

# THE PHONOLOGY OF A GYARONG DIALECT

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The Gyarong dialect whose phonological system I describe here is that spoken in Tzuta, a village formerly in the Lifan district of Szechuan (it is now in the district of Li in the Szechuan Autonomous Region for the Tibetans). I collected the material cited in 1943, while working in a research project headed by Professor Fang-kuei Li at Yenching University (Ch'engtu).

This dialect has twelve stops (k, kh, g, t̚, t̚h, d̚, t̚, th, d̚, p, ph, b), ten fricatives (h, ʃ, ʒ, s, z, r, s, z, l̥, l), four nasals (ɲ, ɳ, n, m), two semivowels (j, w), and five vowels (i, e, a, o, u). I cannot say whether tones are phonemic. When confronted with what seemed to be homonyms, my informant made distinctions on the basis of tone, e. g. tem̩ɳa 'eye' with high level tones on both syllables, tem̩ɳa 'steamed bread' with mid level tones on both syllables, and termi 'man' with high level tones on both syllables, termi 'a name', with high tone on the first syllable and high falling tone on the second. In connected texts, however, the tones vary, and I have been unable to correlate this variation with anything in the surrounding environment.

1. The stops, classified by point of articulation, are:

| velar     | domal      | dental    | labial    |
|-----------|------------|-----------|-----------|
| <u>k</u>  | <u>t̚</u>  | <u>t̚</u> | <u>p</u>  |
| <u>kh</u> | <u>t̚h</u> | <u>th</u> | <u>ph</u> |
| <u>g</u>  | <u>d̚</u>  | <u>d̚</u> | <u>b</u>  |

Clusters of stop followed by fricative are:

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| velar              |                    | palatal            | domal              | dental             | labial             |
|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| <u>kr</u>          |                    | <u>tš</u>          | <u>tɕ</u>          | <u>ts</u>          | <u>pr</u>          |
| <u>kh</u> <u>r</u> | <u>kh</u> <u>l</u> | <u>tš</u> <u>h</u> | <u>tɕ</u> <u>h</u> | <u>ts</u> <u>h</u> | <u>ph</u> <u>r</u> |
| <u>gr</u>          | <u>gl</u>          | <u>dž</u>          | <u>dʒ</u>          | <u>dz</u>          | <u>br</u>          |

These consonants and consonant clusters appear both initially and intervocalically, with the exception of khl, which occurs only before j (cf. below, §5). Unreleased k, t, and p also occur finally in random occurrences of some forms; in other occurrences they are absent. (For examples, see the Appendix to this article.)

2. Fricatives, single and in clusters, are:

| velar    | palatal  | domal               | dental            |
|----------|----------|---------------------|-------------------|
| <u>h</u> | <u>š</u> | <u>s</u>            | <u>s</u> <u>ʃ</u> |
|          | <u>ž</u> | <u>z</u> <u>r</u>   | <u>z</u> <u>l</u> |
|          |          | <u>sl</u> <u>rl</u> | <u>sl</u>         |

Semivowels are:

| palatal  | labial   |
|----------|----------|
| <u>j</u> | <u>w</u> |

The fricatives and w appear initially and intervocalically; s and r also appear finally. j only occurs after other consonants.

3. The nasals are:

| velar    | palatal  | dental   | labial   |
|----------|----------|----------|----------|
| <u>ŋ</u> | <u>ɲ</u> | <u>n</u> | <u>m</u> |

ŋ, n, and m appear initially, intervocalically, and finally; ɲ appears only initially and intervocalically.

4. Certain velars and palatals, and s and r, occur in clusters in -w: kw, khw, (gw) ɣw, tšhw, sw, and rw.

5. A number of consonants and consonant clusters may be followed by j,

as indicated below (note that members of the palatal series are not found in this number). wj is phonetically [ü].

Sequences in parentheses occur only in larger consonant sequences; gwj, for example, occurs only after z.

| velars         | domal       | dental      | labial           |
|----------------|-------------|-------------|------------------|
| <u>kj</u>      |             | <u>tj</u>   | <u>pj</u>        |
| <u>kwj</u>     |             |             |                  |
| <u>khj</u>     | <u>ṭhj</u>  | <u>thj</u>  | <u>phj</u>       |
| <u>khwj</u>    |             |             |                  |
| <u>gj</u>      | <u>ḍj</u>   | <u>dj</u>   | <u>bj</u>        |
| ( <u>gwj</u> ) |             |             |                  |
| ( <u>krj</u> ) | <u>ṭsj</u>  | <u>tsj</u>  | <u>prj</u>       |
| <u>khrij</u>   | <u>ṭshj</u> | <u>tshj</u> | ( <u>phrij</u> ) |
| <u>grj</u>     |             |             | ( <u>brj</u> )   |
| <u>khlij</u>   |             |             |                  |
|                | <u>sj</u>   | <u>sj</u>   |                  |
|                |             | <u>swj</u>  |                  |
|                | <u>zj</u>   | <u>zj</u>   |                  |
|                |             | <u>lj</u>   |                  |
|                | <u>rj</u>   | <u>lj</u>   |                  |
|                | <u>rwj</u>  |             |                  |
|                | <u>slj</u>  | <u>slj</u>  |                  |
|                | <u>rlj</u>  |             |                  |
| <u>ḍj</u>      |             | <u>nj</u>   | <u>mj</u>        |
| <u>ḍwj</u>     |             |             |                  |
| <u>wj</u>      |             |             |                  |

6. The above consonants and consonant clusters, with the exception of sl,

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ʃl, and rl, can be preceded by s/z, ʃ/z, r, k/g, p/b, m, n, and ɣ, as indicated in the chart below. Some of the resulting clusters occur both initially and intervocalically; some, e.g. skhj, occur only intervocalically. The distribution of s/z, ʃ/z, k/g, and p/b correlates with the voiceless/voiced quality of the following consonant. Before nasals, however, only s, ʃ, r, m, n, and ɣ occur.

|                                  | <u>s/z</u> | <u>ʃ/z</u> | <u>r</u> | <u>k/g</u> | <u>p/b</u> | <u>m</u> | <u>n</u> | <u>ɣ</u> |
|----------------------------------|------------|------------|----------|------------|------------|----------|----------|----------|
| velars                           | X          | X          | X        |            | X          | X        |          | X        |
| palatals                         | X*         |            | X        | X          |            | X        | X        | X        |
| domals                           |            | X          | X        | X          | X          | X        | X        | X        |
| dental stops and <u>n</u>        | X          | X          | X        | X          | X          | X        | X        | X        |
| dental affricates and fricatives |            |            | X        | X          | X          | X        | X        | X        |
| labials                          | X          | X          | X        | X          |            | X        | X        | X        |

\* The palatal, ɲ, is preceded by ʃ, not s.

(a) The velar series may be preceded by s/z, ʃ/z, r, p/b, m, and ɣ, as follows:

|             |             |             |             |             |             |
|-------------|-------------|-------------|-------------|-------------|-------------|
| <u>sk</u>   | <u>ʃk</u>   | <u>rk</u>   | <u>pk</u>   | <u>mk</u>   | <u>ɣk</u>   |
|             | <u>ʃkr</u>  |             |             | <u>mkr</u>  |             |
|             | <u>ʃkrj</u> |             |             |             |             |
| <u>skw</u>  | <u>ʃkw</u>  |             |             |             |             |
| <u>skj</u>  |             | <u>rkj</u>  | <u>pkj</u>  |             |             |
| <u>skh</u>  | <u>ʃkh</u>  | <u>rkh</u>  |             | <u>mkh</u>  | <u>ɣkh</u>  |
|             | <u>ʃkhr</u> |             | <u>pkhr</u> | <u>mkhr</u> | <u>ɣkhr</u> |
|             | <u>ʃkhw</u> | <u>rkhw</u> |             |             |             |
| <u>skhj</u> |             |             |             |             |             |
| <u>zg</u>   | <u>ʒg</u>   | <u>rg</u>   |             | <u>mg</u>   | <u>ɣg</u>   |
|             | <u>ʒgr</u>  |             |             |             | <u>ɣgr</u>  |
|             | <u>ʒgrj</u> |             |             |             |             |

zgwj

ɣgwj

rgj

sɣ

ʃɣ

rɣ

mɣ

rɣj

(b) The palatal series may be preceded by s/z (ʃ before ɲ), r, k/g, m, n,

and ɣ:

stʃ

rtʃ

ktʃ

rtʃw

ntʃw

rtʃh

ktʃh

rtʃhw

zdʒ

rdʒ

mdʒ

ndʒ

ɣdʒ

kʃ

mʃ

rʒ

nʒ

sɲ

rɲ

mɲ

nɲ

ɣɲ

(c) The domal series may be preceded by ʃ/z, r, k/g, p/b, m, n, and ɣ:

st

kt

pt

stj

nd

sts

rts

kts

pts

mts

nts

ɣts

ktʃj

ntʃj

stʃh

rtʃh

ktʃh

mtʃh

ntʃh

ntʃhj

bdz

mdz

ndz

rs

ks

ms

ns

ɣs

rz

gz

ɣz

ɣr

(d) The dental stops and nasal may be preceded by s/z, ʃ/z, r, k/g, p/b,

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m, n, and ɲ:

|            |            |            |           |            |             |            |
|------------|------------|------------|-----------|------------|-------------|------------|
| <u>st</u>  | <u>ʂt</u>  | <u>rt</u>  | <u>kt</u> | <u>pt</u>  | <u>mt</u>   | <u>nt</u>  |
| <u>stj</u> | <u>ʂtj</u> | <u>rtj</u> |           | <u>ptj</u> | <u>mtj</u>  | <u>ntj</u> |
| <u>sth</u> | <u>ʂth</u> | <u>rth</u> |           | <u>pth</u> | <u>meth</u> | <u>nth</u> |
| <u>zd</u>  | <u>ʂd</u>  | <u>rd</u>  | <u>gd</u> | <u>md</u>  | <u>nd</u>   | <u>ɲd</u>  |
|            | <u>ʂdj</u> | <u>rdj</u> |           | <u>mdj</u> |             | <u>ɲdj</u> |
| <u>sn</u>  | <u>ʂn</u>  | <u>rn</u>  |           |            |             |            |
| <u>snj</u> | <u>ʂnj</u> | <u>rnj</u> |           | <u>mnj</u> |             | <u>ɲnj</u> |
|            |            |            |           |            |             | <u>ɲl</u>  |
|            |            |            |           |            |             | <u>nlj</u> |

(e) Dental affricates and fricatives may be preceded by r, k, p/b, m, n, and

ɲ:

|             |             |              |             |              |            |
|-------------|-------------|--------------|-------------|--------------|------------|
| <u>rts</u>  | <u>kts</u>  | <u>pts</u>   | <u>mts</u>  | <u>nts</u>   | <u>ɲts</u> |
| <u>rtsj</u> | <u>ktsj</u> | <u>ptsj</u>  |             |              |            |
| <u>rtsh</u> |             | <u>ptsh</u>  | <u>mtsh</u> | <u>ntsh</u>  |            |
|             |             | <u>ptshj</u> |             | <u>ntshj</u> |            |
|             |             | <u>bdz</u>   | <u>mdz</u>  | <u>ndz</u>   |            |
| <u>rs</u>   | <u>ks</u>   | <u>ps</u>    | <u>ms</u>   |              | <u>ɲs</u>  |
| <u>rsj</u>  |             |              | <u>msj</u>  |              |            |
| <u>rz</u>   |             |              |             |              | <u>ɲz</u>  |
|             | <u>gzj</u>  |              |             |              |            |

(f) The labial series may be preceded by s/z, ʂ/z, r, k/g, m, n, and ɲ:

|            |            |            |             |            |            |
|------------|------------|------------|-------------|------------|------------|
| <u>sp</u>  | <u>ʂp</u>  | <u>rp</u>  | <u>kp</u>   | <u>mp</u>  | <u>ɲp</u>  |
|            | <u>spr</u> |            | <u>kpr</u>  |            |            |
|            |            |            | <u>kprj</u> |            |            |
| <u>spj</u> | <u>ʂpj</u> | <u>rpi</u> | <u>kpj</u>  |            | <u>ɲpj</u> |
|            |            | <u>rph</u> | <u>kph</u>  | <u>mph</u> | <u>ɲph</u> |

|           |             |            |              |            |            |
|-----------|-------------|------------|--------------|------------|------------|
|           |             |            | <u>mphrj</u> |            |            |
|           |             |            | <u>mphj</u>  |            |            |
| <u>zb</u> | <u>z̥b</u>  | <u>rb</u>  | <u>mb</u>    | <u>nb</u>  | <u>ɸb</u>  |
|           | <u>z̥br</u> |            | <u>mbr</u>   |            |            |
|           |             |            | <u>mbrj</u>  |            |            |
|           | <u>z̥bj</u> |            | <u>mbj</u>   | <u>nbj</u> |            |
| <u>sm</u> | <u>s̥m</u>  | <u>rm</u>  |              |            | <u>ɸm</u>  |
|           |             | <u>rmj</u> |              |            | <u>ɸmj</u> |

7. The vowels (i, e, a, o, u) all occur in noninitial position; except for o, they also occur initially, e.g. iɸeɸ 'I peel, husk'; eʒo 'he, she, it', ete 'that one', eptshi 'its outside'; atshu 'son-in-law', urje 'wage'.

Phonetically, i is [i], a [a], u [u], and o [ɔ]. e is [ə]~[e]. Two conditions determine the appearance of the second allophone: e is (1) preceded by a palatal or a consonant cluster in -j; and (2) not followed by -k or -ɸ.

Sandhi-produced diphthongs result when i or u are immediately preceded by the vowel of a prefix, e.g. iɸeɸ 'I peel', naideɸ 'I have peeled'; urje 'wage', teurje 'ones' wage'.

There are restrictions on the occurrence of these vowels: (1) a does not occur after -w-; and (2) o and u do not occur after consonant clusters which have -w-, -j-, or -wj- as their last member. Exception: khekhjui (n.pr. of a place).

The finals are:

|           |            |            |            |            |            |            |            |            |            |            |
|-----------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| <u>-i</u> | <u>-iu</u> | <u>-is</u> | <u>-ir</u> | <u>-ip</u> | <u>-im</u> | <u>-it</u> | <u>-in</u> | <u>-ik</u> | <u>-ig</u> |            |
| <u>-e</u> | <u>-ei</u> | <u>-eu</u> | <u>-es</u> | <u>-er</u> | <u>-ep</u> | <u>-em</u> | <u>-et</u> | <u>-en</u> | <u>-ek</u> | <u>-eg</u> |
| <u>-a</u> | <u>-ai</u> | <u>-au</u> | <u>-as</u> | <u>-ar</u> | <u>-ap</u> | <u>-am</u> | <u>-at</u> | <u>-an</u> | <u>-ak</u> | <u>-ag</u> |
| <u>-o</u> | <u>-oi</u> |            | <u>-or</u> |            | <u>-om</u> | <u>-ot</u> | <u>-on</u> | <u>-ok</u> | <u>-og</u> |            |
| <u>-u</u> | <u>-ui</u> | <u>-us</u> | <u>-ur</u> | <u>-up</u> | <u>-um</u> | <u>-ut</u> | <u>-un</u> |            | <u>-uk</u> | <u>-ug</u> |

There are also instances of final consonant clusters: koms 'on top of a door', senkhans 'on top of a senkhan (where images of gods are kept)'.<sup>1</sup>

## APPENDIX

The examples below are grouped under numbers corresponding to those of the relevant sections in the article.

1. (For examples of final consonants, see 7.)

Velars:

k-: ka 'the colter of a plough', kom 'door'; -k-: taku 'head', meki 'under-  
neath'

kh-: khi 'dog', khui 'bowl', khep 'tiger'; -kh-: kekhu 'foolish'

g-: gokar 'a kind of woolen fabric', genbje 'a temple'; -g-: dagui 'the district of Kuàn in Szech'uan'

kr-: kres 'conference'; -kr-: žiukri 'vegetable oil'

kh<sub>r</sub>:- kh<sub>r</sub>ay 'I beat'; -kh<sub>r</sub>:- tek<sub>r</sub>hu 'elbow' (2) bus q<sub>1</sub> w<sub>1</sub> 19 q<sub>2</sub> 19 q<sub>3</sub> 19 q<sub>4</sub> 19 q<sub>5</sub> 19

gr-: grey 'I scrape'; -gr-: pragrom 'a chicken egg'

**-gl-:** tegla 'shuttle'

Palatals:

tš:- tši 'wheat', tše 'a river deer', tšu 'stone'; -tš:- etšer 'its root', tatšim 'fertilizer', ketši 'large'

tšh-: tšhe 'wine', tšhu 'village'; -tšh-: tatšhu 'wedge', khrjetšho 'pepper tree'

dž-: džu 'bamboo', dži 'south'; -dž-: tadžu 'lock'

Domals:

t-: tam 'I sew', teḡ 'I spread'; -t-: tete, n.pr. of a place, keṭo 'six', waṭam 'his fat'

ṭh-: ṭhezek 'resin'; -ṭh-: ṭethu 'light'

d-: denbu 'going out', dali 'earthquake'; -d-: neday 'I walk', tede 'skin'

**t̥s-**: **t̥sam** 'house', **t̥sei** 'here', **t̥soktsi**, n.pr. of a place; **-t̥s-**: **t̥t̥se** 'water', **t̥t̥se**



song', keṭṣar 'narrow'

ṭṣh-: ṭṣhom 'a water bucket carried on one's back', ṭṣhing 'I go', ṭṣham 'a lama's dance'; -ṭṣh-: keṭṣhi 'sweet', keṭṣnim 'thin (in diameter)'

ḍz-: ḍzero 'cicada', ḍzeru 'louse eggs'; -ḍz-: kawadze 'to chew'

Dentals:

t-: tam 'I beat', taḡ 'I boil (water)'; -t-: metaḡ 'I see', krata, n.pr. of a place, ketu 'a wildcat'

th-: thi 'what?', thatho 'a pine tree', tharna 'a steelyard for money'; -th-: tathu 'woolen fabrics'

d-: duṭ, n.pr. of a cruel man (in legends), do 'east', dedu 'a wild pigeon'; -d-: tado 'poison'

ts-: tsoro 'socks' tsurer 'star', tsetje, n.pr. of a place; -ts-: etsi 'his life', ketsu 'monkey'

tsh-: tshapje 'malaria', tsharei 'natron'; -tsh-: tatshiu 'sneezing', atshu 'son-in-law'

dz-: dzaži 'flea'; -dz-: medzu 'at ones will'

Labials:

p-: pas 'a wild animal similar to a pig', peṣiu 'rat', pagei 'silver', peḡ 'I come'; -p-: tepo 'red hemp', tapat 'flower', lapu 'mule'

ph-: phat 'to pick, pluck; climb over', phatak 'dumplings made of corn flour', phaḡ 'I divide'; -ph-: taphi 'guest', epha 'half', taphan 'bosom'

b-: baro 'horse', bertsje 'knife', beḡ 'I carry on my back'; -b-: babuḡ 'a kind of insect', zebar 'wooden partition', tabem 'a pair'

pr-: prak 'rok', prakhu 'owl', preḡ 'I tear'; -pr-: taprer 'supper', keprom 'white'

phr-: phruḡ 'I blow', phramu 'rosary'; -phr-: tephrer 'grandson'

br-: breḡ 'rhinoceros', brastak 'a kind of bee'; -br-: ṣabra, n.pr. of a place

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2.

h-: hanoi 'below', harnak 'a kind of bird'; -h-: tahur 'once', taham 'yawning'

š-: šaḡ 'I send (a gift to someone)'

ž-: žalu 'a large calabash', žantan 'knowledge, learning'; -ž-: težiu 'ghost', težim 'a bear', kežo 'a goat'

s-: ši 'firewood', šerša 'fence', šaru 'bone'; -s-: taši 'a wealthy man', kešek 'new'

z-: zuḡ 'I accuse (someone)', zardžin, n.pr. of a place, zaḡdin 'puttees'; -z-: tezu 'chopsticks', ṭšhezar 'swimming', wazi 'his sister'

sl-: slaḡ 'I release'; -sl-: ašlu 'yesterday'

r-: ruḡ 'I look'; -r-: teru 'horn', khara 'ant', phoraḡ 'Peking'

rl-: rlaḡ 'I have no heir'; -rl-: berlen 'a carpenter's plane', terler 'yak'

s-: sar 'louse', sanar 'good luck', sarža 'fan'; -s-: kesu 'sheep', kesom 'three'

z-: zai 'ladder', zan 'I eat', zarka 'a medicinal herb'; -z-: tazar 'milling (flour)', tazom 'bridge'

sl-: slam 'I roll up', slapen 'teacher'; -sl-: keslat 'exhausted'

l-: laskar 'a head ornament made of coral', lasje 'Lhasa'; -l-: ṭšhaḡam 'leather boots'

l-: luḡpje 'place; valley', lamje 'lama', lenbu 'tribal chief'; -l-: khali 'wind', telu 'milk'

w-: waržet 'aight', wamtsher 'lying on one's side'; -w-: tawu 'ceremonies performed on the anniversary of a death', grawu, n.pr. of a place

3.

ḡ-: ḡa 'I'; -ḡ-: paḡei 'silver', taḡei 'sun'

ṇ-: ṇi 'you (plural)', ṇiḡ 'I sit down', ṇakprje 'meat dumpling'; -ṇ-: meṇu 'a tapered basket carried on one's back', meṇaḡ 'cat'

n-: nu 'you', noḡ 'I drive (cattle)', namšek 'soul'; -n-: tanai 'morning', kenak 'black'

m-: mezi 'gunpowder', mesnom 'girl'; -m-: temu 'sky', tami 'foot'

4.

kw-: kwa 'spade'; -kw-: sakwan 'I uproot'

khw-: khwaštšan 'silk; satin'

ɣw-: ɣwa 'to be'; -ɣw-: kaɣwu 'butter lamp'

tšhw-: tšhwan 'I return'; -tšhw-: tšhetšhwa 'blister'

sw-: swai 'barley'

rw-: rwaɣ 'I get up'; -rw-: terwu 'buckwheat', tarwa 'hunting and fishing'

5.

Velars and w:

kj-: kjar 'a steelyard used e.g. for weighing meat or vegetables'; -kj-: tekjar 'sinews', tekjep 'needle'

kwj-: kwje 'kitchen'

-khj-: khekhjui, n.pr. of a place, tekhje 'mouth'

khwj-: khwje 'bedroom'

gj-: gjaɣ 'I shout'; -gj-: zegje 'saddle'

khrij-: khrijetšho 'pepper tree'; -khrij-: kestšalakhrje 'of variegated colors'

-grj-: wegrje 'the lower level'

-khlj-: tekhlje 'the upper arm'

ɣj-: ɣjaɣ 'I have intercourse with someone', ɣjesu, n.pr. of a place

-ɣwj-: ŋiɣwje 'cow'

wj-: wjan 'I wear'; -wj-: šawje 'a wild deer', kewje 'thin', tewjet 'clothes'

Domals:

thj-: thjewu 'pen, stable'

-dj-: žedje, 'name of a tree'

tšj-: tšjerje, n.pr. of a place; -tšj-: ɣatšjep 'bitter', ketšje 'poor'

-tšhj-: šatšhje 'world'

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ʃj:- ʃje 'meat; flesh'; -ʃj:- ʃtauʃje 'a kind of mushroom'

zj:- zje 'to fall'

rj:- rje 'to want'

-rwj:- tarwjɛt 'get up!'; parwje 'a vessel used in religious ceremonies'

-ʃlj:- (ka)waʃlje 'slippery'

-rlj:- arlje 'bean curd'

Dentals:

tj:- tjaɣ 'I boil (water)'; tjaɣden 'a small copper bowl for pure water (for religious purposes)'; -tj:- tatjar 'stick', teʃatjak 'belly; stomach'

-thj:- tethje 'book'

-dj:- medja 'he arrives'

-tsj:- petsjar 'warm season', ketsje 'grass', metsjak 'to jump'

tshj:- tshjar 'mountain sheep'; -tshj:- ratshjan 'I aim (at something)'

sj:- sjaɣ 'I search', sjan 'I kill'; -sj:- tasjet 'hemp'

-swj:- teswje 'tooth', tʃhaswje 'the dregs of wine'

zj:- zjaɣ 'I eat'

lje:- lje 'Buddha; god'

lj:- ljan 'I do it'; -lj:- kalje 'rabbit'

slj:- sljam 'I roll up'

-nj:- ɣanjaɣ 'I am busy', wanjan 'I light; I kindle'

Labials:

pj:- pjak 'pig'; -pj:- kepjar 'jackal'

phj:- phjaɣ 'I divide'

-bj:- kebjar 'leech'

prj:- prje 'fowl'

-mj:- samjaɣ 'I request, ask for'

(a) Velars:

with s/z as first member:

sk-: skap 'I boil (meat)', skarkhui, 'name of a tree'; -sk-: esku 'its upper side'

skw-: skwam 'to hatch (eggs)'

skj-: skjaɖ 'I boiled (meat)'; -skj-: eskje 'his voice', teskjar 'baked flour'

skh-: skhin 'I gouge out'

-skhj-: laskhje 'a seal'

zg-: zgon 'I want to', zgermu 'moss'; -zg-: tazgular 'a hunchback'

-zgwj-: šazgwje, 'name of a tree'

sɖ-: sɖar 'frost'

With š/z as first member:

šk-: šku 'garlic' škom 'a kind of deer'; -šk-: waški 'to burn', taškai 'scorched'

škr-: škraɖ 'I sift (with a sieve); I am intelligent'; -škr-: teškru 'body', eškrai 'his side'

-škrj-: kaškrje 'to sift (with a sieve)'

škw-: škwaj 'I dig out'

-škh-: teškhur 'sore', peškhai 'just now'

-škhr-: keškhrei 'long'

škhw-: škhwak 'a noise'

zg-: zgeɖ 'I chop down'; -zg-: pažguram 'sausage'

-zgr-: ezgra 'bracelet'; pažgro 'fast', ezgra 'its nest'

-zgrj-: ezgrje 'his voice', wezgrje 'the lower level'

-sɖ-: (ke)wašɖom 'fragrant'

With r as first member:

rk-: rkan 'I engrave', rken 'I put in'; -rk-: tarku 'boxing'

-rkj-: tarkje 'mule', merkjav 'you put on; the puts on', kherkje 'dust'

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-rkh-: markhaɥ, n.pr. of a place, skarkhui, name of a tree

-rkhw-: werkhwak 'its husk'

rg-: rgu 'a large rock'; -rg-: terga 'grain'

-rgj-: targje 'dancing and singing', nargjaɥ 'I play'

rɥ-: rɥaɥ 'I borrow'

rɥj-: parɥje 'a wild pig'

With p/b as first member:

pk-: pkuɥ 'I carry on my back', pkaɥ 'I am satiated (with food)'; -pk-:  
sepkaɥ 'I cover'

-pkj-: wapkje 'its covering', wepkje 'the law of His Majesty'

pkhr-: pkhrat 'to assess', pkhran 'I assess'

With m as first member:

-mk-: temki 'neck', tamkan 'pillow'

-mkr-: tamkra 'crosswise'

mkh-: mkhaɥ 'I am able to do it'; -mkh-: pamkhu 'few'

-mkhr-: temkhrer 'bile'

mg-: mgeɥ 'I am fed up with, tired of'

-mɥ-: kempo 'five', kamɥam 'lying on one's belly'

With ɥ as first member:

-ɥk-: wapkaɪ 'to chew'

-ɥkh-: teɥkhu 'behind'

-ɥkhr-: teɥkhu 'charcoal'

ɥg-: ɥgaɥ 'I support, supply'; -ɥg-: keɥgu 'nine', taɥgu 'back'

-ɥgr-: khaɥsar tʃhiɥgraɥ 'a solution for pickling vegetables'

-ɥwj-: samaɥgwje, n.pr. of a place

(b) Palatals:

With s/z as first member:

stš:- stšak 'eagle', stče 'a tripod which supports a pot', stšipje 'assembly of lamas'; -stš- estšulak 'vomitting', kestše 'previously', tastšu 'writings and paintings'

zdž:- zdži 'wall', zdžim 'cloud'; -zdž:- tazdžam 'cloudy'

With s as first member:

š:- šne 'mouth', šnali 'flute'; -š:- tešnan 'nasal mucus', kešnit 'seven', tešnit 'heart'

With r as first member:

rtš:- rtšim 'I bind'; -rtš:- tartši 'hat', khartšak 'magpie', mertšu 'gray thrush'

-rtšw:- zartšwai, 'n.pr. of a place'

rtšh:- rtšhap 'I peel'

rtšhw:- rtšhwap 'I roll up my sleeves'

rdž:- rdže 'a wild mule'; -rdž:- kherdži 'earthworm', merdžep 'I swallow', kerdžom 'wide'

rž:- ržin 'I plant'; -rž:- perže 'hundred', warže 'eight'

-rñ:- tarñi 'gold', tarñan 'mud', tarñek 'hair', kerñak 'deep'

With k as first member:

ktš:- ktšap 'I take out', saktše, 'n.pr. of a place'

-ktšh:- kektšhi 'far'

-kš:- pakšar 'clear'

With m as first member:

-mdž:- temdže 'the lower jaw'

-mš:- temši 'liver'

mñ:- mñap 'it is not I', mñatšu 'yoke'; -mñ:- temña 'eye; steamed bread', temñe 'field', šamñe 'bow', emñe 'by the side'

With n as first member:

-ntšw:- tentšwe 'a kind of knife'

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-ndž:- nandžap 'I throw away'

-nž:- smanžo 'a lama's skirt-like garment'

-nǎ:- smanǎingkhui, n.pr. of a place

With n as first member:

-ndž:- phandže, name of a 'house', ṭhandže 'a shovel for the fire'

-ḡǎ:- ṣeḡǎap 'I prepare'

(c) Domals:

With s/z as first member:

št:- šte 'varnish tree', štap 'I measure', štausje 'a kind of mushroom'

-štj:- teštje 'sweat'

štš:- štši 'ten', štšep 'I exchange', štšap 'I see him off'; -štš:- keštši 'wet',  
khwaštšan 'silk; satin', kheštšek 'leopard', neštšap 'I ride (horseback)'

štsh:- štšep 'I go'

With r as first member:

rtš:- rtšip 'I wash'; -rtš:- mertši 'flame'

-rtšh:- tartšhek 'a little while'

-rš:- serša 'fence'

-rž:- taržek 'wrinkle', warža 'branch'

With k/g as first member:

kt:- kteḡ 'I carry'

ktš:- ktšep 'I crowd (other people)'; -ktš:- žaktšan 'stirrt', kektšin 'near'

-ktšj:- temoktšjerei 'uvula'

-ktsh:- tepaktšhu 'navel'

kš:- kšet 'to come', kšep 'I come'; -kš:- tekšat 'strength', šakšo 'paper'

-gz:- tegzo 'sexual organ'

With p as first member:

pt:- ptip 'I walk'; -pt:- šapta 'sixteen'



pt̪s-: pt̪salak 'thing, object', pt̪siŋ 'I pay the balance of an account', pt̪saŋ 'I use'; -pt̪s-: tshipt̪ʂu 'a festival in the seventh lunar month'

bdz-: bdzamku 'green'

With m as first member:

m̪t̪s-: m̪t̪seŋ 'it bites me'; -m̪t̪s-: tem̪t̪ʂek 'fire', kem̪t̪ʂer, 'mill'

-m̪t̪sh-: tem̪t̪shi 'lips'

-m̪dz-: tem̪dzek 'robbing', mem̪dzep 'I rob'

m̪s-: m̪sam 'I worship'; -m̪s-: nam̪ʂek 'soul'

With n as first member:

nd-: ndep 'I chase after (someone)'; -nd-: wandai 'his friend', tandi 'a strip', dandai 'please eat!'

-nt̪s-: tant̪si 'one of a pair'

-nt̪sj-: tant̪sje 'the shady side of a mountain'

nt̪sh-: nt̪shaŋ 'I kill', nt̪ship 'I select'; -nt̪sh-: tant̪shi 'pillar', kant̪shai 'market'

-nt̪shj-: kant̪shje 'to kill'

ndz-: ndze 'you (two)'; -ndz-: kandze 'tin'

-nʂ-: dzemkanʂi 'a kind of fruit tree'

With ɣ as first member:

-ɣt̪s-: ʂept̪ʂan 'a large tree'

-ɣs-: raɣʂar 'original'

-ɣz-: ʂepzi 'the ruler of Hell'

-ɣr-: stupro 'a kind of bird'

(d) The dental stops and nasal:

With s/z as first member:

st-: stut 'an image of Buddha', staskui 'a rope connecting yoke and plough',

stalar 'pea', staggak 'a long, embroidered robe worn by lamas'; -st-:

tasto 'an earthen jar', tastai 'bladder', sastu, n.pr. of a place, tshastup 'a

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- stj-: tastje 'saluting to mandarins'
- sth-: sthan 'I take out', taso sthide 'one morning'
- zd-: zdode 'later on', zdazen 'lunar eclipse', zdagaŋ 'a lama's robe'; -zd-: tazdek 'one section', wezdar 'its fat'
- sn-: snɔŋje 'festivals in the fourth and eighth lunar months', sneimok 'a kind of mushroom'; -sn-: kasnan 'trousers', wesenagwje 'her lover'
- snj-: kesnje 'good', wasnjaŋ 'I make it good'

With ʃ/z as first member:

- ʃt-: ʃtaŋ 'I hide, store away'; -ʃt-: teʃtu 'female sexual organ'
- ʃtj-: ʃtjaŋ 'I deposit'; -ʃtj-: uʃtjau 'you store away; he stores away'
- ʃth-: ʃthen 'I stretch'; -ʃth-: teʃtha 'girdle'
- zd-: zdaŋ 'I am afraid'
- zdj-: zdjaŋ 'I am afraid'
- ʃn-: teʃnapa, teʃʃapak 'lips'
- ʃnj-: ʃnjaŋ 'I return (something)'

With r as first member:

- rt-: rtam 'I fold', rteŋ 'I am unfortunate'; -rt-: tarta 'hoop', tʃhartan 'pagoda'
- rtj-: zertje, n.pr. of a place, tatartja 'a layer'
- rth-: kasarthom 'to put in order', takurthu 'hair of the head'
- rd-: rdap 'I untie', rdeŋ 'I am tired'; -rd-: narduŋ 'I meet', barda 'ringworm'
- rdj-: rdjaŋ 'I loosen'; -rdj-: pardjan lamu, n.pr. of a god, terdje 'the process of thatching a roof'
- rn-: ternom 'brain', tʃsharna 'rain', tarnom 'rib', kerneŋ 'silverfish (the insect)', ʃarna 'dysentery'
- rnj-: sewurnjaŋ 'I make it red', ternje 'ear'

With k/g as first member:

kt-: ktap 'I scatter'; -kt-: tektu 'belly; stomach', thaktan 'rent'

gd-: žagdeḡ 'a beam'

With p/b as first member:

pt-: ptep 'I hurt (someone)'

-ptj-: šeptjaḡ 'I remember'

pth-: pthaskur 'a head ornament made of coral'; -pth-: wapthis 'near his feet'

With m as first member:

-mt-: temto 'forehead', temte ši, 'name of a tree', emtui 'by the side'

-mtj-: kamemtje 'to talk in one's sleep'

-mth-: temthak 'waist', tamthan 'food: cooked meat and vegetables, but not rice', temthu 'hair of the head', emthe 'profit'

md-: mdaḡ 'it stings me', mdamje 'woman', mdak 'fashion, manner'; -md-: temdau 'nephew', temdar 'stinging', temde mu 'widow'

-mdj-: tamdjak 'once', temdje, n.pr. of a place

-mnj-: apamnje, 'name of a house'

With n as first member:

-nt-: kantu 'lying face up', žantan 'knowledge, learning'

-ntj-: ḡantje 'level'

-nth-: šantha 'a lama's shirt', tantha 'one drop'

nd-: ndut 'to have'; -nd-: sandai 'day after tomorrow', kendu, n.pr. of a place, žinda 'host' tsandar 'sandalwood'

nlj-: tsanjje, n.pr. of a place

With ḡ as first member:

-ḡd-: zḡdin 'puttees', tšapdar 'flint and iron for starting a fire'

-ḡdj-: stupdjan meto, name of a flower

-ḡnj-: snipnje 'festivals in the fourth and eighth lunar months', kareḡnje 'to hear'

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-ɣl:- tshapɣaɣ 'a hand bell'

(e) Dental affricates and fricatives:

With r as first member:

rts:- rtsiɣ 'I count'; -rts:- tartsu 'an insane person', kertsu 'the cold season,

-rtsj:- sertsje 'apricot', tertsje 'pulse'

-rtsh:- tertsha 'lungs'

-rs:- tersa 'life'

-rsj:- narsja 'to be ashamed', narsjaɣ 'I am ashamed'

-rz:- tarzek 'a section of a road', skarzaɣ meto, 'name of a flower'

With k/g as first member:

-kts:- tʃhaktso 'locust', tshaktsi 'a kind of bird'

-ktsj:- tektsje 'shoes'

ks:- kseɣ 'I roast'

-gzj:- pagzje 'food for pigs'

With p/b as first member:

-pts:- teptsiu 'marrow', keptsi 'arrow', taptsa 'armpit', taptsiu 'cushions'

ptsj:- ptsjemar 'a kind of bird', ptsjaɣ 'I hold, catch', ptsjeru 'coral beads';

-ptsj:- ʃaptsjja 'broom', taptsjja 'braid, queue'

ptsh:- ptshu 'lake, sea', ptshimje 'Hell', ptshin 'I lose money'; eptshi 'excrement',

saptshi 'turban', paptshiʃuʃu 'a kind of bird'

ptshj:- ptshjak 'to kowtow'; -ptshj:- taptshjar 'one sheet (of paper)'

bdz:- bdzaler, n.pr. of a place; -bdz:- tebdzu 'thorns'

-ps:- tʃshapsaɣ 'defecating'

With m as first member:

-mts:- temtso 'lunch', ramtsu 'button'

-mtsh:- wamtsher 'lying on one's side'

-mtshj:- kemtshjar 'beautiful'

-mdz:- kamdzo 'to fast', samdzen 'close your mouth!'

-ms:- kawamso 'wedge', tšamso 'a musk deer'

-msj:- zamsje 'saluting lamas'

With n as first member:

-nts:- rantsip 'I cut'

-ntsh:- nentshoj 'I lick'

-ntshj:- nentshjoj 'I lick', wantshjaɣ 'a cupboard for kitchen utensils'

-ndz:- tandzi 'a long, protruding tooth', tandza 'a little bit', kasatsendzak 'to connect'

With ɣ as first member:

-ɣts:- tateɣtsi 'one ch'ien (a unit of weight)'

-ɣs:- sapɣi 'breath'

-ɣz:- tšupɣo 'stone stairs'

(f) Labials:

With s/z as first member:

sp:- spat 'incense', span 'glue', sper 'shrub', spu 'roof', spemje, 'name of a tree'; -sp:- khaspa 'basket', taspu 'pus', waspar 'his capital', waspai 'underneath'

-spj:- džaspje 'much; many'

-zb:- tazbo 'brothers', wazbo 'its nest'

sm:- smanžo 'a lama's skirt-like garment', smanñipkhui, n.pr. of a place, smak 'wool', sman 'medicine', smerer 'a wild willow tree'; -sm:- ɣasmi 'ripe, cooked'

With s/z as first member:

sp:- spaɣ 'I know how to do it', sɣen 'I feed'; -sp:- khespet 'domestic animals'

-spr:- užaspret 'to change, become'

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ʃpj:- spjaɣ 'I am thirsty'; -ʃpj:- khaʃpje 'a kind of frog', deʃpjaɣ 'I am thirsty'

zɸ:- khazɸbalulu 'butterfly'

-zɸr:- tazɸbrok 'kicking'

-zɸj:- tezbje 'chin'

ʃm- ʃmoɣ 'I mix and knead the dough'; -ʃm:- raʃmiɣ 'I talk', teʃmi 'tongue'

With r as first member:

-rp:- tarpi 'chanting prayers', tarpom 'ice', terpet 'seed'

-rpj:- ʃarpe 'a kind of axe', taterpjɛt 'one catty', tarpjak 'shoulder', marpjaɣ 'I carry on my shoulder'

-rph:- terphu 'a fir tree', tekharpha 'cheek'

-rb:- lerbu 'jewel, precious object', terbo 'drum'

rm:- rmaɣ 'I sleep'; -rm:- termi 'man', tarmo 'dragon', termu 'hail', smermu 'specter', kharmu 'leather bellows'

-rmj:- karmje 'to sleep'

With k/g as first member:

-kp:- lakpat 'sleeve'

-kpr:- tekprei 'message'

-kprj:- ʃakprje 'meat dumpling'

-kpj:- tephakpjɛt 'thigh'

-kph:- takphu 'a flock', ʃakphu 'tree'

With m as first member:

-mp:- wempu 'outside'

mph:- mphaɣ 'I buy', mphoɣ 'I wrap'; -mph:- temphas 'vomitting'

mphrj:- mphrjen 'I repair'

mphj:- mphjaɣ 'I sell'; -mphj:- memphjaɣ 'I vomit'

-mb:- wembu 'his body'

-mbr-: tembra 'weeding', sambra 'a small spade'

-mbrj-: tšhimbrje 'temple'

-mbj-: tambje, n.pr. of a place

With n as first member:

-nb-: lenbu 'tribal chief', denbu 'going out'

-nbj-: lenbu karatanbje, 'a personal name'

With ɖ as first member:

-ɖp-: sɖpu 'calabash'

-ɖpj-: luɖpe 'place; valley', tuɖpje 'apron'

-ɖph-: kaɖphu, n.pr. of a place

-ɖb-: laɖbu tšhi 'elephant'

-ɖm-: tuɖmar 'a long trumpet', maɖmi 'soldier'

-ɖmj-: kuɖmje 'emperor'

7.

-i: khi 'dog', tši 'wheat; excrement', zdži 'wall'

-iu: tažiu 'face'

-is: wapthis 'near his feet'

-ir: tažir 'shadow; soul'

-ip: kartšip 'to bind, wind'

-im: zdžim 'cloud'

-it: waržit 'his shadow'

-in: zaɖdin 'puttees'

-ik: karantsik 'to cut'

-iɖ: tsiɖ 'I say'

-e: kwje 'kitchen', khre 'rice', khwje 'bedroom', stše 'a tripod which supports a pot', tšhe 'wine' rdže 'a wild mule'

-ei: khorei 'snake', nardžei 'we/you/they run'

The phonology of a Gyarong dialect

- eu: keu 'you buy; he buys'
- es: kapes 'tinder'
- er: ser 'drill, awl', sper 'shrub', nardžer 'we two/you two/they two run'
- ep: tep 'to sew', tekjep 'needle'
- em: tem 'I sew'
- et: terpet 'seed', tatarpjet 'one catty'
- en: slapen 'teacher', natjen 'to be placed somewhere', kapen 'you come here'
- ek: komtek 'bolt (of a door)', kanardžek 'to run'
- eɣ: kheɣ 'tiger', breɣ 'rhinoceros', nardžeɣ 'I run'
- a: kwa 'spade', zgra 'bracelet', ptshja 'kneeling', tersa 'life'
- ai: swai 'barley', zai 'ladder'
- au: temdau 'nephew'
- as: pas 'a wild animal similar to a pig', khepas 'a food fly'
- ar: khjar 'steelyard', sjar 'frost', tshjar 'mountain sheep', sar 'louse', wezdar 'its fat'
- ap: tap 'to beat'
- am: kam 'the colter of a plough', tšham 'a lama's dance'
- at: spat 'incense'
- an: span 'glue', brestan 'a cushion by the fireplace'
- ak: stšak 'eagle', prak 'rock', smak 'wool'
- aɣ: meɳaɣ 'cat', paɣ 'I do'
- o: tewo 'a pond where buffalos drink'
- oi: namoi 'your throat'
- or: kapkor 'to carry on one's back'
- om: škom 'a kind of deer', šom 'iron', kom 'door', žom 'pot, pan'
- ot: bot 'Tibet'
- on: nažon 'to wait for you'



- ok:     kasok 'to cut'  
 -oŋ     pkoŋ 'I carry on my back'  
 -u:     ʃku 'garlic', rgu 'a large rock', tʃu 'stone', dʒu 'bamboo', tshu 'stove',  
           ptshu 'lake; sea', spu 'roof'  
 -ui:     khui 'bowl'  
 -us:     wakus 'on his head'  
 -ur:     kapkur 'to carry on one's back'  
 -up:     tup 'to beat'  
 -um:     tum 'I beat'  
 -ut'     stut 'an image of Buddha', dut n.pr. of a cruel man (in legends), ndut  
           'to have'  
 -un:     rkun 'I put in'  
 -uŋ:     pkuŋ 'I carry on my back'