CHAPTER 3

TAMIL SPEECH SOUNDS

Description of Tamil Sounds*

The Tamil orthography contains 12 letters for Vowels and 18 letters for the consonants.

Besides these, there is also a letter known as Aytam, written as (like the : in Devanagari). This is neither a vowel, nor a consonant. But traditionally it is being listed with the vowels. There are 6 more letters, besides the above mentioned, used exclusively for non-Tamil sounds.

**Vowels** :

There are 5 pairs of letters for the short and long vowels, [ a, ã ]; [ i, ì ]; [ u, ù ]; [ e, ë ]; and [ o, ò ]

Two letters are there for the Vowel clusters [ ai and au]

The 12 letters for the Vowels are :

[ a ] [ ã ]
[ i ] [ ì ]
[ u ] [ ù ]
[ e ] [ ë ]
[ o ] [ ò ]
[ ai ] [ au ]

[ a ] – is a short unrounded open central Vowel. It is pronounced like the ‘u’ English ‘cut’.

[ a ] – A long unrounded open central Vowel. It is the longer counterpart of [a] This is pronounced like the ‘a’ in English ‘father’.

[ i ] – It is a short unrounded front Vowel. It is pronounced like the ‘i’ in English ‘kill’.

[ í ] – It is a long unrounded front vowel. It is the longer counter part of [ i ] It is pronounced like the ‘ee’ in English ‘bee’.


(i) [ u ] – a short rounded close back Vowel. This is pronounced like ‘u’ in English ‘but’. [ û ] – a short unrounded Vowel. This is pronounced like the ‘u’ in English put. This is pronounced like the ‘y’ in Russian ‘stoly’ (tables). Between these two vowels, [ û ] never occurs in the beginning of the word or first syllable of the word. So [ u ] in the beginning of the word is always the rounded [ u ].

* Dr. R. Mahapatra, Dr. P. Bhanumathi & Dr. S. Chakrabarti, - Tamil Script and Sound, p. 1 – 19
[\text{\textipa{u}}] – It is a long rounded close back vowel. It is the longer counterpart of the rounded [\textipa{u}]. It is pronounced like the ‘oo’ in English ‘pool’.

[\text{\textipa{e}}] – It is a short unrounded mid-open front vowel. It is pronounced similar to the ‘e’ in ‘envy’ in English.

[\text{\textipa{ê}}] – It is a long unrounded mid-open front vowel. It is the longer counterpart of [\text{\textipa{e}}].

[\text{\textipa{o}}] – It is a short unrounded mid-open back vowel. This is pronounced like the [\text{\textipa{o}}] in English ‘only’, ‘one’ etc.

[\text{\textipa{ô}}] – Is a long rounded mid-open back vowel, It is the longer counterpart of [\text{\textipa{o}}].

This is pronounced similar to the ‘o’ in English ‘cold’.

\textbf{Vowel – clusters :}

\begin{itemize}
  \item [\text{\textipa{ai}}] or [\text{\textipa{ay}}]:
  \begin{itemize}
    \item [\text{\textipa{aivar}}] – five persons.
    \item [\text{\textipa{aindU}}] – five
    \item [\text{\textipa{aippaši}}] – Seventh month in the Tamil calendar.
    \item [\text{\textipa{ayyar}}] – a brahmin (male)
  \end{itemize}
\end{itemize}

\begin{itemize}
  \item [\text{\textipa{au}}] or [\text{\textipa{av}}]:
  \begin{itemize}
    \item [\text{\textipa{aurangazib}}] – Aurangazeb
    \item [\text{\textipa{avvai}}] – a poetess of the middle ages.
  \end{itemize}
\end{itemize}

\textbf{Notes :}

(i) The vowels (a, i, u etc. etc.) in the forms given so far occur only in the beginnings of the words.
In other places, where they occur in combination with consonants, different signs are used for them.

(ii) Both ‘\textipa{a\textdia{u}}’ and ‘\textipa{ê\textdia{e}}’ are used to denote ‘æ’ of English also as in words like:
  \begin{itemize}
    \item Bank [\text{\textipa{bæŋk}}] – bangU or bengU
    \item Tank [\text{\textipa{tæŋk}}] – tang or tengU
    \item Fan [\text{\textipa{fæN}}] – peN
    \item Flat [\text{\textipa{flæt}}] – .'.pLat or .'.pLattU
  \end{itemize}
Bat [ bæt ] — bet or betṭU
Gas [ gaes ] — gas
Taxi [ taksi ] — takṣi

The pure consonant (i.e. Consonant without a vowel) writen with a Dot above the letter.

The consonants in Tamil are given below.

\[
\begin{array}{c}
[ k ] [ n ] [ c ] [ ŋ ] [ t ] [ ŋ ] [ t ] [ n ] \\
[ p ] [ m ] [ y ] [ r ] [ l ] [ v ] [ zh ] [ l ] [ R ] [ N ].
\end{array}
\]

The following are letters used exclusively for non Tamil sounds.

\[
[ Š ], [ ş ], [ j ], [ h ] [ ts ] \text{ and } [ š r i ]
\]

[ šrī ] — This letter stands for the prefix śrī, e.g. [ śrī rām ] — śrī Ram.

**Consonants:**

[ k ] is a voiceless velar stop. It is pronounced similar to the ‘k’ in English in ‘book’.

  e.g. [ akkā ] elder sister
        [ ākkam ] encouragement

[ n ] is a velar nasal. It is pronounced similar to the ‘ng’ in English ‘king’

  e.g. [ āngā ] a proper name.
        [ vāngam ] Bengal.

[ c ] is a voiceless palatal affricate. It is pronounced similar to the ‘ch’ in English as in ‘torch’.

  e.g. [ accam ] fear
        [ maccam ] mole

[ ŋ ] — is a palatal nasal. It is pronounced similar to the [ * ] in (above the ъ)

  e.g. [ ŋañjel ] Swing.
        [ pāñjam ] famine

[ t ] — is a voiceless retroflex stop. It is pronounced similar to the ѱ in Devanagari as in Nasta.
e.g. [ūtām] nourishment
   [ōtīm] running

[ṇ] – is a retroflex nasal. It is pronounced similar to the ‘ṅ’ in Devanagari
   as is ‘वङ्’ [Varna].
   e.g. [āṇ] male
       [peṇ] female

[t] – is a voiceless dental stop. It is pronounced similar to the ‘ṭ’ in Devanagari
   as in bat.
   e.g. [tāṭā] grandfather
       [kattā] shouting

[n] – is a dental nasal. It is pronounced similar to the ‘n’ in English ‘man’.
   e.g. [anda] that
       [inda] this

[p] – is a voiceless bilabial stop. It is pronounced similar to the ‘p’ in English
   ‘cap’.
   e.g. [appā] father
       [ēppām] belching

[m] – is a bilabial nasal. It is pronounced similar to the ‘m’ in English as in ‘dam’.
   e.g. [ammā] mother
       [tambi] younger brother.

[y] – is a palatal semivowel. It is pronounced like the ‘y’ in English ‘toy’.
   e.g. [tay] mother
       [nay] dog

[r] – is an alveolar trill. It is pronounced similar to the ‘r’ in English as in ‘drama’.
   e.g. [avar] that man / woman (with respect)
       [ivar] this man / woman (with respect)

[l] – is an alveolar lateral. It is pronounced similar to the ‘l’ in English ‘call’.
   e.g. [kal] ‘stone’
       [pal] ‘tooth’

[v] – is a labiodental semivowel. It is pronounced similar to the ‘v’ in English
   ‘van’.
   e.g. [sēvāy] Tuesday
       [kavvu] grab by mouths
[zh] – is a palatal lateral. It is pronounced by bending the tip of the tongue upwards and backwards so as to approach the palate.

e.g. [ţţzh] drown
   [tamizh] Tamil

[L] – is a lateral retroflex.

e.g. [ţţL] one person
   [kţL] country liquor

[R] – is a voiced apical alveolar vibrant. It is pronounced similar to ‘r’ but with a more tense vibration.

e.g. [aRpaN] a mean person (male)
   [kaRpv] chastity

[N] – is an apical alveolar nasal. It is pronounced like the ‘n’ ‘man’

e.g. [avaN] ‘that man’
   [ivaN] ‘this man’

[S] – is a voiceless dental fricative. It is pronounced like in English ‘bus’.

e.g. [bas] bus
   [rastă] road.

[ţ] – is a voiceless retroflex fricative. It is pronounced like the ‘sh’ in English ‘fish’.

e.g. [uţNa m] heat
   [kastaţam] trouble

[j] – is a voiced palatal affricate. It is pronounced similar to ‘w’ in Devanagari as in ‘वा’.

e.g. [bajji] a fried snack
   [juţlay] flame

[H] – is a voiceless Glottal fricative. It is pronounced similar to ‘h’ in English as in ‘hood’.

e.g. [nuhmaN] a proper name
   [rahmaN] a proper name

[ţs] – though this letter corresponds to Devanagari [ks] it is pronounced more like a [tş].

e.g. [laţşmi] a proper name.
   [laţşmaçaN] a proper name.
More information on k, c, t, t, P & R

In the cases of k, c, t, t, p and R each letter stands for more than one sound depending on its place in the word. Detailed information regarding this change of pronunciation as related to the position of the letter in the world is given in this section.

1. k is pronounced as
   1) k
   2) g
   3) h
   depending on its position in the world.

1) As k a) in the beginning of the word

For Practice

Kal - stone
Kan - eye
Katti - knife
Kappal - ship

Kalkatta — Calcutta
Kamala — a name
Kammal — earring
Kannan — a name

b) In doubling — (as a double consonant – kk)

For Practice

akkā — elder sister
kākkā — hook
nakkku — tongue

vāzhkkai — life
pakkam — page
pākkku — betelnut
tukkam — sleep

c) When if occurs after ð and R

For Practice

Veṭkam — shyness
āṭkal — men
mēRku — west
iyaRkay — nature

teRku — south
nātkal — days
kaikkal — words
seyarkai — artificial

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2) **K** is pronounced as **g**

   **a)** When it is after **n** or **N**

   - **taŋgam** - gold
   - **vaŋgam** - Bengal
   - **tangay** - younger sister
   - **Paŋgu** - share
   - **āngai** - men
   - **Pengal** - women
   - **mīNgal** - fish
   - **nāNgu** - four

   **For practice**

   - **sāngu** - conch
   - **inge** - here
   - **āŋgé** - there
   - **kangal** - eyes
   - **tūŋgal** - pillar
   - **pajyaNgal** - boys
   - **māNgal** - deers

3) **K** is pronounced as **h** - (a fricative voiceless velarshop)

   **a)** Between two vowels.

   - **naham** - nail
   - **mahaN** - son
   - **puhay** - smoke
   - **mēham** - cloud

   **For practice**

   - **nahai** - ornament
   - **mahal** - daughter
   - **viRaku** - fire wood
   - **veham** - speed

   **b)** When it is after **y, r, l, zh or L**

   - **Seyhay** - action
   - **avarhal** - they
   - **Kalhhal** - legs
   - **Vāzhha** - log love
   - **KoLhay** - principle

   **For practices**

   - **saihai** - gesture
   - **malarhal** - flowers
   - **vāskal** - tails
   - **vizhha** - down with
   - **āLha** - let (then) rule

**NON TAMIL WORDS**

In non Tamil Words **k** plays the role of **k, g, and h** depending on the word, regardless of its position.

( the rules given above do not apply here)

- **gaNam** = heaviness, **gauravam** = honour, **garvam** = pride, **lagaN** =_Min, **gantiji**, **gavarNar**, **gogole** = gorkki, **agamatu**.
c is pronounced as 1) s, 2) c, 3) j,
and also substituted for s, s, ts in non Tamil words

a) in the beginning of the word.
b) between two vowels.
c) a) in doubling.
b) after R
j) after ḍh
s) in non Tamil words — substituted for s
a) after t and substituted for šs
b) in non Tamil words substituted for Šs.

1) C is pronounced s — (a slit fricative voiceless palatal consonant) like the as in
a) In the beginning c is pronounced as s.
Śaṭṭay = shirt, Śaṭṭi = earthen pot, Śānī = cowdung, Śēri = slum, SaNi = Saturn,
Śāvi = key.

b) Between two vowels.
Pasi = hunger, ṛūśi = needle, āŚay = liking, araSaN = king, Pasay = adhesive, Pāsi
= moss, Kāsu = money, tarāsu = scale(weighing)

2) C is pronounced as c

a) when doubled
piccay = alms, maccam = mole, taccaN = carpenter, accu = print, kucci =
stick, cāyccu = heart(verb), paccay = green.

b) When it is after R
muyaRci = attempt, suzhaRci = rotation, payiRci = training
āŋhuRci = burning sensation

3) C is pronounced as j (a voiced palatal affricate)
after — ḍh
paṅju = cotton, ṭūji = ginger, ṭūjāl = swing, kaṅjaN = miser, laṅjam = bride, maṅjal =
yellow, paṅjam = famine, naṅjai = paddy field(wet land).

4) C is pronounced as S (regardless as position)
masalā = spices, vilāsam = address, saṅaNam = equal, samsāram = family life,
taksi = taxi, sikret = cigarette, samosi = samosa, saks = socks.

5) C is pronounced as Š
When it is after = m
lātṣam = lakh, āṭsi = rule, parīṭṣay = examination, drāṭṣay = grapes, kāṭsi = party, kāṭsi = show, viṣṭi = fall, rāṭṣasaN = grant.

6) C may be used for ĉ̪, s, or t̪̂s freely in non-Tamil words (script represents the convention or tradition, where as pronunciation is relatively free from the convention.

care = church, sup = soup, sikkiram = quickly, ceyiN = chain, jun = June, sōtā = soda, rōsam = indignation, āraṇj = orange, juram = fever, mōtsam = salvation, rēSaN = rotation,

iii) t stands for 1) t, 2) d (a voiced retroflex stop) and 3) r – a flap

- a) In the beginning of the word.
- b) When doubled.
- c) Before k, c, j, p.
- d) After n
- r – between two vowels

1) t is pronounced as 

- a) In the beginning of the word (all these are non-Tamil words)
  ti = tea, trāṃ = tram, trākṭar = tractor, tenni = tennis, ūn = ūn, ūkkt = ticket, 
  taval = towel, tāksi = taxi.
- b) When doubled – (tt)
  pātti = grandfather, pāṭtu = son, ūttam = running, ūttay = hole, tōttam =
  garden, tōttil = cradle
- c) Before k, c and p
  veṭkam = shyness, āṭci = rule, natpu = friendship, kāṭci = show, cāṭsi = witness
  utkār = sit.

2) t is pronounced as d (after n)
  tonḍay = throat, vanḍi = cart, naṇḍu = carb, caṇḍay = quarrel, noṇḍi – lame, 
  vanḍu – beetle.

3) t is pronounced as r

- between two vowels.

Pāṛu – sing, āseri – plant, mūri – lid, kuṇay – umbrella, ūru = run, āru – dance, 
  kuṇay – shop, cōṛā – soda.

In non-Tamil words t stands for both t and d regardless of its position.

As d

dālda – dalda, dāṛjilinā – Darjeeling, drāma – drama, vaṇḍi – interest, diram – drum, 
dāktar – doctor, metrās – Madras.
As t,


iv) T stands for t and d. (voiced dental stop)

T – a) In the beginning.
    T
    b) When doubled.

    d – a) After ň, y, r, zh.
    b) Between two vowels.

1) t is pronounced as t.
    a) In the beginning as a word –
    b) As a double consonant – tt
        ňitt – mother’s younger sister, attay – father’s sister, mottam – total, kattu –
        shout, pattu –
        ten, vāṭēu – duck.

2) t is pronounced as d.
    a) after ň, y, r and ŝh
        paNdal – shamian, ŜaNday – market, šeydi – news, tērdal – election,
    b) Between two vowels.
        vīdī – street, kudiray – horse, tēdi – date, uday – kick,
        pāday – road, mīdi – balance (remaining), kādu – ear, pādi – half.

In non-Tamil words t stands for t or d regardless of positions.

dāri – beard, tāLam – gift, dōsāy – a snack, Sāhityam – lyric, akamat – Ahmad,

Pardā – purda.

v) P is pronounced as p and b (a voiced bilabial stop).

    P – a) In the beginning of the word.
    P
    b) When doubled.
    c) After t and R

    P
    b – a) after m, ň, N, y, r, ŝ and L
    b) Between two vowels

f In Non-Tamil words
1) P is pronounced as p.
   a) In the beginning as a word.
   b) As a double consonant.
   c) P is pronounced as p after t and R.
      natpu – friendship, vilpanay – sales, kappoṇay – imagination, mēRpuṭi — as above

2) a) P is pronounced as b
       After m,n,N/Vy,r/4, zh., L.
   b) Between two vowels.

In Non-Tamil words p stands for p,b,f etc as required.

vi) R is pronounced as R, TR and DR

   R — a) Between two vowels,
      b) before k,c,p.
   TR — when double.
   DR — after n

1) R is pronounced as R, similar to r but with a slightly more intense vibration.
   a) Between two vowels.
      PuRā – dove, eRuppu – ant, kapi – curry, PRavay – bird, niRām – colour, aRay – room,
      kuRumbu – mischief, tiRa – open.
   b) before K,c,P.
      teRku – south, meRku – west, mūyaRci – effort, payiRsi – training, kaRpu – chastity,
      kaRbu Nay – imagination.

2) R is pronounced as Tr – similar to ‘tr’ in English ‘petrol’.

   As double consonant.

3) R is pronounced as (DR) as the ‘dr’ in English ‘drama’.

When it is after n.


MODIFICATION

Non Tamil words, when they contain certain consonant combinations foreign to Tamil, either in the beginning or middle of the word, they undergo a change in the spelling in Tamil. But the pronunciation may reflect the non Tamil pattern.

I. When the consonant combination is followed by (u), (i), [ō] or [ā] or the second consonant in the cluster is (v) or (m) the cluster is broken by inserting a (u) vowel.

<table>
<thead>
<tr>
<th>Pronounced</th>
<th>Written as</th>
<th>Change</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>prohidaN</td>
<td>purōhidaN</td>
<td>[pr→pur]</td>
<td>priest</td>
</tr>
<tr>
<td>krodam</td>
<td>kurōdam</td>
<td>[kr→kur]</td>
<td>anger</td>
</tr>
<tr>
<td>Sloham</td>
<td>Sulōham</td>
<td>[sl→sui]</td>
<td>hymns</td>
</tr>
<tr>
<td>Svāami</td>
<td>Suvāmi</td>
<td>[sv→suv]</td>
<td>master of god</td>
</tr>
<tr>
<td>Svāsam</td>
<td>Suvāsam</td>
<td>[sv→suv]</td>
<td>master of god</td>
</tr>
<tr>
<td>tatvam</td>
<td>tattuvam</td>
<td>[tu→tuv‘]</td>
<td>philosophy</td>
</tr>
<tr>
<td>Svadandiram</td>
<td>sudandiram</td>
<td>[su→su]</td>
<td>independence</td>
</tr>
<tr>
<td>āstman</td>
<td>asttumāi</td>
<td>[tm→tum]</td>
<td>asthma</td>
</tr>
<tr>
<td>daraman</td>
<td>taruma</td>
<td>[rm→rurn]</td>
<td>charity</td>
</tr>
<tr>
<td>mukkiyatavam</td>
<td>musahiyattuvar</td>
<td>[tv→tuv]</td>
<td>importance</td>
</tr>
</tbody>
</table>

II. When the second consonant is not [v] or [m] and it is followed by any vowel other than those mentioned above, an[i] is inserted into the cluster.

<table>
<thead>
<tr>
<th>Pronunciation</th>
<th>Written as</th>
<th>Change</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>grānram</td>
<td>girānram</td>
<td>[gr→gir]</td>
<td>village</td>
</tr>
<tr>
<td>śrāmam</td>
<td>sirāmam</td>
<td>[sr→sir]</td>
<td>trouble</td>
</tr>
<tr>
<td>brāmaṇaN</td>
<td>pirāmaṇaN</td>
<td>[br→bir]</td>
<td>Brahmīn(male)</td>
</tr>
<tr>
<td>brāmmanN</td>
<td>pirammanN</td>
<td>[br→bir]</td>
<td>Brahma</td>
</tr>
<tr>
<td>akramam</td>
<td>akkīramam</td>
<td>[kr→kir]</td>
<td>atrocity unjust</td>
</tr>
<tr>
<td>Pātram</td>
<td>pātiram</td>
<td>[tr→tir]</td>
<td>vessel</td>
</tr>
<tr>
<td>Pronunciation</td>
<td>Written as</td>
<td>Change</td>
<td>Meaning</td>
</tr>
<tr>
<td>---------------</td>
<td>------------</td>
<td>--------</td>
<td>---------</td>
</tr>
<tr>
<td>ProyōjaNam</td>
<td>PirayōsaNam</td>
<td>[pr→pir]</td>
<td>use</td>
</tr>
<tr>
<td>[vaydyam]</td>
<td>vaitiyam</td>
<td>[dy→diy]</td>
<td>treatment</td>
</tr>
<tr>
<td>[dyāNam]</td>
<td>tiyāNam</td>
<td>[dy→diy]</td>
<td>meditation</td>
</tr>
<tr>
<td>[drāṣay]</td>
<td>tiratsai</td>
<td>[dr→dir]</td>
<td>grapes</td>
</tr>
<tr>
<td>[vyābaram]</td>
<td>viyābāra</td>
<td>[vy→viy]</td>
<td>business</td>
</tr>
<tr>
<td>[vradam]</td>
<td>viradam</td>
<td>[vr→vir]</td>
<td>fast ritual</td>
</tr>
<tr>
<td>[sīētu]</td>
<td>sīētu</td>
<td>[sl→sil]</td>
<td>slate</td>
</tr>
<tr>
<td>[bāēdu]</td>
<td>plēētu</td>
<td>[bl→bi]</td>
<td>blade</td>
</tr>
<tr>
<td>[rahasyam]</td>
<td>rahasiyam</td>
<td>[sy→siy]</td>
<td>secret</td>
</tr>
</tbody>
</table>

III. Initially also an [i] vowel may be added to words beginning with [r], [I] or [y] when it followed by a, ā or ē.

<table>
<thead>
<tr>
<th>Pronunciation</th>
<th>Spelling</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>[taṅgay]</td>
<td>RilaŋgaN</td>
<td>Sri Lanka</td>
</tr>
<tr>
<td>[lagu]</td>
<td>ālāhu</td>
<td>easy</td>
</tr>
<tr>
<td>[rāmam]</td>
<td>RūrāmaN</td>
<td>Rama</td>
</tr>
<tr>
<td>[rāmāyamam]</td>
<td>irāmāyamN</td>
<td>Ramayana</td>
</tr>
<tr>
<td>[yandiram]</td>
<td>iyandiram</td>
<td>machine</td>
</tr>
<tr>
<td>[yēsu]</td>
<td>iyē su</td>
<td>Jesus</td>
</tr>
</tbody>
</table>

**Substitution of Non Tamil Letters**

The letters s, j and s are usually substituted by c, s substituted by c in writing.

<table>
<thead>
<tr>
<th>In writing</th>
<th>Meaning</th>
<th>Pronunciation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Samma</td>
<td>equal</td>
<td>Samam</td>
</tr>
<tr>
<td>SamāNam</td>
<td>equal to</td>
<td>SamaNam</td>
</tr>
<tr>
<td>Saikkīl</td>
<td>cycle</td>
<td>Saykkil</td>
</tr>
<tr>
<td>SamādāNam</td>
<td>Peace</td>
<td>SamadaNam</td>
</tr>
<tr>
<td>Sambavam</td>
<td>incident</td>
<td>Sambavam</td>
</tr>
<tr>
<td>Sidār</td>
<td>Sitar</td>
<td>Sitar</td>
</tr>
<tr>
<td>Sūp</td>
<td>Soup</td>
<td>Sup</td>
</tr>
<tr>
<td>SāyNal</td>
<td>Window</td>
<td>jaNNal</td>
</tr>
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</table>

j substituted by s
<table>
<thead>
<tr>
<th>Suram</th>
<th>Sever</th>
<th>juram</th>
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<tbody>
<tr>
<td>Sadi</td>
<td>caste</td>
<td>jadi</td>
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</tbody>
</table>

**ts substituted k**

<table>
<thead>
<tr>
<th>latsanam</th>
<th>hallmark, latsanam beauty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paritsai</td>
<td>Examination Paritsay</td>
</tr>
<tr>
<td>raṭsasaN</td>
<td>ratṣasan</td>
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</tbody>
</table>

**S substituted by t**

<table>
<thead>
<tr>
<th>Narudam</th>
<th>year</th>
<th>varuram</th>
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</thead>
<tbody>
<tr>
<td>Sodiram</td>
<td>astrology</td>
<td>jodinam</td>
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</table>

**H substituted by zero**

<table>
<thead>
<tr>
<th>haNumāN</th>
<th>aNUmāN</th>
<th>anumāN</th>
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</thead>
<tbody>
<tr>
<td>baidarabat</td>
<td>aidarabād</td>
<td></td>
</tr>
<tr>
<td>huseN</td>
<td>useN</td>
<td>useN</td>
</tr>
<tr>
<td>halva</td>
<td>alva</td>
<td>alvā</td>
</tr>
</tbody>
</table>

This may help the student understand both ways of writing.

Reference: 1. Dr. Ranganayaki Mhapatra, Dr. Bhanumati, Dr. Sukla Chakraborty
Tamil Script and Sound (Page 38–53)
2. Sakuntala Dasgupta
Morphology of Bengali and Tamil verbs A contrastive study (P 5–21)
3. Dr. Ranganayaki Mahapatra
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