CHAPTER 4

SUPRASEGMENTAL PHONOLOGY

4.0 Introduction

This chapter describes the suprasegmental phonology. This description has three main parts: tone, stress, and intonation. Section 4.1 describes an auditory analysis of tone, Section 4.2 describes stress, and Section 4.3 describes intonation.

4.1 Tone

To define tone, Pike (1949:3) defines "a tonal language as a language having lexically significant, contrastive, but relative pitch on each syllable". Burquest (1993:186) also asserts that "languages which make use of differences in pitch to differentiate lexical items are commonly referred to as tone languages."

Based on the two proposals above, Falam is a tonal language that has contrastive lexical items. Tones associated with syllables spoken in isolation that preserve the most contrasts are considered the underlying tone in Falam following a typical order presented by Chen (2000:49). This analysis proposes that Falam has four contrastive tones, two level tones (low and high) and two contour tones (rising and falling). The four contrastive tones are shown in Figure 11 and Figure 12. Praat, a computerized program for phonetic analysis was used to identify the pitch contours of the tones. The frequency of a sound is measured in hertz (Hz) based upon the number of complete cycles of vibration of the vocal cords.

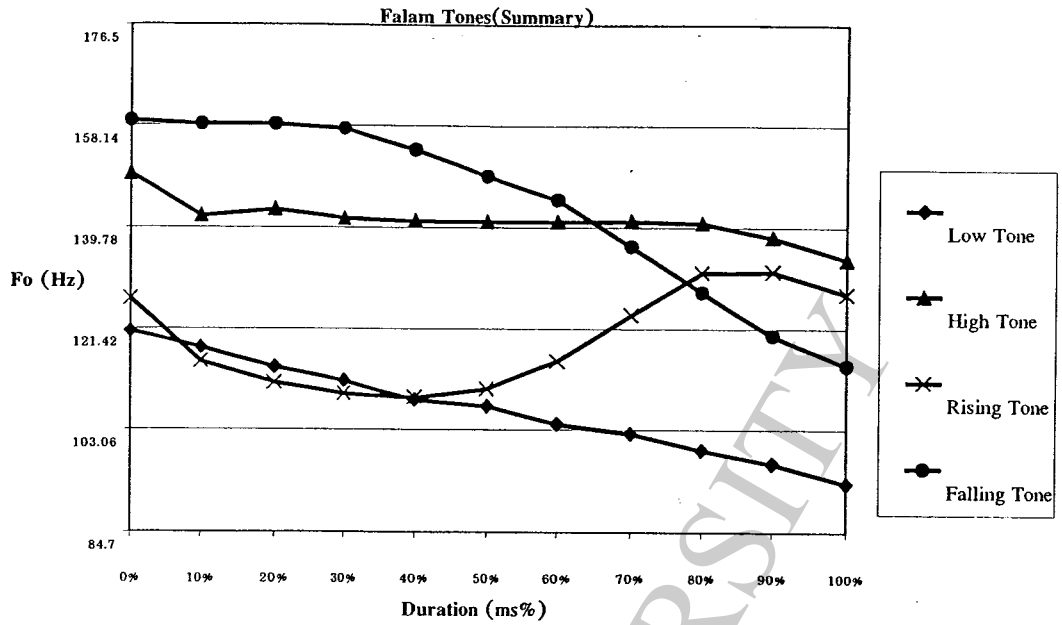

Figure 11. Falam tone contours[22]

Tone 1	**Low**		**[21]**
Tone 2	**High**		**[44]**
Tone 3	**Rising**		**[323/23]**
Tone 4	**Falling**		**[52/42]**

Figure 12. Tone summary of Falam

The four contrastive tones will be described as follows:

The symbol 21 represents low tone as in /kum^{21}/ 'year'. Phonetically the low tone starts at low pitch level 2, and falls slightly to level 1 at the end point. Since

[22] Data for this contour analysis comes from a single speaker, and was sorted according to the author's native speaker intuition.

the duration of the 2 is extends to 70 % this analysis will specify 21 to represent low. This tone can occur in both open and closed syllables.

The tone symbol 44 represents high tone as in /jaaŋ^{44}/ 'light (weight)'. Phonetically the high tone starts at picth level 4 and slightly falls down to level 3 at its end point. Since the high tone has a quality of high pitch that is almost level, that is 90%, this will be analyzed as 44 phonemically. This tone can occur in both open and closed syllables.

The symbol 23 represents rising tone as in /jiiŋ^{23}/ 'morning'. Phonetically it starts from the pitch level 3 and falls to low level 2 and then rises up to the mid level 3, which can be transcribed phonetically as 323. Since the range between the 3 falling to 2 is not wide, [323] will be simplified to 23 to represent rising tone in this analysis. This tone occurs in open and closed syllables.

The symbol 52 represents falling tone as in /k^{h}aa^{52}/ 'bitter'. This tone falls from the high pitch level 5 to low level 2. This tone can occur in both open and closed syllables. In analyzing falling tone as an underlying tone in Falam, Yip's footnote (2003:11) on Zahao dialect also included that Falam has a HL (falling) as noted below:

> The absence of surface HL in this language is mysterious, especially since the related Falam dialect has HL. Cross-linguistically, HL is more common than LH, yet Zahao has only LH. I must assume undominated HL, but the reasons are unclear. It is possible that Osburne failed to notice the HL, but she carefully notes that H is falling pre-pausally or under emphasis, and yet reports no H/HL contrast.

As seen in Yip's footnote, this analysis also finds that Falam has a falling tone with sufficient contrast to be a phonemic tone as will be demonstrated in Section 4.1.1. Luce (1954) identifies a high falling tone in his tone studies in Falam even though no further information is available.

Examples from tone descriptions demonstrate that the four lexical tonemes are not restricted to specific syllable types, nor to initial consonant types.

Table 8 below compares the inventory of Falam tone between Luce, Osburne, Van Kyi, and this analysis.

Number	Luce (1956:28)	Osburne (1975:7)	Van Kyi (2003:14)	Kharthuan (2007)
1	Mid falling	Low	Low level stop	Low
2	High	High	High level	High
3	Rising	Rising	Low rising	Rising
4	High falling	-	High falling	Falling
5	-	-	Low falling	-

Table 8. Falam tonal comparison with Luce, Osburne, and Van Kyi

4.1.1 Contrasts

A set of minimal pairs that demonstrates all four tone contrasts in Falam is rarely found. Mostly, each set of tones, and sometimes three tones, can be established with the following minimal pairs.

L /21/

/um^{21}/ 'to take care (child/sick person)'

/law^{21}/ 'negation marker'

H /44/

/um^{44}/ 'to exist'

/law^{44}/ 'farm'

H /44/

/lɛj^{44}/ 'to buy'

/jaaŋ^{44}/ 'light (weigh)'

/naa^{44}/ 'buffalo'

LH /23/

/lɛj^{23}/ 'tongue'

/jaaŋ^{23}/ 'back'

/naa^{23}/ 'to be sick'

L /21/

/baaŋ^{21}/ 'to be tired'

/t̰^{h}aaw^{21}/ 'fat'

/n̰aa^{21}/ 'work'

LH /23/

/baaŋ^{23}/ 'to stop'

/t̰^{h}aaw^{23}/ 'to be fat'

/n̰aa^{23}/ 'ear'

LH /23/	HL /52/
/n̥ii^{23}/ 'to laugh'	/n̥ii^{52}/ 'loincloth'
/d̥iŋ^{23}/ 'to stand'	/d̥iŋ^{52}/ 'to be straight'
/sia^{23}/ 'mython'	/sia^{52}/ 'to be bad'

L /21/	H /44/	LH /23/
/t̥ii^{21}/ 'to say'	/t̥ii^{44}/ 'water'	/t̥ii^{23}/ 'egg'
/ruun^{21}/ 'to save'	/ruun^{44}/ 'group'	/ruun^{23}/ 'house'

H /44/	LH /23/	HL /52/
/in^{44}/ 'house'	/in ^{23}/ 'to drink'	/in^{52}/ 'ergative marker'
/baw^{44}/ 'to swell'	/baw ^{23}/ 'to exist'	/baw^{52}/ 'to bark'

L /21/	H /44/	LH /23/	HL /52/
/paa^{21}/ 'male'	/paa^{44}/ 'mushroom'	/paa^{23}/ 'adverbial particle'	/paa^{52}/ 'father'
/jaa^{21}/ 'a hundred'	/jaa^{44}/ 'to be ticklish'	/jaa^{23} / 'palm'	/jaa^{52}t̥uum^{23}/ 'wild goat'

4.1.3 Tone sandhi

According to Burquest (1993:195), "Tone sandhi [23] is a morphophonemic alternation among the tone phonemes of a language." Chen (2000:49) also notes that sandhi occurs because "tones associated with syllables in connected speech tend to merge." Falam also has a tonemic alternation that requires sandhi rules. This section presents tone sandhi that occurs in rising tone and falling tones. The

[23] This term came from Sanskrit (after the usage of the ancient Indian grammarians) *san* 'together'+ *dhi* 'put' (L.Roger 1984:70).

sandhi form of tone will be marked with bold. Level tones (low and high) undergo no sandhi rule, but undergo tone alternations described in Section 5.2.2.

There is a tone sandhi rule which affects rising tone syllables ending with vowels (open syllables). The tone of such syllables is high and the vowel also becomes short in connected speech regardless of the tone of preceding or following syllabes as in (26). Rising tone syllables retain their underlying tone in isolation or in sentence final position.

Rule: LH → H / _ T

(26) /t̪ʰii^{23}/ 'to die'

a^{21} t̪ʰii^{23}
1Sg. die
He died.

an^{44} t̪ʰii^{23}
1Pl. die
They died.

a^{21} t̪ʰi^{44} mɛɛn^{23}
1Sg. die merely
He merely died.

an^{44} t̪ʰi^{44} mɛɛn^{23}
1Pl. die merely
They merely died.

a^{21} t̪ʰi^{44} d̪iŋ^{52}
1Sg. die will
He will die.

an^{44} t̪ʰi^{44} d̪iŋ^{52}
1Pl. die will
They will die.

a^{21} t̪ʰi^{44} jaw^{44}
1Sg. die Past.
He died already.

an^{44} t̪ʰi^{44} jaw^{44}
1Pl. die Past.
They died already.

a^{21} t̪ʰi^{44} law^{21}
1Sg. die Neg.
He is not dead.

an^{44} t̪ʰi^{44} law^{21}
1Pl. die Neg.
They are not dead.

Rising tone sandhi rule with closed syllables requires the following environments. A rising tone becomes low when it occurs before falling tone or high tone (27):

(27) LH → L/___H (L)

/ɾɔɔl^{23}/ 'food'

ɾɔɔl^{21} ɾiŋ^{44} kan^{44} ɛj^{23}

food green we eat

We eat green food.

ɾɔɔl^{21} sia^{52} ka^{21} ɛj^{23}

food bad I eat

I eat the poor food.

But rising tone with closed syllable stays the same when it occurs before low tone as in (28):

(28) /ɾɔɔl^{23}/ 'food'

ɾɔɔl^{23} t^{h}aa^{21} ka^{21} ɛj^{23}

food good I eat

I eat the good food.

When two syllables of rising tone come together in connected speech, two rules are required; (a) the first to change a rising tone directly following another rising tone into a high tone as in (29) and (b) the second to convert a rising tone into a low tone when it precedes a high tone as in (30). This sandhi pattern is similar to the rule presented in example (27). In this rising tone sandhi, rule (a) must apply before rule (b) and the rules must be applied left to right, especially when three or more syllables are affected, as in (31), (32), and (33).

(29) LH → H/LH__

/fuu^{23} tsaaŋ^{23}/ → [**fuu**^{44} tsaaŋ^{23}]

sugar cane segment 'segment of sugar cane'

(30) LH → L/__ H

/wuuj^{23} ɾaaŋ^{23}/ → [**vuuj**^{21} ɾaaŋ^{44}]

elephant white 'white elephant'

A reduplicated[24] adjective also undergoes the same pattern in connected speech as in (31):

(31) LH LH → L H

/mɔɔj^{23} mɔɔj^{23}/ → [**mɔɔj**^{21}.mɔɔj^{44}]

beautiful beautiful 'beautiful ones (reduplication)'

/saaŋ^{23} saaŋ^{23}/ → [**saaŋ**^{21} saaŋ^{44}]

high high 'high ones (reduplication)'

When three syllables of rising tone come together in a phrase, the first two syllables undergo the L H pattern and the third syllable remains unchanged as in (32):

(32) LH LH LH → L H LH

/wuuj^{23} ɾaaŋ^{23} fiim^{23}/ → [**vuuj**^{21}.ɾaaŋ^{44}.fiim^{23}]

elephant white clever 'clever white elephant'

Thus, derivation to show rule ordering and left to right application can be shown as below:

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[24] Tones are copied in reduplication except rising tone, /raŋ^{44}raŋ^{44}/ 'faster ones', /nuam^{21}nuam^{21}/ 'beautiful ones', /sia^{52}sia^{52}/ 'bad ones', for example.

/LH LH LH/		LH LH LH
a. H	a.	____
b. L	b.	H
[L H LH]		* LH H LH

When four syllables of rising tone string together in a noun phrase, the first two create a low-high and the second two syllables also create the same pattern as well, as in (33):

(33) LH LH LH LH → L H L H

/wuuj^{23} ɾaaŋ^{23} fiim^{23} biik^{23}/ → [vuuj^{21} ɾaaŋ^{44} fiim^{21} biik^{44}]

elephant white clever most 'the most clever white elephant'

/ɾɔɔl^{23} t̪^{h}ɔɔ^{23} biik^{23} biik^{23}/ → [ɾɔɔl^{21} t̪^{h}ɔɔ^{44} biik^{21} biik^{44}]

food good most most 'the best food'

/bɛɛl^{23} d̪um^{23} suŋ^{23} in^{23}/ → [bɛɛl^{21} d̪um^{44} suŋ^{21} in^{44}]

pot black inside from 'out of the black pot'

As in (33), applying Chen's Minimal Rhythmic Units (MRUs) in Mandarin language introduced by Yip (2002:124), long sequences of rising tone can be divided into two groups, (syllableL syllableH) and (syllableL syllableH) (syllable). Falam has a monosyllabic chunk with a preference for MRUs to be three syllables long and no chunk is ever monosyllabic as in Mandarin. When a preference is to be four syllables long, it creates a (syllableL syllableH) (syllableL syllableH) pattern. It is assumed that the sequence of the L H sandhi pattern of two rising tone syllables is basically derived from the rule that rising tone always becomes low before high tone and falling tone.

There is a tone sandhi rule which affects falling tone syllables with vowel finals (open syllables). The tone of such syllables becomes high (and the vowel shortening) when followed by a low tone syllable as in (34) and becomes low when followed by a high tone as in (35). No tone alternations are found when followed by any other tone syllables. Falling tone syllables retain their underlying rising tone in isolation or in sentence final position.

(34) HL → H / L _ T

/k^{h}aa^{52}/ 'to be bitter'

a^{21} k^{h}aa^{52}

3Sg. bitter

It is bitter.

a^{21} k^{h}a ^{44} biik^{23}

3Sg. bitter most

the most bitter one

a^{21} k^{h}a ^{44} mii^{52}

3Sg. bitter one

one that is bitter

a^{21} k^{h}a ^{44} t̪^{h}ɛj^{44}

3Sg. bitter may

It may be bitter.

a^{21} k^{h}a ^{44} law^{21}

3Sg. bitter Neg.

It is not bitter.

(35) HL → L/H__ T

/k^{h}aa^{52}/ 'to be bitter'

an^{44} k^{h}aa^{52}

3Pl. bitter

They are bitter.

an^{44} k^{h}a^{21} kaw^{23}

3Pl. bitter surely

They are surely bitter.

an^{44} k^{h}a^{21} d̤iŋ^{52}

3Pl. bitter will

They will bitter.

an^{44} k^{h}a^{21} t̤^{h}ɛj^{44}

3Pl. bitter may

They may be bitter.

an^{44} k^{h}a^{21} law^{21}

3Pl. bitter Neg.

They are not bitter.

All verbs with falling tone and open syllables follow this pattern, e.g., /pee^{52}/ 'to give, /ruu^{52}/ 'to steal', /sii^{52}/ 'to be'.

Falling tone syllables that are closed do not undergo this tone sandhi rule as in (36).

(36) /d̤iŋ^{52}/ 'to be straight'

a^{21} d̤iŋ^{52} 'it is straight'

an^{44} ḍiŋ^{52} law^{21}

3Pl. straight Neg.

They are not straight.

a^{21} ḍiŋ^{52} law^{21}

3Sg. straight Neg.

It is not straight.

A low tone syllable with vowel final has high tone in connected speech regardless of preceding or following syllables as in (37). Its vowel length is shortened when it occurs as the first member of a compound noun.

(37) /paa^{21}/ 'male'

ka^{21} pa^{44} tsaŋ^{44}

1Sg. male old

I become an adult.

kan^{44} pa^{44} tsaŋ^{44}

1Pl. male old

We become adult.

/ṭii^{21}/ 'to do/make, to say'

ka^{21} ṭi^{44} jaw^{44}

1Sg. do/make Past

I made already.

kan^{44} ṭi^{44} jaw^{44}

1Pl. do/make Past.

We made already.

In the case of low tone sandhi pattern in (37), low tone sandhi is not affected by the tone of the following syllables. Like falling tone, closed syllables with low tone also do not undergo tone sandhi. Tone sandhi rules in Falam are summarized in the table

below.

Tone	Syllable type	Sandhi rule
21	open	44/21__
	closed	-
44	open	-
	closed	-
23	open	a. 44/23__
	closed	b. 21/44 __
52	open	21/44__ or 44/21__
	closed	-

Table 9. A summary of tone sandhi

As summarized in Table 9, low tone syllables become high when preceded by a low tone syllable. High tone undergoes no tone sandhi. A rising tone open syllable becomes high when it occurs before any tone syllables. But a rising tone closed syllable becomes low when followed by another rising tone syllable, which itself becomes high. The rising tone has two conditions in this case, the first to convert a rising tone directly following another rising tone into a high tone, and the second to convert a rising tone into a low tone when it precedes a high tone or falling tone. Falling tone open syllables become low when preceded by a high tone syllable and becomes high when preceded by a low tone. Falling tone closed syllables undergo no tone sandhi.

4.1.4 Tonal dissimilation

Among the four contrastive tones, low tone has two kinds of tone dissimilation patterns. The first tone dissimilation occurs when low tone verbs and nouns with live syllables are preceded by other low tone syllables, especially the pronominal markers (or subject agreement markers before a verb) such as /ka^{21}/ 'my (I)', /na^{21}/ 'your (you)', and /a^{21}/ 'his/her/its (s/he, it)', the preceding tone is high as in (38). This occurs whether the following syllable is closed or open. Only low tone allows this tone dissimilation pattern.

(38) /kɛɛ^{21}/ 'leg' /pum^{21}/ 'stomach'

ka^{44} kɛɛ^{21} 'my leg' ka^{44} pum^{21} 'my stomach'

na^{44} kɛɛ^{21} 'your leg' na^{44} pum^{21} 'your stomach'

/tii^{21}/ 'to say'	/nɛj^{21}/ 'to have'
ka^{44} tii^{21} 'I say'	ka^{44} nɛj^{21} 'I have'
na^{44} tii^{21} 'you say'	na^{44} nɛj^{21} 'you have'

The second tone dissimiliation occurs when low tone verbs and nouns in dead syllables (glottal final as well) are preceded by other low tone syllables, especially the pronominal clitics (or subject agreement markers), the preceding tone stays the same and the second syllable is high as in in (39):

(39) /wɔk^{21}/ 'pig'	/ɾuʔ^{21}/ 'bone'
ka^{21} wɔk^{44} 'my pig'	ka^{21} ɾuʔ^{44} 'my bone'
na^{21} wɔk^{44} 'your pig'	na^{21} ɾuʔ^{44} 'your bone'
/tap^{21}/ 'to cry'	/fɛʔ^{21}/ 'to go'
ka^{21} tap^{44} 'I cry'	ka^{21} fɛʔ ^{44} 'I go'
na^{21} tap^{44} 'you cry'	na^{21} fɛʔ ^{44} 'you go'

In the case of low tone dissimilation, if the first syllable is closed there is no tone dissimilation regardless of whether the second syllable is open or closed (40).

(40) /wɔk^{21}/ 'pig'	/ɾuʔ^{21}/ 'bone'
wɔk^{21}tsak^{21} 'strong pig'	wɔk^{21} ɾuʔ^{21} 'pig's bone'
jaan^{21} wɔk^{21} 'night pig'	kiiw^{21} ɾuʔ^{21} 'elbow bone'
/fɛʔ^{21}/ 'to go'	/tap^{21}/ 'to cry'
ɾak^{21} fɛʔ^{21}ɔɔ^{52} 'go ahead'	ɾun^{21} tap^{21} 'to come down and cry'

4.1.5 Tone distributions

This section provides tone distributions in a syllable. In Falam a tone occurs on the whole syllable as a unit, of which the vowel is the peak. All four tones can occur with all vowels. The relation between tone and syllable structure is different according to its environment. Syllables retain their underlying tones in isolation. In other places some alternations of tones occur according to their neighboring tone. These alternations and tone sandhi can be seen Sections 4.1.3 and 4.1.4. The following table illustrates tone distributions in a syllable.

Syllable				
Tones	**Initial consonants**	**Open rhyme**	**Sonorant finals**	**Stop finals**
Low tone	All consonants	Monophthong	m n ŋ r l w j	p t k ?
		Long nucleus	m n ŋ r l w j	- - - -
		Diphthong	m n ŋ r l w j	- - - ?
High tone	All consonants	Monophthong	m n ŋ r l w j	- - -
		Long nucleus	m n ŋ r l w j	p t k
		Diphthong	m n ŋ r l w j	- - -
Rising tone	All consonants	Monophthong	m n ŋ r l w j	- - -
		Long nucleus	m n ŋ r l w j	p t k
		Diphthong	m n ŋ r l w j	- - -
Falling tone	All consonants	Monophthong	m n ŋ r l w j	- - -
		Long nucleus	- - - - - w j	p t k
		Diphthong	m n ŋ r l w j	p t k

Table 10. Tone distribution in Falam

As shown in the table above, all consonants are possible with all tones. Monophthongs, long vowels, and diphthongs can occur in the open rhyme of syllables with all tones. Two glides, /w/ and /j/, significantly occur word finally in a syllable and appear word initially in free variation with [v] and [z] respectively as in examples (2) and (3). Low tone never allows final stops and glottal stop with long nucleus as in examples (11) and (12) and allows final glottal stop with diphthong in a syllable (see also(12)). High tone never allows a final stop with monophthongs and diphthongs but allows a final stop with a long

nucleus as shown in example (13). Rising tone allows final stops /p, t, k/ only with a long nucleus and it never allows a glottal stop word-finally as seen in example (14). Falling tone allows no final stops with monophthongs but final stops with long nuclei and diphthong are possible as shown in examples (15) and (16).

4.2 Stress

Bickford (2003:69) defines stress as "syllable that is in some way more prominent than the other in the same word when it is spoken." Bickford further defines that a stressed syllable usually exhibits at least one or two of the following qualities:

a. it is loudly,

b. it is higher in pitch,

c. it has a longer vowel, or

d. it uses the full range of vowels in the phonemic inventory.

As defined by Bickford, Falam also has a stress pattern which is hard to distinguish between stress and intonation. Both stress and intonation are meaningful in their context but they are not contrastive. One common stress pattern in Falam is that diphthongs and contrastively long vowels are stressed (ˌ is used for stress marker) as in (41).

(41) ˌluaŋ^{23} 'to flow'

ˌfiim^{23} 'to be wise'

ˌbaaŋ^{21} 'to be tired'

ˌnuam^{21} 'to be good, to be joyful'

ˌhua^{44} 'to hate'

ˌjaaŋ^{44} 'to run'

Stress pattern also occurs when monosyllabic words are attached with nominalizers, /naak^{52}/ and /tuu^{52}/. A nominalized word with two syllables always stresses the second syllable as in (42):

(42) /d̤uʔ^{21}/ 'to love' d̤uʔ^{21}ˌnaak^{52} 'love'

/duʔ^{21}/ 'to love' duʔ^{21}ˌtuu^{52} 'lover'

/fɛl^{44}/ 'to be honest' fɛl^{21}ˌnaak^{52} 'honesty'

/lɛj^{44}/ 'to hate' lɛj^{44}ˌtuu^{52} 'one who buy'

It is proposed that Falam stress pattern always occurs in the last syllable of disyllabic word or trisyllabic word, or even in a final word of connected speech as we will see in the following section.

Another stress pattern common in Falam is attaching a central vowel /a/ before nouns and adjectives in order to mark the prominence of the words as (43):

(43) a pa^{21} k^{h}at^{21}naak^{52} ' the first'
one nom.

a nuu^{21} a paa^{21} 'all (including male and female)'
female male

a t̤uum^{23} a sɛɛn^{23} 'all people (including old and young)
big + small

a naŋ^{44}maʔ^{21} 'you (angrily speaking)'
you

a kɛj^{44}maʔ^{21} 'even me (humbly speaking)'
I

4.3 Intonation

Bickford (1981:61) states that "intonation is the pitch pattern over an entire utterance and is usually used to indicate emotions, convey thoughts or attitudes, or to distinguish between such things as questions and statements but not to distinguish one word from another".

Being a tonal language, some pitch patterns of Falam are difficult to clarify with intonation. However, it is certain that Falam has intonation patterns and some of the variants Falam tones possess are related to intonation. An extra high falling pitch is sometimes used for emphasis. An extra high rising tone is also sometimes used for excitement, surprise, and for other exclamatory speeches. Some different usages of intonation are provided in the following examples:

(44) Question word "who?"

HL	L	
[zəw^{52}	ɛɛ^{21}]	Simple question.
who	Part.	
HL	LH	
[zəw^{52}	ɛɛ^{23}]	Surprise
who	Part.	

(45) Imperative clause "don't do".

L	L		
[t̪uaʔ^{21}	l̥aʔ^{21}]		Simple imperative
do	not (Imp.)		
L	L	LHL	Graciously speaking
[t̪uaʔ^{21}	l̥aʔ^{21}	ɔɔ^{352}]	
do	not	Imp.	

L L HL

[tuaʔ^{21} l̥aʔ^{21} ɔɔ^{52}] Angry

do not Imp.

(46) with a question particle "maw"

H L L L

[na^{44} t̥^{h}ej^{21} ləw^{21}mɔɔ^{21}] Simple question

You know not Part.

Don't you know?

H L L LH

[na^{44} t̥^{h}ej^{21} ləw^{21}mɔɔ^{23}] Graciously speaking

you know not Part.

Don't you know?

H L L H

[na^{44} t̥^{h}ej^{21} ləw^{21}mɔɔ^{44}] Angry or unbelieving or surprise

you know not Part.

Don't you know?

One common pattern of intonation in Falam is that the vocalic nucleus of the last word of a sentence is often lengthened more than normal to indicate different purposes, such as emphasis, anger, and agreement. The way that people use intonation patterns also depends on a person's style, such as male or female, young or old, etc. Generally speaking, the use of high pitch in a word is mostly in a person's speech of impatience or excitement. In many other cases, intonation is meaningful in its different contexts.