On the status of tones in the Suomo dialect of rGyarong

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rGyarong is an independent language of the Tibeto-Burman branch of Sino-Tibetan. Because it is rich in unique characteristics and preserves many features of Proto-Tibeto-Burman, this language has been the subject of the attention of Chinese and other scholars for quite some time. Whether or not rGyarong has phonemic tones is one question that scholars have focused on particularly. Almost all of these scholars have concluded that tones do not play a significant part in lexical distinctions, and thus classify rGyarong as a non-tonal language, though one where high-pitch lexical items are common. The separation of rGyarong from the tonal Sino-Tibetan languages should be seen as a breakthrough in the study of tone, yet the question of whether or not rGyarong actually has tones, and what role they play in the language still needs to be looked into. This question involves not only the facts of the language, but also some theoretical considerations, such as what standard we use in determining whether or not a language has tones, and how we determine what role the tones play in the language. The question of tone in rGyarong is particularly important for our understanding of the origin and development of tone in Tibeto-Burman.

The data used here are from the rGyarong dialect spoken in Wangjia Zhai, Suomo Xiang, Maerkang County, Sichuan Province, China (hereafter referred to as Suomo).2

I.

In Suomo, every syllable has a stable tone. By stable tone we mean that (a) aside from rule-governed sandhi tone changes in certain syllables, the tones cannot be changed; (b) the tones are in general constant across time, occasion, and speaker.

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1 See the entry for rGyarong in the Languages and Writing Systems volume of The Great Chinese Encyclopedia (1988); also "The phonetics and morphology of the Suomo dialect of rGyarong," by Jin Peng, Tang Kerang, Qu Aitang, & Lin Xiangrong (Yuyan Yanjiu 1957.2/1958.3); and "On the question of tones in rGyarong," by Lin Xiangrong (Journal of the Central Institute of Nationalities 1989.5).

2 One of the two authors, Yanmuchu, is of the rGyarong nationality, and grew up with the Suomo dialect of rGyarong as his mother tongue. He later learned to speak Chinese. He is now a teacher in the Aba Prefecture of Sichuan.
There are two main tones in Suomo, a high level (55) tone and a falling (51) tone. These tones occur in both monosyllabic and polysyllabic words. Besides these, there is also a mid level (33) tone and a mid rising (24) tone, both of which occur only in polysyllabic words. The former appears on prefixes, but is otherwise mainly a sandhi tone; the latter is used to express a certain grammatical meaning. Taken together, there are then four tones in Suomo, each with its own distribution. Below we will discuss each one individually.

The **high level** tone mainly appears on syllables ending in -p, -t, or -k:

- **p:** ka₃₃ra₅₅ pjav₅₅ stand  thēp₅₅ blink, wink  ksep₅₅ stud horse
- **t:** tchēt₅₅ goat  mēt₅₅ other  khut₅₅ willing
- **k:** prak₅₅ cliff  pak₅₅ pig  mak₅₅ is not

The high level tone also appears on syllables that end in glottal stop, but since the glottal stop automatically appears on words with non-stop finals in the high tone, there is no need to mark it explicitly. Among these syllables, those that have a nasal before the glottal stop have a slightly lower initial tone, with a slight rise at the end (445). There are also several syllables ending in -1 on which the high tone appears:

- **open syllables:**
  - ca₅₅ meat
  - ti₅₅ wheat
  - wa₅₅ goose
  - spu₅₅ back of a house
  - ndi₅₅ stone wall
  - zgru₅₅ boat

- **nasal-final syllables:**
  - zdēm₅₅ (445) shade
  - tōn₅₅ (445) reason
  - kōn₅₅ (445) price
  - ca₃₃mdōn₅₅ (445) iron
  - ka₃₃ndōn₅₅ (445) read

- **lateral-final syllables:**
  - ka₃₃ta₅₅ slowpoke, sluggard
  - ka₃₃tsu₅₅ roll

The **falling** tone mainly appears on open syllables and syllables with a final sonorant (-n, -ŋ, -r, -l) or -s:

- **open syllables:**
  - tshe₅₁ salt
  - mtshō₅₁ lake
  - pkā₅₁ chicken

- **-m:**
  - ka₃₃sam₅₁ three
  - ti₃₃kram₅₁ courtyard
  - te₃₃bem₅₁ pile (CLF)
-n:  
smɔn\text{51}   medicine  sǝn\text{51}   thigh

-q:  
cɔn\text{51}   mud wall  bǝn\text{51}   bronze  kuŋ\text{51}   tiger

-r:  
sǝn\text{51}   louse  zǝr\text{51}   tent  ɔr\text{51}   east

-s:  
phɔks\text{51}   salary  rǝ\text{51}   cloth  thǝks\text{51}   straight line

-l:  
kǝl\text{51}   glass  ʒɔ\text{33}Jo\text{151}   corridor  kǝ\text{33}rnǝ\text{51}   withered

On syllables ending with -s or -r, the tone contour is actually 551, with the tone being level for all of the syllable except for the final -s or -r, then falling on the final. If there is a vowel immediately preceding the final -s or -r, then a glottal stop is heard between the vowel and the final (i.e. -ʔs or -ʔr), as in ʃpɔ\text{51} [ʃpoʔs\text{55}] 'fragrant' and sǝn\text{51} [sɔʔr\text{51}] 'louse'.

The falling tone also appears on a small number of stopped syllables, contrasting with the high level tone, as in the pairs dɔk\text{55} 'poison'/dɔk\text{51} 'crisp'; ʒe\text{55} 'time'/ʒe\text{51} 'skin on boiled milk'.

The **mid-level** tone mainly appears on the first syllable of bisyllabic words. Some of these are the stable tones of prefixes, and some are the sandhi variants of high-level or falling tones:

te\text{33} mǝn\text{55}   eye  kǝ\text{33} rǝnkǝ\text{51}   deep
ta\text{33} mǝmǝn\text{55}   deaf person  ka\text{33} stǝ\text{51}   straight
mak\text{55}/\text{33} mǝ\text{51}   army  cǝtca\text{55}/\text{33} tek\text{55}   eleven
ça\text{55}/\text{33} ni\text{51}   fresh meat  ço\text{55}/\text{33} əjǝ\text{55}   leaf
pkǝ\text{51}/\text{33} tǝn\text{51}   chicken  smɔn\text{51}/\text{33} be\text{51}   doctor
ça\text{55}/\text{33} stǝ\text{51}   rust  kǝhǝ\text{51}/\text{33} na\text{55}   dog

The mid-level tone also appears on the first and second syllables of three-syllable compounds:
kha\text{33} rdǝi\text{33} lu\text{35}   loach  kham\text{33} tǝs\text{33} rdǝk\text{55}   lizard

The mid-level also appears on the second token of reduplicated words, in this case being the sandhi realization of a high level or falling tone. The pitch contour has a slight fall to it:
The mid-rising tone is used mainly for expressing the grammatical category of evidentiality, and so is part of the morphology:

| ka³³ ktsêm⁵¹ | close | ka³³ ktsêm²⁴ | He/she closed it (indirect evidence). |
| tša⁵⁵/³³ ka³³ let⁵⁵ | pour tea | tša⁵⁵/³³ ka⁵⁵ let²⁴ | He/she poured tea (indirect evidence). |

Most of the lexicon of Suomo is made up of monosyllabic and disyllabic words, especially the latter. Words consisting of more than two syllables are relatively rare. Because the conditions for the appearance of tones are closely related to syllable structure in Suomo, the possible combinations of syllable/word-type and tone are limited. This situation is not found in languages with richer tone systems. The patterns we find in Suomo are mainly of the following six types:

1. 55  
   | pak⁵⁵ | pig  
   | cço⁵¹ | wooden plate  
2. 51  
   | pe⁵¹ | bushel  
   | cça⁵¹ | river deer  
3. 33 + 55  
   | ka³³ stó⁵⁵ | hug  
   | ta³³ ró⁵⁵ | leader  
4. 33 + 51  
   | ka³³ stó⁵¹ | straight  
   | ta³³ ró⁵¹ | chest  
5. 33 + 33 + 55  
   | ka³³ sa³³ njó⁵⁵ | slippery  
   | kë³³ né³³ pu⁵⁵ | soft  
6. 33 + 33 + 51  
   | ka³³ ne³³ mer⁵¹ | oil  
   | laŋ³³ bo³³ tɕe⁵¹ | elephant  

In complex words of three or more syllables, because the bonding between the syllables is rather loose, the individual morphemes retain their original tones, and do not participate in the patterns listed above:

| ta³³ rəzap⁵⁵ | husband and wife |
| pha³³ wja⁵⁵ | husband |

³ The first token of a reduplicated falling tone syllable becomes high level. [Ed.]
The Suomo dialect has borrowed more than a few Chinese words. After these words were borrowed into Suomo, they also had stable tones. As with native words, monosyllabic borrowings are divided into two tone categories. Except for a few words from the shang (rising) tone category in the Sichuan Mandarin dialect which have the high falling (51) tone in Suomo, the rest are mostly pronounced in the high level tone:

- tsho55 car
- thuan55 group
- se55 society
- tou55 bushel
- tan51 political party
- can55 rural township
- than55 candy
- se55 county
- lune55 peasant/agriculture
- xu51 rotten
- tso51 liquor/alcohol

Bisyllabic Chinese words borrowed into Suomo generally follow the 33 + 55 pattern, though there are a few which follow the 33 + 51 pattern:

- tu33 kua55 winter melon
- xuan33 kua55 cucumber
- ja33 ju55 potato
- xua33 se55 peanuts
- wi33 tsein55 scarf
- tshen33 xu55 teapot
- phjin33 tsj55 bottle
- phan33 tsj55 plate
- xc33 thun55 blow a big bamboo tube
- pan33 pan55 stick
- ma33 tsho55 horse cart
- kune33 tse55 official seal
- ta33 te51 father’s older brother
- pan33 te51 bench
- tsen33 tou51 scissors

Aside from these patterns, some of the Chinese loanwords follow a pattern which does not exist for native words, 55 + 33:

- tshen55 lune33 steamer basket
- tshou55 xai33 straw sandals
- ma55 cye33 riding boots
- tshou55 mou33 straw hat
- tshuan55 tsj33 spatula
- tshan55 khu33 storehouse
- pjen55 tan33 carrying pole
- ten55 lune33 lantern
II.

Below we will discuss the semantic function of the tones in Suomo. In Suomo, the tones already have the function of differentiating both lexical and grammatical meaning. We find two situations involving tone. In one class of cases, the tonal difference is the only or the main distinguishing characteristic. There are not many minimal pairs of this type, and those we have collected are mainly bisyllabic forms; monosyllabic contrasts of this type are rare. From a preliminary survey of two thousand common lexical items, we have found only about thirty such minimal pairs:

\[
\begin{align*}
\text{ võ̅̄k}^{55} & \quad \text{poison} & \quad \text{dɔ́k}^{51} & \quad \text{crisp} \\
\text{zə́k}^{55} & \quad \text{time} & \quad \text{zə́k}^{51} & \quad \text{skin of boiled milk} \\
\text{və́}^{55} & \quad \text{tile} & \quad \text{və́}^{51} & \quad \text{correct} \\
\text{tə̃̄}^{33} \text{ wə̇}^{55} & \quad \text{felt} & \quad \text{tə̃̄}^{33} \text{ wə̇}^{51} & \quad \text{grandfather} \\
\text{tə̃̄}^{33} \text{ mə̇}^{55} & \quad \text{hunger} & \quad \text{tə̃̄}^{33} \text{ mə̇}^{51} & \quad \text{mother} \\
\text{tə̃̄}^{33} \text{ lə̇}^{55} & \quad \text{handle} & \quad \text{tə̃̄}^{33} \text{ lə̇}^{51} & \quad \text{milk, breasts} \\
\text{tə̃̄}^{33} \text{ pə̇}^{55} & \quad \text{mugwort} & \quad \text{tə̃̄}^{33} \text{ pə̇}^{51} & \quad \text{intestines} \\
\text{tə̃̄}^{33} \text{ rə̇}^{55} & \quad \text{leader} & \quad \text{tə̃̄}^{33} \text{ rə̇}^{51} & \quad \text{chest} \\
\text{tə̃̄}^{33} \text{ mə̃̄}^{55} & \quad \text{deaf person} & \quad \text{tə̃̄}^{33} \text{ mə̃̄}^{51} & \quad \text{pa}^{int(ul)} \\
\text{kə̃̄}^{33} \text{ stə̇}^{55} & \quad \text{hug} & \quad \text{kə̃̄}^{33} \text{ stə̇}^{51} & \quad \text{straight} \\
\text{kə̃̄}^{33} \text{ jə̇}^{55} & \quad \text{sheep} & \quad \text{kə̃̄}^{33} \text{ jə̇}^{51} & \quad \text{light (not heavy)} \\
\text{kə̃̄}^{33} \text{ tə̇}^{55} & \quad \text{narrow} & \quad \text{kə̃̄}^{33} \text{ tə̇}^{51} & \quad \text{sour} \\
\text{kə̃̄}^{33} \text{ lə̇}^{55} & \quad \text{conch} & \quad \text{kə̃̄}^{33} \text{ lə̇}^{51} & \quad \text{herder} \\
\text{kə̃̄}^{33} \text{ pə̇}^{55} & \quad \text{pinch} & \quad \text{kə̃̄}^{33} \text{ pə̇}^{51} & \quad \text{burn} \\
\text{kə̃̄}^{33} \text{ rə̇}^{55} & \quad \text{viewer} & \quad \text{kə̃̄}^{33} \text{ rə̇}^{51} & \quad \text{(belly) bloated} \\
\text{kə̃̄}^{33} \text{ lə̇}^{55} & \quad \text{blind person} & \quad \text{kə̃̄}^{33} \text{ lə̇}^{51} & \quad \text{get up} \\
\text{kə̃̄}^{33} \text{ nə̇}^{33} \text{ su̇}^{55} & \quad \text{miss (emotion)} & \quad \text{kə̃̄}^{33} \text{ nə̇}^{33} \text{ su̇}^{51} & \quad \text{be sad} \\
\text{rə̃̄}^{̃̄} \text{ jə̃̄}^{33} \text{ tə̃̄}^{55} & \quad \text{(personal name)} & \quad \text{rə̃̄}^{̃̄} \text{ jə̃̄}^{33} \text{ tə̃̄}^{51} & \quad \text{ocean}
\end{align*}\]

Another situation is where the tone bears only part of the burden of distinguishing meaning. In some cases the tone works with other tones to distinguish meaning, in other cases the difference in tone is concomitant with a difference in final consonant. For example, in the pair smə̇n^{51} 'medicine' / smɔ́k^{55} 'wool', there is a contrast in both tone and final. This type of situation is very common in Suomo.

Aside from distinguishing lexical meaning, the tones in Suomo are also used for grammatical distinctions. Some of the tone changes appear on the prefixes, some of them appear on the root, and some of them appear on both. The following are the main types of tone change:

1. A 55 tone root changes to 24 in the inchoative aspect and 51 in the perfective aspect; the 51 tone stays the same in the inchoative aspect and changes to 24 in the perfective aspect:
2. A 55 tone root changes to 51 in the progressive aspect; the 51 tone changes to 24 in the progressive aspect:

\[
\begin{align*}
\text{ka}^{33} \text{ tʂɔp}^{55} & \quad \text{sew} \quad \text{ka}^{33} \text{ pɔ}^{55} & \quad \text{spin (cloth)} \\
\text{tʂɔm}^{24} & \quad \text{I'm about to sew} \quad \text{pɔŋ}^{24} & \quad \text{I'm about to spin} \\
\text{na}^{33} \text{ tʂɔm}^{51} & \quad \text{I already sewed} \quad \text{na}^{33} \text{ pɔŋ}^{51} & \quad \text{I already spun} \\
\text{ka}^{33} \text{ nɔ}^{51} & \quad \text{nail (v.)} \quad \text{ka}^{33} \text{ nɭ}^{51} & \quad \text{sit} \\
\text{nɔɭ}^{51} & \quad \text{I'm about to nail} \quad \text{nɭ}^{51} & \quad \text{I'm about to sit} \\
\text{na}^{33} \text{ nɔɭ}^{24} & \quad \text{I already nailed} \quad \text{na}^{33} \text{ nɭ}^{24} & \quad \text{I already sat}
\end{align*}
\]

3. With verbs related to actions performed by organs of the body, a change in tone from 33 to 55 expresses a 3rd person singular actor, the perfective aspect, and an evidential meaning of "not personally observed":

\[
\begin{align*}
\text{ka}^{33} \text{ tɔp}^{55} & \quad \text{hit} \quad \text{ka}^{33} \text{ sɔ}^{55} & \quad \text{think} \\
\text{kɔ}^{33} \text{ tɔm}^{51} & \quad \text{I'm hitting} \quad \text{kɔ}^{33} \text{ sɔŋ}^{51} & \quad \text{I'm thinking} \\
\text{tɭ}^{33} \text{ wɔ}^{51} & \quad \text{be sick} \quad \text{ka}^{33} \text{ nɭ}^{51} & \quad \text{sit} \\
\text{kɔ}^{33} \text{ nɛ}^{33} \text{ wɔŋ}^{24} & \quad \text{I'm sick} \quad \text{kɔ}^{33} \text{ nɭ}^{24} & \quad \text{I'm sitting}
\end{align*}
\]

4. When the actor is 3rd person, the tone of the prefix changes from 33 to 55, and the tone of the verb root changes from 55 to 24:

\[
\begin{align*}
\text{tʂa}^{55/33} \text{ ka}^{33} \text{ lɛt}^{55} & \quad \text{pour tea} \\
\text{tea} & \quad \text{pour} \quad \text{tʂa}^{55/33} \text{ ka}^{55} \text{ lɛt}^{24} & \quad \text{(S/he) pour tea} \\
\text{kam}^{55/33} \text{ ka}^{33} \text{ tɭa}^{55} & \quad \text{close (a/the) door} \\
\text{door} & \quad \text{close} \quad \text{kam}^{55/33} \text{ ka}^{55} \text{ tɭa}^{24} & \quad \text{(S/he) close (a/the) door}
\end{align*}
\]
5. When a simplex stative verb with a 51 tone becomes a causative verb, the tone changes to 55:

\[
\begin{align*}
&kə^{33} \; çhɛm^{51} \quad \text{small/fine} \quad kə^{33} \; wə^{33} \; çhɛm^{55} \quad \text{make fine} \\
&ka^{33} \; ktiɛ^{51} \quad \text{big} \quad ka^{33} \; wə^{33} \; ktiɛ^{55} \quad \text{make big}
\end{align*}
\]

III.

From the facts above and a survey of the characteristics of tone systems across Tibeto-Burman, we can now turn to a discussion of the nature of the Suomo tonal system.

Does the Suomo dialect of rGyarong have tones? The answer to this depends on what criteria we use in determining whether a language has tones or not. Generally the main criterion is whether the tones function to distinguish meaning. This is correct, but there are different understandings of what counts as “distinguishing meaning”. Suomo has dozens of pairs of lexical items differentiated only by tone, and these of course should count as instances of tone determining meaning. Yet because these pairs are only a small part of the total vocabulary, some scholars feel that the function of the tones in determining meaning is not important, and so the language should not be considered to have tones, but only “customary pitch”. Though this may be the case, every syllable in Suomo does have a stable tone; so even if tone is not the only characteristic determining meaning in the majority of Suomo words, the tone is one of the features the dialect uses to distinguish between different syllables. Since every syllable in Suomo has a stable tone, speakers have developed a linguistic feeling for tone; and so if any syllable is pronounced in other than its usual tone, it will create misunderstanding or ambiguity. At the very least the Suomo speaker will know it is not pure Suomo. We feel that whether or not a language has stable tones should be the main factor in determining whether it has tones or not; since after the tones have stabilized, they may be exploited for distinguishing between syllables, and their functional load in distinguishing meaning gradually changes from low to high, from few lexical items to many. This is to say, after the syllables of a language develop fixed tones, that language has already completed the transition from not having tones to having tones. This is a qualitative change. If the syllables do not have fixed tones, or if there are only types of fixed sentence intonation (as in English), then tone in that language cannot have the function of distinguishing meaning, and that type of language must be considered to be at a non-tonal stage.

Although Suomo has already developed tones, that development is still in its early stages. Why do we say this? First, there are two main tones in Suomo, the condition for the split between them being the nature of the syllable as stopped or non-stopped. That is, among the many phonetic features, only the existence or not of a stop consonant final influenced the
split; the other factors have not yet caused a split into other tones. Second, the number of word pairs distinguished solely or mainly by tone is still very small; in the majority of the words in the language tone works along with other phonetic features to distinguish meaning.

From the results of research already completed, we know that the development of tones in Tibeto-Burman was from not having tones to having tones, and from an initial low functional load to a high functional load. Factors involved in the rise of tonal contrasts include whether the syllable has a voiced or unvoiced initial, whether the syllable has a consonant final or not, and whether that final consonant is a stop or not. Among these, the latter is the first to affect a split into tones. For example, in modern Tibetan dialects, the initial development of tones was based on whether the syllable had a stop final or not in Old Tibetan, and those tones then split further according to the voicing of the initial and the presence or not of a consonant final.\footnote{See “A study of the tones of Tibetan,” by Hu Tan (Minzu Yuwen 1980.1).} We find the same developmental pattern in Zaiwa, where the first tonal split was based on the presence or not of a consonant final, then these tones split according to voicing and other factors. That is to say, the rise of tones in Tibeto-Burman was gradual, and occurred in stages, with the first stage being based on the nature of the final.\footnote{See “A study of the tones of Zaiwa,” by Dai Qingxia (Journal of the Central Institute of Nationalities 1989.1).} This is a general rule in the development of tones in Tibeto-Burman. The division of the syllables into two stable tone categories according to the nature of the final is the transformation from a non-tone language to a tone language, and establishes a base for the further split of these categories into even more tones. In Suomo we find only the completion of the first stage in the rise of tones (the split according to the nature of the final), so we can say that Suomo is at the earliest stage of tonal development.

Are there limiting factors involved in the Suomo tone system being relatively undeveloped? It would be well for us to look at the sound system of Suomo. Suomo has a rather rich system of initials and finals: 36 consonants combine to form 246 different initials: 36 single-consonant initials, 178 two-consonant initials, and 32 three-consonant initials; 90 different finals (eight monophthong finals, twelve diphthong finals, 70 finals with final consonants). Suomo is also a largely polysyllabic language. Among 1578 commonly used words we have surveyed, only 106 (6.2%) were monosyllabic, the rest being mostly bisyllabic or polysyllabic: 1151 (72%) bisyllabic, 228 (14.4%) trisyllabic, 77 (4.8%) tetrasyllabic, 13 (0.8%) pentasyllabic. From this we can see that the complexity of the initials and finals and the polysyllabicity of the lexicon can be important factors in limiting the rise and development of tones. This can be said to be a
universal within Tibeto-Burman. All of the languages within Tibeto-Burman that have complex initials and finals, and are polysyllabic, either have no tone systems or have relatively undeveloped tone systems, such as the Northern Qiang dialects, Amdo Tibetan, Luoba, and Dulong. All of the languages within Tibeto-Burman that have relatively undeveloped systems of initials and finals and are largely monosyllabic have relatively developed tone systems, such as in the Yi-pho (Lolo) and Burmish branch languages. The Gazhuo language of the Yi-pho branch is the Tibeto-Burman language with the greatest number of tones. It has eight: high-level, mid-high-level, mid-level, high-rising, mid-rising, falling-rising, high-falling, and low falling. Yet this language has only 24 initials (all single consonants); there are only voiceless stops and affricates; there are only 17 finals (of which eight are monophthongs, and nine are diphthongs); and there are no consonant finals. There are many monosyllabic words, and the majority of the verbs, adjectives, numerals, and classifiers in the language are monosyllabic.

The rise of tones in Suomo is very likely related to the tendency in Suomo for the originally complex phonetic system to simplify and for some originally polysyllabic words to become monosyllabic. We can see from the following examples that some consonant clusters have loosened up and the initial consonant has split off, becoming a separate syllable with the epenthesis of the transitional vowel -ə, creating variant pronunciations:

\[
\begin{align*}
\text{ste}^{51} & \sim t\text{ce}^{33} \text{te}^{51} \\
\text{ka}^{33} \text{msa}^{55} & \sim \text{ka}^{33} \text{m}^{33} \text{s}^{55} \\
\text{kə}^{33} \text{mt}^{33} \text{er}^{51} & \sim \text{ka}^{33} \text{m}^{33} \text{t}^{51} \\
\text{kə}^{33} \text{mc}^{55} & \sim \text{kə}^{33} \text{m}^{33} \text{c}^{55} \\
\text{ka}^{33} \text{mt}^{55} & \sim \text{ka}^{33} \text{m}^{33} \text{t}^{55} \\
\text{ka}^{33} \text{mt}^{33} \text{c}^{55} & \sim \text{ka}^{33} \text{m}^{33} \text{t}^{33} \\
\text{kə}^{33} \text{ms}^{33} \text{ak}^{55} & \sim \text{kə}^{33} \text{m}^{33} \text{s}^{33} \text{ak}^{55}
\end{align*}
\]

this hear turn many see pointed spirit, energy

Among the young people, some of the consonant cluster initials have been simplified by the loss of the the first consonant:

\[
\begin{align*}
\text{Old People} & & \text{Young People} \\
\text{bza}^{51} \text{̄} & & \text{za}^{51} \\
\text{kə}^{33} \text{ps}^{51} & & \text{kə}^{33} \text{s}^{51}
\end{align*}
\]

aluminum crazy person

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8 Cross-linguistic comparison and the fact that use of the monosyllabic forms is less marked than the bisyllabic forms in Suomo lead us to assume that the monosyllabic forms represent an earlier stage.
ka₃₃ psket₅₅
ka₃₃ phsrunj₅₁
pkra₃₃ çes₅₁
raŋ₃₃ mbjnuŋ₅₁
mbres₅¹/₃₃ wu₅₁

ka₃₃ sket₅₅
ka₃₃ sruŋ₅₁
kra çes₅₁
raŋ₃₃ bjnuŋ₅₁
brēs₅¹/₃₃ wu₅₁

discharge, fire
protect
auspicious
natural
fruit

Some consonant finals are lost in combinations:

pak₅₅ pig > pa₅₅/₃₃ rjas₅₁ wild boar
mak₅₅ not > ma₅₅/₃₃ ze⁻ŋ₅₁ not eat
kçel₅₅ glass > çel₅₅/₃₃ zgc₅₁ mirror
tes₃₃ rtsis₅¹ number > ka₃₃ wu₃₃ rtsoe₅₁ count
ke₃₃ tshaks₅¹ fresh > ke₃₃ jnc₅₅ ke₃₃ tshak₅¹/₅₅ fresh vegetables

Some consonant cluster finals can change to single consonant finals:

phoks₅¹ ~ phok₅₅ salary
tchéks₅¹ ~ tchék₅₅ horse feed
zgroks₅₁ ~ zgrok₅₅ bracelet
ke₃₃ rnak₅₁ ~ ke₃₃ rnak₅₅ deep
ke₃₃ wams₅₁ ~ ke₃₃ wam₅₅ foolish
ke₃₃ ndzaŋ₅₁ ~ ke₃₃ ndzaŋ₅₅ careful
sa₃₃ zbjunṣ₅₁ ~ sa₃₃ zbjunṣ₅₅ source
tché₃₃ jluks₅₁ ~ tché₃₃ jluks₅₅ custom

In summary, the system of initials and finals and the simplification of
the syllable are important factors in the development of tones. The simpler
the system of initials and finals and the simpler the syllabic structure, the
greater the functional load of the system of tones.