

ROOT OF THE PROBLEM: A LOOK AT MALAYALAM WORD FORMATION

Malayalam verbs are largely formed by attaching a stem extender to the roots prior to affixation.

Word formation → Root + Stem extender + Affix

Root	Gloss	Past	Participial	Perfective	Adjectival	Infinitive	Present	Future	Imperfective	Gerund
edu	pick	edu. <u>tt</u> .u	edu. <u>tt</u> .ə	edu. <u>tt</u> .ittuṇḍə	edu. <u>tt</u> .a	edu. <u>kk</u> .uka	edu. <u>kk</u> .unnu	edu. <u>kk</u> .um	edu. <u>kk</u> .ukaja:ṇə	edu. <u>kk</u> .al
koḍu	give	koḍu. <u>tt</u> .u	koḍu. <u>tt</u> .ə	koḍu. <u>tt</u> .ittuṇḍə	koḍu. <u>tt</u> .a	koḍu. <u>kk</u> .uka	koḍu. <u>kk</u> .unnu	koḍu. <u>kk</u> .um	koḍu. <u>kk</u> .ukaja:ṇə	koḍu. <u>kk</u> .al

Table 1: Word formation overview

Two things need to be noticed here:

- (i) Every derived word is built of the form [Root+ Stem extender + Affix]
- (ii) There are two kinds of stem extenders: the first kind forms the stem for deriving one set of word formations and the second kind forms the stem for another set of word formation processes. Let's call them Type-A Stems and Type-B stems. Also note that this is only a representative sample of the two forms of the stems, we will be looking at an exhaustive list of stem forms towards the end of this session.

Let's now zoom into some more examples of what we called the Type-A Stems:

Root	Gloss	Type A Stem	Past	Participial	Adjectival	Perfective
ceyy	do	ceyy. <u>ḍ</u>	ceyy. <u>ḍ</u> .u	ceyy. <u>ḍ</u> .ə	ceyy. <u>ḍ</u> .a	ceyy. <u>ḍ</u> .ittuṇḍə
peyy	rain	peyy. <u>ḍ</u>	peyy. <u>ḍ</u> .u	peyy. <u>ḍ</u> .ə	peyy. <u>ḍ</u> .a	peyy. <u>ḍ</u> .ittuṇḍə
idə	put	i. <u>tt</u>	i. <u>tt</u> .u	i. <u>tt</u> .ə	i. <u>tt</u> .a	i. <u>tt</u> .ittuṇḍə
viḍə	leave	vi. <u>tt</u>	vi. <u>tt</u> .u	vi. <u>tt</u> .ə	vi. <u>tt</u> .a	vi. <u>tt</u> .ittuṇḍə
aṭa	shut	aṭa. <u>ṇṇ</u>	aṭa. <u>ṇṇ</u> .u	aṭa. <u>ṇṇ</u> .ə	aṭa. <u>ṇṇ</u> .a	aṭa. <u>ṇṇ</u> .ittuṇḍə
ṭiri	turn	ṭiri. <u>ṇṇ</u>	ṭiri. <u>ṇṇ</u> .u	ṭiri. <u>ṇṇ</u> .ə	ṭiri. <u>ṇṇ</u> .a	ṭiri. <u>ṇṇ</u> .ittuṇḍə

Table 2: Type-A stem word formations

Here, we see that regardless of the form of derivation in question—Past, Participial, Adjectival, or Perfective—the stem remains the same. Same goes for Type B Stems:

Root	Gloss	Type B Stem	Infinitive	Present	Future	Imperfective	Gerund
ceyy	do	ceyy. <u>ḥ</u>	ceyy.uka	ceyy.unnu	ceyy.um	ceyy.uka.a:ṇə	ceyy.al
idə	put	idə. <u>ḥ</u>	id.uka	id.unnu	id.um	id.uka.a:ṇə	id.al
vara	dry	vara . <u>ḥ</u>	vara .uka	vara .unnu	vara .um	vara .uka.a:ṇə	vara .al
edu	pick	edu. <u>kk</u>	edu.kk.uka	edu.kk.unnu	edu.kk.um	edu.kk.uka.a:ṇə	edu.kk.al
ke:	listen	ke: .kk	ke: .kk.uka	ke: .kk.unnu	ke: .kk.um	ke: .kk.uka.a:ṇə	ke: .kk.al
aṭa	shut	aṭa. <u>kk</u>	aṭa.kk.uka	aṭa.kk.unnu	aṭa.kk.um	aṭa.kk.uka.a:ṇə	aṭa.kk.al

Table 3: Type B Stem word formations

Here too, we see that the form of the Type B stem is the same across the various word formation processes: Present, Future, Imperfective, Infinitive and Gerund.

EXERCISE:

- 1) [vara] “draw”
 - Type A stem extender [-cc] giving the stem A [varacc-];
 - Type B stem extender [-kk] giving the stem B [varakk-]
 - (i) Can you guess the adjectival form of this word?
 - (ii) Can you guess the future form of this word?

- 2) If [irikkuka] “sit” is the infinitival form, and [iri] is the root,
 - (i) What type of stem is present in [irikkuka]? Stem A or Stem B?
 - (ii) What is the form of this stem?

Now, let us delve deeper into the Type-A stems:

Type-A Stem Extender	Root	Gloss	Type-A Stem	Past	Participial	Adjectival	Perfective
-i	nalk	obtain	nalki	nalki.ϕ	nalki.ə	nalki.a	nalki.ittundə
-d	ceyy	do	ceyyd	ceyyd.u	ceyyd.ə	ceyyd.a	ceyyd.ittundə
-tt	edukk	pick	edutt	edutt.u	edutt.ə	edutt.a	edutt.ittundə
-tt	vid	release	vitt	vitt.u	vitt.ə	vitt.a	vitt.ittundə
-tt	vil	sell	vitt	vitt.u	vitt.ə	vitt.a	vitt.ittundə
-cc	vekk	keep	vecc	vecc.u	vecc.ə	vecc.a	vecc.ittundə
-ɲɲ	oli(y)	conceal	oliɲɲ	oliɲɲ.u	oliɲɲ.ə	oliɲɲ.a	oliɲɲ.ittundə
-nn	para	fly	parann	parann.u	parann.ə	parann.a	parann.ittundə
-nd	kol	strike	konɖ	konɖ.u	konɖ.ə	konɖ.a	konɖ.ittundə
-nd	ve:v	cook	vend	vend.u	vend.ə	vend.a	vend.ittundə

Table 4: Type A stems- A Closer Look

What you see in the first column is the exhaustive list of **all Type-A stem extenders**. What this means is a given root picks ONE of these 10 options of stem extenders to derive its PST-PCPL-ADJ-PERF forms.

Here, two points of observation are in order. First, notice that these forms are in mutually exclusive distribution, in that where one form occurs, the other doesn't. Second, regardless of the form of the stem extender, they all perform the same function: that is, of deriving their respective PST-PCPL-ADJ-PERF forms. Essentially, these are all the same Type-A stem extenders, performing the same function, but varying in forms. Therefore, they are all basically allomorphs of Type-A Stem.

Same goes for Type-B stems:

Type-B Stem extender	Root	Gloss	Type-B Stem	Present	Future	Imperfective	Infinitive	Gerund
ϕ	ceyy	do	ceyy. ϕ	ceyy.unnu	ceyy.um	ceyy.uka.a:ɲə	ceyy.uka	ceyy.al
-kk	edu	pick	edu. kk	edu.kk.unnu	edu.kk.um	edu.kk.uka.a:ɲə	edu.kk.uka	edu.kk.al

Table 5: Type B stems- A Closer look

There are two forms of the Type-B Stems. But they both perform the same function- deriving Non-Past, Infinitive, Gerund, Nominaliser and Imperfective. So, they are allomorphs of Stem B.

CONSTRUCTING A THEORY OF STEMS

Type-A Stem Extender	Root	Gloss	Type-A Stem	Past	Participial	Adjectival	Perfective
-i	nalk	obtain	nalki	nalki.ϕ	nalki.ə	nalki.a	nalki.ittundə
-ḍ	ceyy	do	ceyyḍ	ceyyḍ.u	ceyyḍ.ə	ceyyḍ.a	ceyyḍ.ittundə
-tt	edukk	pick	edutt	edutt.u	edutt.ə	edutt.a	edutt.ittundə
-tt	viḍ	release	vitt	vitt.u	vitt.ə	vitt.a	vitt.ittundə
-tt	vil	sell	vitt	vitt.u	vitt.ə	vitt.a	vitt.ittundə
-cc	vekk	keep	vecc	vecc.u	vecc.ə	vecc.a	vecc.ittundə
-ṇṇ	oli(y)	conceal	oliṇṇ	oliṇṇ.u	oliṇṇ.ə	oliṇṇ.a	oliṇṇ.ittundə
-nn	para	fly	parann	parann.u	parann.ə	parann.a	parann.ittundə
-ṇḍ	kolḷ	strike	koṇḍ	koṇḍ.u	koṇḍ.ə	koṇḍ.a	koṇḍ.ittundə
-ṇḍ	ve:v	cook	veṇḍ	veṇḍ.u	veṇḍ.ə	veṇḍ.a	veṇḍ.ittundə

Table 6: Phonological correlations in Type A stem allomorphs

Given the extensive variation in Type A Stems, what conditions govern the selection of an allomorph? Are they phonologically rule governed? Must they be lexically listed?

It's not exactly clear yet what principles underlie these forms.

However, we now have all the data we need about stems in Malayalam for a select number of word formation processes. Three related questions are in order if I want to now arrive at a theory of stems:

- 1) Given a root, can I predict Type-A stem and Type-B stem?
- 2) Given Type-A stem, can I predict Type-B stem?
- 3) Given Type-B stem, can I predict Type-A stem?