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A tree-guided tour of the *Eluttatikāram**

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SUMMARY: Tree-related vocabulary figures prominently inside the TE (*E_luttatikāram* of the *Tolkāppiyam*), an ancient treatise dealing with the phonetics and morphophonology of Tamil, but attempting a complete botanical identification of that vocabulary is a difficult task (not attempted here). This article, examining how the individual items inside that vocabulary are dealt with, and how their treatment fits in with the global organization of the TE, aims at providing insights on the nature of those items. They are not basically free forms, but bound forms (or stems), to be concatenated with other elements, in order to obtain the attested linguistic forms, at the end of a derivational process of which the TE is the explicit formulation. This in turns provides an insight into the way the first grammatical description of Tamil was made, probably on the basis of an analysis of existing complex expressions. The language, having thus been analysed and equipped with a grammar, was then on its way to becoming a normalized language, more suitable for literary expression than a language without a grammar. Later grammarians would elaborate on that first step, in a long "domestication" process of language by grammar, the results of which are still visible today, whenever the tamed *centamil* standard is preferred over more spontaneous dialectal usages.

1. Presence of tree-related vocabulary inside the TE

The *E_luttatikāram* (henceforth TE), which is the first book of the *Tolkāppiyam*, the most ancient Tamil grammar preserved, ¹ contains, among many other things, grammatical information relating to the **stems** of a number of lexical items which are characterizable as nouns which are "tree names", where "tree" roughly translates the Tamil word *maram*, although a more precise terminology would have to be used if we wanted to handle simultaneously the small botanical section contained in the last section of the third book of the *Tolkāppiyam*: the *marapiyal*.² More specifically,

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¹ For a general presentation of the Tamil grammatical tradition, see Chevillard (1996) and Chevillard (2008).

² In that section of the *Porulatikāram* (henceforth TP), which is part of a classification of living beings

among the 483 sūtra-s of the TE:

- 5 sūtra-s (TE182i,³ TE218i, TE416i, TE417i and TE418i) deal generically with groups of stems characterized by a common phonetic pattern.⁴
- 18 sūtra-s contain statements concerning one or several stems which are explicitly mentioned or taken up as a topic from the preceding sūtra, and it is these 18 sūtra-s which will be the center of our attention here.

Inside those 18 *sūtra*-s, the token/type statistics for those 35 stems is 35/25, which means that there are 25 phonetically distinct stems (see chart 1) and that several of them occur several times, for various reasons. Additionally, two of them, *ñemai* and *namai*, seem to be doublets referring to the same plant (Anogeissus latifolia). A precise identification of all the plants concerned is a challenging task, which has been attempted by several scholars⁵ but even when the precise botanical identity is

according to the number of sense organs, a distinction is made between two types of plants, called <code>pul</code> and <code>maram</code>, both of them being said to belong to the <code>ōr-arivina</code> "(living beings) that have (only) one cognitive faculty" (TP572i), namely "cognition through bodily contact" (<code>urrarivatu</code> [TP571i]). The contrasting characterizations of <code>pul</code> and <code>maram</code> are found in the <code>sūtra-s</code> TP630i (<code>purakkā lanavē</code> <code>pullena molipa</code> "one calls <code>pul</code> those which are hard outside [but soft inside]") and TP631i (<code>akakkā lanavē</code> maramena molipa "one calls <code>maram</code> those which are hard inside"). However, it does not seem clear that whoever composed the first book of the <code>Tolkāppiyam</code> (i.e. the TE) was aware of the distinction made in the third book between <code>pul</code> and <code>maram</code>. For instance, although <code>panai</code> is from the point of view of TP a <code>pul</code> (see TP630i, commentary), the distinction does not seem to percolate down into the terminology of the TE. This is in fact also true for modern Tamil where the expression <code>panai maram</code> is licit, as attested by the MTL, where 11 sequences starting with <code>panaimara-</code> are found, inside the definitions for several entries (MTL p.2570: "<code>panaikātu</code>" = "<code>panaimaram</code> <code>aṭarnta</code> <code>tōppu</code>"), although there is no independent entry for <code>panaimaram</code>.

- ³ The vowel /indicates that the numbering of the TE *sūtra*-s follows lļampūraṇar's commentary. The numbering of the *sūtra*-s by Naccinārkkiniyar, another commentator, partly differs because he takes the two *sūtra*-s TE102i and TE103i to be one *sūtra*, TE102n. From that point onwards, the numbering by the two commentators differs by one unit, until it starts to coincide again from TE442i (alias TE442n) onwards, because *sūtra* TE441i is split into two distinct *sūtra*-s (TE440n and TE441n) by Naccinārkkiniyar.
- ⁴ *Sūtra* TE182i deals generically with the stems of tree names ending in "-a" or "-ā". *Sūtra* TE218i deals generically with the stems of tree names ending in "-a". The 3 *sūtra*-s TE416i, TE417i and TE418i deal with the class of stems ending in *kurriyalukaram* ("overshort *u*").
- ⁵ See the MTL and see pages 321–322 and 366–406 inside the 2007 book, Tamilarum Tāvaramum,

in doubt, there seems to be no doubt that these 25 items refer to trees (or to plants). It must also be said that in the case of several items ($\bar{a}n$, ekin, kumil, $c\bar{e}$, puli, $m\bar{a}$) homophones which do not belong to tree vocabulary are discussed by the TE or by its commentators (see chart 2). The list of 25 stems, in alphabetical order and with the identifications proposed by Kiruṣṇamūrtti (2007, pp. 366–406) for 22 of them, is as follows:

	String in TE	Identification in Kiruṣṇamūrtti (2007)	Occurrences in TE
Т	arai	[unidentified] ⁶	TE284i, TE305i (M)
Т	āņ	[missing] ⁷	TE305i, TE337i (M)
Т	ār	Bauhinia racemosa	TE364ı
Т	āl	Ficus benghalensis	TE376ı
Т	āvirai	Cassia auriculata	TE284I
Т	illam	Strychnox potatorum	TE314I

by Kiruṣṇamūrtti. I have unfortunately not had the time to make a complete comparison with the Pandanus online data base. Other sources of information which should also be taken into account are traditional lexicons, such as the *Tivākaram*, the *Piṅkalam*, etc. The 4th chapter in the *Tivākaram* (marappeyart tokuti), contains 217 sūtra-s (numbered from 628 to 844) and more than half of them are enumerations of the various names of several trees. For instance, selecting 2 items from our list (T16 and T19 in chart 1), we can learn from sūtra 700 in Tivākaram that paṇai is also called peṇṇai, tālam, pul, tāļi and pōntai whereas sūtra 664 says that puļi is also called cintam, cintūram, āmpilam, tinturuṇi and ekiṇam, although the fact that this last designation is quite close to the ekiṇ which is item T8 in chart 1 is perplexing.

⁶ Kiruṣṇamūrtti (2007) provides no identification (He writes: "? tree"). The MTL (p. 137) says: "prob. *aracu*. A tree, prob. pipal". T.V. Gopal Iyer (TIPA-1, p. 34) suggests *araca maram*.

⁷ This item appears in TE305i (ānmarak kiļavi yaraimara viyarrē), but is not included in the lists compiled by Kiruṣnamūrtti (2007). The MTL, on the basis of different authorities, assigns three possible values to it (p. 222): 1. Class of trees whose interior is hard, solid, suitable for timber; 2. Marking-nut tree. See Cē-maram; 3. Sage-leaved alangium. See Aliñcil.

	String in TE	Identification in Kiruṣṇamūrtti (2007)	Occurrences in TE
Т	uti	Lannea coromandelica ⁸	TE244i, TE263i (M)
T8	eki <u>n</u>	Spondias pinnata	TE337ı
Т9	oţu	Cleistanthus collinus	TE2631, TE2791 (M)
T10	kumi <u>l</u>	Gmelina arborea	TE387ı
T11	cār	Buchanania axillaries	TE364ı, TE365ı
T12	cē	Alangium salvifolium	TE279ı, TE283ı (M)
T13	ñemai	Anogeissus latifolia	TE283ı
T14	taļā	Jasminum sp.	TE230ı, (TE231ı)
T15	namai	Anogeissus latifolia	TE283ı
T16	paṇai	Borassus flabellifer	TE284ı, TE285ı, (TE286ı)
T17	piţā	Randia malabarica	TE230ı, (TE231ı)
T18	pīr	Luffa cylindrica	TE364ı, TE366ı, TE387ı (M)
T19	puļi	Tamarindus indica	TE245ı
T20	pūl	Phyllantus reticulates	TE376ı
T21	mā	Mangifera indica	TE232ı
T22	yā	Hardwickia binata	TE230ı, (TE231ı)
T23	vicai	[unidentified] ⁹	TE283i, TE314i (M)
T24	vetir	Bambusa sp.	TE364
T25	vēl	Acacia Arabica	TE376

Chart 1: Botanical identification

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⁸ Zvelebil (JTS) gives "Indian ash-tree *Odina wodier*".

⁹ Kiruṣṇamūrtti (2007) does not provide any identification (He writes: "? tree"). The MTL (p. 3648) does not offer any suggestion and says simply: "7. A tree; *maravakai*.

	String in TE	Description in TE	Contrasting homophones
T2	āņ	TE305i	vs. TE304i (<i>āṇum peṇṇum</i>)
Т8	eki <u>n</u>	TE337	vs. TE338i (<i>ēṇai ekiṇ</i>)
T10	kumi <u>l</u>	TE387i	See Iļampūraņar (under TE387i) ¹⁰
T12	cē	TE279i	vs. TE280i (<i>pe<u>rr</u>am āyi</i> <u>n</u>)
T19	puļi	TE245i	vs. TE246i and TE247i (<i>ēnaip puļip peyar</i>)
T21	mā	TE232i	vs. TE232i ¹¹

Chart 2: Homophonous stems¹²

2. Mode of presentation of the elements

I now turn my attention to the methods used for mentioning the items inside the *sūtra*-s of TE. In order to refer to a string X, the simplest protocol is the use of the string itself, and this is done 14 times over a total of 35 individual references, but in the remaining cases, other methods are also seen, in which a semantic and/or a grammatical categorization is made, by making use of terms such as *maram* "tree", *peyar* "noun" and *kiļavi* "term", ¹³ combined or not combined with a form of the quotation verb *en*. The various possibilities are enumerated in the following chart:

¹⁰ Iļampūraṇar paraphases the *sūtra* formulation *kumilౖ en̤ kil̩avi marappeyar āyin̤* as follows: *kumil̞ en̤num col kumilౖttal en̤num tolil aṇri marappeyar āyin̤* "if *kumil̞* is not [the root of] the verb *kumilౖttal* but is a tree name".

¹¹ The *sūtra* enumerates *māmarak kiļaviyum āvum māvum* The first *mā* corresponds to a tree and the second to one (or several) animal species. The sandhi rules given differ. The examples provided by lḷampūraṇar, when the two *mā*-s combine with *kōṭu* (branch or horn) are *māaṅkōṭu* "branch of the mango tree" for the first one and *mānkōtu* "horn of an animal" for the second one.

¹² It is possible that other items are specified as being X marak kiļavi because of a possible risk of confusion. This might concern: (a) oṭumarak kiļavi (TE263i) because the stem oṭu is potentially homophonous with the oṭu case suffix (cf. oru vinai oṭuc col in TC87i); (b) yā marak kiļavi (TE230i), which could potentially be confused with the verbal root yā (mentioned in TE147i) or with the interrogative yā-v-en vinā (mentioned several times: TE176i, etc.).

¹³ As I have argued elsewhere (see Chevillard, 2008, p. 466), *kiļavi* is a general purpose designator for any linguistic element.

Formula	Count	Value of X (plants concerned)	Examples
X	14	arai, ār, ekin, cār, ñemai, taļā, namai, panai (twice), piṭā, pīr, pūl, vetir, vēl.	ārum vetiruñ cārum pīrum // melleluttu mikutal meyperat tōnrum. (TE364i)
X kiļavi	1	āvirai	<i>āviraik kiļavi</i> (TE284i)
X maram	6	arai, āṇ, uti, oṭu, cē, vicai	oṭumarak kiļavi y utimara viya <u>rr</u> ē (TE263i)
X marap peyar	1	illam	<i>illa marap peyar</i> vicai mara viya <u>rr</u> ē (TE314i)
X marak kiļavi	7	āṇ, uti, oṭu, puḷi, mā, yā, vicai	<i>puļi marak kiļavi</i> kku ammē cāriyai (TE245i)
X en kiļavi	5	āl, kumi <u>l</u> , cār, pīr (twice)	<i>pīr en kiļavi ammoţuñ civaņum</i> (TE366i)
X en marap peyar	1	cē	<i>cēven marappeyar oṭumara viya<u>r</u>rē</i> (TE279i)

Chart 3: Methods of mentioning

As I shall argue several times here, the 25 strings which instantiate these formulas (and replace X), should be considered as stems ¹⁴ rather than as ordinary names (and nouns) used in normal linguistic usage. This means that several of them are not free forms that could be met with inside a text. They are rather the result of an analysis of the Tamil language into its elements, and the purpose of the grammar is to teach how to combine these stems with other linguistic elements in order to form actual utterances.

3. Groupings by sūtra chaining and through the use of gaṇa-s

I now present the natural subgroups which are found inside the set of 25 stems occurring in the 18 *sūtra*-s under examination. Two different techniques are employed:

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¹⁴ Sanskrit grammarians would call them *prātipadika*-s.

- stating collectively the morphophonological properties of a group of items, which we might want to call a *gaṇa*, although the Tamil grammatical tradition never developed a *gaṇapāṭha*, such as is found as an appendix to several grammars of Sanskrit.
- chaining sūtra-s. This is accomplished by stating in a sūtra that the stem (or group of stems) under
 consideration has the same morphophonological properties as a stem described earlier.¹⁵ Three
 such chains are found in the TE (see examples 1a to 1e below and see chart 5).

Concerning the gana technique, five such groups are found in the TE. See:

Gaṇa	Gaṇa members	Sūtra concerned
G1	yā, piṭā, taļā	TE230i, TE231i
G2	vicai, ñemai, namai	TE283i
G3	paṇai, arai, āvirai	TE284i
G4	ār, vetir, cār, pīr	TE364
G5	pūl, vēl, āl	TE376

Chart 4 (Gana-s)

Concerning the chaining technique, the simplest way to illustrate it is to give an example, such as the chain formed by 5 *sūtra*-s which starts in TE244i, where the morphophonological properties of *uti* are explained, and is continued, by successive jumps, in TE263i, TE279i, TE283i and TE314i, as follows: 16

- (1a) utimarak kiļavi melleļuttu mikumē "The tree-[denoting]-stem uti is nasal-augmented" (TE244i)
- (1b) oṭumarak kiļavi yutimara viyarrē "The tree-[denoting]-stem oṭu has the nature of the tree-[denoting-stem] uti" (TE263i)
- (1c) cēven marappeya roṭumara viyarrē "The tree-name called 'cē'has the nature of the tree oṭu" (TE279i)

¹⁵ The occurrences of items used as models are signalled by "(M)" in chart 1.

¹⁶ Here I do not provide a completely explicit gloss, as a traditional commentary would do. These 5 sūtra-s are given in metrical form, in order to emphasize that the slightly heterogeneous character of the presentation is due to metrical constraints: Every formulation has to be fitted into lines made of 4 feet (cīr), each of which is a combination of 2 acai-s The application of sandhi rule makes it sometimes difficult to split the text.

- (1d) vicaimarak kiļaviyu ñemaiyu namaiyu // māmup peyaruñ cēmara viyala "And the tree-[denoting]-stem vicai, and ñemai, and namai, those three names have the nature of the tree $c\bar{e}$ "(TE283i)
- (1e) illa marappeyar vicaimara viya<u>rr</u>ē "The tree-name illam has the nature of the tree vicai" (TE314i)

As we can see in (1d), the *gaṇa* G2 is part of the chain, but the role of model is fulfilled at the next step (1e) by one of its elements, *vicai*. Two other chains are found in the TE. The following chart contains the data pertaining to these 3 chains/

Chain	Elements
C1	<i>uti</i> (TE244i) ← <i>oṭu</i> (TE263i) ← <i>cē</i> (TE279i) ← G2 / <i>vicai</i> (TE283i) ← <i>illam</i> (TE314i)
C2	<i>arai</i> (TE284i/285i) ← <i>āṇ</i> (TE305i) ← <i>ekiṇ</i> (TE337i)
С3	<i>pīr</i> (TE364i/366i) ← <i>kumi<u>l</u></i> (TE387i)

Chart 5 (Chains of *sūtra*-s)

4. Grammatical information provided

I now examine the following question: How can one determine what the TE was suppose to teach regarding those 25 tree-denoting stems to those who learnt it at the time of its composition and during the subsequent centuries? We can of course first of all try to understand on our own what it says but we have to be aware that its sūtra-s are often cryptic and that a precise understanding of each of them also depends on our perception of where they stand inside the global structure. For that reason, it seems always useful, in addition to a direct examination of the TE sūtra-s, to examine what the commentators tell us about them, keeping in mind the fact that they might be mistaken. ¹⁷ I shall start with the 5 sūtra-s that I have just enumerated. The illustrations provided by Ilampūraṇar for the 5 sūtra-s are, in a slightly adapted form:

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¹⁷ We are of course more likely to be mistaken than them.

- (2a) utinkōṭu, utiñcetiḷ, utintōl, utimpū¹8 (TE244i, commentary)
- (2b) otunkōtu, otuncetil, otuntōl, otumpū (TE263i, commentary)
- (2c) cēnkōṭu, cēñcetiļ, cēntōl, cēmpū (TE279i, commentary)
- (2d) vicainkōṭu, ñemainkōṭu, namainkōṭu; vicaiñcetiļ, ñemaiñcetiļ, namaiñcetiļ, vicaintōl, ñemaintōl , namaintōl; vicaimpū, ñemaimpū, namaimpū (TE283i, commentary)¹⁹
- (2e) illańkōţu, illañcetiļ, illantōl, illampū (TE314i, commentary)

In these examples we recognize as initial component the 4 tree-denoting stems uti, otu, $c\bar{e}$ and vicai and a slightly modified version of the 5th one (illam). We also see recurrent elements: $k\bar{o}tu$ "branch", cetil "outer bark", $t\bar{o}l$ "skin" and $p\bar{u}$ "flower". We have to understand that the nasal consonants (\dot{n} , \tilde{n} , n and m) which stand between the first and the second component of all these expressions are the melleluttu-s which are explicitly prescribed in (2a) by TE244i, and indirectly prescribed by the following 4 $s\bar{u}tra$ -s which are chained to it.

5. Order of the elements and organization of the TE

In order to understand, at least partly, how Ilampūraṇar derives the examples he gives for the *sūtra*-s upon which he comments, we must pay attention to the global organization of the TE. This means for instance taking into account the place of those *sūtra*-s inside the TE and their relationship with other *sūtra*-s, with which they may interact. We have until now presented, for convenience sake, the 25 stems examined in this article in alphabetical order, but this is not the order in which they are found inside the TE. We have, however, on several occasions (for instance while presenting the *gaṇa*-s contained in Chart 4 and the chains contained in Chart 5) hinted at the existence of a "natural/intrinsic" order found in the TE. An exhaustive presentation of the organization of the TE is beyond the scope of this article, but it is however possible to state that, according to Ilampūraṇar:

• the *sūtra-*s in the TE can be divided into 2 basic categories, called *karuvi* "instrumental, auxiliary" and *ceykai* "action", the "action" being understood to be the *puṇarcci* "combining/union" of

¹⁸ This is my amplification of the printed text of Ilampūranar's commentary which simply contains, in abbreviated manner: *utirikōṭu; cetil; tōl; pū*. The same remark stands for 2b, 2c and 2e.

¹⁹ The printed text only has: *vicainkōtu, ñemainkōtu, namainkōtu, cetil, tōl, pū.*

linguistic elements postulated to be initially stand-alone elements.²⁰ Each of these two categories is further subdivided into 4, the most important one being called *akac ceykai* "internal action".

• the 18 *sūtra*-s pertaining to our 25 stems are all contained in that section.

A practical consequence is that, whenever lampūranar provides us with an example illustrating a *sūtra* from the *akac ceykai* section, it is to be understood that the shape of that example is a consequence not only of the *sūtra* itself but also of a number of auxiliary *sūtra*-s found in the other sections of the book. Stated concisely, the general principles which are pertinent for understanding the examples provided by lampūranar are as follows:

• The constantly recurring question examined in the TE is: "what takes place [on the morphophonological plane] when one item A is followed in an utterance by an item B?"

The answer to that question depends on the nature of the relation between **A** and **B**, which can be a case relation (*vērrumai*) or a non-case relation (*al-vali*) [see TE108i] All the possible finals for **A** are successively examined (see chart 6) and in each case, all the possible initials for **B** are dealt with.

For each configuration, the TE first tries to state a general rule, after which it examines the special subcases and the singular cases (or exceptions)

Illustrating this organization, the following chart sketches the contents of the last three chapters in TE, showing the subdivisions pertaining to the final letter of item A. The sections which contain *sūtra*-s pertaining to our 25 stems of tree names are in boldface.

A ends with a vowel [TE204i to TE296i]	- <i>a</i> (TE204-221i), - <i>ā</i> (TE222-235i), - <i>i</i> (TE236-249i), - <i>ī</i> (TE250-254i), - u (TE255-264i), - <i>ū</i> (TE265-272i), - <i>e</i> /- <i>o</i> (TE273-274i), - <i>ā</i> (TE275-280i), - <i>ai</i> (TE281-289i),
A ends with a consonant [TE297i to	-ñ (TE297-298i), -n (TE299-302i), -n (TE303-310i), -m (TE311-
TE406i)	332i) , - <u>n</u> (TE333-357), -y (TE358-362i), -r TE363-366i), -/ (TE367-378i), -v (TE379-383i), -/ (TE384-396i), -/ (TE397-405i).

²⁰ See the initial part of Ilampūranar's commentary on TE1i. Such a conception is in agreement with the perspective of *Prātiśākhya* authors, who explain how to derive the text of continuous recitation (*samhita pātha*) of the veda-s from the *pada-pātha* (word-by-word text). See also Thieme (1995).

Chart 6 (Logical sections inside the TE)

6. Examining one example: the i-ending section

In order to be more specific in my explanations regarding how the 25 tree stems fit into the general economy of the TE, I shall now briefly present extracts from the section that goes from TE236i to TE249i, in which the behaviour of i-ending items is examined. That section, like the other sections, starts with some inaugural general statement, which is then followed by the examination of special cases. More specifically,

- TE236i presents a (relatively) general case²¹
- TE237i to TE243i deal with several special cases
- TE244i deals with *uti* ["Lannea Coromandelica"]
- TE245i deals with *puli* ["Tamarindus Indica"]
- TE246i deals with puļi [sourness]
- TE247i presents an alternative to TE246i

Etc.

If we follow the interpretation given by Ilampūranar, we shall admit that these $s\bar{u}tra$ -s teach us that, when a word A ends in -/ and is followed by a word B starting with [a plosive which is] k, c, t or p: 22

• The general case (TE236i) is to double the plosive, as in *kiļik kāl* (parrot leg), which is the combination of *kiļi* (parrot) and *kāl* (leg).

²¹ That "general case" is not a completely general case because other aspects of the sandhi of words ending in *-i* have already been dealt with in the *tokai marapu* (5th section of the TE) in general-purpose *sūtra*-s and in specific purpose *sūtra*-s (such as TE155i, TE159i, etc.).

²² I restrict the examples to this situation, for the sake of simplicity, although llampūraṇar draws many further conclusions.

The item *uti* (TE244i) behaves differently and inserts a homorganic nasal, as seen in (2a), where we presented the example *utinkōṭu* (branch of Lannea Coromandelica tree), which is the combination of *uti* with *kōtu* (branch).

The item *puļi* (TE245i) behaves in a yet different manner because when *puļi* combines with *kōṭu* (branch), we obtain *puḷiyaṅkōṭu* (branch of Tamarind tree), where the *ammuc cāriyai*, i.e., the element *am* which falls under the general category of *cāriyai*,²³ has been inserted between the two components.

BUT, if *puļi* means "sourness" (TE246i) and does not refer to a tree, we obtain a homorganic nasal in sandhi, as in *pulinkūl* (sour porridge).

HOWEVER, according to TE247i, an alternative possibility is to have a doubling of the plosive, as seen in the variant form *pulikkūl* (sour porridge) [which is in fact a return to the general case seen in TE236i].

7. The various groups of tree-denoting stems

The detailed examination of the -/ending section has shown us that some stems of nouns which are tree names do not behave like those of other nouns, and that they fall under different groups, from the point of view of morphophonology. An examination of other sections would confirm that impression. Among the 25 stems studied by us in this section, we find the following forms of behaviour, when they combine as first element (A) with a second item (B) that starts with a plosive (k, c, t or p):

- Group A: insertion of the *cāriyai "am"*
- Group B: insertion of a homorganic nasal
- Group B*: insertion of a homorganic nasal except when the second item is kāl, in which case there is doubling of the plosive
- Group AB: free choices between the cāriyai "am" and the homorganic nasal

²³ The *sūtra* TE113 introduces in a general way the context in which *cāriyai*-s are used and the *sūtra* TE120i enumerates 9 specific *cāriyai*-s. K. Zvelebil translates *cāriyai* by "empty-morph".

Group C: loss of final ai and insertion of am

• Group D: insertion of a and choice between inserting a nasal and a plosive

Group D*: see chart7

A	arai, āṇ, āl, ekiṇ, puḷi, pūl, vēl	araiy an kōṭu, āṇ an kōṭu, āl an kōṭu, ekina n kōṭu, puḷiy an kōṭu, pūl an kōṭu, vēlankōṭu
В	ār, illam, uti, oṭu, cē, ñemai, namai, vicai, vetir.	ārṅkōṭu, illaṅkōṭu, utiṅkōṭu, oṭuṅkōṭu, cēṅkōṭu, ñemaiṅkōṭu, namaiṅkōṭu, vicaiṅkōṭu, vetirṅkōṭu.
B*	cār	cār ri kōṭu BUT cār k kā <u>l</u>
AB	pīr, kumi <u>l</u>	pīr ṅ kōtu OR pīr aṅ kōṭu, kumiḷ ṅ kōtu OR kumiḷ aṅ kōṭu
С	paṇai, āvirai	paṇ aṅ kāy, āvir aṅ kōṭu
D	yā, piṭā, taļā	yā ari kōṭu, piṭā ari kōṭu, taļā ari kōṭu OR yā ak kōṭu, piṭā ak kōṭu, taļā ak kōṭu²⁴
D*	mā	mā aṅ kōṭu OR <i>māṅ</i> kōṭu

Chart 7: types of tree stems²⁵

8. Posterity of the grammatical characterizations found in TE

I have presented the information provided by the *Tolkāppiyam* in the light of the interpretation provided by the most ancient commentary available, attributed to Ilampūraṇar. This commentary is followed in time by another one, attributed to Nacciṇārkkiṇiyar, which contains additional information on the situation of the Tamil language, as it was slowly changing. It is not possible here for me to provide a detailed analysis of all the additional facts mentioned by these two commentators but a few remarks will indicate the trends. A much more complete picture can be obtained by examining the corresponding entries in volumes 1 & 2 of the TIPA (*Tamil*

²⁴ Iḷampūraṇar adds to the teachings of the TE that we can also have *yāaviṇkōṭu, piṭāaviṇkōṭu, talāavinkōtu*, and even, in some cases, *yāattukkōtu*.

²⁵ Other information concerning the types of tree stems can be found in the TIPA, vol.2, p. 166, under the entry *marappeyarp punarcci aivakai*.

Ilakkanap Pēr Akarāti), prepared by T.V. Gopal Iyer. See references in chart 8.

• Several items seem to move from group B to group AB. For instance, Naccinārkkiniyar indicates that *utiyaṅkōṭu* is acceptable alongside *utiṅkōṭu*.

A new *cāriyai*, *"ām"*, is seen in several forms such as *pūlāṅkōṭu*, which alternates with *pūlaṅkōṭu* (see AĀ in chart 8).²⁶

	String in TE	TIPA	Group	New feature
T1	arai	I-34	А	(araicu/aracu)
T2	āņ	I-55	A>AĀ	"ām": āṇāṅkōṭu
Т3	ār	I-63	B>AB	"am": āraṅkaṇṇi
T4	āl	I-63	А	
T5	āvirai	I-63	С	
Т6	illam	I-90-91	В	"attu' ²⁷
Т7	uti	I-124/125	B>AB	utiyaṅkōṭu (TIPA)
Т8	eki <u>n</u>	I-166	А	(ekinam)
Т9	oṭu	I-237	B>AB	oṭuvaṅkōṭu
T10	kumi <u>l</u>	I-263	AB	
T11	cār	I-289	B*	
T12	cē	II-31	В	
T13	ñemai	II-37	В	
T14	taļā	II-50	D	
T15	namai	[missing]	В	
T16	paṇai	II-124, II-125/126	С	
T17	piţā	II-127	D	

²⁶ The new *cāriyai* "ām" is also seen in the form *āṇāṅkōṭu* which appears in the commentaries by Ilampūraṇar and Naccinārkkiniyar to TE232i/TE231n, along with the forms *kāyāṅkōṭu* and *nuṇāṅkōṭu*.

²⁷ T.V. Gopal lyer provides an example from *Kalittokai* 142.

T18	pīr	I-63, II-131	АВ	"attu" (pīrattalar)
T19	puļi	II-144	Α	
T20	pūl	II-147	A>AĀ	"ām": pūlāṅkōṭu
T21	mā	I-169/170	D*	
T22	yā	II-223/224	D	
T23	vicai	II-247	В	
T24	vetir	II-262/263	В	"attu" (TIPA)
T25	vēl	II-266	А	

Chart 8: type changes and TIPA information

9. The continued relevance of morphophonological characterizations

By way of concluding this exploration of a fragment of ancient Tamil noun morphology, a quick glance into the situation of Contemporary Standard Tamil (CST), as illustrated by the already huge corpus of online Tamil texts and by the standard dictionaries of Tamil appears useful. A sketch of the situation in the various Tamil dialects would also be useful but it is of course much more difficult to achieve. If we restrict ourselves to those texts which purport to be composed in CST, a striking fact is that these contain a great number of "words" which are not found as entries in dictionaries although some of their constituents are present, probably because native Tamil speakers instinctively consider these "words" to be analysable (noun-)phrases and take for granted the morphological mechanisms through which they are derived. For instance, if we consider the fruit of the Tamarind tree (Tamarindus Indica), the "word (or "phrase") which is used to refer to it is *puliyampalam*, but that item does not receive a separate dictionary entry either in the Madras Tamil Lexicon or in the Cre-A dictionary, although it is used in the definition of another item.²⁸ The entry semantically closest to *puliyampalam* is *puliyamaram* "Tamarind tree", but since

²⁸ The definition of the entry *Puli²* "Tamarind" (a black substance used for cooking) in the Cre-A dictionary is "*puliyampalattin* ōṭṭai nīkkip perappaṭum pulippuc cuvaiyuṭaiya cataip pakuti", where we see the genitive of *puliyampalam*.

neither of these two can be derived from the other, we have to postulate that both of them contain a stem *puli-*, i.e. a bound form which combines with the items *palam* "ripe fruit" and *maram* "tree", and which is very similar to the abstract entity which the TE designated as *pulimarakkilavi* (see Chart 3, row 5). That stem is also found in a great number of other phrases, such as:

(3) puļiyaṅkanru, puļiyaṅkā, puļiyaṅkāy, puļiyaṅkuṭi, puļiyaṅkuṭam, puļiyaṅkuricci, puļiyaṅkoṭṭai, puḷiyaṅkoluntu, puliyañcālai, puliyantalai, puliyantīvu, puliyantōppu, puliyamvitai, etc.

The case of *puli*-, where it seems almost natural to use the TE, its *ammuc cāriyai* (TE245i) and the stem T19 of chart 1 in order to analyse contemporary Tamil usage, is an illustration of the stability of the Tamil language across the centuries.

Other stems would illustrate change. Such is for instance the case with T7 (*uti*-) in chart 1. We have already explained, while commenting on Chart 8, that the commentators noted that the form *utinkōṭu* was being replaced by a new form *utiyaṅkōṭu*. We do find in Contemporary Standard Tamil (CST) that the stem, after undergoing a change of morphological class, has also undergone further changes, because we now find in CST forms such as *otiyañcālai*, *otiyamaram*, etc.²⁹

As a conclusion, I would like to point out that the use of the *ammuc cāriyai*, which has been persistent with an item such as *puli*- (and with other items belonging to group A) since the time of the TE and which we have seen being extended to items such as *uti*- (later *oti*-) through the power of linguistic analogy, is not restricted to tree-denoting stems but is also seen in items such as *āru* "river" and *kiṇaru* "well".³⁰ In the case of Classical Tamil literature, it is probable that the (too) frequently

²⁹ Those changes were already an established fact at the time when the *Tirumummaṇikkōvai* (included now in the 11th *Tirumurai*) was composed by Āļuṭaiyapiḷḷaiyār. There, in stanza 6, we find the statement *otiyampaṇai pōl viḷuvar antō* "They [who do not bow their heads to Campantar] will fall (useless), alas! like the branches of the Lannea Coromandelica". It is interesting to note that the uselessness of that tree seems to have remained proverbial, as seen in the proverb: "oti peruttut tūn ākumō" (found in Mousset and Dupuis' Tamil-French dictionary, and as seen in the title of a short story ("otiyam peruttā uttirattukku ākumā?"), which I chanced to find on the internet (http://www.thiruvilaiyattam.com/2008/12/blog-post_08.html).

³⁰ See phrases such as ārraṅkarai "river bank" and kinarraṅkarai "side of the well".

found interpretation of "am" as meaning "beautiful" is not always justified and that, in a number of cases, it would be a fairer tribute to the architecture and the sober beauty of that language to suppress the superfluous word "beautiful".

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