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THE VOWEL HARMONY IN THE SINHALA LANGUAGE

INTRODUCTION

The vowel harmony is a well-known concept in the linguistics. At the very first glance, one cannot but comprehend that in a word, every single vowel is used according to some specific rules, which are sure to influence one another, and no other vowel can be used instead of the one at its definite place without the change of the sense of the whole word.

As an axiom deduction, one can pre-see the following possibilities:

1. one syllable words v (unstressed vowel)/ V (stressed vowel);
2. 2 syllable words: a) Vv
 b) vV;
3. 3 syllable words: a) Vvv
 b) vVv
 c) vvV;
4. 4 syllable words: a) Vvvv
 b) vVvv
 c) vvVv
 d) vvvV;
5. 5 syllable words: a) Vvvvv
 b) vVvvv
 c) vvVvv
 d) vvvVv
 e) vvvvV.

The following list can be continued.

Before the closer study of the topic, one is to be aware of the fact that the Sinhala language is characterized by the melodic shifty stress or its essence, the opposition between long and short vowels, the Ablaut variants of the vowels and the syllabic alphabet which, of course, might impact the vowel harmony and can be a feature of all the leveled Indo-European languages.

The illustrated material which is taken for the research is, of course, in no way complete. There might be other not included instances, as the vocabulary under the survey is the most frequent and common one used in everyday speech, though not exhausted.

The methods used in the project study are various; from the methodological overall selection of the words and word-combinations to generalizing tables conclusions which could help to better understand the nature of the VH dependence. The words/word combinations were divided into groups according to the number of closed or opened syllables. The vowel dependence was investigated in the following ways

- a) even vowel inter-dependence within the limits of one word/word-combinations;

- b) vowel inter-dependence with the diphthongs in the vowel chain;
- c) consonant combinations occurrence in the VH inter-dependence chain;
- d) consonant doubling occurrences in such chains.

The problem of the VH is by no means a new one, though it has been done for different languages. If to start the research of the Vowel Harmony in the Indo-European Languages which the author has the access to, one should begin with the Sanskrit Language first for the reason of the language ancient nature and for the reason of the basis of the well-elaborated theory.

The only source found on the matter in the Washington Library in Chicago is “The Introduction to Sanskrit” by Vyaas Houston published by the American Sanskrit Institute in New-York.

The work has really a very interesting insight into the problem of the phonology of the language, the sounds description and the possibility of the reconstruction of the vowels nature deduction by means of prolonging of the basic simple sounds which really seem to explain the sound change chains. The author of the provides the classification of the sounds, well-known in other languages phonologies: 1) guttural; 2) palatal; 3) cerebral; 4) dental; 5) labial. Besides, the author investigates the following oppositions of the vowels: 1) one beat/one matra/ vs. two beats/two matras/, that is short vs. long vowels; 2) vibrated vs. non-vibrated; 3) strengthening/guna/ vs. non-strengthening vs. double strengthening /vridhi, i.e. expansion/; 4) simple vowel vs. blending of 2 vowels.

It is worth mentioning that the following originating vowel chains are analyzed:

a-i-u-yu

a-y-u-o

a-i-r-u

a-aha-i-i:-u-u:

If pronounced prolonged, the vowel **a** is said to make the other vowels. The **u** vowel is said to discontinue the vowel sounds chain.

The merit of the work lies also in the fact that the author of it points out the role of the tongue movement in the formation of the derived sounds from the basic one. The author distinguishes between 5 positions that enable to form new sounds. Especially noticeable are the ways to form the diphthongs by means of the “strengthening of the guna”. Thus,

a+i>ei, i>y(as the Ukrainian “u”),
a+i>ai (prolonging a>y>ai),
prolonging yy>ei, prolonging yi>ai;
i+i:>ai,
a+u>au>ou,
prolonging of ou > u(seen as the final limit of o),
u>u:>ou,

**u>o (guna of u/u),
y>i/i: (guna);
a+ou>ao**

Besides, the scholar investigates the following oppositions:

- non-aspirated vs. aspirated consonants
- vibrated vs. non-vibrated sounds
- short vs. long vowels

Also the pronunciation differentiation is taken into consideration: the rolling of the tongue, the backward drawing of the tongue, the blending of the vowels giving way to a diphthong, complete blending of 2 vowels, the “power” of the pronunciation, the strengthening and the double-strengthening of the vowel, discompletion of a vowel sound, expansion of a vowel, completion of a vowel sound. The author also distinguishes between the independent pronunciation of vowels and the special quality of vowels (accommodation) which enables the pronunciation of the following consonant.

Studying the problem of completing the vowels, the scholar points out their special accommodation feature (lips closing) which lies in ending the breath when the vowel is pronounced /anaswara/ and finishes with the consonants **m/h**. The following possibilities are observed: **a,u,u:,ai,o,au,ru,ri +M** and **a,a:, i, u, u:, o,ou, n, r, wr + H/H’**.

Observing the compatibility of consonants and vowels, the scientist differentiates the following cases:

- a consonant + **i:** **k, g, ch, dzh, t, th, d, dh, n, p, b, bh, m, y, r, l, v, s, sh, h + I**
- a consonant + **u:** **k, g, gh, ch, dzh, t, th, d, dh, n, m, y, exception r, l, v, s, sh, h + U**
- a consonant + **u:** : **k, g, gh, ch, dzh, dzhH, t, d, dh, n, p, ph, b, bh, m, y, exception r, l, v, s, sh, h + U:**
- a consonant + the diphthong **ei:** **k, g, gh, ch, chH, dzh, dzhH, t, th, d, dh, n, p, ph, b, bh, m, y, r, l, v, s, sh, h + EI**
- a consonant + **ai:** **k, g, gh, ch, chH, dzh, dzhH, t, th, d, dh, n, p, ph, b, bh, m, y, r, l, v, s, sh, shH h + AI**
- a consonant + **o:** **k, kh, g, gh, ch, chH, dzh, dzhH, t, th, d, dh, n, p, ph, b, bh, m, y, r, l, v, s, sh, h + O**
- a consonant + **au:** **k, kh, g, gh, ch, chH, dzh, dzhH, t, th, d, dh, n, p, ph, b, bh, m, y, r, l, v, s, sh, h + AU**
- a consonant + **a+M (anaswara):** **k,kh, g, gh, ch, chH, dzh, dzhH, d, dh, n, p, ph, b, bh, m, y, r, l, v, s, sh, h + AM**
- a consonant + **aha (vissaraga):** **k, kh, g, gh, ch, chH, dzh, dzhH, t, th, d, dh, n, p, ph, y, r, l, s, sh, h + AHA**

The philologist provides the following main deduction chains of vowels and consonants :

- simple vowels: **a>aha>i>i:>u>u:**
- diphthongs: **ei>ai>ou>au**
- consonants(guttural>hard>hard aspirated>soft>nasal): **ka>kha>ga>gha>na**
- palatal: **cha>chHa>dzha>dzhHa>nyaha**
- dental: **ta>tha>da>dha>na**
- vissaraga (+**AHA**): **taha>thaha>daha>dhaha>naha**
- labial: **pa>pha>ba>bha>ma**
- semi-vowels: **ya>ra>la>va**

- sibilants (+HA): **sha>shHa>sa>ha**

It's worth to know that the author tries to specify all the possible cases of the vowel-consonant, consonant-vowel and consonant-consonant combinations:

- a consonant +**R+vowel**: **k,g, dzh, tr, dr ,pr + RI : (IR in one word only "klrp")**
- compound syllabic consonants (a consonant + **a/o/e/**)
- **virama** (elimination of an inter-consonant vowel in the **-n(A)t->-NT-** group:" **shaNTa, shaNTi**")
- compound consonant guttural groups (**a+KK,KT,GD,GDH,GN,NK,N'K,NG,NGH+a;**
g /k+consonant+a (KY,KR,KL,KV,KHY,GY,GR,GL,GHY,GRHR
+a))
- siribro 1st member: 1) **a+TT/TTH/TSTS/NT/NTH/ND/NDH/NN"Y/NN+a**
- 2) **TY/TR/TV/DY/DR/DV/DHY/DHR/DVH/+ a**
- a dental consonant as the 1st member:
a+TH/TT/TTH/TP/TPH/TY/TR/TV/TSTS/THY/DG/DD/DDH/DV/DPH/DM/DY/DR/DV/NT/NTH/ND+a
- a labial consonant as the 1st member: a) **a+PT/PN/MN/MP/MB/MBH/MV+a**

b)**PY/PR/PL/PS/PHY/PR/PHR/BD/BR/BHY/BHR/MNMY/MR/ML+a**

- a semi-vowel as the 1st member:

a) **a+YY/RK/RKH/RG/RGH/LK/LP/LLY/LL +a**

b) **VY/VR+a**

- a palatal consonant as the 1st member:

a) **a+CHCH"/DZHDZH/NCH/NCHh/NDZH/NDZHh+a**

b) **GY/CHhR/G"Y/DZHY/DZHR/DZHV/+a**

- other possible vowel-consonant/consonant-vowel/consonant-consonant-vowel groups deduced are:

- a)**a+SH+consonant+a**
- b)**a consonant+a**
- c)**an aspirated consonant+a**
- d)**doubled consonant+a**
- e)**H+N/Y/R/L/V+a**
- f)**A+3 consonats+a: a+PSHM/KSHV/GDH/NGY/NDHKY/TTW/PPN/DDH/DHY**

TRY+a

The theoretical digest of the vowel-consonant dependence seems to be so much simple and complete as the scholar investigates the vowel usage with the dental consonants, the usage of the basic vowels and diphthongs in the 1st syllable and the thorough description of the Sanskrit vowels,- all this is a very important foundation for the specific researches in concrete languages.

In the 1st part we try to make a more or less complete survey of the vowel-consonant/consonant-vowel interdependence (which we call the VOWEL HARMONY) in the Sinhala language as the possible start of the further research in Romance, Germanic Slavonic and Baltic languages.

The new tendency in the research lies in the investigation of vowel influences within the limits of one word or one word-combination in accordance with the number of the word syllables.

VOWEL-CONSONANT DEPENDENCE PROPER IN SINHALA

The reason why the Sinhala language is taken as the first one to be investigated lies in the fact that there are many words the roots of which have close or identical correspondences in other Indo-European languages. For the comparison the following table is provided below:

Introductory Table A

<i>Sinhala</i>	<i>Languages</i>	<i>Examples (Transcription)</i>
sigahnnah	Rus.,Ukr.,Pol.	tsygan, tsigan
mahllee	Ukr.,Rus.,Pol	malyy, maly
kassah	Ukr.,Rus.	kashlyaty, kashlyat'
taahttah	Ukr.	tato, tatus'
mahrahnahya	Ukr.,Rus.,Pol.,Ital.,French	vmyraty, mary, mor, Moryevna, morire, morier
bahya	Ukr.,Rus., Pol.	boyatysya, bayatsa, boyats' sie, bats' sie
polowah	Rus., Ukr., Pol.	pol, pidloha, podloga
dhenahvah	Ukr., Rus., Pol., Czech	davaty, davat', davats', davat
parrahnah	Ukr.	Paranya (name)
rohsah paahtah	Rus., Ital., Engl., Ukr., Pol.	roza, rose, ruzha
vidhyaahvah	Ukr., Rus., Pol.	vidaty, vyedat', viedza
dhum	Ukr., Rus., Pol.	dym
ahenahvaah	Ukr., Rus., Engl., Germ.	vuha, ushy, (ahinyeya!), hear, horen
mahmah	Ukr.,Rus., Pol., Ital., Engl., Germ.	(indirect cases of "I"): mene, meni; myenya, mnye; mnie, mnou; mi, me; me; mich, mir
vihiluvah	Ukr.	"vyhylyasy"(fig.:joke)
yukthiya	Ukr., Rus., Latin, Engl.,Ital.	yustytsiya, yustitsyya, iustitia, justice, giustificare
dzeevithahyah	Ukr., Rus., Lettish, Pol.,Chech, Ital., French, Spanish	zhyty, zhyttya; zhyt', zhyz'n'; dzivs; zhyts', zhytsie; zhyvot; vivere; vivir

ahmmaah	Ukr., Rus., Pol., Lettish, Ital., Spanish, French, Engl., Germ.	mama; mamma; maman; mother; Muti
uthura	Rus.,Czech, Pol., Ukr.	utro, jitro, jutro, utrennya
nahhahyah (* nahsahya)	Germ., Ital., Ukr., Rus., Pol.	Naze, nazo, nis, nos
pirisidhu	Ital., Engl.	puro, pure
orahlosuwah (Portugese borrowing)	Ital., Spanish	orologio, oreloj
dhora, dhoruwa	Engl., Germ, Ukr., Rus., Pol	door, Tur, dveri, dvyeri, dzhvi
ekah-ekah	Engl.	each
aha	Germ.,Lettish,Ukr.,, Pol.,Rus.,Ital., Engl.,	Auge, auc, oko, occhio, eye
vassah	Germ.,Ukr., Pol., Rus.,Czech	Wasser, voda, vada, voda
Kaahmahrahyah (Portugese borrowing)	Ital., Ukr., Rus.,	kamera, kimnata, komnata
rahvum	Engl., Germ., Ital.,French	raund, rund, rotondo, retondo, rond
navah	Ital., Spanish, French	nave, naval, navir
veethiya	Ital.	via
mattah	Ital., Engl.	matto, mad
yahnnahvah	Ital., Span.,French,,Ukr., Rus., Pol., Czech	andare, andar, aller, yty, itti, is'ts', yit
dheviyah	Gypsy, Lettish, Ukr., Russ., Ital., Spanish, French	devlah, dehvs, dyv/dyvo, div/divo, Dio, Dios, Duh
kaahranaahvahthah	Ital, Spanish, French, Engl.	karo, sher, kaind
Aahdahrahyah kireemah	Ital., Spanish, French	adorare, adorer, adore
minisaah	Germ., Engl., Ukr., Russ., Pol.,Ital., Spanish, French	Mann, man, muzh/muzhchyna/muzhchina, monzh/menshchyzna, uwomo, ombre, ombr
nahmah	Germ., Engl., Ital., Spanish, French,Czech, Ukr., Russ.,Pol.	Name, neim, nome, nombre, nom, nameno, (-n)imya, (-n)imye, (-n)ymeno

The research is an attempt to study the vowel-consonant dependence in different types of syllables in accordance to their number in the most frequently used words in every day speech. It is believed, that

such a dependence does have peculiarities within every single word due to: a) the number of syllables; b) the type of the last syllable (opened/closed); c) the environment of every vowel (prior and following vowels and consonants and their combinations). So, let us take a closer look at the problem.

One-Syllable Words

The Sinhala one-syllable words seem to employ the strong stressed positioned vowels:

Cae : tae (to) in the postposition : miniha-tae (to the man)	AE
Ce.: ne. (no)	E.
Ce: ge (of) in the postposition: minihage (of the man)	
Cv: du (daughter), re (night), le (blood)	E, U
V only (e/ae) (of): kamerae (of the room)	
VV only (diphthong): ou (yes)	OU
e.y? (what's the matter?), interjection	E.Y
Cvv (consonant with a diphthong): koy? (which?)	OY
Me.y (May)	E.Y
CVC: cAc: pan (five)	A
cEc: mes (socks), tel (oil), beth(drugs)	E
clc: his (empty), nil (black)	I
cOc: pol (coconut)	O
cUc: nu.l (twine)	U.
Vc: en"/in" (from) kamerin" (from the room)	
te. (in) kamerete. (in the room)	

Two- syllable words

The two-syllable word harmony is represented by the following formulars:

cVcV: cAcA: kaha(yellow), paha(five), nama(name), vama(left), mama(uncle), hava(rabbit), gaha(tree), dhaha(thousand);	A-A
cAcE: hathe(hath), pane(lamp), haye(six), bage(half)	A-E
cAcE.: (numerous representation): (strong Ablaut e.): yate.(under), naye.(cobra), vame.(left), game.(village), gale.(rock), gane.(river), babe.(baby), sate.(animal), yate.(below)	A-E.
cAcI: hari(very), kasi(coins), madhi(not enough)	A-I
cAcU: malu(fish), ratu(red)	A-U

cEcA: deka(two), pera(guava)	E-A
cEcA: kh <u>ē</u> tha(ugly), h <u>ē</u> tha(sixty)	E.-A
c <u>ē</u> cE: p <u>ē</u> ye(hour)	<u>E</u>-E
cEcE: gene(about), lede(disease), deke(two), mese(table)	E-E
c <u>ē</u> cE.: (Ablaut): k <u>ē</u> le.(jungle), veve.(lake), k <u>ē</u> me.(food), thethe.(wet)	E-E.
cEcE.: hethe.(tomorrow), lene.(cave), vene.(another)	
c <u>ē</u> cl: v <u>ē</u> li(sand), dhehi(lemon), redhi(textiles), pethi(tablets), <u>ē</u> thi(enough)	E-I
clcA: bima(juice), miya(rat)/iotacism/, bila(bill)	I-A
clcE: dhige(along)	I-E
clcE.: dhige.(long), thihe.(this), siy <u>ē</u> .(hundred), mile.(cost)	I-E.
clcl: sini(sugar), kiri(milk), biri(deaf), hini(slim)	I-I
cOcA: nona(madam), hora(thief)	O-A
cOcE.: dore.(door), pothe.(book), gode.(hillock), kone.(corner), tote.(ford), sote.(animals), kote.(short), mode.(foolish)	O-E.
cOcl: kochi(train), podhi(small), kopi(coffee), hori(itch)	O-I
cOcU: loku(big)	O-U
cUcA. : putha.(son)	U-A.
cUcE: thune(three), mame.(I), mave.(me)	U-E/E.
cUcE.: mune.(face), dure.(distant), mude.(sea), thune.(three), kule.(caste), dure.(distant)	
cUcl: Juli, Juni	U-I
cUcU: lunu(salt), muthu(pearls), sudhu(white), kumu(dirt), mulu(full)	U-U

Closed two-syllable words (with a consonant at the end)

cEclc: hemin(slowly)	E-I
clcAc: nikan(just)	I-A
c <u>Q</u> cAc: p <u>Q</u> sAth(rich)	O-A
cAcAc: ganan(expensive)	A-A
clcUc/iotacism/: liyun(mail)	I-U
cUcAc: bulat(betel)	U-A

So, it's evident that the two-syllable words vowel harmony can be represented by 5 classes according to the number of the vowels. The vowel harmony dependence can be represented in this case as follows:

- I. A>A (stable strong vowel concordance)
 A> E (strong progressive reduction dependence)
 A>E. (strong Ablaut dependence)
 A> I (strong palatalisation dependence)
 A> U (strong historically developed wa dependence)
- II. E>E(stable strong vowel concordance)
 E>A (weak regressive vowel dependence)
 E>I (strong palatalization dependence)
 E.>A(weak regressive vowel dependence)
 E>E. (strong Ablaut dependence)
- III. I>I (stable strong vowel concordance)
 I>A (weak regressive vowel dependence)
 I>E (strong progressive reduction dependence)
 I>E. (strong Ablaut dependence)
- IV. O>A (weak regressive vowel dependence)
 O>E. (strong Ablaut dependence)
 O>I (strong palatalization dependence)
 O>U (strong wa historically developed dependence)
- V. U>U (stable strong vowel concordance)
 U>A (weak regressive vowel dependence)
 U>E (strong progressive reduction dependence)
 U>E. (strong Ablaut dependence)
 U>I (strong palatalization dependence)

Vowel harmony with the stable consonant groups

cA-KTH-I: shakhti (strength)	A-KHT-I
cU-NG-Ac: hungak(much)	U-NG-A
cl-NT-A: tinta(ink)	I-NT-A
cU-NCH-I: punchi(tiny)	U-NCH-I
cA.-SK-U: pa.sku(Easter)	A.-SK-U
cA-SN-E: rasne(hot/warm)	A-SN-E
cc-SN-E: prasne(question)	
c <u>E</u> -ST-iy /post-position diphthongisation/: l <u>e</u> stiy(ready)	E-ST-IY

The consonant groups in three-syllable words appearing after the initial vowels A,E, I, U (and, definitely, as an axiom, O) governed by them are restricted to the following sub-classes:

- I. A-KHT-
 A-SN-
 A- SK-
- II. E-ST-
- III. I-NT-
- IV. U-NCH-
 U-NG-

The above mentioned consonant groups are not taking any vowel, but only the definite ones:

KHT-I (palatalisation)

SN-E (reduced vowel final position)

SK-U (? reduced historic wa position)

ST-IY (diphthong-like iotacized final I position)

NCH-I (affricate palatalisation diminutive sense vowel)

NG-**A** (closed syllable accommodation position)

NT-**A** (fully accepted loan word final vowel form)

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Vowel harmony in the words with an initial vowel

AcA: aya(nanny), iye(yesterday) /iotacism/

A-Y-A/I-Y-E

AcU: amu(raw)

A-M-U

UcE.: ude.(above)

U-D-E.

A. Initial vowel words with the last closed syllables

A.cEc: a.yet(again) **A.-Y-E**

cA-TH-YA: nathya (drama)

A-(TH)-YA

l(cc)lc: ithin(then) / aspirated consonant/

I-TH-I

Vowel-diphthong harmony

Besides the common vowel harmony, one can trace the vowel-diphthong harmony, as follows:

cAc(VV): rahay(tasty)

R-AH-AY

c(VV)cE.:/Ablaut/: raume.(circle), paule.(family)

**R-AU-M-E.
P-AU-L-E.**

E.U-NATH

E.U-NATH

I. the initial diphthong E.U evokes A before N with the final TH in the closed syllable

Consonant doubling in the two-syllable words

Goes without saying, that investigating the vowel harmony, one cannot but pay attention to consonant variations as they also constitute a very important part in the vowel harmony processes. Among very common ones we should mention the consonant doubling, like in the following groups:

cA.-KK-I: sa.kki(witness)

A.-KK-I

cA-LL-E: malle(brother)

A-LL-E

cA-LL-E.: malle.(bag)

A-LL-E.

cA-LL-I: salli(cash/money)

A-LL-I

cA-NN-E.: ganne.(give), kanne.(eat), yanne.(go) /last-syllable vowel Ablaut/

A-NN-E.

cO-NN-E.: bonne.(drink)

O-NN-E.

cO-PP-E: koppe(cup)

O-PP-E

cU-PP-Ac: duppat(poor).

U-PP-AT

cA-SS-E: passe(later)

A-SS-E

cl-SS-U: pissu(mad)

I-SS-U

cA-TT-Ac: natthal(Christmas)

A-TT-AL

cE-TT-E: mette(mattress)

E-TT-E

cE-TT-E: hette(blouse)

E-TT-E

cE-YY-O: deyyo(good)/diphthongized semi-consonant doubling/ **E-YY-O**

Also in the words beginning with a vowel:

I-NN-E. : inne.(wait)

E-KK-O: ekko(either)

In the long run, the doubled consonants occurrences have well-established regularities:

- 1) –KK- is used between the 1st vowel A and the 2nd palatalizing vowel I (s-KK”);
 - a) -KK- is also used between the 1st initial vowel E and the 2nd vowel O [wa];
- 2) –LL- is used after the 1st constant for the doubled consonant vowel A and the 2nd variable vowel E/E./I (m/s-LL-);
- 3) – NN- is used between the 1st vowel A/O[wa] and the 2nd vowel E. (g/k/y-NN-)/(b-NN);
 - a) –NN- is also used after the 1st initial vowel I before the second Ablaut vowel E. ;
- 4) –PP- is used after the 1st vowel O/U [wa] and the second E/A[in a closed syllable] (k/d-PP-t[in the closed syllable];
- 5) –SS- is used between the 1st vowel A/I and the 2nd vowel E/U (p-SS-);
- 6) –TT- is used between the 1st vowels A/E/E/ and the 2nd vowels A/E (h/m/n – [I in a closed syllable];
- 7)–YY- is used after the 1st vowel E and the 2nd O [historical “wa”];
- 8) –PP- is used after the 1st vowel O [wa] and the 2nd vowel E (k-PP-).

Thee-syllable words vowel harmony

The three-syllable words are represented by the following groups of consonant-vowel harmony:

cAcE.cAc: tave.mat (yet)

A-E-A

cAcEcE: janele(window)

A-E-E

cAt-INE.: vatine.(valuable)

A-I-E.

cAcIsl: hadhisi(sudden)	A-I-I
cAcAcE.: mahathe.(fat)	A-A-E.
cARA-YE.: varaye.(jetty)	A-A-YE.
RAcAcE.: rahase.(secret)	(R)A-(H)A-(S)E.
cAcUvE.: lanuve.(rope)	A-U-(V)E.
cAURU.cAc: kauru.vath(???)	AU-U-A
cAcANAN: tahanan(???)	A(H)-A(N)-A(N)
cAYE.SE. : vaye.se. (age)	A-(Y)E.-(S)E.
cAcAmE.: vahame.(immediately)	A-(H)A-E.
cAcAvE.: bashave. (language)	A-A-E.
cARAYE.: varaye. (harbour)	A-(R)A-(Y)E.
cARE.HA: hare.ha (across)	A-(R)E.-(H)A
cARE.cE. : hare.ke. (bad)	A-(R)E.-(K)E.
cAcEcE. : kagedhe. (whose)	A-(G)E-(DH)E.
cAthere: pathere (newspaper)	A-(TH)E-(R)E
cAcI-YE.: patiyē. (belt)	A-I-(Y)E.
cAcUcA: makuna(bug), daruva(child)	A-U-A
cAcUcE: katuge (museum)	A-U-E
cA-KURU: kakuru(jaggery)	A-U-U
cA-MP-UVē: lampuve (lamp)	A-U-(V)E
cA-NTH-IYE. : panthiye. (class)	A-(TH)I-YE.
Machuca: ya.luva (friend)	(Y)A.-U-(V)A

YAT-URE.: yature.(key) /iotacism/

cE.cE.cE. : ve.le.te. (to the rooms)

cE.cE.RE. : gedhe.re (home)

cEcEcl: deveni (second)

cE.cE.cl : ve.re.dhi (wrong)

cEcE.CAC: vede.gat (important)

cE-SI-YEN : lesiyen (easily)

clcEcE.: kiyedhe.(what/how much)

clcEcl: visheshi(special)

clclYE: nithiye(law)

clclYE.: pihiye. (knife)

clclmE: pilime(statue)

clcE.RAY: vithe.ray(only)

clcE.RE.: nithe.re.(often)

clcUcA: vikuna(sell)

clcUcU: kilutu(dirty)

cOcAYE: modaya(idiot)

cOcE.E: moke.e.(what”s wrong)

cOcE.cE: bothe.le(bottle)

cO.cE.cE.: lo.ke.dhe.(bronze)

cOclcE: polimi(queue)

JOc-UVE: joduve.(pair)

cUcA-YE.:thuvaye.(towel)

(Y)A-(T)URE.

E.-E.-E.

E-E.-E

E-E-I

E.-E.-(DH)I

E-E.-A(c)

E-(S)I-(Y)E(N)

(K)I-(Y)E-(DH)E.

I-(SH)E-(SH)I

I-(TH)I-(Y)E

I-(H)I-(Y)E.

I-I-(Y)E

I-(TH)E.-(R)AY

I-(TH)E.-(R)E.

(V)I-(K)-U(N)A

I-U-U

O-A-(Y)A

O-E.-E

O.-E.-E.

O-I-I

O-U-(V)E.

U-(V)A-(Y)E.

cUcA.cE: tuva.le(injury)	U-(V)A.-E
cUclcEl: bu.mitel(kerosene)	U.-I-E(c)
cUclYE: kuliye(rent)	
DUR-cE.ce: durle.be(rare)	U-E.-E
DHUR-vE.IE.: dhurve.le(weak)	
Ru-cE.cE.: ruke.de.(puppet)	U-E.-E.

As is seen from the examples, the vowel harmony depends very often on the consonant environment. Thus, there two groups which undergo the palatalization: **dhi** and **thie**. .

The iotacism is observed in the following groups: **ya, ye, yen**. The sound gradation regularities give us the possibility to come to the following colclusions: 1. if the preceded syllable is palatalized, the second one is iotacized (**si-yen, thi-ye, hi-ye**) ; the second syllable can also be in the strong position, if an isolated **i** precedes it: **i-the**; if the preceded vowel is an isolated **a**, the following iotacized syllable is sure to include **a**: **a-ya**.

2. consonant monitoring process is observed: a preceded **v** is sure to evoke the **u** in the following syllable: **v > u**: **vikuna**; the vowel monitoring process presents a reversed process: **u** evokes **v** in the next syllable before an **a**: **u > v**: **u-va**.

Consonant doubling

cE-cl-CC-I : velicci (dry)	E-I-(CC)I	
clcA-DDH-E. : kiyaddhe. (how many)	I-(Y)A-(DDH)E.	
(VV)-RU-DDH-E. : auruddhe.(year)	(AU)-(R)U-(DDH)E.	
SA-c-IKKA: sadhikka(nutmeg)	(S)A-(DH)I-(KK)A	
cOc-iKKi: bonikki(doll)	(B)O-I(KK)I	
c-ANN-E.vA: danne.va (know)	(D)A-(NN)E.-(V)A	
cAcA-NN-E. :balanne.(look), hadhanne.(make), hapanne. (bite), vahanne.(close), mahanne.(sew)	A-(L)-A(NN)E., A-(DH)-A(NN)E., A-(P)-A(NN)E., A-(H)-A(NN)E.	A-
cAcI-NN-E. : badinne.(fry), ganinne. (count), paninne.(jump)		

	A(D)-I(NN)E., A(N)-I(NN)E.
cEc-ANN-E. : gevanne.(pay)	E(V)-A(NN)E.
clR-ANN-E. : kiranne.(weigh)	I(R)-A(NN)E.
c-UN-cENI: thunvenni(third)	U(N)-(V)-E(NN)I
clc-ANN-E. : pinanne.(swim)	I-(N)-A(NN)E.
cl-YA-NN-E: liyanne.(write)	I-(Y)A-(NN)E.
YAV-ANNE.: yavanne.(send)	(Y)A-(V)-A(NN)E.
cOc-ANN-E. : hodhanne.(wash)	(H)-O(DH)-A(NN)E.
c-ASS-E.cE.: lassene.(pretty/beautiful)	A-(SS)-E.(N)E.
clcl-SS-U: minissu (people)	(M)I-(N)-I(SS)U
cETT-IYE.: pettiye.(box)	(P)-E(TT)-I(Y)E.
cl-TTH-E.RE: bitthere (egg)	(B)-I(TT)-E(R)E
cO-TT-IYE. : pottiye. (box), toppiye.(hat)	(P)-O(TT)-I(Y)E., (T)-O(PP)-I(Y)E.

The doubled consonants appearing in the middle or at the end of the words, disclose the vowel acceptance harmony, giving not only the specific Indo-European refine to the language, but also revealing the regularities which might be similar for many languages.

The most important of them are: **l-iCCi**, **dh-iKKa**, **n-iKKi**,
d-aNNe.-va, **dh-aNNe.**, **d-iNNe.**, **h-aNNe.**, **l-aNNe.**, **n-iNNe.**,
p-aNNe., **v-aNNe.**, **r-aNNe.**, **v-eNNi**, **s-eNNe.**, **y-aNNe.**
y-aDDHe.
t-oPPi, **n-iSSu**, **b-iTTe.**, **p-eTTi**, **p-oTTi.**

In other words, **L+ i+CC+i**
DH+i+KK+a
N+i+KK+i
D/DH/H/L/N/P/R/V/Y+a+NN+e.
Ya/Ru+DDH+e.
S+e.+NN+e.
V+e+NN+i
D/N+i+NN+e.
T+o+PP+i

N+i+**SS**+u
P+**e**+**TT**+i
B+i+**TT**+e
P+**o**+**TT**+i

Consonant groups in the three-syllable words

cU-MB-IYA: ku.mbiya(ant)	U.-(MB)I-(Y)
cE-MB-U-RU:gemburu	E-(MB)U-RU
cOcE-NDH-E. : kohendhe.(where from)	O-(H)E-(ND)E.
c-ANS-E.le: panes.le. (temple)	(P)-ANS-EIE.
ANT-IME. : antime.(last/final)	ANT-ImE.
cUc-ENG-A: kulenga(wind)	kUI-ENG-A
c- <u>E</u> NK-UVA: <u>b</u> enkuva(bank)	b-ENK-UvA (borrowing)
ING-URU: inguru(ginger)	ING-URU
ISK-OLE: iskole(school)	ISK-OIE (borrowing)
c-INT-URE: pinture(picture)	p-INT-URE (borrowing)
c <u>E</u> -KS-IYE. : <u>t</u> eksiye. (cab)	<u>E</u>-(KS)I-(Y)E.
ST-UT-IY: stutiy(thank you)	ST-Ut-IY
cA.-ST-UVE: ga.stuve(fee)	gA.-ST-UvE
cA-NTH-IYE. : panthiye. (class)	A-(NTH)I-(Y)E.

The mostly used consonant groups are: U+**MB**
E+**MB**
E+**ND**
A+**NS**
A+**NT**
E+**NG**
E+**NK**

E+NK
 I+NG
 A+NTH
 I+NT
 I+SK
 O+ST
 A.+ST

The consonant groups in three-syllable words are represented by stable consonant merges like **th(i)**, **ks(i)**, **mb(u)**, **mb(i)**, **nd(e)** which usually constitute the core of the word, that is the second or the third syllable.

Besides, there can be outlined some most productive suffixes of the group:

-ime., **-uva**, **-uve.**, **-ure**, **-uru**, **-ele.**, **-ole**, **-iy** the variants of which can be sure found in other Indo-European languages.

Vowel harmony in three-syllable words initiating with a vowel

The three-syllable words beginning with a vowel have their own regularities:

Vcc-ARE: adhare(love)	A-(dh)-ARE
Vc-ARU: amaru(difficult)	A-(m)-ARU
VRAcE: arame(monastery)	A-(R)-A(m)E
VcUcE.: agule. (look)	A-(g)-U(l)E.
VcURE.: akure. (letter)	A-(k)-URE
VcUcU; amuthu(unusual)	A-(m)-U(th)U
(V.V)cOcAc: a.y bovan (hello)	(A.Y)-(b)O-VAN
VcE.cE.: eke.me. (same)	E-(k)E.-(m)E.
VcE.cE. : eke.te. (together)	E-(k)-E.(t)E.
VcOcU: elolu (vegetable)	E-(l)-O(l)U
<u>V</u> cUcE: <u>e</u> thule (inside)	<u>E</u>-(th)U-(l)e
(V.V)cAc: e.unath (but)	E.U-(n)A(th)

As seen from the table above, the vowel harmony has restricted rules which are dictated by the preceded consonants and very often determine the last but one and the last syllable vowels:

1. A-DH-A-RE
A-K-U-RE
A-M-A-RU
A-M-U-DH-U

A-R-A-ME

2. E-G-U-LE
E-TH-U-LE

3. E-K-E.-ME.
E-K-E.-TE.

4. E-L-O-L-U

5. A.Y-B-O-VAN

Thus, **A) I. the initial A** before DH/M evokes A in the last but one syllable and E before R in the last one, the latter might be considered a strong ? rotacism position;

II. the initial A before M evokes A in the last but one syllable and U before R in the last one, which may also be considered a strong ? rotacism position:

III. the initial A before K evokes U in the last but one syllable and E before R in the last one, ? due to rotacism;

IV. the initial A before M evokes U in the last but one syllable and U before the aspirated DH;

V. the initial A before R evokes A in the last but one syllable and E before M;

B) I. the initial E before G/TH evokes U in the last but one syllable and E in the last one before L (strong position);

II. the initial E before K evokes E. in the last but one syllable and E. in the last opened one;

III. the initial E before L evokes O in the last but one syllable and U before L in the last one;

C) I. the initial diphthong A.Y before B in the last but one syllable evokes O and A after V, before N in the last one, in the productive suffix –VAN.

Consonant doubling in three-syllable words beginning with a vowel

In the three-syllable words beginning with a vowel, one can also observe consonant doubling as in the examples below:

VccERE: addere (beside)

A-(DD)-ERE

VcANNE.: ahanne. (ask)

A-(h)-ANNE.

VYANNE. : uyanne. (cook)

U-(Y)ANNE.

VRINNE.: arinne. (open)

A-R-INNE.

VcICHCHI: idhichchi (ripe)

I-(dh)-ICHCHI

VcUTHTHA. : amuththa. (guest)

A-(m)-UTHTHA.

1. The usual initial vowel in the three-syllable words is A after which is followed by the syllable with a consonant including the vowels A of iotaced YA, E, I or U which are preceded (with the exception of YA) by a consonant, predominantly single or aspirated.
2. If the second syllable contains the vowel A, E or I and the preceded consonant is not an aspirated one, then the last vowel in the doubled consonant group is E/E. . If it is an aspirated one like DH, then the final vowel is I.
3. If the second syllable contains the vowel U after the labial M, then the final vowel after the doubled consonant is A. .

In the whole, three-syllable words with the doubled consonants can be divided into 4 groups:

- I. A-DD-ERE
- II. A-H-ANNE.
U-YANNE
A-R-INNE.
- III. I-DH-ICHCHI
- III. A-M-UTHTHA.

The four-syllable words vowel harmony

The four-syllable Sinhala words vowel harmony is represented by the following groups:

cAcEcInI. – badegini. (hungry)	-GINI	A-E-I-I.
cAc <u>E</u> cEnI – pale <u>v</u> eni (first)	-VENI	A-E-<u>E</u>-I
cAcIcE.VA – vahine.va (rain)	-E.VA	A-I-E.-A
cAc cEcIYE. –pan gediye. (loaf of bread)	-IYE.	A E-I-YE.
cAcAYE.cE. – tanaye.me. (rest-house)	-YE.ME.	A-A-YE.-ME.
cARAcUVVE. – parakuvve.(delay)	-UVVE.	A-(R)A-(K)UVVE.
AcE.NIPE - ase.nipe (iones)	-IPE	A-(S)E.-(N)IPE
AcU cAcE. – alu pate. (grey)	-U -ATE.	A-U A-E.
cAYAcE.cE. – bayane.ke. (dangerous)	-E.KE.	A-(Y)A-(N)E.
cAYE.cE.KE. – vaye.se.ke. (old)	-E.KE.	A-(Y)E.-(S)E.KE.
c <u>E</u> cE.cE.CAC – d <u>e</u> ne.te.mat (already)	-MAT	<u>E</u>-E.-E.-MAT
UVE.cE.NA – uve.ce.na (necessary)	-E.NA	U-E.-E.NA
c <u>E</u> cEcE.VA – v <u>e</u> tene.va (fall)	-(N)E.VA	<u>E</u>-E-(N)E.VA
c <u>E</u> cEcIlI – ph <u>e</u> hedhili (clear)	-E(DH)ILI	<u>E</u>-(H)E-(DH)ILI
clcEcE.cE. – nitere.me. (always)	-E.RE.ME.	I-E.-(R)E.ME.
clRISlCU – piri <u>s</u> idhu (clean)	- I(DH)U	I-(R)I-(S)I-(DH)U
clcIYE.ME. – sithiye.me. (map)	-I(YE.)ME.	I-(TH)IYE.ME.
<u>E</u> cUc clcE. – <u>e</u> tul vime. (entrance)	-UL -IME.	<u>E</u>-U I(M)E.
cOcEcARI – kohehari (somewhere)	-EHARI	O-(H)E-(H)ARI
cUcUc c <u>E</u> – mukut n <u>E</u> (nothing)	- UT NE	U(K)U(T) (N)<u>E</u>

The provided examples give us the possibility to draw the following conclusions:

- a. The whole stock of the investigated words can be roughly divided in 2 groups: a) simple words and complex words consisting of two stems, two words in fact, in which there might be quite a different regularity of the vowel harmony;
 - b. These words can be subdivided into 5 groups, namely:
- I. the words the initial vowel of which in the chain of the vowel-consonant dependence is **A**:

A-E-I-I. -GINI. badegini.

A-E-E-I -VENI paleveni

A+E-I-(Y)E. -I(Y)E. pan gediye.

A-A-(Y)E-(M)E. - (Y)E.(M)E. tanaye.me.

A-(R)A-(K)UVVE -UVVE parakuvve.

A-(Y)E.-(S)E.-(K)E. -E.KE. vaye.se.ke.

A-(Y)A-(N)E.-(K)E. -E.KE. bayane.ke.

A-U A-E. -U -ATE. alu pate.

A-(S)E.-(N)IPE -IPE ase.nipe

As seen from the examples provided above,

1. the first A following a consonant has a stable concordance in the 2nd syllable after N followed by a iotized E., after R, after Y;
 the first A has a depended strong positioned E after the 2nd syllable D, L, G;
 the first A has a depended strong positioned E. after Y and S;
 it has a depended wa historical U after the vowel L at the end of the first part of the complex word in the opened syllable.
2. The 3rd syllable has I after G, D and N which are palatalized by this vowel;
 E. is used after S, N (after the two previous A's), P / Ablaut dependence/;
E after V before the 2nd syllable E./ a stable concordance position/ ;
3. The last three-syllable word vowel is;
 - E before the previous syllable I /a strong final reduced dependence/;
 - E. before the previous syllable A, E., I (preceded by D), U /Ablaut dependence/;
 - I before the previous syllable E / a strong near-Ablaut dependence /;
 - I. before the previous syllable I preceded by the palatalized by it G / a strong Ablaut-like dependence position/.

II. Vowel harmony in four-syllable words containing diphthongs

cAURUcARI – kauruhari (somebody) **-HARI AU-(R)U-A-I**

cEcAUPIYA – dhemaupiya (parents) **-IYA (DH)E-AU-(P)IYA**

The diphthongs in the four-syllable words undergo special harmony dependence under the influence of both vowels and consonants.

As the example, the diphthong AU before the consonant R influences the next syllable in such a way that the vowel U is used in the 2nd syllable. But it doesn't impact the 3rd one, as after H the vowel A is used. In the last syllable, after the consonant R the final vowel I is used.

In the 2nd instance, the diphthong AU is used after the consonant M before the sound combination of the consonant DH and E. The 3rd syllable is represented by the palatalized by the vowel I consonant P; the last one is an iotized A = YA.

III. Consonant combinations in four-syllable words

Four-syllable words employ very often consonant combinations as provided below:

I-KM-E.cE.cE. - ikme.ne.te.(quickly) **-KM -E.TE.**

cA-MB-E. – hambe. (???) **-MB -E.**

RE-ND-E.cAcI – rende.pati (lace) **-ND -ATI**

cA-NG-E.R-AVE. – sange.rave. (journal) **-NG -AVE.**

cAcA-SP-AcA. – davaspatha. (daily) **-SP -ATHA.**

O-RL-OS-UVE. – orlosuve. (clock) **-RL /borrowing/ -UVE.**

The regularities of the usage of the above-mentioned consonant combinations are the following:

1. –KM- is used after the initial vowel of the 1st syllable I-, before –NE. which makes a part of the ending –E.TE. ;
2. –MB- is used after the 1st syllable sound combination HA- followed by the ending –E. ;
3. –ND- is used after the 1st syllable sound combination RE- followed by- E.P- and the ending –ATI ;
4. –NG- is used after the 1st syllable sound combination SA- followed by –E.- and a part of the ending –RAVE. ;
5. –SP- is used after the 1st and the 2nd syllables consonants combined with –A- (DAVA-) followed by the ending –ATHA. ;
6. –RL- , a borrowed consonant group preserved in the Sinhala variant is used before the 1st syllable vowel O- followed by another foreign –O- and the ending –UVE. .

IV. Consonant doubling in the four-syllable words

Doubled consonants are represented by the instances as follow:

cEcEc <u>E</u> -LL-A – pene <u>h</u> ella (lung)	<u>E</u> -LL-A	<u>E</u>-A
cA-NN-A—cIYE. – kanna-diye. (mirror)	A-NN-A+DIYE	A-A-IYE/palatalisation/
clcA cA-NN-E. – nidha ganne. (sleep)	A-NN-E.	A-E. /Ablaut/
cOcA-NN-E. – hodhanne. (wash)	A-NN-E.	A-E.
clcUcA-NN-E. – vikunanne. (sell)	A-NN-E.	A-E.
cE-NN-E. – venne. (meet)	E-NN-E.	E-E./Abl./
Ac cldhi-NN-E. – ath vidhinne. (vaccinate)	I-NN-E.	I-E.
<u>E</u> cIDHI-NN-E. – <u>e</u> vidhinne. (walk)	I-NN-E.	I-E.
c <u>E</u> <u>E</u> -PP-UVE – gere <u>pp</u> uve (???)	<u>E</u>-PP-UVE	<u>U</u>-U-E/gradation/

cAcE-SS-E.MEN- pare.sse.men (carefully)
E-E.-E /leveling/

E-SS-E.MEN (compare with the Italian suffix – MENTE

I-SS-E.RE.cA- isse.re.ha (front)

I-SS-E.-RE.-HA **I-E.-E.-A**
 /levelling/

cAcU-SS-IYE.- kakhussiye. (lavatory)

U-SS-IYE. **U-I-YE.**
 /palatalisation/

cO-TT-AcE.cE. – bottame.me. (button)

O-TT-AME.ME. **O-A-E.-E.**
 /Ablaut/

cE.RAcO-TT-A – ke.rapotta (cockroach)

O-TT-A **O-A**
 /gradation/

cAcA-THTH-A-NN-E. – navaththanne. (stop)

A-THTH-A-NN-E. **A-A-E.**
 /Ablaut/

A-LP-ENE-THTH-E. – alpeneththe. (pin)

A-LP- E-THTH-E. **A-E-E.**
 /Ablaut/

cA-THTH-U cA-THTH-E- saththu vaththe (zoo)

A-THTH-U **A-THTH-E** /Ablaut/

The above-provided examples give us the possibility to draw the following conclusions:

- 1) the doubled –LL- appears between the one but last and the last vowels E and A = E-LL-A;
- 2) the doubled –NN- in the majority of the cases appears in-between the vowels A and E. at the end of the four-letter word before the consonants G, H, K: G/H/K+A-NN-E. ; one example was found when the –NN- appears between the 1st vowels of the word A before the consonant K: K+A-NN-A;
- 3) –NN- is used at the end of the word, between the vowels E and E. , before the consonant V: V+E-NN-E. ;
- 4) –NN- is also used before the vowels I and E. , like in the case with E-NN-E. , before the palatalized DH: DH+I-NN-E. ;
- 5) –PP- is used between E and U (primitive wa), at the end of the word, before the consonant R: R+E-PP-UVE;
- 6) –SS- appears either between the 2nd and the third vowels, in the middle of the word, between E and E. , before the consonant R: R+E-SS-E. , or between the 2nd and the 3rd vowels of the word U(wa) and I, before the consonant KH: KH+U-SS-I+YE. (iotized Ablaut), or at the beginning of the word initialing with the vowel I, after the vowel E. : I-SS-E.+RE. ; In two cases the role of rhotasism is hardly to be underestimated: R+e-SSe. , I+SS-e.+Re. (the reversed process of the R-S interchange);
- 7) –TT- is used either between the 1st and the 2nd vowels O and A at the beginning or at the end of the word before the labio-label consonants B and P;
- 8) –THTH- between the 2nd and the 3rd vowels of the words A and A or between the 3rd and the 4th syllables E and E. , or in a complex word of the sound imitation word, between the 1st and 2nd , and between the 3rd and 4th vowels A and U, A and E before the consonants N (e-e), V (a-a), V (a-e), S(a-u): N+e-THTH-e., V+a-THTH-a, S+a-THTH-u V+a-THTH-e .

The five-syllable words and word combinations vowel harmony

The five-syllable words (predominantly, word combinations consisting of two words having one notion /compound words/) have the following peculiarities in the following groups:

I. words beginning with a vowel:

AcA.RAcURA. – atha.rathura. (between) - **A-A.-RA-TH-URA**

A.DHlAcA.cl.NA – a.dhika.li.na. (ancient) - **A.-I-A-I-A**

AcI.EM EKA – eti.em eka (automatic teller, ATM) **E-I.-E E-A**

icAcAc cOc-DHA – itha.math hondha (best) **I-A-A O-A**

ORAcOSUWA – oralosuva (alarm clock) **O-A-O-U-A**

UpA DHlAcAYA – upah dhinaya (birthday) **U-A I-A-YA**

As seen from the above, in the words/word combinations beginning with a vowel, the following vowel harmony regularities are employed:

1. the 1st syllable A is followed by a long A in the 2nd syllable and short A in the 3rd after the consonant R, followed by U after TH and another A after R in the last syllable;

2. the 1st syllable long A. is followed by the 2nd syllable I palatalizing DH (which is a common feature), by the 3rd syllable long I palatalizing L and by the last syllable long strong-positioned A. after N;

3. the 1st syllable E is followed by the palatalized by a long I T followed by E in the 3rd closed syllable in the 1st part of the compound word, by E in the 1st syllable in the 2nd part of it and A after K in the 2nd syllable of it in the suffixed article “EKA”;

II. words beginning with a consonant:

cAcA cUREcIN – kala turekin (seldom) **A-A U-(R)E-kin A-A U-E-I**

cAcAHAcA.RI – kalahaka.ri (aggressive) **A-A-(h)A-A.(R)I A-A-A-A.-I**

cAcAcIcAmA – samavitama (always) **A-A-(v)I-A-A A-A-I-A-A**

cAYA cEcAVA – bahya. venava. (be afraid of) **A-YA. E-A-(v)A.**

A-(y)A. E-A-(v)A.

cANE cAcERE – nane kamere (bathroom) **A-E A-E-E**

cAcl cEcAcA.- haki venava. (be able) **A-I E-A-A.**

cAcURU dEcE– maduru dele (mosquito net) **A-U-(r)U E-E**

cEREcEcADHE – therenevadhe (understand) **E-(r)E-E-(v)A-(DH)E E-E-E-A-E**

cIYUc cAcERE – liyun kavERE (envelope) **(I)I-YUN A-(v)E-(R)E
I-(y)U A- E-E**

DHI-cA YadhA.cATH – dhina yodha.gath (appointment)
**(dh)I-(n)A YO-(dh)A.-(g)ATH
I-A (y)O-A.-A**

clSHA cA.SHAcA – visha na.shaka (antiseptic) **(v)I-(sh)A A.-(sh)A-(k)A
I-A A.-A-A**

cURA.VASTHUKA – pura.vastuka (archeological) **U-(R)A.-(v)A-(STH)U-(k)A
U-A.-A-U-A**

The five-syllable words and word-combinations follow the regularities as they are shown below:

WORDS BEGINNING WITH THE 1ST SYLLABLE VOWEL A:

1. 3 following one another leveled A's with the last(4th syllable) long A. demand an I in the 5th syllable after the consonant R;
2. the 1st syllable A takes the 2nd syllable iotized long YA before H, the next part of the complex word begins with the 1st syllable A after V which takes consequently A after N and long A. after the consonant V (the usual syntactic part of complex words “venava.”;
3. the 1st syllable A after N takes the Ablaut strong E in the 1st part of the complex word, the 2nd part begins with the 1st syllable A after K which is followed by E after M and E after R;
4. the 1st syllable A after H in the 1st part of the complex word is followed by the 2nd syllable I after palatalized K {evident is the consonants interdependence chain of H(a)-K(i) }; the 2nd part of the complex word “venava.”, as the common part of the many analogies is formally preserved characterized by the last syllable strong (long) vowel A. position;
5. the 1st syllable A after M is followed by U after D and U after always strong R in the 1st part of the complex word, while the 2nd part of the word-combination has a leveled E vowel position after the consonants D and L;

WORDS BEGINNING WITH THE 1ST SYLLABLE VOWEL E:

This group of words is represented in the limited common speech language only by one example, as seen from the above provided words.

It is characterized by the following vowel harmony regularities:

The 1st syllable E after TH is followed by a leveled E after the strong R and the strong Ablaut E after N followed by A after V (which usually takes this vowel), and the strong Ablaut E after the aspirated DH.

WORDS BEGINNING WITH THE 1ST SYLLABLE VOWEL I :

1. The 1st syllable I after the consonant L usually takes Y. In our example, the latter is followed by U closed by the consonant N in the 1st part of the complex word. The 1st syllable of the second part of it is represented by A preceded by K, the 2nd syllable strong E used before the consonant V is followed by the E before R (evidently, it's the English loan word "cover");
2. The 1st syllable I palatalizing DH (a common feature) is followed by A after N in the 1st part of the complex word, and iotized O in the 1st syllable of its 2nd part which is followed by a long A. after the aspirated DH, and A after G closed by the consonant aspirated TH;
3. The 1st syllable I after V is followed by A after the affricate SH in the 1st part of the complex word, which is proceeded by A after N and the last syllable A before K (the common suffrigated article –AKA/-EKA).

WORDS BEGINNING WITH THE 1ST SYLLABLE VOWEL U :

The previous example provide us with only one instance of this model characterized by the following regularity:

The 1st syllable U after P is followed by a long A. after R, and the 2nd syllable A before V, proceeded by U after the consonant combination STH and finishing by the last syllable A before K (suffrigated article – UKA, an assimilated variant of –EKA).

II. WORDS WITH A DIPHTHONG

In fact, there were only two examples with diphthongs found:

cAlclcAlAYA – baisikalaya (bicycle) /an English loan word/ **AI-I-A-A-YA**

UdhAU kErE-NN-E (help) **U-AU E-E-E**

So, as we can observe, the English loan word has preserved in Sinhala only stem: baisikal-, the ending is a common Sinhala one : -aya which corresponds the morphological rules of the language and preserves the specific Sinhala harmony.

The second instance employs the diphthong AU in the second syllable after the aspirated DH, at the end of the 1st part of the complex word.

II. CONSONANT COMBINATIONS

The consonant combinations are represented by the following examples:

I-KM-An kErA-NN-E (hurry) **I-KM-A(n) (k)E-rA-NN-E**
I-KM-A(n) E-(r)A-(nn)E

DH-AcE cA-KS-EE- dhase lakseye (million) **(dh)A-(s)E (l)A-KS-EE A-E A-EE**

KR-I-YA.TH-cAcAYA. – kriya.th makaya. (activist) **KR-I-YA.(th) (m)A-(k)AYA.**
KR-I-YA. A-A-YA.

DH-U-MB-UKU cA.TA – dhumburu pa.ta (brown) **(dh)-U-MB-URU U-MB-U(R)U**

HA-MBR-E cERA-NN-E - hambre keranne (earn) **(h)A-MBR-E (k)ERA-NN-E**
A-MBR-E E-(R)A-(NN)E

lcl cA-NDH-EcE – iti pandheme (candle) **I-(t)l (p)A-NDH-E(m)E**
I-I A-E-E

A-NT-I cAYATIK – anti bayatik (antibiotics) **A-(NT)-I A-YA-(t)IK**

PR-E-YO JE-cEVATH – preyo jenevath (useful) **PR-E-YO JE-(n)E-VATH**
PR-E-YO (j)E-(n)E-(V)A(th)

AcAPTARAYA- adahptaraya (adaptor) - **A(d)-A-PT-A-RA-YA**
A-A-PT-A-RA-YA

hUsmA ga-NN-AvA (breathe) (h)U-SM-A A-NN-A-A

cl-THR-A cl-LP-I-YEK – chithra shilpiyek (artist) **(ch)I-THR-A (sh)I-LP-I-YEK**
I-THR-A I-LP-I-YEK

1. –KM- is used before I after A in the closed syllable;
2. –KS- is used after LA- before –EYE–;
3. KR- is used at the beginning of the word before the palatalizing group –IYA–;
4. –LP- - in between two I's;
5. –MB- is used in between the two U's;
6. –MBR- - in between –A- and –E–;
7. –NDH- - in between –A- and –E–;
8. –NT- - in between –A- and –I–;
9. PR- is used at the beginning of the word before the group –EYO–;
10. –PT- -in between two A's;
11. –RTH- -in between I- and –U- at the end of the word;
13. –STH- -also in between –A- and –U–;
14. –THR-- in between –I- and –A- at the beginning of the word.

LA-KS-EY-; leveled to strong Ablaut position
 I-KM-A-; pre-iotized I position to A leveled position
 KR-IYA-; palatalization
 U-MB-URU; leveled U(wo/wu) position
 HA-MBR-E; leveled to strong Ablaut position
 PA-NDH-E; leveled to strong Ablaut position
 A-NT-I-; palatalization
 PR-EYO; strong Ablaut post-position
 DA-PT-A; leveled position
 I-RTH-U; pre-iotized I to post-(wo/wu)- position
 VA-STH-U; pre-leveled(zero-grade) to wo/wu post-position
 CH-I-THR-A; pre-iotized I position to A leveled position
 SH-I-LP-I-YEK; palatalization

Thus,

- KS-, -MBR-, -NDH- are used in the leveled to strong Ablaut position;

KR-, -NT-, -LP- undergo the process of palatalization;

-MB- is used in the leveled wo/wu position;

-RTH- is used in the pre-iotized I to post-wo/wu position;

-STH- is used in the pre-leveled (zero-grade) to wo/wu post-position;

-PT- is used in the leveled position;

-KM-, -THR- are used in pre-iotized to A leveled position.

IY. CONSONANT DOUBLING

The consonant doubling in the five-syllable words occurs in the following examples:

A-BB-Ahl-vlmAh (addiction)	A-BB-A
A-HH-As YA.nAYA (aeroplane)	A-HH-A
Th-ArA-HH-A kEnthI (angry)	(th) A-HH-A
gOdAnAgl-LL-A (???)	(g) I-LL-A
pIlIgA-NN-AvA (accept)	(g) A-NN-A
hUsmA ga-NN-AvA (breathe)	A-NN-A
IgEn <u>E</u> gA-NN- <u>E</u> (learn)	A-NN-<u>E</u>
tAdh <u>E</u> k <u>E</u> rA-NN- <u>E</u> (press)	(r) A-NN-<u>E</u>
Ikman k <u>E</u> rA-NN- <u>E</u> (hurry)	A-NN-<u>E</u>
A-SS-An k <u>E</u> rA-NN- <u>E</u> (steal)	A-NN-E
nAy <u>E</u> t <u>E</u> dE-NN- <u>E</u> (lend)	(d) E-NN-<u>E</u>
UdhAU k <u>E</u> rE-NN- <u>E</u> (help)	E-NN-<u>E</u>

A-SS-An kErA-NN-E (steal)

A-SS-A A-NN-E

I-SS-ArA vEIA. (ahead)

I-SS-A

gInI pe-TT-IYE (match-box)

(p)E-TT-IYE

The above provided examples evidence for the following regularities of the double consonants occurrence:

1. –BB-, –HH- occur in between the two A's at the beginning of a word;
2. –LL- occurs in between the precedent I and the following A;
3. –NN- occurs:
 - a) in between the leveled position of two A's in the second element of a complex word "gaNNava.";
 - b) in between the zero to the Ablaut position of A-E in the second elements of complex words "gaNNe, keraNNe, kereNNe, deNNe";
4. –SS- occurs:
 - a) in the leveled position in between 2 A's;
 - b) in between the initial I and the following A at the beginning of the word;
5. –TT- occurs in between E and the palatalizing group –IYE.

THE SIX-SYLLABLE WORDS AND WORD-COMBINATIONS VOWEL HARMONY

The six-, seven- and eight- syllable words are for the most part syntactic word-combinations consisting of 2-3 parts constituting one sense unit. Though, they are not isolated words, yet the vowel harmony processes can be easily investigated,

In the most common bulk of the vocabulary, we trace a very limited six-syllable words/word-combinations in which we find **doubled consonants** for the reason of the syntax of theirs:

kA-NN-A-DHI ku-TT-EmE (spectacles) **A-(NN)-A-(DH)I U-(TT)-E(m)E**

bI-ND-E-NN-E pUIUvAN (fragile) **I-(ND)-E-(NN)-E (p)U-(I)U-vAN**

IvErE kErA-NN-E (finish) **I-E-E E-A-(NN)-E**

kUIIYEtE gA-NN-E (hire) **(k)U-(I)I-YE-(t)E (g)A-(NN)-E**

As one can see, the following doubled consonants are traced in the following positions:

1. –NN- is used:
 - a) at the beginning of a word in between the two A's;
 - b) at the end of the word in between A and E, E and E;
2. –TT- in the middle of the word in between U and E .

So, it's evident, that mainly the doubled consonants are used before the strong-positioned Ablaut vowel. And very often the, doubled consonants are used in the second part of the word-combinations “gaNNE” and “keraNNE” .

Seven-syllable words harmony

In the seven-syllable word-combinations the vowel harmony regularities are distributed between the parts of the separate words.

It was noted that:

1. A is united with E, YE ;
2. I is always united with I, YA, E;
3. E – with I, A, E;
4. U – with A.

Only one consonant combination was traced –DH- in between U and A, which seems to shift its palatalisation power onto the following syllable YE.

Also, one doubled consonant was traced: -NN-, between A and E at the end of the word-combination with “gaNNE” as the second part.

slhl nEtI vEnEvA (faint) (s)l-(h)l (n)E-(t)l E-E-vA

kAnEgA tU-DHAYE-kE (sad) ~~A-E-A~~ U-(*DH*)-A- YE-(k)E

mAthEkE thIYA- gA-NN-E (remember) **A-E-E** (th)I-YA-
(g)A-(NN)-E

Eight-syllable word harmony

One instance of the eight-syllable word-combination was found. The vowel harmony chain is provided below. The interesting feature of the 2nd part of the word-combination is the repetition of the A-YA group which becomes a strongly-positioned Ablaut final A-YE .

tA-nA-pEtl karYAlAYE (Ambassy) **A-A-E-I A-YA-A-YE**

CONCLUSIONS

The following conclusions are given in the tables and schemes for the better vision of the main vowel-consonant harmonic groups:

1-syllable words VH groups

Table 1.

d	U
l	E
n	E
r	E
t	AE

Diphthongs

Table 2.

	E.Y
	OU
K	OY
M	E.Y

In-between-consonants position

Table 3.

b	E	th
h	I	s
m	E	s
n	I	I
n	U.	I
p	A	n
p	O	I
t	E	I

2-syllable word groups

a) open-syllable word groups

Table 4.

	A		A
dh	A	h	A
g	A	h	A
h	A	v	A
k	A	h	A
m	A	m	A
n	A	m	A
p	A	h	A
v	A	m	A
	A		E
b	A	g	E

h	A	y	E
n	A	th	E
p	A	n	E
	A		<i>E.</i>
b	A	b	<i>E.</i>
g	A	l	<i>E.</i>
g	A	m	<i>E.</i>
g	A	n	<i>E.</i>
n	A	y	<i>E.</i>
s	A	t	<i>E.</i>
v	A	m	<i>E.</i>
y	A	t	<i>E.</i>
	A		<i>/</i>
h	A	r	l
k		s	
m		dh	
	A		<i>U</i>
m	A	l	U
r		t	
	<i>E</i>		A
d	E	k	A
p		r	
	<i>E.</i>		A
h	<i>E.</i>	th	A
kh		th	
	<i>E</i>		<i>E</i>
p	<i>E</i>	y	E
	<i>E</i>		<i>E</i>
d	E	k	E
g		n	
l		d	
m		s	
	<i>E</i>		<i>E.</i>
h	E	th	<i>E.</i>
k		l	
k		m	
l		n	
th		th	
v		n	
v		v	
	<i>E</i>		<i>/</i>
dh	E	h	l
p		th	
r		dh	
v		l	

-	E	th	l
	/		A
b	l	l	A
b		m	
m		y	
	/		E
dh	l	g	E
	/		E.
dh	l	g	E.
m		l	
th		n	
s		y	
	/		/
b	l	r	l
h		n	
k	l	r	l
s		n	
	O		A
h	O	r	A
n		n	
	O		E.
d	O	r	E.
g		d	
k		n	
k		t	
m		d	
s		t	
t		t	
	O		/
h	O	r	l
k		ch	
k		p	
p		dh	
	O		U
l	O	k	U
	U		A.
p	U	th	A.
	U/A		E/E.
d	U	r	E.
k		l	
m	A	m	
m	A	v	
m	U	d	
m		n	
th		n	

	<i>U</i>		<i>I</i>
j	U	l	l
j		n	
	<i>U</i>		<i>U</i>
k	U	m	U
l		n	
m		l	
m		th	
s		dh	

Closed 2-syllable words

Table 5.

	<i>A</i>		<i>A</i>	
g	A	n	A	n
	<i>E</i>		<i>I</i>	
n	E	m	l	n
	<i>I</i>		<i>A</i>	
n	l	k	A	n
	<i>I</i>		<i>U</i>	
l	l	y	U	n
	<i>O</i>		<i>A</i>	
p	O	s	A	th
	<i>U</i>		<i>A</i>	
b	U	l	A	t

Consonant combinations in 2-syllable words

Table 6.

A	KHT	I
A		E
A	SN	E
A.		U
A.	SK	U
E		IY

E	ST	IY
I		A
I	NT	A
U		I
U	NCH	I
U		A
U	NG	A

Consonant doubling in 2-syllable words

Table 7.

A	CC	I
---	----	---

2-syllable words with initial vowels in opened syllables

Table 8.

A		U
A	m	U
A		A
A	y	A
I		E
I	Y	E
U		E.
U	d	E.

2-syllable words with initial vowels in closed syllables

Table 9.

A.		E	
A.	y	E	T
I		I	
I	th	I	N

Diphthongs in 2-syllable words

Table 10.

	A		AY
r	A	h	AY
	AU		E.
p	AU	l	E.
r		m	
E.U		A	
E.U	n	A	Th

Consonant doubling in 2-syllable words

Table 11.

	A.	KK	
s	A.	KK	I
	E	KK	
-	E	KK	O
	A	LL	
m	A	LL	E
m	A	LL	E.
s	A	LL	I
	A	NN	E.
g	A	NN	E.
k		NN	
	E	NN	E.
v		NN	
y		NN	
	I	NN	E.
-	I	NN	
	O	NN	E.
b	O	NN	E.
	O	PP	E

k	O	PP	E
	<i>U</i>	<i>PP</i>	<i>At</i>
d	U	PP	At
	A	SS	E
p	A	SS	E
	<i>I</i>	SS	<i>U</i>
p	I	SS	U
	A	<i>TH</i>	A
n	A	TH	A
	A	<i>TTH</i>	A L
n	A	TTH	A L
	<i>E</i>	<i>TT</i>	<i>E</i>
m	E	TT	E
	<i>E</i>	<i>TT</i>	<i>E</i>
n	E	TT	E
	<i>E</i>	YY	O
d	E	YY	O

THREE-SYLLABLE WORDS VOWEL HARMONY

Table 12.

	A		A		A
t	A	h	A	n	A
	A		<i>E</i>		A
t	A	v	E	m	A
	A		<i>E</i>		<i>E</i>
j	A	n	E	l	E
	A		<i>I</i>		<i>E.</i>
v	A	t	I	n	E.
	A		A	YE.	-
v	A	r	A	Y	E.
	A		A		<i>E.</i>
b	A	sh	A	Y	E.
r		h		s	
v		h		m	
v		r		Y	E.
	A	YE.		<i>E.</i>	-
v	A	YE.	S	E.	-
	A		E.		A

h	A	r	E.	h	A
	A		E.		E.
h	A	r	E.	k	E.
	A		E		E.
k	A	g	E	dh	E.
	A		E		E
p	A	th	E	r	E
	A		I	YE.	-
p	A	t	I	YE.	-
	A		U		A
m	A	k	U	n	A
d		r		v	
	A		U		E
k		t		g	
	A		U		U
k		k		r	
	A		U		E
l		mp		v	
	A		I		E.
p		nt		y	
	A.		U		A
y		l		v	
	A		U		E.
y		t		r	
	E.		E.		E.
v		l		t	
	E.		E.		E.
g		dh		r	
	E		E		I
d		v		n	
	E.		E.		I
v		r		dh	
	E		E.		A
v		d		g	
	E		I		E
l		s		y	
	I		E		E.
k		y		dh	
	I		E		I
v		sh		sh	
	I		I		E
n		th		y	
p		h		y	
	I		U		A
v		k		n	

	<i>I</i>		<i>U</i>		<i>U</i>
k		l		t	
	<i>O</i>		<i>A</i>		<i>A</i>
m		d		y	
	<i>O</i>		<i>E.</i>		<i>E</i>
m		k		-	
b		th		l	
	<i>O</i>		<i>E.</i>		<i>E.</i>
l		k		dh	
	<i>O</i>		<i>I</i>		<i>I</i>
p		l		m	
	<i>O</i>		<i>U</i>		<i>E.</i>
j		d		v	
	<i>U</i>		<i>A</i>		<i>E.</i>
th		v		y	
	<i>U</i>		<i>A.</i>		<i>E</i>
t		v		l	
	<i>U.</i>		<i>I</i>		<i>E</i>
b		m		t	
	<i>U</i>		<i>I</i>		<i>E</i>
k		l		y	
	<i>U</i>		<i>E.</i>		<i>E</i>
d		rl		b	
dh		rv		l	
	<i>U</i>		<i>E.</i>		<i>E.</i>
r		k		d	

CONSONANT GROUPS IN 3-SYLLABLE WORDS

Table 13.

<i>t</i>	<u><i>E</i></u>	<i>KS</i>	<i>I</i>	<i>YE.</i>
t		KS		
	<i>E</i>	MB	<i>U</i>	<i>U</i>
g		MB		RU
	<i>U</i>	MB	<i>I</i>	YA
l		MP		V
	<i>O</i>	(H)E	ND	<i>E.</i>
k		HE	ND	
	<i>U</i>	<i>E</i>	NG	<i>A</i>

k		IE	NG	
<i>I</i>	NG	<i>U</i>		<i>U</i>
l	NG	U	R	U
	<i>E</i>	NK	<i>U</i>	A
b		NK		vA
	A	NS	<i>E.</i>	<i>E.</i>
p				LE.
	<i>I</i>	<i>NT</i>	<i>U</i>	<i>E</i>
p		<i>NT</i>		<i>rE</i>
p		NTH		
A	<i>NTH</i>	<i>I</i>		<i>E.</i>
	NTH		M	
A	<i>NTH</i>	<i>I</i>	<i>YE.</i>	-
pA	<i>NTH</i>	<i>I</i>	<i>YE.</i>	-
	<i>U</i>		<i>E.</i>	<i>E</i>
d		RL		B
dh		RV		L
<i>I</i>	SK	<i>O</i>		<i>E</i>
	SK		l	
<i>ST</i>	<i>U</i>		<i>IY</i>	-
<i>ST</i>	<i>U</i>	<i>t</i>	<i>IY</i>	-
	A.	<i>ST</i>	<i>U</i>	<i>E</i>
<i>g</i>		<i>ST</i>	<i>U</i>	v <i>E</i>

CONSONANT DOUBLING IN 3-SYLLABLE WORDS

Table 14.

	<i>E</i>		<i>I</i>	CC	<i>I</i>
v	E	l	l	CC	l
<i>I</i>		<i>I</i>	CHCH	<i>I</i>	-
	dh		CHCH		-
A	DD	<i>E</i>		<i>E</i>	-
A	DD	<i>E</i>	R		-
	<i>I</i>	YA	DDH	<i>E.</i>	-
k		YA	DDH		-
AU		<i>U</i>	DDH	<i>E.</i>	-
	r	U	DDH		-
	A		<i>I</i>	KK	A
s		dh		KK	
	<i>O</i>		<i>I</i>	KK	<i>I</i>

b		n		KK	
	A	NN	E.		A
d		NN		v	
	A	l	A	NN	E.
b		l		NN	
	A	dh	A	NN	E.
h		dh		NN	
	A	h	A	NN	E.
		h		NN	
m		h		NN	
v		h		NN	
	A	p	A	NN	E.
h		p		NN	
	A	d	I	NN	E.
b		d		NN	
	A	n	I	NN	E.
g		n		NN	
	A	r	I	NN	E.
	A	r	I	NN	
p		n		NN	
		A	YA	NN	E.
	E	v	A	NN	E.
g		v		NN	
	I	r	A	NN	E.
k		r		NN	
	U		E	NN	I
th		nv		NN	
	I	n	A	NN	E.
p		n		NN	
	I	YA	-	NN	E.
l		YA	-	NN	
	YA	v	A	NN	E.
	O	dh	A	NN	E.
h		dh		NN	
	O	PP	I	YE.	-
t		PP			-
l		SS			
	I		I	SS	U
m		n		SS	
	E	TT	I	YE.	-
p		TT			-
A		U	THTH	A.	-
	M		THTH	A.	-

	<i>I</i>	TTH	<i>E</i>		<i>E</i>
b		TTH		<i>r</i>	
	<i>O</i>	TT	<i>I</i>	<i>YE.</i>	-
p		TT			-

DIPHTHONGS IN 3-SYLLABLE WORDS

Table 15.

<i>AU</i>		<i>U</i>		<i>E.</i>	-	-
<i>AU</i>	R	<i>U</i>	Ddh		-	-
	<i>AU</i>		<i>U.</i>		<i>A</i>	
<i>k</i>	<i>AU</i>	<i>r</i>	<i>U.</i>	<i>v</i>	<i>A</i>	Th
	<i>O</i>		<i>E.E</i>			
<i>m</i>		<i>k</i>	<i>E.E</i>			
	<i>U</i>		<i>IY</i>			
<i>st</i>		<i>t</i>	<i>IY</i>			

4-SYLLABLE WORDS VOWEL HARMONY

Table 16.

	<i>A</i>		<i>E</i>		<i>I</i>		<i>I</i>	-
b		d		G		n		-
	<i>A</i>		<i>E</i>		<u><i>E</i></u>		<i>I</i>	-
p		l		V		n		-
	<i>A</i>		<i>I</i>		<i>E.</i>		<i>A.</i>	-
v		h		N		v		-
	<i>A</i>		<i>E</i>		<i>I</i>	-	<i>YE.</i>	-
p		n	gE	D		-		-
	<i>A</i>		<i>A</i>	<i>YE.</i>		<i>E.</i>		-
t		n			m		-	-
	<i>A</i>		<i>A</i>		<i>U</i>		<i>E.</i>	-
p		r		K		vv		-

	A		YA		E.		E.	-
b		y		N		k		-
	A	-	YE.		E.		E.	-
v		-		S		k		-
	<u>E</u>		E.		E.		A	
d		n		T		m		t
	E.		E		E.		A	-
v		t		N		v		-
	<u>E</u>		E		/		/	-
b		d		G		n	/.	-
ph		h		Dh		l		-
	/		E		E.		E.	-
n		t		R		m		-
	/		/		/		U	-
p		r		S		dh		-
	/		/	-	YE.		E.	-
s		th		-		m		-
	O		E		A		/	-
k		h		H		r		-

4-SYLLABLE WORDS INITIALING WITH A VOWEL

Table 17.

A		U		A		E.	-
	l		p		t		-
A		E.		/		E.	
	s		n		p		-
<u>E</u>		A			/		E.
	t		l	V		m	
U		E.		E.		A	-
	v		c		n		-

4-SYLLABLE WORDS DIPHTHONGS

Table 18.

	AU		U		A		/
k		r		H		r	
	E		AU		/	YA	-
dh		m		P			-

CONSONANT COMBINATIONS IN 4-SYLLABLE WORDS

Table 19.

<i>I</i>	<i>KM</i>	<i>E.</i>		<i>E.</i>		<i>E.</i>	-
I	KM	E.	n		t		-
	<i>E</i>	<i>ND</i>	<i>E.</i>		<i>A</i>		<i>I</i>
r	E	ND	E.	P		t	
	<i>A</i>	<i>NG</i>	<i>E.</i>		<i>A</i>		<i>E.</i>
s	A	NG		R		v	
	<i>A</i>		<i>A</i>	<i>SP</i>	<i>A</i>		<i>A.</i>
d		v		SP		th	
<i>O</i>	<i>RL</i>	<i>O</i>		<i>U</i>		<i>E.</i>	-
O	RL	O	s		v		-

CONSONANT DOUBLING IN 4-SYLLABLE WORDS

Table 20.

	<i>E</i>		<i>E</i>		<u><i>E</i></u>	<i>LL</i>	<i>A</i>	-
p		n		H		LL		-
	<i>A</i>	<i>NN</i>	<i>A</i>		<i>I</i>	<i>YE.</i>	-	-
k		NN		D			-	-
	<i>I</i>		<i>A</i>		<i>A</i>	<i>NN</i>	<i>E.</i>	-
n		dh		G		NN		-
	<i>I</i>		<i>U</i>		<i>A</i>	<i>NN</i>	<i>E.</i>	-
v		k		N		NN		-
<i>A</i>			<i>I</i>		<i>I</i>	<i>NN</i>	<i>E.</i>	-
	th	v		Dh		NN		-
<i>E</i>		<i>I</i>		<i>I</i>	<i>NN</i>	<i>E.</i>	-	-
	v		dh		NN		-	-
	<u><i>E</i></u>		<u><i>E</i></u>	<i>PP</i>	<i>U</i>		<i>E</i>	-
g		r		PP		v		-
	<i>A</i>		<i>E.</i>	<i>SS</i>	<i>E.</i>		<i>E</i>	
p		r		SS		m		n
<i>I</i>	<i>SS</i>	<i>E.</i>		<i>E.</i>		<i>A</i>	-	-
I	SS	E.	r		h		-	-
	<i>A</i>		<i>U</i>	<i>SS</i>	<i>I</i>	<i>YE.</i>	-	-

k		kh		SS			-	-
	<i>O</i>	<i>TT</i>	<i>A</i>		<i>E.</i>		<i>E.</i>	-
b		TT		M		m		-
	<i>E.</i>		<i>A</i>		<i>O</i>	<i>TT</i>	<i>A</i>	-
k		r		P		TT		-
	<i>A</i>		<i>A</i>	<i>THTH</i>	<i>A</i>	<i>NN</i>	<i>E.</i>	-
n		v		THTH		NN		-
	<i>A</i>	<i>THTH</i>	<i>U</i>		<i>A</i>	<i>THTH</i>	<u><i>E</i></u>	-
s		THTH		V		THTH		-

VOWEL HARMONY IN 5-SYLLABLE WORDS/ WORD-COMBINATIONS

A) 5- SYLLABLE WORDS/WORD-COMBINATIONS INITIALING WITH A VOWEL

Table 21.

A		A.		A		U		A.
	th		r		th		r	
A.		<i>I</i>		A		<i>I</i>		A
	dh		k		l		n	
E		<i>I.</i>	-	E		E		A
	t		-		m		k	
I		A		A		O		A
	th		m		th	hO	ndh	
O		A		O		U		A
	r		l		s		v	
U		A		I		A	YA	-
	p	Ah	dh		n			-

B) 5-SYLLABLE WORDS/WORD-COMBINATIONS INITIALING WITH A CONSONANT

Table 22.

	A		A		U		<u>E</u>		I	
k		L		t		r		k		n
	A		A		A		A.		I	-
k		L		h		k		r		-
	A		A		I		A		A	-

s		M		v		t		m		-
	A		YA.		E		A		A.	-
b		H		v		n		n		-
	A		<u>E</u>		A		<u>E</u>		E	-
n		N		k		m		r		-
	A		I		E		A		A.	-
h		K		v		n		v		-
	A		U		U		<u>E</u>		<u>E</u>	-
m		D		r		d		l		-
	E		E		<u>E</u>		A		<u>E</u>	-
th		R		n		v		dh		-
	I	-	YU		A		<u>E</u>		E	-
l		-		n	kA	v		r		-
	I		A	-	YO		A		A	-
dh		N		-		dh.		g		th
	I		A		A.		A		A	-
v		Sh		n		sh		k		-
	U		A.		A		U		A	-
p		R		v		st		k		-

DIPHTHONGS IN 5-SYLLABLE WORDS/WORD-COMBINATIONS

Table 23.

	AI		I		A		A	YA
b		S		k		l		
U		AU		<u>E</u>		E		<u>E</u>
	dh		k		R		nn	

CONSONANT COMBINATIONS IN 5-SYLLABLE WORDS/WORD-COMBINATIONS

Table 24.

I		A			<u>E</u>		A		<u>E</u>
	KM		n	k		R		nn	
	A		<u>E</u>		A		<u>E</u>	YE	-
dh		S		l		KS			-
	I	-	YA.			A		A	YA.
KR		-		th	m		k		
U		U		U		A.		A	-
	MB		r		p		t		-

	A		<u>E</u>		E		A		<u>E</u>
h		MBR		k		R		nn	
/		/		A		<u>E</u>		<u>E</u>	-
	t		p		NDH		m		-
A		/		A	YA		/		-
	NT		b			T		k	-
	<u>E</u>	YO		<u>E</u>		<u>E</u>		A	
PR			DZH		n		v		th
A		A		A		A	YA	-	-
	d	Ah	PT		r			-	-
	A		A		/		U		A
sh		R		th		RTH		v	
	U		A		A		A		A
h		SM		g		Nn		v	
	U		A.		A		U		A
p		R		v		ST		k	
	/		A		/		/	YE	
ch		THR		sh		LP			k

CONSONANT DOUBLING IN 5-SYLLABLE WORDS/WORD-COMBINATIONS

Table 25.

A	BB	A		/		/		A
			h		v		m	
A	HH	A	-	YA.		A	-	YA
					n			
	A		A	HH	A		E	
th		R				k		nth
	O		A		A		/	LL
g		D		n		g		
	/		/		A	NN	A	
p		L		g				v
-	U		A		A	NN	A	
		Sm		g				v
/		<u>E</u>		<u>E</u>		A	NN	<u>E</u>
	g		n		g			
	A		<u>E</u>		<u>E</u>		A	NN

t		Dh		k		r		
I		A			<u>E</u>		A	NN
	km		n	k		r		
A	SS	A			<u>E</u>		A	NN
			n	k		r		
	A	<u>YE</u>		<u>E</u>		<u>E</u>	NN	<u>E</u>
n			t		d			
U		AU		<u>E</u>		<u>E</u>	NN	<u>E</u>
	dh		k		r			
A	SS	A		<u>E</u>		A	NN	<u>E</u>
			n		r			
I	SS	A		A		<u>E</u>		A.
			r		v		I	
	I		I		<u>E</u>	TT	I	<u>YE</u>
g		N		p				

6-SYLLABLE WORDS/WORD-COMBINATIONS VH

Table 27.

	A		A		I		U		<u>E</u>		<u>E</u>
k		NN		dh		k		TT		m	
I		<u>E</u>		<u>E</u>		U		U		A	
	ND		NN		p		I		v		n
I		<u>E</u>		<u>E</u>		<u>E</u>		A		<u>E</u>	-
	v		r		k		r		NN		-
	U		I	<u>YE</u>		<u>E</u>		A		<u>E</u>	-
k		L			t		g		NN		-

7-SYLLABLE WORDS/WORD-COMBINATIONS VH

Table 28.

	I		I		<u>E</u>		I		<u>E</u>		<u>E</u>		A
s		h		n		t		v		n		v	
	A		<u>E</u>		A		U		A	<u>YE</u>		<u>E</u>	-
k		n		g		t		dh			k		-
	A		<u>E</u>		<u>E</u>		I	YA		A		<u>E</u>	-
m		th		k		th			g		NN		-

8-SYLLABLE WORD- COMBINATION

Table 29.

	A		A		<u>E</u>		I		A		YA		A	<u>YE</u>	-
t		n		P		t		k		r		l			-

GENERALIZING TABLE OF THE MOST COMMON VH CASES

I.CV/VC

1- SYLLABLE OPENED WORDS

Table 30.

d	U
l	E
n	E
r	E
t	AE

1-SYLLABLE CLOSED WORDS

Table 31.

b	E	th
h	I	s
m	E	s
n	I	l
n	U.	l
p	A	n
p	O	l
t	E	l

As seen from the table, in 1-syllable closed words, it is the middle vowel that makes the lexical differentiation in the senses of the words, even if the two consonants surrounding it are the same: (*N-I-L:N-U.-L*)

If the initial consonant of the two opposing words are the same, and the final ones are different, the latter dictate the quality of the middle vowel: (*P-A-N : P-O-L*).

2-SYLLABLE OPENED WORDS

In the 2-syllable opened words, the 1st vowel **A** is used after the following initial consonants: **DH, G, H, K, M, N, P, V**; the 2nd **A** respectively is used after the 2nd consonant **H, M, V**, in the consonant pairs **DH-H, G-H, H-V, K-H, M-M, N-M, P-H, V-M**.

The 1st vowel **A** in the pair of the 2nd vowel **E** is used after the initial **B, H, N, P** in accordance with the 2nd consonants **G, Y, TH, N**, in the consonant pairs **B-G, H-Y, N-TH, P-N**. As it can be concluded, **H** always dictates the iotization of the final **A=YA**.

The vowel pair **A-E** is used after the initial **B, G, N, S, V, Y(iotizing semi-consonant)** in accordance with the 2nd consonant **B, L, M, N, Y(iotizing semi-consonant), T**, in the consonant pairs **B-B, G-L, G-M, G-N, N-Y(E.), S-T, V-M, Y(A)-T**. An interesting conclusion can be deduced: **N** in the 2-syllable opened words provokes the iotization of the final **E.**, while the initial iotizing **Y(YA)** presupposes the 2nd consonant **T** followed by the final vowel **E**.

The vowel pair **A-I** occurs after the initial **H, K, M** in accordance with **R, S, DH**, in the opposed consonant pairs **H-R, K-S, M-DH (always palatalizing)**.

The vowel pair **A-U** occurs after the initial **M, R** opposite to the 2nd consonant **L, T** in the consonant pairs **M-L, R-T**.

The vowel pair **E-A** occurs after the initial **D, P** in opposition with **K, R** in the consonant pairs **D-K, P-R**.

The vowel pair **E-E** occurs after the initial **P** in opposition with **Y(YE)**.

The vowel pair **E-E** is traced after the initial **D, G, L, M** in opposition with **K, N, D, S** in the consonant pairs **D-K, G-N, L-D, M-S**.

The vowel pair **E.-A** is observed in after the initial **H, KH** in the consonant pairs **H-TH, KH-TH**, (with the opposite consonant **TH**).

The vowel pair **E-E** occurs after the initial consonants **H, K, L, TH, V** in opposition with **TH, L, M, N, V** in the corresponding pairs **H-TH, K-L, K-M, L-N, TH-TH, V-N, V-V**. The two consonants are repeated in the opposed consonant pairs (perhaps due to the closeness of the quality of the vowels **E&E**): **TH-TH, VV**.

The vowel pair **E-I** is traced after the initial **DH, P, R, V, 0** in opposition with **H, TH, DH, L, TH** in the corresponding pairs **DH-H, P-TH, R-DH, V-L, 0-TH**. The 2nd consonants in the oppositions demand the palatalization by the vowel **I**.

The vowel pair **I-A** is observed after the initial consonants **B, M** in opposition with **L, M, Y(A)** in the corresponding pairs **B-L, B-M, M-Y(A)**.

The vowel pair **I-E** occurs after the initial **DH (always demanding palatalisation)** in opposition with **G (seeming to be always dark): DH-G**.

The vowel pair **I-E** is traced after the initial **DH, M, TH, S** in opposition with **G, L, N, Y(E.)** in the pairs: **DH-G, M-L, TH-N, S-Y(A)**. The usage of the **I** after **S** provokes the iotization of the final **A=YA**.

The vowel pair **I-I** is observed after the initial **B, H, K, S** in opposition with **R, N, R, N** in the pairs: **B-R, H-N, K-R, S-N**.

The vowel pair **O-E** is used after the initial consonants **D, G, K, M, S, T** in opposition with **R, D, N, T, D, T** in the pairs: **D-R, G-D, K-N, K-T, M-D, S-T, T-T**.

The vowel pair **O-I** is observed after the initial consonants **H, K, P** in opposition with **R, CH(always palatalized), P, DH(always palatalized)** in the pairs: **H-R, K-CH, K-P, P-DH**.

The vowel pair **O-U** is traced after the initial consonant **L** in opposition with **K** in the pair **L-K**.

The vowel pair **U-A** is used after the initial consonant **P** in opposition with **TH**. (Usually, after **P** **O** or **U** are used).

The vowel pairs **U/A – E/E** are used after the initial consonants **D, K, M, TH** opposed to the consonants **R, L, M, V, D, N** in the pairs: **D-R, K-L, M-M, M-V, M-D, M-N, TH-N**. (After **M** **A** or **U** is used, after **D, K, TH** – only **U** is used).

The vowel pair **U-I** is observed after the initial consonant **J** opposed to the consonants **L/N** in the pairs **J-L, J-N (in loan words)**.

The vowel pair **U-U** is traced after the initial consonants **K, L, M, S** contrasted to **M, N, L, TH, DH** in the pairs **K-M, L-N, M-L, M-TH, S-DH**.

Table 32.

	A		A
dh	A	h	A
g	A	h	A
h	A	v	A
k	A	h	A
m	A	m	A
n	A	m	A
p	A	h	A
v	A	m	A
	A		E
b	A	g	E
h	A	y	E
n	A	th	E
p	A	n	E
	A		E.
b	A	b	E.
g	A	l	E.
g	A	m	E.
g	A	n	E.
n	A	y	E.
s	A	t	E.
v	A	m	E.
y	A	t	E.
	A		I
h	A	r	I
k		s	
m		dh	
	A		U
m	A	l	U
r		t	
	E		A
d	E	k	A
p		r	
	E.		A
h	E.	th	A
kh		th	
	E		E

p	E	y	E
	<i>E</i>		<i>E</i>
d	E	k	E
g		n	
l		d	
m		s	
	<i>E</i>		<i>E.</i>
h	E	th	<i>E.</i>
k		l	
k		m	
l		n	
th		th	
v		n	
v		v	
	<i>E</i>		<i>/</i>
dh	E	h	l
p		th	
r		dh	
v		l	
-	E	th	l
	<i>/</i>		<i>A</i>
b	l	l	<i>A</i>
b		m	
m		y	
	<i>/</i>		<i>E</i>
dh	l	g	E
	<i>/</i>		<i>E.</i>
dh	l	g	<i>E.</i>
m		l	
th		n	
s		y	
	<i>/</i>		<i>/</i>
b	l	r	l
h		n	
k	l	r	l
s		n	
	<i>O</i>		<i>A</i>
h	<i>O</i>	r	<i>A</i>
n		n	
	<i>O</i>		<i>E.</i>
d	<i>O</i>	r	<i>E.</i>
g		d	
k		n	
k		t	
m		d	

s		t	
t		t	
	O		I
h	O	r	I
k		ch	
k		p	
p		dh	
	O		U
l	O	k	U
	U		A.
p	U	th	A.
	U/A		E/E.
d	U	r	E.
k		l	
m	A	m	
m	A	v	
m	U	d	
m		n	
th		n	
	U		I
j	U	l	I
j		n	
	U		U
k	U	m	U
l		n	
m		l	
m		th	
s		dh	

2-SYLLABLE CLOSED WORDS

The following cases are observed:

- a) the vowel pair **A-A** is used in-between the following consonant group **G-N-N**;
- b) the vowel pair **E-I** – in-between the consonant group **N-M-N**;
- c) the vowel pair **I-A** – in-between **N-K-N**;
- d) **I-U** – in-between **L-Y-N**;
- e) **O-A**- in-between **P-S-TH**;
- f) **U-A**- in-between **B-L-TH**.

Special attention is to be paid to the final consonant closing the 2-syllable words:

- a) **N** is used before the preceded **NA (GA)/KA (NI)/YU (LI)**- the endings are **–AN, -IN -YN** before **GAN-, LIY-,NEM-, NIK,;**

b) TH is used before the preceded SA (PO), LA (BU) – the ending is –ATH before the groups POS- and BUL- .

Table 33.

	A		A	
g	A	n	A	n
	E		I	
n	E	m	I	n
	I		A	
n	I	k	A	n
	I		U	
l	I	y	U	n
	O		A	
p	O	s	A	th
	U		A	
b	U	l	A	t

3-SYLLABLE OPENED WORDS

The 3-syllable opened words ending in a vowel have the following vowel groups used in-between the following consonants:

A-A-A – in-between **T-H-N**

A-E-A – in-between **T-V-M**

A-E-E – in-between **J-N-L**

A-I-E.- in-between **V-T-N**

A-A-E.(a)iotized)- in-between **V-R-Y , B-SH-Y**

(b)pure) – in-between **R-H-S, V-H-M**

A-E.(iotized).-E. –in-between **V-Y-S**

A-E.-A- in-between **H-R-H**

A-E.-E.- in-between **H-R-K**

A-E-E. – in-between **K-G-DH**

A-E-E – in-between **P-TH-R**

A-I-E.(iotized) – **P-T-Y, P-NT-Y**

A-U-A –in-between **D-R-V, M-K-N**

A-U-E – in-between **L-MP-V, K-T-G**

A (iotized)-U-E. – in-between **Y-T-R**

A-U-U – in-between **K-K-R**

A. (iotized)-U-A – in-between **Y-L-V**

E.-E.-E. – in-between **G-DH-R, V-L-T**

E-E-I – in-between **D-V-N**

E.-E.-I – in-between **V-R-DH**

E-E.-A – in-between **V-D-G**

E-I-E – in-between **L-S-Y**

I-E-E. – in-between **K-Y-DH**

I-E-I – in-between **V-SH-SH**

I-I-E (iotized) – in-between **N-TH-Y, P-H-Y**

I-U-A – in-between **V-K-N**

I-U-U – in-between **K-L-T**

O-A-A (iotized) > **M-D-Y**

O-E.-E > **M-K-0, B-TH-L**

O-E.-E. > **L-K-DH**

O-I-I > **P-L-M**

O-U-E. > **J-D-V**

U-A-E. (iotized) > **TH-V-Y**

U-A-E > **T-V-L**

U.-I-E > **B-M-T**

U-I-E (iotized) > **K-L-Y**

U-E.-E > **D-RL-B**

DH-RV-L

U-E.-E. > **R-K-D**

1. The most frequently used consonants followed by the vowel **A** within the 1st syllable limits are:

BA before **SHA**,

DA before **RA**,

HA before **RE.**,

JA before **NA**,

KA before **GE, KU, TU**

LA before **MPU**,

MA before **KU**,

PA before **THE, TI**,

RA before **HA**,

TA before **HA, VE**,

VA before **HA, TI, RA, YE.**,

YA before **LU, TU**

So, after the 1st syllable consonant + **A**, **a)** the 2nd syllable consonants **H/SH/N/R + A** are used

b) the 2nd syllable consonants **G/TH/V/ + E** are used

c) the 2nd syllable consonants **R/Y + E.** are used

d) the 2nd syllable consonant **T + I** is used

e) the 2nd syllable consonant **K/L/MP/T + U** are used

2. The most frequently used consonants followed by the vowel **E** within the 1st syllable limits are:

DE before **VE**

LE before **SI (+YE)**

VE before **DE**.

Thus, after the 1st syllable consonant **+ E**, a) the 2nd syllable consonant **V+E** is used

b) the 2nd syllable consonant **D+E** is used

c) the 2nd syllable consonant **S+I** is used

3. The most frequently used consonants followed by the vowel **E** within the limits of the 1st syllable are:

GE. before **DHE.**

VE. before **RE.**

As seen, after the 1st syllable consonant **+E.**, the 2nd syllable consonants **DH/R + E.** are used

4. The most frequently used consonants followed by the vowel **I** within the limits of the 1st syllable are:

KI before **LU (TU)**

KI before **YE (DHE.)**

NI before **THI (YE)**

PI before **HI (YE)**

VI before **KU (NA)**

VI before **SHE (SHI)**

So, the 1st syllable palatalized by **I** consonants are to be treated accurately as the **I** seems to have a special influence on the following syllables vowels and depended consonants.

After the first syllable consonant **+I** the following consonants and vowels are used in the 2nd one:

a) **H/TH+I (YE)**

b) **K+U (NA)**

c) **L+U (TU)**

d) **SH+E (SHI)**

e) **Y+E (DHE.)**

5. The most frequently used consonants before **O** in the limits of the 1st syllable are:

BO before **THE. (LE.)**

JO before **DU (VE.)**

LO before **KE. (E)**

MO before **DA (YA)**

MO before **KE. (E)**

PO before **LI (MI)**

The 1st syllable consonant **+ O** are used in the following dependence with the 2nd syllable consonant-vowel groups:

a) **D+A (YA)**

b) **K/TH+E. (E/LE.)**

c) **L+I (MI)**

d) **D+U (VE.)**

6. The most frequently used consonants before **U** are as follows:

BU before **VA (YE.)**

DU before **RLE.(BE)**

DHU before **RVE.(LE)**

KU before **LI (YE.)**

RU before KE. (DE.)
TU before VA (LA)
THU before VA (YE.)

The 1st syllable consonant+**U** are used in the following dependence of the 2nd consonant and vowel chains :

- a) **K+E. (DE.)**
- b) **L+I (YE.)**
- c) **RL/RV+E. (BE/LE)**
- d) **V+A (LA/YE.)**

The special attention is to be paid to the following cases;

- after the 1st syllable **U**, in the 2nd syllable **A** is used only after **V** (close dependence of **U-V/V-U** combination > **U=wa rule**): **b+wA+VA=bU-vA;/ interchangeable feature of B & V/**
- after **D/DH/R +U** the consonant combinations **RL/RV** and the consonant **K** are followed by the vowel **E.** influencing the last vowel of the 3-syllable opened word (**E**); (**a very important feature is the interchangeable character of the consonants in the first two syllables L-B and V-L in the 1st two cases: backlingual:labial/labio-dental sounds interdependence.**

Table 34.

	A		A		A
t	A	h	A	n	A
	A		E		A
t	A	v	E	m	A
	A		E		E
j	A	n	E	l	E
	A		I		E.
v	A	t	I	n	E.
	A		A	YE.	-
v	A	r	A	Y	E.
	A		A		E.
b	A	sh	A	Y	E.
r		h		s	
v		h		m	
v		r		Y	E.
	A	YE.		E.	-
v	A	YE.	S	E.	-
	A		E.		A
h	A	r	E.	h	A
	A		E.		E.
h	A	r	E.	k	E.
	A		E		E.
k	A	g	E	dh	E.
	A		E		E
p	A	th	E	r	E

	<i>A</i>		<i>I</i>	YE.	-
p		nt		YE.	-
p	<i>A</i>	t	<i>I</i>	YE.	-
	<i>A</i>		<i>U</i>		<i>A</i>
m	<i>A</i>	k	<i>U</i>	n	<i>A</i>
d		r		v	
	<i>A</i>		<i>U</i>		<i>E</i>
k		t		g	
	<i>A</i>		<i>U</i>		<i>U</i>
k		k		r	
	<i>A</i>		<i>U</i>		<i>E</i>
l		mp		v	
	<i>A.</i>		<i>U</i>		<i>A</i>
y		l		v	
	<i>A</i>		<i>U</i>		<i>E.</i>
y		t		r	
	<i>E.</i>		<i>E.</i>		<i>E.</i>
v		l		t	
	<i>E.</i>		<i>E.</i>		<i>E.</i>
g		dh		r	
	<i>E</i>		<i>E</i>		<i>I</i>
d		v		n	
	<i>E.</i>		<i>E.</i>		<i>I</i>
v		r		dh	
	<i>E</i>		<i>E.</i>		<i>A</i>
v		d		g	
	<i>E</i>		<i>I</i>		<i>E</i>
l		s		y	
	<i>I</i>		<i>E</i>		<i>E.</i>
k		y		dh	
	<i>I</i>		<i>E</i>		<i>I</i>
v		sh		sh	
	<i>I</i>		<i>I</i>		<i>E</i>
n		th		y	
p		h		y	
	<i>I</i>		<i>U</i>		<i>A</i>
v		k		n	
	<i>I</i>		<i>U</i>		<i>U</i>
k		l		t	
	<i>O</i>		<i>A</i>		<i>A</i>
m		d		y	
	<i>O</i>		<i>E.</i>		<i>E</i>
m		k		-	
b		th		l	
	<i>O</i>		<i>E.</i>		<i>E.</i>

l		k		dh	
	<i>O</i>		<i>I</i>		<i>I</i>
p		l		m	
	<i>O</i>		<i>U</i>		<i>E.</i>
j		d		v	
	<i>U</i>		<i>A</i>		<i>E.</i>
th		v		y	
	<i>U</i>		<i>A.</i>		<i>E</i>
t		v		l	
	<i>U.</i>		<i>I</i>		<i>E</i>
b		m		t	
	<i>U</i>		<i>I</i>		<i>E</i>
k		l		y	
	<i>U</i>		<i>E.</i>		<i>E</i>
d		rl		b	
dh		rv		l	
	<i>U</i>		<i>E.</i>		<i>E.</i>
r		k		d	

4-SYLLABLE WORDS

The 4-syllable opened words demand a more complicated observation as the vowel-consonant dependence is, due to the number of the syllables, much more complex.

A-E-I-I > B-D-G-N

A-E-E-I > P-L-V-N

A-I-E.-A. > V-H-N-V

A-E-I-E. > P-N-G-D-Y (iotized)

A-A-E.-E. > T-N-Y (iotized)-M

A-A-U-E. > P-K-K-V V

A-A-E.-E. > B-Y (iotized) -N-K

A-E.-E.-E. > V-Y (iotized) -S-K

E-E.-E.-A > D-N-T-M-T (closed syllable)

E.-E-E.-A > V-T-N-V

E-E-I-I > B-D-G-N

> PH-H-DH-L

I-E-E.-E. > N-T-R-M

I-I-E.-E. > S-TH-Y (iotized)-M

O-E-A-I > K-H-H-R

Initialing with a vowel:

A-U-A-E. > L-P-T

A-E.-I-E. > S-N-P

E-A-I-E > T-L-V-M

U-E.-E.-A > V-C-N

The most frequently consonants used in the 1st syllable after **A** are as follows:

BA before **DE**

BA before **YA (iotized)**

BE before **DE**

DA before **NE.**

NI before **TE**

PA before **LE**

PA before **NE**

PA before **RA**

PHE before **HE**

SI before **THI (palatalized)**

TA before **NA**

VA before **HA**

VA before **YE.**

VE. before **TE**

KO before **HE**

As seen, after the 1st syllable consonant a) **B + A** in the 2nd syllable **DE/YA** are traced (strong or leveled iotized position) ;

interdependence);

b) **B + E** in the 2nd syllable **DE** is traced (**E-E**

c) **D + A – NE.** is traced;

d) **N + I – TE** is traced;

e) **PA – LE/NE/RA** are traced;

f) **PHE – HE** is traced (**E-E** interdependence);

interdependence provoked by **I**);

the 2nd syllable).

g) **SI – THI** is traced (palatalization

h) **TA – NA** is traced (leveled position);

i) **VA – HA/YE.(iotized)** are traced;

j) **VE. – TE** is traced (**E.-E** interdependence);

k) **KO – HE** is traced (strong vowel position in

Those with an initial vowel are:

AL before **UP**

AS before **E.N**

ET before **AL**

UV before **EC**

The 1st syllable vowel-consonant combination seem not to influence the choice of the 2nd vowel-consonant combination, on the contrary, the 2nd syllable vowel preceding a consonant is dictated by this consonant itself, resembling a regressive assimilation, which, in fact, is the accommodation :

U is demanded by **P**

E. – by **N** and the 1st syllable initialing **A**

A – by the initialing 1st syllable **E**

E – by **C.**

To make more distinct conclusions, more examples are to be investigated.

Let's compare the consonant-vowel interdependence in the 2nd, the 3rd and the 4th syllables to better see it: **(Table 35).**

DE	GI	NI
LE	<u>VE</u>	NI
HI	NE.	VA.
NE	GI	DE.Y !!!
NA	YE.	ME.
RA	KU	VVE.
YA	NE.	KE.
YE.	SE.	KE.
NE.	TE.	MAT
TE.	NE.	VA

DE	GI	NI
HE	DHI	LI
TE	RE.	ME.
THI	YE.	ME.
HE	HA	RI

The table shows that the 3rd and the 4th syllables are very closely united for their vowel interdependence and only in some cases they depend on the 2nd syllable vowels which were already analyzed.

1. The 3rd syllable **GI/DHI** demands **I** in the 4th one: **NI/DE.Y//LI (palatalization interdependence)**;

2. The 3rd syllable **HA**, namely **H**, dictates the 4th syllable **I** after **R** (**H tending palatalization**);

3. The 3rd syllable **NE./RE./SE./YE.** With **E.** demand the 4th syllables' **KE./ME.** (full vowel quality dependence).

Exceptions: 1. **NE.** before **VA.** preceded by the 2nd syllable **HI/TE (strong to leveled position)**;

2. **VE** before **NI** preceded by the 2nd syllable **LE (leveled to Ablaut strong position finishing with a palatalization)**;

3. **KU** before **VVE.** (**U** dependence used before **V**; **E.** final strong position aimed at leveling denouement);

4. **TE.** before the closed syllable **MAT** preceded by the 2nd syllable **NE.** (**re-echoing of the strong E. position with a leveled denouement**).

Table 36.

	A		A		E.		E.	-
b		Y		N		k		-
	A		A	.	E.		E.	-
	A		A		U		E.	-
p		R		K		vv		-
	A		E.		E.		E.	-
v		Y		S		k		-
	<u>E</u>		E.		E.		A	
d		N		T		m		t
	E.		E		E.		A	-
v		T		N		v		-
	<u>E</u>		E		I		I	-

b		D		G		n	<i>I.</i>	-
ph		H		Dh		l		-
	<i>I</i>		<i>E</i>		<i>E.</i>		<i>E.</i>	-
n		T		R		m		-
	<i>I</i>		<i>I</i>		<i>I</i>		<i>U</i>	-
p		R		S		dh		-
	<i>I</i>		<i>I</i>	-	<i>YE.</i>		<i>E.</i>	-
s		Th		-		m		-
	<i>O</i>		<i>E</i>		<i>A</i>		<i>I</i>	-
k		H		H		r		-

Words and word-combinations initialing with a vowel

Table 37.

<i>A</i>		<i>U</i>		<i>A</i>		<i>E.</i>	-
	L		p		t		-
<i>A</i>		<i>E.</i>		<i>I</i>		<i>E.</i>	
	S		n		p		-
<u><i>E</i></u>		<i>A</i>			<i>I</i>		<i>E.</i>
	T		l	V		m	
<i>U</i>		<i>E.</i>		<i>E.</i>		<i>A</i>	-
	V		c		n		-

5-SYLLABLE WORDS

The 5-syllable words and word-combinations are to be divided into: a) words initialing with a vowel; b) words initialing with a consonant; c) opened and d) closed words. In our case, we will investigate separately only vowel initialing words and consonant initialing words, not discerning between opened and closed syllables.

The most common cases traced in the words/word-combinations initialing with a vowel, are the following:

A-A.-A-U-A > th-R-th-R

A-I-A-I-A > dh-k-l-n
E-I-E-E-A > t-0-m-k
I-A-A-O-A > R-I-S-v
U-A(h)-I-A-(y)A/iotized/ > p-dh-n-Y

In the 1st syllable, the following vowel-consonant combinations are observed:

A-TH before **A.-R**

A-DH before **I-K** (common demanded palatalization of DH leveled by K)

E-T before **I-0 + E-M** (palatalization of T before the initial E)

I-R before **A-L +A-S** (required A after R, followed by L /the R counterpart/ closed by another A followed by a distant rhotacism S)

U-P before **A(H)-DH+I** (required U before P followed by the aspirated Ah developed into the palatalizing DH required I)

The distribution of vowel-consonant groups in the succeeding 3rd, 4th and 5th syllables are as follows:

Table 38.

2 nd syll.	3 rd syll.	4 th syll.	5 th syll.
A.R	ATH	UR	A.
IK	AL	IN	A
I-0	EM	EK	A
AL	AS	OV	A
AhDH	IN	AY	A

In the 3rd syllable,

a) after the precedent **R**, the aspirated **Ath** is used, followed by **U** before **RA**: **RA-Thu-RA** (framing **RA** of the aspirated **Thu**);

b) after the precedent **K**, **AL** is traced, followed by **I+NA** (framing usage of **I**: **I+k+Al+I-NA**);

c) **E** is used before **M**, followed by **E+KA** (succeeding chain usage of **E**);

d) **AS** is used before the preceded **A+L**, followed by the required by the succeeded after **O V** (constant regularity: **O+V /a+wa=o+wa/va//**, leveled by the final **A> wa** regularity interruption within the succession of the **A** chain dependence);

e) **IN** preceded by **DH** (required palatalization), followed by the leveling **A** before **Y** provoked by the precedent vowel **I** (iotized final **A**, palatalization leveling).

Table 39.

A		A.		A		U		A.
	Th		r		th		r	

A.		I		A		I		A		
	Dh		k		l		n			
E		I.	-	E		E		A		
	T		-		m		k			
I		A		A		O		A		
	Th		m		th	hO	ndh			
O		A		O		U		A		
	R		l		s		v			
U		A		I		A	YA	-		
	P	Ah	dh		n			-		
	A		A		U		<u>E</u>		I	
k		L		t		r		k		n
	A		A		A		A.		I	-
k		L		h		k		r		-
	A		A		I		A		A	-
s		M		v		t		m		-
	A		YA.		E		A		A.	-
b		H		v		n		n		-
	A		<u>E</u>		A		<u>E</u>		E	-
n		N		k		m		r		-
	A		I		E		A		A.	-
h		K		v		n		v		-
	A		U		U		<u>E</u>		<u>E</u>	-
m		D		r		d		l		-
	E		E		<u>E</u>		A		<u>E</u>	-
th		R		n		v		dh		-
	I	-	YU		A		<u>E</u>		E	-
l		-		n	kA	v		r		-
	I		A	-	YO		A		A	-
dh		N		-		dh.		g		th
	I		A		A.		A		A	-
v		Sh		n		sh		k		-
	U		A.		A		U		A	-
p		R		v		st		k		-

6-SYLLABLE WORDS

The most frequently used 6-syllable words/word-combinations are represented by not so many examples, in which double consonants are traced. The following vowel-consonant interdependence regularities are observed:

A-A-I-U-E-E > **K-NN-DH-K-TT-M**
I-E-E-U-U-A > **ND-NN-P-L-V-N**
I-E-E-E-A-E > **V-R-K-R-NN**
U-I-E-E-A-E > **K-L-Y-T-G-NN**

The 1st syllable consonant-vowel combinations are the following:

KA used before **NNA** (leveled position)

NDI used before **NNE** (requested palatalization tending to a strong positioned **E** after the doubled **NN**)

VI used before **RE** (palatalization tending to a strong Ablaut **E** used after R)

KU used before **LI** (before **YE**)

So, the 1st syllable consonant-vowel combinations are represented by

- the palatalized consonant combination **ND** and **V** before **I**
- the leveled **KA** before the doubled **NN** used before **A**
- KU** (indo-european **kwa** usually used in-between **K&L** and shortened to **ku/ko**).

In the 2nd syllable there are the following instances traced:

- the doubled **NN** before the following **E**, after **NDI**;
- RE** after **VI**;
- NNA** after **KA**;
- LI** (**I** dictated by the following iotizing **Y**) after **KU** before **YE**.

The 2nd syllable vowel seems to be a strong-positioned one, except the 1st example, where the strong Ablaut **E** is traced at the end of the word.

The 3rd, 4th, 5th and 6th syllables are done in the following way:

Table 40.

2 nd syl.	3 rd syl.	4 th syl.	5 th syl.	6 th syl.
NNA	DHI	KU	TTE	ME
NNE	PE	LU	VU	NA
VE	RE	KE	RA	NNE
LI	YE	TE	GA	NNE

The above-provided table illustrates the special vowel-consonant regularities in the succeeding syllables:

- a) after **DH/DI/DY KO/KU** are used before another consonant/doubled consonant in the middle of the word;
- b) if the 1st two syllables (**KA-NNA**) are in the leveled position, then the last two – in the strong Ablaut position (**TTE-ME**);
- c) the mirror reflection of the doubled consonants is observed: **KA-NNA : TTE-ME**;
- d) the 5th syllable **V** dictates the left and right sides usage of **U**: **L-UVU/L-UBU/L-OBO** due to the 2 factors: - the usage of the precedent **P**: **P(E)-LU (P>LU)** and
- **v+wa=VU/VO**;
- e) if the initialing vowel is **I** followed by the **V**, the vowel following it is **E** echoed also in the final syllable of the complex word-combination **RE**; the 2nd part of the complex word also begins with the vowel **E** combination due to the syntactic structure of the phrase, namely the 2nd auxiliary formation **keranne**; observed is also the framing usage of the **E**: **E-A-E**. The same is happening with the 2nd part of the word-combination **kuliye teganne**.
- f) the palatalisation of **LI** before **YE** is explained by the iotising neighboring **Y**.

Table 41.

	A		A		I		U		E		E
k		NN		dh		k		TT		m	
I		E		E		U		U		A	
	ND		NN		p		l		v		n
I		E		E		E		A		E	-
	v		R		k		r		NN		-
	U		I	YE		E		A		E	-
k		L			t		g		NN		-

7-SYLLABLE WORDS

The 7-syllable words/word-combinations have the following consonant-vowel interdependence:

A-E-A-U-A-E-E > K-N-G-T-DH-Y-K
A-E-E-I-A-A-E > M-TH-K-TH-Y-G-NN

I-I-E-I-E-E-A > S-H-N-T-V-N-V

The listing provided above gives us the possibility to analyze the 1st syllable consonant-vowel inter-dependence:

KA used before **NE** (leveled **A** followed by the Ablaut **E**)

MA used before **THE** (leveled **A** followed by the Ablaut **E**)

SI – before **HI** preceding **NE** (progressive palatalization provoked by **I**).

Table 42.

1 st syl.	2nd syl.	3 rd syl.	4 th syl.	5 th syl.	6 th syl.	7 th syl.
KA	NE	GA	TU	DHA	YE	KE
MA	THE	KE	THI	YA	GA	NNE
SI	HI	NE	TI	VE	NE	VA

The analyses of the consonant-vowel combinations given above makes it possible to make the following conclusions:

1. after the 2nd syllable - Ablaut **E** the leveled **A** is used: **KA-NE-GA (framing leveling)**;
- Ablaut **E** after **TH** the Ablaut **E** is used after **K** , due, perhaps, to the close quality characteristics of the aspirated **TH** & **K**;
- palatalized **H** influenced by the 1st syllable palatalizing **I** the Ablaut interruptive **E** is used before the 3rd syllable palatalized **TI**;
2. the 5th syllable **DHA**, not being palatalized, requires the iotized Ablaut **YE** concluded by the final 7th syllable Ablaut **KE**, perhaps due to the palatal nature of the two consonants
3. the 3rd syllable Ablaut **KE** used before the 2nd syllable Ablaut **THE** is followed by the 4th syllable palatalized **THI** which is proceeded by the iotized **YA** leveled by the same nature leveled **GA** which for the sake of the hard sound is concluded by the doubled **NN** and the Ablaut **E**;
4. the 3rd syllable Ablaut **NE** used after the 2 palatalized consonants, which is followed by the palatalized **TI** followed by the strong **VE** which is followed by the Ablaut **NE** and concluded by the leveled **VA**.

So,

1.

- the Ablaut **E** is used either in the 2nd syllable after the leveled **A**, or in the 2nd and the 3rd syllable if the 2nd syllable consonant is an aspirated one (usually palatalized) and the 3rd syllable's one is a close-by-nature palatal consonant;

- it is also used as an interruptive vowel after the 2 palatalized ones before another following palatalized syllable;
 - it can also be used in the 6th syllable before a closing leveled syllable **VA**, or both in the 6th and the 7th syllables after the iotizing **Y** and the close to it by its nature **K**, or only in the final 7th syllable after the doubled consonant (**NNE**)/ the explanation was given above/.
- 2.
- the palatalizing **I** is used in the 1st, 2nd and 4th syllables after **H, S, T, TH**.
- 3.
- at least one leveled **A** is used in a 7- syllable word/word-combination.
- 4.
- the strong vowels **E, I, U** are usually covered by the leveled by **A** syllable.
- 5.
- the vowel **U (w+o)** is used in the 4th syllable after **T**, in-between the 2 leveled 3rd and 5th syllables **GA** and **DHA** .

Table 43.

	A		<u>E</u>		A		U		A	<u>YE</u>		<u>E</u>	-
k		N		g		t		dh			k		-
	A		<u>E</u>		<u>E</u>		I	YA		A		<u>E</u>	-
m		Th		k		th			g		NN		-
	I		I		<u>E</u>		I		E		<u>E</u>		A
s		H		n		t		v		n		v	

8-SYLLABLE WORD-COMBINATION

The only 8-syllable word-combination is represented by the following consonant-vowel succession:

A-A-E-I-A-A-A-E > T-N-P-T-K-R-Y-L-Y

The 1st syllable leveled **TA** is followed by the 2nd syllable leveled **NA**, proceeded by the 3rd syllable Ablaut **PE** followed by the 4th syllable palatalized **TI** which is leveled by the next 3 leveled **KA**, iotized **RYA** and the leveled counterpart **LA** completed by the Ablaut iotized **YE**:

TA-NA-PE-TI-KA-RYA-LA-YE

The syllables in the chain are used in the following way;

1. leveled 2. leveled 3. strong Ablaut 4. palatalized 5. leveled 6. iotized 7. leveled 8. strong final Ablaut

Table 44.

	A		A		E		I		A		YA		A	YE	-
t		N		P		t		k		r		l			-

II. DIPHTHONGS

VV/CVV/VVC

Table 45.

b		AI		S		I		k		A		I		A		YA	
	p	AU		I		E.											
	r	AU		m		E.											
	AU	R		U		Ddh		E.		-							
	k	AU		r		U.		v		A		Th					
	k	AU		r		U		H		A		r		I			
	dh	E		m		AU		P		I		YA		-			
	U	dh		AU		k		E		R		E		nn		E	
	r	A		h		AY											
	m	O		k		E.E		-		-		-					
	st	U		t		IY		-		-		-					
E	t	I	YA	g	A	NN	E	-									
A	t	U	dh	A	YE	k	E	-									
	t	A	n	A	P	E	t	I	k	A	r	YA	I	A	YE	-	

For the most, the usage of the diphthongs depends on the precedent and the following them vowels and consonants. The latter seem to require certain quality of diphthongs.

AI- at the beginning of the word after the consonant B before S which is followed by I that is predetermined by the AI

AU – a) at the initial position, before R followed by U predetermined by the diphthong AU
b) at the beginning of the word after P/M followed by E.
c) at the beginning of the word after K followed by R and U
d) in the middle of the word after M before **P**
e) in the middle of the word after DH preceded by **U** followed by K

Here, the following regularities are observed: 1) **AU** is used after P/R

2) the diphthong **AU** is closely connected with the consonant *P*, *preceding or following it*;

3) **AU** is used in the following constant sound combinations: AU-L-E., AU-M-E., AU-R-U/U., AU-P-I, AU-K-E (L, M, K take the final E./E, P-takes I).

AY- is used at the end of the word after H preceded by R-A; the latter predetermines the first element of the diphthong

E.E – at the end of the word after K preceded by O

IY- at the end of the word after T

YA- (iotized A) –a) in the 2nd syllable, after TH-I, before G-A

b) at the end of the word, after K-AR, before L

In fact, **YA** is used A) after the palatalized *TH*, before *G which provoke the iotization*

B) after K-AR preceded by the palatalized *TI*.

YE – a) after DH-A, before KE

b) at the end of the word, after LA preceded by YA which predetermines the Ablaut diphthong

So, **YE** follows *DH(which predetermines palatalization) or the precedent iotized YA, whichever is the following syllable*

III. CONSONANT-COMBINATIONS

Thus,

DZH is encountered in-between iotized YO and E

KHT – in-between A and palatalizing I

or A and E

KM- in-between I and E./I and A

KR – at the beginning of the word, before I

KS –

a) in the middle of the word, in-between E and I

b) at the end of the word, in-between A and E

LP- at the end of the word in-between 2 I's

MB –

a) in the middle of the word in-between E and U/U and I

b) at the beginning of the word in-between 2 U's

MBR- in the middle of the word, in-between A and E

MP- in the middle of the word, in-between A and E

NCH- in the middle of the word, in-between U and the palatalizing I

ND-a) at the end of the word, in-between E and E.

b) in the beginning of the word, in-between I and E

NDH – at the end of the word, in-between A and E

NG-a) at the beginning of the word in-between the diphthong UE and A, in-between U and A, in-between I and U

b) at the end of the word as the final consonant group after U and IE

c) in the middle of the word, in-between A and E.(r)

NK- in the middle of the word, in-between E and U

NS- in the middle of the word, in-between A and E.

NT- a) at the beginning of the word, in-between I and A

b) in the middle of the word, in-between I and U

NTH- a) at the beginning of the word, in-between A and I

b) in the middle of the word, in-between A and I

PR- at the beginning of the word, before E

PT- in the middle of the word, in-between A and A

RL- in the middle of the word, in-between U and E./O and O

RTH- at the end of the word, between I and A

RV- in the middle of the word, between 2 A's

SK- at the beginning of the word, between A and U, E and the diphthong IY, I and O

SM- at the beginning of the word, between U and A

SN-a) at the beginning of the word, before A

b) at the beginning of the word, between A. and U

SP- at the end of the word, before (v)A

ST- a) at the beginning of the word, before U, in-between A. and U(vE)

b) at the end of the word, , in-between A and U(kA)
THR- in the middle of the word, in-between I and A

See the table below:

Table 46.

pr	<u>E</u>	YO	DZH	<u>E</u>	n	<u>E</u>	v	A	th
A	KHT	I							
A		<u>E</u>							
I	KM	<u>E.</u>	n	<u>E.</u>	t	<u>E.</u>			
I	KM	A	n	k	<u>E</u>	r			
KR	I	YA.	th	m	<u>A</u>	k	A	YA.	
	<u>E</u>	KS	I	<u>YE.</u>					
t		KS							
dh	A	s	<u>E</u>	I	A	KS	<u>E</u>	<u>YE</u>	
ch	I	thr	A	sh	I	LP	I	<u>YE</u>	k
	<u>E</u>	MB	U	U					
g		MB		RU					
	U	MB	I	YA					
U	MB	U	r	U	p	A.	t	A	
h	A	MBR	E	k	E	r	A	nn	<u>E</u>
I		MP		V					
	U	NCH	I						
	O	(H)E	ND	<u>E.</u>					
k		HE	ND						
r	E	ND	E.	p					
I	ND	<u>E</u>	nn	<u>E</u>	p	<u>E</u>	I	A	v
I	t	I	p	A	NDH	<u>E</u>	m	<u>E</u>	<u>E</u>
	U	<u>E</u>	NG	A					
-	U	NG	A	-					
K		IE	NG						
I	NG	U		U					
I	NG	U	R	U					
s	A	NG	E.	r					
	<u>E</u>	NK	U	A					
B		NK		vA					
	A	NS	E.	<u>E.</u>					
P				LE.					
-	I	NT	A	-					
	I	NT	U	<u>E</u>					
P		NT		rE					

A	NT	I	b	A	YA	t	I	k			
P		NTH									
A	NTH	I		E.							
	NTH		M								
A	NTH	I	YE.	-							
pA	NTH	I	YE.	-							
PR	<u>E</u>	YO	dzh	<u>E</u>	n	<u>E</u>	v	A	th		
A	d	Ah	PT	A	r	A	YA				
	U		E.	E							
D		RL		B							
O	RL	O	s	U							
sh	A	r	A	th	I	RTH	A	v	A		
dh		RV		L							
A	SK	U									
E		IY									
I	SK	O		E							
	SK		I								
h	U	SM	A	g	A	nn	A	v	A		
A	SN	E									
A.		U	IY	-							
d	A	v	A	SP							
ST	U	t	IY	-							
E	ST	IY									
	A.	ST	U	E							
g		ST	U	vE							
p	U	r	A.	v	A	ST	U	k	A		
ch	I	THR	A	sh	I	lp	I	YE	k		

IY. CONSONANT DOUBLING

VCCV/VCC

The doubled consonants occur in a definite environment of the vowel/vowel-consonant relations within the limits of a word. The following regularities are observed:

BB is used in-between 2 A's at the beginning of the word

CC is traced a) at the beginning of the word in-between A and I or 2 I's
b) at the end of the word in-between 2 I's

CHCH is used at the end of the word in-between 2 I's

DD - at the beginning of the word in-between A and E

DDH- at the end of the word in-between iotized YA and E./U and E.

HH is used a) at the beginning of the word in-between A and another A followed by iotized YA/A before K-E

b) in the middle of the word in-between 2 A's

KK –a) at the end of the word a) in-between A. and I/I preceded by palatalizing DH and A/ I preceded by N and another I

b) at the end of the word in-between E and O

LL – at the end of the word a) in-between A preceded by M/S and I

b) in-between E preceded by H and A

c) in-between I preceded by K and A

d) before I preceded by G

NN – A/ at the end of the word a) in-between A preceded by /DH/H/L/P/R/V/ and E.

b) in-between E preceded by K/V and E.

c) in-between I preceded by Y and E.

d) in-between I preceded by D/N/R and E.

e) in-between YA preceded by A and E.

f) in-between E preceded by NV and I

g) in-between YA preceded by I and E.

h) in-between the groups I-GA/A-GA and the ending

A(V)

i) in-between the group E-GA and E

!!!j) in-between the group E-RA and

k) in-between the group E-DE/E-RE and E (the

framing Ablaut)

l) in-between the group E-RA/E-VA and E

m) in-between the groups A-DH/A-HA (preceded by H/M/V) A-LA/A-PA/YA-VA and E.

n) in-between the groups A-DI/A-NI (preceded by G/P)/A-RI and E.

o) in-between the groups I-NA (preceded by P)/I-RA (preceded by K)/ I-YA (preceded by L

p) in-between the group U-NV-E and I (the V in the NV group is provoked by the preceding U)

r) in-between the group O-DHA and E.

s) in-between the group I-DH-I and E. (palatalizing DH)

t) at the beginning of the word, in-between A preceded by K and A

PP- in the middle of the word a) in-between O and I + YE.

b) in-between E preceded by R and U + VE

/Note: O before PP and U after PP are dictated by the PP itself/

SS- a) at the beginning of the word in-between A and A(N)/I and A(R)/ I and E.(R)

b) in the middle of the word in-between (R)E. and E.

c) at the end of the word in-between (KH)U and I-YE.

TT – a) in the middle of the word in-between (P)E/(P)O and I-YE.

b) in the middle of the word in-between (B)-O and A-ME.

c) at the end of the word in-between (P)O-and A
 /Note: B and P dictate the O before the TT/

THTH – in the middle of the word a) in-between B-I and E-RE

b) in-between the groups O-SA/A-VA and U-VA/A

- at the end of the word in-between the groups A-MU/U-VA and finals A/E

The following table gives a more challenging picture:

Table 47.

A	BB	A	h	I	v	I	m	A
A	CC	I						
I	CC	I	CHCH	I	-			
v	E	I	I	CC	I			
I	dh	I	CHCH	I	-			
A	DD	E	R	E	-			
k	I	YA	DDH	E.	-			
AU	r	U	DDH	E.	-			
A	HH	A	-	YA.	n	A	-	YA
	A	A	HH	A		E		
s	A.	KK	I					
-	E	KK	O					
s	A	dh	I	KK	A			
b	O	n	I	KK	I			
s	A	LL	I					
p	E	n	E	H	A	LL	A	-
th	A	R	A	HH	A	k	E	nth
!!!th	O	R	A	H	<u>E</u>	k	I	LL
k	E	NN	E.					
v	E	NN	E.					
y	I	NN	E.					
-	I	NN	E.					
b	O	NN	E.					
d	A	NN	E.	v	A			
b	A	I	A	NN	E.			
h	A	dh	A	NN	E.			
	A	h	A	NN	E.			
m	A	h	A	NN	E.			
v	A	h	A	NN	E.			
h	A	p	A	NN	E.			

b	A	d	/	NN	E.
g	A	n	l	NN	E.
	A	r	/	NN	E.
p	A	n	l	NN	E.
-	-	A	YA	NN	E.
g	E	v	A	NN	E.
k	l	r	A	NN	E.
th	U	nv	E	NN	l
p	l	n	A	NN	E.
l	l	YA	-	NN	E.
	YA	v	A	NN	E.
h	O	dh	A	NN	E.

!!!g	/	D	/	n	A	g		
p	l	L	l	g	A	NN	A	v
	U	Sm	A	g	A	NN	A	v
l	g	E	n	<u>E</u>	g	A	NN	<u>E</u>
!!!t	A	Dh	<u>E</u>	k	<u>E</u>	r	A	NN
!!!l	km	A	n	k	<u>E</u>	r	A	NN
!!!A	SS	A	n	k	<u>E</u>	r	A	NN
n	A	<u>YE</u>	t	<u>E</u>	d	E	NN	<u>E</u>
U	dh	AU	k	<u>E</u>	r	E	NN	<u>E</u>
A	SS	A		<u>E</u>		A	NN	<u>E</u>
A	SS	A	n	<u>E</u>	r	A	NN	<u>E</u>
l	SS	A	r	A	v	E	l	A.
g	/	N	/	p	<u>E</u>	TT	/	<u>YE</u>

k	A	NN	A	dh	l	k	U	TT	<u>E</u>	m	<u>E</u>
l	ND	E	NN	<u>E</u>	p	U	l	U	v	A	n
l	v	<u>E</u>	r	<u>E</u>	k	<u>E</u>	r	A	NN	<u>E</u>	-
k	U	L	l	YE	t	<u>E</u>	g	A	NN	<u>E</u>	-

	A		<u>E</u>		<u>E</u>		/	YA		A		<u>E</u>	-
m	A	th	<u>E</u>	k	<u>E</u>	th	l	YA	g	A	NN	<u>E</u>	-

k	A	NN	A	D	l	YE.	-	-
n	l	dh	A	G	A	NN	E.	-
v	l	k	U	N	A	NN	E.	-
A	th	v	l	Dh	l	NN	E.	-
E	v	l	dh	l	NN	E.	-	-

t	O	PP	l	YE.	-
---	---	----	---	-----	---

g	<u>E</u>	r	<u>E</u>	PP	U	v	E	-
---	----------	---	----------	----	---	---	---	---

l		SS			
---	--	----	--	--	--

m	l	n	l	SS	U
---	---	---	---	----	---

p	A	r	E.	SS	E.	m	E	n
---	---	---	----	----	----	---	---	---

l	SS	E.	r	E.	h	A	-	-
---	----	----	---	----	---	---	---	---

k	A	kh	U	SS	l	YE.	-	-
---	---	----	---	----	---	-----	---	---

p	E	TT	l	YE.	-
---	---	----	---	-----	---

p	O	TT	l	YE.	-
---	---	----	---	-----	---

b	O	TT	A	M	E.	m	E.	-
k	E.	r	A	P	O	TT	A	-
A	M	U	THTH	A.	-			
b	I	!!!TTH	E	r	E			
n	A	v	A	THTH	A	NN	E.	-
s	A	THTH	U	V	A	THTH	E	-

Some isomorphmic and allomorphic features of VH in Sinhala and Sanskrit

The following cases are observed in the line of the two languages opposition of the **consonant-vowel type**:

- a consonant/s +a Sinhala: b, BB, k, KK, KM, g, dzh, h, HH, t, TT, th, THTH, THR, d, dh, n, NDH, NG, NN, NT, p, PT, m, y, r, RTH, RV, l, LL, v, s, SS, sh, SM + A
- a consonant +a: Sinhala: k, p, l, m, n, r, s, th, THTH, v, y + A.
- a consonant +ae Sinhala: t + AE
- a consonant/s + e Sinhala: b, BR, k, g, t, TTH, th, d, DD, dh, h, n, ND, NN, NV, p, m, MBR, MP, y, r, l, v, s, SN, sh +E
- a consonant/s +e. Sinhala: c, DDH, dh, k, KM, l, m, n, ND, NG, NN, NS, p, PR, RL, r, s, SS, t, v, VV, y + E.
- a consonant +e Sinhala: b, d, dh, dzh, g, h, k, KS, l, m, n, ND, NN, NK, p, PR, r, s, t, TT, th, THTH, v, y + E
- a consonant + i Sanskrit: k, g, h, ch, dzh, t, th, d, dh, n, p, PP, ph, b, bh, m, y, r, l, v, s, SS, sh, h + l
- Sinhala: k, -, KK, KHT, KR, KS, CC, ch, -,CHCH, dzh, t, TT, th, THV, d, dh, n, NN, NTH, p, PP, ph, b, bh, m, y, r, l, LL, LP, v, s, SS, sh, h + l
- a consonant + i: Sinhala : dh, t + l:
- a consonant +u Sanskrit: k, g, gh, ch, dzh, t, th, d, dh, n, m, y, exception r, l, v, s, sh, h + U
- Sinhala: b, k, kh, g, dzh, t, th, THTH, d, dh, n, NG, NK, NT, p, PP, m, mb, mp, y, r, l, v, s, SS, SN,SK, ST, h+U
- a consonant +u: : Sanskrit: k, g, gh, ch, dzh, dzhH, t, d, dh, n, p, ph, b, bh, m, y, exception r, l, v, s, sh, h + U:
- Sinhala: t, n + U:
-
- a consonant + o: Sanskrit: k, kh, g, gh, ch, chH, dzh, dzhH, t, th, d, dh, n, p, ph, b, bh, m, y, r, l, v, s, sh, h + O
- + o Sinhala: b, k, KK, g, dzh, t, th, n, p, b, m, r, RL, l, s, SK, h, y +O
- a consonant + au: Sanskrit: k, kh, g, gh, ch, chH, dzh, dzhH, t, th, d, dh, n, p, ph, b, bh, m, y, r, l, v, s, sh, h + AU
- Sinhala: dh, k, m, p, r + AU
- a consonant + a+M (anaswara): Sanskrit: k,kh, g, gh, ch, chH, dzh, dzhH, d, dh, n, p, ph, b, bh, m, y, r, l, v, s, sh, h + AM

Sinhala: **a vowel + a stopping consonant:**

A + BB, CC, d, DD, DH, DDH, g, h, HH, KH, KHT, KS, l, LL, m, MBR, MP, n, NN, NDH, NG, NK, NS, NT, NTH, p, r, RV, s, SS, SH, SK, SN, SP, ST, t, TH, THTH, THV, y, v

A. + k, KK, v

A + k

E + h, k, KK, l, m, MB, n, NN, ND, NK, NTH, r, s, SK, ST, TT, th, v

E. + b, h, l, m, p, r, t, SS

E + d, g, k, m, n, NN, KS, l, p, PP, r, t, TH, v, y

I + b, CC, CHCH, d, dh, g, k, KK, KM, l, LL, LP, m, n, NN, ND, NG, NT, p, R, s, SS, SK, t, TTH, THR, v, y

O + dh, n, NN, PP, r, TT

U. + l

U + d, DDH, dh, k, l, MB, n, NCH, NG, NV, p, r, RL, SS, SM, t, TT, THTH, th, v

An iotized semi-consonant + a vowel:

Y + O + DZH

Y + A. + th

Y + E + k

A diphthong + a consonant:

IE + NG

- *a consonant +R+vowel: k,g, dzh, tr, dr ,pr + RI : (IR in one word only “klrp”)*
- *compound syllabic consonants (a consonant + a/o/e/)*
- **virama** (elimination of an inter-consonant vowel in the **-n(A)t->-NT-** group:” Sanskrit: **shaNTa, shaNTi”**
- *compound consonant guttural groups (a+KK,KT,GD,GDH,GN,NK,N’K,NG,NGH+a;*

g /k+consonant+a (KY, KR, KL, KV, KHY, GY, GR, GL, GHY, GRHR

+a))

Sinhala: a+ MBR/MP/KHT/KS/NDH/NG/NK/NT/NTH/RV/SK/SN/SP/ST/THV

a. + PT/SN/ST

Ya. + th

e+ MB/ND/NG/NK/NTH/SK/ST

e +KS

I + KM/LP/ND/NG/NT/RL/SK/SM/THR

O + DZH/RL

Yo+ DZH

U + MB/NCH/NG/NV/SM

- siribro 1st member: 1) **a+TT/TTH/TSTS/NT/NTH/ND/NDH/NN”Y/NN+a**
- 2) **TY/TR/TV/DY/DR/DV/DHY/DHR/DVH/+ a**
- a dental consonant as the 1st member:
a+TH/TT/TTH/TP/TPH/TY/TR/TV/TSTS/THY/DG/DD/DDH/DV/DPH/DM/DY/DR/DV/NT/NTH/ND+a

Sinhala: a+ d/DD/dh/DDH/t/th/THTH/

e+ TT/th/

e. + t

e + d/t/th

i+ d/dh/ t/TTH/THR

u+ d/DDH/dh/t/TT/th

- a labial consonant as the 1st member: a) **a+PT/PN/MN/MP/MB/MBH/MV+a**

Sinhala: a+BB/M/MBR/MP/v

e+ m/MB/v

e+ m/p/PP/v

e. + b/p

i+ b/m/p/v

o+ p/PP

u+ b/MB/p/v

b) PY/PR/PL/PS/PHY/PR/PHR/BD/BR/BHY/BHR/MNMY/MR/ML+a

- a semi-vowel as the 1st member:

a) **a+YY/RK/RKH/RG/RGH/LK/LP/LLY/LL +a**

b) **VY/VR+a**

Sinhala: **A/A./E/E/E./I/O/U + R/RL/V/Y**

- a palatal consonant as the 1st member:

a) **a+CHCH"/DZHDZH/NCH/NCHh/NDZH/NDZHh+a**

b) **GY/CHhR/G"Y/DZHY/DZHR/DZHV/+a**

- other possible vowel-consonant/consonant-vowel/consonant-consonant-vowel groups deduced are:

- a) **a+SH+consonant+a**

- b) **a consonant+a**

- c) **an aspirated consonant+a**

- d) **a doubled consonant+a**

- a vowel + a doubled consonant:

- **A + BB/CC/DD/DDH/HH/KK/LL/NN/SS/THTH**

- **A. + KK**

E + KK/TT

E. + SS

E + NN/PP

I + CC/CHCH/KK/LL/NN/SS/TTH

O + NN/PP/TT

- e) **H+N/Y/R/L/V+a**
- f) **A+3 consonants+a: a+PSHM/KSHV/GDH/NGY/NDHKY/TTW/PPN/DDH/DHY**

RY/TRY+a

A VOWEL+CONSONANT SYLLABLES

The Sinhala language (as, perhaps, any other language) is also represented by the **vowel-consonant syllable patterns (a vowel + a consonant)**.

As to the special accommodation feature (lips closing) which, as it was mentioned in the introduction, lies in ending the breath when the vowel is pronounced /anaswara/ and finishes with the consonants **m/h** .

The following possibilities are observed:

Sanskrit: **a,u,u:,ai,o,au,ru,ri +M** and **a,a:, i, u, u:, o,ou, n, r, wr + H/H'**.

Sinhala:

a+BB/CC/D//DD/DDH/DH/G/H//HH/HPT/K/KH/KHT/KS/L/LL/M/MB/MBR/MP/N/NN/NDH/NG/NK/NS/NT/NTH/THV/P/R/RV/S/SS/SH/SN/SK/SP/ST/T/TH/THTH/V/Y(A/E)

a: DH/K/KK/N/PT/R/S/SN/ST/T/TH/V

e+DH/G/H/K/KK/KS/L/M/MB/N/NK/NN/ND/NTH/R/S/SK/ST/T/TT/TH/V

e+D/G/K/KS/L/M/NN/P/PP/N/R/T/TH/V/Y

e. +M/P/NTH/R/SS

i+

B/D/DH/CC/CHCH/E/G/H/K/KK/KM/L/LL/LP/M/N/NN/ND//NG/NT/P/R/RTH/S/SS/SK/T/TH/THR/TTH/V/Y (a/e/e.e)/

o+ DZH/H/KL/NN/PP/R/RL/TT/V

u+

DDH/DH/K/M/MB/L/N/NN/NCH/NG/NV/P/PP/R/RL/S/SS/SM/T/TT/THTH/TTH/V

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DIPHTHONGS

- AI

ai + a consonant : AI+ S

a consonant + ai: B/H + AI

- *a consonant + ai*: Sanskrit: **k, g, gh, ch, chH, dzh, dzhH, t, th, d, dh, n, p, ph, b, bh, m, y, r, l, v, s, sh, shH, h + AI**

- Sinhala: **b, h, n + AI**

AU

au + a consonant : AU+ K/R

a consonant + au : DH/K/M/P/R + AU

E.E

e.e : a consonant+ e.e :K+E.E/

EI

- *a consonant +the diphthong ei*: Sanskrit: **k, g, gh, ch, chH, dzh, dzhH, t, th, d, dh, n, p, ph, b, bh, m, y, r, l, v. s, sh, h+ EI**

IY

iy : a consonant/s +iy : R/SK/ST/T + IY

IE

ie: ie + NG

UA

ua : UA/
a consonant/s + ua : K+/NK+ UA

UE

ue : UE/
ue + a consonant/s : UE+ N/NK

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UI

ui : UI//+E/Y

ui+ a consnant/s : UI+N/NG/Y
a consonant+ ui : K+UI

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