Chapter 2

Tamil Morphology: An Introduction

2.1 Word Classes

It is a language's morphologically realized inflectional properties that help establish the morphological categories, and consequently, the word classes of the language. Morphologically determining these word categories would mean the identification of differences that cause certain affixes to attach only to a particular category, and certain other affixes to another. This entails an exhaustive enumeration of attested affixes ascribed specifically to a word-class based on the factors of morphological and syntactic distinctiveness. The common instances of various morphological categories found with the category of nouns are number, gender and case. Number can be described as 'a category of morphosyntactic properties used to distinguish the quantity to which a noun phrase refers' (Stump 1998). A majority of languages make use of the Singular and the Plural (a few like Sanskrit have the Dual number too). Gender is a category that is found to be not always grammatical. In Tamil where gender is morphologically expressed, the inflections mark the three distinct types: the Masculine, Ferninine, and the Neuter. Case bundles up morphosyntactic features that express the distinctions in the relations, a noun phrase bears to its governing head, the verb. The far more commonly recognized cases are the Nominative, Accusative, and Dative. The remaining cases that express more of a semantic relation than a syntactic one are the Instrumental, Locative and the Ablative.

The inflectional properties that are expressed on verbs are those of Tense, Aspect, Modality, Voice, and Polarity. Tense identifies the temporal reference of an action denoted by a finite verb. The Past, Present, and sometimes the Future, mark the conceptually natural three-way distinction. Aspect helps to recognize the way a particular event locates itself in a particular time interval. Mood or Modality expresses the ways in which a proposition may relate to actuality (in the speaker's mind). Indicative, Optative, and the Imperative are the three basic kinds.

Voice describes the thematic relations that obtain between a verb, and its argument, which plays the syntactic role of subject. Active and Passive are the two commonly found types. Polarity can be defined as 'a category of morphosyntactic properties distinguishing affirmative sentences from negative sentences.' Though in some languages adjectives reflect nominal inflections as a result of governance by the head noun, the general inflectional features needed to identify adjectives are markers of degrees of comparison: namely, the Positive, Comparative, and the Superlative.

2.2 Tamil Grammar

Tamil morphology is primarily agglutinating, and suffixal. In other words, 'inflections are marked by suffixes attached to a lexical base, which may be augmented by derivational suffixes.' (Annamalai & Steever 1998). The traditional treatises on Tamil grammar define a distinction through free forms (the major grammatical classes), and bound forms (items like particles, and clitics). *Folkaappiyam* recognizes Tamil as constituting two major word classes: nouns, termed pe Vyarcco VI (in Tamil) and verbs, termed vin YEcco VI. As per the classical grammatical treatises, and as recorded in Pope (1985), each of these is characterized by a narrow set of features, all of which are necessarily morphological. Pope's answer to the question of how nouns must be characterized and classified, morphologically substantiates this point: 'we must know four characteristics of nouns: 'class', 'division', person', and 'case', 'Class is of two kinds, 'rational' and 'irrational'. As to the number of divisions of nouns, 'there are five: 'masculine', 'feminine', 'rational-plural', 'irrational-singular', and 'irrationalplural'. The three divisions of 'masculine', 'feminine', 'irrational-singular' are called the singular-number'. The two other divisions are called the 'plural-number'. There are three 'persons' recognized: the first, second, and the third. Cases are eight: nominative, accusative, sociative, dative, ablative, instrumental and the locative.

2.3 Morphological Classes And Categories In Tamil

In Arden's (1891) study of Tamil morphology nouns are divided as rational vs. irrational, the rational corresponding to the animate, the irrational corresponding to the inanimate. Singular and Plural are the two numbers. In the organization of case, nine thematic relations are realized - the Nominative, Accusative, Instrumental, Social, Dative, Ablative (of motion), Genitive, Locative and the Vocative. The Benefactive is subsumed under the Dative. The Vocative, as a referential case has been included. Gender has also been seen as a grammatical feature of nouns.

Based on morphosyntactic properties of a word Lehmann (1989) introduces eight parts of speech in Tamil i.e., nouns, verbs, postpositions, adjectives, adverbs, quantifiers, determiners and conjunctions. Narrowing down to morphological features, there is a further line of reasoning on how lexical items can fall under a broad classification of nominal vs. verbal roots (that cover a large portion of roots in Tamil), and a minor classification of adjectival and adverbial roots (that subsume the rest). Apart from nouns and verbs, a separate set of uninflected words, called indeclinables, form an additional morphological class. Noun stems are seen as inflecting for the plural suffix, oblique, euphonic and the case suffix.

Annamalai & Steever (1998) largely discuss nominal and verbal morphology, and treat other classes as minor. According to this study of morphology, nouns inflect for gender, number and case. Gender here, is believed to be determined by the kind of locative case marker used, that determines the distinction between what they call *avartinai* ('rational' corresponding to human), and *akrinai* ('non-rational' corresponding to non-human). The validation for this argument is that the marker *it am* is used in the case of the rational and *il*, in the case of non-rational. This being the case, the application of the marker *itam*, on nouns with the features +rational, +human should be an exclusive rule, which means it cannot apply to nouns that lack this feature. Consequently, the noun form *nAy-itam* should be an

invalid one, but which is not really the case. For that matter *nAyil* is not a valid occurrence. Therefore rather, the terms *uyartinai* and *akrinai* could be redefined in their original sense ¹

In addition there is also recognition of two numbers and eight cases, including the unmarked singular, in number and the unmarked nominative, in case. An allusion to the vocative case has also been made. Pronouns have been semantically categorized, based on number and person. Labeled as singular or plural, pronouns are grouped under the 1", 2nd or the 3nd person separately. This includes a list of twelve pronominal forms. Verbs again are semantically classified as either belonging to the 'strong' or the 'weak' class. Finite verbs are classified into the Past, Present, Future, Future Negative, Imperative, Negative Imperative and the Optative. Non-finite forms comprise a group of Verbal nouns, Infinitives, Conjunctives, Negative verbal forms, Conditionals, Negative Conditionals and Deverbal forms.

Other classes such as adjectives, adverbs, conjunctions, particles and postpositions seen as minor parts of speech in different grammars, are treated as cases of defective morphology, incapable of playing a part in the inflectional range of nouns or verbs. Therefore these are regarded as derivatives of nouns or verbs. The argument in favour of this is: "Yet, to say that a form is a defective noun or verb is still to say that it is a noun or verb."

For purposes of implementation, what is borne in mind is a morphological classification of inflectional classes in Tamil. Theoretically therefore, based on certain morpho-syntactic factors that help identify morphological classes (and as have been discussed earlier), Nouns, Verbs, Adjectives, Pronouns and Numerals have been identified as the common morphological classes in Tamil (Uma Maheshwara Rao, 1999, 2002). Nouns, Verbs and Adjectives are treated as three major classes, Pronouns and Numerals being regarded as distinct word classes, that could not supposedly be grouped as subclasses of Nouns.

2.3.1 NOUNS

Nouns normally inflect for the categories of number and case. Tamil permits two numbers the Singular and the Plural. In Tamil the thematic roles that these nouns play in relation ro the verb that they modify are indicated by a series of affixes commonly called as the Nominative, Accusative, Dative, Sociative, Genitive, Locative, Instrumental, Benefactive and the Ablative cases. Nominative is unmarked.

2.3.1.1 Number

The Singular number is unmarked in Tamil. The Plural is indicated by the suffix kall, which is optional. Of the twenty-four classes of nouns, twenty-two have the suffixation of kall for plural marking. Two other classes that end in long vowels have an allomorphic variant kkall as their plural suffix. These are, classes / ('fly'), and pU ('flower'). Within the Item and Arrangement (IA) description, plural suffixes are listed as two separate entries kall and kkall, where the geminate suffix combines with stems that end in long vowels, and the nongeminate applies as the elsewhere condition. In the Item and Process (IP) model, kall isheld as the basic plural morpheme from which the allomorph kkall isderived in instances where the preceding stem ends in a long vowel.

¹ As in the sense of Tolkappiyam

From among the classes of nouns, there are the following four kinds, wherein the allomorphy is involved as part of pluralization. These are: manYiwanY, maram, mulY and pul.

1.	manYiwanY	$manYiwanY \rightarrow manYiwar + kalY$
2.	maram	$maram \rightarrow maraf + kalY$
3.	mulY	$mulY \rightarrow mut + kalY$
4.	pul	$pul \rightarrow purY + kalY$

Each of these noun stems undergoes a morphophonemic change before the addition of the plural suffix.

2.3.1.2 Case

Case inflections are obtained in Tamil through two parallel mechanisms — the direct, as in the Nominative and the indirect, as in (other than the nominative) the Oblique. The Nominative case is unmarked in Tamil. The Oblique base in singular represents a stem that is open to further inflections. The Accusative, Dative, Genitive, Sociative, Locative, Benefactive and the Ablative case suffixes follow the Oblique form of the stem.

Case	Case Marker
Nominative	ф
Accusative	E
Dative	kku/ ukku/ akku
Instrumental	Al
Locative	il (inanimate.) / itam or kitte (animate.)
Ablative	ilirunwu (animate.) / itamirunwu (inanimate)
Genitive	utYiya (colloq.) / awu, inY, inY awu(classical.)
Benefactive	kkAka
Sociative	otu (colloq.) / utanY (classical.)

Table 2.1: Case Matters in Tamil

From among the twenty-four classes of nouns, there are the following five kinds of stems that exhibit allomorphic change for case suffixation. These are: AFYu, kAtu, maram, narampu and vaNtu.

1.	ArYu	$ArYu \rightarrow ArY$
2	kAtu	$kAtu \rightarrow kAt$
3.	maram	maram→ mara
4.	narampu	narampu → naramp
5.	vaNtu	$vaNtu \rightarrow vaNt$

Apocope, or the loss of the final segment (vowel or consonant) is the single fundamental morphophonemic rule that characterizes these stems.

There are certain morphophonemic changes that operate on noun stems to enable them to take suffixes. Nine such generic instances form the base for case suffixes. These are: ATY, eVIi, kaN, kAtu, maram, mu Y, poVnY, pul and pU.

1.	ArYu	rY	$AtYu \rightarrow AtYtY$
2.	eVI	y	$eVh \rightarrow eVhy$
3.	kaN	N	$kaN \rightarrow kaNN$
4.	KAtu	1	$kAtu \rightarrow kAtt$
5.	maram	20/20/	maram → maraww
6.	mulY	N	$mulY \rightarrow mulYlY$
7.	poVnYnY	nY	$poVnY \rightarrow poVnYnY$
8.	pul	1	pull → pull
9.	pU	ν	$pU \rightarrow pUv$

There are three kinds of morphophonemic rules that operate here:

4 Gemination

If a noun stem ends in any of the consonants N, N, t, N, t, N or, the latter undergo some morphophonemic change of assimilation in accordance with the following segment of the case suffix.

4 Glide Insertion

If a noun stem ends in any of the vowels, glide insertion occurs. If the suffix initial vowel is a front vowel, y-insertion occurs, and if it is a back vowel, y-insertion occurs.

Market Insertion cum Gemination

If a noun stem ends in the nasal 'm' the consonant w is inserted as a geminate before a following vowel.

2.3.1.3 Gender

Eiarly treatises on Tamil noun morphology have made a distinction between *nyartinai* and *akrinai* as referring to +animate and - animate respectively. Arden (1976) describes nouns as being classified into two:

- 1. High-caste or Rational
- 2. No-caste or Irrational

The former is a class said to denote "rational persons or beings", and which further divides into the Masculine (that denotes "gods and men") and the Feminine (that denotes "goddesses and women only"). The latter (2) has been ascribed as a set of nouns "denoting animals and inanimate things" and which are regarded as "Neuter".

There are however two formatives kAnny and kAn, indicative of the Masculine and Feminine forms of the agentive noun. Examples are: velEkkAn (woman servant) wottakkAnny (gardener). In addition, Arden (1976) notes the use of the Masculine Singular suffix Any, Feminine Alyand Plural suffix Ar or Arkaly, as attaching to the nominal base to form a personal noun like sanyanAny (a truthful man).

Such suffixes are not very productive, and occur with a relatively small set of nouns. There are a few instances of occurrences like mall-vany vs. mall-vi that can be listed in the lexicon, since gender in such cases is lexically realized rather than morphologically. It can

therefore be maintained that Gender as a grammatical category in Tamil is not largely productive.

2.3.1.4 Other Attachments

Apart from Number and Case, other functional elements like Adverbials, Postpositions, Particles and Clitics attach to nouns.

Postpositions and Adverbials attach to nouns only if they are in the Nominative or the Dative case. Adverbials are largely, of a spatial or temporal nature. Particles attach to nouns if they are in the Nominative, Accusative or Dative case. Clitics can be added to any noun form irrespective of number or case.

2.3.1.5 The Nominal Paradigm

On the basis of allomorphy exhibited by nouns when inflected for number and case, nouns are classified into twenty-three distinct sets in order to generate correct word forms. The following table illustrates the features of contrast:

SI. No.	Noun	Base ending	Base modification	Oblique Singular	Oblique Plural
1	AN	N	Ø	Ø	+kalY
2	ArYu	rYu	Ø	rY>>rYrY	+kalY
3	eVh	i	Ø	Ø >>y	+kalY
4	ilE	Е	Ø	Ø>>y	+kalY
5	iwalYY	IYY	Ø	Ø	+kalY
6	1	I	Ø	Ø>>y	+kkalY
7	kaN	N	Ø	N>>NN	+kalY
8	kAl	1	Ø	Ø	+kalY
9	kAtu	tu	Ø	t >>tt	+kalY
10	manYiwanY	nY	nY>>r	Ø	+kalY
11	maram	m	m >>f	m>>ww	+kalY
12	mulY	IY	IY >>t	IY >>IYIY	+kalY
13	mAnY	nY	Ø	Ø	+kalY
14	narampu	u	Ø	Ø	+kalY
15	nAy	у	Ø	Ø	+kalY
16	poVnY	nY	Ø	nY>>nYnY	+kalY
17	poVy	y	Ø	y >>yy	+kalY
18	pul	1	1>>rY	1>>11	+kalY
19	poVrulY	IY	IY>>t	Ø	+kaIY
20	pU	U	Ø	Ø>>v	+kkalY
21	vaNtu	tu	Ø	Ø	+kaIY
22	wer	r	Ø	Ø	+kalY
23	wolY	IY	Ø	Ø	+kalY

Table 2.2: The Nominal Paradigm: Noun Classes

The table records the morphophonemic changes that stems and suffixes undergo in different morphological contexts. The base endings indicate the specific phonological shape

a particular class ends in. The base modifications specify the phonological change the base undergoes prior to number suffixation. The table accounts for five instances of morphophonemic change in the oblique base of the noun stem, and fourteen instances of stem change prior to case suffixation. **Lat** is the basic plural morpheme, used with its allomorphic variant that is phonologically conditioned.

2.3.2 PRONOUNS

Pronouns normally inflect for the categories of number, gender and case. Tamil permits two numbers (Singular and Plural), three grammatical genders (Masculine, Feminine and Neuter), and nine cases (Nominative, Accusative, Dative, Sociative, Genitive, Locative, Instrumental, Benefactive and Ablative).

2.3.2.1 Number

The singular and plural forms of Pronouns are lexically identified as distinctly separate words and therefore the need for recognizing number, as a morphological category of pronouns does not arise. This is the significant difference between nouns and pronouns.

2.3.2.2 Case

The similar set of case markers that apply for nouns, apply for pronouns too. The Nominative and the Oblique, form the primary branching in case marking. The Nominative case remains unmarked. The Oblique case represents a stem that is open to further inflections. The Accusative, Dative, Genitive, Sociative, Locative, Benefactive and the Ablative case suffixes follow the Oblique form of the stem. (For details on case marking refer Table 2.1)

Pronouns are all lexical and fully specified for functional formants in the lexicon. The chief morphophonemics involving pronominal stems is the gemination of the stem final consonant when followed by a vowel initial suffix, when in the oblique form.

Nominative	Oblique1	Oblique2
awu	anv	aww
nAnY	eVnY	eVnYnY
nAfkalY	eV fkalY	eVfkalY
nI	unY	unYnY
nlfkalY	ufkalY	ufkalY
nlr	um	umm
yAm.	eVm	eVmm
wAm	wan	wamm
nAm	nam	namm
wAfkalY	wafkalY	wafkalY
wAnY	wanY	wanYnY

Table 2.3: Pronominal Bases

As can be seen, each case involves a distinct vowel or consonant geminate; it is not possible to state a single rule in a segment formant. It proves rather economical to list these forms in the lexicon.

2.3.2.3 Gender, Number, Person

Since every member of the pronominal paradigm forms part of the lexicon, the concept of gender realization is a semantic feature of each of these lexemes. It is only the 3rd person pronouns in their singular forms, which have the feature of gender. While are refers to the 3rd person Feminine Singular, are refers to the 3rd person Masculine, and are, to the 3rd person Neuter.

2.3.2.4 Other Attachments

like that of a noun, pronouns do take Postpositions, Particles and Clitics to form larger strings to indicate the relevant semantics. Postpositions follow pronouns that are in their Nominative or Dative case. Particles follow pronouns if they are in the Nominative, Accusative or Dative case. Clitics can be appended to any pronominal form irrespective of case.

2.3.2.5 The Pronominal Paradigm

In accordance with the discussion above, fifteen distinct forms of pronouns are required in order to generate correct word forms. The following table illustrates the features of contrast:

SL No.	Pronoun	Ending	Oblique Base1	Oblique Base2
1	avalY	lY	Ø	Ø
2	avanY	nY	Ø	Ø
3	avar	r	Ø	Ø
4	awu	u	Ø	aw / aww
5	avE	E	Ø	avarYrY
6	nAnY	nY	eVnY	eVnYnY
7	nAfkalY	fkalY	eVfkalY	eVfkalY
8	nI	I	unY	unYnY
9	nIfkalY	fkalY	ufkalY	ufkalY
10	nlr	r	um	umm
11	wAfkalY	fkalY	wafkalY	wafkalY
12	wAm	m	wam	wamm
13	wAnY	nY	wanY	wanYnY
14	yAm	m	eVm	eVmm
15	nAm	m	nam	namm

Table 2.4: The Pronominal Paradigm: Pronoun Classes

The table lists the fifteen distinct pronominal forms in their nominative forms with the relevant stem changes alongside each entry in different columns for the distinct oblique counterparts. The base endings indicate the specific phonological shape a particular class ends in. Forms in Oblique2 necessitate a following case suffix, while those in Oblique1 do not.

2.3.3 NUMERALS

Numerals form a subcategory of nouns inflecting for categories of number, gender and case. Tamil permits two numbers (Singular and Plural), three grammatical genders (Masculine, Feminine and Neuter), and nine cases (Nominative, Accusative, Dative, Sociative, Genitive, Locative, Instrumental, Benefactive and Ablative). In addition to this there are certain distinct inflections that occur only with numeral words, which make them a distinct subcategory of nouns.

2.3.3.1 Number

The Singular number is unmarked in Tamil. The Plural is indicated by the suffix kall. All of the classes of numerals have the suffixation of kall for plurality. The only stem that undergoes morphophonemic change for number suffixation is Ayiram, and which undergoes nasal assimilation.

1. Ayiram Ayiram —* Ayiraf

2.3.3.2 Case and Ordinality

The Nominative stem remains an unmarked one. The Oblique form of the numeral stem is open to further inflections. There are two kinds of Oblique bases. The first kind, Oblique1, allows case inflections and a specific set of quantitative particles peculiar to the class of numerals. The Accusative, Dative, Cientitive, Sociative, Locative, Benefactive and the Ablative case suffixes follow the Oblique form of the stem. (For a discussion of particles see section 2.3.3.4, Table 2.8)

All classes of numerals exhibit stem allomorphic change in the oblique case, prior to inflection for case, or any other kind of suffixation. There is a morphophonemic difference however, in the stem realization between the two kinds of oblique bases in numeral words. The following table makes a note of stem changes in different phonological and morphological contexts:

No.	Nominative	Oblique 1
1	oVnYrYu	oVnYrY
2	iraNtu	iraNt .
3	mUnYrYu	mUnYrY
4	nAnYku	nAnYk
5	Епин	Enw
6	ArYu	AN
7	eYYu	elYY
8	eVttu	eVtt
9	oVnYpawu	oVnYpaw
10	pawww	paww
11	nUrYu	nUrYrY
12	Ayiram	Ayiraww
13	latcam	latcaww
14	koti	kotiy

Table 2.5: Numeral Bases - 1

Apocope, the rule of loss of the final segment (vowel or consonant) is the fundamental morphophonemic rule characterizing these stems.

Numerals also assume a similar set of stems to indicate ordinality. The ordinality suffix denoted by *Am* or *Avanu*, effects certain other morphophonemic changes. Two classes of numerals, *nUTY*, and *Aviram* illustrate this change:

1.
$$nUrYu$$
 $nurYu \rightarrow nUrYrY$
2. $Ayiram$ $Ayiram \rightarrow Ayiraww$

These changes are mainly effected by rules of gemination and assimilation operating on the numeral stem.

2.3.3.3 Gender, Number & Person

In addition to number and case, some of the numeral stems inflect for GNP suffixes as well. It is on the second kind of the oblique stem, Oblique 2, that specific GNP inflections and a set of temporal particles are permissible. The following is a list of the relevant GNP suffixes:

GNP	Suffix
3rd. Sing. Ferninine	wwi
3rd. Sing. Masculine	vanY
3rd. Sing. Honorific/Plural	var / 2mar

Table 26: GNP suffixes for Numerals

Gender, Number and Person inflections are possible up to the first eight classes of numerals. The 3rd singular masculine, and feminine suffixes, apply only to class 1 of the numeral paradigm, oVnYYYu. The 3rd singular honorific/plural suffix, applies to all of the other classes (including oVnYYYu). A complete list of the numerals that inflect for GNP along with their allomorphic stem variations in the oblique form, could be shown as:

No.	Nominative	Oblique 2
1	oVnYrYu	oVru
2	iraNtu	iru
3	mUnYrYu	mU
4	nAnYku	nA1
5	Enwu	E
6	ArYu	aru
7	elYYu	eVYY
8	eVttu	eVN.
9	oVnYpawu	-
10	рашин	
11	nUrYu	-
12	Ayiram	
13	lateam	-
14	koti	

Table 2.7: Numeral Bases - 2

² Applies only in the case of the numeral el its

Morphophonemic changes in the case of GNP suffixation in numerals are complex, and the phonological processes involve more than a single level of transformation or derivation.

2.3.3.4 Other Attachments

Adverbials, Postpositions, Particles, Clitics and Vocatives are the other inflections that applyon numerals. Adverbials that follow particles need to be followed by the locative or dative case. Postpositions follow numerals that are in their Nominative or Dative case.

Two different sets of particles attach to numerals in their oblique form. Quantative Particles such as (e)kA/'quarter', arE 'half', arEkkA/'one-eigth', (e)mukkA/ 'three-quarters', occur after Oblique 1 forms, while certain other Particles such as those indicative of like maNi 'o'clock', occur after the Nominative form of classes other than oVnYYu, in which case it occurs only after its Oblique 2 form. Other particles like peVyar 'number of persons' occur after the nominative forms of numerals.

The following table indicates a list of permissible inflectional combinations applicable to each allomorph:

SLNo.	Numeral	Case Suffixes	Ordinality (Am/Avawu)	Particles1 (maNi)	Particles2 (ekAl, arE, arEkkAl,mukkAl)	Class1 Particles (kAl, cila, cilar, cirYu)	Particle other than for Class! (pe Vyar)
1	oVnYrYn	×	×	×	×	×	×
2	oVnYrY	-	V	×	-	×	×
3	oVnu	×	×	~	×	~	×
4	iraNtu	×	×	-	×	×	7
5	iraNt .	/	~	×	· /	×	×
6	irw	×	×	×	×	×	×
7	mUnYrYu	×	×	V	×	×	1
8	mUnYrY	/	V	×	V	×	×
9	mU	×	×	×	×	×	×
10	nAnYku	×	×	-	×	×	1
11	nAnYk	1	V	×	1	×	×
12	nAI	×	×	×	×	×	×
13	Епин	×	×	-	×	×	~
14	Enw	1	V	×	-	×	×
15	E	×	×	×	×	×	×
16	ArYu	×	×	1	×	×	-
17	ArY	1	V	×	✓.	×	×
18	arw	×	×	×	×	×	×
19	e/YYn	×	×	-	×	×	-
20	e/YY	1	-	×	/	×	×
21	eV/YYu	×	×	×	×	×	×
22	eV ttu	×	×	~	×	×	-
23	eVtt	1	1	×	V	×	×
24	eVN	×	×	×	×	×	×
25	oVnYpawn	×	×	1	×	×	-
26	oVnYpaw	1	1	×	/	×	×
27	рашин	×	×	1	×	×	-
28	Dawn	1	/	×	/	×	×

Table 2.8: Permissible Suffixes in Numerals

2.3.3.5 The Numeral Paradigm

On the basis of allomorphy exhibited by **numerals** when inflected for number, **case/ordinality** and GNP, fourteen distinct classes of numerals are required in order to generate correct word forms. The following table illustrates the features of contrast:

SL No.	Numeral	Oblique1	Oblique2	Ordinality Suffix
1	oVnYrYu	oVnYrY	oVru	muwal
2	iraNtu	iraNt	iru	_Am/Avawu
3	mUnYrYu	mUnYrY	mU	_Am/Avawu
4	nAnYku	nanYk	nAl	_Am/Avawu
5	Enwu	Enw	E	_Am/Avawu
6	ArYu	ArY	arYu	_Am/Avawu
7	elYYu	elYY	eVIYYu	_Am/Avawu
8	eVttu	eVtt	eVN	_Am/Avawu
9	oVnYpawu	oVnYpaw	Ø	_Am/Avawu
10	pawwu	paww	Ø	_Am/Avawu
11	nUrYu	nUrYrY	Ø	_Am/Avawu
12	Ayiram	Ayiraww	Ø	Ø
13	latcam	latcaww	Ø	Ø
14	koti	koti	Ø	Ø

Table 2.9: The Numeral Paradigm; Numeral Classes

The table lists the fourteen distinct numeral forms in their nominative forms with the relevant stem changes along with their oblique corresponding forms. Case inflections and ordinality markers can occur after Oblique 1 bases, while GNP inflections can append to the Oblique 2 base forms.

2.3.4 VERBS

Verbs chiefly inflect for tense, aspect and modality. Tamil records 3 tenses (Past, Present, Future), 5 aspects (Verbal Participles, Positive Conditional, Negative Conditional, Durative Conditional, Infinitive), 6 modals (Negative Past, Negative Future, Hortative, Admonitive, Prohibitive, Imperative).

2.3.4.1 Tense

Verbs in Tamil have three morphological tenses: the Past, Present and the Future

2.3.4.1.1 PAST

Verbs can be classified into fourteen classes, based on allomorphic variations exhibited by the verb stem betore the past tense suffix. The following is a list of paradigmatic classes of verbal declension in the past tense.

From among the 24 classes of verbs, there are 14 stems that exhibit allomorphic change before past tense suffixation. These are: Aku, AlY,cA, ceVl, coVl, kAN, kelY, koVY, nil, no, peVYYu, potu, vA and wUfku.

SLNo	Root	Stem	Morphophonemic Process
1	Aku	Α	Final Syllable Deletion
2	AN	AN	Assimilation
3	alYYu		-
4	cA	αV	Vowel Shortening
5	ceV1	ceVnY	Assimilation
6	aVy		-
7	coV1	coVnY	Assimilation
8	eVnY	-	-
9	ikalYY	•	1 -
10	iru		-
11	kAN	kaN	Vowel Shortening
12	kelY	ket	Assimilation
13	koVIY	koVN	Assimilation
14	ni/	ninY	Assimilation
15	no	noV	Vowel Shortening
16	pati	-	
17	peVrYu	peVrY	Final Vowel Deletion
18	po	-	-
19	potu	pot	Final Vowel Deletion
20	ρUN		-
21	иN		
22	rA.	114	Vowel Shortening
23	niNY u		-
24	wUfku	wUfk	Final Vowel Deletion

Table 2.10(a): Verb Stem Allomorphy in the Past Tense forms

Various kinds of morphophonemic rules come into operation in the instance of stem changes. There are 7 kinds of variations in the past tense suffixes. These are: nY, t, www, nY, w, nw and inY.

SLNo	Verb Stem	Past Suffix	Variant Change	Morphophonemic Process
1	Aku	nY	AnY	Final Syllable Deletion
2	AN	1	ANI	Assimilation
3	alYYu	w	alYYuw	-
4	d	ישיש	ceVww	Vowel Shortening
5	æVl	rY	ceVnYrY	Assimilation
6	ally	יע	ceVyw	-
7	coV7	nY'	coVnYnY	Assimilation
8	eVnY	N	eVnYrY	-
9	ikalYY	nu	ikalYYmv	-
10	iru	nw	irunw	-
11	kAN	1	kaNt	Vowel Shortening
12	kelY	1	kett	Assimilation
13	koVIY	I	koVNt	Assimilation
14	nil	N	ninYrY	Assimilation

15	no	mw	no V nw	Vowel Shortening
6	pati	יעיע	patiww	-
17	peVrYu	N	peVrYrY	Final Vowel Deletion
18	po	nY	ponY	-
19	potu	1	pott	Final Vowel Deletion
20	pUN	t	pUNt	-
21	иN	1	uNt	-
22	nA.	nw	vanw	Vowel Shortening
23	vilYu	nw	vilYYunw	-
24	wUfku	inY	wUfkinY	Final Vowel Deletion

Table 210(b): Verb Suffix Allomorphy in the Past Tense forms

There are three kinds of morphophonemic rules that operate here:

Apocope Apocope

There are 4 instances of final vowel deletion in the verbal paradigms. If a verbal base ends in the vowel *u*, which is preceded by a stop consonant, the vowel gets deleted before suffixarion of the past tense marker.

2 Assimilation

There are 6 instances, or rather 3 types, of assimilation in the verbal paradigm, particularly along with rule of gemination. Specific changes include $N ext{to } N$, /to $N ext{and fl}^{-1}$ to /. The trend can be described as a liquid assimilating to a nasal stop, in the context of a stop.

Yowel Shortening

There are 4 instances of vowel shortening in the verbal paradigm. Any of **the** verbal stems, that end in a vowel gets shortened if it is followed by a stop or a sequence of nasal + stop.

Apart from the Past tense, aspectuals like the Past Adjectival Participle, Positive Verbal Participle and the Positive Conditionals also inflect on the same base. The Past Adjectival Participle involves an additive a, after the past tense marker, the Positive Verbal Participle involves an additive u or i, and the Positive Conditional, and additional AL

23.4.1.2 PRESENT

Verbs can be classified into five classes, based on allomorphic variations exhibited by the verb stem for the present tense. There are 5 stems that exhibit allomorphic change before present tense suffixation. These are: Aku, keV, koVV, ml pUN and vA. The following is a list of paradigmatic classes of verbal declension in the present tense.

Sl.No	Root	Stem	Morphophonemic Process
1	Aku	A	Final Syllable Deletion
2	AY	-	-
3	alYYu		-
4	cA	-	-
5	æV1	-	-
6	aVy		-
7	coV1		-
8	eVnY	-	**
9	ikalYY	-	

10	iru		-
11	kAN	2	-
12	kelY	ket	Assimilation
13	koVY	-	
14	mil	nirY	Assimilation
15	no		-
16	pati	*	-
17	peVrYu		
18	po	-	
19	potu	5	
20	pUN	pUNu	Vowel Insertion
21	μN	-	
22	vA.	varu	Final Syllable Insertion
23	vilYYu	-	-
24	wUfku	-	

Table 2.11(a): Verb Stem Allomorphy in the Present Tense forms

The present tense suffix is kin, that functions as default, excepting in cases of stems that end in the vowels u or i, where the allomorphic variant kkin appears. The following is how the present tense suffix allomorphs kin and kkin ardistributed.

SLNo	Verb Stem	Present Suffix	Variant Change	Morphophonemic Process
1	Aku	kirY	AkirY	-
2	AY	kirY	AYkirY	i.e.
3	alYYu	kirY	alYYukirY	
4	cA	kirY	AkirY	-
5	æV1	kirY	aVlkirY	2
6	ceVy .	kirY	ceVykirY	-
7	coV7	kirY	coV/kirY	-
8	eVnY	kirY	eVnYkirY	-
9	ikalYY	kirY	ikalYYkirY	-
10	iru	kkirY	irukkirY'	Gemination
11	kAN	kirY	kANkirY	1.5
12	kelY	kirY	ketkirY	-
13	koVY	kirY	koVYkirY	-
14	mil	kirY	nirY kirY	
15	no	kirY	nokirY	5
16	pati	kkirY	patikkirY	Gemination
17	peVrYu	kirY	peVrYukirY	-
18	po	kirY	pokirY	-
19	potu	kirY	potukirY	-
20	ρUN	kirY	pUNukirY	-
21	μN	kirY	uNkirY	-
22	nA.	kirY	varukirY	
23	nlYYu	kirY	vilYYukirY	2
24	wUfku	kirY	wUfkukirY	-

Table 2.11(b): Verb Suffix Allomorphy in the Present Tense (bans In instances where a verb stem ends in short vowel, the suffix geminates its initial stop consonant.

2.3.4.1.3 FUTURE

Verbs can be classified into five classes, based on allomorphic variations exhibited by the verbs before the future tense suffix. There are 5 stems that exhibit allomorphic change. These are: Aku, kell, nil, pUN, and vA. The following is a list of paradigmatic classes of verbal declension in the future tense.

Sl.No	Root	Stem	Morphophonemic Process
1	Aku	A	Final Syllable Deletion
2	AY	100	
3	alYYu		-
4	A	(+)	
5	æV1	21	-
6	aVy	*	-
7	coV7	-	
8	eVnY	-	
9	ikalYY	-	-
10	iru		
11	kAN		
12	kell	ket	Assimilation
13	koVIY	38	
14	mil	nirY	Assimilation
15	no		•
16	pati		
17	peVrYu		
18	po		
19	potu	*	-
20	pUN	pUNu	Vowel Insertion
21	иN		2
22	rA.	varu	Final Syllable Insertion
23	vilYYu	-	
24	wUfku	(e)	-

Table 2.12(a): Verb Stem Allomorphy in the Future Tense forms

There are 3 variants of the future tense suffix. These are: v,p and pp. 17 of these stems take v, 5 take p, and 2 take the germinate pp. The following is how the future tense suffix allomorphs v,p and pp are distributed.

Sl.No	Verb Stem	Future Suffix	Variant Change	Morphophonemic Process
1	Aku	v	Av	
2	AN	r	AYr	
3	alYYu	r	alYYuv	5:55
4	cA	r	cho	-
5	æV1	T.	ceVh	
6	aVy	r	aVyv	-
7	coV7	r	coVh	-
8	eVnY	Þ	eVnYp	
9	ikalYY	r	ikalYYv	-
10	iru	ÞÞ	irspp	Gemination

11	kAN	p	kANp	+
12	kelY	Þ	ketp	-
13	koVY	p	koVIYv	-
14	nil	Þ	nirYp	-
15	no	t	nov	-
16	pati	pp	patipp	Gemination
17	peVeYu	r	peVrYuv	-
18	po	T T	por	-
19	potu	t	potuv	4
20	pUN	p .	pUNuv	-
21	wN.	p	иNp	-
22	EA.	p	varie	-
23	vilYu	r	vilYYuv	-
24	wUfku	r	wUfkuv	-

Table 2.12(b): Verb Suffix Allomorphy in the Future Tense forms

There are three kinds of morphophonemic rules that operate here:

2 Deletion

In deletion, the final consonant and vowel sequence i.e., a syllable gets deleted, prior to the addition of a glide.

Assimilation

As examples of assimilation, the retroflex lateral **1** changes to the obstruent **1**, in the context of the following obstruent. The change can be described as a liquid assimilating to a stop, if the context is governed by another stop consonant.

№ Gemination

The suffix geminates, if the verb stem's penultimate vowel is short.

2.3.4.2 Aspect

2.3.4.2.1 INFINITIVE

The Infinitive form serves as the basis for many non-finite verbal stems. Verbs can be classified into 9 classes, based on allomorphic variations exhibited by the verb stems before the infinitive. The 14 classes that decline for the infinitive form are: Aku, all Yu, kelY, nil peVYu, potu, vA, vill Yuand wU/ku.

SLNo	Root	Stem	Morphophonemic Process
1	Aku	Ak	Final Syllable Deletion
2	AY	AY	Assimilation
3	alYYu	alYY	
4	cA	d	Vowel Shortening
5	œVI	aVI	Assimilation
6	æVy	aVy	-
7	coV7	coV7	Assimilation
8	eVnY	eVnY	-
9	ikalYY	ikalYY	
10	iru	iru	-
11	*AN	kAN	Vowel Shortening

12	kelY	ket	Assimilation
13	koVIY	koVIY	Assimilation
14	mil	nirY	Assimilation
15	no	no	Vowel Shortening
16	pati	pati	1.
17	peVrYu	peVeY	Final Vowel Deletion
18	po	po	-
19	potu	pot	Final Vowel Deletion
20	pUN	ρUN	-
21	иN	иN	-
22	nA.	var	Vowel Shortening
23	vilYYu	vilYY	-
24	wUfku	wUfk	Final Vowel Deletion

Table 2.13(a): Verb Stem Allomorphy in the Infinitive forms

Most of these changes involve final vowel deletion of the stem, in the case of a following vowel. There are two instances of assimilation. There are 7 suffix variants for the infinitive form. These are: a, ka, la, ya, kka, Ya and Na.

SI.No	Verb Stem	Infinitival Suffix	Variant Change	Morphophonemic Process
1	Aku	А	1k	
2	AM	A	AY	
3	aryu	A	alYY	-
4	A	ka	cA	Del
5	æV1	la	æVl	-
6	αVy	ya	αVy	
7	coV7	la	coV7	-
8	eVnY	а	eVnY	-
9	ikalYY	a	ikalYY	
10	iru	kka	iru	Gemination
11	kAN	a	kAN	-
12	kelY	ka	ket	*
13	koVY	Na	koVY	-
14	nil	ka	nirY	-
15	no	ka	no	
16	pati	kka	pati	Gemination
17	peVrYu	a	peVrY	
18	pe	ka	po	-
19	potu	a	pot	
20	ρUN	a	pUN	-
21	иN	Na	πN	
22	nA .	a	var	
23	ni/YYu	a	vilYY	(*)
24	wUfkn	a	wUfk	/2

Table 2.13(b): Verb Suffix Allomorphy in the Infinitive forms

There are three kinds of morphophonemic rules that operate here:

Apocope + Insertion

Classes 1, 2, 3, 17, 19, 23 and 24 involve first, a deletion of the stem final vowel, that is in turn replaced by the infinitive marker a.

24 Insertion

Classes 4, 10, 12, 14, 15, 16 and 18 involve insertion. A stop consonant segment gets inserted between the stem and the suffix, when the verb ends in a vowel.

2 Gemination

Classes 5, 6, 7, 13, and 21 are examples of gemination where, the suffix geminates the consonant or glide that the verb stem ends in.

2.3.4.2.2 PARTICIPLES

Participles are of two types: Adjectival and Verbal.

2.3.4.2.2.1 Adjectival

Adjectival Participles branch into the Past, Present, Habitual and the Negative, according to the corresponding tense base.

2.3.4.2.2.1.1 PAST ADJECTIVAL PARTICIPLE

Verbs can be classified into 12 classes, based on allomorphic variations exhibited by the verb stems for the Past Adjectival Participle. The 12 stems that decline for the past adjectival form, are: Aku, aly Yu, kelY, nil, peViYu, potu, vA, vilYYu and nluUfku.

1.	Aku	$Aku \rightarrow AnY$
2	AM	$AY \rightarrow AN$
3.	A	$cA \rightarrow ceV$
4.	kAN	$kAN \rightarrow kaN$
5.	kell	$keY \rightarrow ket$
6.	koVIY	$k_0VIY \rightarrow k_0VN$
7.	mil.	$mil \rightarrow mirY$
8.	no	$no \rightarrow no V$
9.	peVrYu	$peVrYu \rightarrow peVrY$
10.	potu	potu → pot
11.	EA.	$vA \rightarrow va$
12	wUlfky	$wU/\hbar \nu \rightarrow wU/\hbar$

Most of these changes involve final vowel deletion of the stem, in the case of a following vowel. There are 2 instances of assimilation. There are 8 suffix variants for the past adjectival participal form. These are: a.ta. www. wa. wa. wa. wa. wa and in Ya.

1.	A ku	+	a	$Aku \rightarrow AnYa$
2	AN	+	ta	$aY \rightarrow ANta$
3.	cA	+	minist.	$cA \rightarrow ceVwwa$
4.	$\alpha V y$	+	wa	$ceVy \rightarrow ceVywa$
5.	ceV1	+	rYa	aVI -> aVnYrYa
6.	coVI	+	nYnYa	$coVIY \rightarrow coVnYnYa$
7.	iru	+	7130/12	$iru \rightarrow irunwa$
8.	wUfku	+	inYa	wUfku → wUfkinYa

There are three kinds of morphophonemic rules that operate here:

24 Apocope

Classes 1, 2, 3, 17, 19, 23 and 24 involve deletion of the stem final vowel, that is in turn replaced by the past adjectival participial marker a

2 Insertion

Classes 4, 10, 12, 14, 15, 16 and 18 involve insertion. A stop consonant segment gets inserted between the stem and the suffix, when the verb ends in a vowel.

Gemination

Classes 5, 6, 7, 13, and 21 are examples of gemination where, the suffix geminates the consonant or glide that the verb stem ends in.

2.3.4.2.2.1.2 PRESENT ADJECTIVAL PARTICIPLE

Verbs can be classified into two classes, based on allomorphic variations exhibited by the verb stem for the present adjectival participial form. Allomorphy is simple, if any. Verb stems do not undergo any phonological change. The present tense suffix is kirx, that functions as default, excepting in cases of stems that end in the vowels u or /, where the allomorphic variant kirx appears. The Present Adjectival Participle involves an additive a, after the present tense marker. The following is how the suffixes kiiYa and kiiYa for the present adjectival participle function.

In instances where a verb stem ends in short vowel, the suffix geminates its initial stop consonant.

2.3.4.2.2.1.3. HABITUAL ADJECTIVAL PARTICIPLE

Verbs can be classified into 9 classes, based on allomorphic variations exhibited by the verb stems for the Habitual Adjectival Participle. The 9 stems that decline accordingly, for the habitual participle are: Aku. alyyu, kely, nil, peVyyu, potna, nilyyu and nvUfku.

1.	Aku	$Aku \rightarrow Ak$
2.	alYYu	$al Y u \rightarrow a l Y$
3.	kell	$keN \rightarrow ket$
4.	mil	$nil \rightarrow nirY$
5.	peVrYu	$peVrYu \rightarrow peVrY$
6.	potu	potu → pot
7.	vA.	$vA \rightarrow var$
8.	vilYYu	$viYYu \rightarrow viYY$
9.	wUfku	$wUfku \rightarrow wUfk$

Most of these changes **involve** final vowel deletion of the stem, in the case of a following vowel. There are 2 instances of assimilation. There are 7 suffix variants for the habitual form. **These are:** urn, kum, lum, yum, kkum, Yurn and Num.

1.
$$Aku + um$$
 $Aku \rightarrow Akum$
2. $cA + kum$ $cA \rightarrow cAkum$
3. $ceVI + bum$ $ceVI \rightarrow ceVIbum$

There are three kinds of morphophonemic rules that operate here:

Apocope Apocope

Classes 1, 2, 3, 17, 19, 23 and 24 involve first, a deletion of the stem final vowel that is in turn replaced by the habitual adjectival participial marker um.

2 Insertion

Classes 4, 10, 12, 14, 15, 16 and 18 involve insertion. A stop consonant segment gets inserted between the stem and the suffix, when the verb ends in a vowel.

24 Gemination

Classes 5, 6, 7, 13, and 21 are examples of gemination where, the suffix geminates the consonant or glide that the verb stem ends in.

2.3.4.2.2.1.4 NEGATIVE ADJECTIVAL PARTICIPLE

Verbs can be classified into 9 classes, based on allomorphic variations exhibited by the verb stems for the Negative Adjectival Participle. The 9 stems that decline accordingly, are: Aky, all Yu, kelY, ml peVYx, potu, vA, riWYu and wUfku.

1.	Aku	$Aku \rightarrow Ak$
2	alYYu	$alYYu \rightarrow alYY$
3.	kelY	$keY \rightarrow ket$
4.	nil	$nil \rightarrow nirY$
5.	peVrYu	$peVrYu \rightarrow peVrY$
6.	potu	$potu \rightarrow pot$
7.	rA.	$vA \rightarrow var$
8.	vilYYu	$viYYu \rightarrow viYY$
9.	wUfku	$wUfku \rightarrow wUfk$

Most of these changes involve final vowel deletion of the stem, in the case of a following vowel. There are 2 instances of assimilation. There are 7 suffix variants for the negative adjectival participial form. These are: Awa, kAwa, LAwa, wAwa, kkAwa, lYAwa and NAwa.

1.	Aku	+	Awa	$Aku \rightarrow AkAwa$
2	d	+	kAwa	$cA \rightarrow cAkAwa$
3.	aVI	+	LAwa	aVI -> ceVILA wa
4.	ceVy	+	yAwa	$ceVy \rightarrow ceVyyAwa$
5.	iru	+	kkAwa	iru → irukkAwa
6.	koVIY	+	NAwa	koVY -> koVYYAwa
7.	uN	+	NAwa	$uN \rightarrow uNNAwa$

There are three kinds of morphophonemic rules that operate here:

Apocope Apocope

Classes 1, 2, 3, 17, 19, 23 and 24 involve first, a deletion of the stem final vowel, that is in turn replaced by the negative adjectival participial marker *Awa*.

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Classes 4, 10, 12, 14, 15, 16 and 18 involve insertion. A stop consonant segment gets inserted between the stem and the suffix, when the verb ends in a vowel.

24 Gemination

Classes 5, 6, 7, 13, and 21 are examples of gemination where, the suffix geminates the consonant or glide that the verb stem ends in.

2.3.4.2.2.2 Verbal

The Verbal Participles branch into the Positive and the Negative.

2.3.4.2.2.1 POSITIVE VERBAL PARTICIPLE

Verbs can be classified into 14 classes, based on allomorphic variations exhibited by the verb stems for the Positive Verbal Participle. The 14 stems that decline accordingly, are: Aku. AlY, alYYu,cA, ceVl, coVl, kAN, kelY, koVlY, nil, no, peVrYu, potu,vA, and nVlfku.

1.
$$Aku \rightarrow Ak$$

2. $AY \rightarrow AY \rightarrow AN$
3. $cA \leftarrow cA \rightarrow ceV$
4. $ceVI \leftarrow ceVI \rightarrow ceVNY$
5. $coVI \leftarrow coVI \rightarrow coVNY$
6. $kAN \leftarrow kAN \rightarrow kaN$
7. $keY \leftarrow keY \rightarrow keI$
8. $koVY \leftarrow koVY \rightarrow koVN$
9. $nil \rightarrow nirY$
10. $no \rightarrow noV$
11. $peVYu \rightarrow peVYYu \rightarrow peVYY$
12. $potu \rightarrow pot$
13. $vA \rightarrow var$
14. $wUfku \rightarrow wUfk \rightarrow wUfk$

Most of these changes involve final vowel deletion of the stem, in the case of a following vowel. There are 8 instances of assimilation. There are 8 suffix variants for the positive verbal participal form. These are: 1, tu, nu, nun, nun, ti, and y.

There are three kinds of morphophonemic rules that operate here:

Apocope

Classes 1, 2, 3, 17, 19, 23 and 24 involve deletion of the stem final vowel, which is in turn replaced by the positive verbal participial marker i or I.

24 Insertion

Classes 4, 10, 12, 14, 15, 16 and 18 involve insertion. A stop consonant segment gets inserted between the stem and the suffix, when the verb ends in a vowel.

24 Gemination

Classes 5, 6, 7, 13, and 21 are examples of gemination where, the suffix geminates the consonant or glide that the verb stem ends in.

2.3.4.2.2.2 NEGATIVE VERBAL PARTICIPLE

Verbs can be classified into 9 classes, based on allomorphic variations exhibited by the verb stems for the Negative Verbal Participle. The 9 stems that decline accordingly, are: Aku, all Yu,kelY, ml peVYYu, potu, vA, vill Yu and wUfku.

1.	Aku	$Aku \rightarrow Ak$
2.	alYYu	$aYYu \rightarrow aIYY$
3.	kell	$kelY \rightarrow ket$
4.	mil	$nil \rightarrow nirY$
5.	peVrYu	$peVrYu \rightarrow peVrY$
6.	potu	potu → pot
7.	EA.	$vA \rightarrow var$
8.	vilYu	$vilYYu \rightarrow vilYY$
9.	wUfku	$wUfku \rightarrow wUfk$

Most of these changes involve final vowel deletion of the stem, in the case of a following vowel. There are 2 instances of assimilation. There are 7 suffix variants for the negative verbal participial form. These are: Amal. kAmal. kA

1.	Aku	+	Amal	$Aku \rightarrow AkAmal$
2	A	+	kAmal	$cA \rightarrow cAkAmal$
3.	ceV1	+	LA mal	$ceVl \rightarrow ceVllA mal$
4.	ceVy	+	yAmal	$ceVy \rightarrow ceVyyAmal$
5.	iru	+	kkA mal	iru → irukkA mal
6.	koVTY	+	N'A mal	$koVIY \rightarrow koVIYIYAmal$
7.	иN	+	NAmal	$uN \rightarrow uNNAmal$

There are three kinds of morphophonemic rules that operate here:

24 Apocope

Classes 1, 2, 3, 17, 19, 23 and 24 involve deletion of the stem final vowel, which is in turn replaced by the negative verbal participial marker *AmaL*

Marketion 24

Classes 4, 10, 12, 14, 15, 16 and 18 involve insertion. A stop consonant segment gets inserted between the stem and the suffix, when the verb ends in a vowel.

24 Gemination

Classes 5, 6, 7, 13, and 21 are examples of gemination where, the suffix geminates the consonant or glide that the verb stem ends in.

2.3.4.2.2.3 Conditional

The Conditionals branch into the Positive and the Negative.

2.3.4.2.2.3.1 Positive Conditional

Verbs can be classified into 9 classes, based on allomorphic variations exhibited by the verb stems for the Positive Conditional. The 9 stems that decline accordingly, are: Aku, alf Yu, keY, nil, peVYYu, potu, vA, vilYYu and vU/ku.

1.
$$Aku$$
 $Aku \rightarrow AnY$
2. AlY $AlY \rightarrow AN$
3. cA $cA \rightarrow ceV$
4. kAN $kAN \rightarrow kaN$
5. $kelY$ $kelY \rightarrow ket$
6. $koVY$ $koVY \rightarrow koVN$
7. nil $nil \rightarrow nirY$
8. no $no \rightarrow noV$
9. $peVrYu$ $peVrYu \rightarrow peVrY$
10. $potu$ $potu \rightarrow pot$
11. vA $vA \rightarrow va$
12. $wUfku$ $wUfku \rightarrow wUfk$

1.	Aku	+	Al	$Aku \rightarrow AnYAI$
2	ABY	+	MI	$AY \rightarrow ANtAI$
3.	d	+	wwA1	$cA \rightarrow ceVwwAl$
4.	ceVy	+	wAl	$\alpha V y \rightarrow \alpha V y w A I$
5.	ceV1	+	TAL	$\alpha VI \rightarrow \alpha VnYnYAI$
6.	coVI	+	nYnYA!	$coVIY \rightarrow coVnYnYAl$
7.	iru	+	mvA!	iru → irunwAl
8.	wUfku	+	inYA!	$wUfku \rightarrow wUfkinYAl$

There are three kinds of morphophonemic rules that operate here:

Apocope Apocope

Classes 1, 2, 3, 17, 19, 23 and 24 involve deletion of the stem final vowel that is in turn replaced by the positive conditional marker AL

Classes 4, 10, 12, 14, 15, 16 and 18 involve insertion. A stop consonant segment gets inserted between the stem and the suffix, when the verb ends in a vowel.

№ Gemination

Classes 5, 6, 7, 13, and 21 are examples of gemination where, the suffix geminates the consonant or glide that the verb stem ends in.

2.3.4.2.2.3.2 Negative Conditional

Verbs can be classified into 9 classes, based on allomorphic variations exhibited by the verb stems for the negative conditional. The 9 stems that decline hereby, are: Aku.alyyu, kely, nil, peVyyu, polu, vA, vilyyu and vUfku.

```
1. Aku
               Aku \rightarrow Ak
2. alYYu
               aYYu \rightarrow aYY
3. kelY
               kelY -> ket
4. nil
              mil \rightarrow mirY
5. beVeYu
             peVrYu -> peVrY
             potu -> pot
6. botu
7. DA
              vA \rightarrow var
8. viYYu \quad viYYu \rightarrow viYY
9. wUfku
              wUfku -> wUfk
```

Most of these changes involve final vowel deletion of the stem, in the case of a following vowel. There are 2 instances of assimilation. There are 7 suffix variants for the negative conditional form. These are: AvittAl, kAvittAl, lAvittAl, yAvittAl, kkAvittAl, MAvittAl, NAvittAl

```
1. Aku + AvittAI Aku \rightarrow AkAvittAI

2. cA + kAvittAI cA \rightarrow cAkAvittAI

3. ceVI + IAvittAI ceVI \rightarrow ceVIIAvittAI

4. ceVy + yAvittAI ceVy \rightarrow ceVyyAvittAI

5. iru + kkAvittAI iru \rightarrow irukkAvittAI

6. koVIY + IYAvittAI koVIY \rightarrow koVIYYAvittAI

7. uN + NAvittAI uN \rightarrow uNNAvittAI
```

There are three kinds of morphophonemic rules that operate here:

Apocope + Insertion

Classes 1, 2, 3, 17, 19,23 and 24 involve deletion of the stem final vowel, which is in turn replaced by the negative conditional suffix, AvittAL

nsertion 🗠

Classes 4, 10, 12, 14, 15, 16 and 18 involve insertion. A stop consonant segment gets inserted between the stem and the suffix, when the verb ends in a vowel.

Market Gemination

Classes 5, 6, 7, 13, and 21 are examples of gemination where, the suffix geminates the consonant or glide that the verb stem ends in.

2.3.4.2.2.3.3 Durative Conditional

From among the 24 classes of verbs, there are 14 stems that exhibit allomorphic change prior to the realization of the durative conditional. The verb stems that inflect for the durative conditional suffix are: Aku, AM, caV, coVL, kaN, keN, koVM nil, no, peVYYu, potu, na and nUfku. The Durative Conditional involves the marker kkoVNtiru, on the positive verbal participial base of the verb. The following is a list of the relevant verb declensions:

```
1
      Aku
                    Abu - Ab
2
     AN
                    AY \rightarrow AN
3.
      cA
                    cA \rightarrow aV
4.
   ceV1
                    \alpha VI \rightarrow \alpha VnY
5.
    coVI
                    coVI \rightarrow coVnY
6.
      KAN
                    kAN \rightarrow kaN
7
      boly
                    kel w het
8
      koVY
                    koVN -> koVN
9.
                    no \rightarrow noV
10.
      mil
                    nil \rightarrow ninY
11. peVrYu
                    peVrYu \rightarrow peVrY
12
                    potu -> pot
      botu
13.
                    vA \rightarrow va
      EA
14
      wUlku
                     wUfku \rightarrow wUfk
```

There are 8 kinds of variations in the suffixes. These are: ikkoVNtiru. tukkoVNtiru. nnukkoVNtiru, nnukkoVNtiru, nnukkoVNtiru, nnukkoVNtiru, nnukkoVNtiru and kikkoVNtiru.

1.	1 ku	+	ikkoVNtiru	Aku → AkikkoVNtiru
2.	AM	+	tukkoVNtiru	AN -> ANtukkoVNtiru
3.	cA	+	www.kkoVNtiru	cA → ceVwwukkoVNtiru
4.	ceV1	+	rYukkoVNtiru	ceV1 → ceVnYrYukkoVNtiru
5.	coV1	+	likko VNtiru	coVl → coVllikkoVNtiru
6.	no	+	nwukko VNtiru	no → noVnwukkoVNtiru
7.	po	+	ykko V Ntiru	po → poykko VNtiru
8.	wUfku	+	ikkoVNtiru	wUfku → wUfkikkoVNtiru

There are three kinds of morphophonemic rules that operate here:

Apocope 🌥

There are 4 instances of final vowel deletion in the verb paradigm. Classes 1, 17, 19 and 24 exhibit this property. If a verbal base ends in the vowel **u**, which is preceded by a stop consonant, the final vowel gets deleted before suffixation of the past tense marker.

24 Assimilation

There are 6 instances, or rather 3 types, of assimilation in the verb paradigm. Classes 2, 5, 7, 12, 13 and 14 exhibit this property, particularly along with rule of gemination. Specific changes include **Y** to **N**, **I** to **nY** and **N** to **t**. The trend can be described as a liquid assimilating to a nasal, if the context is governed by a geminate.

№ Vowel Shortening

There are 4 instances of vowel shortening in the verb paradigm. Any of the verbal stems, that end in a vowel gets shortened if it is followed by a stop or a sequence of nasal + stop.

2.3.4.3 Mood

2.3.4.3.1 NEGATIVE PAST

Verbs can be classified into 9 classes, based on allomorphic variations exhibited by the verb stems for the Negative Past. The 9 stems that decline hereby are: Aku, all Yu, kelY, nil, peVYYu, potu, vA, vil YYu and vU/ku.

```
Aku
1.
                   Aku \rightarrow Ak
2
     alYYu
                   alYYu \rightarrow alYY
3.
    kell
                   kelY -> ket
4.
     mi/
                   nil \rightarrow nirY
5.
    peVrYu
                   peVrYu \rightarrow peVrY
6.
    potu
                   botu -> bot
7.
     EA
                   vA \rightarrow var
8.
     vilYYu
                   viYu \rightarrow viYY
9
     wUfku
                   wUfku -> wUfk
```

Most of these changes involve final vowel deletion of the stem, in the case of a following vowel. There are 2 instances of assimilation. There are 7 suffix variants for the negative past form. These are: villE, kvillE, kvillE, kvillE, kvillE, kvillE and NavillE.

1.	Aku	+	avillE	$Aku \rightarrow AkavillE$
2.	cA	+	kavillE	$cA \rightarrow cA kavillE$
3.	ceV1	+	lavillE	$ceVl \rightarrow ceVllavillE$
4.	ceVy	+	yavillE	$ceV_{\mathcal{I}} \rightarrow ceV_{yyavill}E$
5.	iru	+	kkavillE	iru → irukkavillE
6.	koVIY	+	YavillE	$koVIY \rightarrow koVIYIY$ avillE
1.	uX	+	NavillE	$uN \rightarrow uNNavillE$

There are three kinds of morphophonemic rules that operate here:

Apocope + Insertion

Classes 1, 2, 3, 17, 19, 23 and 24 involve the deletion of the stem final vowel, which is in turn replaced by the negative past marker *avillE*.

24 Insertion

Classes 4, 10, 12, 14, 15, 16 and 18 involve insertion. A stop consonant segment gets inserted between the stem and the suffix, when the verb ends in a vowel.

4 Gemination

Classes 5, 6, 7, 13, and 21 are examples of gemination where, the suffix geminates the consonant or glide that the verb stem ends in.

2.3.4.3.2 NEGATIVE FUTURE

Verbs can be classified into 9 classes, based on allomorphic variations exhibited by the verb stems for the Negative Future. The 9 stems that decline hereby are: Aku. alf Yu. kelf., nil, pel/flu, potu, vA. vilf Yu and wUfku.

Most of these changes involve final vowel deletion of the stem, in the case of a following vowel. There are 2 instances of assimilation. There are 7 suffix variants for the negative future form. These are: amAtt, kamAtt, lamAtt, vamAtt, kkamAtt, tfamAtt and NamAtt.

```
1. Aku
           + amAtt
                         Aku \rightarrow AkamAtt
           + kamAtt
2 4
                         cA \rightarrow cAkamAtt
3. ceV7
           + lamAtt
                        ceVI \rightarrow ceVIlamAtt
4. ceVy
           + yamAtt
                        ceVy \rightarrow ceVyyamAtt
5. iru
            + kkamAtt iru → irukkamAtt
6. koVY
           + NamAtt koVY → koVYYamAtt
7. uN
           + NamAtt uN → uNNamAtt
```

There are three kinds of morphophonemic rules that operate here:

Apocope + Insertion

Classes 1, 2, 3, 17, 19, 23 and 24 involve the deletion of the stem final vowel, which is in turn replaced by the negative future marker *amAtt*.

1 Insertion

Classes 4, 10, 12, 14, 15, 16 and 18 involve insertion. A stop consonant segment gets inserted between the stem and the suffix, when the verb ends in a vowel.

24 Gemination

Classes 5, 6, 7, 13, and 21 are examples of gemination where, the suffix geminates the consonant or glide that the verb stem ends in.

2.3.4.3.3 HORTATIVE

Verbs can be classified into 9 classes, based on allomorphic variations exhibited by the verb stems for the Hortative. The 9 stems that decline hereby are: Aku. aly Yu. kelY, nil, peV Yu, potu, vA.nily Yu and vUfku.

Most of these changes involve final vowel deletion of the stem, in the case of a following vowel. There are 2 instances of assimilation. There are 7 suffix variants for the hortative form. These are: alAm, kalAm, lalAm, valAm, kkalAm, fiTalAm and NalAm.

1.
$$Aku + alAm Aku \rightarrow AkalAm$$

2. $cA + kalAm cA \rightarrow cAkalAm$
3. $ceVI + lalAm ceVI \rightarrow ceVIlalAm$
4. $ceVy + yalAm ceVy \rightarrow ceVyyalAm$
5. $iru + kkalAm iru \rightarrow irukkalAm$
6. $koVV + ValAm koVV \rightarrow koVVValAm$

7.
$$uN + NalAm \quad uN \rightarrow uNNalAm$$

There are three kinds of morphophonemic rules that operate here:

Apocope + Insertion

Classes 1, 2, 3, 17, 19, 23 and 24 involve the deletion of the stem final vowel that is in turn replaced by the hortative marker alAm.

Marketion 2

Classes 4, 10, 12, 14, 15, 16 and 18 involve insertion. A stop consonant segment gets inserted between the stem and the suffix, when the verb ends in a vowel.

24 Gemination

Classes 5, 6, 7, 13, and 21 are examples of gemination where, the suffix geminates the consonant or glide that the verb stem ends in.

2.3.4.3.4 ADMONITIVE

Verbs can be classified into 9 classes, based on allomorphic variations exhibited by the verb stems for the Admonitive. The 9 stems that decline hereby are: Aku. aNYu, kelY, nil, peVYYu, potu, vA, vilYyu and vU/ku.

Most of these changes involve final vowel deletion of the stem, in the case of a following vowel. There are 2 instances of assimilation. There are 7 suffix variants for the admonitive form. These are: a, ka, la, ya, kka, Na and Na.

1.
$$Aku$$
 + a $Aku \rightarrow Aka$
2. cA + ka $cA \rightarrow cAka$
3. $ceVI$ + la $ceVI \rightarrow ceVIlla$
4. $ceVy$ + ya $ceVy \rightarrow ceVyya$
5. irv + kka $iru \rightarrow irukka$
6. $koVIY$ + Na $koVIY \rightarrow koVNIYa$
7. uN + Na $uN \rightarrow uNNa$

There are three kinds of morphophonemic rules that operate here:

Apocope + Insertion

Classes 1, 2, 3, 17, 19, 23 and 24 involve the deletion of the stem final vowel that is in turn replaced by the admonitive marker a

24 Insertion

Classes 4, 10, 12, 14, 15, 16 and 18 involve insertion. A srop consonant segment gets inserted between the stem and the suffix, when the verb ends in a vowel.

mination

CLASSES 5, 6, 7, 13, and 21 are examples of gemination where, the suffix geminates the consonant or glide that the verb stem ends in.

2.3.4.3.5 PROHIBITIVE

Verbs can be classified into 9 classes, based on allomorphic variations exhibited by the verb stems for the Prohibitive. The 9 stems that decline hereby are: Aku, alyyu, kely, nil, pelyyu, potu, vA, nilyyuand wiJfku.

Most of these changes involve final vowel deletion of the stem, in the case of a following vowel. There are 2 instances of assimilation. There are 7 suffix variants for the prohibitive form. These are: Aw, kAw. LAw, wAw, kkAw, WAw and NAw.

1.
$$Aku$$
 + Aw $Aku \rightarrow AkAw$
2. cA + kAw $cA \rightarrow cAkAw$
3. $ceVI$ + U $ceVI \rightarrow ceVIUAw$
4. $ceVy$ + yAw $ceVy \rightarrow ceVyyAw$
5. iru + $kkAw$ $iru \rightarrow irukkAw$
6. $koVY$ + YAw $koVY \rightarrow koVYYAw$
7. uN + NAw $uN \rightarrow uNNAw$

There are three kinds of morphophonemic rules that operate here:

Apocope + Insertion

Classes 1,2, 3, 17, 19, 23 and 24 involve the deletion of the stem final vowel that is in turn replaced by the prohibitive marker Aw.

24 Insertion

Classes 4, 10, 12, 14, 15, 16 and 18 involve insertion. A stop consonant segment gets inserted between the stem and the suffix, when the verb ends in a yowel.

Mark Gemination

Classes 5, 6, 7, 13, and 21 are examples of gemination where, the suffix geminates the consonant or glide that the verb stem ends in.

2.3.4.3.6 IMPERATIVE

The Imperative always assumes the basic, rather the uninflected form of the verb. The only suffixes possible are the plural or the honorific, in which case, the addition of the plural or honorific suffix, when is required.

classes of verbs are affected by the morphophonemic rule of apocope, during the surnxation of the plural/honorific marker. These are: Aku, alyyu, iru, pelviyu, potu, vilyyu and wUfku.

1.
$$Aku$$
 $Aku \rightarrow Ak$
2. $alYYu$ $alYYu \rightarrow alYY$
3. iru iru \rightarrow ir
4. $peVrYu$ $peVrYu \rightarrow peVrY$
5. $potu$ $potu \rightarrow pot$
6. $viVYu$ $vilYYu \rightarrow vilYY$
1. $wUfku$ $wUfku \rightarrow wUfk$

The basic rule in stem change is that of final vowel deletion, in the context of a following vowel segment. The morphophonemics involved here, falls in line with the pattern of the 'infinitive'. The suffix varies based on the phonological nature of the stems it attaches itself to.

There are two kinds of morphophonemic rules that operate here:

24 Insertion

Classes 4, 10, 16, 18 and 22 are examples of insertion, wherein a consonant segment gets inserted between the stem and the suffix. This often happens when the verb ends in a long vowel.

M Gemination

Classes 5, 6, 7, 13, 14 and 21 are examples of gemination where, the suffix geminates the consonant that the verb stem ends in.

2.3.4.4 Other Attachments

Apart from Tense, Modal and Aspectual features, verbs also take on other functional elements like Adverbials, Particles, Auxiliary verbs, Clitics and Vocative Clitics. They also inflect for Gender, Number and Person.

Particles attach to both finite and non-finite verbs, as do Clitics and Vocative Clitics. Finite forms of a verb take on GNP suffixes after they inflect for tense. Adverbials and Auxiliary verbs attach only to non-finite forms of a verb.

2.3.4.5 The Verb Paradigm

Considering verbal variations based on different kinds and levels of inflections, paradigms of distinct, attested verb forms representative of their class had been established. Based on the verb stem and suffix allomorphy a total of twenty-four classes of verbs have been identified:

SI.No.	Base1/ Suffix1	Base2/Suffix2 (Future)	Base3/Suffix3 (Present)	Base4/Suffix4 (Future)	Base5/Suffix5 (Non-Finite)
1	Aku	A] nY	A] kirY	Alv	Ak]a
2	AIY	AN]t	AIY] kirY	AIY] v	AIY]a
3	alYYu	alYYu] w	AlYYu] kirY	alYYu]v	alYY]a
4	cA	ceV ww	cA kirY	cA]v	cA] ka
5	ceVl	ceVnY]rY	ceVl] kirY	ceVl]v	ceVl]la
6	ceVy	ceVy] w	ceVy JkirY	ceVy]v	ceVy Jya
7	coVl	coVnY]nY	coVl] kirY	coVl]v	coVl]la
8	eVnY	eVnY]rY	eVnY] kirY	eVnY]p	eVnY]a
9	ikalYY	ikalYY] nw	ikalYY kirY	ikalYY] v	ikalYY] a
10	iru	iru] nw	iru kkirY	iru] pp	iru] kka
11	kAN	kaN]r	kAN] kirY	kAN]p	kAN]a
12	keIY	ket] t	ket kirY	ket] p	ket] ka
13	koVIY	koVN]t	koVlY kirY	koVIY] v	koVIY] IYa
14	nil	ninY] rY	nirY] kirY	nirY]p	nirY] ka
15	no	noVnY] w	no kirY	no]v	no] ka
16	pati	pati] ww	pati kkirY	pati] pp	pati] kka
17	peVrYu	peVrY]rY	peVrYu] kirY	peVrYu] v	peVrY]a
18	ро	po]nY	po] kirY	po] v	po] ka
19	potu	pot] t	potu] kirY	pot]v	pot]a
20	pUN	pUN]t	pUNu] kirY	pUNu] v	pUN]a
21	uN	uN]t	uN] kirY	uN]p	uN] Na
22	vA	va] nw	varu] kirY	varu] v	var] a
23	vilYYu	vilYYu] nw	vilYYu kirY	vilYYu]v	vilYY]a
24	wUfku	wUfk] inY	wUfku] kirY	wUfku]v	wUfk]a

Table 2.14: The Verbal Paradigm: Verb Classes

The table records the morphophonemic changes that stems and suffixes undergo in different morphological contexrs. The base endings indicate the specific phonological shape a particular class ends in. The base modifications specify the phonological change the base undergoes prior to number suffixation.

2.3.5 ADJECTIVES

Adjectives in Tamil are of two kinds: Basic, and Derived. A few basic adjectives are *nalla*, *cinYnYa*, and *pann*. Inflectionally, adjectives do have specific affixal patternings peculiar to them alone, to mark them off as a category on their own. Morphologically therefore, one cannot rule out adjectives as an inflecting class¹. Adjectives in Tamil do not morphologically mark comparative and superlative degrees of relation. To syntactically express these, either of the two nominal postpositions, *pola*, and *vita* is used after the bound form of a noun, which

¹ For a discussion on how adjectives form a distinct morphological class, refer Ch.6, sec. 6.1

performs the predicative adjectival function. Although adjectives can be **derived** from both nouns and verbs taking the suffixes, what really brings in morphological distinction, is the phenomenon of Affixal Homonymy. Adjectives generally inflect for GNP, and certain Particles and Postpositions.

2.3.5.1 Gender, Number, Person

It is only the 3rd. person GNP suffixes that can follow adjectives. These are as follows:

GNP	Suffix
3rd. Sing. Feminine	avalY
3rd. Sing. Masculine	avanY
3rd. Sing. Honorific/Plural	avar
3rd. Sing. Neuter	awu

Table 2.15: GNP suffixes for Adjectives

Class 1 in the adjectival paradigm remains unmarked, and therefore directly takes any of these suffixes onto its unmarked bound base. Class 2 has to be followed by the GNP base marker by, before taking on any of these suffixes. Both classes of adjectives exhibit stem allomorphic change for the bound base and GNP. As far as bound stem formation is concerned, stems of Class 2 stems lose their final yowel in their bound form.

In the case of GNP suffixation, stems of Class 2 stems lose their final vowel prior to the addition of GNP suffixes.

Apocope is the important change that these stems involve.

2.3.5.2 Other Attachments

There are certain comparative Particles that follow adjectival forms such as mAviri, vivam and pati. All of these particles need to be followed by the adverbial postposition Aka, while occurring after an adjectival base.

2.3.5.3 The Adjectival Paradigm

Only two classes of adjectives can be morphologically established. They have been considered distinct due to allomorphy of the base. Whereas nalla does not exhibit any morphophonemic variation, the form puwu undergoes a change to the bound form, punya. Based on such a distinction, the following adjectival paradigm has been established:

Sl. No.	Stem1/Suffix1	Stem2/Suffix2	Stem3/Suffix3
1	nalla] Ø	nalla]Ø	nalla]Ø
2	puwu]Ø	puw] iya	puwiya]Ø

Table 2.16: The Adjectival Paradigm: Adjective Classes

The table lists two distinct adjectival forms in their free/direct forms with the relevant stem changes along with their corresponding bound /indirect forms. GNP inflections can occur on the bound forms, after the augment that