PHUNOI OR CÔÔNG1

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ABSTRACT

A substantial vocabulary of this Loloish Tibeto-Burman language follows some phonetic, phonological, and comparative observations. Phunoi usually has final /p/, /t/, /m/, or /n/ in reflexes of Proto-Loloish roots reconstructed with *-p, *-t, *-m, or *-n respectively. Phunoi is also conservative in preserving the three-tone system reconstructed for Proto-Loloish non-stopped syllables; in stopped syllables, the two-way tonal distinction has its southern Loloish phonetic reflex. Phunoi, like other Bisoid languages, has undergone a chain shift in manners of initials: *voiced stops have voiceless unaspirated reflexes, while *stop-prefixed nasals have voiced \$\$top\$ reflexes.

PREVIOUS WORK

The first vocabulary of this language appears in Lefèvre-Pontalis 1892, under the name 'Khong'. An excellent vocabulary, with tones indicated, is in Roux 1924; there is also ethnographic and historical information in this source. Several linguists, including Shafer and Nishida, have used the Roux material in comparison. Nishida 1966-7 shows that Phunoi is closely related within Southern Loloish to Bisu, a language of northern Thailand, and to Pyen in Burma, reported in Scott/Hardiman 1900; Matisoff 1972 uses the term 'Bisoid' for this subgroup. Harris has more recently worked with several informants, including mine. Ferlus has also done work on the language, and some ethnographic information on the Côông in Vietnam is found in Vuong 1973.

PHUNOI AND THEIR SETTING

The Phunoi live in Phongsaly Province, northeastern Laos; the Northwest Autonomous Region of Vietnam; and probably in China as well. Vietnam, the Phunoi are called Côông, and speak a slightly different dialect; according to the 1960 census, there are about 6,500 in all. In Laos, the Phunoi live in a concentrated area around Phongsaly town; Roux reports a population of 10,000 in 1923, which is now probably far There are, according to informants, five major clans, each with a dialect; Roux reports one, Ferlus another, and Harris and myself a third. Some Phunoi also now live in Luang Phrabang and Vientiane Provinces, as they were unable to return home after serving in the Royal Lao forces. 'Phunoi' means little man in various Dai languages including Ly, and is probably not the original name for this group; Côông [kho:] is more likely to be the original name. The relatively small areas inhabited by the Phunoi, and the large population concentrated in these areas, are both unusual among Loloish groups - which tend to be geographically scattered, and intermingled with other groups.

According to Phunoi tradition, they were under Burmese rule in the Muong Sing area of northwestern Laos until five generations before 1923. This location is much closer to the modern Bisu and Pyen, so genetic comparison supports the tradition. Then, after a Chinese invasion, they fled to their present area; perhaps this invasion can be associated with Yung Li, the last Ming emperor, and his Manchu pursuers; or with the later upheavals associated with the Mohammedan rebellion in Yunnan. They were then involved, always on the losing side, in wars between the Burmese and the Vietnamese. The resettlement of populations after wars, in the territory of the victors, may account for the presence of Phunoi in Vietnam. The main concentration of Phunoi was in Muong U, a part of the Ly Federation [sip sɔn phan na:], twelve thousand wet-rice fields, when the French entered the area; there are strong Ly cultural and lexical influences on the Phunoi in the area. For example, the Phunoi adopted Ly Buddhism.

The history of Muong U has been extremely turbulent in the last century. Various armies of Chinese bandits caused chaos for more than thirty years at the end of the nineteenth century. These Chinese, called [hɔ] in most Dai languages of the area, are called /huo bà/ in Phunoi; several other Loloish languages have related forms, derived from *hek L . These Chinese were eventually subdued by the Ly, who were in turn conquered by the French — who then received cession of the area from China, the nominal ruler, in 1895. There were major Ly revolts in 1908-10 and $1914-6;^{5}$ the French suspected the Phunoi of involvement

in at least the second of these. 6 Between 1917 and 1924, the French built many roads in the area to consolidate their rule - using mainly Phunoi corvée labour. Most of the non-Phunoi population of the area went to China to avoid this work; thus, in 1921 the French moved their administrative centre to Phongsaly, in the Phunoi area of the province. There were constant bandit raids from China - one source lists ten between 1917 and 1930.8 The Phunoi began to serve in the French armies, and later benefitted from high opium prices, and Vichy government support of opium cultivation, during World War II. Anti-Japanese, Viet Minh, Pathet Lao, and CIA guerillas were active in the area at various times; the Royal Lao government also used the Phunoi in its forces. During a brief truce in 1958-9, the Royal Lao government tried to exterminate the Pathet Lao and Neutralist forces in the area. 9 From 1959, Phongsaly Province became a Neutralist stronghold under Colonel Khammouane; he was supplied from China, and roads were built connect ing northern Laos with adjacent areas of China. For about ten years, the area was subject to intensive US bombing. Now, at last, Laos has achieved peace; the Phunoi are certain to benefit.

TRANSCRIPTION: PHONETICS, PHONOLOGICAL INVENTORY

Items in brackets do not occur in the primary system, but only in the secondary system of loans. There are very many loans in Phunoi.

 Minor Syllables (schwa vowel, pitch same as following syllable, with these initials)

Initial Consonants (followed by full, tonal vowel)

3. Vowels

Ī	ŧ	u	ĭ	(Ŧ)	(ũ)	All but two native vowels are
е	ə	0	ẽ	(ã)	õ	non-diphthongal. The nonnative
(ε)	a.	(a)		ã		diphthongs are listed later.

4. Final Consonants

Occurring combinations of Vowel and Final Consonants are stated below. [?] is a juncture phenomenon in primary system.

5. Tones

High (level or slightly falling), low (level or slightly falling), mid (level), and rising, phonetically. The rising tone does not occur in the primary system.

PHONOLOGY

The phonological oppositions are subsumed in the charts above. Minor Syllable Consonants have a two-way opposition, stop (S) or continuant (C); Initial Consonants have a three-way opposition, with nasal (N) in addition to S and C. Vowels are oral (O) or nasalized (N).

The S and C group consonants are contrastively voiced (V), strongly articulated (H), or weakly articulated (W), the last non-voiced and non-aspirated. The N group are either strongly articulated (H) or voiced, weakly articulated (V); the values of H and V are different with N than with S or C. Borrowings have added a number of additional CW elements, and introduced one which formerly occurred only in Minor Syllables to Initial Consonant position (f). The following chart refers to Initial Consonants; Minor Syllables have several fewer possibilities, thus the opposition is more restricted; this reduction can sometimes be shown to be recent (either by comparisons with Roux materials, or with other languages).

The positions of articulation which are contrastive in primary phonological system (native words) are labial (L), dental (D), palatal (P), velar (X), and laryngeal (L). Labials also occur palatalized (LY), and velars occur labialized in secondary system (XL).

The final consonants have the same basic three-way manner opposition as initial consonants, S, C, or N; but there is no additional V/H/W opposition. Also, the position opposition in native syllables is two-or three-way, L/D for S, L/P for C, and L/D/P for N.

There are voiced fricative realizations of /b/, /d/, /g/, /w/, and /j/; they occur mainly in close-juncture; although /w/ sometimes has a [v] realization initially. As in Vietnamese and most Dai languages, but in few other Loloish languages, the voiced stops /b/ and /d/ tend to be implosive. Also like Vietnamese, final /m/ tends to have a simultaneous velar closure: $[\widehat{nm}]$. The Dai loanword element in Phunoi can hardly be overemphasized; several consonants, e.g. /f/ and /[n]/, occur only in loanwords; the vowels /[n]/ and /[n]/ appear to be distinct from /e/ and /[n]/ only in loanwords — although there is allophonic variation between [n] and [n] for native /[n]/.

In native words, and in assimilated or fortuitously canonical loan-words, the following combinations of vowel, and final occur - some are much more frequent than others.

In addition to the two diphthongs shown, various possibilities occur across morpheme boundaries, and a very large number of possibilities occur in borrowed words, along with nearly every possible combination of O-vowel + final stop and N-vowel + final /m/, /n/ or /ŋ/. Many diphthongs, including [-ei, -oi, -ei, -ei, -ei, -ui] all appear to be secondary. Examples of Vowel plus Final Consonant combinations that are secondary include [-ip, -ep, -em, -en] and several others of which there are fewer examples. There are several vowels which do not

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occur nasalized in native words, but which do in loanwords. All of these changes involve utilizing sounds which occur in the language in combinations that did not previously, but which may well have at some previous stage in the language. A case in point are the velar finals. These must be reconstructed for *Loloish, and are in fact attested in Roux and in Bisu in the case of the velar nasal final; but sound change has eliminated them from Phunoi. The possibility of a velar final is then reintroduced by loanwords.

Several further juncture phenomena can also be tentatively stated on the basis of my data. Within a word (for this purpose defined as coextensive with the noun phrase or verb phrase, including particles if any) there are various kinds of assimilation which affect the nasal initials. Specifically, a nasalized vowel, or a vowel with following n, or the glide -au, all are realized with [m] when followed by a labial; in the case of the vowel with following n, there is no longer an n, but only an m; cf. mouth below. Word finally, and particularly in utterance-final or citation form, there is a possible final glottal stop; when the Tone is low or mid in pitch, there may also or instead be a constriction and laryngealization of the vowel (not, however, corresponding to instances where comparative data would indicate a final *-k for Loloish). In closer juncture than word juncture, the H (voiceless, strongly articulated) nasals often become V (voiced), but the conditions are difficult to state.

Many minor syllables in primary system words show a reduced form of the first element in a compound: /15-/ from /là/ hand, among others. In such cases, the rhyme correspondence of the reduced syllable is, of course, irregular. In cases of juncture or reduction differences, the form which actually occurs is given in the vocabulary.

DIALECT DIFFERENCES

At least six dialects of Phunoi exist: five in Laos and one in Vietnam. The transcription used by Lefèvre-Pontalis is not accurate enough to show dialect characteristics, and Vuong does not give enough forms, so much more data is needed on the Vietnam dialect. As noted, Roux records one Laos dialect, Ferlus another, and herein a third is presented. When they differ from my data, forms from Roux are included in the vocabulary, in parentheses ().

One striking difference is the presence of $\neg ng$, presumably representing final $[\eta]$, in Roux; while such forms simply have nasalized vowels in my data. Perhaps the loss of final $[\neg \eta]$ has occurred in the last fifty years. Another difference concerns reduced minor syllables where /n/ initial would be expected etymologically, such as bean or

nose. The Roux data shows an /n/, but my data shows a change to /15/
- as there are no nasal-initial minor syllables. Another implied change parallels Lao: palatal affricates seem to have become aspirated dental spirants tchà là tiger, my data /shělà/. Further differences include a possible retention of initial /n/ in the Roux dialect, unlike its rather heterogeneous reflexes in my data.

Further study of Phunoi dialects is needed.

COMPARISON WITH *LOLOISH

As noted in the abstract above, Phunoi is similar to Bisu in many respects; in fact it is Bisoid in the sense of Matisoff 1972. *Lolo-ish reconstructions have been the subject of much work lately, especially by Matisoff. I have adopted the labels used by Matisoff for various reconstructed categories; in some cases Phunoi does not supply data to differentiate them all. Following Matisoff 1971, I use the labial to represent all positions of articulation in correspondence charts when discussing *Manner of articulation; and the voiceless unaspirate to represent all manners when discussing *Position of articulation.

Prefixes

Some of the Minor Syllables in Phunoi are from *Southern Loloish prefixes. One example is moon /fěla/, Akha /bala/, Lisu /haba/, Lahu /hapa/, the latter two with the order reversed (forms from data obtained in Thailand). In many other Loloish languages, this word has a voiceless lateral initial reflecting this prefix. In arrow /běla/, Akha /mja/ Akha has fused the prefix to the initial as a nasal; other southern Loloish languages reflect this prefix in initial and/or tonal differences. An example that shows how these prefixes may have arisen is tear (n) /bělá/, from a reduced form of eye /bja/ plus water /lá/.

The *Lolo-Burmese prefixes *? causative, *k animal, and *.] body part have fused with the initial and been treated as a unit. With some *Resonant initials, there is a different development, resulting in a different correspondence, when the animal prefix is involved. The causative prefix, because of regular sound change, would not be observable with stop initials; with nasal initials, one might expect causative pairs of verbs one of which was a voiced stop and the other of which was a voiced or voiceless nasal. For further on these three prefixes elsewhere, see Bradley 1971 and 1975.

Initials A. Manner

*Plain (formerly *Aspirated, and usually realized as such) and
*Stop-prefixed stops are realized as voiceless aspirated stops in
Phunoi. *Voiced and *Nasal-prefixed stops have reflexes with voiceless unaspirated stops. *Stop-prefixed nasals have reflexes with
voiced stops; *Plain nasals have reflexes with voiced nasals; and *Sor *?-prefixed nasals have reflexes with voiceless nasals. This could
be seen as an example of a drag type of chain shift: a merger among
voiceless stops (to a phonetically aspirated stop) leaving room for
voiced stops to become voiceless (phonetically unaspirated) stops;
leaving room for some nasals (in fact, the *Stop-prefixed nasals) to
become voiced stops, while other nasals remain nasal. 10

Initial	Manner	Chamt
Initerat	Manner	Chart

Ctona

Stops			
*Loloish	Phunoi	Bisu	<pre>examples (in Phunoi; sometimes the Bisu is not available)</pre>
*Plain	ph	ph	above, bitter, dog, day after tomorrow, fear, goat, grey, horn, leaf, person, deer, paddy, silver, six, foot, thorn, tie, vomit, wash (person), sweet, spit, smoke, steal, (loans) pepper, Shan
*Stop- prefixed	ph	ph	change, dove, drum, frog, grandmother, grind, hawk, male suffix, sour, teeth, (possible causatives) fear, steal
*Voiced	p	p	alive, bee, branch, bark, caladium, give, head, have, poison, pile up, pound, drink, wing, vulva
*Nasal- prefixed	p	p	book/read, cowrie, dig, shoot
Nasals			•
*Plain	m	m	horse, sky, you, old, cat, powder, heart
	m	b	<pre>father, husband, sit (proto-variation: *Plain vs. *Stop-prefixed)</pre>
	b	m	<pre>eye, face, grass, wind (proto-variation: *Stop-prefixed vs. *Plain)</pre>
*Stop- prefixed	b	b	fire, hungry, lightning, round, mother, elephant, heart, thumb, son-in-law, dream, girl, monkey, ill, morning, near, black, spirit, gun, brain
*S- or *?- prefixed	hm	hm	blow, cow, mushroom, knife, hair, red, listen, name, see, ripe, snot, earth, forget, potato, lungs, tail, bamboo shoot, ear
Spirants			
*Plain, *Prefixed	s	S	round thing, kill, louse, meat, pour, steam, (iron), tomorrow, die, blood, who, three, liver, rub/sharpen
*Voiced	j	j	child, he, go down

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Resonants
*w
           w
                   W
                           hide, flower, palm, pig
*S-wat
           h 1
                           wear, clothes
* C-w
                   ?
                           bear, elder sibling
           ?
'nг
           j
                           bone, chest, get pheasant, weave
                    g
*S-r
                           count, sell, clf. people, ashamed
           hj
*?-r
           h i
                           chicken, stand up
*k-ra(t)<sub>1</sub>
                           ant, bamboo, leech
*k-wa
                           big, in front, rat, termite
*p-.k-r
                   h
           h
                           ashes, 2 laugh, MeB
*C-r
           ?
                           field, horse, medicine, opium, sleep
* y
                    j
           j
*S-y
           hj
                           antelope, itch, raise animal, tobacco
*C-y
                           bellows, drunk, rain
* ]
                           come, enough, hand, neck, warm etc.
           1
                    1
                          tongue, pants, penis
*S-1
           h1
                   h l
                           ashes, 1 boat
*?-1
         {
                           bark, beg, wind
*C-1
           ?
                           grandchild
Fused *prefix becomes initial: free, husband, lick, lightning
Laryngeals
                           below, crow, egg, go, 1 intestines, noun/
*?
                           verb prefix
'nh
           h , h
                           be the case, belch, that, rice
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The chart above summarizes developments of *Loloish initials of all *Manners, including *Spirants and all *Positions of *Resonants, in Bisoid. In some cases, the Bisu form is not available; perhaps Nishida can supply these forms from his notes. Some scarce *Resonants, e.g. *?-w, have been omitted since Bisoid data is not available.

*Resonants have fairly regular developments reflected by their Phunoi reflexes. *r-type resonants and *Voiced spirants have merged with *y-type resonants with the same *prefixes in Phunoi (but not in Bisu). *S-w apparently (one example) merges with *S-1. *Resonant *Manners are reflected quite well by Phunoi phonetics: *Plain are realized as Phunoi voiced continuants; *S-prefixed, strongly articulated continuants; *C-prefixed, Phunoi glottal stop initial; *?-prefixed *r/*y type resonants are realized as Phunoi voiceless, weakly articulated continuants (voiceless spirants), but *?-1 has initial /1/ among its Phunoi reflexes. A couple of the *k-prefixed *r and one *k-prefixed *w are not realized as /?/ in Phunoi, but /h/ or /h/ depending on exact

environment. The *Laryngeal system is approximately as reconstructed elsewhere (Bradley 1971), but some *Nasals, particularly *prefixed velar nasals, and some *Resonants as just noted, also have become phonetic laryngeals in Phunoi. More on the *Spirants below.

Initials B. Position

The following chart is similar to several in Burling's and Matisoff's works.

*Loloish	P	PY	Т	TS	C	KY	KR	К
Bisu	Р	рj	t	ts	ts	kj	k	
Phunoi (unasp.)	Р	Ρį	t		С			k
(asp.)	ph	phi	th	sh		ch		kh

Examples for Phunoi follow.

*P (unasp.) potato, chin, carry (shoulder), deaf, cheek, give, rot, roast, shoot, vulva

(asp.) frog, grandmother, open vomit, leaf, grey

*PY (unasp.) bee (asp.) silver

*T (unasp.) alive, dig, drink, hit, poison, think, wing above, knot, sharp, thick

*TS (asp.) deer, salt, person, cough

*C lift, thorn, paddy, Shan/Dai

*KY (asp.) sweet

*KR (unasp.) hear, cowrie

/ch/ sour, garden
(asp.){/kh/ foot, hair, dove

*K bark, branch, neck, bitter, behind, dog, steal, smoke

The *Positions of articulation are from Matisoff. It is interesting to note that Bisu has almost the same number of positions as the reconstructed *Loloish system, and that their phonetic realization in Bisu supports the reconstruction. Phunoi is less conservative. Developments of *voiced stop-initials, which become phonetically unaspirated in Phunoi differ somewhat from developments of *voiceless stop-initials, which become aspirated.

*P initials are realized as phonetic labials in Phunoi; *PY as palatalized labials. *T initials are dental, and *K initials are velar stops (*Velar nasals have different kinds of reflexes, mostly laryngeal).

When *voiceless, *TS initials have reflexes with /sh/, *C and *KY with /ch/, and *KR with /ch/ or /kh/ depending on the *rhyme. When *voiced, *TS, *C, *KY and *KR initials all have reflexes with /c/.

*Nasals develop as *stops in some positions: *Labial, *Palatalized Labial, and *Dental as noted above. *Palatal nasals, of which there are comparatively few, are seen in *green* and *finger*; in Phunoi, these words have /hj/ initial and an irregular rhyme development with a nasalized vowel — perhaps partly involving metathesis. *Velar nasals sometimes follow the patterns seen elsewhere, but more often do not.

 \it{I} has a voiced velar stop initial in Phunoi; this is regular, parallel to \it{fire} .

Five has a glottal stop initial and vowel nasalization (metathesis again?).

Fish has initial /j/, which is a reconstructable *medial in this root, and also has an unusual rhyme development and vowel nasalization.

Banana has a voiced laryngeal /6/ initial, from *Loloish *S- η , rather than [h η] which does not occur in Phunoi, but would parallel the other voiceless nasals.

*Spirants, listed in the Initial Manner Chart above, are voiceless dental continuants in cognates of *Plain and *Prefixed spirants; and voiced palatal continuants in cognates of *Voiced spirants. Thus, the two *Positions of articulation for *Spirants have merged in Phunoi; in fact, the *Voiced have merged with the (*r- and) *y-type *Resonants. In Bisu, there is still a distinction between dental and palatal spirants, which corresponds to the *Loloish distinction. Unlike the *Voiced Spirants, *?-prefixed *r-type and *y-type *Resonants are usually voiceless spirants in their Phunoi (and indeed all their southern Loloish) cognates.

*Tones

Phunoi tones (high, low and mid level pitches) correspond regularly with *Loloish *Tones I, II, and III respectively. *Loloish *High Stopped syllables have cognates in Phunoi with mid level pitch; *Low Stopped, low level pitch. In other words, Phunoi has merged *Tone III with *High Stopped, and *Tone II with *Low Stopped. Phunoi is thus similar to other southern Loloish languages in having a reflex of *Loloish *High Stopped which is phonetically higher in pitch than the reflex of *Loloish *Low Stopped. However, there is unfortunately no relation between presence of final glottal stop or of vowel laryngealization and the former presence of a final stop (*-k) which has been lost in Phunoi. In native words, syllables with final stops have only

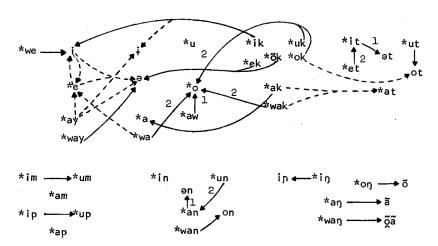
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two pitch possibilities, and syllables which one would wish to reconstruct (on the basis, for example, of orthographic Burmese forms, or forms in other Loloish languages) with final *-k also have only two pitch possibilities; but the *-k is not regularly reflected in Phunoi by a final construction or glottal stop. 11

Rhymes

In Lolo-Burmese in general, the rhyme, or combination of vowel and possible final, can profitably be treated as a unit — as in fact is usually done in many Sino-Tibetan languages. Phunoi often supports previously postulated reconstructions of *Rhymes in *Loloish and Lolo-Burmese with reflexes that are phonetically very similar to what one might postulate for *Loloish. For this reason, the vocabulary following has been arranged according to rhymes.

One could make a chart similar to the following to represent schematically the possible developments from the *Rhyme system to the rhymes in any language. Arrows are used to show changes — a dotted arrow, a partial, conditioned change; a solid arrow, an unconditioned or 'otherwise' change. Where changes must be ordered, numbers are associated with the arrows that show those changes. When no arrows, or only dotted arrows, lead from a *Rhyme, then that *Rhyme is phonetically realized approximately as reconstructed. Thus, in Phunoi:



In summary: *Open-syllable rhymes remain open; *Nasal-final rhymes keep nasal finals, except for some *-ŋ finals, which show nasalized vowels but no nasal stop. *Stop-final rhymes with *-p or *-t retain the *stop, and some *-k have reflexes with /t/, but most *-k have been lost, leading to mergers with *open-syllable rhymes.

The developments of *front open-syllable rhymes are very heterogeneous; the conditioning factors are the *initial-consonant positions of articulation. The developments of *back open-syllable rhymes require ordered rules, as do the developments of *dental-final closed syllable rhymes. It can be noted that the developments of *labial-final *stop and *nasal are parallel, but *-t rhymes develop differently from *-n rhymes. However, the resulting systemic possibilities for final /t/ and /n/ are similar: both occur after /i/, /e/, /a/ and /o/ in primary-system words.

There are some subregularities of *Rhyme development additional to those shown in the diagram above, which are listed in the following table.

*Loloish	Phunoi	Examples
*?1/?n+i	õ	boat, wind, yB (allophonic nasalization becomes contrastive after *- η loss)
*?m ^{ye}	in	name, tail, forget
* i	ə	MeB, know
*	ī	fat/oil, fire, fruit, daughter, grandmother, hit, lift, little, near, pound, sit
*P,KY+e	ẽ,ĭ	excrement, give (allophonic nasalization becomes contrastive after *-n loss)
*e	ə	grey, MyZ, blood, die, liquor, what, leg, bite, snake
*e	i	earth, thatch, sun, day, cowrie, borrow
*i,e	е	go, penis, red
*ai	ə,‡ aį	now, star, laugh, pull sand
* a	a	(many examples) eat, come, I, etc.
*wa	e	teeth
	¹ 0	cattle, rain
* u	u	dig, egg, head, 2 intestine, rooster, silver, take, thick, thorn etc.
*Po	u	mushroom, price, (sky /o/)
*?no	ã	finger, green
*o	ФЙ	bone, count, cough, dove, horn, smoke, sweet, steal, wash
*aw	σŭ	call

*Loloish	Phunoi	Examples
*ip,up	L+op	book, rot
, , ,	u.p	sleep
*ap	ФÞ	duck, lightning, lungs, snot
*it	ət	goat, grind
*et	et/it	drunk, bamboo shoot
*ut.	ot.	blow, body hair
*at	at	alive, clothes, b.deer, fear, flower, free, hungry, kill, leech, spirit, vomit
*ik	i	angry, joint, root, year
	.Ә	kick, new
*ek/ök	ə	cut, shoot
*uk/ok	ot	born, crooked, (fear /at/)
	.0	back, bark, below, brain, enough, poison, waist
*ak	a.t	ant, day after tomorrow, hide
	a.	above, ashamed, ashes, banana, bird, black, chicken, crow, dream, eye, hand, leaf, morning, pig, etc.
*wak	0	grass, rat
*im/um	um	drum, house, pile up, warm
	m	caladium, three, thread
*am	am	bear, cloud, fence/garden, hair (head), iron, sheep, eZ
*in	in ·	good, name, sour
*un	on	stomach/belly, breast
*an	ən	louse, paddy
	a.n	field (wet)
*wan	Q.n	hawk, face, spittle
*in	i n	fingernail, full, neck
J	in	liver, tree
*oŋ	õ	wing

*Loloish	Phunoi	Examples
*aŋ	õ	horse, husband
	ã.	cooked rice, deaf, drink, old, friend, he, light, nose, open, person, sell, water, you

Vocabulary

The following vocabulary includes Roux, with no modification in transcription, within brackets (when the Roux form differs appreciably from the one I elicited). It also includes items from Harris' tapes, when those differed from the form (in this case mostly reflecting lexical differences) that I obtained. These are not bracketed, since the transcription is mine. Forms cited include all juncture and other morphophonemic processes.

-a					
above	tha ə?	bracelet	hná tán	divorce	chó hna ní?
(add	ca lau)	branch	?ấ gà?	(go) down	yà lé o
adult	sĕ pùp bà	brave ²	?ấ há yà	dream	jùp ba ba ce
Akha	khá kò bà	bread	hma phằu	dry (vt)	wěchá jút
animal	sã kấ yà	break	pha o ví ce	dust	bŭkh la
ant	hat tsà	black	?ấ da	ear	?ấ hnà
ante lope	hjà	burp	khon bả kắn ce	easy	?ấ gá eà?
anvil	cam ba wa?	button	hna tŏm si	eat ²	cà ce
arrow	băla	carry (back)	sà ce	(elder	ja khoa)
ascend	phịà hnũ	(shoulder)	pà ce	elephant	jšba
ashamed	?ấ hjà∕sà	(bring	ha làu)	electricity	fai fà T
ashes²	kheld	change	phá ce	empty	m thi cà
ask	hná pí?	cheek	bo pà	(enemy	tồ sa cha lăn)
awake	ná nã.	chicken	hịa	enough²	zája
baby	jèka jà	Chinese	hụo bà	evening	mò da eve chi cìn
bachelor	jěkhà	child	?ấ jà	eye	?á bịa
banana	ha sì	cloudy	jà ễ pè hnŏ	face	băkà?
bank	ja tha	comb	tăcha	fall	tá ce
bat	pé fà	come	14	(farmer	yá chư bà)
(beard	tù sa mŭt)	cotton	chăpát	fast	?ấ tè wà jã
	(bàn hmut)	coolie	pà sà	fat	bŏpuán bịà jau
beautiful	?á hma?	clf. gen.	· md.	FyB	wa
bell	lěkhá sí	crab	wěchà	female	ba
betel	hna hma é	crawl	1d to	fern	kút kà
bitter	?á khà	crow	?ua?	few	je ká jà
bird	hìa	dark	mồ blà?	(field	· y d)
blind	?ấ bịa pò	deep	?ấ hnà	find	sa hmľá

-a	(continued)
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α (coποτιια	eu,				
(forest fire	chậpặt/ bìlôngpià)	lake larynx	nun khàm ba khon bá sì	pour priest¹ T	lấ sà na nõ phá?
fireplace	bì hmot jà	late	fa nổ?	put ²	ka na nổ
(fix hair	yà)	leaf	?á phà	rake (v)	1&
float	lấ thà faị ce	like	gà hõ ə?	refuse	m khă.
fly	fa/hua	liquor	děkhà	remain	?å ca
(fly	mà ba)	$little^2$	sá	rhyme	tà ní?
food	?á cá	light (v)	?a jā jà?	river	1å ba
forget	hmin là ce	live	?á ca	road	cặbà
frog	phà	look for	sa ce	rooster	h <u>i</u> a phu
(foot	p'a vŏa)	love T	?ấ hà?	run	pia hma hnő
	(lăkhà)	be loved	lom bà?	(rocky out-	Pia ma mo
garlic	pha thiem sì	man	kěp <u>i</u> à	crop	yấ thả bặ)
get	ja ce	male	phà	salt	shà
girl	jàьì	marrow	?á khat mịà	satisfied	?ấ tã bò já
go up	phjà	marry	khěba la jí?	scale	dá cấ
good smell-		mattress	pha sé	scorpion	wăcha dot
ing	cə sɨð ca	meat	sà	scratch	cha ce
god T	thé wa dà	medicine T	ja	send	sá nồ?
government T		(merchant	cam cha bà)	separate	?ò? hnà bịò
granary ²	děkha.	monkey	dà bà	sharpen	sì jò tha ce
(grass ²	ù tsí chá)	morring	(cf. Roux)	shelf	tha thà
hang	gà.	moon	fěla	shoulder	-1
happy	?ấ tà hmu	(moon	ù1à)	bag	fà
(hardworking		morning	lěse dà	short (per- son)	?á bé b <u>i</u> à
hate ²	?ắ 1ò nǎ.	mother	ba.	(thing)	?ấ hní mịà
hear	cà ce	navel	měchà?	sick	dá ce
heart	18ba sì	never	m chă.	six	khà
(heart	ni ma.)	(new	ya su)	sky	mò thà
hen	hịa ba	no T	bo &	skirt¹	din kà
help	?åbja.sìní?	onion	pha kuó sì	slash	bia ce (cf. knife)
hill	sěpup bjà	opium	ja jien	s lave	hmia cé la ma
honey	pịà chàu lấ	ox	ηά	small	?á́pia
hornbill	běsà.	palm	l j woa	smell	ia jiia
I	gá nǒm	parrot	kjà	(good)	cə sɨå ca
(immediately		(pheasant	ya nhề p'lu)	((bad)	ná mề)
itch	?a hịà	pig	wod	soft	?ấ p∔n jà
join¹	kó na ní?	plg plant (v)	kó nă ní?	sole	pò woa lěkhè
jump	ga. é me	pumpkin T	mà po sì	spider	pố bà
hand	1à-	poor	jà ?e jà	(spider	cà cà bố ám)
knife	hmià	porch	lěkyo bů	pants	hlượ hmố
(lac	khà tù)	Poron	10000 00		

a- (continu	ned)				
spit	phìt da ní?	-1		(little	ghi 🏲)
split	thá	(angry	tsì)	lift	chỉ jò mã wịò
(split	p'a)	beat	tì	near	·?atdìo.
spring	lấ jà	black magic	cí a sá ce	needle	ci ke cap
spinach	sin phà	blister	cíjo bèce	(owe	atsì achồ)
steam	sà ní?	bury	hni ton a tè	(palm leaf	din ni)
step T	thi ja?		ce	(pardon	tsí là nhề)
straw	là chi	buttocks	hņi tā	peppers	lăphí sì
sunrise	mò ni sì khən là ce	cat (charcoal	mí bì chi)	pigeon pound	dò ko kì ke tì
sunset	mò ni sì ta wea	chin, heel color T	pi tùn sĭ	(prevent	m kha bi)
swallow (v)	hna ce	cowrie	cí lã kàp	put¹	ci ce
sweat	mò hút na	curry T	kălí	rain	mò hó lì ve
tea	14	daughter	jĕbì		ta i ?é o ?á hlì
thin	?ã hlå jà	day	hi ni	root	
this one	hnã	dye	hnì ní?	round thing	
(threaten	kha khat chù u)	earth	hmí tã	sand T	khi sǎi hiông ề)
thumb	1 š ba	eat²	cì ce	(scrowny	
tiger	shà là	elbow	lăshi ton	set (sun)	ת וות בי
tobacco	hja kòn	empty	m thi cà	sharpen sit	sì jò tha ce
tongue	?ã h1d	fat (n)	?áshí		ni ní?
tone	sa mèn	fight	tì hnã ce	short (length)	?ấ hní mịà
town	khon bá	fire	ьì	(skirt	tèng pì)
trap	hna tán	(formerly	nì chàng)	(sparrow	chi chờ)(tặcá)
truck T	lát tó bà	four (cit)	sì	(square	síchè)
understand	ca kət (2nd T)	(foyer	bi giàp)	(straw	là chi)
("	chą yip là)	(gibbon	nà 11)	stretch	au hmá pi ce
vegetable	kày (m)ba phá	go down	jà li ce	sun	mò ni sì
wait	gà hnã ce	(granary²	cô chí)	there	hjok ni
(walk	quà àu)	(grass²	ù tsí chả)	today	hņa mé ni
(watk (waterfall	yà thà lắng)	grandmother	ph (vulture	cán bàn hní kón
wife	khěba	(heart	ni·ba)(lěba)	wide	?ấ tí
wind	há ban (măn)	(here	nhú chì chê)	win ⁻	ká ci ce
what	?a că	(indigo	mì)	(win	mì chặp)
(white	a pa)	(jewelry	chi nhu sì)	year	hi pi
woman	khĭbịà	ju ng le	lo đú di wé	yesterday	hù ni
	bì xa thum)	(immediate-		verb part.	ກໃ?
son-in-law	jěbů.	ly	chí a chà)	verb part.	11

-e					,
adverb		<i>MyB</i>	che .	powder	m# .
particle	è	needle	ci ke:càp	(remember	chừ khư dề)
always	thể lến	nine	tè	(run	h ử (n) nu)
appear	hná tè	penis	hlè .	(sister-in-	tsử)
armpit	kà kɨ lé	(pheasant	yo. nhê p'iu)	law (shake	khử dù)
arrow ²	she no. si	pigeon	dò ko ki ke		2 n(2
ashes 1	khĕ1đ	pine tree	té jun cín	smile	běk sì
bat	pé fà	red	?á hné	star	tàu bữu bla)
behind	lăkhựà hnò è	roast	?á shè	(thank	chư nê cơ bê)
bite	the ce	(square	sí chè)	(try	
boar	wĕ thã	swim T	lố luề pí	turtle	tã khả
buy	hne ce	(talkative	chê ê lamê)		
choose	shé ce	teeth	she phé	- ə	
close	phè ní	(ten	tsê)	above	tha ə?
cloudy	jà é pè hnò	thunder	mò ce cé ce	armpit	kà kɨ lé
copper T	tã hné	today	hna mé ni	$bark^2$ (v)	non cə ce le
$cord^2$	hnin hnè	top (moun-		basket	khón ká wə kán ce
(crest	cừng the)	tain)	khèn thé	go back	khè hnã
cross (v)	tù lé ce	(try	chư nê cơ bê)	beam (hor.)	
$(cut^2$	te)	verb particle	ce	behind	ləkhuə hno e
$dish \ { t T}$	kho phé	(verb		b i g	?ã bà
(dryness	mù nì tề)	particle	ye)	bile	bŏkà
fast	?ấ tè wà jã	(verb		blood	sè
few²	je ká jà	particle	bê)	calf (leg)	běthá
fish	jã te			chaff	kà tɨ
forehead	bětá se	- ‡ .		(cut	tə)
go	?é ~ 1é	armpit	kà k∔ lé	dance	jən ce
god T	thé wa dà	(attach	p'ừu)	die	sá ce
howk	can té à	(big	hữ ề)	dog	khè
iron T	hle?	(bring	su à nŭ)	easy	?ã bà (cf. <i>big</i>)
jump	ga. é me	chaff	kà tɨ	FeB, FeS	? á
(jungle	1. 16: b	(cure	bừ)	FyS	m á
fowl	k'hia nhề)	dry	?ấ k∔	fence	mù kə lò
language	cè	(farmer	yá chư bà)	(finish	po (n))
lazy	bè ce	few²	sì	fog	chè?
lick	bè ce	(give	p'ŵ'u)	foot	1ĕkh à
	e) bì hión we à.	good smelling²	cə sĭa ca	good smelling	cə sta ca
low	?ấ bé bịà		24 p(2	_	?α໌ ph∋
many²	be hnú ኤኒኒ	laugh	curu)	gray	bà ce (big)
(measure	tề ù)	(look at		grow	
middle	gù hniế . λ .	new moon	khom n∔	gums hinam	bàn khě
(monkey²	a miều)	$otter^1$?∔ bò	hiccup	hə? ce

-ə (contin	nued)				
hoe T	kə có?	tie	phè ce	harvest	
(how long	asò nhám mò)	tomorrow	lěsə	rice	ko ců ce
how much T	th á də	day after		head	?ấtu (atu)
hornbill	bð sà	tomorrow	phat sə	(heart	mì tchù sì)(lěba)
in front	gĕhùeị	$top (toy)^2$	Thmə khan	(here	nhú chi chê)
	(hù sử)	use	sá	intestines	?ໍ່ ດີ ?ໍ່ຜ
inside	thấ ə?	vulva	pà tò	(jewelry	chi nhu sì)
kick	băthá?	(when	asờnhám mề)	jung le	lo dú di we
knee	bětu	where	sá dá?	knee	bětu
leak	?ə ce		(a sò)	(lac	khà tù)
locative	- ə?	who	sá	ladle	lấ khu sè
look at	kə ce	yes	?ә	mat	tə̃pu
man	kĕpjà	thunder	mò ce kà cín	many²	be hnú?
mat	těpu			make waves	lấ cù ce
mattress	pha sá	- u		middle	gù hnie?
meat²	tlə kàn	(abandon	tsiu)	(milk	ո ն (ո) 1 ձո ց)
moan	hài ce	arm	1ĕpù	(molasses	pồ tchàu p'u)
FeB, FeZ	າອົ	$blunt^1$?ấ pú	(moon	ù 1à)
FyZ	má	blunt²	bu cha	(mosquito	hằng pín bồ cu)
mountain	sə pup bà	e B	hu jà	mushroom	hmú
mule	mò lə 13	y B	hnu jà	(new	ya su)
night	khə thà	(boil	tsú lờ yề)	outside	hnuə
now	hnã mà?	catch	hlap bò su bò	(panther	tchà là pám pông
noodle	há	chair	tã k ú	• • • •	thù)
pleasant	?ã cắn hmə	cheap	?ấ thù jà	pillow	těků
plow	lấ tầ sə ce	${\it chopsticks}$	kh <u>y</u> ù dan thán	pair	thěkhú
pour	sè ce	1 -1	sə p'lu)	Phunoi	phu nói
question	sə tã hnấ sè?	(close		(pot	ù lồng)
(rain	mბ h3) .	cross	tù le ce	sweet potato	chə kù hmấ
roll	hfé bò màn cə èî	daughter- ? in-law	jù	price	?ά hù?
roof	jə mú	dig	tù ce	raise	hịú
(separate	tsở (n) làu)	dust	bŭkh la	roof	τ jěm ú
shoot	pə pí?	egg	hə ?u?	rooster	hịa pu
soybeans	wán tớ rə	every	sù — sù —	sad	m̀ tà hmu
sparrow	tə cə́jà?	father	mú	set (sun)	n i u
straight	?ã dá	fence	mù kəlò	(shake	khù dù)
sweet			hu?	short	,
potato	chə kù hmấ		mú bà	(person)	shấ thi phu jà?
ten	γiá	grandchild	jð ?ú	shelf²	tù?
thing	?a kèn khè cə	(grass	ù tsí chả)	silk	cin kú
	¹ sé, sè	happy	?ấ tà hmu	silver	ph <u>i</u> ú

-u (contin	ued)				
silver coin	phịú sì	butterfly	hom pin tělo	harvest	ko ců ce
skin	?ấ h1ù?	buy	bo ce	$hate^1$?ấ lò nă
skull	?ấ tu jàỵ	cabbage	kan bò	hate²	1ò e ja
(sister	a tsu)	catch	hìap bò su bò	high	?ấ muó e jaỵ
(stool	tồng khu)	cattle	jò hmịã	.hot²	hmo e
(student	khu nhùm)	chain	shai sho	(how much	a tso do)
(straight	a chu)	change of		$join^1$	ko khat ni
son's wife	jù	state	ò	$join^2$	ko nå ní
suck	lấ cù pí?	cheek	bo pà	jungle	lo dú di we
take²	bu ce	chew	kò ce	kapok tree	ba lo cín
tall	?ấmúe jà	Chinese	hụo bà	kidney	kho si
tendon	ł ĕk ya	cloud	mò thàm	(kneel	p'at thô khau)
termite	wù kàt	cold	?á chò	(less	ô)
testicles	hlĕ?u∕shè?u	(come out	do)	$life_{ m T}$?ấ jo?
thick	?ấ thú .	cook	ko ce	lift	chì jò mã bịò
thom	?á chù	crawl	lá to	sole (foot)	pŏwa lĕkhè
twist T	bít dử	cucumber T	săkhụć sì 	spread out	kò ní
valley	mù phəp bịà	rhino	shat nð	squirrel	ho to
vein	?ấ kù sè	rice plant	ko	stomach	po pon
(whistle	tu tsúi)	right	?ã din hno jà	stone	lăphò
yesterdæy	hù ni	roll	hiệ bò nàn ca è	sweat	mò hut nα
		satisfied	?ấ tã bò já	(take	cô)
- o		sent	sa no	(light	bì thồ)
(adultery	cồ lằng p'iếp	separate	?ò hnà bịò	lightning	mò bịàp
	lắng)	(b. deer	hồ pồng)	lips	ban kho
Akha	khá kò bà	difficult	hnak bò	little	so ~ sa
ashes³	kò	dish	kho phé	lose	tò ce
(aunt	ak'ô)	divorce	chó hna ní	married	
axe T	khyam bo?	door	lĕk (μ̯)o	woman	khổ bịà
(back	nô khô)	earring	hnò	medicine	ja mo à
bark (n)	?á kò	enough	1ò	mosquito	bò khú
bæk (v)	hmó ce	feed	hnó pí	mule C	mò lə lớ
behind	khườ hnò	finished	bá hnò ja	no T	bo å
belly	po pon	forearm	lěkho	noisy	so ce
below	?å ?ò	forehead	bo kón	onion T	pha kụć sì
blind	?ấ bịa pò	fork	khò tom	(open	p'ôù)
(blind	bế chồ)	free	phó khát ní	$otter^1$	3t pg
blister	cí jo bè ce	go out	ko nò	$otter^2$ T	có nám
bra i n	?ά dò	(granary	cô chí)	(owe	a tsì a chô)
w. $buffalo$	jò	grass	ьò	pen	so dám
build	sò ní	hail	lo kó sì	g. pepper 1	f ðrá sðkujó sì

-o (contin	ued)				
clf. person	hjo	window	lĕkuo jò.	wash	lấ thày ce
pickle	?ấ chén họò			widow	pəcháŭ
pigeon	dò ko kì ké	-aŭ		work	mjày wan (2nd T)
pipe	kó? sì	abacus	hjáu sè	Yao	jay jín bà
plant (v)	kó nà pí	answer	tay bo	house post	júm ?ĺn sắu
poison	?á tò	beg	jón hày		
porch	lěko bě	bone	?ấ jàu	-aį	
priest ²	to pí	(break	tau)	ascend	taj é o
pumpkin T	ma, po sì	call	hàu ce	(bad	a hay)
put in	hyo no	coconut T	mà pháy sì	belt	sáj hjá
put up	tho ce	coffin	day khàm	be born	səi tài?
rain	mò hó lì ce	cord	hnẽ jáy?	chain	shái sho
rat	ho tǎm	cough	shàu ce	cord (elec)	sái fâ ní? T
read	bò bo ní	count	hjáu ce	change (loc)	gidy ò
rib	?ấ cò jày	(cover	k'hiàu)	electricity	faj fà T
upper side¹	hmiầ ?ĩ tho ?ĩ	delicious	?ấ cháy	(king	a(ŋ)day a sinh)
	tho sə	(dirty	tsào k'hùng)	(plow (v)	thày)
(unhappy	tôê p'a nê)	dove	khón khày	(mark (v)	·mai)
verb particle	hnò	(dress (v)	chau)	rabbit	kătá <u>i</u> T
verb	ПО	(ћарру	tào bù ề)	sand	khi sǎi T
particle	bjò	horn	?á cháy	(silk	may)
vulva	pětò	($lift$	thău)	(handsome	·mà ai)
wag (v)	kò e ce	(nine	câu)(tè)	(spend	chai)
waist	· ?á cò	(please	tàu bù ề)	step on	nài wàn ce
shadow	?á ho	(question	nào)	striped	?ấ plàị
sharpen	sì jò tha ce	$m{rib}$?ấ cò jàu	(suffer	dai)
shiver	cho jə sàn ce	(rice T	khàu tsể)	(thin	a pài â)
shoulder	bŏĥŭm	shout	háu ce	Thai	thái bà
sky	mò thà		(cf. call	upperside	thaj běka set
sloping	?á phian bo	smoke	běkhàỵ		
$(\it there$	yô)	steal	khàu ce	-əi (second	ary)
$throat^2$?á kò	stretch	ay hmá pi ce	be born	səi tài
$thunder^2$	mò ce cé ce	sugarcane	pòn chá <u>u</u>	saw	lə <u>i</u>
truck T	làt to bà		(cf. sweet)	clear	lsěj
(turn over	khô)	sweet	?ấ cháy	moan	hèi ce
upper back	1ĕkho	thank	tàu bủ u		
(weak	pôn)	they $ exttt{T}$	kháy chε hã	-ɔi, -oi (secondary)
weed (v)	bò bo ní	think	tàu ce	but	?ấ koị
wheat	bò sì	twenty T	s q ří	hundred	hòi
white ant	ho bìn	vegetable	kày(m) ba	(sink	pòi)
why	m̀ tə kio	walk	quà àu		

-eo̯, -εɔ̯	(secondary)				
(agile	tều ŭ ê)	(win	mì chặp bla)	clear fields	bò cat ce
(choose	tsều)			clothing	hlat số
сир	kầkếg	-up (-op)		cotton	chapat
(destroy	p'iêù)	adult	səpùp bà	(cultivate	k'hat bù)
fat	?å teo	(answer	tóp)	day after	
flame	peg bi	bedroom	jùp phịđ	tomorrow	phat sə
go down	jà lég	book	рор	b. deer	shat
(immediate)	yát têu êu)	dream	jùp ba ba ce	$d\mathbf{r}\mathbf{y}$	pat (cf. bean)
(pants T	têo)	(cook	tsùp)	fear	khàt ce
rattan	?ấ téo	fist	lðsùp	(fight	pat läng)
wither T	hèo ce	(greet	đôp ù)	(fire	châ păt)
		hold	sùp ce	flower	hĩ wat
-ui, - ei,	-ug (secondary)	(mountain	tu p'up)	free	phố khắt ní?
able T	khat jug pen	s leep	jùp ce	gun	∫in dat
(faded	pềì)	(prepare	úp)	hide	wat ce
(fat	lui è)	rot	рòр	hungry	hầ bàt
		(stop	tsup)	(jump²	yạt àn-nù)
-ap		wet	?á cup	kill	sàt ce
arrive	lap la	yown	jùp sà kấ ce	(knee l	p'at thô khau)
basket	_	(thighs	li p'up)	leech	hat
(fish)	khòn kap			market T	tělat
catch	hláp bò su bò	-ip (seconds	ary)	marrow	?å khat mià
cowrie	cí lon kàp	(adultery	cổ, lờng p'iếp	(mix	piat läng)
duck	kap	_	läng)	narrow	khat
fold	phàp	box	?ã híp (area)	(paper T	kalat)
(foyer	bì giàp)	(understand	cha yip là)	200001+	not thòm
goose				peanut	pat thòm
	kap lín cèn			rhino	shat no
hammer	běchap	-ер, -әр (s		rhino shirt	shat no hlat
hat/turban	běchap 1ěpap	clever	secondary) ?á tep	rhino shirt shrimp	shat no hlat lon that
hat/turban (healthy	běchap lěpap chàp bù ní bù ề)	clever (house (on	?ấ tep	rhino shirt shrimp spirit	shat nð hlat lon thàt dàt
hat/turban (healthy lid	běchap lěpap cháp bù ní bù ề) ?ấ kap	clever (house (on ground)	?ấ tep tếng bệp)	rhino shirt shrimp spirit sweep T	shat no hlat lon that
hat/turban (healthy lid lightning	běchap lěpap chàp bù ní bù ề) ?ấ kap mò bịàp	clever (house (on	?ấ tep	rhino shirt shrimp spirit	shat nö hlat lon thàt dàt kuàt wat
hat/turban (healthy lid lightning lungs	běchap lěpap chàp bù ní bù ề) ?ấ kap mò bịàp ?ấ hmap	clever (house (on ground) valley	?ấ tep tếng bệp)	rhino shirt shrimp spirit sweep T	shat nð hlat lon thàt dàt kuàt wat lấ bàt de
hat/turban (healthy lid lightning lungs (pierce	běchap lěpap chàp bù ní bù ề) ?ấ kap mò bịàp ?ấ hmap tsáp ù)	clever (house (on ground) valley	<pre>?á tep têng bêp) mù phạp bịa</pre>	rhino shirt shrimp spirit sweep T temple T	shat nổ h lat lon thàt dàt kựàt wat lấ bàt de h lap h lat ce
hat/turban (healthy lid lightning lungs (pierce shoes	běchap lěpap chàp bù ní bù ề) ?ấ kap mò bịàp ?ấ hmap tsáp ù) běkhàp	clever (house (on ground) valley -at alive	<pre>?å tep téng bệp) mù phəp bịa ?å tàt</pre>	rhino shirt shrimp spirit sweep T temple T thirsty undress vomit	shat nð hlat lon thàt dàt kuàt wat lấ bàt de
hat/turban (healthy lid lightning lungs (pierce shoes snot	běchap lěpap chàp bù ní bù ề) ?ấ kap mò bịàp ?ấ hmap tsáp ù) běkhàp hnàp	clever (house (on ground) valley -at alive ant	<pre>?å tep téng bệp) mù phạp bịa ?å tàt fat sà</pre>	rhino shirt shrimp spirit sweep T temple T thirsty undress vomit wash	shat nổ h lat lon thàt dàt kựàt wat lấ bàt de h lap h lat ce phàt ce
hat/turban (healthy lid lightning lungs (pierce shoes snot (stab	běchap lěpap chàp bù ní bù è) ?ấ kap mò bịàp ?ấ hmap tsáp ù) běkhàp hnàp tsáp p'íot)	clever (house (on ground) valley -at alive ant (approach	<pre>?å tep téng bệp) mù phəp bịa ?å tàt hat sà yạt lău)</pre>	rhino shirt shrimp spirit sweep T temple T thirsty undress vomit wash (clothes)	shat no hlat lon that dat kyat wat la bat de hlap hlat ce hlap cat ní?
hat/turban (healthy lid lightning lungs (pierce shoes snot (stab (stand up	běchap lěpap chàp bù ní bù è) ?ấ kap mò bịàp ?ấ hmap tsáp ù) běkhàp hnàp tsáp p'íot) hiap)	clever (house (on ground) valley -at alive ant (approach baht T	<pre>?å tep teng bep) mù phap bia ?å tàt hat sà yat lău) bat</pre>	rhino shirt shrimp spirit sweep T temple T thirsty undress vomit wash (clothes) waterfall	shat nổ hlat lon thát dàt kuát wat lấ bàt de hlap hlat ce phát ce hlap cat ní? lấ that
hat/turban (healthy lid lightning lungs (pierce shoes snot (stab	běchap lěpap chàp bù ní bù ề) ?ấ kap mò bịàp ?ấ hmap tsáp ù) běkhàp hnàp tsáp p'íot) hiap) chap	clever (house (on ground) valley -at alive ant (approach baht T beans	<pre>?å tep téng bệp) mù phep bịa ?å tàt hat sà yạt lău) bat lěpat</pre>	rhino shirt shrimp spirit sweep T temple T thirsty undress vomit wash (clothes)	shat no hlat lon that dat kyat wat la bat de hlap hlat ce hlap cat ní?
hat/turban (healthy lid lightning lungs (pierce shoes snot (stab (stand up	běchap lěpap chàp bù ní bù è) ?ấ kap mò bịàp ?ấ hmap tsáp ù) běkhàp hnàp tsáp p'íot) hiap)	clever (house (on ground) valley -at alive ant (approach baht T	<pre>?å tep teng bep) mù phap bia ?å tàt hat sà yat lău) bat</pre>	rhino shirt shrimp spirit sweep T temple T thirsty undress vomit wash (clothes) waterfall	shat nổ hlat lon thát dàt kuát wat lấ bàt de hlap hlat ce phát ce hlap cat ní? lấ that

-ut (~-ot)				
beard	bàn hmot	(rhino	hết)(shat nở)	cloth	h nám
bellows	pián hùt	(eight T	pét)	cloud	mò thàm
bend	khot ce	(seven T	chết)	coffin	day khàm
blow	hmot ce			cross T	khám lé o
body hair	?á hmot	-ət		eight Vse.	tám
born	tot pí?	(at night	khựt thàng)	(feel	nàm mŭ)
(divide	put läng)	(dirty	chứt)	fence	chám
fern T	kát kà	be born	kèt	few	m lam
set on fire	hmot ce	ewe	chèt jà	floor	júms¦
fireplace	bì hmot jà	goat	chèt	fork	khò tam
mosquito	•	grind	khət	garden	cham (cf. fence)
net	∫ut .	rake (n)	?á chèt	gold	khàm
(soft	a pòt)	(repair	lớt leu)	hair	sham khẩ
smoke (v)	wăchá jut	sheep	chèt ?am	iron	sám
stump	?ấ hlùt	termite	wù kèt	(keep	cu u chi lâm ề)
sweat	mò hút na	(toad	a pút)	lake	nún khàm bà
(suffocate	mŭt)	understand	?á ca kət	Lao	wăchàm
throw	?ut ce			left side	là kam
pluck	chùt ní?	-ak, -ok,	ək (secondary)	little	sám
(hot	mồ hut đề)	(change		(merchant	cam cha bà)
		clothes	tsòng p'ắc)	mouth	bam fòn
-sət	-4	difficult T	hnak bà	much .	?ấ làm
crazy	?ã poət -/-4\	leave T	càk pài	middle	nám kon kon hniá
liquid mud!	^፲ (ʔ႖) pòət (ʔί) pòət	coffin	?iŋ kặlók wòn ce	new moon	kham ni
spill	lấ koət ce	loom (n) T	?á hok	(otter	làng sam)
		(say T	bóc)	(panther	tchàlà pám pông thù)
-ot (secon	dary)	there	hjok ni	pen	so dám
car T	lòt	cabbage (bok choy)	abak 16m	rat	hó tắm
train T	làt fai	(DOK Choy)	priek ium	remember	càm ce
yeast	bòt	. - a.m		Shan	băchàm
		anvil	cam ba wa?	sheep	chèt ?am
-it		axe T	khyam bo?	eS	hnám ba
bamboo shoots	hã hmit	bad smell-	Kingan bo.	stairs	chám
spit	phìt dà ní?	ing	?å hnàm	sugar T	nàm tàn
twist	bít dů	bok choy	kam bò	(swamp	p'ùm p'rằm)
	2.00	butterfly	ham pin tělo	three (cit)	săm T
-e t		cabbage	phèk lám	tripod	shàm kuin sì
chest of		carry		wall	chám pịá
drawers	bặchét Eng.	(hand)	hnam ce	(when	asò nhằm mề)
drunk	het ce	chaff ²	ham	(year	ni, ne)(hi pi)

-um					
ashes 1	gặthúm	(rice field	lang bồm m)	hawk	can té à
(awaken	júp nùm blč)	say	lom ce	heavy	?ấ hàn
w. basket	gădúm	sew T	hom ní?	$hole^2$ T	phan tù
borrow T	jum ce	swing	chóm plen hlěn	(hemp	khiàng khằn)
bury	thum ce	-	ce	(jump	yatàn-nù)(?ut)
beat (drum)	thùm tì ce	tired	?ấ hióm	late	?ã fàn
drum	thùm sì	untie	thòm ce	leggings	ləpán
(fiancé	lúm p'a)			lips	bàn khò
(fiancée	lúm ba)	-m, -em		mix	ρεάn hnan ce
(flood	lăng thum)	caladium	pm sì	more	can lầu
house	júm (~yám)	$elder^1$	nm mà	near²	?ấ kàn (cf. far²)
(idiot	tsum è)	(dumb	a thềm pên)	old (thing)	?ấ. ?án
(low, short	nhúm)	$roof^2$	ρώ mấ.	play	tàn ce
р иѕ	?ấ ?úm	tick	nm sì	pleasant	?ấ cản hmà
pick fruit	chum ce	garlic	pha thiem si	proud	?ấ hjầ căn
pile up	pùm ní?	NTai	mèm bàp	put	can nù
shoulder	bŏĥŭm	three	sm̀ (~shàm)	read	?àn ce
(student	khu nhùm)	thread	dai khem	roll	h∮ε bò nàn cə è?
(swamp	p'ùm p'rằm)			saddle T	mò ?àn
urinate	?f chum ce	-an		$sharp^2$?ấ nán
(un ri pe	a chùm)	ashamed	?ấ hjà căn	shiver	cho jěsán ce
house post	júm ?ĺn sắu	(go) back	kh è nan	sloping	?ấ phịan
warm	?ấ. lúm	basket	khon ká wə kán ce	slow(ly)	fàn fàn
(wood	bì xa thum)	(soy) beans		spittle	khan
		beard	bàn hmot	soldier	tha han
-om		board T	ka dàn	step on	nài wàn ce
bow head	gom ce	bracelet	hná tán	storm	hăn f ŭ n
	•	burp	khon bá kắn ce	study	hèn han ce
- o m		(burn	bì chăn)	sugar	nàm tàn
breath	lóm	·	hăn na nŭ)	swell	jàn ce
burn²	hnóm bì a	cave T	?án thón	thousand	phàn
button T	hna tǒm sì	(chase	cấn nù)	toad	khan khã
conver-	4 1-	embrace	?àn ce	(tobacco	ya khoằn)
sation	lom hnấ pí?	(enemy	tô, sa cha lăn	trap	hna tán
com	hnám pịòm	(crising	ye)	use	ká nan ce
(good smelling	a hóm)	far^2	?á kán	vulture	cán bàn hní kón
I	gánŏm	field	lětàn	(wait	tăng gi bằn)
be loved	lom bà.	flea	tã h ả n	work T	mịàu wăn
meet T	phòm hmiã ce	government	la tha b ǎ n	yellow	?á ?án
peanut	pat thòm	$grandchild^1$?á ?an		
		gums	bàn khả		

-in					
bed	tín cén	(wet	lang chên yề)	sprinkle	lấ sùn ce
$chain^2$	jin jò hné			$stir^2$	k ů n ce
$cord^2$	hnin hné	-εn, -εαn	(secondary)	(storm T	hăn fün)
evening	mò da é ve chi	$board^2$ T	pεn		
	cin	same T	l č n	~on	
forget	hmin là ce	$seed^2$ T	?α̇́ kεn	$bark^2$ (v)	nón cặce le pí?
glutinous rice	hầ hmin	hard T	?ά kεn	basket	khon ká wə kán ce
good	?ấ hmin	mix	peán hnan ce	beg	jón hày ce
hope	hmin cà me a			belly	po pon
house post	júm ?ín sắu	∸ən		boil	ton ce
(lamp	p'ăng màn)	bed	tín cén	bloom	phòn ce
lean (v)	hnin ce	dance	jən ce	blow	hon ce
liver	?ấ sìn	(finish	pơn bla)	(blue	a lon)
name	?α໌bmín	hundred		burp	khon bá kắn ce
(palm leaf	dìn nì)	thousand	mán T	bury	hni ton a tè ce
socks T	thon tin	louse	sán	cave T	?án thón
sour	?ấ chín	(plate	hà(n)p'um)	(centipede	u sôn)
spin	pin ní?	poisoned	ton sèn	coffin	?iŋ kặlók wòn ce
tail	tã hmin	paddy	gặchán	dove	khón khảy
(termite	hù bìn)(wùkət)	sunrise	mòni sì khən là ce	elbow	lěshi ton
thunder 1	mò ce kà cín	(tender	a pòn)	$fall^2$	ton ce
	cín	•	khàn thể	fish basket	khòn kap
tree	sham kuin sì	top (mtn)	_	(forehead	bo kón)
tripod	hò bìn	(ugly	bum ne)	have fun	?á hmòn
white ant	_		_ •	hunt	son kấ/hã ce
wood (tree)		-in, -ien, (secondary		larynx	khon bá sì
Yao	jau jín bà	(climb	khừm)	light fire	bì hión we à
-en (secon	ndamr)	(return	kh ứ n)	middle	nám kon kon hniá
be T	pén	mirror T	wièn	mouth	bam fon
be 1 blanket	phèn	right T	?ấ d∔n hno jà	nipple	lon sì
(dumb	a thèm pên)	soft	?ấ p∳n jà	noon	ht kon å
$find^2$	sa jèn hmịá o	opium	ja j i én	partridge	h <u>i</u> a jon
jina	ja	top (toy)1	făl∔n	pound	thon ce
flute T	chèn	(ugly	bu n ne)	poisoned	ton sòn
hang up	chèn ce			(reunite	tsón läng lau)
(hang up	pền)	- un			?ấ bón
(opium	yàng yên)	chalk	pun	sell²	kòn ce
see T	hèn ce	chin, heel	pi tùn	socks T	thon tin
study T	hèn han ce	lake	nún khàm ba	spear	con
swing	chóm plen hl ě n	pine tree	tế? jun cín	spoon T	cŏn
	ce	masturbate	nè phun phun ce	_	lon thàt
			, , , , , , ,	E	

-on (contin	nued)				
smoke	kòn é sě	-∔ŋ, -əŋ,		(divide	put läng)
stand	con ní?	(secondary)		(divorce	càng lằng)
stick (v)	7a Ion	•	kh fŋ.	d ri nk	tấ sà
stick (n)	con kón	one (cit) T	•	(earrings	nà woàng)
stomach	(cf. belly)		tấ kiấ lớn)	earth	hmí tã
sugarcane	pòn cháy	-	?α̃ kàŋ kha ca	$elder^2$	jěmà.
village	khon		hốŋ	fan	běpjá
vulture	cán bàn hní kón	two (cit) T	sǒŋ	false	m tã.
water				fast	?ấ tè wà jã
carrier	•	-ã	\	fight	tì hnã ce
(weak	pồn nề)	(adultery	cổ lằng p'iếp lắng)	(fight	tiläng pat läng)
-in		afternoon	shấ.	finger	lĕhjá
(coliar	linh kòng)	(amuse self		fish	jã te
(cook	minh ye)	animal	sã kấ jà	five	?à
fingernail	lăshìn	appear	hna tè	$flat^1$	tấ kịấ lớn
full	?ấ pịn	bamboo	hà	flea	tã hắn
(headman	khồng sinh)	barn	cã.	(flee	p'ằng y ề)
(king	a(n)dáy a sinh)	belt	sái hiấ	(flesh	à má(nasal))
(lead	ts(nh)	blue	hjá da	forehead	bĕtα ∫e?
roast	pin ce	boar	wê thã	(formerly	nì chàng)
(narrow	a inh)	brave	?ấ hjấ hĩ	friend	?ấ chầ
skirt	dìn kà	breast	lã sì	ginger	họấ sì
spinach	sin phà	bridge	ti hnã ce	green	?ấ hjấ
throat	?a lin	bright	tsầng-ề	(hard-	
(wrist	là lĩnh)(lăko)	candle	bðshấ	working	tsắng k'ha)
(@1000	(a) () () () ()	carry (head)	chấ ce	have	?ấ cấ
-en, -un		cattle	₃ò hmịã	he	jà
sing	len ce	chair	tã kú	(hemp	khiàng khằn)
country	?αີ້ hmúp	chest	?á já	hot	?ấ h lấ
country	1 w milaji	clean	?ấ shấ	house ²	cấ
-an (secon	dary)		(p'iu-chê-ang	hunt	son kấ hã ce
bellows	pián hùt	conver - sation	lom hnấ pí?	incline	?ấ phịã
	hmə khaŋ T	cooked rice		inside	thấ ə?
cop (cog)	Time Kironj 1	cooking pot	_	(join	nhằng lặng yề)
-in (secon	dary)	copper	tấ hné	lamp	bětã
coffin	?iŋ kĕlók wòn ce		cí lã kàp	lift	chì jò mã biò
goose	kap lin cèn	cry ²	hã ce	listen	hnấ ce
goose silk	cin kú	cup T	kà kές	light	.4 .4 .
OUVK	City Ku	deaf	lăpă.	(weight)	?ấ jấ jà?
		defecate	?ĭ kα ce	$live^2$	h nấ cè n (?
		aejecuve	II KU, CE		

-ã (contin	ued)				.*
meet	phòm hmịã ce	$(X \ time$	thàng)	pierce	thể ce
(mix	piat lăng yề)	toad	khan khã	(skirt	tèng pi)
nation	khã bá wá	tone /word	sětã	(strong	hèng ghề)
new^2	?ấ jã	turtle	tã kh}		
night	khə thầ	true	jấi tã ce		onic → phonological
nose	1 šká	upper side	hmịã	owing to s	econdary system)
nostril	lăkấ thẳ	verb pre-		(crest	cùng the)
$n\omega$	hnấ mà?	fix, noun prefix	?ấ	ten (cit)	wŦ
once	khấ thặcấ	(verb part.		ten thou- sand	m∓́, hm∓́ T
$onion^2$	kù phã sì	(wait	tăng gi bằn)	(sing	to lo mung)
open	phã pí?	water	lấ	hair	sam khi
foreign	fărấ T	weep	hã ce	meat	cĕk∔
patch	?ấ tấ tã ce	(weigh	chăng)	(thread	khưng sụ)
person	shấ	you	nấ	yam	hm‡
plow	lấ tầ sə ce	yawn	jùp sà kấ ce	9.0	
poor	jà ?e jä	<i>J</i>	3 = P = G = G	-ũ (second	arv)
pot T	bŏkh uã	-ĩ (allopho	nic → phono-	ascend	phià hnữ
prison	kəlã	logical ow	ing to	airplane	jẽ hấ
proud	?ấ hjầ căn	secondary	-	(dirty	tsào k'hùng k'hùng
push (wood	-4-10	brave	?ấ hjấ ?ấ hĩ	(u ề)
in fire)	hnấ pí? :à b.≈	broad .	?ấ tĺ ?ĺ	flag T	tű
quarrel	jà hnã ce sặtã hnấ sè?	excrement		(husk rice	cô thùng p'(u
question	The second secon	expensive T	7a. pi 7å. lť		khâu)
(rainbow	lấ tấ hyấ) hnỗ ce	$flat^2$		~	
rest		flower	hĩ wat	- õ	.4
(reunite	tsốn lăng lau)	full (moon)		boat	lố . 4 .\
(rich	hăng) :/∻	- •	lấ tổ mổ bà	yB	hnổ jà.
roof	júm mố.	Meo	T	(in law	a sồng)
satisfied 1	?ấ tã bo já	noon	hĩ kon ở	(bed	têng chòng)
scale	dá cấ ⊾∵á	(offer	nì(n))	(burn	bì lồng)
sell	hjấ kấ sè?	(slow	mieng & è)	(change clothes	a tsòng p'ắc)
shield	,	strength	?ấ hĩ	clothing	hlat số
sink	lã tã ce hnấ jà	-ẽ (allophor	nic → phono-	(collar	linh kòng)
yZ	-	logical owi	ing to	(cry	ung yè)
sneeze	shã ce	secondary s airplane T	jë hú	dumb	cõ
(spinning stick	ông(n)cáng yề)	clench	je na	(forest	tchồng kồng)
spoiled	?á ?á	(fist)	kuế ce	(forest	
stab	?ấ jã thế ce	$cord^1$	hnẽ jáu?	fire	bì lông pià)
stir	sấ	(bed	têng chòng)	(hat	tu tchồng)
they	kháy che hã	give	pẽ ce	horse	mồ
(throw	hiàng)	pickle (v)	?ấ chế hhò ní?		

-õ (contin	nued)				
(house on		(pot	ù lồng)	(they	ồng lăng yệ)
posts	tếng mống)	(scrawny	hi∽ông ề̀)	(umbrella	chòng)
husband	?ấ mịŏ	spider	pố bà	(village	
(panther	tchà là pam	(spinning		chief	khồng sinh)
	pông thù)	stick	ông(n)cáng yề)	verb part.	hnồ
pants	hluà hmo	(stool	tồng khu)	wing	?ấ tố
(pound	thồng)	(suit	à tsống)	v	

APPENDIX: Counting

The citation forms used in counting by my informant are very different from numbers used in context, and also from the counting numbers that Roux was given. From one to ten, seven, eight and nine in the Roux list are from some Dai language; otherwise, the numbers appear to be regularly derived from *Loloish roots. In my data, on the other hand, one to four are from Dai; five and six look Tibeto-Burman, but do not show regular Phunoi correspondences with *Loloish; seven and eight are from Vietnamese; and nine and ten are from some source unknown to me. In context, one to three at least are from *Loloish in my data.

Roux (1923)	Bradley (1972)	in context (1972)
(thì lùm)	nɨŋ	thə-
(ni lùm)	sວັŋ	hnə-
(sum·lùm)	săm	sàm
(hal lùm)	s ì	(cf. square)
(ngà lùm)	?à	
(khô lùm)	khà	
(chết lùm)	bjò (bảy)	
(pét lùm)	tám (tám)	
(câu lùm)	tè	
(thì (t)tsê)	w#	

In addition to Ly/Lao/Thai and Vietnamese, the Phunoi may have been in contact with other Tibeto-Burmans (Akha and Burmans); with mountain Mon-Khmer (Khmu? and possibly others); with Miao-Yao, and certainly with Chinese (southwestern Mandarin). There are some words in Bisoid, such as duck and lung, which do not occur to my knowledge outside Bisoid, but are perfectly regular within it; perhaps these are early borrowings into Bisoid.

NOTES

- 1. I would like to thank my informant, Kham son, and J.G. Harris, who helped me to find him, and also generously gave me copies of his tapes of Phunoi. A few forms from Harris' tapes, which I did not elicit, are included in the vocabulary. I would also like to acknowledge an NSF grant to the Sixth International Sino-Tibetan conference, which permitted me to deliver an earlier version of this paper; and comments on the paper, particularly from R.K. Sprigg. Of course, all remaining shortcomings are my responsibility.
 - 2. Hall 1964, Roux 1924; conjectures my own.
 - 3. Adams, McCoy article p.76.
 - 4. Aymé, p. 77.
 - 5. Adams, McCoy article p.89-91.
 - 6. Aymé, p.87.
 - 7. Adams, McCoy article p.83.
 - 8. Aymé, p.88-89.
 - 9. Adams passim: articles by Feingold, McCoy.
- 10. Martinet 1955.
- 11. Contrary to my initial finding, reported in Matisoff 1973.

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