cèn-	‘know’	R ↔ L

Table 13 – Pugo Weidert – Lare Post tone category correspondences

7.1.1. Problems in Weidert’s analysis

Does not recognize a root-level TBU as distinct from a word-level TBU; as a result, terms sharing roots in common, but with different surface tones, are placed in different categories, and terms with different internal structures, but with the same surface tones, are placed in the same category. His wordlists are therefore of uncertain value for cross-linguistic tonal comparison.

7.1.2. Weidert’s analysis of Apatani

Two “syllable tones” 1) High and 2) Low. Lexemes are specified for a syllable-based tonal melody, plus a possible “floating tone”, which has the function of assigning the tone of a following, phonologically-dependent syllable (corresponding to a suffix or enclitic).

7.1.3. Outcome of Weidert’s Pugo-Apatani comparison

Too many resulting tone categories to enable reconstruction of a plausible proto-system.

7.2. An “improved” Apatani-Pugo-Lare comparison

Weidert’s methods appear to have exposed him to at least one of the following possible confounds associated to analysis at the level of surface TBUs in Galo (at least, and possibly throughout Tani):

- 1) Partially cognate terms with the same semantic value across languages may be compositionally different, hence differing in underlying tonal structure
- 2) Different rules for derivation of surface tones from underlying tones may exist across languages

7.2.1. Method

- 1) exclude all compositionally non-corresponding terms
- 2) exclude all tonally complex terms (= > 1 underlying TBU)
- 3) group by part-of-speech

7.2.2. Results

Reorganization of the data as in §7.2.1. revealed the existence of two underlying tonal categories shared in common among Apatani, Pugo and Lare: 1) High and 2) Low.

Selected data (PTS = Proto-Tani, Sun (1993)):

High nouns: Apatani (1)22 ~ Pugo 2 ~ Lare 2

Gloss	PTS	Term			Tonal melody		
		Apt	Pugo	Lare	Apt	Pugo	Lare
‘arm/hand’	*lak	à-lá´	alák	alák	122	2	2
‘arrow’	*puk	á-pú	upúk	upúk	22	2	1
‘banana’	*kopak	kì-pá´	kopák	kopák	122	2	2
‘bat’	*pon	tà-púŋ´	tapén	tapén	122	2	2
‘bear’	*tum	sì-tíŋ´	hotúm	hottúm	122	2	2
‘bedbug’	*ba ~ *bə	tá-bú	tabá	tabáa	22	2	2
‘bird’	*pV-taŋ	pí-tá	pəttá	pətá	22	2	2

Table 14 – High nouns

High verbs: Apatani 22 ~ Pugo 2 ~ Lare 2

Gloss	PTS	Term			Tonal melody		
		Apt	Pugo	Lare	Apt	Pugo	Lare
‘be born’	--	bí ~ bú´	bəə-	bəə-	22	2	2
‘borrow’	*nar	nár´	nár-	nár-	22	2	2
‘break (vi.)’	*dɪr	dár´	dír	dír	22	2	2
‘buy’	*rəə	rí´	rə-	rə-	22	2	2
‘call’	*grok	gjóŋ´	gog	gók	22	2	2
‘carry/wear’	*gəə	gí´	gə	gə	22	2	2
‘carry on back’	*bri	báŋ´	bí-	bí-	22	2	2

Table 15 – High verbs

Low nouns: Apatani (1)21 ~ Pugo 1 ~ Lare 1

Gloss	PTS	Term			Tonal melody		
		Apt	Pugo	Lare	Apt	Pugo	Lare
‘ant’	*ruk ~ *rup	tà-rú`	tarúk	tarúk	121	2	1
‘beer’	*poŋ (?)	ó-ò	opò	opòo	21	1	1
‘child’	*fiò	ó-hò	aò	aò	21	1	1
‘cloud’	*mak ~ *muk	zoo-mì	doomè	doomè	21	1	1
‘crab’	*ke ~ *kjo	tá-cĩ	tasò	taci	21	1	1
‘dao’	*rjok	ĩ-ljó`	ojók	oròk	121	2	1
‘dog’	*kwii	á-kĩ	ikĩ	ikii	21	1	1

Table 16 – Low nouns

Low verbs: Apatani (1)21 ~ Pugo 3 ~ Lare 1

Gloss	PTS	Term			Tonal melody		
		Apt	Pugo	Lare	Apt	Pugo	Lare
‘bark’	--	píi`	pĩ-	pì	21	3	1
‘know’	*ken	cín`	hēn-	cèn-	21	3	1
‘measure’	--	xée`	kĩ-	kí	21	3	2
‘make/do’	--	mí`	mō-	mò	21	3	1
‘sit/live’	*duŋ	dúu`	dūu-	dūu-	21	3	1
‘stand’	*dak	dá?`	dāg ~ dāŋ	dak	21	3	1
‘take’	*laŋ	lāa`	lāa-	lāa-	21	3	1

Table 17 – Low verbs

8. Conclusion

Lare Galo exhibits a “root-to-word” tone system in which two TBU types must be specified: 1) root level (underlying TBU) 2) word level (surface TBU). The system makes use of two main lexical tones, High and Low, with a somewhat marginal, infrequently-occurring Rising-Falling tone. In addition, a rising-falling sandhi tone occurs over a multi-word prosodic phrase when it is initiated by a low-tone-bearing word. The system as we have described it appears somewhat different from the system described for Apatani by Weidert (1987). However, it appears identical, or nearly so, to the Pugo Galo system also described by Weidert, after his data are reinterpreted to take additional factors into account. Cross-comparison between Apatani, Pugo and Lare terms composed of a single underlying TBU reveal strong High or Low tonal correspondences, suggesting that High or Low tonal value may be reconstructed for these roots at the Proto-Western-Tani level at least. However, since segmental correspondences do not obviously suggest tonogenesis at or around the PWT stage, it is our hypothesis that High and Low tones will instead be reconstructible to Proto-Tani. However, an accurate description of the tone system of at least one tonal language from the Eastern Tani branch will be necessary to place the reconstruction on a stronger footing.

9. Abbreviations

ACC	Accusative	L	Low tone
ADJ	Adjective	N	Noun
AZR	Adjectivalizer	NF	Nonfinite
BEN	Benefactive	NZR	Nominalizer
CMPL	Completive aspect	PF	Perfect aspect
DAT	Dative	PFX	Prefix
DST	Distal demonstrative	R	Rising tone
F	Falling tone	REFL	Reflexive
H	High tone	SFX	Suffix
IND	Individuative	SPRT	Separative
IPFV	Imperfective aspect	TBU	Tone-bearing unit

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