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CHOKRI (PHEK DIALECT): PHONETICS AND PHONOLOGY

Brian Bielenberg and Zhalie Nienu
University of California, Berkeley

INTRODUCTION

This paper examines the phonetics, phonemics and phonology of the Phek dialect of the Chokri language as spoken by a particular individual now living in the United States. The main purpose is to develop a more complete understanding of the phonology of the language than has previously existed. Throughout the paper comparison will be made with data presented by Marrison (1967) and Nienu (1990), the only known sources on Chokri phonology. Attention will also be paid to the data on Angami (Kohima) presented in Marrison as a means of estimating the degree of linguistic interference resulting from the consultant's complicated linguistic history, which will be outlined below.

The Language

Chokri is one of seventeen Naga languages spoken in the northeastern Indian state of Nagaland (SIL 2000). The Naga languages are members of the Kamarupan branch of the Tibeto-Burman phylum of the Sino-Tibetan language family. Chokri is also known as Eastern Angami, Chakrima Naga, Chakrü, and Chakhesang.[1] In 1991, the most recent data available, it was estimated that there were approximately 20,000 native speakers of Chokri, with Cheswezumi (Chazouba) being the main village where Chokri is spoken (SIL Website 2000). Chokri is considered by many to be a dialect of Angami, the dominant language of western Nagaland with over 100,000 speakers. The Chokri are categorized as an eastern Angami group, but there exists a large population of Chokri speakers in Kohima, the largest city of western Nagaland. Cheswezumi lies approximately 40 miles southeast of Kohima, and Sohima, the informant's village of birth, lies another 50 miles further southeast. It is worth noting that Marrison (1967) collected his Chokri data from Cheswezumi. The consultant readily recognized this after examining the forms listed in Marrison. He noted that his uncle, from Sohima, is married to a woman from Cheswezumi, and that while their dialects

[1] Chakhesang is actually a sort of *lingua franca* incorporating elements of Chokri (chak-), as well as of the closely related Khezha (-khe-) and Sangtam (-sang). [Ed.]

are mutually intelligible, there do exist a number of lexical differences. For instance, the Phek dialect of Chokri uses the word /tsɨ/ 'small', whereas Cheswezumi dialect speakers use /kəɲɪ/. Interestingly, although Sohima is further away geographically than Cheswezumi from the center of the Kohima dialect of Angami, its dialect appears to have more cognates within this consultant's speech. This may be a result of time spent in Kohima by the consultant.

The Consultant

The speaker consulted for this investigation has a complicated linguistic history, but all evidence points to his being a fluent speaker of the Phek dialect of Chokri. He was born and raised in the Chokri speaking village of Sohima, a small village of approximately 100 houses. The consultant reports that most people living in Sohima are bilingual, speaking both Chokri and Bochiri. Many residents speak Angami and English as well, as they are the languages of schooling and the church. For most of the informant's life Chokri was the main language spoken in the home and with his peers, even though he attended English medium school in the capital city of Kohima. In Kohima, a predominantly Angami speaking city, the consultant lived with his uncle (from Phek) and grandmother, both speakers of the Phek dialect of Chokri, and this was the language of the home. He also intermittently spent time in Phek living with another Chokri speaking paternal uncle.

During his time in Kohima, the consultant recalls that he spent many of his hours outside of school in a Chokri speaking part of town interacting with Chokri speaking people. However, he also spent enough time interacting with Angami (Kohima) speakers in order to learn that language as well. Approximately eight years ago, at the age of 24, the consultant came to the United States to further his education. He has recently completed a Masters of Divinity degree at a California seminary and is now working as a youth leader for a church in California. His father also lives in California and they speak Chokri on a regular basis. Although at first the consultant's knowledge of Chokri appeared a bit "rusty," it was only a short time before he was constructing complex sentences and relating narratives. Still, after 9 months of serving as a consultant, he continues to have some difficulty recalling "basic" words such as *boat*, *riverbank*, *spoon*, *eggplant*, and *drum* when elicited out of context. The consultant appears to have a good deal of meta-knowledge of languages and was able to point out differences between Chokri and Angami, as well as between the northern and southern dialects of Chokri. He notes that Angami (Kohima) and Chokri (Phek) have many similarities phonologically and lexically, but that they are not mutually intelligible. Comparison with Marrison's data confirms that there is a high percentage of

cognacy in basic vocabulary. The informant's speech is clear and carefully pronounced, with no obvious speech defects to affect his pronunciation.

DATA COLLECTION

The data for this paper were collected over a period of 9 months in two two-hour sessions each week as part of a linguistics course on field methods. Elicitation began with the names of natural objects, numerals, colors and kinship terms. It progressed to simple phrases and sentences with focus on particular aspects of grammar. By the middle of the second semester narratives were being elicited, with a total of eight texts generated. Transcription and translation of two of the more extensive stories are included in Appendix A. The first author also met individually with the consultant, the second author, outside of class on a weekly basis to elicit further information, especially with regard to tone. Although Marrison (1967) contains over 500 Chokri glosses with forms, none of them have tonal markings and this is considered a great weakness of his data. A large part of the current work is concerned with obtaining accurate tonal markings for the words elicited. To this end, all new words encountered in class were re-elicited outside of class and their tonal structure identified. Additionally, lists were regularly generated in order to allow for similar syllable structures, either by coda, which in this language consists only of a vowel, or by tone, to be cross-checked against one another. The total number of forms elicited and used for phonemic analysis in this paper is 621. After each session the data were entered into a database so as to simplify future sorting tasks. The data were entered in such a way as to allow for sorting by gloss, form, number of syllables, tone(s), first consonant, first vowel, second consonant, second vowel, and so on. Columns were also included for the Chokri (Cheswezumi) and Angami (Kohima) forms from Marrison's data to allow for easier cross-referencing.

The majority of forms elicited, approximately 95%, consisted of one or two syllables. The remaining 5% of forms were trisyllabic. Such a lexical structure is expected for a member of the Sino-Tibetan language family. A few quadrisyllabic words were also identified, but are not used in this analysis, as they tended to be compound words and showed no phonemic variation from the uncompounded roots. The canonical structure of syllables is (**C**)(**r**)**V**(**Tone**), where the initial consonant and tone are optional. In a number of words syllabic **n**'s, **m**'s and **r**'s were also encountered, but in every case these are the result of a reduction process. The consonantal clusters observed were [kɻ kʰɻ pɻ pɻʰ], as seen in the following four examples:

[kɻí] 'to fall'
[k^{h}ɻí] 'moon'
[məpɻ̂ê] 'be scared'
[dzɨpɻ^{h}ɔ̃] 'break something by touching'

Several affricates were also encountered and will be discussed in their own section. For monosyllabic words, the syllable always appeared tone-bearing, even in natural speech. A monosyllable rarely, if ever, reduces down to an unstressed vowel. It is difficult to know whether Marrison reached the same conclusion, as he appears to use /ü/ for both stressed and unstressed central vowels. The case of polysyllabic words is different, with the vowel of the non-final syllables often being reduced and non-tone bearing. Many of the first syllables in such words are bound or unbound prefixes that perform various functions. In almost all cases the prefixes are non-tone bearing or have a 22 or 33 (Chao pitch scale) tone, perhaps a neutralization of the two falling mid-tones (see below).

After identifying the phonemes of the language, the data were examined for gaps. To determine whether these gaps were accidental or actual, exploratory elicitation was used. In repeating words to the consultant for verification, I often intentionally mispronounced in order to determine the range of possible pronunciation.

ANALYSIS

Analysis of Chokri involves not only a detailed examination of the segmental phonemes of the language, but also of the tones. Two words differing by a single phoneme can only be considered to be a minimal pair if they have identical tone structures. Thus it was important early on to devise a simple method of marking tone.

Four tones were identified and they are marked using the following symbols: ` for a low tone, ~ for a low-mid tone, ^ for a high-mid tone, and ´ for a high tone. An allotone of the high-mid tone was also found (see below). The equivalents of these tonal markings in terms of Y.R. Chao's tone letters are shown in Table 1. The typology of this tonal system is unusual in that it contains four falling tones, with the two mid-tones overlapping in an interesting manner, the difference between them being that the high-mid tones drop more rapidly during the second half of pitch duration than the low-mid tones. (See below for more details). Syllables without a full vowel never appeared to be tone bearing, so it was decided that these would be left unmarked. All the symbols used for the consonants and vowels are those of the International Phonetic Alphabet. Where

place or manner differs slightly from that of the standard IPA value of the symbol, the precise quality of the sound will be described in the text.

Tonal Symbols	*Chao Tone Letter Equivalent*
`	21
~	31 or 32
^	32 or 31
´	53 or 42

Table 1. Tonal symbols and their Chao tone letter equivalents

A total of 50 different sounds were encountered in this study of the Chokri language, with 39 of them consonantal and 11 vocalic. These 50 sounds reduce down to a total of 33 contrasting phonemes. Table 2 provides a general overview of all the consonantal sounds encountered in Chokri. Noticeable gaps include the voiceless labio-dental, bilabial and velar fricatives. A thorough description of the sound system of Chokri follows.

	Bilabial	*Labio-dental*	*Alveolar*	*Alveo-Palatal*	*Palatal*	*Velar*	*Uvular*	*Glotta*
Stops	b		d			g		
	p		t			k	q	
	p^h		t^h			k^h	q^h	
Nasals	m	ɱ	n		ɲ	ŋ		
	m̥		n̥					
Affricates			dz	dʑ				
		pf	ts	tɕ				
			ts^h	$tɕ^h$				
Fricatives	β	v	z	ʑ		ɣ	ʁ	
			s	ɕ			χ	h
Approximants			ɻ					
			ɻ̥					
Lateral Approximants			l					
			l̥					

Table 2. Chokri consonantal sounds

OBSTRUENTS

Stops

The stops encountered in this language, which make use of contrastive voicing and aspiration, are illustrated in Table 3. It can be seen that the voiced bilabial stop, the voiceless aspirated bilabial stop, the voiced velar stop, and both the aspirated and unaspirated voiceless velar stops exhibit allophonic variation.

The following examples of minimal and near minimal pairs consist where possible of words having the same tone.

Phoneme	*Allophone(s)*	*Environment*	*Examples*
/b/	[β]	Word initial before high, back, unrounded vowel	[βʉ̀vé] 'fart'
	[b]	Elsewhere	[bɛ̃] 'arm,' [nõbà] 'mud'
/p/	[p]	Everywhere	[pé] 'look', [dzɨpô] 'talk'
/pʰ/	[pf] [pʰ]	Before high central vowel Elsewhere	[pfɨ̂] 'fly', [sapfɨ̂] 'butterfly' [pʰɛ̃] 'foot', [pʰivê] 'pretty'
/d/	[d]	Everywhere	[dâ] 'four', [kɨdà] 'choose'
/t/	[t]	Everywhere	[tâ] 'run', [hù.tĩ.lĩ] 'owl'
/tʰ/	[tʰ]	Everywhere	[tʰó] 'write', [pítʰâ] 'hair'
/g/	[g] [ɣ]	Free variation	[gɨ̀] 'inject', [mɨgâ] 'white' [təɣâ] 'bear'
/k/	[k] [q]	Free variation	[kàdû] 'drop', [kɻà] 'cry' [βʉ̀qè] 'fart slowly'
/kʰ/	[kʰ] [qʰ]	Free variation	[kʰú] 'fish', [mêkʰɔ̀] 'smoke' [qʰô] 'nest', [təqʰĩ̀] 'body lice'

Table 3. Stops

Bilabial

/bû/ 'must'	/pû/ 'bridge'	/pʰû/ 'search'
/bɛ̃/ 'hand'	/pé/ 'look'	/pʰɛ̃/ 'foot'

It is claimed that [β] is an allophone of /b/ because they are similar in place of articulation and voicing. The only environment in which [β] was seen to occur

was before a high back unrounded vowel, and [b] was not encountered in the same environment. This is similar to the environment Nienu (1990) found for /bv/. In Nienu's data, /bv/ occurs before a high central vowel which he marks as /ü/. As will be discussed in the section on vowels, the /ü/ of Nienu (1990) and Marrison (1967) seem to be closely related to the /ɯ/ of this study. It is possible that the bilabial fricative maintains a constriction at the lips for a longer time than [b]. This maintained constriction during the vowel would lower its second and third formants, giving it the properties of a high back vowel. The allophone of [pf] is similar to [β] in that it also was only found in a single environment, in this case before a high central vowel. We have chosen to mark this vowel as /ɨ/, but again, it is closely related to Marrison's and Nienu's /ü/. It is postulated that this allophone of /p^{h}/ is a historical development which has occurred as a result of the misparsing of the aspiration of /p^{h}/ as frication. It is unclear why an affricate developed rather than a voiceless labio-dental fricative, which is absent from the sound inventory of this language, but does exist in the phonological inventory of the Kohima dialect of Angami (Marrison, 1967:346). It may be that the affricate is a 'normal' intermediate stage. A close examination of Marrison's data indicates that the Cheswezumi dialect of Chokri does not include /β pf f/. Instead Chokri (Cheswezumi) utilizes /p/ or /pr/ where one of these would be encountered in Angami (Kohima) or our consultant's Chokri (Phek). As an example, Marrison gives the Chokri (Cheswezumi) and Angami (Kohima) forms for 'daughter' as /nupü/ and /nuopfü/, respectively, but our informant seems to combine phonetic elements from each, producing /nupfɨ̂/. Nienu (1990) does include /bv/ in his inventory, but not /pf/. This may be an indication of phonetic mixing on the part of the consultant due to his extensive contact with both Chokri (Phek) and Angami (Kohima). A similar phenomenon occurs with our consultant's use of /dz/ in place of /z/. Further investigation into the historical development of Chokri is needed.

Alveolar

/dì/ 'vanish'	/tì/ 'eat'	/t^{h}ì/ 'meat'
/dâ/ 'four'	/tâ/ 'run'	/t^{h}â/ 'today'

The above data indicate that the alveolar stop phonemes have stable phonetic qualities. These phonemes show a one to one correspondence with the data of Marrison (1967).

Velar

/gù/	'hang'	/kũ/	'strong'	/k^hù/	'bitter'
/ɻəgò/	'steal'	/sikò/	'corn'	/mêk^{h}ò/	'smoke' (n.)

The velar stops were interesting in that the voiced velar stop was quite rare, occurring only three times initially and five times medially. At first the consultant was unable to come up with any examples of voiced velar stops in word-initial position, but these eventually arose within context.

A second interesting feature of the velars is the allophones [q q^h ɣ] that occur in free variation with [k k^h g] respectively. The most notable examples involve the word /dok^{h}ɻĩ/ 'to kill'. The second syllable of this word can be combined with various prefixes to create words describing different ways of being killed. For example, /vɨ / 'to beat' combined with /k^{h}ɻĩ/ gives /vɨk^{h}ɻĩ/ 'to beat to death'. When combined with /tɕè/ 'to shoot', the consultant produced [tɕèq^{h}ĩ] 'to shoot to death'. When questioned about this, the consultant stated that [k^{h}ɻĩ] could be used, but that [q^{h}i] sounded more correct, more like "deep" Chokri. In fact, both velar stops and velar fricatives could regularly be replaced by their uvular counterparts, resulting in a Chokri that the consultant felt is more likely to be spoken by "villagers" as opposed to "urbanites", i.e. those who had spent time in the larger towns such as Kohima. Neither Marrison nor Nienu list uvular stops or fricatives in their inventories; it is suspected that both inventories were developed with language elicited from "urban" Chokri speakers. In other words, the uvular nature of the "villagers'" Chokri seems to be changing as a result of language contact. The exception to the velar ~ uvular tendency is that a voiced uvular stop /G/, or my best approximation of it, was never acceptable.

Phonetically, it is postulated that the low tone of a preceding syllable could be aided by lengthening the vocal tract through a lowering of the larynx. This may simplify the process of producing a uvular stop with a high front vowel as seen in [tɕèq^{h}ĩ]. The articulation of the uvular stop does not appear to have a full closure and some frication occurs, producing an "r" like sound, which was sometimes quite distinct and actually transcribed. Only three other instance of this allophone were encountered: /q^{h}ĩ/ 'to support', /q^{h}ô/ 'nest', and /təq^{h}ĩ/ 'body lice'.

The minimal and near minimal pairs given above are the basis for arguing for separate phonemes. In general for all the stops, the difference between voiced and voiceless aspirated was easily distinguished. Distinguishing between the voiced and voiceless unaspirated stops was more difficult. There were certain words where aspiration was quite distinct, and others in which it was barely noticeable. As it became apparent to the consultant that we were carefully listening for aspiration, he began to make it more clearly noticeable, especially in one on one elicitation. Unfortunately, we did not make detailed notes of varying

degrees of aspiration, and are therefore unable to determine if there is a phonetic or phonological conditioning.

All of the stops occurred in both word initial and word medial positions. The voiceless stops are the most prevalent, with the voiced stops being found in only 61 of the 621 forms, less than 10%. It makes sense aerodynamically that this would be the case. The voiceless aspirated and unaspirated stops occur in essentially equal numbers.

Affricates

The affricates encountered in this study are shown in Table 4. All evidence points to the conclusion that alveolar and alveolopalatal affricates are allophones of the same phoneme. For both voiced and voiceless affricates, the alveolopalatal affricates were found in different environments from the alveolar affricates. The alveolopalatal affricates were only seen to occur in the environment of the two higher front vowels /i/ and /e/. Only three cases seemed to violate this distribution. However, the first two, [n̥ətɕɔ̂] 'nose' and [tɕʰô] 'to cook', were both also acceptable when pronounced with the alveolar affricate equivalents [ts] and [tsʰ]. The third case involves /dʒô/ 'to bless', which forms a minimal pair with /dzô/ 'cheek'. However, since this is the only instance of this contrast, it is suspected that they are not actually separate phonemes. This is supported by the fact that neither Nienu nor Marrison lists /dʒ/ in his inventory. In fact, Marrison lists neither /dz/ nor /dʒ/ in his Chokri (Cheswezumi) inventory, although they do exist in the Angami (Kohima) inventory. The fact that Angami (Kohima) is the language of teaching and publishing (Marrison 1967: 345) and is heavily used in the church makes it possible that a word such as /dʒô/ 'to bless', as pronounced in Angami (Kohima), may have found its way into the Chokri (Phek) dialect.

Phoneme	*Allophone(s)*	*Environment*	*Examples*
/dz/	[dʑ] [dz]	Before high front vowels Elsewhere	[n̥dʑí] 'last night' [dzɨ̃] 'water', [sɨdzó] 'soybeans'
/ts/	[tɕ] [ts]	Before high front vowels Elsewhere	[tɕíʑì] 'tonight', [natɕê] 'sun' [tsɔ́] 'elephant', [kətsá] 'forest
/tsʰ/	[tsʰ] [tɕʰ]	Free variation	[tsʰô] 'cook' [tɕʰô] 'cook'

Table 4. Affricates

It seems clear that the alveolar affricates, /dz/ and /ts/, have come to be pronounced as [dʑ] and [tɕ] in the environment of /e/ and /i/ as a result of an anticipatory articulation in which [dz] and [ts] became more palatalized in the environment of the high front vowels, which have a palatal constriction. This distinction might have led to separate phonemes, but the data shown in Table 4 indicates that a complementary distribution still exists. Marrison lists them together, stating that <ch> and <ts> both correspond to /c/ (1967: 345). This is an indication that he also felt that they were in complementary distribution. Nienu (1990), on the other hand, lists them as separate phonemes.

An exact minimal pair showing contrastive distribution of the voiced and voiceless affricates is:

/dzɨ̂/ 'water' /tsɨ̂/ 'small'

Fricatives

The fricatives provide the first obvious gap in the data. There exists a voiced labiodental fricative, but no voiceless counterpart. James Matisoff (personal communication) indicates that the situation in Lahu is similar, with /v/ being quite common (< PLB*w), but /f/ being rare (only < PLB*hw or *ʔw). Marrison's Kohima data contain only one instance of /f/ (tefü 'dog'), indicating that the pattern of rareness holds up even in Naga languages which have an /f/ phoneme. The aerodynamic voicing constraint would predict the opposite situation. I attempted to elicit words with the voiceless labiodental fricative, but was unsuccessful.

The fricatives were seen to exhibit the same behavior as the affricates, in that there appears to be a complementary distribution of the alveolar and alveopalatal fricatives governed by the environment of the higher front vowels. One exception to this pattern was found in the case of the post-verbal morpheme /sé/ 'to know something', or 'to hear'. This morpheme is the only occurrence of an alveolar fricative or affricate occurring in the environment of a higher front vowel. However, careful listening demonstrated that the vowel in this morpheme is actually quite open, thus allowing us to maintain our position concerning the allophonic relationship of the alveolar and alveopalatal fricatives. The fricatives and their allophonic distribution are shown below in Table 5.

Phoneme	*Allophone(s)*	*Environment*	*Examples*
/z/	[ʑ]	Before high front vowels	[ʑî] 'field', [tʰəʑê] 'barking deer'
	[z]	Elsewhere	[zû] 'mother' [m̥ɯzá] 'thank you'
/s/	[ɕ]	Word medial, before high front vowels	[liɕí] 'paper', [təɕî] 'dog'
	[s]	Elsewhere	[sɔ̂] 'dry', [kəsã] 'new'
/v/	[v]	Everywhere	[vê] 'good', [dzɨví] 'swim'
/h/	[h]	Everywhere	[hù] 'some', [hihĩ] 'this'

Table 5. Fricatives

That the voiced and voiceless alveolar fricatives are in contrastive distribution can be seen by the minimal pair:

/zô/ 'big' /sô/ 'dry'

Examples of the other fricatives are shown above in Table 5. The fricatives [z s v h] are all pronounced as they would be in English. The alveolopalatal fricatives, [ʑ ɕ], are articulated with a more narrow and posterior constriction than the post-alveolar fricatives [ʒ ʃ]. The narrow constriction produces greater turbulence which subsequently sounds louder acoustically. This in turn is aided by the larger resonating chamber for the upstream noise.

CONTINUANTS

Nasals

The nasals encountered during this study are shown in Table 6. It should be noted that only one form each of the labiodental and velar nasals were found. They have been included as allophones because they were not seen to contrast with their bilabial and dental equivalents. As seen in Table 6, each of these occurred before a high back vowel.

The following examples illustrate the contrastive distribution of the nasals:

/má/ 'dream' /m̥á/ 'quickly' /ná/ 'intercourse' /n̥â/ 'a plant'

The wide distribution of both voiced and voiceless bilabial and velar nasals, along with the minimal pairs shown above, indicates that they are separate phonemes. The voiced nasals are articulated in the same manner as their equivalent sounds in English. It was more difficult for the first author to articulate the voiceless nasals, as well as the voiceless glides described below. It was found to be most convenient to begin each voiceless nasal by blowing air out through the nasal passage before beginning voicing. This method produced sounds that were acceptable to the consultant, and he was able to understand the pronunciation of the words containing voiceless nasals produced in this manner.

Phoneme	*Allophone(s)*	*Environment*	*Examples*
/m/	[mɲ]	Before high back vowel	[tʰəmɲû] 'star'
	[m]	Elsewhere	[mê] 'fire', [tʰəmà] 'human'
/m̥/	[m̥]	Everywhere	[m̥ô] 'a dream', [kəm̥î] 'cloud'
/n/	[ɲ]	Before high front vowels	[ɲêpfɨ̂] 'flower', [mɨɲî] 'want'
	[ŋ]	Between two high back vowels	[puŋûû] 'five'
	[n]	Elsewhere	[nô] 'you', [mɨnũ̂] 'careful'
/n̥/	[n̥]	Everywhere	[n̥â] 'plant', [tìn̥ì] 'snake'

Table 6. Nasals

As with the affricates and fricatives described above, the environment of the closed high front vowels, which tend to have a palatal constriction, leads to palatalization of the velar nasal. The following two words are a good example: [mɨnû] 'human birth', but [mɨɲî] 'to want'. Marrison's Chokri (Cheswezumi) inventory does not include a palatal nasal, but his orthographic transcription contains a number of <ny> sequences, which can be interpreted as a palatal nasal. They are observed in the same forms that we have transcribed with /ɲ/.

Approximants

The two liquids found in Chokri are both alveolar approximants. Each was also found to have a voiceless counterpart to the more common voiced manner, as was seen for the nasals. The approximants and their allophonic distribution are shown in Table 7.

Phoneme	*Allophone(s)*	*Environment*	*Examples*
/l/	[l]	Everywhere	[lit^{h}ɔ̀] 'sing', [məlê] 'climb'
/l̥/	[l̥]	Everywhere	[təl̥ã] 'uncooked rice', [təl̥â] 'flea'
/ɻ/	[ɻ] [ʏ] [ʁ]	Everywhere In free variation In free variation	[ɻɛ̀ɻî] 'difficult' [ʏãnà] 'early' [məʁã] 'bird'
/ɻ̊/	[ɻ̊] [χ]	Everywhere In free variation	[ɻ̊ə]'draw', [təɻ̊ɨ̂] 'sew' [kəχɔ̀] 'dust'

Table 7. Approximants

The following near minimal pair provides evidence for listing /ɻ/ and /ɻ̊/ as separate phonemes:

/kəɻî/ river /təl̥ɨ̂/ to sew

The "r" of the consultant's speech was articulated with the tip of the tongue curled back and touching slightly behind the alveolar ridge. When produced in this way there was no flap or trill component. However, in a number of cases the retroflex approximant was replaced by either a velar or uvular fricative, producing what the consultant felt was a "deeper", more "authentic" Chokri. He reports that the uvular fricative is used less frequently by Chokri speakers who are in contact with Angami and English.

As for the lateral approximant, only seven examples of the voiceless allophone were identified. Several minimal pairs, however, were found establishing them as separate phonemes, e.g.:

/lɨ/ 'think' /l̥ɨ/ 'appearance'

According to James Matisoff (personal communication), the voiceless nasals and approximants described above most likely arose historically from old /s/

clusters. This is one more reason for listing the voiceless sonorants as separate phonemes.

A second historical fact which is relevant here is that PTB ***r** in some languages has been known to become [g] (Solnit, 1979). This would indicate a possible progression from ʁ → ɣ → g. The "deep" Chokri still has a "uvular r" as part of its phonetic inventory which was found in free variation with [ɻ] in our consultant's speech. For some words, however, even the "deep" Chokri pronounciation was further forward and is actually closer to [ɣ]. For this consultant, both [məɻê] and [məʁê] are acceptable as Chokri forms for 'red', and both [kəɣě] and [kəɻê] are acceptable for 'startle'. Earlier it was shown that [g] is also in free variation with [ɣ]. It is phonetically possible that [g] developed from [ʁ], and perhaps [ɣ] later developed from [g]. Today [ɻ] varies freely with the allophones [ʁ] and [ɣ] in a number of Chokri words. Solnit (1979) discusses this issue through reference to Tiddim Chin and Lushai, both members of the Kuki-Chin-Naga subgroup of Tibeto-Burman. He provides evidence that TB ***r** either developed from a proto-velar (I would argue uvular) allophone, or at some time shifted to a velar continuant. It seems quite possible that something similar has occurred and is occurring in Chokri.

VOWELS

Phoneme	*Allophone(s)*	*Environment*	*Examples*
/i/	[i]	Everywhere	[pí] 'head', [məkʰ̃î] 'bee'
/e/	[e] [ɛ]	Free Variation	[pé] 'look', [tsotê] 'finish' [mê] 'fire', [vadɛ̃] 'stomach'
/a/	[a]	Everywhere	[kɻà] 'cry' [umâ] 'feather'
/o/	[o] [ɔ]	Free variation	[tʰó] 'write', [hɛzõ] 'liquor' [nɔ̂] 'you', [sɨbɔ̂] 'tree'
/u/	[u] [ɯ]	Free variation	[hù] 'some', [tʰəɱû] 'star' [nũ̄] 'son', [mɨnû] 'late'
/ɨ/	[zero] [ə] [ɨ]	After r̥ Non tone bearing Elsewhere	[kʰr̥̀] ~ [kʰr̥+] 'brain' [təkʰô] 'tiger' [sɨ̂] 'three', [təɻɨ̃] 'rain'

Table 8. Chokri vowels

Chokri has six contrasting vowels, with three of these having allophones in free variation. Non tone-bearing, unstressed syllables were usually observed to have a central unrounded vowel to which the symbol [ə] was assigned, but this syllable was often also heard and transcribed as [ɨ]. The reasons for this will be discussed below. [i e ɛ a o ɔ u] represent approximately the values of the cardinal vowels, with the first four being spread and the last three rounded. [ɨ ə ɯ] represent approximately the values of the central vowels and secondary cardinal vowel. Each of the vowels may be illustrated in the environment of a voiceless stop:

/pí/ 'head': /pé/ 'look': /p^{h}á/ 'completely': /pó/ 'say': /pú/ 'fat': /tɨ́/ 'catch'

Each vowel phoneme has an equivalent phoneme in both Marrison and Nienu. However, both also report a diphthong, /ie/, that did not appear in our data. It is likely that we have transcribed this diphthong as a palatal nasal plus /e/ or simply as /e/. Marrison also lists the diphthong /ou/, even though he presents only one Cheswezumi form, *lou* 'bone,' containing it. The correspondences between the vowel phonemes in Chokri (Phek), Chokri (Cheswezumi) and Angami (Kohima) are shown in Table 9.

This table is provided as an aid to understanding one of the perplexing puzzles encountered in this study, the categorization of the vowel sounds. The difficulties arose from the fact that the consultant often produced the same form with a variety of vowels. The vowel quality would change as second and third repetitions of a form were requested. An example of this is the word /pû/ 'bridge'. As I asked the consultant to pronounce this word several times I watched his lips for rounding. Inevitably, if he pronounced the vowel with rounded lips the first time, the second time he would pronounce it with unrounded lips. No complementary distribution was identified for the rounded versus unrounded high back vowel, and it is suspected that variation in this consultant's speech arises form his contact with many different languages. Marrison's data shows /u/ and /ü/ occurring in free variation in tone-bearing syllables even though he classifies them as separate phonemes. By referencing our data, it appears that in stressed syllables Marrison's /u/ corresponds to [u] while /ü/ corresponds to [ɯ] or [ɨ]. In unstressed syllables and prefixes, Marrison's /ü/ corresponds to the non-tone bearing [ə] or [ɨ].

Phek	*Cheswezumi*	*Kohima*
/i/	/i/	/ie ei e ü/
/e/	/e/	/e ie ei i ü/
/a/	/a/	/a ie/
/o/	/o/	/u ou o/
/u/	/u ü/	/u uo ü/
/ɨ/	/ü u/	/ü ou i e ie/

Table 9. Comparison of vowel phonemes across Chokri dialects

The Central Vowels

The central vowel posed many difficulties. As discussed earlier, unstressed, non tone-bearing syllables tended to consist of a mid-central vowel, [ə], but a more [ɨ]–ish sound also often appeared in this position. In polysyllabic words these two allophones were observed in 64% of first syllables. In monosyllabic words /ɨ/ was found in 20% of the forms, second in frequency of vowel only to /a/, which occurred in 24% of monosyllabic forms. Even in disyllabic words, /ɨ/ was found in nearly one-fifth of all tone-bearing second syllables.

The difficulty in determining the exact quality of the central vowel can be illustrated with an example. In elicited and natural speech the form for 'rain' was given as [təɻɨ̃]. However, upon further investigation it was found that the word could actually be pronounced as [tɨɻɨ̃] with the first syllable still non tone-bearing. Eventually, the form was traced back to [tɨ̂ɻɨ̃] with the first syllable bearing a full high-mid tone and the word literally meaning *sky falling*. This process of reduction of the vowel in the first syllable can be taken one step further. The elicited form of 'kiss' is [məbò]. In natural speech this becomes [m̩bò] with loss of the vowel and a syllabification of the preceding nasal. This was also observed with the verb 'to lose', which begins as [midì], goes through a vowel reduction to [mədì], drops the vowel altogether to become [m̩dì], and finally assimilates the nasal to the following alveolar stop resulting in [n̩dì].

The quality of the central vowel also differs depending on the environment. In the vicinity of sibilants, it sounded much higher and more forward. Richard Cook (personal communication) reports that acoustical measurements did little to help in distinguishing between [ə] and [ɨ], even though one would expect to observe a greater difference between the first and second formants for the high central vowel.

Vowel Variation

A final complicating factor was vowel variation. A good example of this involves [kʰɻɨhĩ] 'to help'. When eliciting this word for the first time, much time was spent in determining the vowels and tones in order to develop the proper narrow transcription. However, in a subsequent session the consultant produced [kʰɻihĩ] in rapid speech. When pressed on this issue, he eventually produced [kʰɻɯhĩ]. The same phenomenon was witnessed for a number of other words as well, especially when elicited in context. It seems that in some cases, all three vowels [ɨ ɯ i] are in free variation. It is more likely, however, that the consultant's familiarity with both Chokri and Angami was playing a role. As shown in Table 9, the [ɨ] of our consultant's speech is realized in a variety of ways in Angami (Kohima) cognates. It is certainly possible that just as he at times inadvertently provided an Angami (Kohima) form, he may also have mixed his phonological inventories. A second possibility is that the unstressed vowel in a syllable can harmonize with either the vowel of the preceding word or the vowel of the ultimate syllable in the same word. It is difficult to establish which of these two possibilities is playing a greater role in a given situation.

TONES

Tone is often defined as a change in the fundamental frequency that has consequences at the lexical level. In order to gain a deeper understanding of the tone structure of Chokri (Phek), recordings of words containing the identified tones were made and analyzed in the Berkeley Phonology Laboratory. Each word was elicited in three situations. First, each word was elicited randomly, with the author asking the consultant to say a word and the consultant providing the Chokri (Phek) gloss. The procedure was repeated a second time with each word being requested within a series of words bearing similar tone. Finally, each word was elicited within a series of words varying only in tone, i.e. minimal triplets and quadruplets. Pitch extraction was carried out using the CSL program. For each tone the general shape of the pitch curve was noted and pitch frequency measured at the beginning, in the middle, and at the end of each vowel. The results indicate that the method used for elicitation had little effect on the pitch pattern. Statistical analysis was carried out on the data to determine the range, mean, median and modal pitch values for each tone. The means are shown in Table 10. Each of the four tones was found to be a falling tone, an unusual configuration typologically, with the differences among the tones residing in the pitch level at which they begin and end. The high tone was seen to have the greatest initial pitch range, beginning at a value of anywhere from 95 to 164 Hz. The high-mid tone had the most variation in the final pitch position, with values ranging from 70 – 107 Hz.

If the total tonal pitch range observed for this speaker is divided into five equal intervals, each interval would have the following approximate frequency: 5 ≈ 155 Hz, 4 ≈ 135 Hz, 3 ≈ 115 Hz, 2 ≈ 95 and 1 ≈ 75.

This allows us to mark the tones using Y.R. Chao's tone letters, making it possible to compare the tones of Chokri with those of other tonal languages.

Tone	*P1*	*P2*	*P3*
High (´)	136	128	107
High-mid (^)	117	110	92.5
Low-mid (~)	111	100	90.9
Low (`)	105	91.8	82.3

Table 10. Mean Pitch Values in Hz For the Four Tones.
(P1 = Beginning, P2 = Middle, P3 = End)

A tone marked with the symbol (´) and labeled as a high tone has a definite falling character. It starts at much higher frequencies than any of the other tones and falls drastically. It is numerically equivalent to a 53 or even a 52 tone in many cases, but on average is more similar to a 43 or 42. The tone labeled as high-mid (^) begins significantly lower than the high tone. It drops gradually from an initial 3 to a low 2. However, several examples of this tone demonstrate a slight rise in pitch before the eventual falling. For example, the word [dzɨ̂] 'water' had the pitch pattern of P1 = 103, P2 = 109, and P3 = 101. Similar patterns were also observed for the words [nô] 'you', [vê] 'good', and [mê] 'fire'. It is possible that the initial voiced consonant in each form causes a lowering of the initial pitch.

The low-mid (~) tone, begins slightly lower than the high-mid tone and falls throughout, ending somewhere near a frequency equivalent to 1. What seems most important in separating a low-mid tone from a high-mid tone is the rate at which the pitch drops. Both the high-mid and low-mid tones start at frequencies near a 3 and end as low 2's. However, on average, the high-mid tones drop much more drastically during the second half of pitch duration. The difference between these two tones appears to be in the timing of the F0 drop.

Acoustically, the low tone was usually quite distinguishable from the other tones. It begins as a high 2 and drops to frequencies equivalent to a 1. During elicitation, this tone was the easiest to recognize. Two minimal quadruplets are given below:

/pù/	'one'	/pũ/	's/he'	/pû/	'bridge'	/pú/	'fat'
/k^{h}ɻ̀ɨ/	'brain'	/k^{h}ɻ̃ɨ̃ /	'wash sthg'	/k^{h}ɻ̂ɨ/	'collect'	/k^{h}ɻ́ɨ́/	'love'

Marrison (1967) does not mark tones in his data and only briefly mentions the existence of a four-tone system (p. 351). Nienu (1990) lists five tones with the Chao tone letters 55, 33, 11, 31, 35. It is not known whether Nienu carried out any instrumental measurements. His rising tone is most likely the rising-falling allotone of the high-mid tone, thereby reducing his five-tone system down to our four tones. It is also possible that he has chosen to mark what we have termed as non-tone bearing syllables as a 33.

Tonal Interaction

The measurements described above provide a first look at the nature of the Chokri tones. The next step involved an investigation of interaction between tones. In tonal languages it is important that the integrity of each tone be preserved regardless of its context. This can be accomplished either by maintaining the same range of fundamental frequency in all environments, or by altering tones in predictable ways so that the identity of each tone is recoverable. To examine how this may be occurring in Chokri (Phek), a number of compound words were examined to establish whether or not the individual morphemes retain their tone. For example /vɨ́/ 'to beat 'and /dzɨ̂/ 'water' can be combined together to obtain /dzɨ̂vɨ́/ 'to swim', literally "beat water". Each syllable retains its original tone, but that of the first does sound to the ear to be slightly raised by the second tone. Preliminary instrumental work indicates that the total range of pitch values changes when compound word data are included. It appears that the pitch pattern of the first syllable is affected by the following syllable. However, the effects of one tone on another are not always phonetically natural, nor do they occur in predictable and reconstructible ways. There is no evidence for tone sandhi in Chokri (Phek). Further instrumental analysis would help to confirm or disprove this claim. As discussed in the section on vowels, it was also observed that in many disyllabic words the first syllable was found to have a neutral tone, even when a full vowel was present. As argued previously, this appears to be the result of a process of reduction in tone followed by a reduction in vowel. To determine if this occurs as a phonological process in natural speech, a careful examination of the elicited texts (Appendix A) was conducted. First, each text was carefully gone over with the consultant to determine the tones of each syllable and the rhythm of the text. After transcription, the tone markings were checked against the recorded speech and by the consultant. It was found that within the

text many of the reduction processes outlined in the section on vowels were occurring. Many of the [ɨ]'s found in words elicited in isolation are reduced to [ə] and a number of full vowels also alternate with [ə] (e.g. [tĩ ɕî] in Text 1, Line 1, but later [təɕî] in Text 1, Line 12; also Line 24 for both forms within the same sentence). Other full vowels were seen to completely change phonemically, even in the same environment. This change is either the result of assimilation to following vowels or as a result of the consultant's use of Angami (Kohima) cognates in certain situations. For example, in Text 1 'orphan' varies among [məɻɛ̃nõ], [məɻənõ], [məɻɛ̃nũ], and [məɻənũ]. A number of examples of reduction to syllabic nasals were also observed (Text 1: Lines 5, 7, 19, 22, 25, 26, 34; and Text 2: Lines 1, 2, 3, 12, 13, 19). One of the most interesting findings is in Line 41 of Text 1, and Lines 8, 9, 11, and 12 of Text 2. In these lines [tɕê] 'house' has begun to undergo the process outlined above. In isolation, the form for 'inside of the house' is given as [tɕê lɨ̂]. However, in the rhythm of the narrative the tone on [tɕe] is seen to drop from high-mid to low-mid, becoming [tɕẽ lɨ̂]. The surrounding tones do not seem to be affecting this change as it occurs in environments with preceding high-mid (41, 12) and low-mid (8, 9, 11) tones and followed by high-mid (41), low-mid (8, 9, 12), and low (11) tones. It is postulated that what is occurring is the beginning of a reduction process that may eventually lead to a word of the form [tɕəlɨ̂]. One complicating factor in this case is the fact that the palatal affricate occurs only in the environment of the higher front vowels. If this reduction process is to run its full course the affricate will eventually need to be realized as [ts]. This change is not unlikely considering the acceptability of both [ts^{h}ɔ] and [tɕ^{h}ɔ] for 'cook'.

"LINKING VOWELS"

A major phonological phenomenon that was revealed through the examination of texts is the existence of what were originally termed "echo" or "linking" vowels. First thought to have no grammatical function, closer examination has shown otherwise for most occurrences. In one case, these vowels are noted to precede the morpheme [nõ] when it is used as a topicalizer or suspensive marker. For example, it is common to observe a structure such as /zû u nõ/ (Text 1, Line 41) with the medial vowel having a dynamic tonal nature. It was originally felt that these vowels were helping to transition between tones. More extensive observation has led to the postulation of a more general rule: $\mathbf{V_x}$ + **nõ** > $\mathbf{V_x}$ + $\mathbf{V_x}$ + **nõ**, where $\mathbf{V_x}$ is any vowel or zero and the second $\mathbf{V_x}$ is toneless. At times V may be realized as ø and /nõ/ may reduce to /n̩/. Examples for each vowel and the null case can be found throughout the texts, and one of each is given below:

/ɨ/	sɨ̂ ɨ nõ 'volitive' + SUSP (Text 1, line 8)
/a/	pà a nõ 'emerge' + SUSP (Text 2, line 15)
/e/	təɕîɲê e nõ 'doggy' + TOP (Text 1, line 18)
/i/	ʒî i nõ 'field' + TOP (Text 2, line19)
/o/	vô o nõ 'go' + SUSP (Text 2, line 6)
/u/	zû u nõ 'mother' + TOP (Text 1, line 39)
/ø/	ʒî nõ 'field' + TOP (Text 2, line19)

It is not yet clear if an underlying vowel should be posited as part of the topicalizer or suspensive construction.

A second case of an isolated vowel, /i/, was also observed. It is speculated that this vowel fills many roles including those of adverbializer, stative marker, and the words 'ever' and 'or'. It is possible that this vowel, especially when acting as an adverbializing particle, also assimilates to the preceding vowel. It does not seem feasible at this time to give an example of each, but they are readily found throughout the texts in the Appendix.

Even after taking all of the above into consideration, we are still left with some unexplained vowels. The following are examples:

1) /pũ m̥a.tì tò o zɨ̂ ve pũ-zɨ-o vó.../	he eat IRR ? IMMIN good his-friend come
2) /...lɨ̃ *vó o sɨ̀* tê/	in *come ? bad* COS (Text 2, line 9)
3) /...mə.ɻə.nũ *gù u tâ*/	orphan *hang ? PERF* (Text 1, line 31)
4) /...t^{h}ɨ̃ *pà a kə-sɨ̂-*tɕê.../	leap *emerge ? when* (Text 1, line 30)
5) /...hã-tɕẽ-lɨ̂ lɨ̃ *vó o sɨ̀* tê.../	our-house-inside in *come ? bad* COMP (Text 2, line 9)

In each of the above examples the vowel in question occurs between two widely separated tones, a high to low transition in the case of 2 and 5, and a low to mid high transition in 1, 3, and 4. It is postulated that the extra vowels are being inserted as a dynamic means of transitioning between these differing tones, thus meriting the name "linking vowels". In each case the consultant indicated that the vowel could be left out, but that it seemed more natural to put it in.

CONCLUSION

The final phonological issues discussed are just the beginning of vast amounts of phonological information that can be gained through a careful examination of speech generated in context. Certainly, a much more in-depth analysis is required

than has been undertaken to date. Despite this, a solid description of the phonetics and phonology of Chokri (Phek) has been presented. As evidenced in this study, much variation can be understood through knowledge of the speaker's personal background and the surrounding languages to which s/he has been exposed. If nothing else, it is hoped that this paper brings forth the need to study a language not in isolation, but with reference to the linguistic, individual, and social contexts within which it is used.

APPENDIX

Text 1

mɨ.ɣẽ.nu lĩ tə.ɣô.nɪ dzɨ́

"The Orphan and the Frog"[2]

1)	tʰá dzɨ̃,	mɨ.ɣẽ.nũ-mì,	pù,	tĩ.ʃî-ɲê	mû	tʰə.ɣô		
	a long time ago	orphan-person	one	dog-DIM	and	frog		
ũ.kõ-mì	sɨ̂	kə.mə.zá	â nõ	hlɨ̃[3]	bâ	jõ	ʃẽ	
they-people	three	together	TOP	live	PROG	HAB	hearsay	

1a) It is said that a long time ago an orphan, a dog and a frog were living together.

2)	kə.mə.zá	vé	rĩ	bâ	jõ	ʃẽ
	together	good	very	PROG	HAB	hearsay

2a) Very happily together, it is said.

3)	ũ.kõ	ʃĩ.ʒĩ-î-n̥(o)	zɨ̀	tâ	kə-mò-hmõ.dzɨ́	ũ.kõ	
	they	usually	sleep	PERF	not-before	they	
vô	tʰĩ.ʒí	pʰẽ	lɨ̃	bâ	â nõ,	kə̃.rɨ̃.tʰĩ	î nõ	sɨ̀
go	bed	foot	LOC	sit	SUSP	conversing	TOP	deep
bâ	jõ							
PROG	HAB							

3a) Usually, before they would go to bed, they would sit at the foot of the bed in deep conversation.

4)	pù-ʒĩ-pù	mə.ɣẽ.nũ	lĩ	pũ-ʃî	pũ.ɲî	zɨ̀
	one-night-one	orphan	and	his-dog	they(dual)	sleep
kə.bâ-tɨ̂.tʃê	tʰə.ɣô	o\ nõ	tâ	tâ		
while	frog	TOP	away	ran		

---

[2] This text was elicited by having the consultant refer to the pictures found in Mercer Mayer's 1980 book "Frog, Where Are You?". The pictures were shown without a title, allowing the consultant to chose the events to be recounted, to decide on what would be highlighted or backgrounded, and to arrange the story how he thought it would work best. The assumption is that the language, Chokri, heavily influences the narrative options. The consultant first looked through the entire booklet of illustrations, and then told the story while again looking at the pictures.

[3] In these texts, voiceless nasals and approximants are represented by an **h** preceding the consonant, such that ɻ is written as "**hl**". The alveolar approximant ɻ is transcribed as "**r**".

4a) One night while the orphan and his dog were sleeping, the frog ran away.

5) kɨ.sɨ́ ɣã.nà mə.ɣə.nũ lĩ tĩ.ʃî-ɲê pũ.ɲî tò
morning early orphan and dog-DIM they(dual) arise
sɨ̂ pà ʃĩ.ʒĩ î nõ mə.ɣɨ̃.nũ nõ vô tʰə.ɣô rɨ.tʰĩ
VOL out usually SUSP orphan TOP go frog talk
tõ ô ɲ̣ tʰə.ɣô tʃí sɨ̂, "tʰə.ɣô, tʰə.ɣô," lə.vẽ
IRR SUSP frog call VOL frog, frog but
tʰə.ɣô ô nõ bâ-mò kə.tâ sɨ̃.sɨ̃ mó sɨ̂
frog TOP be-NEG RESUMP/DEM see VOL

5a) Usually, early in the morning, the orphan and his doggy would get up and go talk to the frog, calling "Frog, Frog," but this time the frog was not seen.

6) sɨ̃.sâ mə.ɣə.nũ lĩ tĩ.ʃî.ɲê pũ.ɲî ɨ̃-lɨ̃
then orphan and doggy they(dual) their-insides
kə.mə.ʒê sɨ̀ tâ
suffer deep PERF

6a) And then the orphan and his doggy suffered deeply.

7) ʃĩ.ʒĩ-ɲ̣ tʃê mõ.tɨ̂-kõ lɨ̃ tʰə.ɣô pʰû, tʰĩ.ʒí
like that house all-PLUR in frog search bed
qʰrõ lɨ̃ pʰû, pʰẽ.kù-kõ lɨ̃ pʰû, kʰɨ̀ dò kõ
under LOC search shoe- PLUR LOC search shawl between PLUR
lɨ̃ pʰû, lə.vẽ tʰə.ɣô pʰû mĩ.dì tâ
LOC search but frog search lost PERF

7a) They searched the whole house, under the bed, in the shoes, between the clothes, but the search for Frog found nothing.

8) sɨ̃.sâ mə.re.nõ vô kʰɲ̣.kî kʰá-kʰrĩ sɨ̂ ɨ̃ nõ
then orphan go window open VOL SUSP
tʰə.ɣô tʃí sɨ̂ "tʰə.ɣô, tʰə.ɣô, nõ dí.pù-tʃê
frog call VOL frog frog you where-LOC
bâ lâ?"
be QUEST

8a) Then the orphan went and opened the window and called, "Frog, Frog, where are you?"

9) kə.ɣá mə.re.nũ lĩ tĩ.ʃî-ɲê pũ.ɲî vô
at first/before orphan and dog-DIM they(dual) go

$t^hə̃.ɣó$ $p^hû$ kə-bã̃.tɨ̂.tʃê, tĩ.ʃî-ɲê nõ vô
frog search while dog-DIM TOP go

$t^hə.ɣô$-tʃê, bò.tõ.lõ lɨ̃ pũ-pí mə.kà ĩ tâ
frog-house LOC bottle inside his-head stuck PAST PERF

9a) While the orphan and doggy were searching, doggy stuck his head inside the bottle that had been Frog's house.

10) sɨ̃.sâ mə.re.nũ lĩ tĩ.ʃî-ɲê pũ.nî $k^hɾ̃$.kî lɨ̃
and then orphan and dog-DIM they(dual) window LOC

$t^hə.ɣô$ tʃí kə.bâ-tʃê tĩ.ʃî-ɲê pũ-pí mə.ʃî rĩ
frog call while dog-DIM his-head heavy very

tâ ã̃ nõ krí tsɨ̃ bò.tõ.lõ pũ-pí mə.kà kə.bâ
became SUSP fall down bottle his-head break PROG

tsɨ̀ kə.sɨ̃ $p^há$ â vâ
that one shatter PAST

10a) As the orphan and doggy were calling from the window the doggy's head became very heavy and he fell down and the bottle shattered.

11) mə.re.nõ õ pũ-ʃî krí tsɨ̃ kə.tâ mó kə-sɨ̂-tʃê
orphan TOP hia-dog fall down when see at the same time

pũ î $k^hɾ̥̃$.kî lɨ̃ $t^hɨ̃$ pà ã̃ nõ kî pũ-ʃî mɨ̃.zà
he also window LOC jump out SUSP down hia-dog grab

11a) The orphan saw his dog fall and at the same time he jumped from the window and grabbed his dog.

12) sɨ̃.sâ mə.re.nũ lĩ tĩ.ʃî-ɲê pũ.nî kə.mɨ̃.zá
then orphan and dog-DIM they(dual) together

kə.tsá kə.tsô vô õ nõ $t^hə.ɣô$ tʃí,
forest to ask go SUSP frog call

"$t^hə.ɣô$, $t^hə.ɣô$, nõ dí.pù-tʃê bâ lâ?"
frog frog you where-LOC be QUEST

12a) Next they went to the forest to ask and called "Frog, frog, where are you?"

13) ʃĩ.ʒĩ î nõ kə.tsá mõ.tî-kõ lĩ tʃí vô
like that SUSP forest whole-PLUR LOC call go

13a) And they called like that throughout the whole forest.

14) pũ.ɲî kə.tsá-lĩ lì kə.zî-tʃê mə.kʰî qʰô
they(dual) forest-in(LOC) enter as/IMM bee nest
lĩ kə.lê tʃê mó
and squirrel hole see

14a) Just as they entered the forest they saw a bee hive and a squirrel hole.

15) mî[mû], mə.re.nõ nõ tə.ʃî tʃê pô sî,
and orphan TOP dog to say VOL
"tə.ʃî-ɲê, nô pʰê mə.kʰî-kõ tʃê ũ.kõ tʰə.ɣô
dog-DIM you approach bee-PLUR towards they frog
mó mẽ mò sĩ kə.tsò sî tẽ
see yes/no not or ask VOL IMPER

15a) And the orphan said to the dog, "You approach the bees and ask them whether or not they have seen the frog...

16) î kə̃.lê kə.tsò kə-bâ-tʃê
I squirrel ask while

16a) ...while I ask the squirrel."

17) mə.re.nũ nõ kə.lê tʃí kə-sî-tʃê kə.lê.e˨
orphan TOP squirrel call when squirrel
nõ pà â nõ mə.re.nũ kə.tsò sĩ, "mə.rẽ.nõ nô
TOP emerge SUSP orphan ask VOL orphan you
só.pù pʰû bâ lâ ?"
who search PROG QUEST

17a) When the orphan called to the squirrel he emerged and asked, "Orphan, for whom are you searching?"

18) mə.rẽ.nũ lĩ kə.lê pũ.ɲî kə.rĩ.tʰĩ
orphan and squirrel they(dual) converse

kə-bâ-tɨ̂.tʃê	tə.ʃî-ɲê	e nõ	pʰê	mə.kʰî-kõ	kə.tsò
while	dog-DIM	TOP	approach	bee-PLUR	ask

sɨ̂,	lɨ.vẽ	mə.kʰî-kõ	krõ	rĩ	kə-ta-nâ	tə.ʃî-ɲê
VOL	but	bee-PLUR	many	very	that is why	dog-DIM

kʰɨ̃	sé	ì	mò	tâ
voice	hear	ADV	not	PERF

18a) While the orphan and the squirrel were conversing the doggy approached the bees to ask, but the bees were very many and that's why they couldn't hear the doggy's voice.

19) sɨ̃.nâ	tĩ.ʃî	ɲ̣	pũ-lɨ̃	rə.dà	ã nõ	vô	sɨ̂.bô
and then	dog	TOP	his-inside	boil	SUSP	go	tree

kə.nâ	sɨ̂
shake	VOL

19a) Therefore, the dog became angry and went to shake the tree.

20) tĩ.ʃî-ɲê	nõ	sɨ̂.bô	kə.nâ	kə-sɨ̂-tʃê,	mə.kʰî
dog-DIM	TOP	tree	shake	when	bee

qʰô	kà.tû	tsɨ̃	tʃẽ.dzɨ̂	lɨ̃	kî	tâ
nest	drop	down	ground	LOC	down	PERF

20a) When the doggy shook the tree the bee's nest fell down to the ground.

21) sɨ̃.sɨ̃	kə.hmã	kə-bâ-tɨ̂.tʃê	mə.rə.nũ	sə.bô
that	likewise	during the same time	orphan	tree

mə.lê	kũ	û nõ	hù.tĩ.lĩ	tʃí	sɨ̀,	ˇhmɨ̀	kə.zô	õ,
climb	up	SUSP	owl	call	VOL	eye	big	one

hmɨ̀	kə.zô	õ	nô	tʃê-lɨ̃	bâ	mẽ	mò	lâ?“
eye	big	one	you	house-LOC	be	yes/no	NEG	QUEST

21a) Similarly during that same time the orphan climbed up a tree and called to the owl, "Big-eyed one, Big-eyed one, are you in your house?"

22) hù.tĩ.lĩ	ɲ̣	pũ-lɨ̃	rə.dà	sɨ̀	ɨ̃ nõ	pfɨ̂	pà,
owl	TOP	his-inside	boil	very	SUSP	fly	out

mə.rə.nũ	kə.hré	sɨ̂,	sɨ̃.sâ	hù.tĩ.lĩ	nõ	mə.rə.nũ
orphan	startle	VOL	then	owl	TOP	orphan

tʃê	pô	sî,	"nô	hmì	kə.zô	õ	ʃĩ.ʒĩ	î ɲ̃	
toward	say	VOL	you	eye	big	one	like that	TOP	
ã-tʃí	k^hã	kə.tsĩ-sâ,		î	ɲ̃-zĩ	χâ	p^há	vá	
me-call	again	now-after		I	your-face	scratch	completely	NEG	
tò	hõ "								
IRR	EMPH								

22a) The owl boiled inside and flew out, startling the orphan. Then the owl said to the orphan, "If you ever again call me Big-eye like that, I will scratch your face to shreds!"

23)	sĩ.sĩ	kə.hmã	kə-bâ-tî.tʃê,		mə.k^hî-kõ	tĩ.ʃî	
	that	likewise	during that time		bee-PLUR	dog	
ũ-q^hô	t^hí	mə.sì	kə.vá	mó	kə-sî-tʃê	ũ-kõ	ĩ.lĩ
their-nest	make	bad	ADVERS	see	when	they	inside
rə.dà	sì	tâ					
boil	very	PERF					

23a) During this same time, when the bees saw that the dog had broken their nest, they became very angry.

24)	sĩ.sâ	ũ.kõ	hmô-kə.zô	õ nõ	tə.pà.hé-kõ		tʃê	
	then	they	above-big (leader)	TOP	soldier-PLUR		toward	
pô	sî,	"tĩ.ʃî	tsì	hũ	tẽ! "	ũ.kõ	vô	tə.ʃî
speak	VOL	"Dog,	this	chase	COMPL	they	go	dog
hũ	sî							
chase	VOL							

24a) Then their leader spoke to the soldier (bees), "Chase this dog!" They went to chase the dog.

25)	mə.rẽ.nũ	nõ	hù.tĩ.lĩ	tʃê	pô	sî,	"hù.tĩ.lĩ		
	orphan	TOP	owl	toward	speak	VOL	owl		
ã-kə.dʒó	vá	sî	tẽ,	î	ɲ̃-zã	kə.mò	pũ.sî	ɲ̃	
my-fault	forgive	VOL	IMPER	I	your-name	not	use	you	
tʃí	sá	hlò	tẽ,	hõ "					
call	again	never	IMPER	AFFIRM					

25a) The orphan said to the owl, "Owl, forgive my fault, I will never again call you by a name which is not yours."

26) hù.tĩ.lĩ ɲ̣ mə.rẽ.nõ tʃê pô sî, "sĩ.sĩ
owl TOP orphan toward speak VOL that
vé"
okay

26a) Owl replied to the orphan, "That's okay."

27) mə.rẽ.nũ kə.tsî kə.zô pù mə.lê kũ kə-zî-tʃê
orphan rock big one climb up then (IMM)
sî.tsô $t^hĩ$.zî-ɪ kə.krê-nâ-mò-lĩ pũ hò rẽ kə-tâ-nã
branch hold-CONT because he tired very that's why

27a) Because he was very tired, the orphan climbed a rock and was holding on to a branch.

28) ʃĩ.ʒĩ-ɲ̣ pũ kə.tsî pí lĩ $t^hà$ ã nõ $t^hə.ɣô$
like that he rock head LOC stand SUSP frog
tʃí lâ sî
call again VOL

28a) And in that way he stood on top of the rock and called again for Frog.

29) mə.rẽ.nũ nõ sî.tsô mũ.ŋú kə.bâ õ tsì $t^hə.ʒê$
orphan TOP branch lean the one this deer
kà kə.tsí sé bâ mò
horn that one know PROG not

29a) The orphan did not realize that the branch he was leaning on was a deer antler.

30) pũ $t^hə.ɣô$ tʃí kə-sî-tʃê $t^hə.ʒê$ hnâ dò
he frog call when deer bush between
lĩ zì kə.bâ kə.ré sî, mû $t^hĩ.ʒê$ o᷄ nõ pũ
LOC sleep PROG startle VOL and deer TOP he
kə.ré kə-sî-tʃê hnâ dò lĩ $t^hĩ$ pã á
startle when bush between LOC leap out ECHO

30a) As he called Frog the deer sleeping in the bush startled, and when he leapt out he startled the orphan.

31)	tʰə.ʒê	tʰɪ̃	pà	kə-sɪ̂-tʃê	pũ-kà	vô	mə.rə.nũ
	deer	leap	out	as	his-horn	go	orphan
gù	ù	tâ					
hang		PERF					

31a) As the deer leapt out the orphan was hooked on his horn.

32)	tʰĩ.ʒê	mə.rə.nũ	pfɨ̀	ɪ↗,	ʃɪ̃.ʒî-ǹ̪	dõ.tʰɪ̂
	deer	orphan	carry on back		like that	hesitate
mò	zõ	ɪ↗↘ nõ	tâ	rə.zâ-ɲê	lɪ̃	kî	tâ
NEG	without	SUSP	ran	lake-DIM	LOC	down (DIR)	PERF

32a) Without hesitation the deer carried the orphan like that and ran down to the pond.

33)	tʰə.ʒê	tâ	kî	rə.zâ	lɪ̃	kì-tsò	kɪ̃-ì-tʃê,
	deer	ran	down (DIR)	lake	LOC	down-finish	when
mə.rə.nũ	kɪ̃.tʰó	pũ.sɪ̂	rə.zâ	lɪ̃	sɪ̂	sɪ̂	
orphan	jolt	using	lake	LOC	put	VOL	

33a) When the deer had reached the lake he used his momentum to jolt the orphan into the lake.

34)	"lâ	vô	ã-mə.sɪ́	lâ	kʰã	hì!"	tʰə.ʒê	ǹ̪
	again	come	me-hassle	again	DEG	NEG IMP	deer	TOP
ʃê	sɪ̂							
shout	VOL							

34a) "Don't come hassle me ever again!" shouted the deer.

35)	ɪ̃.tɪ̃-hù-sâ	mə.rə.nũ	lĩ	tĩ.ʃî-ɲê	pũ.ɲî	tʰə.ɣô
	some time-after	orphan	and	dog-DIM	they(dual)	frog
ɣʷû	kə.bâ	sé				
croak	PROG	hear				

35a) After some time the orphan and doggy heard a frog croaking.

36)	mə.rə.nũ	tĩ.ʃî	tʃê	pô	sɪ̂,	"ʃʃʃ,	dzɪ̃	kə.pʰà
	orphan	dog	towards	say	VOL	Shh	words	noise
ʰì	tẽ"							
NEG IMP	IMPER							

36a) The orphan said to the dog, "Shh! Don't make any noise."

37) mə.rə.nũ lĩ tĩ.ʃî-ɲê pũ.ɲî ĩ rɨ.lê mû
orphan and dog-DIM they(dual) slowly and
mũ.nũ sì ɨ̃ nõ t^hə.ɣô ɣ^{w}û kə.ba tsõ pé sɨ̂
carefully very SUSP frog croak PROG towards look VOL

37a) The orphan and the doggy slowly and carefully looked towards the frog's croaking.

38) pũ.ɲî t^hə.ɣô pù mò.lĩ t^hə.ɣô kə.nã zí
they(dual) frog one not frog two with
kə.sɨ̂
meet

38a) They met not one, but two frogs.

39) ũ.kõ-kə.sɨ̂ ɨ̃ nõ ũ.nɨ̂ sì kə-bâ-tɨ̂.tʃê, t^hə.ɣô
their-meeting TOP happy very at that time frog
zû ũ nõ t^hə.ɣô-ɲê-kõ tʃí sɨ̂, "t^hə.ɣô-ɲê-kõ pà
mother TOP frog-DIM-PLUR call VOL frog-DIM-PLUR emerge
ã nõ, mə.rə.nõ lĩ tĩ.ʃî-ɲî zí kə.sɨ̂ tẽ"
SUSP orphan and dog-DIM with meet IMPER

39a) With their meeting, they were very happy; the frog mother called to the little frogs, "Froggies, come out and meet with the orphan and doggy."

40) t^hə.ɣô-ɲê kə.k^hrõ tâ pà â nõ tĩ.ʃî-ɲê lĩ
frog-DIM many ran out SUSP dog-DIM and
mə.rə.nũ pũ.ɲî zí kə.sɨ̂
orphan they(dual) with meet

40a) Many little frogs ran out and met with the doggy and orphan.

41) t^hə.ɣô zû ũ nõ "mə.rə.nũ tʃê pô sɨ̂,
frog mother TOP orphan towards speak VOL
"mə.rə.nũ, î tʃê-lɨ̃ lâ vó hlò tê, kə.krê-nâ-mò-lɨ̃
orphan I house-LOC again come never IMPER because
ã-nũ.ɲê-kõ tə.k^hrẽ bâ mò õ kə-sɨ̂-nâ, lɨ.vẽ î
my-child-PLUR care PROG must because but I

ã-nũ.ɲê pù kʰà ɲ̩ tsɨ̃ sɨ̂ tò, mû nô ã-nũ.nê
my-child one away you give VOL IRR and you my-child
hĩ tə.kʰrẽ bâ tẽ, mû ɲẽ-kõ kə.mɨ̃.zá ũ.nɨ̂ sì
this care PROG IMPER and you (PL) together happy very
ɨ̂ nõ hlɨ̃ tẽ"
TOP live IMPER

41a) The frog mother said to the orphan, "Orphan, because I must be taking care of my children, I can never come in the house again. But, I will give you one of my children and you can be caring for this child, and all of you together will live in much happiness."

42) sɨ̃.sɨ̃-sâ ũ.kõ kʰɨ̃.kʰò tâ
that-after they all separate PERF

42a) After that, they separated.

TEXT 2

"God and the Two Sisters"[4]

1) tʰá.dzɨ̃ ao-mì tʃẽ.dzɨ̂ lɨ̃ rɨ̃.lɨ̂-mì kə.nã
long ago Ao-people lands LOC young women two
kə.mɨ̃.ʒé sì ɨ́ ɲ̩ hlɨ̃ bâ yõ ʃẽ, kə.krê-nâ-mò-lĩ
suffering very TOP live PROG HAB EVID because
sɨ̂.rá-dzɨ̃.rá hĩ-ɲî-hĩ nõ mə.rẽ.nõ-mì, kə.tsɨ́.nâ
siblings these two TOP orphan-people that's why

1a) Long ago in Ao country there were two young women living in much suffering, the reason being that these two siblings were orphans.

2) pũ.ɲî zû sã kə-tâ-sâ ũ-põ ɲ̩ tʰə.nó
they (dual) mother dead after their-father TOP woman
kə.sâ pù ʒì lâ i tâ
new one received again ? PERF

2a) After their mother's death their father had received a new woman.

3) ũ-zû kə.sâ õ nõ rɨ̃.lî.ɲî pʰĩ-mə̃.tsɨ̃ rĩ
their-mother new TOP girls two hate (see-lazy) DEG

[4] This text was produced by the consultant from memory.

kə.tsɨ́.nâ pũ u ɲ̣ vô pũ-nũ.pù zɨ́ kə.rə.tʰɨ̃
that's why she TOP go her-husband with converse
î nõ rɨ.lî.ɲî hũ vá
SUSP girls two chase ADVERS

3a) The new mother hated the two girls very much, therefore she went and discussed with her husband about chasing them away.

4) rɨ.lî.ɲî kə.tsá lɨ̃ vô tâ
girls two forest LOC went PERF

4a) The two girls went to the forest.

5) rɨ.lɨ.ɲî kə.tsá lɨ̃ tɨ̃.sɨ̃.zô kə.krô rũ.hù-tà
girls two forest LOC day many roam-around
kə-zɨ̂.tʃê rɨ.ná kə.tsɨ̂ pù mó, mû pũ.ɲî rə.ná-ɲê
while village small one see and they(dual) village-DIM
sâ.tsõ tʃê.ɲê pù tʰí i↘ nõ hlɨ̃ sɨ̂.dɨ́ tâ
behind house-DIM one make SUSP live begin PERF

5a) After walking for many days in the woods the two young girls saw a small village and they built a house behind the little village and began to live (there).

6) kə.mə.nô.pfɨ̂ nõ tɨ̃.tʃẽ mə.tsɨ́ pũ pũ hlɨ́
God TOP year each s/he his/her appearance
tʰí-kə.dẽ vá a↘ nõ rɨ.ná-kõ lɨ̃ vô o↘ nõ
make-change ADVERS SUSP village-PLUR LOC go SUSP
tʰə.mà-kõ dí.pù bĩ î ɲ̂ hlɨ̃ bâ sɨ̃ pé sɨ̂.sɨ̂
people-PLUR how like TOP live PROG see look that
jõ
HAB

6a) Each year God changed His appearance and went to the villages to see how people were living.

7) pù-hnã-pù kə.mə.nô.pfɨ̂ rɨ.ná-ɲê lɨ̃ kʰrâ.kə.tì-mì
one-day-one God village-DIM LOC begging-person
dò.tʰí i↘ nõ tʃê mõ.tɨ̃-kõ lɨ̃ vô
pretend TOP house all-PLUR LOC go

7a) One day God went to the little village, pretending to be a beggar, going into all the houses.

8) kə.mə.nô.pfî nõ tʃẽ.lî mõ.tĩ-kõ kə.tsò sî,
God TOP inside all-PLUR ask VOL
"ã-pô nõ ɲẽ-kõ tʃẽ.lî lĩ vô rɨ.lí ɨ↘ vé
my-benefit TOP you(PL) house-inside LOC go rest ECHO good
mò lâ?" lɨ.vẽ mì hù nõ hĩ bĩ î ñ
NEG QUEST but people some TOP this like SUSP

pũ-tʃê pô sî, "hã-kõ vò ũ-nũ mɨ̃.nû bâ tê
him-toward say VOL our pig child birth PROG IMM
lẽ sî.nâ.nô m̃-pô hã-tʃê.lî lĩ"
now therefore your-benefit our-house interior LOC

8a) God went to all the houses asking, "For my benefit, will you let me into your house to rest?" but some people answered Him like this, "Our pig is giving birth just now, therefore you can't come in."

9) kə.krê-mì pù nõ hĩ bĩ î ñ pũ-tʃê pô sî,
another-person one TOP this like SUSP him-toward say VOL
"hã-vɨ̀-kõ kò bâ kə-tâ-nâ ñ-pô hã-tʃẽ.lî lĩ
our-hen-PLUR hatch PROG that's why you allow our-interior LOC
vó o↘ sì tê ho"
come ECHO bad IMM EMPH

9a) Another one said toward Him, "Our hens are hatching, that's why it's not to your benefit to come inside right now!"

10) sɨ̃ kə.hmã ã nõ mì mɨ̃.tɨ̂-kõ pũ vã lâ
like same SUSP people all him/her refuse again
vá
ADVERS

10a) In a similar manner, all the people repeatedly refused Him.

11) sɨ.sâ kə.mə.nô.pfî nô tà sî rɨ.lî.ɲî tʃê
after this God TOP walk VOL girls two house
lĩ vô tsõ kĩ-i↗-tʃê rɨ.lî.ɲî kə.tsò sî "n̥-ɲî,
LOC go finish when girls two ask VOL you(dual)

mə.zâ.rî ã-pô tʃí.ʒì ɲî-kõ tʃẽ.lî lɨ̃ zì vé
please me-allow tonight you house-inside LOC sleep good
mẽ mò lâ?"
or NEG QUEST

11a) After this, God walked to the two young ladies' house. When he arrived he asked, "You two, please, for my sake, could I sleep in your house tonight?"

12) rɨ.lî.ɲî pũ-tʃê pô sɨ̂, "hã.ɲî hmã.pù i↗ ɲ̣
young ladies (two) him-toward say VOL we(dual) nothing TOP
tsì kə.tò bâ mò lẽ, sɨ.nâ ɲ̣-pô hã-tʃẽ.lɨ̂ lɨ̃
give REL.IRR have NEG STAT therefore you allow our interior LOC
vó kə.tò mɨ̃.ŋâ lẽ"
come REL.IRR ashamed STAT

12a) The young women said to him, "We have nothing to give, because of this we would be ashamed to have you come into our house."

13) kə.mə.nô.pfɨ̂ pũ.ɲî tʃê pô sɨ̂, "ɲ̣-põ.tsâ a↘
God they(dual) to say VOL your-grandfather
ɲ̣ ɲ̣.ɲî sɨ̂ ɲĩ kə.bâ mõ.tî bâ sɨ.nâ ɲ̣.ɲî
TOP you(dual) use want REL.PROG all have therefore you(dual)
ɨ.lɨ̃ kə.mɨ̃.ʒé mò i↗ vé, î vó o↘ nõ ɲ̣.ɲî
insides suffer NEG good I come SUSP you(dual)
zɨ́ hmã.tì tò."
with eat IRR

13a) God said towards them, "Use your grandfather to have all that you want. So that you will no longer suffer I will come to eat with you."

14) kə.mə.nô.pfɨ̂ nõ mẽ.pʰû phĩ-tʃê bâ a↗↘ nõ
God TOP fireplace near sit SUSP
hmã tsʰô sɨ̂.dɨ́ tâ
something cook begin PERF

14a) God sat near the fireplace and began to cook something.

15) kə.mə.nô.pfɨ̂ tʰə.hlã sɨ̂ pù pũ-pí pũ pà a↗
God rice grain one his-head carry emerge

nõ lê lɨ̃ sɨ̂ sɨ̂ ʃɨ̃.ʒɨ̃ î nõ kʰũ.tsɨ̃ tsʰô
SUSP pot LOC put VOL like that SUSP rice(cooked) cook
ɨ̃
PAST

15a) God took a grain of uncooked rice from his head and put it in the pot; like that, he cooked rice.

16) sɨ.sâ pũ-pʰẽ χâ sɨ̂ nõ hmã pù pũ. sɨ̂ lê
after that his-leg scratch VOL SUSP thing one INST pot
lɨ̃ kʰà sɨ̂ ɨ.tɨ̂-hù-sâ tʰɨ̃.vò-tʰì tsʰô ɨ̃
LOC put VOL time-some-after pig-meat cook PAST

16a) Next, he scratched his leg and put that thing into a pot; after some time pork was cooking.

17) ũ.kõ hmã.tì-tsõ kɨ̃-i↗-sâ vô tʃẽ.tʰô tsõ
they all eat-finish after go house back area
bâ vâ
sit STAT

17a) After having finished eating, they all went to the back of the house to sit.

18) kə.mə.nô.pfɨ̂ ɲ̣ rɨ.lî.ɲî kə.tsò sɨ̂, "hɨ̃.hɨ̃
God TOP young ladies (two) ask VOL this
só.pù ʒî lâ? lí.hɨ̃ só.pù ʒî lâ?" ʃɨ̃.ʒɨ̃
who field QUEST that who field QUEST like that
ɪ↗↘ ɲ̣ ʒî mõ.tɨ-kô kə.tsò [sɨ̂]
SUSP field all ask VOL

18a) God asked the young women, "Whose field is this, whose field is that?" In that way he asked about all of the fields.

19) kə.nú-sâ pũ ɲ̣ rɨ.lî.ɲî kə.tsò sɨ̂, "ʒî
thereafter He TOP young ladies (two) ask VOL field
hɨ̃.hɨ̃ só.pù zã lâ?" ʒî kə.tsò kə.bâ a↘ nõ
this who belong QUEST field ask REL.PROG TO
rə.lî.ɲî zã lɨ̃.vẽ pũ.ɲî ʒî nõ tsɨ̂ rɨ̃
young ladies (two) belong but their (dual) field TOP small DEG
tsɨ́-nâ pô mə.ŋâ bâ, kə.krê-nâ-mò-lɨ̃ pũ.ɲî ʒî
since say ashamed PROG because their (dual) field

i↘	nõ	pʰẽ	tʃí	sɨ̂	lɨ.kʰú	zõ
	TOP	foot	steps	three	only	AFFIRM

19a) After much of this, He asked the young women, "Who does this field belong to?" The field He was asking about belonged to the young girls, but since their field was so small, they were ashamed to say it; because their field was only three steps!

20)	nã.tʃî.pfɨ̂	kə.mə.nô.pfɨ̂		tʃê	pô	sɨ̂,	"ʒî	
	younger sister	God		towards	say	VOL	field	
hĩ.hĩ	ã-dzɨ.rá.pfɨ̂	hã.ɲî	zã"					
this	my-older sister	us (dual)	belong					

20a) The younger sister said to God, "This field belongs to us."

21)	kə.mə.nô.pfɨ̂	nõ	sɨ.sɨ̃	sé	kĩ-i-tɕ ê	dʒô-pũ	
	God	TOP	this	hear	when	blessing	
rə.lî.ɲî	tsɨ̀	sɨ̂,	lɨ.ve	ʒî	kə.krê	mõ.tɨ̂-kõ	
young ladies(2)	give	VOL	but	field	other	all-PLUR	
rɨ.pʰì	vá						
curse	ADVERS						

21a) When God heard this, he gave a blessing to the young women, but he cursed all the other fields.

22)	tɨ.tʃẽ	sɨ̃	hnã	rə.lî.ɲî	hmã	kə.tsâ	pù	î
	year	that	one	young ladies (two)	things	few	one	even
ʒì	i↗↘	mò,	lɨ.vẽ	ʒî	kə.krê	mõ.tɨ̂-kõ	kà	tâ
receive		NEG	but	field	other	all-PLUR	perish	PERF

22a) That year the young women did not receive just a few things,[5] but all the other fields perished.

23)	rə.ná-mì-kõ	kə.mə.nô.pfɨ̂	kə.tsɨ́	sé	kĩ-i-sâ	
	village-people-PLUR	God	that	know	after	
ɨ.lɨ̃	sɨ̀	pʰĩ	tâ			
insides	bad	extremely	PERF			

nõ
TOP

23a) After the villagers came to know that had been God, their insides became very bad.[6]

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[5] I.e., they received many benefits.

[6] I.e., they were tormented with regrets.

ABBREVIATIONS

ADV	adverbial	INST	instrumental
ADVERS	adversative	IRR	irrealis
AFFIRM	affirmative	LOC	locative
COMPL	complementizer	NEG	negative
CONT	continuative	NEG IMP	negative imperative
DEG	degree	PERF	perfective
DEM	demonstrative	PLUR	plural
DIM	diminutive	PROG	progressive
DIR	directional	QUEST	question
EMPH	emphatic	REL	relativizer
EVID	evidential	RESUMP	resumptive
HAB	habitual	STAT	stative
IMM	imminent	SUSP	suspensive
IMPER	imperative	TOP	topicalizer
IMPERF	imperfective	VOL	volitional

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