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Seminar, 10/12/2005

0. Classification in Tani[1]

1. Outline

2. Genetic and areal context

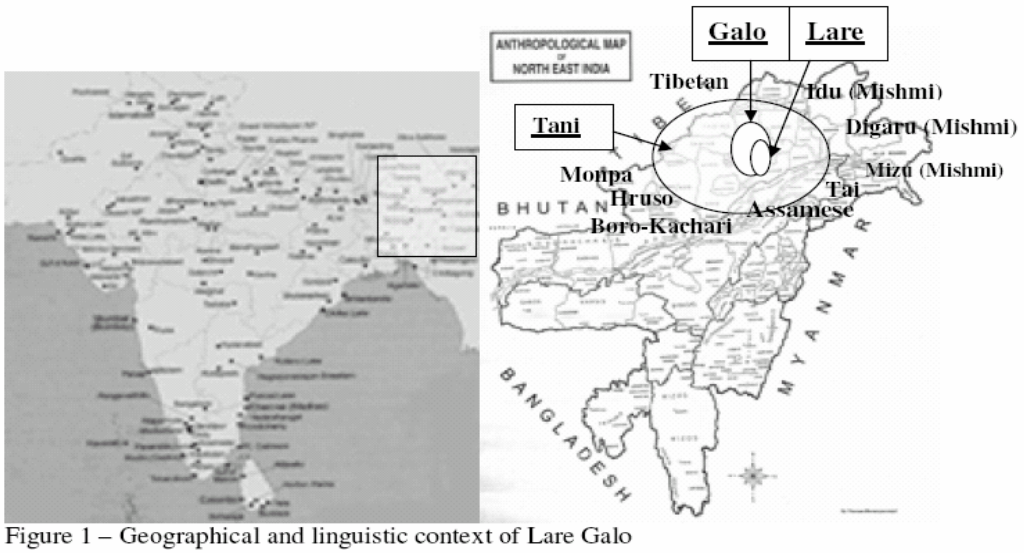


Figure 1 – Geographical and linguistic context of Lare Galo

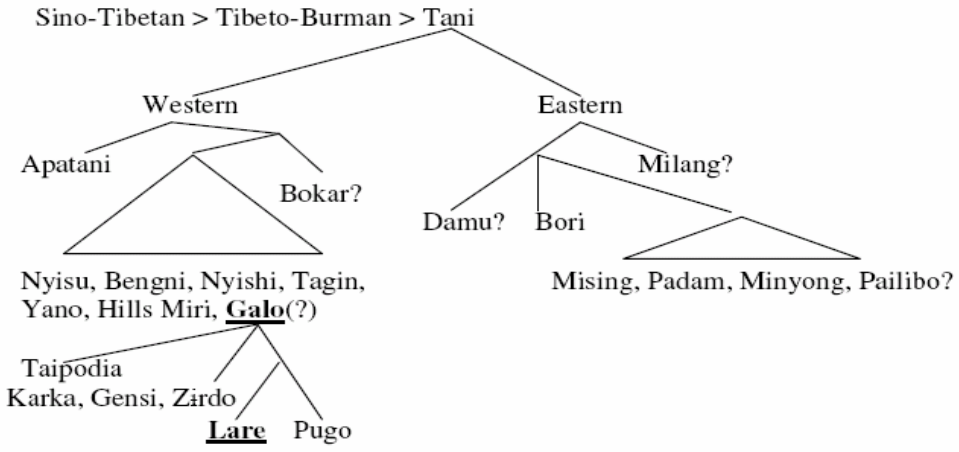


Figure 2 – Provisional Tani subgroupings (based on Sun (1993))

[1] Data are from field texts and elicitations or published sources where noted. Tani language transcriptions have been regularized to follow IPA except where *z* = [dʑ] and *c* = [tɕ]. Most Tani languages appear to be tonal, although most published data has not been marked for tone. In Galo, the domain of surface tonal specification is the (usually polysyllabic) phonological word; tones are High [^{43}] Low [^{31}] or Rising-Falling [^{452}], marked by convention with a single diacritic over the penultimate vowel [˴], [˩] and [˨]. It is possible that some Tani languages have lost tone – notably at least some dialects of Mising – however such languages cannot at present be differentiated from tonal Tani languages for which data are incomplete.

Population: ~ 1,000,000 speakers of all Tani languages in Assam, Arunachal Pradesh, and Tibet. Mising ~ 400,000, Galo 40,000, Apatani ~ 60,000. **Economy**: *jhum* cultivation, wet rice cultivation (mainly Apatani), animal husbandry, landowning, hunting/gathering, government. **Religion**: indigenous religious tradition *Donyi Polo* ("sun-moon") declining, Christianity rising rapidly. **Language contact/bilingualism**: Assamese, Hindi high, English, Nepali, Boro present. Current Mishmi/Hrusish/Tibetic contact conditions unknown. Language of education, government officially English, actually Hindi, throughout Tani area except Assamese in Assam and Chinese in Tibet. Much lexical, some structural borrowing from Indic languages (or English via Indic) in contact areas. **Endangerment:** dialects innumerable, many presumably endangered. No modern survey. Most Tani languages in Arunachal Pradesh and Assam have large numbers of child learners and are probably secure for the foreseeable future. **Literacy:** Assamese, Hindi, English literacy high in areas with access to schools. Roman-based script designed by Mising linguist Tabu Taid gaining currency among Mising (books, periodicals); not used by other Tani tribes. Several attempts to introduce pan-Tani scripts have failed.

3. Grammatical sketch (applies most directly to Galo)

Morphological typology: Synthetic, agglutinating. 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 (≅ 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".

4. Structure of the Tani lexicon

4.1. Roots versus words

A rough characterization:

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

Tani languages all represent this dichotomy, but to quite different degrees

Apatani, Bokar have numerous simplex, monosyllabic lexemes and grammatical words which may occur as free words in various constructions. In Galo, only two simplex, monosyllabic native lexemes have been attested - *ɲíi* 'human' and *zèe* 'green/blue' – and there is extensive grammatical and phonological dependency among terms. In Mising, no simplex native lexemes have been attested, and an extremely small number of monosyllables is found; grammatical and phonological dependency among terms is extremely high.

1) A *soo mju ako du*
PRX human one exist:sitting
'here is a man (in sitting position)' (Abraham 1985: 70)

2) G *hogò ɲíi akengò duunà*
hogò ɲíi akèn=go dùu=na
PRX.LOC human one=IDEF COP.LOC.SITTING=DECL
'here is a man (in sitting position)'

3) M *kironbɨ oŋo sogaptiladuŋai*
Kiron=bɨ oŋo so-gap-tɨ-la=duŋ-ai
NAME=3 fish pull-STUCK-PERS-NF=COP-PST
'Kiron had been catching fish.' (cf. also Prasad et. al. (1991:59))

4.2. Parts of speech

A rough characterization:

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

Tani languages vary in the extent to which the Nominal/Adjectival vs. Verbal dichotomy is represented in terms of structure and distribution. It is possible that for at least some Tani languages, not all classes are represented, i.e. the Adjectives of one language may be represented by another language as a subclass of Nouns and/or Verbs.

4.2.1. Structure

Type	PS	Term	Gloss	PFX/Root	Gloss	Root	Gloss
PFX-√	N	*akĭi*	'belly/guts'	*a-*	'PFX'	*kĭi-*	'guts'
PFX-√	ADJ	*ahòo*	'long/tall'	*a-*	'PFX'	*hòo-*	'long/tall'
√-√	N	*lɔcəə*	'toe'	*lə-*	'leg/foot'	*cɔ́ə-*	'digit'
√-√	ADJ	*lɔzìn*	'outstretched, of legs'	*lə-*	'leg/foot'	*zìn-*	'stretch'

Table 1 – Structure of basic nouns and adjectives (Lare Galo)

Root	Gloss	Derivation(s)	Gloss	Inflection	Gloss
dó-	'eat'	*-mèn*	'Playful Manner'	*-dùu*	Imperfective
ín-	'go/walk'	*-làa*	'Abilitative'	*-tó*	Perfective
mèn-	'say'	*-lèn*	'Outward Directed'	*-káa*	Perfect
mə́ə-	'think'	*-tà*	'Incipient'	*-dóo*	Stative
jùp-	'sleep'	*-hĭ*	'Reflexive'	*-dák*	Immediate
hĭ-	'die'	*-jàa*	'Comparative/Superlative'	*-làa*	Non-finite

Table 2 – Structure of verbs (Lare Galo)

4.2.2. Distribution

4.2.2.1. Lare Galo (Nouns, Adjectives, Verbs distinct)

	Copular Predication	Aspect-marking	
4) G	*əgə̀ ikiə̀*	**əgə̀ ikiidù*	←N
	əgə̀ ikĭi=əə		
	DST.IND dog=COP.IPFV		
	'it's a dog'		
5) G	**əgə̀ jubə̀(ə)*	*əgə̀ jubdù*	←V
		əgə̀ jùp-dùu	
		DST.IND sleep-IPFV	
		'it's sleeping'	
6) G	*əgə̀ adəkə́*	*əgə̀ adə́kdù*	←ADJ
	əgə̀ adə́k=əə	əgə̀ adə́k-dùu	
	DST.IND different=COP.IPFV	DST.IND different-IPFV	
	'it's different (appraising a present state-of-affairs)'	'it's different (now, and in general)'	

Citing data such as in (2-3) in which adjectives predicate like verbs (although in languages lacking a copula such as Galo *əə*), Sun (2003)claimed Adjectives were a subclass of verbs throughout Tani. However, consider the Mising data in 4.2.2.2; similar structures are also found in Apatani.

4.2.2.2. Paglo Mising (Nouns, Adjectives, Verbs less distinct)

7) M *guwahatise gasumko tani* ***duŋ***
Guwahati=se gasum-ko tani duŋ
Guwahati=PRX many-IDEF human **COP**
'There are many people here in Guwahati.' (HP, 1:15)

8) M *ŋo guwahatitokkə gɨduŋ*
ŋo guwahati=to-kə=əə gɨ-**duŋ**
1 Guwahati=LOC.E-ABL=NOM go-**IPFV**
'I come from Guwahati (which is to the East of here).' (HP, 1:13)

4.3. Diachronic perspective on the Tani lexicon

A working model:

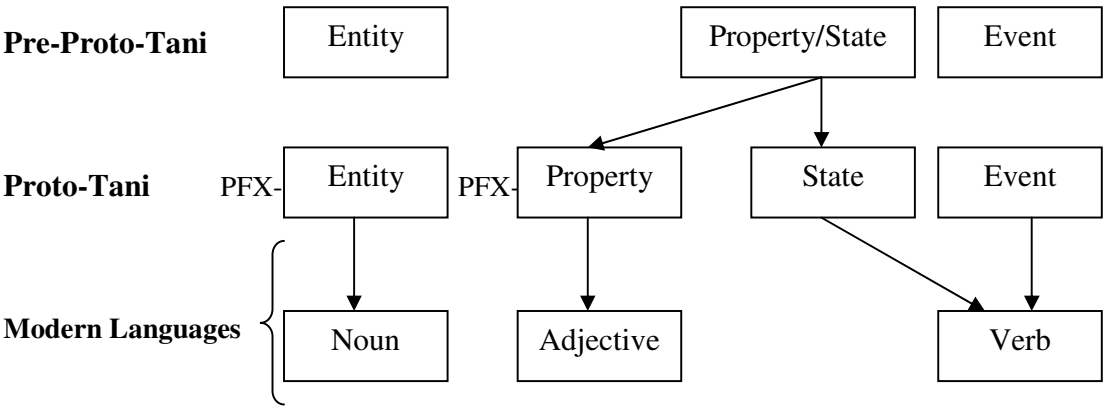


Figure 3 – Diachronic perspective on the Tani lexicon

5. Classification

> "Each language has, within the semantic structure of its lexicon, a number of generic-specific relationships." (Dixon 2002: 449)

Classification is an inherently *semantic* operation, which may be employed in the service of additional semantic operations, as well as in grammatical or pragmatic functions (Aikhenvald 2001). Fundamentally, classification consists in the establishment of *relations* between entities in a semantic space. The content of the relation is roughly *type-exemplar*, but could also be expressed as class-member, superordinate-subordinate, generic-specific, etc.

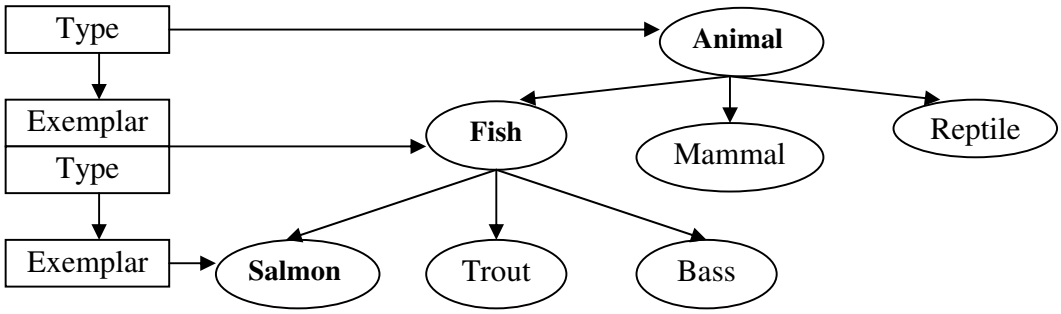


Figure 4 – Classificatory relations among concepts

5.1. Classification and denotation

Classification is always related to *denotation*. It may increase the *precision* of a denotation by restricting its range, for example when disambiguating multiple possible referents, or when denoting a less-familiar concept (*mynah bird*). It may also *modify* a denotation by profiling different semantic features of an entity (*a hand of bananas* versus *a bunch of bananas*). Classification also tends to bias, and may force, denotation of an *individual* as opposed to a mass or an abstract concept (*the crowd of people* versus *the people*).

5.2. Classification and reference

In many languages (possibly all languages), ordinary nouns (as opposed to pronouns, names, and NPs) have no inherent reference (Givón 2001 [1990]: 58). However, the nouns of some languages may have a greater or lesser capacity to be used referentially than the nouns of some other languages, for example as the sole constituent of a referring NP (as in Chinese *shuǐ kāi le* 'the water (which is on the stove) is boiling' (Chao 1968: 76) or with the aid of some small set of grammatical tools, such as articles (***the*** *water is tasteless* versus *water is tasteless*). It has been argued that numeral classifiers in at least some languages (in particular, Standard Thai) are necessary to nominal referentiality (Hundius and Kölver 1983).

5.2.1. Individuation and reference in Thai

The received view:

9) *mǎa sɔ̌ɔŋ tua* * *mǎa sɔ̌ɔŋ*
dog two CLF
'two dogs'

10) *mǎa tua nîi* * *mǎa nîi*
dog CLF PRX
'this dog'

11) *mă̆a tua (thîi) jàj* — * *mă̆a (thîi) jàj*
dog CLF REL big
'the dog (that's) big'

Repeater constructions:

12) *prathêet să̆am prathêet* — *să̆am prathêet*
country three CLF — three CLF
'three countries' — 'three of those (things classifiable as countries)'

(Haas 1964; Hundius and Kölver 1983; Craig 2002)

In fact, all of the structures on the right are possible and have been attested on numerous occasions by different analysts. However, such structures tend to occur in casual speech and/or in later mentions, i.e. in speech situations in which precision is not highly valued and referential continuity is high. So, it seems the general thrust of the received view is correct (and can probably be applied to less prototypically "classifying" languages than Standard Thai). However, the notion that classification is essentially grammatical(ized), rather than semantically and pragmatically controlled, is probably less correct.

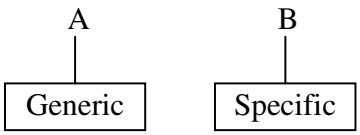
5.3. Interim summary

Classification *per se* is basically a semantic *type-exemplar* or *set-member* relation among terms. Insofar as "member" status tends to confer additional qualities such as "specificity" and "individuality" on a term, classification is potentially *useful* in the context of denotation and, ultimately, reference. Depending on what else is going on in the grammar of a given language, classificatory structures may develop in the service of these functions to a greater or lesser degree.

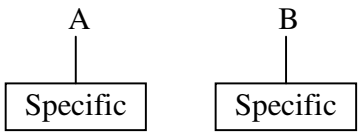
6. Classification in Tani

6.1. Structural patterns

Type 1: asymmetrical



Type 2: symmetrical



6.2. Numerals and classifiers

Numerals and classifiers are alike in having *roots* which, unlike most of the nominal/adjectival lexicon, are productively compounded to form *enumerative classifier expressions* and *adjectival classifier expressions*. Both numerals and classifiers, as well as classifier expressions, *follow* any related nouns, when these are overtly given.

6.2.1. Numerals

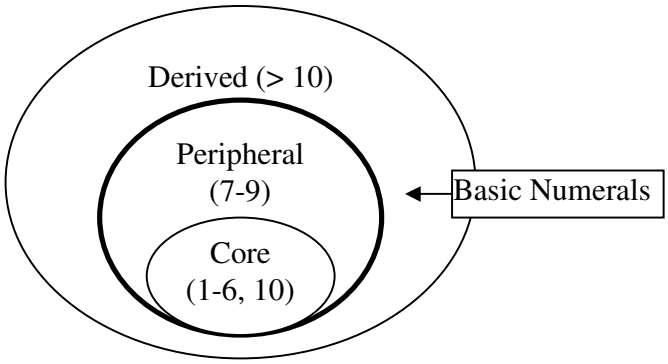


Figure 5 – Schematization of numeral subclasses

6.2.1.1. Core numerals

Gloss	Apatani	Galo	Mising	Etymology (PTS)
'one'	*koŋ*	*a-kèn*	*a-ko*	**kon* 'one'
'two'	*á-ɲì*	*a-ɲì*	*a-ɲi*	**ɲi* 'two'
'three'	*hĭŋ*	*a-úm*	*a-um*	**ɦum* 'three'
'four'	*pɨ-ljɨ*	*ap-pĭ*	*ap-pi*	**pri* 'four'
'five'	*já-ŋó*	*aŋ-ŋó*	*aŋ-ŋo*	**ŋo* 'five'
'six'	*xrjɨ̈ɨ̈*	*ak-kɔ́*	*ak-kəŋ*	**krə* 'six'
'ten'	*à-ljáŋ*	*ɨ-rɨ̈ɨ̈*	*ɨ-jɨ̈ŋ*	**rjɨ̈ɨ̈* 'ten'[2]

Table 3 – Core numerals[3] (Apatani data from Weidert (1987))

6.2.1.2. Peripheral numerals

Gloss	Apatani	Galo	Mising	Etymology (PTS)
'seven'	*kánú*	*kanə̀*	*kɨ̈nɨ̈t*	**kV-nɨ̈t*
'eight'	*prjɨ́ʔɲì*	*piinə̀*	*piɲi*	**pri* 'four' +**ɲi* 'two' ?
'nine'	*koa*	*keŋŋàa*	*konaŋ*	**kV-(n)aŋ*

Table 4 – Peripheral numerals

[2] The **a-* prefix in 'ten' has undergone root nuclear vowel harmony, a sporadic sound change in the nominal/adjectival lexicon which has been played out differently in different Tani languages.

[3] 'Four', 'five' and 'six' unpredictably exhibit gemination of the word-medial consonant. This is a relatively rare but persistent change in various Tani languages, attested in both *V-CV and *V-CVX collocation types, the motivation for which remains unclear.

6.2.1.3. Derived numerals

Term	Gloss	Composition
camɲì	'twenty'	*cám-* 'CLF:TENS' + *ɲì-* 'two'
camúm	'thirty'	*cám-* 'CLF:TENS' + *úm-* 'three'
campǐ	'forty'	*cám-* 'CLF:TENS' + *pǐ-* 'four'
camŋó	'fifty'	*cám-* 'CLF:TENS' + *ŋó-* 'five'
camkə́	'sixty'	*cám-* 'CLF:TENS' + *kə́-* 'six'
camrɨ́ɨ	'hundred'	*cám-* 'CLF:TENS' + *rɨ́ɨ-* 'ten'

Table 5 – Multiples of ten 'twenty' through 'sixty' and 'hundred' (Galo)

Term	Gloss	Composition
acám kanə̀	'seventy'	*acám* 'tens' + *kanə̀* 'seven'
acám piinə̀	'eighty'	*acám* 'tens' + *piinə̀* 'eight'
acám keŋŋà	'ninety'	*acám* 'tens' + *keŋŋàa* 'nine'

Table 6 – Multiples of ten 'seventy' through 'ninety' (Galo)

GEN	SPEC	
cám-	*ɲì-*	'twenty'
acám	*kanə̀*	'seventy'

6.2.2. Classifiers and classifier roots

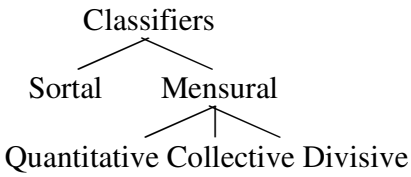


Figure 6 – Types of classifiers

6.2.2.1. Sortal classifiers

Sortal classifiers are in essence nouns which denote a semantic type *in terms of an individual* which exemplifies the type. Like any noun, they refer in construction with a case-marker/article/demonstrative.

13) G *abór=go*
individual.sheet=IDEF
'a sheet; a sheetlike object'

14) G *anə́=go*
leaf=IDEF
'a leaf'

When following a(nother) noun, sortal classifiers have the effect of *profiling* the referent's *individuality* (x).

15) G *anɔ́ abór=go*
leaf CLF:SHEET=IDEF
'a(n individual) leaf ' (lit. ~ 'a sheet of leaf')

16) G * *abór anɔ́=go*

It may seem paradoxical to view this as an underlyingly *Generic-Specific* or *Type-Exemplar* pattern, since we might think of 'leaf' as semantically more particular than 'sheet' (i.e., a 'leaf' is a kind of 'sheet' and not vice versa). However, *abór* here has the *referential value* of an individual – i.e. an exemplar of the type 'leaf'.

As in Burmese (Becker 1975) and Thai (*contra* statements made by Hundius and Kölver (1983)), it's possible to modify a denotation in Galo by changing the classifier. This may amount to a difference in *feeling* which is not easily translated (17-18), or it may result in a different referential value altogether (19-20).

17) *hɨ̀nə adáa=go*
tree stick=IDEF
'a tree (generic focus)' (TR, 6:133)

18) *hɨ̀nə apóo=go*
tree rotund.thing=IDEF
'a tree (trunk focus)' (TR, 6:133)

19) *kopák apáa=go*
banana long.thing=IDEF
'a banana'

20) *kopák arɨ́=go*
banana staff=IDEF
'a banana tree' (MN, 19:136)

Field	Lex.	Gloss	Root	Classifies
Phys. Prop.	*ahóo*	'one stick'	*hóo-*	long things (cigarettes, lengths of rope)
	apóo	'one pole; broad'	*póo-*	things with rotundity (fat stomachs, fat fingers)
	adáa	'one stick'	*dáa-*	rigidly sticklike things (branches, twigs)
	arɨ̀ɨ	'one staff'	*rɨ̀ɨ-*	staffs; upright things (trees, stands of trees)
	apáa	'one long thing'	*páa-*	things with length (bananas)
	abúu	'one pipe; river'	*búu-*	pipes (any hollow pole, especially bamboo)
	abór	'one sheet'	*bór-*	sheets; spread-out things (papers, pillows)
	atàm	'flat side'	*tàm-*	flat-sided objects (walls, doors, floors)
	acɨ̀r	'seed'	*cɨ̀r-*	grainlike things (pebbles, grains of rice, peas)
	apə (?)	'glob(ular)'	*pɨ́-*	round or egglike things (eggs, apples, balls)
	adúu	'one sec. bamboo'	*dúu-*	sections of bamboo
Anim.	*adór*	'one animal'	*dór-*	four-legged animals (cows, dogs, goats, rats)
	anɔ́	'leaf'	*nɔ́-*	plants, fish[4]
	-- [5]	--	*cɔ́ə-*	fingers
Abst. Dim.	*adáp*	'one volume'	*dáp-*	volumes (books, grades/classes, levels in a course)
	abàa	'one song'	*bàa-*	songs[6]
	abàr	'one rupee'	*bàr-*	treasures (money, brass platters, ornaments)
Time	*aɲɨ̀ɨ*	'year'	*ɲɨ̀ɨ-*	years
	alóo	'day'	*lóo-*	days
	arúm	'evening'	*rúm-*	nights (non-day periods of time)
	ajùp	'one night cycle'	*jùp-*	night cycles (full dusk-dawn cycles)

Table 7 – Sortal classifiers attested to date (Galo)

[4] Rather than expression any underlying semantic relation, this may be the result of a merger of two distinct etyma, i.e. *nɔ́-* 'leaf, plant' and *nɔ́-* 'fish'. Cf. Lare *anɔ́* 'living leaf' and Pugo *mənə* 'fish'.
[5] The root *cɔ́ə-* 'finger' occurs in numerous compounds such as *lakcɔ́ə* 'finger' and *ləcàə* 'toe'. However, **acɔ́ə* is rejected by most speakers.
[6] May actually classify 'group performances'.

6.2.2.1.1. Lack of a generic classifier

Tani is unusual – as far as I know, unique in Southeast Asia – in lacking a "generic" classifier, as well as a classifier for human beings, such as Chinese *ge*, Thai *ʔan* or Burmese *khu'*. Instead, humans and novel/unclassifiable terms simply take numerals directly.

21) G *ɲíi=go*
human=IDEF
'a human'

22) G *ɲíi akèn=go*
human one=IDEF
'one human'

6.2.2.2. Mensural classifiers

Mensural classifiers may be used as lexical nouns to denote an *entity* which is employed in, which is an abstract standard of, or which is the result of, the grouping or division of some other entity or entities.

23) *əbár=go*
large.loose.conical.basket=IDEF
'an ebar basket'

24) *opòo əbár=go*
liquor l.l.c.basket=IDEF
'a basket of (unfiltered) opo'

Type	Lex.	Gloss	Root	Quantifies
Quan..	*acám*	'one group of ten'	*cám-*	any set of individuals in groups of ten
	ahú	'one group of four'	*hú-*	any set of individuals in groups of four
	atík	'bushel'	*tík-*	bushels of large-sized leaves (40 by standard)
	arò	'bundle'	*rò-*	bundles of sticks or poles (40 by standard)
Coll.	*ajùm*	'handful'	*jùm-*	handfuls of any substance
	aók	'heaping handful'	*ók-*	heaping handfuls of any substance
	apùm	'heap'	*pùm-*	heaps of any substance or individual
	alùm	'cluster'	*lùm-*	clusters of individuals
	igìn	'tight conical basket'	*gìn-*	tight conical basketfuls of any substance
	əbár	'loose conical basket'	*bár-*	loose conical basketfuls of any substance
	uzùk	'gourd ladle'	*hùk-*	ladlefuls of any substance
	apée	'one bunch'	*pée-*	bunches of any substance or individual
Div.	*akór*	'one pace'	*kór-*	any length/distance as measured by paces
	agóp	'one handspan'	*góp-*	any length/distance as measured by handspans
	adú	'one forearm length'	*dú-*	any length/distance as measured by forearm spans
	azék	'one slice'	*zék-*	slices of any substance or individual
	aták	'one fragment'	*ták-*	fragments of any substance or individual
	atək	'one piece'	*tək-*	pieces of any substance or individual

Table 8 – Mensural classifiers attested to date (Galo)

6.2.3. Monosyllabic adjectival roots

The overwhelming majority of Galo adjectives are like nouns: disyllabic; etymologically complex, but not actively/productively-formed or analysable. However, a small set of "core" adjectives have root forms which are productively compounded to form Adjectival Classifier Expressions (§6.2.4.).

Gloss	Lex.	Root	PTS
'big'	*attə̀*	*tə̀-*	**tə*
'small'	*ajáa*	*jáa-*	**jaŋ*
	aɲɲɨ́	*ɲɨ́-*	--
'old'	*akò*	*kòo-*	**k(j)u?*
'new'	*alìi*	*lìi-*	--

Table 9 – Core adjectives – lexical and root forms

6.2.4. Classifier expressions

Classifier expressions fall under two types: *Enumerative* and *Adjectival*. Both types are realized as disyllabic compounds which are productively formed via the combination of initial Classifier roots with final Core numeral roots or Monosyllabic Adjective roots respectively, i.e. [CLF-NUM] or [CLF-ADJ] (25-26).

25) G *ikì **dorum**gó*
ikɨ̀ii dór-úm=go
dog CLF-three=IDEF
'**three** dogs'

26) G *ikì **dortə̂** nago*
ikɨ̀ii dór-tə̀ na=go
dog CLF-big ASSC=IDEF
'a **big** dog'

Peripheral numerals cannot be used to form a classifier expression, since they lack qualifying root forms. Enumerative classifications based on peripheral numerals are formed periphrastically (27):

27) G *ikì **adór kanə**gò*
ikɨ̀ii adór kanə̀=go
dog CLF seven=IDEF
'**seven** dogs'

6.2.5. Syntactic functions of classifiers

Galo classifiers/classifier expressions are functionally limited to enumeration and (core) adjectival modification. In these functions, they may be analysed as syntactic NP heads, and may be employed anaphorically in referential maintenance.

28) G *aló gollo...kobû* ***dorùmgo****...*
alóo go=lo kobùu dór-úm=go
day IDEF=LOC rodent CLF:4.LEG.ANIM-three=IDEF

immêntabə̀, oodôobə immêntabə̀ ĭn/... inlênto. <8 lines>
ín-mèn-tà-bə́ oodòo-bə́ ín-mèn-tà-bə́ ín-lèn-tó
walk-AS.PLAY-INCP-SBRD far-AVZR walk-IN.PLAY-INCP-SBRD go-OUT-PFV
'One day, **three** mice went out to go for a walk...far away out to go for a walk.'
(TR, FA 002)

29) *əə, naməló aalɨ̂k doolà...****dorumə́****...*
əə namə́=lo áa-lɨ̀k-dóo-làa dór-úm=əə
AFF house=LOC come-APPL:INTO-STAT-NF CLF:4.LEG.ANIM-three-NOM

ərabné cɨ́ɨ́n cɨ́ɨbə́là...
əráp=ne cɨ́ɨ-nə́ cɨ́ɨ-bó-làa
door=OBL slap-MOVE.1 slap-MOVE.2-NF
'They came up to the house and **the three of them** knocked on the door and…'
(TR, FA 009)

However, unlike Thai, Galo classifiers are not directly modified by demonstratives or relativized-from (29-30).

30) G *əgə̀ ikì əgə̀* ** (əgə̀) (ikì) (a)dor əgə̀*
əgə̀ ikĭi əgə̀
DST.IND dog DST.IND
'that there dog'

31) G *kopâk hɨ̀ɨ̀n donə̀ ərə́k* ** kopâk hɨ̀ɨ̀n donə (a)dor*
kopák hɨɨnə̀ dó-nà ərə́k
banana tree eat-ASSC pig
'the pig that ate the banana tree'

6.3. Structure of nouns/adjectives

6.3.1. Root-root compounds

Root-root compounds follow a Generic-Specific pattern, whether they function primarily as nouns, as adjectives, or both.

Compound		Root 1 (Generic)		Root 2 (Specific)	
Term	Gloss	Term	Gloss	Term	Gloss
dumpìn	'barking deer skin'	*dùm-*	'barking deer'	*pìn-*	'skin'
beehòr	'langur'	*béé-*	'monkey'	*hòr-*	'length/long'
dumpúu	'white hair(ed)'	*dúm-*	'head (hair)'	*púu-*	'white'
hibùu	'river'	*hì-*	'water'	*búu-*	'pipe'
luuráp	'fence gate'	*lúu-*	'fence'	*ráp-*	'door'
təlèe	'wild elephant'	*tə̀-*	'elephant; big'	*lèe-*	'wild (animal)'

Table 10 – Representative selection of root-root compounds (Galo)

6.3.2. Emergence of class terms

Frequently-occurring root-root compound initials may take on a status not unlike the *class terms* found in Mainland Southeast Asian languages such as Thai. Class terms were identified by DeLancey (1986, following Haas (1964)) as a type of semi-productive, classificatory compound formative.

CT	Occurs on	Ex.	Gloss	RL	Gloss
ɲɨk-	terms relating to eyes	*ɲɨgláa*	'tears'	*aɲɨk*	'eye'
ɲɨ-	terms relating to human beings	*ɲɨpàk*	'non-hill-tribal'	*ɲĩi*	'human'
lâk-	terms relating to arms/hands	*lagbɨ́ɨ*	'elbow'	*alâk*	'arm including hand'
lə-	terms relating to feet/legs	*ləgàp*	'underknee'	*alə*	'leg including foot'
mə-	terms relating to fire	*mərèe*	'ember'	*əmə*	'fire'
pɨ́- ~ pə-	terms relating to globes, spheres, or eggs	*pɨcɨ́ɨ*	'cooking pot'	*apə*	'globe/sphere/egg'

Table 11 – Representative set of class terms (CT) given with related lexemes (RL) (Galo)

Term	Gloss	Term	Gloss	Term	Gloss
lɨɨcɨk	'cooking tripod'[7]	*lɨɨpù*	'marble'	*lɨɨkər*	'turquoise'
lɨɨmɨk	'gravel'	*lɨɨnə*	'boulder'	*lɨɨcùm*	'jade'
lɨɨmìk	'algae'	*lɨɨpùm*	'stone pile'	*lɨɨpə*	'sharpening stone'
lɨɨtàk	'giant boulder'	*lɨɨtòr*	'hard stone'	*lɨɨkə*	'ebony'
lɨɨkà	'igneous rock'	*lɨɨjà*	'soft stone'	*lɨɨcàk*	'pebble'

Table 12 – Lare Galo Lexical set based on the class term 'stone' (Galo)

Class terms have also been identified as a possible historical feeder for the classifier system via a "semi-repeater" construction (31-32).

32) T ***ráan****-ʔaahăan săam ráan*
shop-food three CLF:SHOP
'three restaurants' (lit. 'three shops of restaurant')

33) G ***pɨpə pɨumgó***
pɨpə pɨ́-úm=go
egg CLF-three=IDEF
'three eggs'

[7] Semantic shift has occurred here, and owes to the fact that while traditionally, Galo cooks balanced pots on a configuration of any number of large stones, in modern times iron tripods are invariably used. As to the *cɨk-* element, it could relate either to PG **cɨk-* 'wall; barrier' or to PG **cɨk-* 'scatter(ed)', and relates undoubtedly to the configuration of stones.

6.3.3. From class term to prefix

Frequently-occurring (and probably long-lasting) class terms can further develop into *prefixes*. Most Tani prefixes have an identifiable semantic core which relates to their earlier occurrence as class terms; however, they lack a lexical (root) form which may itself be prefixed to form a word, generally lack a tone, and may exhibit further (often unpredictable) phonological discontinuities with their lexical sources.

PFX	Semantics	Example	Gloss	PTS	PTB
ho-	animals	*hodùm*	'barking deer'	**sa-*	**s(j)a* 'meat'
pV-	birds	*pəgáa*	'great pied hornbill'	**pa-*	**b(j)a* 'bird'
doo-	weather	*dooɲí*	'sun'	**doŋ-*	???
ja-	colour, feminine, pejorative, diminutive	*jalɨ́*	'red'	**ja(ŋ)* ?	???
ta-	insects/low animals, masculine, diminutive	*tabə́*	'snake'	**ta-*	???
a/V-	basic noun/adjective	*alák*	'hand/arm'	**a-*	**a-* 'NZR?'

Table 13 – Tani Prefixes (Data from Galo; attested in all Tani languages)

6.3.4. Kinship: relatives by marriage

Order	Wives-in-law	Daughters-in-law	Maternal Uncles	Maternal Aunts
1	*nətə̀*	*ɲamtə̀*	*kɨtə̀*	*motə̀*
2	*nərоò*	*ɲamróo*	--	*moróo*
3	*nəkòo*	*ɲamkoo*	--	--
4	*nədə̀ə*	*ɲamdəə*	--	--
5	*nə̀ì*	*ɲamí*	*kɨ̃ì*	*moí*

Table 16 – Relatives by marriage (-- means unattested)

6.3.5. Naming

Tani naming follows a patrilineal system which is apparently common in T-B, in which a child is given a disyllabic name. The second syllable (the *autosyllable*) relates to the child itself, and frequently relates to birth order (particularly *tə̀-* 'big; first' and *ɨ́-* 'small; last'). The first syllable (the *patrisyllable*) represents the filiosyllable of the child's father. The same procedure is followed for male and female children, however only a male child's autosyllable is incorporated into the lineage as the patrisyllable of his own children's names (assuming he has any!).

ta**nii** → **nii**too → too**po** → **pa**nə → na**ur** → **ur**ti → si**kar** → **kar**koo → koo**rɨ** → **rɨ**naa, **rɨ**baa

Figure 7 – Lineage of the Rɨbaa clan ancestor

This may be thought of as a classificatory naming system. The patrisyllable essentially denotes a type, or set of related items; namely, the set of children pertaining to a man. The autosyllable denotes an individual or exemplar of that type.

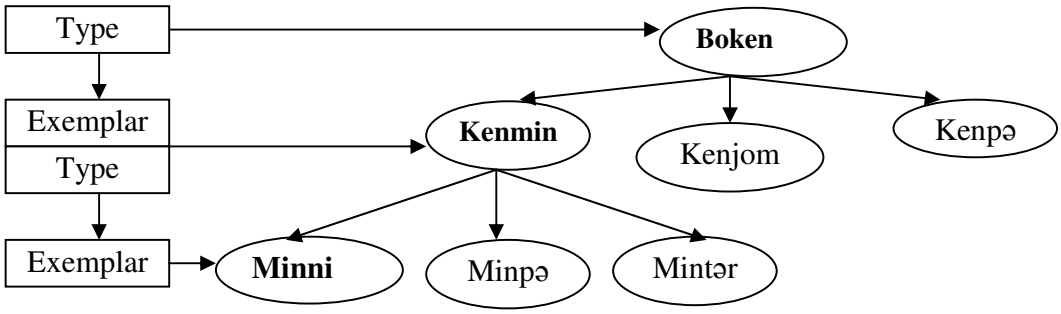


Figure 8 – Classificatory structure of the Tani naming system

6.3.6. Two-term compounds

6.3.6.1. Asymmetrical

Asymmetrical two-term compounds are, like root-root compounds, formed according to a Generic-Specific pattern. All asymmetrical compounds are inherently classificatory in this sense; however, a subset is formed according to an A-B=B-C pattern, in which the B term is the Specific member of the initial term and the Generic member of the final term.

Type	Term	Gloss	1 (Gen)	Gloss	2 (Spec)	Gloss
Clas.	*hotə̂-təpìn*	'elephant skin'	*hotə̀*	'elephant'	*təpìn*	'elephant skin'
	orǐ-riiták	'wild coriander'	*orǐi*	'coriander'	*riiták*	'wild coriander'
	îs-hilə̀	'lake'	*isì*	'water'	*hilə̀*	'deep section of river'
	kodé-deerɨ́	'plains'	*kodée*	'soil; earth'	*deerɨ́*	'flatland'
	ikî-kiibò	'male dog'	*ikìi*	'dog'	*kiibò*	'male dog'
Other	*hodûm-talìi*	'round tick'	*hodùm*	'deer'	*talǐi*	'flea'
	ɲím-koodá	'women's balcony'	*ɲimə̀*	'wife'	*koodá*	'balcony'
	óo-takáa	'edible fern'	*óo*	'vegetable'	*takáa*	'fern'
	acâ-kajàa	'blackmouth variety'	*acàa*	'?'	*kajáa*	'black'
	kán-zèe	'dark green/blue'	*kanə́*	'dark'	*zèe*	'green/blue'

Table 14 – Asymmetrical two-term compounds (Galo)

33) G *ikìi kiibò*

ikìi		kiibò	
dog		male.dog	
GEN		SPEC	
i-	kìi-	kìi-	bó-
PFX	dog	dog	male; father
GEN	SPEC	GEN	SPEC

'male dog'

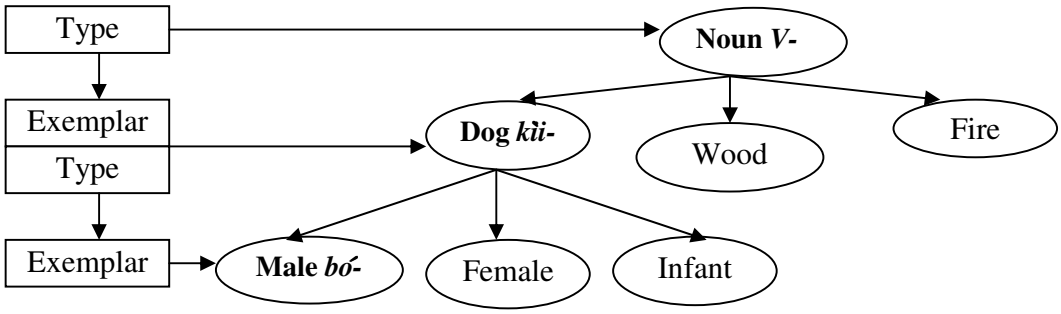


Figure 9 – Classificatory composition of asymmetrical two-term compounds

6.3.6.2. Symmetrical

Symmetrical two-term compounds are also classificatory, but in a different sense. Each term individually denotes an exemplar of a higher-order type, which is the denotation of the whole.

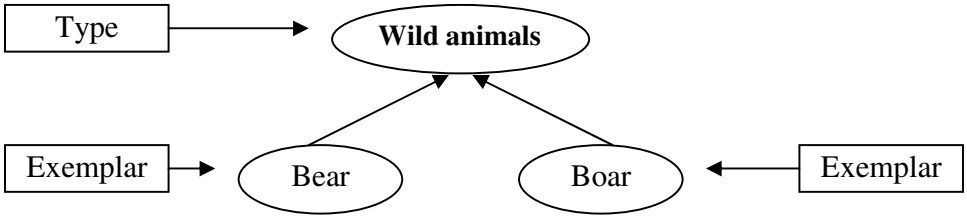


Figure 10 – Classificatory composition of symmetrical two-term compounds

Term	Gloss	Term 1	Gloss	Term 2	Gloss
hottúm-horə́	'wild animals'	*hottúm*	'bear'	*horə́*	'boar'
ác-abó	'(mature) men'	*ací*	'elder brother'	*abó*	'father'
ân-ɲaməə	'married women'	*anə̀*	'mother'	*ɲaməə*	'daughter-in-law'
cərə́-cəkòo	'every nook and cranny'	*cərəə*	'corner'	*cəkòo*	'notch'
donám-tɨ́ɨ́nám	'upkeep; sustenance'	*dó-nam*	'eat-NZR'	*tɨ́ɨ́-nam*	'imbibe-NZR'
innám-kennám	'comings and goings'	*ín-nam*	'go-NZR'	*kén-nam*	'?-NZR'
cinâm-ramnám	'disease'	*cì-nam*	'be in pain-NZR'	*rám-nam*	'have fever-NZR'
rərô-duurò	'artifacts of youth'	*rə̀-rò*	'exist-NZR:ORG'	*dùu-rò*	'stay-NZR:ORG'

Table 15 – Symmetrical two-term compounds

6.4. The root-class term-classifier network

Galo

Terms				Pattern				Gloss			
ə-	rə́k-	rə́k-	cùu-	A	B	B	C	PFX	pig	pig	infant
i̶-	lɨ̀i̶-	lɨ̀i̶-	pùm-	A	B	B	C	PFX	stone	stone	pile
i-	gɨ̀n-	gɨ̀n-	ci-	A	B	B	C	PFX	basket	basket	-let
i-	gɨ̀n-	gɨ̀n-	ɲì-	A	B	B	C	PFX	basket	basket/CLF	two
i-	gɨ̀n-	gɨ̀n-	ɲí-	A	B_i	B_{ii}	C	PFX	basket	CLF	small
i-	kɨ̀i-	dór-	ɲì-	A	B_i	B_{ii}	C	PFX	dog	CLF	two
i-	kɨ̀i-	dór-	ɲí-	A	B_i	B_{ii}	C	PFX	dog	CLF	small

Figure 11 – Roots to class terms to classifiers in Galo

In Galo, most of the system appears fairly fixed, although the mensural classifier system seems productively expandable in this way. However, in Apatani, it seems common to "auto-classify" nouns, leading to a potentially open sortal classifier set as has also been claimed to exist in Thai and Lao (Enfield 2004). Note especially the occurrence of auto-classifying roots with peripheral numerals.

Apatani

a-	lji-	lji-	ne-	PFX	pig	pig/CLF	two
pa-	cu-	cu-	pe-	PFX	chick	chick/CLF	four
a-	ki-	ki-	ɲo-	PFX	dog	dog/CLF	small
a-	ki-	ki-	piŋe	PFX	dog	dog/CLF	eight

Figure 12 – Roots to class terms to classifiers in Apatani (data from Abraham (1985: 65-66))

7. Linearity and ordered relations: the semantics and pragmatics of "modification"

When two terms in a linear sequence bear some relation – particularly when they together form a single constituent – the relationship is usually described as one of 'dependency' or 'modification' – i.e., one term is 'dependent' or 'modifier' and the other term is 'head' or 'modified.' Does this kind of description always work? In particular, does it work for compounds, i.e. at the word, as opposed to phrase, level?

> "Auditory signifiers…are presented in succession; they form a chain [Principle II of the Study of the Sign, p.70]…words acquire relations based on the linear nature of language [Definition of the Syntagm, p.123]." (Saussure 1959)

> "As soon as two or more [terms] are put before the human mind in immediate sequence it strives to bind them together with connecting values of some sort....It

> depends entirely on the genius of the particular language what function is inherently involved in a given sequence of words." (Sapir 1949 [1921]: 62-63)

7.1. What is modification?

An inherently pragmatic – *not semantic* – notion:

> "The act of modification (of referents) functions to enrich a referent's identity by an additional feature of the referent, denoted by the modifier." (Croft 2001: 66, citing Searle (1969:23-4))

> "[The] major function of noun modifiers [is] to…narrow down the domain of reference of their head nouns [,which,] unlike pronouns and names, do not of themselves refer to unique [individuals]….They thus require further modification in order to become uniquely referring expressions." (Givón 2001 [1990]: 1)

7.2. Is there "modification" in compounds?

Are compounds analysable using the same concepts as we use for syntax?

> "The head of the phrase determines its principle meaning. The expression 'brick red' has…red as its head, *so* the entire expression is a kind of red. In noun compounds the final noun is *generally* the head." (Fromkin, Blair et al. 1999 [1988]: 166 (my emphasis))

Insofar as *compounds often represent frozen syntax*, syntax-like analyses of compound-internal structure often work reasonably well. However, just because we often can doesn't mean we always should. A particular pattern of compound-formation may or may not reflect a syntactic pattern which exists in a given language at a given point in time. Furthermore, compounds are frequently subject to categorical or other semantic changes which are lexicalized, rendering their analysis problematic.

The default assumption should probably be that compounds must be analysed on their own terms, i.e. independently of syntax. However, to the extent that productive patterns of compounding resemble or appear to be derived from productive syntactic patterns, these facts should of course be included in the description.

7.3. "Modification" in Chinese and Tani

Chao (1968) analyses Chinese as having a Modifier-Modified order in syntax and compounds alike. The only exceptions are 1) exocentric compounds (i.e. compounds which have semantically/categorically shifted, either in whole or in parts) 2) coordinate compounds (i.e. compounds whose formatives are in apposition) 3) V-O compounds 4) resultative complements.

Chinese				
Order	√1	√2	Comp.	Whole
MOD-H	*baî*	*cài*	white-vegetable	‘wombok’
MOD-H	*mǔ*	*gǒu*	mother-dog	‘female dog’
MOD-H	*rè*	*shǔi*	hot-water	‘hot water’
MOD-H	*shù*	*cóng*	tree-thicket	‘grove’
MOD-H	*lǜ*	*pí*	deer-skin	‘deerskin’
MOD-H	*gāo*	*shēng*	tall-sound	‘loud’
MOD-H	*ā*	*yí*	PFX-maternal aunt	‘maternal aunt; elder sister figure’
MOD-H	*lǎo*	*hàn*	old (PFX)-(Chinese) man	‘old feller’

Galo					
Order	√1	√2	Comp.	Whole	Order
H-MOD	*ó-*	*kú-*	vegetable-sour	‘variety of sour vegetable’	GEN-SPEC
H-MOD	*kìi-*	*nə-*	dog-mother	‘female dog’	GEN-SPEC
H-MOD	*hì-*	*gò-*	water-hot	‘hot water’	GEN-SPEC
MOD-H	*hɨ̀ɨ-*	*lùu-*	wood-thicket	‘grove’	GEN-SPEC
MOD-H	*dùm-*	*pìn-*	barking deer-skin	‘barking deer skin’	GEN-SPEC
H-MOD	*dù-*	*tə-*	sound-big	‘loud’	GEN-SPEC
MOD-H	*a-*	*ɲí-*	PFX-elder sister	‘elder sister (figure)’	GEN-SPEC
MOD-H	*ta-*	*púu-*	PFX-white	‘whitey’	GEN-SPEC

7.4. “Classification” as the semantic contents of “modification” in Tani

To the extent that we can define “modification” along pragmatic lines – as the augmentation of reference – then we could describe modification in Tani as an essentially Modifier-Modified language (like Chinese). REL-N order is also exhibited, and the N-DEM order can perhaps be explained on historical grounds by suggesting that they derive from resumptive pronouns, since DEM-N order is also attested. In all cases, the *most referential term* is *rightmost.*

However, semantic relations also obtain between the terms in an ordered string, and “modification” may not tell us the whole story about these. That is, it might in the case of Chinese – all leftward elements appear to be simply “adding some more information”, whether this information is expressed by an adjectival (verbal), nominal or prefixal formative.

In Tani, the semantic relation obtaining between ordered terms in the nominal/adjectival lexicon appears most often to be one of Generic-Specific, Type-Exemplar, Set-definer-Set-member, or some such configuration.

Abbreviations

ABL Ablative
APPL Applicative
ASSC Associative
CLF Classifier
COP Copula
DECL Declarative
DST Distal
E East
IDEF Indefinite
INCP Incipient
IND Individuative
IPFV Imperfective
LOC Locative
NF Nonfinite
NOM Nominative
NZR Nominalizer
PERS Persistive
PFX Prefix
PFV Perfective
PRX Proximate
PST Past
PTB Proto-Tibeto-Burman, Matisoff's (2003) reconstruction
PTS Proto-Tani, Sun's (1993) reconstruction
OBL Oblique
REL Relativizer/Relative Clause
SBRD Subordinate
STAT Stative

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