

DRAVIDIC STUDIES

Edited

By

MARK COLLINS, M.A., Ph.D.



UNIVERSITY OF MADRAS

1974

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FOREWORD

Padmasri N. D. SUNDARAVADIVELU, M.A., L.T.,

Vice-Chancellor,

UNIVERSITY OF MADRAS.

University of Madras has made provision years ago for study and research in both Indian and European languages. The Departments of Tamil, Telugu, Kannada, Malayalam, Hindi, Sanskrit, English, French, German and Russian are making worthy contribution to teaching and research. Among the ancient languages of the world Dravidian group of languages occupy an honoured place both by virtue of its antiquity as well as richness and variety. Though among the Dravidian languages, Tamil is nearest the parent Dravidian speech, still, for a student of Dravidian linguistic studies every member of the language group, whether cultivated or not, ancient or modern, has rich significance in the historical and comparative study of the group. Such a study is bound to be fascinating and fruitful. Our traditional grammarians were more inclined to give a descriptive grammar of their respective languages rather than comparative much less historical. This led some of our grammarians to give a distorted picture of the grammar of our languages.

One of the beneficial effects of India's contact with the western world during the modern era, was to bring to bear on the study of languages a scientific temper, a historical perspective and a comparative method. Some of the foreign administrators, clergymen and others with a scholarly bent of mind, who spent some years in South India, were fascinated with the languages and literature of the south and left behind translation

of some of the works like Thirukkural and Tiruvacakam, treatises on grammar, dictionaries and monographs. Among the band of such foreign savants Dr. R. Caldwell, G. U. Pope, F. W. Ellis, M. Winslow, J. Beschi, F. Kittel, H. Gundert, M. Collins, C.P. Brown, to mention a few, have laid us under a deep debt of gratitude by their contributions. In the wake of this wholesome contact with the west some of our own scholars have contributed to an appreciable extent to the study of Dravidian Linguistics. Among them the contribution to 'Dravidic Studies' made by Thiruvalargal C. P. Venkatarama Ayyar, K. V. Subbaiya, S. Anavaratavinayakam Pillai and Mark Collins was edited by Mr. Mark Collins himself. Nos. 1 to 3 in this collection appeared in its first edition in 1919 and No. 4 in 1926.

The University of Madras is keen in placing before the scholars and laymen alike the fruits of scholarly endeavours that have been made in this University with a view that further efforts in the same direction may be made by scholars in our country and abroad, and has accordingly embarked on a vigorous programme of publication of research works. The keen demand that we notice for our University publications has spurred us not only to bring out contemporary Research publications of the various departments in the University but also reprints of our earlier publications.

The suggestion of Dr. N. Sanjeevi, Head of the Department of Tamil, University of Madras, to bring to light again this work edited by Mark Collins that appeared nearly half a century ago was promptly accepted and the book is now made available to researchers.

Though several advances have been registered during the past fifty years in Dravidian linguistic studies by scholars like Emeneau and Burrow and by the Departments of Dravidian Linguistics in the Kerala University under the guidance of Prof. V. I. Subramoniam and in the Annamalai University under Prof. S. Agesthalingom the contribution to 'Dravidic Studies' by the four scholars,

in this work will I hope, be welcomed by the linguists everywhere particularly in view of the paucity of such studies, in this field. What has been said in the course of his editorial remarks on one of the monographs in this collection by Mark Collins may be taken as representative of the whole work viz., 'One notes with great satisfaction the presence in this article of new ideas and suggestions. These are always welcome, even if they serve but as stepping-stones to higher or more accurate expressions for the laws that govern, any particular set of linguistic phenomena.'

Madras, }
12-11-1974. }

(Sd.) N. D. SUNDARAVADIVELU,
(*Vice-Chancellor*)

"He who is devoid of craving, and free from grasping, he who is skilled in etymology and terms he who knows the grouping of letters and their sequence, - it is he who is called the bearer of the final body, one of profound wisdom, a great man."

—Dhammapada.

A WORD OF THANKS

The Department of Tamil, University of Madras is deeply indebted to our esteemed Vice-Chancellor and the enlightened members of the Syndicate of the University of Madras for kindly sanctioning the publication of this work of historical and research value. It also expresses its appreciation of the love of labour displayed by Thiru. V. Jayadevan, B.Sc., M.A., Cert. in Linguistics, Lecturer in Tamil, University of Madras, for the pains-taking work he has done in correcting the proofs. We express our hearty thanks to Maraimalai Adikal Library and The Adyar Library, Madras for having lent Dravidic Studies Nos. I-III and No. IV, which are not available elsewhere. Our thanks are also due to M/s Rathnam Press for the efficient and elegant printing of this book.

Madras, }
9-12-1974. }

(Sd.) ந. சஞ்ஜீவி
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DRAVIDIC STUDIES

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THE DEMONSTRATIVE BASES

BY

C. P. VENKATARAMA AYYAR, M.A., L.T.



UNIVERSITY OF MADRAS

1974

University of Madras

DRAVIDIC STUDIES

No. I

THE DEMONSTRATIVE BASES

RADICAL V IN DEMONSTRATIVE EVIDENCE FROM WORD-SANDHI IN TAMIL

Sandhi

By Sandhi we mean the changes which the initial and final sounds undergo when used in a word-group or sentence. Sandhi is of two kinds: (i) External and (ii) Internal.

2. Of these, External Sandhi relates to the changes which are the result of the combination of the final sound of one word with the initial sound of another; while Internal Sandhi refers to the changes which occur within a word itself.

3. In Mixed Sandhi in Tamil where one vowel sound comes in contact with another vowel sound or a consonant, certain important changes are observed which are very interesting.

4. These changes fall mainly under one of three heads, namely—

- (i) a new sound may come in (தோன்றல்);
- (ii) One sound may pass into another (திரிதல்); and
- (iii) there may be loss of some sound (கெடுதல்).

The Change after Demonstratives

5. Of these changes, the topic taken up here is the appearing of a consonantal sound in Mixed Sandhi between the vowels

a, *i*, *u*, *e* and either a consonantal sound or the semi-vowel *y*. The changes that are observed in the above cases are as follows:—¹

(i) When the next word begins with a vowel or *y*, a new consonantal sound *v* always comes in.

(ii) But when the next word begins with a consonant, the initial consonant of the coming word is always doubled, e.g.—

$$\left\{ \begin{array}{l} e + ka\text{ṭ}al = e (k) ka\text{ṭ}al \\ a + ka\text{ṭ}al = a (k) ka\text{ṭ}al \\ i + ka\text{ṭ}al = i (k) ka\text{ṭ}al \\ u + ka\text{ṭ}al = u (k) ka\text{ṭ}al \end{array} \right.$$

[*e* is the interrogative base and *a*, *i* and *u* are demonstrative bases mentioned in the rule quoted below.]

6. Similarly when a nasal consonant comes in after the interrogative and demonstrative bases mentioned above, it is also likewise doubled, e.g.—

$$\left\{ \begin{array}{l} a + malai = a (m) malai \\ i + malai = i (m) malai \\ u + malai = u (m) malai \\ e + malai = e (m) malai \end{array} \right.$$

7. The same doubling is noticed when the next word begins with a vowel. And in such cases, the consonant *v* which appears [section 5 (i)] is doubled, e.g.—

$$\left\{ \begin{array}{l} a + aṇi = a (vv) aṇi \\ i + aṇi = i (vv) aṇi \\ u + aṇi = u (vv) aṇi \\ e + aṇi = e (vv) aṇi \end{array} \right.$$

8. As has been said (section 5), when the next word after *a*, *i*, *u* and *e* begins with the semi-vowel *y*, the consonant *v* is said to come in to fill up the hiatus between the vowels and the semi-vowel sound *y*, e.g.—

1. எகர வினாமுச் சுட்டின் முன்னர், உயிரும் யகரமு மெய்தின் வவ்வும், பிறவரி னவையுந் தூக்கிற் சுட்டு, நீளின் யகரமுந் தோன்றுத னெறியே. Nannūḷ, rule 163.

$$\begin{cases} a + yānai = a (v) yānai \\ i + yānai = i (v) yānai \\ u + yānai = u (v) yānai \\ e + yānai = e (v) yānai \end{cases}$$

Dr. Caldwell's Theory¹

9. The regularity with which these demonstratives—proximate *i-*, remote *a-*, intermediate *u-*, —and the interrogative base *e-* act in the examples quoted above, is very remarkable. On this point, Dr. Caldwell observes: "The vocalic prefixes *a*, *i*, *u* and *e* occupy one and the same position, obey one and the same law, and differ only in the particular signification which is expressed by each." It is an interesting question why these bases should behave so very regularly. Dr. Caldwell points out rightly: "It is very difficult to treat the demonstrative and interrogative pronouns of the Dravidian family separately. The bases are different but they are built up on those bases in precisely the same manner and obey one and the same law, so that what is said about the one class may be regarded as said about the other also" (Comparative Grammar, 1913, 3rd edition, page 420).

10. Elsewhere in discussing the demonstrative pronouns *ivan*, 'this man,' *avan*, 'that man,' *uvan*, 'the intermediate or medial man,' and the interrogative *evan*, 'which man,' he states that the words which signify man and woman have gradually lost the definiteness of their original signification and have shrunk into the position of masculine and feminine terminations and observes further: "The suffixes or signs of gender are so closely incorporated with the demonstrative bases that *it requires some knowledge of the principles of the language* to enable us to separate them."

11. But when he attempts to settle definitely the primitive form of the demonstrative bases, he states: "The ordinary demonstratives of the Dravidian dialects are the simple short vowels *a*, *i* and *u*; and it will be found that every other form which they assume is derived from this by some euphonic process."

1. Comparative Grammar, 1913, 3rd edition, page 421.

The theory of Euphonic Process

12. Assuming for argument that this is so, the suggestion of 'euphonic process' does not help us to solve the difficulty which at once presents itself, when the masculine and feminine terminations are added to the simple short vowels.

13. The rules of vowel-sandhi in Tamil and other Dravidian languages throw much light on the question. In the Dravidian languages two vowels do not generally coalesce together, but the hiatus between them is prevented by a euphonic consonant, either *v* or *y*.

14. There are, however, some examples in Telugu where sandhi does take place and a vowel is elided, e.g.—

In Telugu, *Lakṣmi* + *amma* gives *Lakṣm-amma*.

But in Tamil we should have *Lakṣmi* (*y*) *amma*.

That is to say, we should get a *y*-glide after the front vowel *i*. And not only in the case of *i* but in the case of other front vowels, *ī* and *ai*, a *y*-glide comes in quite naturally in vowel-sandhi in Tamil, e.g.—

tī + *eṭuttāṇ* = *tī-y-eṭuttāṇ*

peruntakai + *iruntāṇ* = *peruntakai* (*y*) *iruntāṇ*.

15. In Telugu also, as in Tamil, a *y*-glide comes in after long *ī* in vowel-sandhi, e.g.—

pallakī + *ekkenu* = *pallakī* (*y*) *ekkenu*.

And when we examine old Telugu we find that there is perfect agreement between Tamil and Telugu in the matter of the *y*-glide coming in after the front vowels in vowel-sandhi. The following example from the Telugu Bhāratam fully bears out the point, e.g.—

pani + *ēmi* + *ani* gives *pani-y-ēmi-y-ani* (Bhāratam III-3, verse 267); but in modern Telugu we should have only *panēmani*

This shows that in vowel-sandhi in Dravidian languages, whenever there is a front vowel like *i* as the final sound of one word, we should always expect to find the euphonic *y* coming in before a vowel.

Dr. Caldwell's Theory examined

16. If, as Dr. Caldwell says, the proximate demonstrative be only the pure vowel *i*, then the addition of the terminations denoting gender as *-an*, *-al*, and *-ar* would produce only *iyān*, *iyāl* and *iyar* and not, as is actually the case, *ivān*, *ivāl* and *ivar*.

For, the euphonic consonant *v* comes in only between the back vowels of one word and other vowels in the next, as in—

viḷa + aḷakū = viḷa (v) aḷaku

kaṭu + aḷakū = kaṭu (v) aḷaku

17. Now in the case of the demonstrative pronoun *ivān*, we get a *v* and not a *y* between *i* and *-an*. This fact and the doubling of the initial consonants after *a-*, *i-*, *u-* and *e-*; and the appearance of a *v* before the initial *y* of the next word, which have been illustrated above (sections 5, 6, 8) have to be satisfactorily explained. Dr. Caldwell was evidently much struck with this unity of principle in these bases. For he says: "In no other language or family of languages in the world shall we find its equal or even its second," and concludes: "The Dravidian family has retained some prase-sanskrit elements of immense antiquity," and "in particular its demonstratives were not borrowed from Sanskrit."

18. But the main question is why these demonstrative and interrogative bases should behave in the same manner. This would be explained if Tamil grammar is read historically and the facts relating to this subject are well investigated. As Dr. Caldwell observes: "In this particular, all the dialects agree on the whole so perfectly with Tamil and with one another that it is unnecessary to multiply examples." And as Tamil forms agree with the forms in other languages of the family, Tamil may throw much light on the question.

Illustrations from the Old Classics

19. The Tamil literary dialect of the ancient classics furnishes many illustrations which go to show that the demonstrative

and interrogative bases are not merely the simple vowels *a*, *i*, *u* and *e*, as Dr. Caldwell says, but that they are *av*, *iv*, *uv* and *ev*.

A. These forms are fairly common in the classics. The demonstrative base *uv* (உவ்) is used to denote the intermediate object or more particularly the object behind or beyond, e.g.—

- (i) உவக்காண் எங்காதலர் செல்வார் இவக்காண்என்
மேனி பசப்பூர் வது (Kuraḷ. 1185).
- (ii) வருந்துநோய் தணியவிருந்தனர் உப்பால் (Cilappatikāram
XII, line 5, p. 286).
- (iii) ஊழையும் உப்பக்கம் காண்பர் உலைவின் நித்
தாழாது உருற்று பவர் (Kuraḷ. 620).
- (iv) உப்பால் உயர்ந்த வுலகம்புகும் (Nāṇmaṇikkāṭikai, v. 29).
- (v) உப்பாலிடங்கொள் பேரண்டம் (Old Tiruvilaiyāṭal, ch. 36,
v. 26).
- (vi) உவனாய் நின்றான் (Periyālvār Tirumoli, I-3, v. 5).
- (vii) மொய்யானதில்லா முடவனொருவன் றனது
கையான வையிரண்டுங் கந்தாத்தவழ்தருவால்
ஐயாவதற்கு மோரரும்பிணி யொன்றெய்தியக்கால்
உய்யானே யானும் உவன்போற்றளர்வேனோ
(Kantapurāṇam, Mārkaṇṭēya, v. 18).
- (viii) அவ் வெள்ளருவி உவ்வரையதுவே (Patirruppattu, v. 78).

B. The proximate demonstrative (இவ்) *iv* is likewise much used—

- (i) இவ்வே பீலியணிந்து மாலைதட்டி (Puranānūru, v. 95).
- (ii) இவ்வென வுரைத்துமென்று (Cintāmaṇi, v. 2762).
- (iii) இவ்விருந்தான் (Cintāmaṇi, v. 1790).

C. The form *av* (அவ்) for the remote demonstrative is also freely used—

அவ்வே, இவ்வென வறிதற்கு மெய்ப்பெறக் கிளப்ப (Rule 121,
Collatikāram, Tolkāppiyam).

The Tolkāppiyam

20. In the old grammar in Tamil, known as the *Tolkāppiyam*, the grammarian discusses which sounds occur as final sounds in Tamil. With regard to the final consonant *v* he has a rule—

“வகரக் கிளவி நான்மொழி யீற்றது” (Rule 81, *Eluttatikāram*).

The rule says that there are only four words in Tamil where the consonant *v* is final. These, the commentator tells us, are *av*, *iv*, *uv* and *tev*. And it is this permitted final *v* which makes its appearance in vowel-sandhi (sections 7, 8).

Av, iv in Tamil Prose

21. That the expressions *av* and *iv* were so used extensively is further clearly seen from the old prose writings also. In his prose commentary on the *Tolkāppiyam* the commentator Naccinārkiṇiyar writes *av* and *iv* to denote ‘that’ and ‘this’ respectively, e.g.—

- (i) அவ் இன்சாரியை ஈறு திரியுமாறு கூறுகின்றது
(Rule 121, *Eluttatikāram*, *Tolkāppiyam*, p. 86)
- (ii) அவ் உண்டென்னுஞ் சொல் பண்பை யுணர்த்துங்கால்
(Rule 222, *Collatikāram*, *Tolkāppiyam*, p. 143)
- (iii) இவ் ஈற்று நாட்பெயர்
(Rule 331, *Eluttatikāram*, *Tolkāppiyam*, p. 204)

An additional confirmatory evidence of the wide use of forms like (இவ்) *iv* in ancient Tamil prose is furnished by the form found in an ancient Tamil Inscription (A.D. 1000), e.g.—

இவ் ஊரும் பணையமாய்¹

The *v* is not a glide

22. In the *Nannūl* which was written some centuries after the date of the *Tolkāppiyam*, the grammarian says that a *v* comes in between *a-*, *i-*, *u-*, and *e-* and the initial vowel of the next word (Page I, footnote). The commentator of this rule

1. Travancore Archæological Series, Volume II, Part I, page 39, line 17.

observes that this *v* which makes its appearance in vowel-sandhi is not a glide.¹ This observation of the ancient commentator clears the doubt which may arise whether the *v* between *a-* and *-aṇ* in the word *avaṇ* is radical or only a glide-sound coming in to prevent the hiatus between the vowels.

Other evidence

23. The changes which take place in sandhi when a word beginning in *y* or *v* comes after the demonstratives *a-*, *i-*, *u-* are given by Tolkāppiyar in rule 206, Eluttatikāram of the Tolkāppiyam. The rule says “யவமுன் வரினே வகர மொற்றும்,” i.e., if a word beginning in *y* or *v* comes after *a-*, *i-*, *u-*, the consonant *v* appears between them.

For example, *a + yāḷi = avyāḷi*.

a + vaḷai = avvaḷai.

This is very important as it implies the existence of a consonant *v* after *a*, etc. Its appearance in this case is in the nature of a survival of an original consonant.

In the next rule (rule 207 of Eluttatikāram, Tolkāppiyam), Tolkāppiyar dwells upon the changes which occur in sandhi when instead of *y* or *v*, a vowel begins the word which comes after *a-*, *i-*, *u-*. And this rule ‘உயிர்முன்வரினு மாயியறிரியாது’ is particularly interesting. The commentator says that the *v* which appears in sandhi after *a-*, *i-*, *u-* (according to the previous rule) would, in this case, be always doubled. And the only exception, where the *v* is lost, is where the demonstrative base is lengthened. (Commentary on rule 207 quoted above).

The *v* after *a*, *i*, *u* is known as ‘the demonstrative *v*’ (‘சுட்டு முதல்வகரம்’: rule 183, Eluttatikāram, Tolkāppiyam; and ‘சுட்டு வகரம்’: rule 235, Naṇṇūḷ); as ‘the demonstratives which have the *v* as the final sound’ (‘வவ்விற்று சுட்டு’: rule 250, Naṇṇūḷ) as distinguished from the final sound *v* in the word *tev* (cf., ‘ஏனை

1. யகரமுமெய்தின் வவ்வும் என்றமையின் இங்ஙனம் தோன்றிய வகர யகரங்கள் உடம்படு மெய்யல்ல வென்பதூஉம் பெற்றும் (Commentary on rule 163 of the Naṇṇūḷ).

வகரம்,' i.e., 'the other *v*' as distinguished from the 'demonstrative *v*' in the rule 'ஏனைவகரம் இன்னொடுசிவணும்' (Rule 184, Eḷuttatikāram Tolkāppiyam).

24. In the Tolkāppiyam, the changes which take place in sandhi after the demonstratives are treated separately and a special rule (rule 184 of Eḷuttatikāram) has reference solely to the other word *tev*. Similarly the author of the Naṇṇūl has a separate rule relating to the sandhi of the word *tev* with other words. The rule is—

‘தெவ்வென் மொழியே தொழிற் பெயரற்றே
மவ்வின் வ.கான் மவ்வுமாகும்’

The rule quoted above states that when the word *tev* is combined with other words, a full *u* should appear after the final *v*. Thus—

Tev + kaṭitu would give *tev + u + kaṭitu*.

Then the *v* is doubled before *u* and we get *tev + v + u + k - kaṭitu* (தெவ்வுக்கடிது).

25. But if instead of a vowel or a stop consonant, the nasal consonant *m* begins the next word after *tev*, the final *v* in *tev* would become assimilated to the initial *m* in the coming word as in—

tev + maṭaṅkiya which gives *tem-maṭaṅkiya*¹

These facts show that the vowel *u* which comes after *tev* is in the nature of a union-vowel or insertion between root and another word. The round vowel *u* comes in on account of the *v* in *tev*. And as Tolkāppiyar includes this word in the category of words with permissible final *v* in Tamil,² the actual presence of *v* in the demonstratives is clearly proved.

Av, iv in Tamil Poetry

26. Another important fact which is sometimes noticed is the change of the demonstrative *av* into *ā* (ஆ) in Tamil poetry.

1. தெம்ம டங்கிய சேணிலங்கேகயர்

தம்மடந்தை யுன்றம் பியதாமென

மும்ம டங்கு பொலிந்த முகத்தினன்

வெம்ம டங்கலை யன்னி வெதும்புவான் (Kampa-Rāmāyaṇam, Sunṭarakāṇṭam Kāṭcippaṭalam, verse 19)

2. Rule 81, Eḷuttatikāram, Tolkāppiyam, section 20.

There are some very striking examples in the ancient classics where the commentator invites our special attention to such a change. In the line 'ஆயிடைமணந்தபந்தர்' (Patirruppattu, verse 51) the commentator states that the demonstrative base *av* was changed into long *ā*.¹ Here, the radical *v* is lost as the demonstrative base is lengthened (vide section 23).

The substitution of *ā* for *av* is possible in poetry because both have the same quantity. There are numerous examples in later literature as well.² And the grammarian Tolkāppiyar also uses the form *ā* for *av* in some of the rules in the Tolkāppiyam.*

27. In this connexion it is interesting to note that in Kurukh there is a remote demonstrative *ā* and a proximate demonstrative *i*, e.g.—⁴

ā ālasin = that man.

i mukkan = this woman.

And in Tulu the word *avu* is a demonstrative pronoun meaning 'it' or 'that' and *āvvē* is emphatic (= 'just that').

Conclusion

28. Thus the loss of *v* in the initial lengthening of the demonstrative base in poetry; the use of the forms in literature and in rules and in the commentaries on grammar; and the survival of *v* in mixed sandhi strongly indicate that the old demonstrative bases were *av*, *iv* and *uv*.

And the reason why these bases behave in the same manner is then easily intelligible.

1. அவ்வென்னும் சுட்டுமுதல்வகார வீற்றுப்பெயர் ஆயிடையென முடிந்தது (Patirruppattu, page 82, line 7).

2. (i) ஆயிடைக் கவிகளோடு மங்கதன் முதலினையோர்

(சுந்தர. திருவடி தொகுத. 84)

(ii) ஆயிடை யுரையிழந்தழகன் றேவியும்

(சுந்தர. காட்சி. 61)

From the Tolkāppiyam

3. (i) ஆயேழ் சொல்லும் அசைநிகைக்கிளவி (அவ் + ஏழ் = ஆயேழ்)

(Rule 281, Collatikāram, Tolkāppiyam).

(ii) கெடவரல் பண்ணை யாயிரண்டும் வினாயாட்டு (அவ்விண்டும்).

(Rule 319, Collatikāram, Tolkāppiyam).

4. Kurukh Grammar by Rev. Ferd Hahn (1900), page 20, section 23,

Another important point is the doubling of the consonants after *a*, *i*, *u*, which is due to the presence of *v* in the bases *av*, *iv*, *uv*, where the *v* has been lost for a long time.

And similarly the doubling of *v* after *a*, *i*, *u* and before other vowels is also quite regular since the original bases are *av*, *iv* and *uv*. For, in pronouncing *av* the stress is thrown upon *v* and in passing from the strongly pronounced *v* to the vowel of the next word the consonantal glide *v* is inevitable. Hence we get the doubling of *v* in these cases as in the compound word *a(v) + aruvi* which gives *av-v-aruvi*.

Finally, the appearance of the consonant *v* before words beginning in *y* is but the survival of the lost consonant in these demonstrative bases.

29. Dr. Caldwell characterizes this regularity of principle as 'the beautiful and philosophical regularity of this quadruple set of remote, proximate and intermediate demonstratives and interrogatives' (page 422). But when once it is realized that the old forms were *av*, *iv*, *uv* and *ev*, as Tamil grammar treated historically and illustrated by examples from Tamil classics proves so clearly, the solution is easy. Dr. Caldwell was labouring under a misapprehension that the bases were pure vowels. It was because he started with this idea that the ordinary demonstratives of the Dravidian dialects are the simple short vowels *a*, *i*, *u*, that he was not able to satisfactorily explain the changes above referred to. And that he himself was not absolutely certain about this suggestion is clear from an observation which he has made elsewhere: "It requires some knowledge of the principles of the language to enable us to separate them."

30. The principles of the language could be well estimated only by a study of the forms of words in the literary dialect of the more ancient classics—which were probably not consulted by Dr. Caldwell and by the comparative and historical study of Tamil grammar. When this is done we find that *avan*, *ivan* and *uvan* are perfectly regular forms as they arise from *av*, *iv* and *uv* and not from *a*, *i* and *u*.

C. P. VENKATARAMA AYYAR.

Tamil books referred to

- (1) Kuṛaḷ.
- (2) Cilappatikāram.
- (3) Nāṇmaṇikkaṭikai.
- (4) Paṭirruppattu.
- (5) Puṛaṇānūru.
- (6) Cintāmaṇi.
- (7) Kampa-Rāmāyaṇam.
- (8) Kantapurāṇam.
- (9) Paḷaiya (old) Tiruviḷaiyāṭaḷ.
- (10) Periyālvār Tirumōḷi.
- (11) Tolkāppiyam : Eḷuttatikāram and Collatikāram.
- (12) Naṇṇūḷ and Commentary.

REMARKS

Mr. Venkatarama Ayyar in his article on the Demonstrative and Interrogative bases in Dravidian has followed up a suggestion of mine, testing it by means of the early literature and the older grammarians, and arriving at the conclusion that the suggestion is borne out by the facts which these present. He has confined himself mainly to the data derivable from Tamil and, to a less extent, Telugu, but I think what he has said is sufficient not only to warrant the conclusion that these bases in Tamil are to be regarded as *av-*, *iv-*, *ev-*, rather than *a-*, *i-*, *e-*, but that *av-*, *iv-*, *ev-* are the pan-Dravidic forms.

No phonetician could readily rest content with the explanation usually given of such forms as Tamil *ivaṇ*, 'this man,' *avyāṇai*, 'that elephant,' namely that they are made up respectively of the demonstrative particle *i-* plus the termination *-aṇ*, and the demonstrative particle *a-* plus the noun *yāṇai*. To call the *v* of *ivaṇ* and *avyāṇai* a glide, as is sometimes done, is to pay too little regard to the nature of a glide as a transition-sound the character of which is strictly conditioned by the sounds from which and to which the transit is made. In the case of vowel-glides, with which we are here chiefly concerned, the main determining factor is the vowel that precedes. If this is palatal (*i.e.*), the glide is palatal,

viz., $\underset{\cdot}{i}$, or unsyllabic $\underset{\cdot}{i}$; if it is labial (o , u), the glide is labial, viz., $\underset{\cdot}{u}$ or unsyllabic u . These transition-sounds are often not graphically expressed, but they exist nevertheless, and cannot but exist, in normal speech. In Latin *eam*, 'her' was pronounced $\underset{\cdot}{e}iam$; compare Gothic *ija*, which is the equivalent of Latin *eam*; both represent an Indogermanic $\underset{\cdot}{ei}-\bar{a}m$. Similarly Latin *duō*, 'two' was pronounced $\underset{\cdot}{d}uuō$; compare the dissyllabic pronunciation of Vedic $\underset{\cdot}{dvā} = \underset{\cdot}{d}uuā$. So in English: unless we deliberately pause after the first word, 'who are', 'we are' must inevitably be pronounced with the glides $\underset{\cdot}{u}$ and $\underset{\cdot}{i}$ respectively. This phenomenon does not belong to any particular language or group of languages: it is a phonetic law, a natural law which, within its proper sphere, operates with the regularity of any other natural law. This being so, if the particle *i-* is to be compounded with *-an*, we should expect $\underset{\cdot}{i}yan$ as the result; just as from *paṇi + al*, we have $\underset{\cdot}{pa}ṇi-y-al$, 'worship,' or from *maṇi + aṭikka*, $\underset{\cdot}{ma}ṇi-y-aṭikka$, 'to strike a bell,' where *y* correctly represents the glide: and only if it could be shown that $\underset{\cdot}{a}$ has, or even had at one time an *o*-tonality could the $\underset{\cdot}{v}$ of *avyānai* receive any justification as a glide. But, even if that were possible, what are we to say to *ivyānai*, 'this elephant,' where the $\underset{\cdot}{v}$ stands between two palatal sounds? The glide-theory fails as a principle of interpretation for these forms. Only in the case of the demonstrative particle seen in *uvan*, 'that (intermediate) man,' could the $\underset{\cdot}{v}$ be reasonably explained on this principle, namely, as an off-glide.

The problem of vowel-glides in Dravidian—a very important problem is made more complex by a peculiarity in the pronunciation of vowels, not unnaturally more apparent to a stranger than to the speakers themselves. One finds what may be regarded, in a way, as the opposite of the phenomena of vowel-glides. As after a palatal vowel the glide $\underset{\cdot}{i}$ is heard and after a labial vowel the glide $\underset{\cdot}{u}$, similarly before a palatal vowel at least at the beginning of a word, the sound $\underset{\cdot}{i}$ is heard and before a labial vowel the sound $\underset{\cdot}{u}$. Just as the ordinary vowel-glides are frequently unexpressed (in Greek and Latin, for example) so *these* sounds receive as a rule no expression in the written

language. The former are called 'off-glides'. It will cause no confusion, I think, if for our present purpose we call the latter 'on glides,' always remembering that the phonetician (usually) employs this word in a somewhat different sense. In such cases as Tamil *vaṇḍi-y-illai*, 'there is no carriage,' Telugu, *pō-v-unu*, 'he would go,' etc., *y* and *v* might conceivably be regarded as either off-glides or on-glides, since they stand between two palatal and two labial sounds respectively. The on-glide is clearly present in Telugu *ā-yenu*, 'he became,' *a-vunu*, 'he would become,' etc., the off-glide as clearly in Tamil *muniy-ōḷu*, 'with the sage,' *aduv-ē*, 'that indeed.' On the whole the on-glides seem to prevail in internal sandhi (therefore Telugu *pō-vunu* probably, as *pō-yenu*, 'he went'); the off-glides in external sandhi (therefore probably Tamil *vaṇḍiy-illai*, as *vaṇḍiy-alla*, ('it is not a carriage')). No doubt there are many apparent exceptions; but this only makes the problem all the more interesting.

That these pronominal bases are *av-*, *iv-*, *ev-* receive corroboration from the doubling of an initial consonant when these bases are prefixed, a fact which Mr. Venkatarama Ayyar who is mainly concerned with ancient testimony—has not dwelt upon. Such forms as *akkaṭal*, 'that sea,' etc. can be readily interpreted as arising from *av* + *kaṭal*, etc. A parallel instance, or at least a striking illustration of a double consonant arising in this way, is afforded by Hebrew. In Hebrew, when the article *ha-* is attached to a noun beginning with a consonant, this consonant must be doubled whenever such doubling is phonetically admissible. The reason for this doubling is made clear by a reference to the cognate languages. In Arabic, for instance, the article is *al*. The final *l*, there can be little doubt, was originally present in the Hebrew article; and it is to this original presence that the doubling of a following consonant is due. As in Hebrew the original *l* of the article in combination, let us say, with an initial *k* of the following noun produced by assimilation *kk* (the consonant proper to the noun being thus preserved) so, for example, in Tamil the original *v* of these bases, in combination with an initial *k* of the noun to which they were prefixed, produced by assimilation *kk*. The doubling of a following consonant became then the traditional characteristic of

the article in Hebrew and of these pronominal prefixes (regarded now as *a-*, *i-*, *e-*) in Tamil, and its necessity was in both cases embodied in a grammatical rule.

I may add that I do not at all think that this is the only instance of such assimilation in Tamil. Indeed, I feel that we may find an exact parallel to the above assimilation of *v-k* to *k-k* in the formation of the plural of a certain class of nouns. All nouns that end in the accusative singular in *-vai*, i.e., all nouns which in the corresponding Malayalam form have in the nominative singular a final *-vũ*, for their plural in *-kkaḷ*; for example, *āṇmākkaḷ* 'souls.' Here it seems to me, an original *āṇmāv-kaḷ* (cf. the accusative singular *āṇmāvai* and Malayalam nominative singular *ātmāvu*) is related to *āṇmākkaḷ* exactly as an original *av-kaḷal* is to *akkaḷal*.

What has been said of *v-k* would naturally apply equally to *v-t*, or to *v* in combination with any other consonant.

If this is so, if these pronominal bases are to be regarded as *av-*, *iv-*, *ev-*, we should expect to find these forms when they are prefixed to words beginning with a vowel. This is, of course, not so: the *v* is in this case doubled; *av* + *iṭam* becomes *avviṭam*, 'that place,' *av* + *āṭu* becomes *avvāṭu*, 'that sheep,' etc. I would suggest that this doubling when a vowel follows may be due to the influence of the far greater number of instances in which the doubling is due to a following consonant. There may have been other causes at work. I will only point out that the genius of Tamil is not averse to a single consonant following a short vowel at the beginning of a word, as is evidenced not only by such words as *ilai*, 'leaf,' *talai*, 'head,' *malai*, 'mountain,' and a host of others, but also by such primitive combinations as *nil-am*, 'ground,' *nal-am*, 'goodness' *eṇ-a* = Sanskrit *iti* (by the side of *eṇṇa*, 'to say'), *paṭa*, 'to suffer'; *cey-al*, 'agency' (by the side of *ceyyal*, 'to do'). And especially I would call attention to the contrast between Tamil *avviṭam*, 'that place,' *ivviṭam*, 'this place,' and the isolated forms *aviḍam*, '(in)' that place, there, *iviḍam*, '(in) this place, here,' in Malayalam, a language which so frequently seems to reflect an earlier stage of Tamil, or at least to throw

light upon such an earlier stage. Such facts require explanation and must be taken into account when the phonetic modifications of these pronominal bases are being dealt with.

Mr. Venkatarama Ayyar calls attention to the use of \bar{a} as a substitute for *av-* in early Tamil poetry. It is also found, together with the corresponding *i* for *iv-*, \bar{e} for *ev-*, in Malayalam, Telugu and Kanarese. This \bar{a} would appear to be due, directly or indirectly, to the transference of the length of the double consonant to preceding vowel. In Telugu there are clear traces of such exchange of quantity where the consonant is *v* or *y*; for example, literary Telugu *ēvāni*, 'whose,' by the side of *evvāni*, *āyadi*, 'she, it', by the side of *ayyadi* (Arden's Progressive Grammar, pages 323, 324). If we might look upon such instances—and many more could be added— as the survival of a previously predominating characteristic, if we could assume, in accordance with such a principle, that there once existed in Telugu side by side pairs like, for example, *avvrāyi* and *avrāyi*, 'that line' the existence of the latter form as *āvrāyi* in present-day Telugu, and the contrast which this form offers to the present-day Tamil *avvarai*, 'that limit' would become more intelligible. There is little trace of such a principle in Tamil as it is written to-day. But since these pronominal affixes are so evidently identical throughout the Dravidian group, and since we find \bar{a} by the side of *av-*, in early Tamil literature, and, moreover, since we find \bar{a} as the regular form in Malayalam, the sister dialect of Tamil, I cannot resist the conclusion that the principle disclosed in such pairs as *ēvāni*, *evvāni* was at an early period of very wide prevalence; and as I have suggested that it may account for the difference in the demonstrative element between Tamil *avvarai* and Telugu *āvrāyi*, so I would suggest that it is also accountable for the difference between Tamil *avvarai* and Malayalam *ā vara*, 'that line.' Of the two phonetic variants Tamil has fixed upon the one, viz., *av-* (and similarly *iv-*, *ev-*), Malayalam upon the other, viz., \bar{a} (and similarly *i*, \bar{e}).

This is by no means the whole story, but I think I have said enough to indicate what I feel to be the lines along which these bases have developed. There is need for much further investigation.

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DRAVIDIC STUDIES

No. II

THE PRONOUNS AND PRONOMINAL TERMINATIONS OF THE FIRST PERSON IN DRAYIDIAN

BY

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The University of Madras

DRAVIDIC STUDIES

No. II

SECTION I

THE HISTORY OF THE FIRST PERSONAL PRONOUN IN THE VARIOUS DRAVIDIAN LANGUAGES

TAMIL

(References—

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|-----------------|-----|---|
| (1) Tolkāppiyam | ... | } Peyariyal. sūtra 164.
Urupal, sūtras 188 and 192.
Viṇaiyiyal, sūtras 204 and 205. |
| (2) Viracōliyam | ... | Kriyā, sūtras 6, 7, 8, 9 and 10. |
| (3) Naṇṇūl | ... | } Peyariyal, sūtras 285 and 294.
Viṇaiyiyal, sūtras 331 and 33.) |

The Nominative first Personal Pronoun

According to the Tolkāppiyam, the oldest Tamil grammar, *yāṇ* is the first person singular, and *yām* and *nām* are the first person plurals. There is no mention in the Tolkāppiyam of *nāṇ* as the first person singular.

Nāṇ appears for the first time in the literature of the eighth or ninth century. It is found most commonly in the writings of the Śaiva and the Vaiṣṇava saints who mostly adopted the words of popular speech in their writings. In the Tiruvācakam it is the common first personal singular form. In the Viracōliyam, Vērrumaippaṭalam, stanza 9, and also in the Naṇṇūl, sūtra 285, *nāṇ* is mentioned as a first personal singular pronoun. The mention of *nām* (the plural of *nāṇ*) in the Tolkāppiyam and the late appearance of *nāṇ* as its singular—in the eighth or ninth

century literature and later—make us conclude that even *nāṇ* was current in popular speech long before it became literary.

The double plurals *nāṅka!* and *yāṅka!* are found as early as the Cīvakacintāmaṇi period (vide stanzas 1762 and 1793). In the Nannūl there is, however, no mention of these double plurals.

Thus, Old Tamil has *yāṇ* for the singular and *yām* and *nām* for the plural. Mid. Tamil has *yāṇ* and *nāṇ* for the singular and *yām* and *nām* for the plural. Modern Tamil recognizes only *nāṇ* as its singular and *nām* and *nāṅka!* as its plurals.

N.B. In all periods of Tamil literature poets had the licence of using even obsolete forms of words: e.g., in some of the Modern Tamil publications we find *yāṇ* and *yām* used as the first person singular and plural, respectively.

The Oblique Base

The Tolkāppiyam, Urupiyal, sūtras 188 and 192, gives *eṇ* - as the oblique of *yāṇ*, *em*—as the oblique of *yām*, and *nām* - as the oblique of *nām*. This is confirmed by the Viracōliyam, Vēṇṇu-maippaṭalam, sūtra 7. In the Nannūl, sūtra 247, the same forms are given; but it is also stated in sūtra 294 that *nāṇ* is only nominative and has no oblique base. The oblique forms recognized by grammars are (1) *eṇ*—(singular), (2) *em* - and *nām*-(plurals).

The oblique base *eṅka!*—is modern.

The Verbal Suffixes

The Tolkāppiyam (Old Tamil)—

First Person singular: - *eṇ*, - *ēṇ*, - *al*.

Do. plural: - *em*, - *ēm*, - *am*, - *ām*.

N.B. -*al* is used only in the future.

The Viracōliyam (Mid. Tamil)—

First person singular: - *ēṇ*.

Do. plural: - *ēm*, - *ōm*.

N.B. In the future tense -*eṇ* also is used (Viracōliyam, Kriyā, sūtra, 8). -*aṇ* and -*al* are also used only in the future tense.

The Naṇṇūl (New Tamil)—

First person singular: - *eṇ*, - *ēṇ*, - *aṇ*, - *al*.

Do. plural: - *em*, - *ēm*, - *am*, - *ām*, - *ōm*.

In Modern Tamil - *ēṇ* (singular) and - *ōm* (plural) are the only terminations that are in actual use. The rest are archaic. The Naṇṇūl evidently mixes up archaic and current forms.

To sum up—

(1) - *ēṇ* is one of the old verbal suffixes and is the standard first person singular verbal suffix in Modern Tamil.

(2) - *ōm* is found only in Mid. Tamil and Modern Tamil and is the standard first person plural in New Tamil.

(3) - *eṇ*, - *al*, - *aṇ* first person singular suffixes are old. - *aṇ* is found in Mid. Tamil. All these are archaic in Modern Tamil.

(4) - *aṇ* and - *al* are found mostly in the future tense of verbs.

(5) - *eṇ* is not found in modern literature. ‘யானு நின்றனென்’ (Rāmāyaṇam, paḷḷi, 72) is a rare use. But in the spoken dialect it is very commonly found when the stress is thrown on the base and not on the termination: e.g.—

(i) *Nāṇ vantēṇ*, ‘I came’; but (ii) *Nāṇ vanteṇ*.

Note on the Inclusive and Exclusive First Personal Pronouns

In the commentaries written on the sūtras of the Tolkāppiyam and in the Naṇṇūl, we find that a differentiation is made in the function of the different first personal plural pronouns. *Nām* is regarded by the commentators of the Tolkāppiyam as an ‘inclusive’ pronoun, that is, as including the persons spoken to. The verbal suffixes that correspond to this pronoun are - *am* and - *ām*. *Yām* is considered as an ‘exclusive’ pronoun, that is to say, it does not include the person or persons spoken to. The verbal suffixes that correspond to this pronoun are - *em* and - *ēm*. The author of the Naṇṇūl includes in this class the Mid. and New Tamil suffix - *ōm*.

To sum up—

Nām, -*am* and -*ām* are inclusive, and *yām*, -*em*, -*ēm* and -*ōm* are exclusive.

This distinction, however, is not found in the text of the *Tolkāppiyam*. In the *Viracōliyam* too there is no reference at all to it. Further, a close study of the *Tirukkuraḷ*, the oldest of the published Tamil literary works, shows that such a distinction was not existent in the time of *Tiruvalluvar*: e. g., beside *yām innam* (790) and *yām uḍaiyam* (844) we have *yām iruntēm* (1312) and *yām uḷēm* (1204). Thus with *yām* are used both -*am* and -*ēm*. Again, *kātaḷam* (1314) is paraphrased as *kātaḷai uṭaiyēm* by *Parimēlaḷakar*. Similarly *piṟiyalam* = *piṟiyēm* (1315) *eṇṇuvam* = *eṇṇakkaṭayēm* (467). *Yām* occurs in the *Kuraḷ* fifteen times, but *nām* only once.

This distinction is found for the first time in the *Nannūḷ*; and in the grammatical notes of the commentators of the *Tolkāppiyam*. It does not seem at any time to have been observed very strictly.

Further a comparative study of the other Dravidian languages shown that Kanarese, Goṇḍi and Brāhūi possess only one form for 'we'.

Hence, it seems reasonable to infer that in Primitive Dravidian this distinction was not at all existent. Doctor Grierson says: "From these facts it seems necessary to infer that the original Dravidian language had not developed a double plural of this pronoun. The use of the double plural can accordingly be due to a tendency which has been adopted from a different family, and if that be the case, we can only think of the Muṇḍa languages, where there is a similar set of dual and plural forms of the personal pronoun of the first person" (*Linguistic Survey*, IV, pages 293 and 294).

While therefore, it seems to be certain that Primitive Dravidian had no such distinction as that between 'inclusive' and 'exclusive', it must nevertheless remain for the present a puzzle how it was that an uncultivated foreign dialect like the Munda was

able to influence a highly cultivated language like Tamil or Telugu.

MALAYĀLAM

[References—

- (1) Kēraḷa—Pāṇinīyam, sūtras 109, 239 and 240.
- (2) Gundert's catechism of Malayāḷam Grammar, articles 87, 88 and 126.
- (3) Gundert's Malayāḷam Grammar (second edition, 1868), articles 120, 121, 197 to 208.
- (4) L. J. Frohnmeyer's Malayāḷam Grammar, article 56, pages 254 and 287.
- (5) Seshagiri Prabhu's Vyākaraṇa-mitran, article 134].

The Nominative First Personal Pronoun

Malayāḷam has for the first person singular *ñāṇ* [ɲæ:n]. This form is not found in any other language. Doctor Gundert (in article 121 in his bigger Grammar of the Malayāḷam language) says that *yāṇ* is found in Rāmacaritam, 51.

The plurals of *ñāṇ* are—

- (1) *Nām* [n:~m] and *nōm*, (2) *nammaḷ*, (3) *ñāññaḷ* (ɲæ:ɲɲəḷ), *ñāññaḷ* and *eññaḷ*.

Of these plurals *ñāññaḷ*, *ñññaḷ* and *eññaḷ* are double plural forms, formed by the addition of the neuter plural suffix *kaḷ* to the pronominal plural suffix *m*; cf. Tamil *nāñkaḷ* = *nām* + *kaḷ*. *m* + *k* > *ñk* in Tamil and *ññ* in Malayāḷam (vide my thesis on Nasal plus Consonant). There is a difference in the function of *nām* and *ñāññaḷ*; *nām* is an 'inclusive' pronoun, that is to say, it includes the party spoken to, while *ñāññaḷ* excludes them.

Nām is more literary than *nōm*, *nammaḷ* and *eññaḷ* are considered colloquial.

Ñāññāḷ is an old honorific plural (vide Gundert's Malayāḷam Dictionary, page 411). *Nām* and *nōm* are also used as honorific plurals.

The common first person plural *ñāñña!* the vulgar *eñña!* and also *namma!* have the base vowel short through the influence of oblique forms (cf. Tulu *nama* and *yeñku!u*).

The Oblique Base

First person singular: *eñ-*

Do. plural: *nam-* and *ñāñña!-*.

The Verbal Pronominal Suffixes

Malayālam verbs represent the oldest stage of development of the Dravidian verb, a stage when the participles were themselves used as finite verbs without any distinction of person or number. In Old Tamil, we find a similar state affairs.

In Old Malayālam poetry, however, we find often the pronominal suffixes used: *-ēñ* is the singular first person suffix, and *-ōm* is the plural suffix. *-añ* is the first person singular suffix in the case of future verbs (vide Seshagiri Prabhu's *Vyākaraṇa-mitran*, article 134).

KANARESE

[References—

(1) Karnāṭaka-bhāṣā-bhūṣaṇam, sūtras 92 to 94.

(2) Śabdānuśāsana, 287, 288, 442 and 443.

(3) Śabdamaṇidarpaṇa, 146, 147 and 217.

(4) Kittel's Grammar of the Kannada Language, pages 74, 75 and 76.]

The oldest form of the first person singular in Kanarese is *ān* and that of the plural is *ām*. The sūtra 92 in the Karnāṭaka-Bhāṣā-bhūṣaṇam and the sūtra 288 in the Śabdānuśāsana give only *ān* and *ām* as the singular and plural forms. But in the commentary to sūtra 288 in the Śabdānuśāsana it is mentioned that *nānu*, *nāmu* and the oblique *nan-* and *nam-* are also found in ancient poets. According to Kittel, the plural *nāvu* < *nāmu* is the first to appear and is found in a Śāsana of A.D. 1181. The form *nānu* is found in the Mid. Kanarese period, that is to

say, after the twelfth century. From these it seems to be clear that *ān* and *ām* were the oldest forms in Kanarese and *nānu* and *nāmu* (> *nāvu*) which were originally only popular forms gradually came to replace *ān* and *ām* from the twelfth century onwards.

The double plural *āmga!* is also found in the Old Kanarese dialect. Very likely it is a late form in Old Kanarese as it is not referred to in the Karnāṭaka-bhāṣā-bhūṣaṇam and the Śabdānuśāsaṇa and also it may have been looked upon only as a popular form. It is mentioned only in the Mūḍabidarū manuscript of Śabdamaṇḍarpaṇa. We have no traces of it anywhere else.

The change of *m* into *v* in *āmu* and *nāmu* is a characteristic feature of Kanarese. Cf. *nīmu* > *nīvu* (you), *tāmu* > *tāvu* (themselves) (vide Śabdamaṇḍarpaṇa, article 104).

The Oblique Base

The first person singular oblique in Old and Mid. Kanarese is *en-*, and its plural is *em-*.

In New Kanarese we find *nan-* as the singular, and *nam-* as its plural.

The Verbal Suffixes

		First person.	
		Singular.	Plural.
Old Kanarese	...	-en	-em
Mid. Kanarese	...	-en, -ennu, -e	-evu
New Kanarese	...	-enu, -e, -ēnu	-evu, -ivi, ēvi

N.B. (1) In Old Kanarese singular *-en* is written *-en* before vowels and *-em* otherwise.

(2) In Old Kanarese, the plural *-em* is *-em* if not followed by a vowel; otherwise it is *-evu*, *m* > *v*.

(3) The forms *-ēnu*, *-ēne*, *-ēvu*, *-ēve* are emphatic Modern Kanarese forms.

TULU

[References—

(1) Brigel's Grammar of the Tulu Language, pages 33-39 and 45-110.

(2) Manner's Tuḷu-English Dictionary.]

Tuḷu has *yānu* to denote the first person singular; cf. this with Tamil *yāṇ*. The plural of *yānu* is *yeṅkuḷu*. There is also another plural *nama*.

Both *yeṅkuḷu* and *nama* are derived from the oblique base *yem-* and *nam-*. Hence the base-vowels of *yeṅkuḷu* and *nama* are short. *yeṅkuḷu* is a double plural in form, *-kuḷu* being added to the plural base *yem*.

The plural *nama* has an inclusive meaning while *yeṅkuḷu* has an exclusive meaning.

The influence of [the oblique base on the nominative form is seen in the plural of the second person and the reflexive pronoun. We have in Tuḷu *nikuḷu* beside *niṅkaḷ* in Tamil (= you); *tanukuḷu* (themselves) in Tuḷu beside *tāṅkaḷ* in Tamil.

The Oblique Base

The first person singular oblique base in Tuḷu is *yen-*, and its plurals are *eṅkuḷ-* and *nam-*.

The Verbal Suffixes

The singular first person suffix is *-e* and the plural is *-a*.

[The *e* of the first person singular is pronounced as [æ] (vide Brigel's Grammar of the Tuḷu Language, page 47).]

TELUGU

[References—

(1) Arden's Telugu Grammar, sections 168, 172, 177, 181 to 201 and 772.

(2) Bālavāyākaraṇamu, section 24, pages 59 and 60.]

The forms of the first person found in the Telugu Bhāratam are:—*ēnu* and *nēnu*, singulars, and *ēmu*, *nēmu* and *mēmu* and also *manamu* plurals. Of these the modern forms are:—*nēnu* singular; *mēmu* and *manamu* plurals.

In the Mahā-Bhāratam the common first person plural forms is *ēmu*, *Nēmu* is next in order of frequency. *Mēmu* is a rare

form in the Bhāratam. *Manamu* too is found in the Bhāratam, but it has a meaning different from that of *ēmu* or *nēmu*. It is an inclusive plural form.

In Modern Telugu too this difference is observed. *Mēmu* excludes and *manamu* includes the persons addressed.

[*Mēmu* < *nēmu* by complete teassimilation of the initial *n* to the final nasal *m*.]

Manamu is very likely a confusion of two forms. *Ma-* and *nam-* both oblique forms. *Ma-* is from *mā-*, and *nam-* is the oblique of *nām*.

The Oblique Base (Arden, page 323).

The first person singular has two oblique bases, (1) *nā-* which is the base for all cases except the accusative, (2) *nan-*, the oblique of the accusative case.

Similarly, in the plural we have two bases, (1) *mā-* and (2) *mam-* (accusative). We have also a third plural oblique base in Modern Telugu, i.e., *mana-*.

Examples : *nākun* (dative), but *nanun* and *nannun*.
mākun (dative), but *mamum* and *mammun*.

We have also *manakun* and *manalan*.

The Verbal Pronominal Suffixes

The first personal singular suffixes are—

- (1) Present progressive, *-ānu*, e.g., *vaṇḍucunnānu*.
- (2) Past, *-in*, *-ini*, e.g.—
vaṇḍitin (Old Telugu).
vaṇḍitini (New Telugu).
- (3) Future *-an*, e.g., *vaṇḍaṅgalan*.
- (4) Indefinite, *-un*, e.g. *vaṇḍudun*.

The first personal plural suffixes are—

- (1) Present progressive *-āmu*, e.g., *vaṇḍucunnāmu*.

- (2) Past, *-imi*, e.g., *vaṇḍitimi*.
 (3) Future, *-amu*, e.g., *vaṇḍaṅgalamu*.
 (4) Indefinite, *-umu*, e.g., *vaṇḍudumu*.

N.B. Modern Telugu has also *-ānu* and *-āmu*, e.g., *vaṇḍinānu* and *vaṇḍināmu*.

MINOR DIALECTS

(1) Korava

[Reference—Linguistic Survey, Vol. IV, pages 318 to 320.]

- (a) Nominative first person singular is *nā*, *nānu*.

Do. plural is *nāga*.

- (b) Oblique first person singular is *nan-*.

Do. plural is *naṅgaḷa*.

- (c) First person singular verbal termination is *-ē* (*-i*).

First person singular verbal termination is *-ō*.

(2) Kaikāḍi

[Reference—Linguistic Survey, Vol. IV, pages 333 to 335.]

- (a) Nominative first person singular is *nā*, *nān*.

Do. plural is *nāṅg*.

- (b) Oblique first person singular is *nān-*.

Do. plural is *nāṅgaḷa*.

- (c) Verbal suffix first person singular is *-ē*, (*-i*, *-ī*).

Do. plural is *-ō*, (*-ū*).

(3) Toḍa

[Reference—Caldwell's Comparative Grammar, page 364.]

- (a) Nominative first person singular : *ān* [ɔ:n].

Do. plural : *-ām*, *ōm*, *ēm*.

- (b) Oblique first person singular : *en-*.

Do. plural : *-em*, *am-*, *nam-*.

- (c) Verbal suffix first person singular : *-e*

Do. plural : *-ēme*, *-eme-*.

(4) *Kurukh*

[Reference—Linguistic Survey, Vol. IV, pages 413 to 417.]

(a) Nominative first person singular : *ēn*.Do. plural : *ēm* and *nām*.(b) Oblique first person singular : *eṅ-*.Do. plural : *em-* and *nam-*.(c) Verbal suffix first person singular : $\begin{cases} -an \text{ (mas.)} \\ -ēn \text{ (fem.)} \\ -on \text{ (future)} \end{cases}$ Do. plural $\begin{cases} -ām \text{ (mas.)} \\ -ēm \text{ (fem.)} \\ -om \text{ (future)} \end{cases}$ (5) *Malto*

[Reference—Linguistic Survey, Vol. IV, pages 452 and 453.]

(a) Nominative first person singular : *ēn*.Do. plural : *ēm*.(b) Oblique first person singular : *eṅ-*.Do. plural : *em-* and *nam-*.(c) Verbal suffix first person singular : *-in* or *-en*.Do. plural : *-em* or *-im*.(6) *Kui*

[Reference—Linguistic Survey, Vol. IV, pages 462 and 463.]

(a) Nominative first person singular : *ānu*.Do. plural : *āmu* and *āju*.(b) Oblique first person singular : *nan-*, *nā-* (gen.).Do. plural : *-man-* (acc.), *mā-* (gen.).(c) Verbal suffix first person singular : *ē-*, *-ēnu*.Do. plural : *āmu*.(7) *Gōṇḍī*

[Reference—Linguistic Survey, Vol. IV, pages 472 to 488.]

(a) Nominative first person singular : *nannā*, *annā*.Do. plural : *mammaḥ*.

(b) Oblique first person singular : *nā-*.

Do. plural : *mā*.

(c) Verbal suffix first person singular : *-an, a*.

Do. plural : *-om, -o*.

(8) *Brāhūi*

[Reference—Linguistic Survey, Vol. IV, pages 619 to 630.]

(a) Nominative first person singular : *i*.

Do. plural : *nan*.

(b) Oblique first person singular : *kan-*.

Do. plural : *nan*.

(c) Verbal suffix first person singular ; *-v, -t*.

Do. plural : *-n*.

TABLE I

A. The First Personal Pronouns

—	Tamil	Malayalam	Tulu	Kanarese	Kui (Orissa)	Kōlāmi	Gōṇḍī	Kurukh (Bengal)	Malto (Bengal)	Telugu	Brāhūi
Nomi- native: Singu- lar.	O.T. <i>yāṇ</i>	ṣāṇ	<i>yāṇu</i>	O.K. <i>ān</i>	<i>ānu</i>	<i>ān</i>	<i>nannā</i>	<i>ēn</i>	<i>ēn</i>	O. Te. <i>ēnu</i> N. Te. <i>nēnu</i>	<i>i</i>
	N.T. <i>yāṇ</i> (literary) <i>nāṇ</i>			Mid. K. <i>ānu</i> N.K. <i>nānu</i>							
Plural.	O.T. <i>yām</i> <i>nām</i>	ṣāṇṇaḥ ṣāṇṇaḥ eṇṇaḥ	<i>yeṇṇukuḷu</i>	O.K. <i>ām</i> (<i>nāvu</i> A.D. 1181)	<i>āmu</i>	<i>ām</i>	<i>manmāt</i>	<i>ēm</i> <i>nām</i> (inclu- sive)	<i>ēm</i> <i>nām</i> (inclu- sive)	O. Te. <i>ēmu</i> <i>nēmu</i> N. Te. <i>mēmu</i>	<i>nan</i>
	N.T. <i>yām</i> (lite- rary) <i>nām</i>	<i>nammaḥ</i> <i>namma</i> <i>nām</i> <i>nōm</i>	<i>nama</i>	Mid. K. <i>āvu</i> N.K. <i>nāvu</i>							
Oblique: Singu- lar.	<i>eṇ</i>	<i>eṇ</i>	<i>eṇ</i>	O.K. <i>eṇ</i> Mid. K. N.K. <i>nan</i>	<i>nā</i>	<i>an</i>	<i>nā</i>	<i>eṇḡ</i>	<i>eṇ</i>	<i>nā</i>	<i>kan</i>
	<i>eṇ</i> <i>nam</i>	ṣāṇṇaḥ <i>nām</i>	<i>yeṇṇukuḷ</i> - <i>nam</i>	O.K. <i>eṇ</i> Mid. K. <i>eṇ</i> (ev.) N.K. <i>nam</i>	<i>mā</i>	<i>am</i>	<i>mā</i>	<i>eṇ</i> <i>nam</i>	<i>eṇ</i> <i>nam</i>	<i>mā</i>	<i>nan</i>

B. Verbal Terminations of the First Person

	Tamil	Malayaġam	Tulu	Kanarese	Kui (Orissa)	Kōlāmi	Gōṇḍi	Kurukh (Bengal)	Malto (Bengal)	Telugu	Brāhḍi
Singular	O.T. -eṇ -ēṇ -al Mid. T. -eṇ, -āṇ, -aṇ- (future) N.T. -ēṇ	O.M. -ēṇ -en (future) -an (future) N. Mal. (nil)	-e (-i)	O.K. -en Mid. K. -enu, -e, N.K. -enu, -e, -ēnu	-ēnu (fu- ture negative) -ē (past) -i (fu- ture) also -ānu (in nonns)	-en (nega- tive) -āṇ -ūn	-an'imper- fect and past) -a	-an -en(femi- nine) -on (fu- ture)	-en -on (op- tative)	M. Te. -in i (past) -an (fu- ture) -ānu (present progres- sive) -imi -n	
Plural	O.T. -em, -ēm, -am, -ām Mid. T. -ēm, and -ōm N.T. -ōm	O. Mal. -ōm N. Mal. (nil)	-a	O.K. -em Mid. K. -evu N.K. -evu (-ivī) -ēvi	-ānu	-ām	-om -am	-am ēm(femi- nine) -om (fu- ture)	-em -om (op- tative)	-anu -ānu	

References—

- | | | |
|--|-------------------------------|------------------------------|
| (1) Gōṇḍi Grammar, by H. D. Williamson | (3) Kōlāmi, Linguistic Survey | (5) Malto, Linguistic Survey |
| (2) Kui Grammar, by Līngam Latchmaji | (4) Kurukh, by Ford Hahn | (6) Brāhḍi, by Denys De Bray |

SECTION II

THE QUALITY OF THE VOWEL OF THE BASE OF THE FIRST PERSONAL PRONOUN IN PRIMITIVE DRAVIDIAN

THE PRONOUN OF THE FIRST PERSON SINGULAR

I. *Its form in the various Dravidian dialects—*

(a) In Old Tamil and Malayālam it is *yāṇ*.

In Tulu it is *yānu*.

In Old Kanarese and Kōlāmi it is *ān*.

In Mid. Kanarese and Kui it is *ānu*.

In Old Telugu it is *ēnu*.

In Kurukh and Malto it is *ēn*.

(b) New Tamil has, beside *yaṇ*, *nāṇ*.

Malayālam has *ṇān* [næ:n].

New Kanarese and Korava, a dialect of Tamil, have
nānu.

New Telugu has *nēnu*.

(c) Gōṇḍī has *nannā* and *annā*.

Korava has, beside *nānu*, *nā*.

Kaikāḍi has, beside *nān*, *nā*.

Baḍaga has the plural *nām* for the singular.

From a careful study of the above the following inferences
may be drawn:—

(1) The vowel of the base of the first person singular is *a*
in all the languages except Telugu, Kurukh and Malto where we
have *ē*.

(2) The initial nasal as in *nāṇ*, *nēnu*, etc., is characteristic of
the modern dialect of Tamil, Kanarese and Telugu.

Malayālam which is itself a dialect of Tamil has *ṇ*.

Korava and Kaikāḍi, the uncultivated dialects of Tamil, and Baḍaga, the uncultivated hill dialect of Kanarese, have also the initial *n*.

- (3) All the dialects have the pronominal singular suffix *n*. In Korava and Kaikāḍi it is occasionally lost.

THE PRONOUN OF THE FIRST PERSON PLURAL

II. The following are the forms of this pronoun in the various Dravidian dialects :—

- | | | |
|-------------------|---|---|
| ā-types. | { | (a) Old Tamil <i>yām</i> .
Old Kanarese and Kolāmi <i>ām</i> .
Mid. Kanarese <i>āvu</i> (< <i>āmu</i>).
Kui. <i>āmu</i> . |
| ā-types
cont.— | { | (b) New Tamil <i>nām</i> .
Malayālam <i>nām</i> .
Kurukh and Malto <i>nām</i> .
Tulu <i>nama</i> . |
| ē-types. | { | (c) Old Telugu <i>ēmu</i> .
Kurukh and Malto <i>ēmu</i> .
(d) Old Telugu <i>nēmu</i> .
New Telugu <i>mēmu</i> . |

(e) In Tamil and Malayālam we have double plurals: e.g., Tamil has *nāṅka!* which is *nām* + *ka!*, *m* > *n* before *k*. Malayālam has *nāṅṅa!* [ṇæ:ṇṇə], *ṇaṅṅa!*, *eṅṅa!* and *namma!*. The last three have short *a* through the influence of the oblique forms. In Tulu we have *yeṅkuḷu*.

From an examination of what is given above we are able to draw the same inferences as in the case of the first person singular—

- (1) The vowel of the pronominal base is *ā* except in Telugu, Kurukh and Malt languages it is *ē*.

In Tulu we have *e* in *yeṅkuḷu* and *a* in *nama*.

In Kurukh and Malto we have also *ā* in *nām* (the inclusive pronoun).

Gōṇḍī has *mammat* (we), thus showing *a* as the vowel of the base.

(2) The initial nasal in *nām*, *mēmu*, etc., is characteristic of modern dialects.

(3) *m* is the pronominal plural suffix in all languages.

III. A study of the results of the examination of the various forms of the first person singular and plural in the different Dravidian dialects shows us clearly that—

(1) the vowel of the pronominal base oscillates between *ā* and *ē*,

(2) the forms with initial nasal are new and hence derived from old forms,

(3) hence the primitive base of the first personal pronoun is either *ā* or *ē* or some sound between the two.

IV. We have now to inquire as to which is the probable primitive Dravidian form of the vowel of the first personal pronoun.

(a) Can it be *ē*?

This seems to be improbable for two reasons—

(1) *Firstly*, the majority of the Dravidian languages have *ā* and not *ē* as the vowel of the pronominal base. Telugu, Kurukh and Malto are the only languages that have *ē*. Even these show forms with *ā*. Kurukh and Malto have *nām* beside *ēm*. Telugu, in the dialect of the common low-class people, has *nānu* for *nēnu*. This form *nānu* is found so far north as Vizagapatam and Gōdāvari.

(2) *Secondly*, Primitive Dravidian *ē* in root accented syllables, is preserved in all the languages, whether it be initial or medial as is shown in the following tables I and II. In no case does it become *ā*.

TABLE I

Primitive Dravidian ē (initial)

Telugu	Tamil	Malayāḷam	Kanarese	Tuḷu
1. ēgu = to go ...	ēku ...	ēkuka ...	...	...
2. ēru = to attain age.	ēru (to rise)	ēruka ...	ēru ...	ēru (to ascend)
3. ēḍu = seven ...	ēḷu ...	ēḷu ...	ēḷu, ēḷu ...	ēḷu
4. ēṇamu = an antelope.	ēṇam ...	...	ēṇa ...	...
5. ētamū = a water lift ...	ēṛram ...	ēṛram (rise)	ēta ...	ēru (to ascend)
6. ēḍu = a porcupine	ēṇam ...	...	ēḍu ...	...
7. ēmaru = to be off one's guard...	ēmaru ...	ēmāḷi (silly man)	...	...
8. ēru = a plough of two oxen...	ēr ...	ēru ...	ēru kandāya (plough-tax)	...
9. ērpaḍu = to happen ...	ērpaḍu ...	...	ērpaḍisu (to arrange)	...
10. ēlaki = the Cardamom tree	ēlam ...	ēlam ...	ēlakki ...	ēlakki
11. ēlamu = auction ...	ēlam ...	...	ēlam ...	ēlamu
12. ēvamu = disgust ...	ēvam (fault)	...	ēva ...	...

TABLE II

Primitive Dravidian ē (medial)

Tamil	Malayāḷam	Kanarese	Tuḷu	Telugu
1. kēṭu = evil ...	kēṭu ...	kēḍu ...	kēḍu ...	kīḍu, ceṭu
2. tēkku = the teak ...	tēkku ...	tēgu ...	...	tēku, ṭeku
3. tēṭṭai = clearness ...	...	tēṭe ...	tēṭu ...	tēṭa
4. tēn = honey ...	tēn ...	jēnu ...	...	tēne, tēniya
5. tēr = a car ...	tēr ...	tēr ...	tēru ...	tēr
6. tēḷ = a scorpion ...	tēḷ ...	cēḷu ...	tēḷu ...	tēḷ
7. nēṛru = yesterday ...	...	...	...	nēḍu (to-day)
8. pētai = a poor man...	...	...	pāde (a peon?)	pēḍa
9. pēn = a louse ...	pēn ...	pēn ...	pēnu ...	pēnu
10. pēr = a name ...	pēr ...	...	...	pēru
11. mēl = superiority ...	mēl ...	...	mēlu ...	mēlu
12. vēṭṭai = hunting ...	vēṭṭa ...	...	...	vēṭa
13. vēmpu = the margosa tree ...	vēmpu ...	bēvu ...	bēvu ...	vēmu
14. vēr = a root ...	vēr ...	...	bēru ...	vēru
15. cēri = a street ...	cēri ...	kēri ...	keṛi ...	gēri

(b) Can the vowel of the Primitive Dravidian first person be \bar{a} ?

This too is not at all probable ; for Primitive Dravidian \bar{a} whether medial or initial in accented root syllables is regularly preserved in all the Dravidian languages as will be seen from the following table :—

TABLE III

Primitive Dravidian ā (initial)

Tamil	Malayāḷam	Kanarese	Tuḷu	Telugu
1. ā = a cow ...	ā ...	āvu ...	...	āvu
2. āku = to become ...	ākuka ...	...	ā pini ...	āgu
3. āṭu = to play ...	āṭu ...	āḍu ...	āḍu ...	āḍu
4. āṇi = a nail ...	āṇi ...	āṇi ...	āṇi ...	āṇi
5. āṛ = to be full ...	āru ...	āṛu (fullness) ...	āru ...	āru (to be full of)
6. āṛu { = to be quenched	āṛuka ...	āṛu ...	āṛuni ...	āṛu
7. āvi { = six	āṛu ...	āṛu ...	āji ...	āṛu
= breath ...	āvi ...	āvi ...	āli ...	āvi

Primitive Dravidian ā (medial)

1. kāṭu = a forest ...	kāṭu ...	kāḍu ...	kāḍu ...	kāḍu
2. kāṇ = to see ...	kāṇuka ...	kāṇ(u) ...	kāṇisā-vuni (to show)	kāṇu
3. kāṇi = 1/64 ...	kāṇi ...	kāṇi ...	...	kāṇi
4. kāppu = protection ...	kāppu ...	kāpu ...	kāpu ...	kāpu
5. kāy { = an unripe fruit	kāy ...	kāy ...	kāyi ...	kāya
6. kāṛ { = to grow hot.	kāyuka ...	kāy ...	kāyuni ...	kāyu
= a season ...	kāṛ ...	kāru (a crop grown in the rainy season)	kāru ...	kāru
7. kāram = pungency ...	kāra ...	gāra ...	kāra ...	gāra

CONCLUSION

Thus it is clear from what has been shown above that the root-vowel of the Primitive Dravidian first personal pronoun seems to have been neither \bar{a} nor \bar{e} , as both these sounds are preserved without change in all the Dravidian languages. Hence it must be a vowel between \bar{a} and \bar{e} . This vowel may be conveniently represented by \tilde{a} .

A sound of this quality changes naturally into \bar{e} or \bar{a} . [Cf. Primitive Germanic $\bar{a} > \bar{a}$ in W. Germanic and \bar{e} in E. Germanic].

Thus—

Pr. Drav. \bar{a}	$\left\{ \begin{array}{l} \bar{a} > {}^y\bar{a} \\ \bar{e} \\ \bar{a} \end{array} \right.$	$\bar{a} > {}^y\bar{a}$ (written $y\bar{a}$). Old Tamil and Tuḷu.
		\bar{e} Telugu, Kui and Malto.
		\bar{a} Kanarese, Kui and Kōlāmī.

N.B.—This sound \bar{a} is heard even to-day in the dialectal pronunciation of $n\bar{a}n$. It is also heard in the Malayāḷam $\bar{n}\bar{a}\bar{n}\bar{n}\bar{a}$ which is pronounced $[n\bar{a}:n\bar{n}\bar{a}]$.

NOTE I.—Old Tamil $y\bar{a}$ (= $j\bar{a}$).

From a careful phonetic examination of the speech of the Tamil people, it is clear that whenever they pronounce an initial palatal vowel they regularly start this vowel with an enunciative palatal sound, namely, \bar{i} —or y , according to the system of transliteration adopted in this thesis. This y (= $[j]$ in international phonetic script) may be called a ‘Vorschlag’, to use a German expression. It is heard by European scholars in the Tamil pronunciation of e , \bar{e} , i or \bar{i} . The word ‘Emden’, for instance, is pronounced by the Tamils as ‘yemden’; the pronoun ‘it’ is ‘yit,’ and so on. Hence in the system of transliteration adopted by European scholars to represent Dravidian sounds, we find $y\bar{e}$ for \bar{e} and $y\bar{i}$ for \bar{i} (vide Kittel’s Kanarese Dictionary, Gundert’s Malayāḷam Dictionary, Manner’s Tuḷu Dictionary, Brown’s Telugu Dictionary (old edition, etc.).

This enunciative ‘Vorschlag’ heard before \bar{e} or \bar{i} is inherent in the Tamil pronunciation of those vowels: and thus the Tamils know only one kind of initial e , \bar{e} , i or \bar{i} , namely, ye , $y\bar{e}$, yi , or $y\bar{i}$. Hence they represent each of these sounds only by one symbol, e.g. ஏ , ஐ , இ , ஊ . We have therefore no symbol in Tamil or in any of the other Dravidian languages to represent the pure e , \bar{e} , i or \bar{i} . The Tamil-speakers themselves are not conscious, as both Doctor Collins and Professor Hunter point out, of the existence of this ‘Vorschlag’ in their speech, though it is heard by European scholars with a greater or less degree of clearness.

This phonetic peculiarity being found in all the Dravidian languages, must have been surely the characteristic feature of Old Tamil also. Now, if the base vowel of the Primitive Dravidian first personal pronoun was \bar{a} (i.e., an open \bar{e} -sound) as was proved above, then this sound was really ${}_y\bar{a}$ [$j\bar{a}:$] in Old Primitive Tamil. And when ${}_y\bar{a}$ had to be represented in writing a need must have been felt by the old Tamils to represent the Vorschlag y , in order that the vowel sound in ${}_y\bar{a}$ might be distinguished from the ordinary back \bar{a} , for both of which they had only one symbol. Thus the Primitive Dravidian \bar{a} was pronounced ${}_y\bar{a}$ by the Old Tamils, but was represented by $y\bar{a}$.

That the Primitive Tamil people did not invent a separate symbol for \bar{a} is not surprising at all. For in their phonetic consciousness \bar{a} was very near \bar{a} and could therefore be conveniently represented by the symbol for \bar{a} . Further the words with initial \bar{a} -sound in Primitive Dravidian were so few that the Tamil people thought it was not necessary to have a separate symbol for it; and the distinction in pronunciation between ${}_y\bar{a}$ and \bar{a} was preserved, as they thought, by the 'Vorschlag' y being represented in writing. Thus $y\bar{a}$ always stood in Old Tamil for ${}_y\bar{a}$ and the 'Vorschlag' y clearly showed the difference between the pronunciation of \bar{a} (in $y\bar{a}$) and the simple \bar{a} in the other words beginning with back \bar{a} .

To sum up—

The Old Tamil $y\bar{a}$ stands for ${}_y\bar{a}$ which is but Primitive Dravidian \bar{a} . The y in $y\bar{a}$ represents the 'Vorschlag' heard in pronouncing the \bar{a} in ${}_y\bar{a}$ (written $y\bar{a}$). And this $y\bar{a}$, representing Primitive Dravidian \bar{a} , is answered in Kanarese by \bar{a} and in Telugu by \bar{e} as will be evident from the following table:—

TABLE IV

Tamil	Malayālam	Kanarese	Tuḷu	Telugu
1. āṭu (Old Tamil yāṭu) = a goat	āṭu ...	āḍu ...	ēḍu ...	ēḍaka, ēṭa
2. āṇṭu (Old Tamil yāṇṭu) = a year	āṇṭu ...	...	oḍu, as in iyyoḍu and mūvoḍu	ē(ṇ)ḍu
3. āru (Old Tamil yāru) = a river	āru ...	...	...	ēru
4. āṇai (Old Tamil yāṇai) = an elephant	āna ...	āne ...	āne ...	ēniga, ēnuga
5. āḷu = to rule	āḷu ...	āḷu ...	āḷu ...	ēlu
6. yān = I	...	ān (Pri- mitive yān)	yānu ...	ēnu

NOTE II.—Old Tamil $y\bar{æ} > \bar{a}$ in Mid. Tamil

Old Tamil, $y\bar{æ} > \bar{a}$ in Mid. Tamil; and in the transition of $y\bar{æ}$ to \bar{a} , there would naturally be many grades of distinction. As in each grade the $\bar{æ}$ of $y\bar{æ}$ approaches more and more \bar{a} , the Vorschlag y would be less and less heard; and in the final stage when $y\bar{æ} > \bar{a}$, the y would be completely dropped. Thus the $y\bar{a}$ words would be written clearly with \bar{a} .

But in all periods of Tamil literature, poets had the licence of using even obsolete forms of words. Hence even in Mid. Tamil literature we find $y\bar{a}$ - and \bar{a} -forms are indifferently used. In New Tamil, more especially in the living dialect of it, the \bar{a} -forms alone are current. The following list illustrates the promiscuous use of $y\bar{a}$ - and \bar{a} -forms in Mid. Tamil literature.

The following list illustrates clearly the mixture of forms with $y\bar{a}$ and \bar{a} .

In the Aiṅkuṇṇūru we have $y\bar{a}$ -forms, as- $y\bar{a}mai$ (43, 44, 81), $y\bar{a}ṇai$ (356).

In the Puṇanāṇūru we have—

$\bar{a}mai$ (42, 70, etc.) $\bar{a}ṭu$ (54, 197, etc.), beside $y\bar{a}ṇai$ (3, 4, etc.) $y\bar{a}ḷi$ (207).

In the Cīvakacintāmaṇi we have—

āmai (Pages 552 and 835), *āḷi* (736, 866), beside *yānai* (176, 624, etc.), *yāḷi* (554).

In the Kuṛaḷ we have—

āmai (126), beside *yāl* (66) and *yānai* (599).

In the Tiruvācakam—

yānai, 4, 11 ; 5, 101, beside *ānai*, 6, 81 ; 8, 79.

yāru, 2, 106 ; 5, 288, beside *āru* 4, 81 ; 19, 4 and 161.

SECTION III

THE DEVELOPMENT OF THE PERSONAL PRONOUNS WITH INITIAL NASAL

It has been pointed out in the foregoing sections that—

(1) the root-vowel of the first personal pronoun was very likely *æ* in Primitive Dravidian. .

(2) the pronominal forms of the first person with initial nasal are later than the forms without it.

It is the purpose of this section to explain the development of the forms with initial nasal. This subject is an extremely difficult one, and must be considered still-a problem that has not been satisfactorily explained by any philologist. I have, however, made an humble attempt in this section to give a possible explanation of this difficult subject.

A careful comparative study of the first pronominal forms with initial nasal in the various important Dravidian languages shows that—

(1) In Kanarese the first personal pronominal forms with initial nasal were not developed till the eleventh century A.D. We do not find them mentioned either in *Śabdamaṇidarpaṇa* or in the *Śabdānuśāsana*. In the commentary of the *Śabdānuśāsana*, written evidently some time after the text, we find mention is made of *nānu* and *nāvu* as forms also used in literature. According to Kittel *nāvu* (< *nāmu*, 'we') is the first to appear and is found in a *Śāsana* of A.D. 1181. Subsequent to this period *nānu* also makes its appearance.

(2) In Tamil, however, we find *nām* beside *yām* in the oldest literature. It is mentioned, in the *Tolkāppiyam*, as one of the two forms of the first person plural. But *nān*, the singular form of *nām*, appears only four or five centuries later. It is

mentioned in the Viracōḷiyam as one of the forms of the first person singular.

N.B.—(1) In the Kuraḷ, the oldest of Tamil literary works, we find that *yām* is used fifteen times, and *nām* only once,

(2) The oblique *em-* occurs fifteen times and *nam-* only five times.

From these facts only one of two inferences is possible.

(1) Even in Primitive Dravidian there was a double form in the plural, one without the nasal and the other with it. This double form produced subsequently a corresponding double form in the singular, or

(2) Primitive Dravidian had no form with an initial nasal. This must then have developed later out of a phonetic tendency inherent already in the parent language but becoming operative gradually and asserting itself at a later period.

The first of these two inferences has, however, the following arguments against it:—

(1) Though *nām* is found in the oldest period of Tamil literature, Old Kanarese literature has no *nām* or *nāṇ*. *Nām* (*nāvu*) appears in Kanarese eleven centuries after its appearance in Tamil literature. Further the oldest Telugu literature makes a predominant use of *ēn*. If the parent language had also the form with the initial nasal, there is no reason why it should appear so very late in Kanarese. In that case Old Kanarese would have inherited from the parent language the form with the initial nasal which, historically, is not the case.

(2) Again the oblique cases and the verbal terminations too should possess double forms, one with the initial nasal and the other without it. But we find that amongst the verbal terminations in any of the Dravidian languages there is no form with the initial nasal in any period of the development of these languages.¹

1. Kuraḷ, 1193, has *vāḷunam*; but the *n* of *-nam* is an excrescent letter. Compare *viḷunar* (third person plural) in the same stanza.

(3) Further the oblique case forms with the initial nasal are very late in their appearance, and these are synchronous in their appearance with the nominative forms possessing an initial nasal. These facts drive us naturally to the conclusion that the second of the above two inferences alone must be accepted, namely:—*the forms with the initial nasal must have developed later in each individual language out of a phonetic tendency already inherent in the parent language but becoming operative gradually and asserting itself later in each individual language.*

This phonetic tendency is the simple phenomenon that a nasal following a vowel nasalizes it, and if in the language in which the nasalized vowel is developed, there be no symbol to represent it in writing, it may be expressed in writing by a nasal and the vowel. This conjunct symbol (i. e., nasal plus vowel) may first have the original pronunciation of a nasalized vowel, but later, by the influence of the spelling, pronunciation may assume actually the value of a nasal and a vowel in the later pronunciation of the word. As, before the attempt to represent the nasalized vowel by a conjunct symbol, the nasalization may drop off through the influence of the more primitive written symbol—which is merely the vowel—the forms with the conjunct symbol may be only few and thus make this principle of vowel nasalization appear, as it were, not originally of universal application.

The nasalization of a vowel through the influence of a following nasal seems to be a common phenomenon in all the languages. In the spoken dialects of all the Dravidian languages we find nasal and non-nasal forms of vowels, e.g., in Tamil *tām*, 'themselves', is pronounced as [tā : m] or as [tā̃ : m]. Though there may be a difference in the quality of the vowel *ā* as pronounced in the various dialects of spoken Tamil, there is no doubt that the vowel is distinctly nasalized. It is heard even in the carefully delivered speech of Tamil paṇḍits. The word *nān* itself is more commonly pronounced as [nā̃ :]. In the Korava dialect of Tamil we have *nā* (probably [nā̃ :]) as the actual first person singular form, and *nāga* (probably [nā̃ : ga]) as the plural. In Kanarese we have *nā* dialectically standing for *nānu* in '*nā ballida, iā ballida nendu*'

(Cp. Dr. Kittel's Dictionary, page 850). Here *nā* is equivalent to *nānu* and *tā* to *tānu*. These seem, therefore, to represent the forms [nā:] and [tā:]. In Telugu *pāmu*, 'a snake', is pronounced [pā:mu] or [pō:mu]. The third person singular in Telugu *vāḍu* or *vā(ṁ)ḍu*. These forms are pronounced more commonly as [vā:ḍu]. Almost all the words in Telugu which have an ardhānusyāra indicate a vowel with nasalization (see my thesis in Nasal and Consonant).

The same principle of nasalization must have been at work even in Primitive Dravidian. Vowels followed by a nasal would first become nasalized and the nasal element would be found only in pronunciation, as there is no symbol in any of the Dravidian languages by which a nasalized vowel can be indicated. After some time the nasalization would likely drop off even from the spoken dialect through the influence of the written forms of the word.

A few words might, however, preserve the nasalization and the nasal element of the vowel would naturally be indicated by a nasal being prefixed to the vowel in writing, e.g., *ṁ* (written *ā*) when nasalized would be written *nā* or *ṁā*, *ṁ* indicating the palatal character of the vowel.

The following is a list of words which show an initial nasal in one or other of the Dravidian languages:—

(1) Tamil *imai* or *nimai*, an 'eyelid', is in Malayālam *ima* in Kanarese *eme* or *eve*.

Tamil *nimai* seems to have developed from [ĩmæi] < [imæi].

(2) Kanarese *iju* or *isu*, 'to swim', is *icu* or *iju* in Tuḷu, *i(ṁ)du* [i:ḍu] in Telugu and *nintu* in Tamil and Malayālam.

Telugu clearly established the development of [ĩ:ḍu] from [indũ], and thus shows an intermediate stage. Evidently therefore, *nintu* [ni:ndũ] is developed from [ĩ:ndũ].

(3) Kanarese and Telugu have *eṇḍri*, 'a crab'. Kanarese has also *ēḍi*, but in Tamil and Malayālam we have *ṁaṇṭu*, in Modern Tamil we have *naṇṭu*.

(4) Old Telugu *i(m)gu*, 'to depart', New Telugu *igu* is in Kanarese also *igu*. But in Tamil it is represented by *nīṅku*, and in Malayālam it is *nīṇṇu*.

(5) 'The Sanskrit word *yama-*, 'death', is *ṇamaṇ* in Old Tamil, and *namaṇ* in New Tamil and Malayālam.

Similarly *æ* when followed by a nasal as in *æn* 'I', or *æm*, 'we', would develop into nasalized [*æ̃*:] and would be written as *nā* or *ṇā*, there being no single symbol of nasalized *æ*. Thus we have—

[*æ*:] > [*æ̃*:] > [*ɲæ*:] becomes—

[*ɲæ*:] (written *ṇā*) in Malayālam and Old Tamil.

[*næ*:] (written *nā*) in Tamil, Malayālam, Kanarese and Tuḷu.

[*ne*:] in Telugu.

In attempting to represent in writing the two first personal forms [*æ̃*:*n*] and [*æ̃*:*m*], a difference would naturally be observed as there develops a difference in the quality of the vowels.

[*æ̃*:*n*] remains as such in the first stages, but [*æ̃*:*m*] > [*ɛ̃*:*m*] through the influence of the labial nasal *m* (see a complete treatment of this principle in the next section under -*ōm*). Thus the Primitive Dravidian forms [*æ̃*:*n*] and [*æ̃*:*m*] become in pronunciation [*æ̃*:*n*] and [*ɛ̃*:*m*].

[*æ̃*:*n*] has three elements in the pronunciation of its initial vowel: it is (1) a palatal vowel, (2) a nasalized vowel and (3) a long vowel. These three elements are adequately represented only in the conjunct symbol *ṇā*. *ṇ* is a palatal and *ā* is a long vowel. Thus *ṇā* has all the elements found in [*æ̃*:]. The first stage in the representation of [*æ̃*:] would therefore be *ṇā* which would first have the pronunciation of [*æ̃*:]

1. This example clearly shows that between *ya* and *na* the intermediate stage is *ṇa*.

and then be pronounced as it is spelt. Malayālam which ordinarily preserves the original \tilde{n} has $\tilde{n}\tilde{a}\tilde{n}$ for the first person singular. But by the time that $\tilde{n}\tilde{a}\tilde{n}$ came to be accepted in the literary dialect of Tamil, the Primitive Dravidian \tilde{n} had regularly changed to n (vide infra for an illustration of this law). Hence we have $n\tilde{a}\tilde{n}$ in Mid. and New Tamil. Compare here the change of Sanskrit *yama* into $\tilde{n}aman$ in Old Tamil and *naman* in New Tamil. Thus the Malayālam form $\tilde{n}\tilde{a}\tilde{n}$ marks the intermediate stage in Tamil between $y\tilde{a}\tilde{n}$ and $n\tilde{a}\tilde{n}$. In Rāmacaritam we have $y\tilde{a}\tilde{n}$. Thus the development of $\tilde{n}\tilde{a}\tilde{n}$ from $y\tilde{a}\tilde{n}$ in Malayālam seems to be very clear.

Now the plural of [$\tilde{a} : n$], namely [$\tilde{a} : m$] becomes first [$\tilde{ɔ} : m$]. This [$\tilde{ɔ} : m$] has no palatal element in it. Hence it is represented merely as $n\tilde{a}m$ in writing.¹ It would not therefore be possible to have the form $\tilde{n}\tilde{a}m$ in any of the languages, which is actually the case. Even in Old Tamil we have the form $n\tilde{a}m$. Malayālam has $n\tilde{a}m$ beside the singulars $\tilde{n}\tilde{a}\tilde{n}$ and $y\tilde{a}\tilde{n}$. Further the form $n\tilde{o}m$ in Malayālam clearly establishes the value of \tilde{a} in $n\tilde{a}m$ and also illustrates the phonetic principle that the labial nasal m nasalizes and rounds the vowel preceding it and also changes its quality.² But when the nasal following the base-vowel of the first personal pronominal word is not m , the initial nasal preceding the base-vowel may be \tilde{n} , for example $\tilde{n}\tilde{a}\tilde{n}\tilde{n}a\tilde{l}$, an old honorific first person plural in Malayālam.

Thus the difference between the initial nasal of the singular $\tilde{n}\tilde{a}\tilde{n}$ and that of the plural $n\tilde{a}m$ in Malayālam, clearly illustrates and confirms the principle assumed and worked out in this section. Malayālam preserving the original \tilde{n} , helps us in tracing the several

1. $n\tilde{a}m$ has sometimes the spelling pronunciation, namely [$na:m$]; but it never has the pronunciation [$n\tilde{a}:m$]. The pronunciation of $\tilde{n}\tilde{a}\tilde{n}$ (sg.), however, is more often [$n\tilde{a}:n$] than [$na:n$].

2. Professor Mark Hunter writes in his remarks on this thesis: "So far as my small observation goes, Modern Dravidian has no pure [$\tilde{ɔ}$] sound; but nasalized [$\tilde{ɔ}:$] is very common. The change of [$a:m$] to [$\tilde{ɔ}:m$] would be a very natural phonetic change."

stages in the development of Primitive Dravidian [æ : n] and [æ : m] in the various individual languages.¹

The change of *ñ* into *n* is illustrated by the following words :—

(a) Old Tamil and Malayālam *ñan̄ṭu*, 'a crab', is new Tamil *nan̄ṭu*.

(b) Old Tamil and Malayālam *ñāṇ*, 'bow-string', is in New Tamil *nāṇ*.

(c) Old Tamil and Malayālam *ñāyiru*, 'the sun', is in New Tamil *nāyiru*.

(d) Old Malayālam *ñārampu*, 'a sinew' is in Tamil *nārampu*.

(e) Old Malayālam *ñāru*, 'a string', is in Tamil *nāru*.

(f) Malayālam *ñeṛi*, 'a way', is in Tamil *neṛi*.

(g) Old Tamil and Malayālam *ñālu*, Malayālam *ñēlu*, 'to hang', is in New Tamil *nālu*.

1. Doctor Caldwell says: "The change of *yāṇ* into *nāṇ* would be facilitated if we should take the Malayālam *nāṇ*, as I think we fairly may, as the middle point." Probably Doctor Caldwell did not know that in Malayālam itself we have *yāṇ* in Rāmacaritam.

SECTION IV

THE OBLIQUE BASES

In all the Dravidian languages the quantity of the pronominal base-vowel in the oblique cases differs from the quantity of the same vowel in the nominative. In the nominative it is long; in the oblique cases short.

This difference is due to the position of the accent or stress. In the nominative the stress is on the base-vowel, viz., on *ā* in *yān*, *ān̄* and *ñān*; and on *ē* in *ēnu* and *nēnu*. But when these words are declined and inflexional suffixes are added to them the stress moves on to the next syllable as if to take a more central position that would enable the original root to bear the weight of additional syllables. The result of this accent-change is that the vowel of the nominative becomes unstressed and hence short in the oblique bases.

The vowel of the nominative is *æ* in Primitive Dravidian (vide supra) in the case of the first personal pronoun, and its unstressed form is *æ*.

This *æ* later becomes *a* in Kōlāmi and *e* in Tamil, Malayālam, Kanarese and Tuḷu, Kurukh and Malto.

Thus—

a in Kōlāmi;
e Tamil, Malayālam, Kanarese, Tuḷu, kurukh
 and Malto;
æ in Telugu, Kui and Gōṇḍī.

(1) In Kōlāmi the oblique base for the singular is *an* and for the plural *am*.

(2) In Telugu, Kui and Gōṇḍī, the *æ* of *æn* or *æm* drops owing to the accent resting on the next syllable and the vowel of the next accented syllable, which is *a*, is lengthened. Thus we have *nā* for the singular, *mā* for the plural. This dropping of *æ* and the lengthening of the accented vowel of the second syllable is prehistoric (vide Appendix on Vowel-lengthening in Telugu).

(3) In Tamil, Malayālam, Kanarese, Tuḷu, Kurukh and Malto, the oblique singular base is *en-* and the plural oblique base is *em-*. In Tuḷu and Malayālam *em-* is found as the first element of the double plural oblique base *eñña!* (Malayālam) and *yeñkuḷu* (Tuḷu).

Similarly the oblique forms derived from the first personal substantive pronouns with initial nasal such as *ñān*, *nān*, *nānu* etc. have the base-vowel short.

Thus for the singular oblique base of the first person we may have *ñan-* or *nan-*, for the plural oblique base *ñam-* or *nam-*, *-n* being the singular pronominal termination and *-m* the plural pronominal termination.

Of these *nan-* is found only in Kanarese: *ñan-* is probably to be seen in the Malayālam plural form *ñañña!*, though here it is not impossible that the base is *ñam-*. The form *nam-* is found in Tamil, Malayālam, Tuḷu and Kanarese, Kurukh and Malto or in other words in all the languages except Kōlāmi and the Telugu group (i.e. Telugu, Kui and Gōṇḍī). *nam-* is sometimes pronounced [n æ m], but the spelling pronunciation [nam] is the most common. In Telugu and Kui, however, the accusatives alone are formed from a nasal oblique base, i.e., *nan-* and *mam-*. *nan-* is the singular and *mam-* which comes from *nam-* by assimilation (cf. Telugu *nēmu* < *mēmu*), is the plural oblique base of the accusative. For example:—

In Telugu—

First person singular accusative—*nanun*, *nannun* and *nannu*.

First person plural accusative—*mamun*, *mammun* and *mammu*.

In Kui—

First person singular accusative (and dative) is *nañge*.

First person plural accusative (and dative) *mañge*.

N.B.—(1) *mamun* is from *namun*; *n* > *m* by assimilation (cf. Telugu *mēmu* beside *nēmu* and Kurukh *mañge*).

(2) In Kui, the accusative and dative fall together—

nañge = *nan* + *ge*;

mañge = *mam* + *ge*; *mam* < *nam* by assimilation (cf. Telugu).

In Tamil, Malayālam and Tuḷu we have also double plural oblique stems: for example, from *yāṅka!* and *nāṅka!* and *nāṅka!*—

eṅka! (Tamil), *eṅṅa!* (Malayālam), *eṅku!* (Tuḷu) and *ṇaṅṅa!* (Malayālam).

In Tuḷu as well as in very Primitive Tamil all the cases are formed by adding the case terminations directly to the oblique stems, e.g.—

Tuḷu—

First person singular: $\begin{cases} \text{Acc. } yen-anu \text{ (yen + anu).} \\ \text{Dat. } yeṅku \text{ (yen + ku).} \\ \text{Gen. } yena \text{ (yen + a).} \end{cases}$

First person plural: $\begin{cases} \text{Acc. } namanu \text{ (nam + anu).} \\ \text{Dat. } naṅku \text{ (nan + ku).} \\ \text{Gen. } nama \text{ (nam + a).} \end{cases}$

Tamil—

First person singular: $\begin{cases} \text{Acc. } eṅṅai \text{ (eṅ + ai).} \\ \text{Dat. } eṅku \text{ (eṅ + ku).} \\ \text{Gen. } eṅa \text{ (eṅ + a).} \end{cases}$

Tamil—

First person plural: $\begin{cases} \text{Acc. } nammai \text{ (nam + ai),} \\ \text{emmai (em + ai).} \\ \text{Gen. } ema \text{ (em + a), nama (nam + a).} \end{cases}$

N.B.—In Old Tamil, however, only the dative singular is thus formed directly from the oblique base by the addition of the case suffix. The genitive is formed, as in New Tamil, by the addition of the adjectival suffix *-a*.

In Old Tamil, Modern Tamil, Old and Modern Malayālam and Kanarese, all the cases but the dative are formed as in Tuḷu by directly adding the case suffixes to the oblique stems *en-*, *em-*, *nan-* and *nam-*. In Telugu the only case which is formed by adding the termination directly to the base is the accusative. The oblique stems for the accusative of the first person in Telugu are *nan-* singular and *mam-* (< *nam-*) plural. Kui resembles in this respect Telugu.

On the other hand, the dative in Tamil, Malayālam and Kanarese and all the cases but the accusative in Telugu are

formed from the oblique base by the addition of a formative: vide tables on pages 52-54.

In Telugu, however, the primitive oblique stems **æna* and **æma* underwent changes even in the prehistoric period of the language through the influence of the accent changing from one syllable to another.

The accent or stress in the case of pronominal words formed directly from the base is on the case suffix, while the accent in the case of words formed from the base with the help of the formative is on the formative, e.g.—

Primitive	<i>*æ̃n</i>	but	(1)	<i>ennai</i>	} Tamil.
				<i>ennāi</i>	
				<i>ennē</i>	} Malayālam.
				<i>emmil</i>	
				<i>ennānu</i> ,	Kanarese.
				<i>yenānu</i> ,	Tuḷu.
			(2)	<i>yenkū</i> ,	Tuḷu.
				<i>enākkū</i> ,	Tamil.
				<i>enāge</i> ,	Kanarese.
				<i>enikkū</i> ,	Malayālam.

In Tamil, Malayālam, Kanarese and Tuḷu, the result of the accent moving from the first syllable of the nominative to the second syllable in oblique forms is merely the shortening of the initial vowel, e.g.—

**æ̃na* > *enā* through **enā*, and **æ̃ma* > **emā* > *ēmā*.

But in Telugu the effects of accent-change are far more reaching. As a result of the accent shifting from the first syllable to the second in the oblique forms, the accented vowel of the second syllable is lengthened and the unaccented vowel of the first syllable is dropped; and the lengthening of the accented vowel of the second syllable takes place only after this vowel has been assimilated in quality to the vowel of the first syllable. Thus—

$*\text{æna} > * \text{ænæ} > * \text{æn}'\text{æ} > \overset{\cdot}{\text{næ}}$ (written nā) and $*\text{æma} > * \text{æmæ} > \text{æm}'\text{æ} > \text{m}'\text{æ}$ (written mā).

For a fuller explanation of this law of vowel-lengthening in Telugu through the influence of accent change vide Appendix I.

The following tables give the oblique cases of the personal pronouns in all the Dravidian languages:—

Singular Oblique Base of Pronouns

Person	Oblique cases	Tamil	Malayalam	Kanarese	Tulu	Telugu	Gōṇḍi	Kui.	Kurukh	Kōlāmi (Central Provinces)	Malto
First ...	2	enṇai ...	enne ...	O.Ka. M.Ka. ennam, nannamu	yenanu...	nānun, nannun, nannu	nākun (dat.)	naṅē (acc, dat.)	eṅgan ...	anu (ṅg)	eṅgen
	3	enṇāl ...	ennāl ...	ennim nanninda	...	...	...	...	...	...	...
	4	enṇakku ...	enṇikku, inṇikku	enage nange	yeṇku ...	nākun, naku	nākun (acc.)	naṅē ...	eṅgā, eṅgāḡē, eṅghai ...	...	eṅge
	6	en, enṇutaya.	en, enṇe	ena, nana, nanna	yena ...	nā ...	nāwōr ...	nā, nai ...	eṅghai ...	anna	eṅ(ki)
	7	enṇil ...	enṇil ...	ennoḷ nannalli	yenada...	...	nate ...	nāke ...	eṅgnū ...	...	eṅgeno
	2	O.T. N.T. ninnai, unṇai	ninne	nionnam ninnanu	ninanu...	ninun, nionnun, ninnu	nikun ...	niṅē (dat.)	ningan...	...	nīngen
	3	ninnāl ...	ninnāl ...	ninnim ninninda	...	...	...	...	...	...	...
Second ...	4	ninnakku, unṇakku	ninnakku, ninnakku	ninage ...	nikkū ...	nikun, niku	nikun ...	niṅē (acc.)	niṅgā ...	...	niṅge
	6	nin, nina, unṇu- taya	nioṇe, nin, ninnude	nina nionna	nikkū, nina	ni ...	niwōr ...	ni ...	niṅghai...	inna	niṅ(ki)
	7	ninnil ...	ninnil ...	ninnol ninnalli	ninada...	...	nite ...	nike ...	niṅgnū ...	...	nīngenno
	2	tannai ...	tanne	tannam, tannanu	...	tanum, tannun, tannu, tannu	...	...	...	...	tāngen
	3	tannāl ...	tannāl ...	tannim, tanninda	...	...	...	...	...	...	...
	4	tannakku ...	tannakku	tanage ...	...	tanaku ...	...	...	...	...	tānge
	6	tāṇ tannutaya	tanṇe, tan	tanna ...	...	tana ...	...	...	...	...	tāṅ(ke)
	7	tannil ...	tannil ...	taannoḷ tannalli	...	...	...	...	...	...	tāngenno
Reflexive.	3	tannāl ...	tannāl ...	tannim, tanninda	...	...	...	...	...	...	...
	4	tannakku ...	tannakku	tanage ...	...	tanaku ...	...	...	...	...	tānge
Reflexive.	6	tāṇ tannutaya	tanṇe, tan	tanna ...	...	tana ...	...	...	...	...	tāṅ(ke)
	7	tannil ...	tannil ...	taannoḷ tannalli	...	...	...	...	...	...	tāngenno

Plural Oblique Base of Pronouns

Person	Oblique Cases	Tamil	Malayaġam	Kanarese	Tuġu	Telugu	Gōṇḍi	Kui	Kurukh	Malto
First ...	2	emmai, nammai, eṅgaġai	ñāññaġe, nam- me	emmam, nammam, nammanu	namanu, yeñkuġenu	mamun, mammun, manamunu	mākun ...	maṅḡ (acc.-dat.)	enan, naman	enen, namen
	3	emmāl, nammāl, eṅgaġāl	ñāññaġāl, nammāl	emmim, nammiinda	...	...	...	...	...	...
	4	emakku, namak- ku, eṅgaġukku	ñāññaġkku namukku	emage, namage	nanuku, yeñkuġegu	mākun, māku, manaku	mākun ...	maṅḡ (acc.)	emagḡ, naṅḡā-gḡ	eme, name
	6	em-, nam-, eṅgaġ	ñāññeġuḡe, nammuḡe	ema, nama	nama, yeñ- kuġe	mā ...	mā, māwor	mā, mai ...	emhai, namhai	em(ki), nam(ki)
	7	emmil, nammil, eṅgaġil	ñāññaġil, nam- mil (eññaġil), (emmil)	emmoġ, nammalli	namaḡu, yeñkuġeḡu	...	māte ...	māke ...	emñū, namñū	emeno, namenno
Second ...	2	nummai, uṅga- ġai, ummai	niññaġe ...	nimmam, nimmanu	irenu, nikuġenu	mimun, mimmun, mimmu, mimmunu	mikun ...	miṅḡ ...	niman ...	nimen
	3	nummāl, uṅgaġ- āl, ummāl	niññaġāl ...	nimmim, niminda	...	...	...	...	...	...
	4	numakku, uṅga- ġukku, umakku	niññaġkku ...	nimage ...	nikuġegu, iregu	mikun, miku	mikun ...	miṅḡ ...	nimagḡ ...	mime
	6	num, um, uṅgaġ	niññaġuḡe ...	nima ...	nikuġe, ire,	mi ...	mi, miwor.	mi ...	nimbai ...	nim(ki)
	7	nummil, uṅgaġil, ummil	niññaġil (nimmil) ...	nimmol, nimmalli	nikuġeḡu ireḡu	...	mite ...	mike ...	nimñū ...	nimenno

Plural Oblique Base of Pronouns—cont.

Person	Oblique cases	Tamil	Malayālam	Kanarese	Tulu	Telugu	Gōṇḍi	Kui	Kurukh	Malto
Reflexive.	2	taṅgaḷai, tam-mai	tamme, tañ-ñāḷe	tammam ...	...	tamun, tammun, tammu, tammunu tamarini	...	...	...	tamen
	3	taṅgaḷal, tammāl	tammal, tañ-ñāḷal	tammīnu, tammu	...	...	...	...	...	...
	4	taṅgaḷukku, tamakku	tamukku, tañ-ñāḷukku	tamage ...	...	tamakun, tamaku, tamariki	...	...	...	tame
	6	tam-, taṅgaḷ, tammudaiya	tammūṭe, taññāḷuṭe	tama ...	...	tama, tamari	...	...	...	tam(-ki)
	7	taṅgaḷil, tammil	tammil, tañ-ñāḷil	tammol, tammalli	...	...	...	...	...	tameno

SECTION V

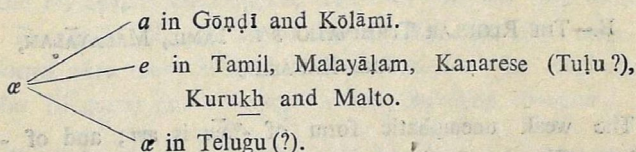
THE HISTORY OF THE PRONOMINAL TERMINATIONS OF DRAVIDIAN VERBS

A.—GENERAL

In analysing a fully inflected verb in any Dravidian language, we find that it consists of three distinct parts : (1) the verbal base, (2) the tense-infix, (3) the pronominal termination; e.g., Old Tamil (1) *peyven* (I shall pour) = *pey* + *v* + *en*, (2) *naṭappem* (we shall walk) = *naṭa* + *pp* + *em*. Here, *pey* and *naṭa* are verbal bases; *v* or *pp*, the tense-infix and *en* and *em* the pronominal terminations.

The stress in these fully inflected verbs falls on the central syllable (as in the case of fully declined pronouns, vide section IV), so as to enable the verbal root to bear the weight of added syllables. The central syllable is the syllable denoting the tense-infix. The other parts of the verb are unstressed and hence weak.

The weak form of the termination of the first person was *-*æn* or *-*æm* [*<* stressed *-*æn* (first person singular) and *-*æm* (first person plural)]. The *æ* of *-*æn* or *-*æm* has, under normal conditions, the same development as in the oblique first person of pronouns, namely.



Thus normally—

(1) *-an* is the singular and *-am* the plural termination in Gōṇḍī and Kōlāmī;

(2) *-en* (*-en*, Ta.) is the singular and *-em* the plural termination in Tamil, Malayāḷam, Kanarese, (Tuḷu?), Kurukh and Malto;

(3) but in Telugu, $-\ast\bar{\alpha}n$ and $-\ast\bar{\alpha}m$ undergo many combinative changes under the influence of vowel-harmony (vide Vowel-lengthening in Telugu, *infra*).

N.B.—(1) In New Kanarese $-em > -evu$; $m > \bar{u}$ (Sabdhamāṇidarpaṇa, 104).

(2) In Tuḷu $-\ast\bar{\alpha}n > -\ast\bar{e}$ through nasalized e . Cp. Korava and other rude dialects.

But a study of these terminations is made very complicated especially in Tamil, by the fact that these terminations must have had emphatic and unemphatic forms existing side by side in the parent language itself, one or other of which forms became generalised already in the prehistoric period of the individual branches of the parent language. For example, in Old Tamil beside $-en$ we have also $-\bar{e}n$ as the termination of the first person singular; also beside $-em$ we have $-\bar{e}m$ as the termination of the first person plural. Of these $-\bar{e}n$ is the form generalised in Old Malayālam.

Again this study is made still more complicated by the development—even in the prehistoric period of individual languages—of new forms through the influence of neighbouring sounds, such as, m , v [u], etc. Thus in Old Tamil beside $-em$, the first person plural suffix, we have also— am , and $-\bar{a}m$. In Mid. Tamil we have a new form $-\bar{o}m$.

I shall now attempt to explain the origin of the various terminations in each of the Dravidian languages.

B.—THE REGULAR TERMINATIONS IN TAMIL, MALAYĀLAM, AND KANARESE

The weak unemphatic form of $-\ast\bar{\alpha}n$ is $\bar{\alpha}n$; and of $-\ast\bar{\alpha}m$ is $-\ast\bar{\alpha}m$. The $\bar{\alpha}$ of $-\ast\bar{\alpha}n$ and $-\ast\bar{\alpha}m$ changes to e in Tamil, Malayālam and Kanarese (vide Oblique cases, section IV).

Hence in Tamil, Malayālam and Kanarese the regular first person singular verbal termination is $-en$ ($-en$, Ta.) and the plural is $-em$.

Kanarese in all the periods of its development has *-en* for the singular and *-em* for the plural. In Mid. Kanarese *-en* > *-enu* and *-em* > *-emu* > *-evu*.

In Old Tamil we have *-eṇ* as one of the singular terminations and *-em* as a plural termination. *-eṇ* and *em* gradually become obsolete even in Mid. Tamil, i.e. in the Vīracōliyam period, and are confined to the future tense. In New Tamil they are completely obsolete.

In Old Malayālam we have *-en* as a singular termination restricted to the future tense (vide section 134, Vyākaraṇa Mitran).

In Malto we have both *-en* and *-em* as regular verbal terminations. In Kōlāmi only *-en* is found.

C.—THE EMPHATIC FORMS

In Old Tamil beside *-eṇ* we have also *-ēṇ* and beside *-em* also *-ēm*. The special form *-am*, the first person plural termination to be explained below, has also an emphatic form *-ām*.

In Mid. Tamil the emphatic forms *-ēṇ* and *-ōm* (a form to be explained infra) are alone common; the other forms are becoming gradually obsolete.

In Modern Tamil *-ēṇ* is the standard singular termination and *-ōm*, the plural; the others are archaic.

In Old Malayālam the emphatic forms *-ēṇ* and *-ōm* were those in use. Though in Old, Mid. and Modern Kanarese the unemphatic forms were those in use, in New Kanarese the emphatic forms *-ēne* (singular) and *-ēve* (plural) are becoming common.

In Old Telugu only the unemphatic forms *-an* (< *-*æn*), *-am* (< *-*ām*) and *-in*, *-ini* are found. But in New Telugu after the sixteenth century we find the emphatic forms *-ānu* and *-āmu* becoming very common.

In Kurukh we have both emphatic and unemphatic forms.

Beside *-an*, *-on*, *-am* and *-om* we have also *-ēn* and *-ēm*.

The only Dravidian languages that seem to have no emphatic forms are Tuḷu, Gōṇḍī and Malto.

D.—THE ORIGIN OF *-aṇ*, *-ām*, ETC., IN TAMIL

In the Tolkāppiyam *-al* is one of the first person singular terminations. This *-al* is considered in the Viracōliyam to be a variant of *-aṇ* which appears in literature a little later than *-al*. Both *-al* and *-aṇ* are considered to be terminations of the first person singular added to verbs in the future tense. The commentaries of the Tolkāppiyam establish the fact that *-al* is a termination added to verbs in the future tense. In the Tirukkuṟaḷ both *-al* and *-aṇ* are used only in the future tense; e.g., *keṭuval*, 'I shall perish' (116); *ceyval*, 'I will make' (1023); and *irappaṇ*, 'I shall beg' (1067).

Further in Old Malayāḷam *-an* which is one of the first person singular terminations is used only in the future tense (article 134, Vyākaraṇa-mitran).

From these facts it seems reasonable to infer that *-aṇ* (or *-al*) being restricted to the future tense, the future infix *v* or *pp* must have something to do in the development of *a*. *v* [v] or *pp* seems to change the original Primitive Dravidian *æ* into *a*; for otherwise it must normally become *e* (vide supra). Thus it would appear the future infix *v* [v] or *pp* converts the Primitive Dravidian *æ* into a spread back vowel *a*.

N.B.—Professor Mark Hunter says: "Neither *p* nor [ʊ] (which is the sound intended by *v*) is pronounced with lip-rounding; they are both spread."

The *-aṇ* thus developed produces a corresponding plural form *-am*. This *-am* again has an emphatic double in *-ām*. Thus *-am* and *-ām* are developments from the singular *-aṇ*.

Like the singular *-aṇ* or *-al*, the plurals *-am* and *-ām* too must have been used only in the future tense in the very early period of Old Tamil. In the Kuraḷ, at any rate, we find *-am* and *ām* used only in the future tense: e.g., *eṇṇuvam*, 'we shall consider' (467); *perukuvam*, 'we shall prosper' (1328); *aṟivām*, 'we shall know'

(36) and *tirvām*, 'We shall get rid of' (1063). Subsequently *-am* and *-ām* and even *-aṇ* seem to have had a wider application.

(In *Kṛukh* we find that *æ* is changed into *ō* in the future tense. In Malto, the optative which is a kind of future tense has *-on* and *-ōm*.)

E.—THE ORIGIN OF TAMIL-MALAYĀLAM *-ōm*

In Mid. Tamil, i.e., about the seventh or eighth century A.D., a new form of the first person plural, namely, *-ōm* is developed, and this gradually replaces all the other terminations of the plural in Tamil until it becomes the standard plural suffix in Modern Tamil.

Now the question is: what is the origin of this *-ōm*?

From the oldest period of Tamil we have had *ō*-forms in the other personal pronominal endings. According to the *Tolkāpiyam Viṇai*, sūtras 14 and 15, *-ān*, *-āl* and *-ār*, the third personal pronominal endings, and also *-āy*, the second person singular ending, become respectively in poetry *-ōṇ*, *-ōl*, *ōr*- and *ōy*. This change was no doubt optional. Nevertheless, it is most frequently found in poetry (vide *Cilappatikāram* which contains examples almost on every page).

Further in Old Malayālam we find a similar change. *-ān* becomes *-ōn*. and *-āl* becomes *-ōl* though only in the future tense. [Article 136-2, *Vyākaraṇa-mitran*].

In Kanarese *avaḷ*,¹ *avaṇ* and *avar* become *avoḷ*, *avom* and *avor*. [Further *-am* in general may become *-om* (*Śabdamaṇi-darpaṇa*, sūtra 157), e.g., *nuḍidam* 'he spoke' > *nuḍidom*].

Thus the analogy of *ō*-forms in all the other personal pronominal words developing out of an *ā*-form seems to have

1. Doctor Kittel quotes examples from *Sāsanas* for *am* > *om*, *aḷ* > *oḷ*, *udu* > *odu*, *ar* > *or*, *adu* > *odu*, *āvaḷ* > *āvoḷ*, etc.—Vide Kittel's *Kannada Grammar*, pages 47, 51, 53, 58, 111 and 112.

influenced the first person plural and we have thus *-ōm* developed from *-ām*.

Though mere analogy of the other personal pronominal forms may be enough to account for the *-ōm*-form in the first person plural, the fact that *-am* in general changes to *-om* in Kanarese, and that in *Toḍa-ām* is pronounced as [ɔ:m] and beside it we have also *-ōm* (vide Doctor Caldwell's Comparative Grammar of the Dravidian Languages, page 364), seem to point to the influence of the labial nasal *m* also. Under the influence of *m*, *-ām* first becomes [ɔ:m] then [ō:m] and finally *ōm* (pr. [o:m] or [ō:m]).

That *-ōm* develops by the influence of *m* seems again to be clear from the fact that in Kui, while we have for the singular suffixes *ēnu*, *-ē*, etc., we have for the plural *-āmu* instead of **ēmu*.

Thus -ōm seems to have developed from -ām through the combined influence of the analogy of the other pronominal forms and the labial final m.

N.B.—Doctor Caldwell says: “*ō* is found in the plural in some connexions in Tamil and Malayalam, but it is derived, as I think I have shown, from *ām*.”

F.—INFLUENCE OF NASALS IN GENERAL

In the uncultivated dialects of Tamil, namely, Korava and Kaikāḍi and also in Modern colloquial Tamil and in Tuḷu, the influence of the nasal suffixes *n* and *m* is most seen.

In these languages the vowel followed by the nasal becomes a single nasalized sound. In some cases even the nasalization of the vowel disappears and the pure vowel alone is heard in pronunciation: cf. Tuḷu, Korava and Kaikāḍi.

In Modern colloquial Tamil *nāṇ vantēṇ* is pronounced ordinarily as [nā:vandē:] or [næ:vandē:] and *nām vandōm* as [nā:vandō:]. In other words *ēṇ* and *ōm* are pronounced as nasalized *-ē* and *ō* respectively.

In Korava and Kaikāḍi as also in Tuḷu, even this nasalization is lost and only the pure vowel without nasalization is heard; e.g., in Korava and Kaikāḍi the first person singular ending is *-ē*, and the first person plural is *-ō*. In Kaikāḍi beside *-ē* we have also *-i* and beside *-ō* also *-ū*. Again in Kui beside the first person singular *-ēnu* we have merely *-ē* and *-ī*.

In Tuḷu the first person singular termination is *-e* and the plural is *-a*. The termination *-e* is pronounced *-æ* (vide Remarks, page, 47, Tuḷu Grammar by J. Brigel). The developments of *-e* and *-a* may be expressed as follows:—

(1) [æn] > [æ̃n] > [æ̃] > [æ] (written *e*).

(2) [am] > [ā̃m] > [ā̃] > [a].

N.B.—Tamil-Malayāḷam, *-om* is itself a development produced by the influence of *m*.

G.—SPECIAL DEVELOPMENT OF *æ* IN TELUGU

Primitive Dravidian *æ* (the unstressed short of *æ* of the first person) is much affected by the law of vowel-harmony in Telugu:—after *ā̃* it becomes *a*; after *ū̃* it becomes *u*; after *ī̃* it becomes *i*.

Thus we get three types of verbs in Telugu—

(1) those ending in *-an* or *-anu* (first person singular) and *-amu* (first person plural);

(2) those ending in *-un* or *-unu* (first person singular) and *-umu* (first person plural);

(3) those ending in *-in* or *-ini* (first person singular) and *-imi* (first person plural).

All these types are formed from the verbal participles.

There is a fourth type ending in *-ānu* (singular) and *-āmu* (plural) used in Modern Telugu. This is formed from the relative participles.

(a) The *a*-Type

This type includes (1) the first personal verbal nouns. (2) the old classical future tense—

The Verbal Nouns

- (1) *nēnu* *bidavāḍanu* = I am a poor man.
mēmu *bīdavāramu* = We are poor men.

Here *bīdavāḍu* and *bīdavāru* are third personal nouns and these are converted into verbal forms by the addition of original **-æn(u)* or **-æmu* which by vowel-harmony with the preceding *ā* becomes *-an(u)* or *-amu*.

The Old Classical Future

- (2) *nēnu* *vaṇḍa(m)galan* = I shall cook.
mēmu *vaṇḍa(m)galamu* = We shall cook.

These are old classical futures which are now obsolete,

Here Primitive Dravidian first personal **-æn* or **-æmu* becomes *-an* or *-amu* by vowel-harmony with the preceding vowel *a* of *-gal-*.

(b) The *u*-Type

This type includes the 'Indefinite tense' called in Telugu 'Taddharma'.

- nēnu* *koṭṭudunu* = I would strike.
mēmu *koṭṭudumu* = We would strike.

Here Primitive Dravidian **-ænu* or *-æmu* > *-unu* or *-umu* by vowel-harmony with the preceding *u* of *-ud-*, the infix of the indefinite tense.

(c) The *i*-Type

This type represents the old classical past tense. This type is most common in the Ceded Districts, but is rarely used in conversation in the Circars.

nēnu vaṇḍitin or vaṇḍitini = I cooked.

mēmu vaṇḍitimi = We cooked.

Here *-in* (or *-ini*) and *-imi* are from *-*æn* and *-*æm* respectively by vowel-harmony with the *-i* of *-it-*, the infix of the past tense.

(d) The *ā*-Type

This type is generally considered to be non-literary. It represents the emphatic form of the *a*-type.

Thus *-ānu* and *-āmu* which develop from *-*æn* or *-*æm*. The *ā*-type develops, therefore, from the *a*-type through emphasis; and is thus also the result of vowel-harmony.

It includes (1) the present progressive tense, (2) the habitual present tense and (3) the past tense of Modern Telugu as spoken in the Northern Circars—

(1) Present Progressive

nēnu koṭṭutunnānu = I am striking.

mēmu koṭṭutunnāmu = We are striking.

Here we have *koṭṭutunna-* + *-ānu* or *-āmu*. *Koṭṭutunna* is the present progressive relative participle (vide Arden's *Progressive Grammar of Telugu*, page 75 and article 197). *-ānu* and *-āmu* are from *-anu* and *-amu* by emphasis. *-ānu* and *-āmu* develop from *-*æn* and *-*æm* by vowel-harmony with the *a* of *-unna-*. In combination, the *a* of *-unna-* drops after changing *æ* into *a* which becomes *ā* by emphasis.

Thus: *koṭṭutunna* + *-*æn(u)* > *koṭṭutunna-* + *-ānu* > *koṭṭutunnānu*.

(2) Habitual Present

nēnu koṭṭutānu = I strike.

mēmu koṭṭutāmu = we strike.

Here again, as in the case of the present progressive tense, we have *-ānu* or *-āmu* the emphatic forms of *-anu* or *-amu* added to the present relative participle ending in *-uta-*.

Thus: *koṭṭutānu* is from *koṭṭuta-* + *-ānu* (emphatic). *-ānu* develops from *-anu* which arises from *-*æn* by vowel-harmony with the *a* of *-uta-* in **koṭṭuta-*.¹

(3) The Past Tense

nēnu koṭṭinānu = I struck.

mēmu koṭṭināmu = we struck.

This type of the past tense is the most common in the Northern Circars while in Cuddapah the old classical *ini-* type is used.

Koṭṭinānu is from *koṭṭina-* + *-ānu* (emphatic). The *a* of *-ina-*, the relative past participle infix, disappears after changing *-*æn* or *-*æm* into *-an* or *-am* which develop by emphasis into *-ānu* or *āmu*.

N.B.—The forms *koṭṭinānu* and *koṭṭināmu* are contracted in the speech of the low class people to *koṭṭānu* and *koṭṭāmu*—vide article 719, Arden.

To sum up-

The *a-*, *u-*, and *i-*types of verbs are formed by the addition of weak personal endings *-an* (*-am*), *-un* (*-um*) or *-in* (*-im*) respectively. These develop from *-*æn* or *-*æm* by vowel-harmony with a preceding vowel *a*, *u*, or *i*.

Again these types are formed from the verbal participles.

On the other hand, the *ā-*types are formed by the addition of emphatic personal endings and from relative participles ending in *a*. This *a* disappears before the personal termination, but before disappearing changes *-*æn* or *-*æm* into *-anu* or *-amu*, which by emphasis become *-ānu* or *-āmu*.

1. *Koṭṭuta* = *Koṭṭutu* (present verbal participle) + *-a* (the relative termination).

SECTION VI

CONCLUSION

A.—SUMMARY OF THE WHOLE THESIS BY GRAPHIC REPRESENTATION

The Development of æ in the Nominative and Oblique Cases and also in Verbs under normal Conditions.

$$\left. \begin{array}{l} \text{Stressed—} \\ \text{Unstressed—} \end{array} \right\} \begin{array}{l} \left\{ \begin{array}{l} \bar{e} \text{ (Telugu, Kurukh and Malto).} \\ y\bar{a} \text{ (Old Tamil and Tuḷu).} \\ \bar{a} \text{ (Kanarese, Kui and Kōlāmi) also in New Tamil in non-pronominal words.} \end{array} \right. \\ \left\{ \begin{array}{l} a \text{ (normally in Gōṇḍi (verbs) and Kōlāmi (oblique cases and verbs).} \\ e \text{ (Tamil, Malayāḷam, Kanarese, Tuḷu, Kui and Malto).} \\ \left\{ \begin{array}{l} a \text{ or } u \text{ or } i, \text{ by vowel-harmony in Telugu.} \\ a > \bar{a} \text{ by emphasis.} \\ æ \text{ disappears before the tense infix in Kurukh.} \end{array} \right. \end{array} \right. \\ æ \end{array}$$

Special Development of æ in Verbs

$$\left\{ \begin{array}{l} e \\ \bar{e} \\ æ \end{array} \right\} \left\{ \begin{array}{l} e \text{ (unemphatic) in Old Tamil, Kanarese, Tuḷu and Malto.} \\ \bar{e} \text{ (emphatic) in New Tamil, Old Malayāḷam and Kui.} \\ \left. \begin{array}{l} (1) \text{ Normally in Gōṇḍi and Kōlāmi.} \\ (2) \text{ before } v \text{ or } p, \text{ the future infix in Tamil and Old Malayāḷam.} \\ (3) \text{ before the plural suffix } -m > \left\{ \begin{array}{l} a \text{ in Old Tamil and Tuḷu.} \\ \bar{a} \text{ (emphatic)} \\ \bar{o} \text{ New Tamil, Old Malayāḷam.} \end{array} \right. \end{array} \right. \\ æ \left\{ \begin{array}{l} a \text{ or } i \text{ or } u \text{ (Telugu) by vowel-harmony.} \\ \bar{a} \text{ by vowel-harmony with the relative suffix } a \text{ and the influence of accent.} \end{array} \right. \end{array} \right.$$

APPENDIX

THE LAW OF VOWEL-LENGTHENING IN TELUGU

ENUNCIATION

When in a Primitive Dravidian polysyllabic pronominal word or any word where the vowel of the second syllable is separated from that of the first syllable by any one of the liquids *r*, *ṛ*, *l*, *ḷ*, and *ḷ* the accent falls on the vowel of the second syllable, then in Telugu the vowel of the second syllable is first assimilated to the vowel of the first syllable (in the prehistoric period) and then lengthened with the simultaneous dropping of the unaccented vowel of the first syllable.

EXPLANATION

1. This law applies to all the pronominal words having the accent on the second syllable.
2. It applies also to other words having *r*, *ṛ*, *l*, *ḷ*, or *ḷ* intervening between the first and the second syllable and having the accent on the second syllable.

ILLUSTRATIONS

(A) *The Pronominal Words*

The Primitive Dravidian pronominal words that have the accent on the second syllable are the oblique cases of all the pronouns except the interrogative pronouns, i.e., **ad(u)*, 'it', **id(u)*, 'this', *avai*, 'those things', *ivai*, 'these things', **ān*, 'I', **ām*, 'we', **in*, 'thou', **im*, 'you', *avan*, 'he', *ivan*, 'this man', *avar* 'they', and *ivar*, 'these men'.

These pronouns being nominative pronouns have the accent on the first syllable.

But the oblique cases of these pronouns have the accent on the second syllable in accordance with the principle of balance referred to above.

(a) The oblique bases of **ad(u)* and **id(u)* are formed by the addition of the formative *-an* or *-in*. Cf. Tamil *adaṇ* (written *ataṇ*) or *adiṇ* (written *atiṇ*) and *idaṇ* (written *itaṇ*) or *idiṇ* (written *itin*).

According to the law enunciated above—

adān > *dān* in Telugu through **ædān*

idin > *din* in Telugu through **idin*.

With the addition of the genitive sign *-i* of Telugu, these give *dāni* and *dini*.

(b) The oblique bases of *avai* and *ivai* are formed by the addition of the particle *-arr-* or *-irr-*.

Tamil uses, as a rule, the formative *-arr-* and Telugu chooses *-arr-* (> *-aṭ-*) or *-irr-* (> *-iṭ-*) according as the initial vowel of the pronoun is *a* or *i*.

Tamil while adding the formative *-arr-*, uses the weak forms of *avai* and *ivai*, namely, *av* and *iv*: (vide Naṇṇūl, sūtra 250, and Tolkāppiyam, Eluttatikāram, 388).

The use of the weak forms *av* and *iv* in Tamil is consistent with the fact that *av* and *iv* are unaccented in the oblique forms.

As the result of the stress shifting from the first to the second syllable, we have *-avaṛṛ-* > *-vāṭ-*.

ir > *ṭṭ* in Telugu and *ṭṭ* > *ṭ* after a long vowel (vide my thesis on Double Consonants). Similarly—

**iviṛṛ-* > *vīṭ-*.

vāṭ- and *vīṭ-* become oblique bases by the addition of the genitive sign *i*. For in Telugu the genitive is the oblique base. Hence we get *vāṭi* and *vīṭi*.

(c) The oblique base of **æn* is **æna-* and of **æm* is **æma-*: compare Tamil *eṇa-* and *ema-*.

The oblique of **in* is **ina-* and of **im* is **ima-*.

**ina-* and **ima-* > in Telugu **ini* and **imi* by vowel-harmony.

When the accent shifts on to the second syllable in the oblique cases **æna-* > *nā-*; *æma-* > *mā-*; **ini* > *nī*; **imi* > *mī* in Telugu in accordance with the law above enunciated.

It is thus clear that the operation of the law of vowel-harmony is anterior to the effect of accent change.

(d) *avan-* and *avar-* become *vān-* and *vār-* in the oblique base and with the genitive termination *-i* the full oblique bases of these pronouns in Telugu are *vāni* and *vāri*.

ivan- and *ivar-* first become **ivin-* and **ivir-* by vowel-harmony and then change to *vin-* and *vir-*. These with the genitive ending *-i* give *vinī* and *virī* in Telugu.

(e) The nominative demonstratives *avan*, *ivan*, *avar* and *ivar* have the accent on the initial vowel as stated above. Hence these should give us the forms **ava(ṁ)ḍu*, **iva(ṁ)ḍu*, **avaru* and **ivaru* in Telugu. But though the influence of the oblique forms, we have *vā(ṁ)ḍu* and *vī(ṁ)ḍu* pronounced [vā:ḍũ] and [vī:ḍũ] (also [vā:ḍũ] and [vī:ḍũ]) respectively, and not **ava(ṁ)ḍu*, **iva(ṁ)ḍu*. Again *vāru* and *viru* have taken the place of **avaru* and **ivaru*.

The following tables illustrate in a graphic manner the full development of the *long vowels* in the Telugu pronominal words through the influence of the accent change:—

<i>adan-</i>	{	Non-Telugu... <i>adan-</i> (Tamil) (written <i>atan-</i>).
		Telugu ... * <i>aḍán-</i> > <i>dān-</i> and (with genitive <i>-i</i>) <i>dāni</i> .
<i>idin-</i>	{	Non-Telugu... <i>idin-</i> (Tamil) written <i>itin-</i>).
		Telugu ... * <i>iḍin-</i> > <i>din-</i> and (with genitive <i>-i</i>) <i>dīni</i> .
<i>avar-</i>	{	Non-Telugu... <i>avar-</i> (Tamil).
		Telugu ... * <i>avaṭṭ-</i> > <i>vāṭ-</i> and (with genitive <i>-i</i>) <i>vāṭi</i> .
<i>ivar-</i>	{	Non-Telugu... <i>ivar-</i> (Tamil).
		Telugu ... * <i>iviṭṭ-</i> > <i>vīṭ-</i> and (with genitive <i>-i</i>) <i>vīṭi</i> .

<i>*æna-</i>	{	Non-Telugu... <i>ena-</i> , Tamil, Malayāḷam and Kanarese.
	{	Telugu ... <i>*æna-</i> > <i>nā-</i> .
<i>*æma-</i>	{	Non-Telugu... <i>ema-</i> , Tamil, Malayāḷam and Kanarese.
	{	Telugu ... <i>*æma-</i> > <i>mā-</i> .
<i>*ina-</i>	{	Non-Telugu... <i>uṇ-</i> (Tamil?).
	{	Telugu ... <i>*ine</i> > <i>*ini</i> > <i>*iṇi</i> > <i>ni</i> .
<i>*ima-</i>	{	Non-Telugu... <i>um-</i> (Tamil?).
	{	Telugu ... <i>*ime</i> > <i>*imi</i> > <i>*iṃi</i> > <i>mi</i> .
<i>avan-</i>	{	Non-Telugu oblique ... <i>avan-</i> (Tamil).
	{	Telugu oblique ... <i>*avan-</i> > <i>vān-</i> and (with genitive -i) <i>vāni</i> .
<i>avar-</i>	{	Non-Telugu oblique ... <i>avar-</i> (Tamil).
	{	Telugu oblique ... <i>*avar-</i> > <i>vār-</i> and (with genitive -i) <i>vāri</i> .
<i>ivan-</i>	{	Non-Telugu oblique ... <i>ivan-</i> (Tamil).
	{	Telugu oblique ... <i>*iven-</i> > <i>*ivin-</i> > <i>iṃin-</i> > <i>vīn-</i> and (with genitive -i) <i>vīni</i> .
<i>ivar-</i>	{	Non-Telugu oblique ... <i>ivar-</i> (Tamil).
	{	Telugu oblique ... <i>*iver-</i> > <i>*ivir-</i> > <i>*iṃir-</i> > <i>vīr-</i> and (with genitive -i) <i>vīri</i> .

NOTE

Interrogative Bases

The interrogative pronouns, whether they are in the nominative or in the oblique case, have naturally the stress on the syllable which contains the interrogative base; and this syllable is invariably the first in every interrogative pronominal word.

As a result of the stress resting on it, the vowel of the first syllable often becomes long.

In Tamil beside *e*, we have also *ē* and *yā*. In Malayālam and Kanarese we have only the emphatic accented forms: Malayālam has *ē* and Kanarese has *yā*. In Telugu beside *e* (which is Old Telugu) we have in New Telugu *ē*. Sometimes in Telugu instead of vowel-lengthening through emphasis, we have also consonant-lengthening in the first syllable, e.g., *ev*, *ēv*, or *evv*.

Thus—

In Tamil, beside, *evaṇ*, *evaḷ*, *edu*, *evai* and *evar*, we have also *ēvaṇ*, *ēvaḷ*, *ēdu*, *ēvai*, *ēvar* and also *yāvaṇ*, *yāvaḷ*, *yādu*, *yāvai* and *yāvar*.

In Malayālam, we have only the emphatic long forms *ēvan*, *ēvaḷ*, *ēdu*, *ēva* and *ēvar*.

In Kanarese, only the emphatic forms *yāvanu* (= *āvanu*), *yāvaḷu* (= *āvaḷu*), *yāvadu* (= *āvadu*), *yāru* (= *āru*), *yāvavu* (= *āvuvu*).

N.B.—Kanarese *yā* and *ā* < original open *ē*.

In Telugu, we have beside *evaḍu*, *edi*, *evaru*, and *evi*, also *evvaḍu*, *evvaru*, *ēvādu*, *ēvāru*, *ēḍu*, *ēdi* and *ēvi* (vide Arden's Telugu Grammar, Section 772).

Mr. Seshagiri Rao tells me that the following forms with *y* are found in the Nellore Inscriptions:—*yavvaru* O. 17-2 (1227-28); *yavvaraina* D. 57 (1219-20).

In Telugu, however, the interrogative neuters (singular and plural) are affected by analogy, and hence we have the vowel of the second syllable lengthened.

Thus beside *ēdāni* we have New Telugu *dēni*; beside *ēvāni* we have *vēni*. That the accent tended by analogy to change to the second syllable is seen by the length of the vowel in the second syllable of words like *ēvāḍu*, *evvāḍu*, *ēdāni*, *eddāni*, etc. It is also likely that *ēvāḍu*, *ēdāni*, etc., are formed by the influence of forms like *vāḍu*, *dāni*, etc.

The forms *dēni* and *vēni* are comparatively late forms. *vēṭi* though the regular oblique of *ēvi* is found only in the colloquial speech. The literary oblique is *ēvāni*.

ēvāni is very likely an extension of the masculine oblique form to the neuter declension. For *ēvāni* means not only 'of whom' but also 'of which (things)'. *vēṭi* is the regular oblique of *ēvi*, having the accent on *ē*: compare Tamil *evār*. The stem corresponding to *evār* in Telugu developed through **eveṭ-* and **ēvēṭ* into *vēṭ-*. *vēṭ-* takes the genitive ending *-i* and becomes *vēṭi*. (*rr > ṭ*, vide my thesis on Double Consonants).

Primitive Dravidian	{	Non-Telugu— <i>etu</i> (= <i>edu</i>) Tamil; <i>ētu</i> , Malayālam; <i>yāvadu</i> , Kanarese.		
		Telugu.	{	Old Telugu.
<i>ed(u)</i> .	{			

Primitive Dravidian <i>evai</i> .	{	Non-Telugu— <i>evai</i> , Tamil; <i>ēva</i> , Malayālam; <i>yāva</i> , Kanarese.		
		Telugu	{	Old Telugu
{	New Telugu.			

(B) Words with an intervening liquid

These are all non-pronominal words. The intervening liquids are *r*, *ṛ*, *l*, and *ḷ*. These become in Telugu *r* or *l*—

l > mostly *r*, sometimes *l*.

ḷ > *l*.

ṛ > *r*.

When one of these liquids intervenes between the vowel of the first syllable and the vowel of the second syllable, the vowel of the second syllable is first assimilated to the vowel of the first syllable and then by the accent shifting on to the second syllable, the vowel of the second syllable is lengthened with the simultaneous dropping of the vowel of the first syllable.

For instance—

elu (to rise) > **elē* > **ēlē* > *lē'*

ural (mortar) > **oral* (cf. colloquial Tamil) > **orol* > **ōról* > *rōlu*, and so on.

Thus the law of vowel-lengthening in Telugu operates subsequent to the period of operation of the law of *a*-umlaut in Kanarese and Telugu (vide my Phonology, page 2).

The following table gives nearly all the words in Telugu with an intervening liquid :—

Tamil	Mala- yālam	Kanarese	Tuḷu	Telugu
1. arai = to rub ...	arayuka ...	...	areñcuni ...	rāyu, rācu
2. arayan = a king ...	arayan ...	...	...	rēḍu; rāyaḍu
3. irā = night ...	iravu ...	...	...	rē, rēi
4. iladi = a deer ...	...	...	eraḷe (?) ...	lēḍi
5. iḷa = tender ...	iḷa ...	eḷa ...	eḷe, latu (<iḷadu)	lē
6. ural = a mortar ...	ural ...	oralu ...	...	rōlu
7. uḷam = in ...	uḷlam ...	...	...	lōnu
8. eḷu = to rise ...	eḷuka ...	oḷ, uḷ ...	uḷa ...	lō
9. kural = a sound (voice) ...	kural ...	koral ...	ēḷege (n.) lakku (v.)	lē
10. turattu = to chase ...	...	...	...	krōlu
11. tuṛai = a way ...	tuṛa ...	toṛe ...	tara (?) ...	trōcu
12. paḷa = old ...	paḷa ...	paḷa, paḷa, haḷa	para ...	trōva
13. maral = dizziness ...	maral ...	maral = to turn back	...	prā
14. maram = a tree ...	maram ...	mara ...	mara ...	mrālu (= to be fatigued); mara- lu (= to turn back)
15. meḷuku = to smear ...	meḷukuka.	...	...	mrānu; cf. mara [oḍise mara =
16. muraṭu = a stump of a tree	muraṭu ...	moraḍu ...	...	wood of the oḍise tree. This com- pound preserves the older short form].
17. muḷaṅku = to sound ...	muḷaṅṅuka	moḷagu ...	...	mrēgu
18. viral = a finger ...	viral ...	biralu ...	bireḷu ...	mrōḍu; mo- raḍu
19. vaṛai = to write ...	varekka ...	bare ...	bare ...	mrōgu (mo- ragu = the barking of a dog)
				vṛēlu
				vṛāyu

The following chart is intended to exhibit, in a form which may be easily surveyed, the distribution of some of the important peculiarities common to several languages. The presence of a given peculiarity is indicated by a cross opposite the name of the language; and the circle intimates some reservation of that peculiarity.

CHART I

	First person singular nominative				First person plural nominative				Oblique singular and plural				Verbal terminations													
	an	ān	ēn	nān	m	ānu	ēnu	nēnu	Short plural	Double plural with ka!	en	nā	em	mā	nan	nam	Double plural oblique	en	ān	ēn	an	em	ēn	am	om	
Tamil	+				+				+	+	+	+	+			+	+	+							+	+
Malayaġam.	+								+	+	+	+	+			+	+	+								
Tuġu		+							+	+	+	+	+			+	+	+								
Kanarese																										
Kui																										
Kōlami																										
Gōṛġī																										
Kurukh																										
Malto																										
Telugu																										

REMARKS

The copious material presented by the cultivated and uncultivated languages of the Dravidian group with regard to the pronouns and the pronominal terminations of the verb has been handled by Mr. Subbaiya with great care and with great thoroughness, and I feel that his treatment of this subject evinces a right feeling for the ways of language. But this is a subject beset with great difficulties and much more will have to be done before every problem which it presents is finally solved. One notes with great satisfaction the presence in this article of new ideas and suggestions. These are always welcome, even if they serve but as stepping-stones to higher or more accurate expressions for the laws that govern any particular set of linguistic phenomena. Some of these call for special notice.

Mr. Subbaiya adduces instances to show that in Dravidian a nasal at the end of a monosyllabic word beginning with a vowel may, after first nasalising the vowel, produce a nasal at the beginning of the word. The assumption of such a principle seems to me to be not unreasonable. But I feel that it needs to be pointed out that there is a very great number of words ending in a nasal in which no such initial nasal has been developed. The suggested principle has certainly very considerable limitations. According to the examples given (pages 43-44), for instance, no such phenomenon appears to be observable in Telugu or Kanarese. For this reason alone I should hesitate to consider such a principle, as Mr. Subbaiya does, a sufficient explanation of the origin of the initial nasal in the pronouns of the first person singular and plural. But, apart from this consideration, it is difficult on this assumption—unless it could be shown that they are chronological or dialectal variants, which, of course, is not impossible—to account for the existence of forms with an initial nasal and forms without [side by side in one and the same language, as, e.g., *yām* and *nām*, 'we', both in Old Tamil and in Modern literary

Tamil. Moreover the assumption leaves unexplained the curious difference between the initial nasal of the singular (*nāṇ*, 'I') and that of the plural (*nām*, 'we') in Malayalam. We should have expected both to show the same nasal, either *ṇ* or *n*. The evidence as contained in Mr. Subbaiya's table of the pronouns of the first person in Dravidian (page 29), I would suggest, points to the plural as the source—or one of the sources—from which the singular received its initial nasal. The indication seems to be that at a certain period of the original Dravidian language there were two distinct pronouns of the first person plural (apparently an inclusive and an exclusive), one with and one without an initial nasal. The double form in the plural appears to have produced a corresponding double form in the singular. That is to say, the originally unnasalised singular pronoun was supplemented (in those languages which show two forms) by a nasalised pronoun under the influence of the plural which possessed both a nasalised and an unnasalised form; for example, in Tamil, the form *nāṇ*, 'I', I suggest, arose by the side of the form *yāṇ* under the influence of the pair *nām*—*yām*, 'we'. Such an innovation would be rendered all the easier (1) if the distinction between inclusive and exclusive forms in the plural had become blurred and (2) if the plural was frequently used, as it is in modern spoken Tamil, for the singular.

On the other hand I am quite in sympathy with Mr. Subbaiya's explanation of the initial *y* of *yāṇ*, 'I', and *yām*, 'we', in Tamil as developed out of an open *ē*, i.e., an *ē* whose pronunciation lies between that of close *ē*, (e.g. the long of the *e* in *get*) and that of *ā*. Old Bulgarian presents what appears to be a precisely parallel phenomenon. This language shows a prothetic *y* (better, *i*) before all palatal vowels; for instance, *yestū* corresponds to Lithuanian *ėsti*, Sanskrit *asti*, 'is'. This prothetic semi-vowel, which is in the nature of an on-glide, is to be compared with what one finds in the pronunciation of palatal vowels in Dravidian, although in this case the semi-vowel is not (usually) expressed in writing. Now Lithuanian *ėsti*, 'to eat', is represented in Old Bulgarian by *yāsti*. Here, as in numerous other instances, an

open \bar{e} , pronounced $i\bar{e}$, has passed into \bar{a} and carried with it the prothetic semivowel, thus producing $i\bar{a}$. Similarly it would seem that an original $*i\bar{e}n$ in Tamil (Cp. the termination of the first person singular in verbs) developed gradually into $i\bar{a}n$ ($y\bar{a}n$) in which the initial semi-vowel proper to the palatal vowel \bar{e} has been retained. Old Bulgarian certainly shows that such an explanation is phonetically possible. But we may go a step further. This explanation helps us not only to understand the relation between Tamil $y\bar{a}n$ and the corresponding Telugu $\bar{e}nu$, but it throws light upon all cases in which Tamil, $y\bar{a}$ - is answered in Telugu by \bar{e} -, such as $y\bar{a}nai$, 'elephant', by the side of Telugu $\bar{e}ni-ka$, $y\bar{a}\ddot{u}$, 'sheep', by the side of Telugu $\bar{e}\dot{d}i-ka$, 'ram', etc. The solution which has been adopted by Mr. Subbaiya seems, therefore, not only possible, but highly probable.

It is dangerous to base the interpretation of the facts of language on solely phonetic considerations. Mr. Subbaiya's treatment of the termination of the first person plural in the verb, though it is ingenious and shows careful thought, is weakened to a large extent, in my opinion, by such a procedure. He argues on priori phonetic possibilities without making it clear, by means of parallel instances, for instance, that such phonetic possibilities have any right to be regarded as operative in the languages with which he is dealing. I refer to his explanation of the Modern Tamil termination of the first person plural in $-\bar{o}m$. Mr. Subbaiya would derive this from the termination $-\bar{a}m$ found in early Tamil, and in this I am quite willing to agree with him, and I agree, too, that this change may have been aided by the presence of final m . But if this is so, what are we to say to forms like $n\bar{a}m$, where no such modification of the vowel has taken place? The answer which I would give is that the \bar{a} of the suffix $-\bar{a}m$ is of a different nature from that of the pronoun $n\bar{a}m$. The latter, as Mr. Subbaiya points out, is in all probability a development of an original \bar{e} . I doubt very seriously whether a similar origin can be assigned to the \bar{a} of the termination $-\bar{a}m$. One needs to show that such a change is not only theoretically possible (cp. Old English $m\bar{o}na$ by the side of Gothic $m\bar{e}na$, 'moon') but that it actually took place in other words or categories of words;

or at least that it is not at variance with other phenomena presented by the language or languages concerned. Moreover it seems to me too much to demand that in Tamil the final *m* of the pronoun of the first person plural (like the final *n* of the pronoun of the first person singular) should have induced an initial nasal, as Mr. Subbaiya suggests, but should have had no very potent effect upon the preceding vowel, and that the same final *m* in the termination of the first person plural of the verb should have changed the same (original) vowel into *ō*.¹ I admit Mr. Subbaiya's endeavour to discover a basic unity underlying these expressions for the first person plural, not only in Tamil, but for the whole Dravidic group, is a laudable one; but I do not think that he has established his position. I am not prepared to offer a definite solution of this difficult problem. But one thing appears to me extremely probable, namely, that, as in the pronoun so in the verb, we have to see an original distinction—whatever confusion or simplification may have taken place later—between an inclusive and an exclusive plural. In early Tamil the termination *-ēm* was exclusive, as, indeed, one might have expected from its being the natural plural of the singular termination *-ēn*. The termination *ām*, on the other hand, is said by the grammarians to have been inclusive. The *ā* of this termination, I have already suggested, was very different from the *ā* (derived from *ē*, or *ae*) of the pronoun *yām* (*nām*). I conceive it to have been very open, i.e. approximating to an *ō*-sound, and therefore passing readily into such a sound. Modern Tamil has entirely rejected the form within *e*-tonality, and it seems to me that the same selective principle has been at work throughout the Dravidic Group. Kanarese has retained the *e*-form; Malayālam like Tamil, the *o*-form only. Among the uncultivated members of the group the *a*-forms seem to prevail; the plural is here clearly differentiated from the singular which shows prevailingly an *e*-tonality, but has retained only what I assume to be the earlier tonality of an original inclusive form. It is, of

1. Mr. Subbaiya, it is true, mentions the possibility of an another phonetic factor, namely, the influence of other forms which show at an earlier period an *ō*-vowel; e.g., the third person singular in *-ōn* (masculine) and *ōl* (feminine).

course, possible that the *e*-forms in early Tamil and in Kanarese may be relatively modern innovations formed on the analogy of the corresponding singular form. But since the earliest Tamil documents show both *a*-forms and *e*-forms in the plural, I cannot resist the interpretation that we are to see behind these variants an original difference of function, namely, as I would suggest, that the *e*-forms connoted the exclusive, the *a*- (or *o*-) forms connoted the inclusive plural. It need hardly be said that there remains much to be elaborated before any final solution of this problem can be arrived at.

Mr. Subbairya's remarks on the special development of original *a* (i.e. open *e*) in Telugu in connexion with these terminations seems to me on the whole satisfactory. But I hesitate to acquiesce entirely in his view of the *ā*- type of termination (page 62). In particular, in the case of forms like *koṭṭinānu*, *koṭṭināmu*, it should be borne in mind that Tamil seems to present exactly the same type. Any explanation of this type should make it clear why the ending of the first person singular is *-ānu* in Telugu (*pōyinānu*) but *-ēn* in Tamil (*pōyin-ēn*). If *-a + aen* developed in Telugu, under the influence of vowel-harmony followed by the loss of *-a*, into *-an* which then becomes *-ān* (pages 63-64), what, I would ask, were the influences at work in Tamil which caused the same *-a + aen* to apparently develop into *e-n* and *-ēn*? It might, of course, be suggested that the difference of development is due to the absence of vowel-harmony in Tamil. This is not impossible, but I would point out that in early Telugu—and it must not be forgotten that these formations seem to go back to a great antiquity—vowel-harmony plays a very insignificant part. I feel, moreover that one has little right to assume, without special comment and without adducing any parallel instances, that *-an* in Tamil developed under (an assumed) stress into *-ān*. Mr. Subbairya admits for the parent language the existence of emphatic unemphatic forms side by side (page 55). I would suggest that it is much more natural to assume that a full form should become weak than that a weak form should become full. Still, I will not deny the possibility of the latter change taking place.

Mr. Subbaiya's treatment of the oblique forms of the pronouns, in connexion with his 'law of vowel-lengthening in Telugu', seems to me to be distinctly a step in the right direction. I accept the principle adopted; but in some few cases I think the details need revision. For instance, it seems clear to me that Tamil *av-ai* (cp. Telugu *av-i*) by the side of *av-iṟṟū* points to a demonstrative base *av-*, such as one sees in Tamil *av-aṇ*. Mr. Subbaiya calls *av* the weak form of *av-ai* (page 66). I feel that this is not a correct view. I hesitate further—at least, at present—to regard the final *-a* of **æna-*, **æma-*, **ina-*, **ima-*, the original forms of the oblique bases of the pronouns of the first and second persons, respectively, according to Mr. Subbaiya, as a formative element (page 48). There is but little trace of any such formative element elsewhere. Nevertheless, even if some other interpretation of this *-a* has eventually to be adopted, I am strongly of opinion that at least the derivation of the oblique forms *nā* and *mā* of the first person singular and plural in Telugu (and elsewhere) from an original dissyllabic base, borne out as this suggestion is by so many parallel examples, will hardly be overthrown. I myself have been inclined to regard the form **ena* (or **aena-*), preserved as it seems to me in such forms as Tamil *eṇa-kku*, as the base from which (according to difference of stress, as I imagine) both the nominative stem on the one hand (e.g., Telugu *ēnu*) and the oblique stem on the other (Telugu *nā*) developed. But I prefer to leave this and similar parallel suggestions with regard to the pronouns and verbal terminations for maturer consideration.

The oblique interrogative forms in classical Telugu *ē-vāni*, 'whose' (singular masculine) and *ē-dāni*, 'whose' (singular neuter), seem clearly to be new formations modelled on the oblique forms *vāni*, 'of him', *dāni*, 'of it', the necessity for such remodelling arising from the fact that the phonetically regular forms *vēni*, *dēni* had lost the vowel characteristic of the interrogative pronoun.

DRAVIDIC STUDIES

No. III

THE SANSKRITIC ELEMENT IN THE VOCABULARIES OF THE DRAVIDIAN LANGUAGES

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INTRODUCTION

The Sanskritic element in the vocabularies of the Dravidian languages is so large that it has often been urged with much show of reason by orthodox paṇḍits that Dravidian languages can claim no originality independent of Sanskrit, that, in other words, Sanskrit is the mother of the South Indian languages. This is only the popular view shared by illiterate people along with the orthodox paṇḍits whose learning knows no analysis nor comparison. Grammarians of the Dravidian languages have clearly pointed out that the languages they deal with are different from Sanskrit. The grammarian of each language has indicated in a way that there is the Dravidian language pure to be differentiated from Sanskrit. Thus, the Tamil grammarian (the author of the *Naṇṇūl*) frames certain rules to govern the words imported from Sanskrit. The Telugu grammarian (Kētana, the author of the *Āndhrabhāṣābhūṣaṇamu*) differentiates the pure Telugu words from Sanskrit words. The Kanarese grammarian (Kēśirāja, the author of the *Śabdamaṇidarpaṇam*) devotes a whole chapter (Ch. VII) to the *tadbhavas*. Malayālam grammar is recent, and the author of the *Kēraḷa-Pāṇinīyam* (published in 1896) makes such a distinction (p. 335).

But none of these, except the last, who had the benefit of western learning and of the researches made by orientalists like Dr. Gundert and Dr. Caldwell in the nineteenth century recognized the relation of the Dravidian languages to each other. Tamil grammarians, for instance, regarded Telugu words and even Malayālam words as *ticaiccol*, 'words from other quarters'. They divided words into three classes: (1) pure Tamil words, (2) Sanskrit words, and (3) *ticaiccol*. This classification would group all foreign words, together, Arabic, Persian, Telugu, Malayālam, Tuḷu, Kanarese, etc. This classification was of course unscientific. When a certain word that was not found in Tamil literature or used by the Tamil-speaking people, happened to be employed by an author perhaps owing to his contact with, say, the Telugu people, it was set down as a Telugu word and a *ticaiccol*. One cannot deny that there were people at various times conversant with more than one of the Dravidian languages. Still it was not before Dr. Gundert, Dr. Caldwell, and other European scholars pointed it out that it was recognized that Tamil, Telugu, Kanarese and Malayālam were sister-languages and that they all belonged to the same stock that may be termed Dravidian.

In Olden times Sanskrit was looked upon with such great respect that it led to the popular belief that it was a divine language, the language of the gods (compare the Tamil name for Sanskrit, *gīrvāṇam*). Even scholars looked up to it for solution of all intricate problems in all departments of knowledge. Kētana or Abhinavadaṇḍin, the author of perhaps the earliest Telugu grammar Āndhra-bhāṣā-bhūṣaṇamu, a work unquestionably of the thirteenth century, accepts that Sanskrit is the mother of all languages (verse 13). Another Telugu grammar, the Nannaya-bhaṭṭiyamu, for which is claimed an earlier date but which has been proved to be a spurious work by Mr. Veeresalingam Pantulu in his *Lives of Telugu Poets*, is written in Sanskrit. It was wrongly ascribed to the great Nannaya Bhaṭṭa, the author of the Telugu Bhārata. The earliest Kanarese grammar, the Karṇāṭaka-bhāṣā-bhūṣaṇam, was written in Sanskrit by Nāga Varma whose date according to B.L. Rice is 1070—1120. (Introduction to the *Karṇāṭaka-sābdānu-sāsanam*.) He wrote a *vṛtti* for it also in Sanskrit, *Bhaṭṭāka-*

laṅka Dēva completed in 1604 his exhaustive grammar of Kanarese in Sanskrit sūtras, the Karṇāṭaka-śabdānuśāsanam by name, with a commentary, also in Sanskrit, called Bhāṣā-maṅjarī, and a further voluminous commentary on the latter, in the same language, called Maṅjarī-makarandaḥ. Even in modern times, Rājarāja Varma, the author of the Kēraḷa-Pāṇiniyam, named his work after the great Sanskrit grammarian. In Tamil Svāminātha Dēśikar, who wrote his Ilakkaṇakkottu to explain, as a grammar of grammars, the intricacies of Tamil grammar, goes out of the way in his introduction to the work to praise Sanskrit and cry down Tamil. Says he : " To Tamil works there is no limit. But is there one among them that is written in pure Tamil ? Besides, wise men will hesitate to even mention that there is a language formed of five letters. So do I, understand. Grammar is the same for Sanskrit and Tamil." By the five letters the author means *e, o, i, r, n* not found in the Sanskrit alphabet. Another author, Subramaṇya Dikṣitar, a contemporary and fellow-scholar of Svāminātha Dēśikar, derives the name of the language *Tamil*, from a Sanskrit word *drāviḍa*. His work, the Prayōga-vivēkam, was written to explain the application of Sanskrit grammar to Tamil literature. These authors flourished in the seventeenth century.

The earlier Tamil grammarians, however, did not hold this extreme view. They, no doubt, ascribed sanctity to Sanskrit, but this did not make them lose their regard for their own language. It is remarkable that there is no Tamil grammar written in Sanskrit as in the case of Telugu or Kanarese. People may be found even to-day who hold that Tamil is in no way inferior to Sanskrit, that the God Śiva was the author of Tamil as well as of Sanskrit, that while he taught the Sanskrit grammar to Pāṇini, he taught the Tamil grammar to Agastya, by no means a less renowned sage. Paraṅcōti Muṇivar's Tiruviḷaiyāṭarpurāṇam, and Śivajñāna Yōgi's Kāñcipurāṇam have verses endorsing this view.

In spite of their high regard for Sanskrit or their false view in respect of the relation of Sanskrit to the Dravidian languages, the grammarians of the Dravidian languages have differentiated Sans-

krit words from the Dravidian, and some of them have reduced the changes which Sanskrit words undergo in the Dravidian languages to certain rules. The Tolkāppiyam, the earliest Tamil grammar extant, which cannot be assigned to any period later than the first century B. C. even by the severest critic of Tamil literature, is silent on the question of the Sanskritic origin of the Tamil language and even on its relation to the other Dravidian languages, but speaks of two classes of loan-words borrowed from Sanskrit, one the tatsamas so-called, and the other tadbhavas (Tolkāppiyam, Collatikāram, sūtram 401 and sūtram 402). All words found in Tamil Tolkāppiyar divided into (1) *iyarcol*, 'plain words employed in ordinary speech,' (2) *tiricol*, 'words employed only in literary works', (3) *ticaiccol*, 'words borrowed from languages spoken all around', and (4) *vaṭacol*, 'the speech of the North, or Sanskrit words'. In dealing with *vaṭacol*, the grammarian speaks first of the borrowings in which the letters peculiar to Sanskrit do not appear, and then of corrupted words. The first class I named tatsamas and the other tadbhavas following the terminology of later times. A commentator of the Nannūl employs these words. Tatsamas he explains as words formed of letters common to Sanskrit and Tamil. This definition, of course, must be modified in the case of Telugu or Kanarese or even Malayālam in consideration of the fact that these languages have a fuller alphabet, and 'common' is meaningless with them. They can bodily adopt the Sanskrit words without any change whatever except perhaps in the case of terminations peculiar to Sanskrit. Tadbhavas he explains as words formed of letters peculiar to Sanskrit as well as those common to Sanskrit and Tamil, and corrupted to a greater or less extent from the original Sanskrit. This definition will apply to the tadbhavas in the other Dravidian language above-named, only the question of letters is meaningless. Tadbhavas are corrupted Sanskrit words. Dr. Pope translates tatsamas as unmodified words and tadbhavas as modified words (A larger Grammar of the Tamil Language in both its dialects, 1859).

The Kanarese grammars come next in point of antiquity. Dr. Kittel in his Kannaḍa Grammar (p. 432) has given a classification of words accepted by Kēśava, the author of the Śabda-

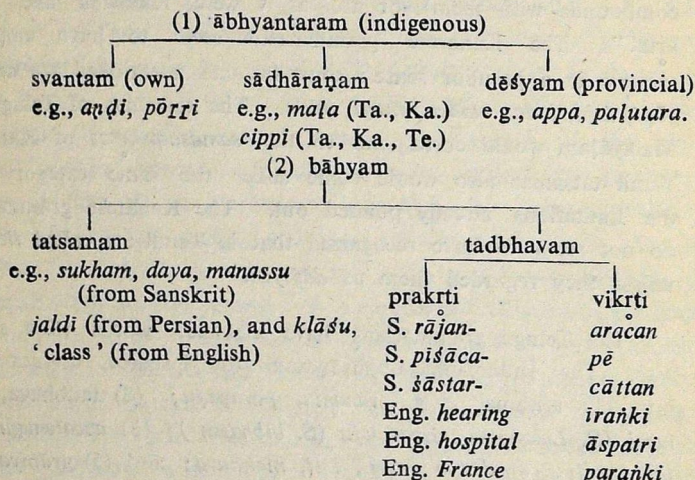
mapidarpaṇam, and his learned predecessors. He says: "The Kannaḍa language consists (1) of words that are peculiar to the country (*dēśiyas*) or are pure Kannaḍa (*accagannaḍa*); (2) of words that have been borrowed from Sanskrit without any alteration (*samasamskṛtas*); (3) of words that have been more or less corrupted from Saṃskṛta (*apabhraṃśas* or *tadbhavas*), regarding which it is to be remarked that they may also (in speaking or writing) be used in their original form; (4) of some words (about 21) that exist in Kannaḍa as well as in Saṃskṛta *tatsamas* and compounds with them), or are, as it were, Kannaḍa and Saṃskṛta." The Kanarese grammarians seem to have employed *tatsama* in a peculiar sense: some *tatsamas* mentioned are *aṅgaṇa*, *gōṇi*, *taḷa*, *bala*, *maṅca*, *maṇi*, *māle*. The *tatsamas* of Telugu and Malayāḷam would correspond to the *samasamskṛtas* of Kanarese. Tamil *tatsamas* also would come under the same category with the limitations already pointed out. The Kanarese grammarians do not seem to have recognized that in Tamil are called *ticaiccol* unless they regarded them as *dēśiyas*.

The Telugu grammarians have classified words in a similar way. The Āndhra-bhāṣa-bhūṣaṇamu, for instance, divides them into (1) *tatsama*, e. g., *vanamu*, *puruṣuḍu*; (2) *tadbhava*, e.g., *lacci* (*S. Lakṣmi*-), *vivvacuḍu* (*S. bibhatsu*-); (3) *accatenugu*, e.g., *tala*, *guḍi*; (4) *dēśya*; e. g., *inti*, *makkuva*; and (5) *grāmya*, e.g., *yīḍu*, *yinuti* (verses 18—25). *Tatsama* and *tadbhava* apply to Sanskrit. Of the other three divisions, *accatenugu* corresponds to *accagannaḍa*, *dēśya* corresponds to the *dēśiyas* of Kanarese in the sense of provincialisms, and the third *grāmya* is included in either of the above in Kanarese and denotes the vocabulary of the illiterate.

Cinnayya Sūri, in his *Bālavyaākaraṇamu* (edition of 1910, page 6), gives two kinds of *tatsamas*, (1) *tatasamas* borrowed direct from Sanskrit: *S. rāma*-, *Te. rāmuḍu*; *S. bhū*-, *Te. bhuvi*; and (2) *tatsamas* derived through Prakrit: *S. agni*-, *Pr. aggi*, *Te. aggi*; *S. rājñi*, *Pr. rāṇi*, *Te. rāṇi*. He gives also two kinds of *tadbhavas*, (1) *tadbhavas* borrowed direct from Sanskrit: *S. ākāśa*-, *Te. ākasamu*; *S. sūci*-, *Te. sūdi*, and (2) *tadbhavas* derived

through Prakrit: S. *pr̥thivi-*, Pr. *puḍhavi*, Te. *puḍami*; S. *lakṣmī-*, Pr. *lacchī*, Te. *lacci*. The remaining three appear in another form in his classification (1) *dēśya*, probably denoting all Dravidian words in general, (2) *grāmya*, ungrammatical language, and (3) *grāhya*, elegant usage.

The author of the *Kērala-Pāṇinīyam*, in his *Śabda-śōdhini* (fourth edition, 1910, page 131) gives an exhaustive classification of Malayālam words.



The authors of the *Vyākaraṇa-mitram* (second edition, 1908, p. 184) divide the words in almost a similar way:—

Malayālam	...	{ 1. Svantam, e.g., <i>āḷca</i> , <i>eta</i> . { 2. ābhyantaram, e.g., <i>eli</i> , <i>kāṭu</i> .
Vaidēśikam	...	{ 1. tatsamas. { 2. tadbhavas.

Vaidēśikas denote words derived from Sanskrit, Arabic, Hindustani, Persian, Syrian, Portuguese, and English. Tadbhavas are words that have been altered to suit the genius of Malayālam, and tatsamas are those that have not been thus altered, but are pronounced as they are found in the original language. Thus the Malayālam grammarians classed Sanskrit words with words from

foreign languages, and did not accord them the dignity that the Tamil grammarians or the grammarians of Telugu and Kanarese accorded them. That is but natural in this age of western culture.

In thus reviewing the classifications of words by the indigenous grammarians, we have seen that only the Kanarese grammarian ventured to suggest that certain words found in Kannaḍa as well as in Sanskrit were common to both, that in other words, the Kannaḍa words far from being derived from Sanskrit, have been borrowed by Sanskrit. For the other grammarians the criterion must have been, as it is even to-day for the learned paṇḍits, that the fact of a certain word being found in the Sanskrit lexicon sets it down as Sanskrit. It is sacrilege to think that the divine Sanskrit has to borrow words from any human language.

The author of the Prayōga-vivēkam admits, however, that *maṇalūrpuram* in the Sanskrit Vyāsa-bhārata is a *dēśika* word. By the way it may be mentioned that he regards as pure Tamil words the names of two months *Āṭi* and *Tai* which correspond, as tadbhavas, to the Sanskrit months Āṣāḍhā and Taiṣa respectively. Naccinārkkinīyar, the great commentator, in his commentary on the Tolkāppiyam (Collatikāram, p. 45) contends though with little reason that *ulakam* and *kālam* are pure Tamil words. For he says, "the author would not exemplify a rule by citing Sanskrit words." Yet, as a matter of fact, there are following these *teyvam* (S. *daiva*-), and *pūtam* (S. *bhūta*-), which are clearly Sanskrit words. It is interesting to see that *mīnam* did not strike this Naccinārkkinīyar as a Sanskritized Tamil word *mīn* (Tolkāppiyam, collatikāram, p. 233). Even Sanskrit writers regarded it as a Drāviḍa word, i.e., a Tamil word (Kumārila Bhaṭṭa's Tantravārttika).

Again, we have in Tamil so many as ten lexicons (nighaṭṭus) or dictionaries in verse, e.g., the popular Cūḍāmaṇi-nighaṭṭu (a work of the ninth century A.D.) or the older Piṅgala-nighaṭṭu. But none of these can help us to determine whether a particular word is Sanskrit or Tamil. They are at best a collection of synonyms under various heads classified according to subjects.

The eleventh book of these nighaṇṭus is devoted to the description of words with different meanings. An ancestor of the present writer elaborated this division into a separate work and named it Nānārthadīpikāi. This work has not yet, however, seen the light of day. But it may be mentioned that it is by far the most exhaustive work extant containing, as it does, a large number of Sanskrit words which the author corrupted himself so as to be useful for any future translation of Sanskrit works. Again, that was the first work in Tamil to contain a section corresponding to the Sanskrit Ēkāṣara-nighaṇṭu. As regards the scope of the nighaṇṭus, the other Dravidian languages do not seem to have fared better. Kanarese has the Karnāṭaka-śabda-maṇjari by Toṇṭadārya whose date, according to B.L. Rice, is A.D. 1480. It is said to be a vocabulary of tadbhava and Kannaḍa words in 120 ṣaṭpadī verses. An earlier work, the Maṅga-rāja-nighaṇṭu or Kavi-maṅgabhidhāna by Abhinava Maṅga Rāja (A.D. 1398-1433) is described by the same authority to be a valuable dictionary in Kannaḍa verse on the plan of the Amara-kōśa giving the Kannaḍa meanings of Sanskrit words commonly used in the language. The Telugu Āndhra-nāma-saṅgrahamu, and its supplement, the Āndhra-nāma-śeṣamu, like the Kanarese Karnāṭaka-śabda-maṇjari, are vocabularies of tadbhava and Telugu words. But no attempt has been made to distinguish tadbhavas from pure Telugu words. Modern commentaries, it must be mentioned, do give the original Sanskrit words in the case of tadbhavas. These are a little better than the Tamil nighaṇṭus, which do not exclude the tatsamas. And tatsama in Kanarese and Telugu means a good deal.

Coming to the regular dictionaries, the first for Tamil was the Caturakarāṭi written by Father Beschi (printed for the first time in 1819). That was, however, only a re-arrangement of the matter contained in the nighaṇṭus so as to facilitate reference. It was a small work. Native writers improved upon it in course of time and put forth larger and larger dictionaries. The largest is considered to be the best by the ordinary people, and writers have been vying with one another to give a greater number of synonyms with the result that often in the case of Sanskrit words meanings unknown to Tamil literature are found bodily transferred from

Sanskrit dictionaries. The most exhaustive dictionary yet published, the Tamilcollakarāti of the Madura Tamil Sangham, is no better. Moreover it is inaccurate and unscientific. It derives Ta. *caṅkai*, 'measure' from S. *janghā-* (p. 987) while the original word would seem to be S. *saṅkhyā-*. Again, it connects Ta. *caṅku*, 'conch', with S. *śaṅgu* (ibid.), which word I am not able to find in the Sanskrit dictionaries. The proper word would be S. *śaṅkha-*. No Sanskrit connexion is shown for *kalakam*, 'dispute' (p. 776), *kōḷam* 'a globe' (p. 972). The Sanskrit words are clearly *kalaha* and *gōla-* respectively. The Tamil words *kaṭṭai*, 'fuel' (p. 718), *kammālar*, 'smiths' (p. 775), *ceṭṭi*, 'a Vaiśya' (p. 1150), *taṭṭam* 'a fang' (p. 1204), are all given as pure Tamil words. They are surely Sanskrit words borrowed through Prakrit or Pali. Ta. *cuṇṇam*, 'powder' is given as a tadbhava of S. *cūrṇa-*. Right, but if Prakrit connexion were shown, it would be clearer. Ta. *cūtu* 'gambling' is guessed to be connected with S. *dyūta-*. A knowledge of Prakrit would make it certain. Māṇikkavācakar, in his Tiruvācakam, has used an expression *atentu* which has been puzzling many a paṇḍit. This authority makes it a Telugu expression (p. 134). Those who have a smattering of knowledge of Telugu will tell us that they cannot understand the expression. Some scholars regarded it as Kanarese. But the expression is Malayālam and means 'what is that?'. From the context, of course, it may mean 'here I am' and so on.

There are however, Tamil-English dictionaries by Rottler and Winslow. They are old, but it must be acknowledged they served their purpose well in their own days. Why, Winslow has not been superseded yet. It is hoped that the Tamil dictionary, by some called the New Tamil Dictionary, which name was perhaps suggested by the New English Dictionary, to be published by the University of Madras, will be a standard dictionary.

The Telugu-English Dictionary by C. P. Brown is on a par with Winslow's. Sītārāmacāryulu's Śabdaratnākaramu is a valuable dictionary of Telugu viewed from the standpoint of orthodox paṇḍits.

Dr. Gundert's Malayālam Dictionary is a really good dictionary for Malayālam and was written from a philologist's standpoint. It is full of philological matter and of suggestions for the student of the Dravidian languages. Dr. Gundert divides with Dr. Caldwell the honour of being the father of Dravidian philology.

Dr. Kittel's Kannaḍa Dictionary did for Kanarese what Dr. Gundert's did for Malayālam, and more. Appearing much later it is fuller and much more helpful to the student of Dravidian philology. Further it is more systematic. The New Tamil Dictionary to justify its appearance must have at least the merits of Dr. Kittel's work. An improvement on Dr. Kittel's system will be certainly welcome.

Thus it is a good dictionary that can enable us to distinguish pure Dravidian words from Sanskrit or other foreign words. Dr. Kittel's, for instance, differentiates the pure Dravidian words by printing them in bolder type. But no finality has yet been reached as regards the determination of the origins of words. Sanskrit words are the most puzzling. They are divided into tatsamas and tadbhavas as has been already pointed out. Tadbhavas are not easily discernible. A knowledge of the Prakritic languages and of Pali seems to be an essential for one who has to deal with Sanskrit tadbhavas in the Dravidian languages. For Sanskrit words have entered them not only directly but also through the Prakritic languages and Pali. Ignorance of these languages or at any rate of the phonetic laws that govern the importation of Sanskrit words in these has led, as in the case of the author of the *Tamilcollakarāṭi*, to mistaking tadbhavas for pure Dravidian words.

Another error that besets the workers in this department of philology is to regard as Sanskrit whatever word is found in the Sanskrit lexicons. Sanskrit, like other languages, has borrowed from time to time words from languages with which it came in contact. Dravidian languages have certainly been among such. The author of the *Prayōga-vivēkam* must have thought that he was doing a great service to Tamil when he conceded that *maṇalūr*, a *dēśya* word, was found in the *Vyāsa-Bhārata*. It needed

a Dr. Gundert to proclaim to the world that Sanskrit was indebted in some measure to the Dravidian tongues so far as its vocabulary at least was concerned. For it was Dr. Gundert that contributed to the Journal of the German Oriental Society for 1869 an article on the Dravidian Elements in Sanskrit. Dr. Kittel contributed his on the Dravidian Element in Sanskrit Dictionaries to the Indian Antiquary for August 1872. Dr. Caldwell, in his Comparative Grammar of the Dravidian languages (second edition, 1875), has dwelt at some length on the same subject in part VII dealing with glossarial affinities (p. 452). He has fully utilized the materials contained in the articles above mentioned. One cannot, however, argue that Dr. Caldwell was inspired by Dr. Gundert or Dr. Kittel, for there is evidence in his work to prove that he has been himself thinking in the same groove. The labours of these orientalists enabled him to give a fuller treatment to the subject. More recently Dr. Kittel, in his Kannaḍa Dictionary (1894), made a list of all the words he regarded as probably borrowed by Saṃskṛta from Draviḍa (Preface, p. XVII). They are 420 in number.

Much, however, remains yet to be done for Sanskrit itself in this field. Indo-Germanic words in Sanskrit in the first place must be differentiated from loan words, and the latter must be traced to their source as far as practicable. In part II of August Fick's Comparative Dictionary of the Indo-Germanic Languages (1890) the word-stock of Sanskrit and other Indo-Iranian languages is dealt with etymologically. Dr. C. C. Uhlenbeck has written an Etymological Dictionary of Sanskrit. There is, of course, the grand Petersburg Sanskrit Wörterbuch (1855-1875). All these are in foreign languages, and on that account sealed books to many an earnest Indian student of Dravidian languages. Besides such works become old soon and have to be revised from time to time so as to embody the results of researches made by scholars.

If Sanskrit has borrowed from the Dravidian languages, it has flooded them with its own words. The relation of Sanskrit to these languages is often compared to the relation of Latin to English. The dictionaries of the Dravidian languages are full,

too full of Sanskrit words. In Modern literary composition they have become a necessity. But times there were when Sanskrit words were rarely used. People can be found among educated men who will challenge us to show a single Sanskrit word in the Tolkāppiyam or the Tirukkuraḷ or the Pattuppāṭṭu. Some time ago I heard a good Telugu scholar say that the Āndhra-nāma-saṅgrahamu contains only pure Dravidian words. Tadbhavas, I suppose, he did not regard as Sanskrit. No doubt the Dravidian languages have words wherewith to express simple ideas; Sanskrit words are, however, necessary to carry on any complex process of thought. They are false patriots who would underrate the importance of Sanskrit words for modern needs and plead for purism in vernacular literature.

Sanskrit words have not entered the Dravidian languages all of a sudden or by design. To trace the connexion of Sanskrit with the Dravidian languages one will have to go far back to the early centuries of the Christian era. Taking Tamil, for instance, one is led to think that Sanskrit influenced it even in the centuries that preceded the birth of Christ. The earliest Tamil work extant, the Tolkāppiyam, already referred to, contains several Sanskrit words. Omitting words whose origin may be regarded as doubtful, the following may be given : *teyvam* (S. *daiva-*), *kāraṇam*, *kālam*, *ulakam* (S. *lōka-*), *pūtam* (S. *bhūta-*), *varuṇaṇ* (S. *varuṇa-*), *paruvam* (S. *parvan-*), *tūtu* (S. *dūta-*), *nimittam*, *ēmam* (S. *kṣēma-*), *mānam*, *uvamam* (S. *upamā-*), *kāmam*, *nāṭakam*, *mārāyam* (S. *mahārāja-*), *piṇṭam* (S. *piṇḍa-*), *araṇam* (S. *śaraṇa-*), *tēm* and *tēyam* (S. *dēśa-*), *maṅkalam* (S. *maṅgala-*), *tāṇai* (S. *sēnā-*), *aracar* (S. *rājan-*), *tāpatar* (S. *tāpasa-*), *avi* (S. *haviṣ-*), *pali* (S. *bali-*), *avaiyam* (S. *sabhā-*), *pakkam* (S. *pakṣa-*), *pēy* (S. *piśāca-*), *amarar* (S. *amara-*), *vannam* (S. *varṇa-*), *niccam* (S. *nitya-*), *karumam* (S. *karman-*), *karaṇam*, *amutam* (S. *amṛta-*), *antaram*, *ētu* (S. *hētu-*), *vatuvai* (S. *vadhū-*), *kuṇam* (S. *guṇa-*), (*peru-*) *mitam*, *uru* (S. *rūpa-*), *cuṇṇam* (S. *cūrṇa-*), *māttirai* (S. *mātrā-*), *āyiram* (S. *sahasra-*), *cinnam* (S. *cihna-*), *cūttiram* (S. *sūtra-*), *paṭalam*, *mantiram* (S. *mantra-*), *kuṇccaram* (S. *kuṇjara-*), *manam* (S. *manas-*), *vaicikan* (S. *vaiśya-*), *utti* (S. *yukti-*), *atikāram* (S. *adhikāra-*), *āṇai* (S. *ājñā-*), *ṇāpakam* (S. *jñāpaka-*). Some of these words, however, would go into Dr. Kittel's list already

referred to, e.g., *kālam*, *nāṭakam*, *piṇṭam*, *pali*, *pakkam*, *pēy*, *uru*. The list of Sanskritic words in the Tolkāppiyam given herein, is well nigh exhaustive. Four of the words show distinctly Prakrit influence: *vaṇṇam*, *niccam*, *cuṇṇam* and *āṇai*.

The Tirukkuraḷ has a larger proportion of Sanskrit words. The very first distich contains *āti* (S. *ādi*-), *pakavaṇ* (S. *bhagavant*-), and *ulaku* (S. *lōka*-). The Pattuppāṭṭu does not contain such a proportion of Sanskrit words, true; but no one contends that it is an earlier work on that account. It is the subject-matter often that determines the proportion of the Sanskrit element in the diction of a Tamil work of this kind.

If we regard this period as the first when Sanskrit words were imported into Tamil, the next is the period of the Jain ascendancy when there was a large output of really good Tamil works. The Jains, however, when they introduced Sanskritic words in their works, introduced the Prakrit forms freely. The Maṇi-mēkalai, the Cintāmaṇi, the Cūlāmaṇi afford us a number of examples of this type of words: *tammam* (S. *dharma*-), *accaṇandi* (S. *āryanandin*-), *vatam* (S. *vrata*-), *kappam* (S. *kalpa*-), *uyyānam* (S. *udyāna*-). The Jain scholars not only wrote original kāvyas in Tamil, they translated Sanskrit works; they wrote good grammars, of which the Naṇṇūl, that remains to this day the most popular, was written by Pavaṇanti (Bhavanandin) in the twelfth century A. D.; they commented on old Tamil works; they were perhaps the first to introduce the maṇipravāla style of writing in Tamil. Cīvaka-carittiram, extracted from the Śrī-purāṇam in the second edition of the Tamil Jivakacintāmaṇi, is an example of their activity in this direction. Possibly the Vaiṣṇava writers who commented on the Nālāyira Prabandhas were influenced largely by the Jain writers who must have either preceded them or been their contemporaries. The Śaiva literature has not many maṇipravāla works to boast of, the Śaiva Tirumuṇais (the sacred literature) have not been favoured with any exegesis similar to that for the Prabandhas. Sanskrit scholars, Śivāgra Yogin and Jñāna Prakāśa wrote their commentaries on the Śivajñāna-siddhiyār, a Śaiva Śāstra, in a Sanskrit-ridden style that reads somewhat like maṇipravāla. During this

period, then, of the *maṇipravāla* style, Sanskrit words were borrowed again directly from Sanskrit, because they were borrowed by Sanskrit scholars from Sanskrit literature. In the period when the *Tolkāppiyam* was written, the Āryan Brāhmins had already come to South India and had even introduced their ceremonies and institutions. The *Tolkāppiyam* shows a medley of the Dravidian and the Āryan institutions. It shows distinct traces of the influence of the Āryan immigrants. During that period, therefore, the Āryans naturally introduced their vocabulary into the Tamil language. In the period of the Jain ascendancy, the Prakrit-speaking people must have come in contact with the Dravidians and given them the Prakrit forms of Sanskrit words. Early in this period, i.e., in the early centuries of the Christian era, Pali must have exerted considerable influence on the vocabulary of Tamil. Olderberg, in his *Buddha*, thinks that Pali was once the popular language of Southern India (Uhlenbeck's *Manual of Sanskrit Phonetics*, Introduction, paragraph 5). The free intercourse between India and Ceylon in the early times must have indeed brought some Pali-knowing Buddhist priests to India and must have led in an appreciable measure to the enrichment of the Tamil vocabulary with Pali words. When Pali and Prakrit compete for consideration in tracing a Tamil *tadbhava*, it would be only fair to give the palm to Pali. Towards the close of the Jain period, however, the Tamil grammarians had systematised the borrowings from Sanskrit. The *Naṇṇūl*, for instance, gives rules that should regulate the formation of *tadbhavas*. They do not, however, apply to Pali or Prakritic words. The rules nevertheless were adopted, and in later times, when Sanskrit words were borrowed, they were corrupted according to these rules only. That takes us then to the third period. Still later, in recent times, the Tamil alphabet was improved to admit Sanskrit words being transliterated as far as practicable by the addition of *j*, *ṣ*, *s*, and *h*. Some have even added *ś*. All these were borrowed from the Grantha alphabet. These letters were borrowed to represent such words as *jayam*, *kaṣṭam*, *vastu*, and *hari*, the *tadbhavas* *ceyam*, *kaṣṭam*, *vattu*, and *ari* having become classical. Some scholars would not stop here. They would push this principle of transliteration to an absurd

length. If they had adopted the Grantha alphabet in toto, one would not have anything to say against them. They would transliterate Sanskrit words in Tamil with the defective alphabet they have, e.g., they would write *krāmam* for S. *grāma-*, *iṣvaraṇ* for S. *iṣvara-*, *kruṣi* for S. *krṣi-*, and sometimes would startle us with a hyper-Sanskritized false form like *palāśṭikaṇ* for S. *balādhya-*. There is, however, no need for such transformations.

Whatever might be the period when particular Sanskrit words entered Dravidian literature, they are all either tatsamas or tadbhavas as has been already pointed out : and tatsamas, according to Tamil grammarians, are formed of letters common to both Sanskrit and Tamil, e. g., *vāri*, *mēru*. One would like to make their scope a little wider and include in them Sanskrit words which undergo change in Tamil just to suit its special grammatical peculiarities as for instance *parai* for S. *parā-*. Malayālam regards *sabha* and *manassu* as tatsamas only, and Telugu regards such a word as *rāmuḍu* as a tatsama. Kanarese, too, follows the same principle. The tatsamas present little difficulty as a comparison of the vocabularies settles the matter at once. Only the question to which language a particular word belongs must remain open until we are able to make use of good Sanskrit and Tamil dictionaries paying special attention to the etymological side of these languages. The tadbhavas, however, present some difficulty. In the first place, the words should be identified with the Sanskrit originals, for often one finds sound-laws have been very active and corrupted words beyond easy recognition. Then the relation between the Dravidian form and the Sanskrit original should be established by an enunciation of the laws that have operated.

The aim of this paper is to take some tadbhavas more or less at random and to illustrate with them the sound-laws that have operated in the passage of words from Sanskrit to the Dravidian languages. It needs no apology that many terms have been taken from the spoken language. Philology is not concerned with literary dialects only. Again, more prominence will be found to have been given to tadbhavas in Tamil than in any other Dravidian language

for the simple reason that the writer's acquaintance with those languages is not long enough to warrant him to speak of words in them with confidence. He has had to rely for the most part on the dictionaries in those languages, except in the case of Malayālam. His stay in Cochin and Travancore for a little time and his acquaintance, though short, with Malayālam literature has enabled him often to dispense with the use of the Malayālam dictionary. It is unnecessary to point out, perhaps, that the term *tadbhava* denotes, in this thesis, only the corrupted forms from Sanskrit. It is not used in that broad sense which the modern grammarians of Malayālam, for instance, give it.

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SANSKRIT VOWELS

Their treatment in Tamil and Malayālam Tadbhavas

a > i

S. *ācārya-*, 'a teacher'; Pa. *ācariya*; Ta. *āciriyaṇ*.

S. *pāṭala-*, 'name of a tree'; Ta. *pātiri*; Ma. *pātiri*;
Ka. *pādari*; Te. *pādiri*.

S. *ācārya-* is *ācariya* in Pali (Andersen, p. 36). The Tamil tadbhava is surely from the Pali form. The change of *a* to *i* is noteworthy. It seems to be due to the long vowel of the first syllable, which is accented, and the influence of the anaptyctic vowel *i* between *r* and *y*. Ta. *āciriyaṇ*, 'name of a metre', may perhaps be connected with *āciriyaṇ*, denoting, as it does, an old metre held in considerable esteem. The same remark applies to Ta. *pātiri*. The Prakrit form is *pāḍala* (Kumārapālacarita, III, 31). The decerebralization is due to Dravidian influence. S. *pāṭala-* is probably not a Sanskrit word.

This vowel-change is noticeable among Dravidian languages themselves.

Ta. *kaṭā*, 'male of cattle'; Ma. *kiṭāvu*.

Ta. *kaṇā*, 'dream'; Ma. *kināvu*.

a > e

S. *gati-*, 'motion'; Ta. *keti*.

S. *jaya-*, 'victory'; Ta. *ceyam*.

S. *bala-*, 'strength'; Ta. *pelam*.

S. *darśana-*, 'seeing'; Ta. *tericaṇam*.

S. *gandha-*, 'smell'; Ta. *kentam*; Ma. *kentuka*, 'to stink'.

S. *jagat-*, 'world'; Ta. *cekam*; Ma. *cekam*.

S. *daśaratha-*, 'name of a king'; Ma. *tēratam*.

This change from *a* to *e* is found in the case of words borrowed from Sanskrit, which begin with a non-aspirated voiced

stop. Compare S. *ghaṭa-*, 'a pitcher', S. *bhakti-* 'devotion', S. *jhaṭiti*, 'quickly', and S. *dhana-*, 'wealth' which become only Ta. *kaṭam*, Ta. *patti*, Ta. *caṭiti*, and Ta. *tanam* respectively. S. *ghana-* 'hard' and S. *ghaṭikā-*, 'a measure of time equal to 24 minutes', must have been borrowed and pronounced for a long time as words without aspiration. So we hear [gənəm] and [gɛḍija : rəm]. The old Tamil word *pēm* is perhaps a tadbhava of S. *bhaya-*, 'fear', pronounced without aspiration, which sometimes occurs as *beyam*. Or it is only a case of onomatopœia as *pē* or *bē* is just the sound produced by a person in dread. The same sound may be the origin also of Ta. *pēy*, 'a devil,' as a person in dread only is known to be able to see devils or phantoms. It is worth noting that when *b* changes into *v* as in *valam*, the *a* remains unchanged. Malayālam, however, can show *velam*. Compare *palam*, a tadbhava of S. *phala-*, 'fruit'. In Tamil itself *kal*, 'stone or to dig,' is pronounced by some people [kellū]. Ta. *kaṭṭu*, 'a tie,' is also *keṭṭu* and in Malayālam is *keṭṭu*. Ta. *kalakku*, 'to stir up,' is in Telugu *kelaku*.

S. *campaka-*, 'name of a flower'; Ta. *ceṇpakam*; Ma. *cembakam*.

S. *carman-*, 'skin'; Ta. *ceṁmāṇ*, 'a shoemaker'; Ka. *samma*; Ma. *ceṁmān*.

S. *śayyā-*, 'a bed'; Te. *sejja*; Ka. *sejje*.

S. *śabda-*, 'sound'; Ma. *cettam*.

The tadbhavas of S. *śayyā-* are through the Prakrit *sejja* (Pischel, p. 86). The word *ceccai* in the Tamil 'Tirumalaināyakkāṇ ceccai' is perhaps only a Tamil form of the Prakrit *sejja*.

S. *arka-*, 'name of a plant'; Ta. *erukku*; Ma. *erikku*; K. *erke*. This is perhaps the only instance of an initial *a* changing into *e*. In Sanskrit words beginning with *y* followed by *a* is often observed this change, e. g., S. *yantra-*, 'a machine', Ta. *entiram*; S. *yama* 'death', Ta. *emaṇ*. Is it possible that *a* was pronounced with a *y* added on to it before this change happened? The anaptyctic vowel *u* is just what one would expect to have after *r*. But Dr.

Kittel regards this as a Dravidian word borrowed by Sanskrit (Kannada Dictionary, Preface, XXII). It may be noted in this connexion that the Tamils in certain provinces show a tendency to pronounce *e* as *a* in some words, e.g., *ellā* [allā], *embi* [ambi].

a > ai

S. *masūrī*-, 'small-pox'; Ta. *vacūri*, *vaicūri*.

S. *āśvayuja*-. 'belonging to the month *Āśvina*'; Ka. *āśvija*; Ta. *arpici*-, *appici*, *aippici*, *aippaci*.

The Tamil *arpici* is derived from Ka. *āśvija*. There is a tendency in Tamil to change *a* into *ai*. Taking Tamil words themselves we observe the change in the beginning of words in *maiya* (*mayal*), 'delusion', *aintu* (*añcu*), 'five', *paiya* (*payal*), 'boy'; compare Ma. *paital*. In the middle of words, in *aracu* (*aracu*), 'king'; *ilaiñci* (*ilañci*), 'fort-wall'; *paḷaimai* (*paḷamai*), 'oldness'; *iḷaimai* (*iḷamai*), 'youth'.

We observe this latter change in the following so-called Sanskrit words too:

S. *laya*, 'dissolution'; Ta. *ilaiyam*.

S. *valaya*-, 'a bracelet'; Ta. *valaiyam*.

S. *malaya*-, 'name of a mountain'; Ta. *malaiyam*.

S. *kalāṣa*-, 'a pitcher'; Ta. *kalaiyam*.

These forms, however, are not regarded as elegant. Although *malaiyam* is a tadbhava of S. *malaya*-, the Sanskrit word itself is derived from Ta. *malai*, 'a mountain'. S. *valaya*- again is derived from Ta. *vaḷai*, 'to surround,' the Dravidian root being *vaḷ*. S. *nilaya*- is a Sanskritized Tamil *nilai* from the Dravidian root *nil*.

Compare *maitta*, the colloquial form for Ta. *maṭṭa*, 'other', and *paittu*, another colloquial word which stands for Ta. *paṭṭu* in the sense of payments.

ā > ai

S. *ārya*-, 'worthy'; K. *ajja*; Ta. *aiyan*.

The Tamil form must be derived through the Pali *ayya* (Andersen, p. 32). *ai* is only another mode of writing *ay*. The more recent tadbhava is *āriyaṇ*. The Kanarese form is through Prakrit *ajja* (Pischel, p. 195). and perhaps is the original of the Tamil-Malayalam *accaṇ*.

S. *amātya*-, 'a minister'; Ta. *amaiccaṇ*.

The Tamil tadbhava would be *amāttiyaṇ* according to the rules of Tamil grammar. Here again we see the Pali influence. The Pali form is *amacca* (Andersen, p. 31). As in words written above *ai* is written although only *a* is pronounced. Among Tamil words we find the diphthong in *uṭaimai* and *aṭaimāṇam* pronounced as simple *a*.

i > a

S. *puṣkaraṇi*-, 'a piece of water'; Ta. *puṭkaraṇi*.

S. *prthivi*-, 'the earth'; Ta. *puṭavi*; Te. *puḍami*.

The Tamil *puṭkaraṇi* must have been got by comparison with Pali *pokkharāṇi* (Andersen, p. 183). Prakrits have only *pokkharīṇi* (Pischel, p. 100). If, as Oldenberg thinks, Pali was once the popular language of Southern India, it is probable that Pali has influenced Tamil more than any of the Prakrits spoken in the north or communicated through books. A fact in favour of this is that the Tamil *puṭkaraṇi* is a popular word. And *puṭavi*, which is found in literature only, is no doubt derived through the Prakrit *puḍhavi* (Pischel, p. 50). In the absence of any evidence to prove that S. *rohiṇi*-, 'name of a lunar mansion', is changed into Ta. *urōkaṇi* through the influence of Pali or Prakrit, one has to assume that the change is due to analogy of forms like the preceding.

S. *dikṣita*-, 'a priest engaged in a *dikṣā*'; Ta. *tiṭcataṇ*.

This form also must have come into use by analogy with such forms as *rāṭcataṇ*. It is remarkable that such changes occur only in words that are constantly used by the people.

$$i > e$$

S. *vināyaka*-, 'name of a god'; Te. *venakayya*.

The change of *i* to *e* in the first syllable is quite common in the Dravidian languages, e. g., *iṭai* (*eṭai*), *cila* (*cela*), *niṛai* (*neṛai*), *ciṛu* (*ceṛu*, also Malayāḷam), *piṛai* (Ka. *peṛe*). Tamil grammarians following Sanskrit grammarians hold that *e* and *o* are compound letters composed of *a*, *i* and *a*, *u* respectively. But that is against facts. *e* and *i*, *o* and *u* are related in this way: while *e* and *o* are open sounds, *i* and *u* are closed ones produced under similar conditions. In case of words mentioned here, the *i* is broadened into *e* under the influence of the broad vowel of the following syllable.

$$u > i$$

S. *manuṣya*-, 'man'; Ta. *maṇitaṇ*, *maṇucaṇ*, *māṇuṭaṇ*.

S. *āyus(ya)*-, 'life, long life'; Ka. *āyisa*; Ta. *āyicu*.

In both these cases, the *u* seems to have dropped before *i* came in. Even now one hears these words pronounced as *mansan* and *āysu*. The Tamil *āytam*, the name of a Tamil letter, is considered to be a tadbhava of S. *āyudha*-, 'a weapon'. It should also be pointed out that the tadbhava *āyutam* is rarely pronounced as such. One hears rather *i* than *u* in the second syllable.

S. *anuja*-, 'a younger brother'; Ma. *aniyan*.

As in the case of the above words, one has to imagine an intermediate form *anjan*.

The Tamil *purai*, 'a roofed building' is colloquially *pirai* as in Ta. *kuttuppirai*, and is *pirai* in Malayāḷam as well. Ta. *muṇ*-, 'before, anterior', is *miṇ* colloquially and in Malayāḷam *min* as in *minñānnu*, 'the day before yesterday'; compare also Ta. *muntī* > *minti*.

$$u > o$$

S. *uṣṭra*-, 'a camel'; Ta. *oṭṭai*; Ma. *oṭṭe*; Te. *oṇṭe*; Ka. *oṭṭe*, *oṇṭe*. *u* in the first syllable has a tendency to become *o* in the Dravidian languages. This was noticed when *i* > *e* was

considered. Many words in Tamil with *u* in the first syllable are pronounced as if they had *o*, e. g., *kuḷam*, 'a tank'; *tuṭai*, 'the thigh'; *nurai*, 'foam'; *puṭai*, 'a hole'. Some regard *oṭṭai* as a Dravidian word, and in support of this view take *oṭṭakam*, also in use for *oṭṭai*, and derive it from two Tamil words *oṭṭu* and *akam*. This is a very improbable derivation as the word is found in Persian and some other languages too. And the word *oṭṭakam* itself is very likely a corruption of *ottakai*, a tadbhava of S. *uṣṭrikā-*. *oṇṭe* in Kanarese and Telugu is a nasalized form of *oṭṭe*. Compare Hindustani *ūṇṭ*.

S. *kuṭhāra-*, 'an axe'; Ka. *koḍali*, *koḍli*; Ta. *kōṭāḷi*, *kōṭari*. The Tamil *kōṭari* again is popularly derived from two simple words *kōṭu*, 'branch' and *ari*, 'chop off'.

S. *tuṇḍa-*, 'mouth, beak'; Te. *toṇḍamu*; Ta. *toṇṭai*.

S. *guṇa-*, 'a quality'; Te. *goṇamu*.

S. *bhujaṅga-*, 'a serpent'; Ka. *bojaṅga*.

Ta. *pustakam* is colloquially pronounced *postakam*. Again Ta. *ural* is Ka. *oralu* and Ta. *ulakkai* is Ka. *onake*.

$\bar{e} > a$

S. *rēvatī-*, 'name of a lunar mansion'; Ma. *iravati*.

The change seems to be due to the prothetic vowel in the tadbhava, which is accented.

$r > i$, *iru* (*iru*)

S. *r̥ṣabha-*, 'a bull'; Ta. *iṭapam*; Ma. *iṭapam*, *iṭavam*.

S. *hr̥daya-*, 'the heart'; Ta. *iṭayam*; Ka. *hidaya*, *hedaya*.

S. *vr̥ṣan-*, 'a bull'; Ta. *viṭai*.

S. *r̥ṣi-*, 'a sage'; Ta. *iruṭi*; Ma. *iriṣi*.

S. *vr̥kṣa-*, 'a tree'; Ta. *virukkam*.

S. *tr̥ṇa-*, 'grass'; Ta. *tiruṇam*.

S. *gr̥ha-*, 'a house'; Ta. *kirukam*; Ma. *kiriyam*.

The Pali form of *r̥ṣi* is *isi* (Andersen, p. 46). Tamil perhaps avoided that kind of change lest it should yield *idi* which is already Tamil word meaning thunder. We have in Tamil more recent tadbhavas *riṣapam*, *irutāyam*, *riṣi* as well as *ruṣi*, *viruṣcam*. These indicate that the pronunciation of *r̥* was not correctly understood, and the change is the result of an attempt on the part of the Dravidians to represent a sound which was not familiar to them. Again, that the prothetic vowel before *r* is *i* is evident from the tadbhavas. The Tamil words indicate only the change of *r̥* into *i* and *ir̥*. Pali shows *a* as in S. *prākṛta-*, *pākata* (Andersen, p. 173) which the Dravidian tongues have adopted. Other examples are *hadaya* (*hr̥daya-*, 'the heart'—Andersen, p. 280), *pathavi*, *pr̥thivi-*, 'the earth'—Andersen, p. 158). Tamil has also variant forms for *tr̥ṇa-* and *gr̥ha-*, to wit *tiraṇam* and *giraṇam*. These are considered to be wrong, but their existence cannot be denied. And *giraṇam* is apt to be confounded with the tadbhava of S. *graha-*, a Sanskrit word meaning planet. The Malayāḷam tadbhavas *iriṣi* and *kiriyaṇ* show the change *ir̥* for *ir̥* of Tamil.

S. *kr̥ṣṇa-*, 'an incarnation of Viṣṇu'; Ta. *kaṇṇan*; Ma. *kaṇṇan*.

The Prakrit form is *kaṇha* (Pischel, p. 51), and the Tamil-Malayāḷam form seems to be derived through it. There are more recent tadbhavas *kiruṣṭṇan*, *kiṭṭan* which are also current in somewhat changed form in Kanarese and Telugu.

S. *vr̥tta-*, 'a circle'; Ta. *vaṭṭam*.

S. *nr̥tta-* or *nāṭya-*, 'dance'; Ta. *naṭṭam*.

The Tamil *vaṭṭam* is surely derived from the Pali form (Andersen, p. 226). It is also found in Prakrit (Pischel, p. 49). The more recent tadbhava is *viruttam*. The author of the *Prayōga-vivēkam* while regarding *vaṭṭam* as a tadbhava, is not inclined to derive it through Prakrit. *āṇai*, *naṭṭam*, *viṇṇāṇam* he puts under the same category. But Naccinārkkīṇiyar and a still earlier commentator Cēṇāvaraiyar have taken *āṇai*, *vaṭṭam*, *naṭṭam*, and *kaṇṇan*

to be Prakrit forms borrowed by Tamil. (Tolkāppiyam, Collatī-kāram, Naccinārkkiniyam, p. 234; Cēnāvaraiyam, p. 212).

Again, Pali has *nacca* from S. *nr̥tya-* (Andersen, p. 132). Dr. Gundert derives Ma. *naṭṭuvan* from S. *naṭṭya-*, perhaps a misprint for *nāṭya-* from which the Prakrit form *naṭṭa* can be derived: *naṭṭuvan* is also a Tamil word and it must have come from *naṭṭam* with the termination changed as *naṭṭu*, and the masculine affix *aṇ* added on. Similarly we have *vaṭṭu* from *vaṭṭam*. Both these words are often derived also from the Dravidian root *vaḷ*, which seems improbable.

S. *pr̥thu-*, 'numerous'; Ta. *potu*; Ma. *potu*.

This *potu* looks like a pure Tamil word, but it cannot be connected with any Tamil root. It is likely that the Pali *puthu* (Andersen, p. 180), has given this form to Tamil. *puthujjana* in Pali is used exactly in the sense in which *potujanam* is used in Tamil, 'the masses vulgar people'. We have in colloquial Tamil *putu* also in the sense of common as in *putunīram*, 'complexion that can be said to be neither fair nor dark'. The ordinary meaning of the word *putu* is 'new'.

S. *prakṛti-*, 'material cause'; Ta. *pakuti*.

S. *vikṛti-* 'change'; Ta. *vikuti*, 'suffix'.

These are distinctly Tamil forms. Pali has *pakaṭi* (Andersen, p. 146). But we have in Tamil *pakaṭi*, *vikaṭi* which show Prakrit influence.

S. *sadr̥śa-*, 'like'; Ta. *cari*; Te. *sari*; Ma. *śari*, *sari*; Ka. *sari*. *sari* is an old Tamil word but nevertheless it cannot be derived from any indigenous root. The form *sarisa* for *sadr̥śa* is found in all Prakrit dialects (Pischel, p. 172). So it must have come to the Dravidian languages through Prakrit only. Dr. Gundert derives it from *cariyu* and *cār*: 'to be near'. But he did so evidently at a time when the influence of Prakrits on Dravidian languages was not so well realized.

S. *amṛta-*, 'ambrosia, nectar'; Ta. *amutam*, *amiḷtam*; Ka. *amardu*, *avardu*.

S. *amṛta*— first becomes *amirtam* and the *r* then changes into cerebral *r* (i. e., *ṛ*). The form *amutam* is analogous to *pakuti* for *prakṛti*—, *amutam* is found in the Tolkāppiyam and *amiṭtam* in the Kuraḷ.

ai > *a*

S. *paiśāca*—, ‘a kind of demon’; Ta. *pacācam*.

The Tamils do not appear to treat *ai* as very different from *a*. Compare *maiyaḷ*—*mayal*; *ilaiñci*—*ilañci*; *vacūri*—*vaicūri*; *vacciram*—*vaicciram*. The alternate forms like *ākācam* and *ākāyam* lead us to assume *paiyācam*, and then the change becomes quite intelligible. The influence of *y* in many of these cases is to be noted.

ai > *ayi*

S. *kailāsa*—, ‘name of a mountain’; Ta. *kayilācam*.

S. *vaira*—, ‘enmity’; Ta. *vayiram*.

The diphthongal *ai* must have been pronounced as *a* and *i* separately, before this change took place. Pr. *kāilāsa* (Pischel, p. 56) and Pr. *vaītra* (Pischel, p. 56) show this stage in pronunciation. Then the *y* glide naturally comes in. Similarly the *v* glide with regard to *au* which will be noticed later.

ai > *e* or *ē*

S. *saindhava*—, ‘a horse’; Ka. *sendava*.

S. *tailikat*—, ‘an oilman’; Ka. *telliga*.

S. *vaiśākha*—, ‘name of the second lunar month’; Ka. *bēsage*.

In these cases the change is just what happens in Prakrit. Pischel gives *tella* from S. *taila* (P. 56).

ai > *ey*

S. *daiva*—, ‘fate’, Ta. *teyyam*; Ma. *teyyam*; Te. *dayyamu*, ‘a devil’; K. *devva*; Pr. *devva* (Pischel, p. 56).

ai although historically long was pronounced short even in olden times. It had become short even in the time of Pāṇini as is shown by the word *mairēya* from Prakrit *maira* from S. *madira*—.

The *a* is short *a* and the peculiarity about it is that it is pronounced as *e*.

This peculiarity is observed also in pure Dravidian words. Compare *kai* and *key*, *mai* and *mey*.

$$\bar{o} > \bar{u}$$

S. *kaṭhōra*, 'hard'; Ta. *kaṭūram*; Ka. *kaṭuram*.

This form seems to be due to analogy of such words as *kaṭu*, *kaṭumai*.

$$au > \bar{u}$$

S. *sārvabhauma*-, 'an emperor'; Ta. *cāruvapūmaṇ*.

S. *āśauca*-, 'impurity'; Ta. *ācūcam*.

Here the change seems to be due to the recollection of the original words *bhūmi* and *śuci* while these are pronounced. *aśuci* suggests *ācucam*, *ācūcam*. Sometimes it is also *acūcam*.

$$au > o, \bar{o}$$

S. *krauñca*-, 'name of a bird'; Te. *koñca*, *kroñca*; Ka. *koñce*.

S. *kaupīna*-, 'a piece of cloth to cover nakedness'; Ta. *kōvaṇam*; Ka. *kōvaṇam*.

S. *kauśika*-, 'name of a sage'; Ta. *kōcikaṇ*; Pr. *kōsika* (Pischel, p. 57).

S. *gautama*-, 'name of a sage'; Ta. *kōtamaṇ*.

S. *mauli*, 'a crown'; Ta. *mōli*; Pr. *mōli* (Pischel, p. 58).

S. *kauśala*- 'name of a province'; Ta. *kōcalam*.

This is decidedly a change peculiar to Prakrit and Pali. Tamil ordinarily inserts a *v* between *a* and *u*, which is known as 'the connecting *v*' or rather the *v*-glide, as in *kiravuñcam*, *kavupīnam*, etc. Compare Pr. *kaūsala* (Pischel, p. 58) which is similar to Ta. *kavucalam*, and Pr. *maūna* from S. *mauna*-, 'silence' (Pischel, p. 58) which is similar to Ta. *mavunam*.

SANSKRIT DENTAL STOPS

Their treatment in Tamil and Malayālam Tadbhavas

Sanskrit dental stops are *t*, *th*, *d*, and *dh*. Tamil has only the letter *t* to represent all these sounds. But this letter has different sound-values determined by its position in words. Taking for instance the *t* combined with vowels, initially it is a voiceless stop like the Sanskrit *t*. Whatever may be the Sanskrit sound, it becomes only *t* at the beginning of a Tamil tadbhava. Medially, it has two values (i) that of the Sanskrit *d*, after the dental nasal, (ii) that of *th* in English *then* (the voiced interdental spirant ʈ .) And whatever may be the Sanskrit sound, it is either of these only according as it is preceded by the dental nasal or not preceded by it.

Malayālam, however, has adopted the Sanskrit alphabet and can represent all the Sanskrit sounds by different letters. But it is remarkable that it follows Tamil sometimes in respect of the representation of these sounds. This bears testimony to the close relationship between Tamil and Malayālam, and indicates that the tendency to Sanskritize Malayālam is quite modern. As Dr. Gundert points out in his Malayālam Dictionary, *th*, *d* and *dh* occur only in Sanskrit and foreign words. But even in the case of Sanskrit words, these letters are not employed unless they are recent borrowings. And the sound-values of the medial *t* are just as they are in Tamil. Dr. Gundert, however, represents both by the Greek δ , e.g., S. *atula*:- *aḍulam*, 'unequalled'; S. *antara*:- *aṇḍaram*, 'interior'.

S. *takṣan*-, 'a carpenter'; Ta. *taccaṇ*; Ma. *taccan*.

S. *dāna*-, 'a gift'; Ta. *tānam*; Ma. *tānam*, 'penance'.

S. *dhūli*-, 'dust'; Ta. *tūḷi*; Ma. *tūḷi*.

S. *anta*-, 'end'; Ta. *antam*; Ma. *antam*.

S. *sindhu*-, 'name of a river'; Ta. *intu*; Ma. *intu*.

S. *patākā*-, 'a flag'; Ta. *patākai*; Ma. *patāka*.

S. *pada*-, 'step'; Ta. *patam*; Ma. *patam*.

The Tamil *antam*, *intu*, *patākai*, and *patam* are transliterated without any reference to the special sound-value of the medial *t*. If a new system can be adopted, *t* medial between vowels should be represented by *ṭ* and *t* after the nasal by *d*. Dr. Gundert transcribes the Malayālam *tadbhavas* as *aṇḍam*, *iṇḍu*, *paḍāṇa* and *paḍam*.

When *t* is doubled, it has its normal sound; *dd*, and *ddh* also are equivalent to *tt* in Tamil, although some who know may pronounce them as *dd* or *ddh*.

S. *pitta*-, 'bile'; Ta. *pittam*; Ma. *pittam*.

S. *uddēśa*-, 'intention'; Ta. *uttēcam*; Ma. *uddēśam*.

S. *vrddhi*-, 'prosperity'; Ta. *virutti*; Ma. *vrddhi*.

Sometimes one hears such mispronunciations as *viddyāsam*; this is supposed to represent *vittiyācam*, a *tadbhava* of S. *vyatyāsa*-. Forms like *vittai*, a *tadbhava* of S. *vidyā*-, correctly pronounced *viddai*, might have affected the pronunciation of Ta. *vittiyācam*.

When *t* and *d* occur in combination with other consonants, i.e., when they form the initial letters of the conjunct consonants, they change in Tamil in all cases, while in Malayālam, *t* or *d* followed by *n*, *y*, *r*, *v*, do not change. In Tamil the dental is doubled as *tt* and an anaptyctic vowel appears after the double consonant.

S. *patni*-, 'a wife'; Ta. *pattini*; Ma. *patni*.

S. *satya*-, 'truth'; Ta. *cattiyam*; Ma. *satyam*.

S. *udyōga*-, 'effort'; Ta. *uttiyōkam*; Ma. *udyōgam*.

S. *sattra*-, 'asylum'; Ta. *cattiram*, 'choultry'; Ma. *satram*.

S. *kṣudra*-, 'mean'; Ta. *kuttiram*, 'cheating'; Ma. *kṣudram*.

S. *sattva*-, 'strength'; Ta. *cattuvam*; Ma. *satvam*.

S. *udvēga*-, 'fear, sorrow'; Ta. *uttuvēkam*; Ma. *udvēgam*, 'care'.

t in combination with *k*, and *d* in combination with *g* change in Malayāḷam tadbhavas into *l*.

S. *utkarṣa-*, 'excellence'; Ma. *ulkarṣam*.

S. *sadguṇa-*, 'virtue'; Ma. *salguṇa*.

In Malayāḷam there is no separate letter to represent the consonantal *l*. The symbol *ḷ* is made to represent the consonantal *l* as well as the consonantal *t*. *ta* = *ṭ*; *la* = *ḷ*.

The same words would, in Tamil, become

S. *utkarṣa-*; Ta. *urkarṣam*.

S. *sadguṇa-*; Ta. *sarkuṇam*.

t in combination with *p*, and *d* in combination with *b* or *bh* also change in Malayāḷam tadbhavas into *l*.

S. *tātparya-*, 'object'; Ma. *tālparyam*.

S. *budbuda-*, 'a bubble'; Ma. *bulbudam*.

S. *adbhuta-*, 'surprise'; Ma. *albhutam*.

Sanskrit *tatpara-*, 'occupied with' becomes in Malayāḷam *tapparam* as well as *talparam*. The former form, of course, shows Prakritic influence.

The same words would, in Tamil, become

S. *tātparya-*; Ta. *tārpariyam*.

S. *budbuda-*; Ta. *purputam*.

S. *adbhuta-*; Ta. *arputam*.

t or *d* in combination with *m* change into *l*.

S. *ātman-*, 'the soul'; Ma. *ālmāvu*.

S. *padma-*, 'a lotus'; Ma. *palmam* (written *patmam*).

Orientalists like Dr. Gundert prefer to transcribe these in English as *āltmā* and *paltma*. No doubt some sound like *t* is often heard between *l* and *m*, but that is not defined, and far from being an equivalent of the dental voiceless stop in Malayāḷam,

it approaches the English *t*. Compare also the pronunciation of *t* in S. *ratna-* by Malayāḷis. The presence of *t* can be explained by the circumstance that people as they pronounce the *t* get the *l* but at once think of the *t*, and in attempting to bring it up again pronounce a slight *t* after *l* by way of compromise. In the case of *k*, *p*, *s*, etc., the slight *t* is assimilated by these consonants, and hence perhaps has been ignored by the orientalist. A more satisfactory explanation would appear to be a reference to the change the same sound undergoes in Tamil, viz., into the alveolar *r* [r].

The same words would, in Tamil, become

S. *ātman-*; Ta. *āṇmā*.

S. *padma-*; Ta. *patumam*.

In *āṇmā*, the *n* is alveolar; the dental *n* is found only before a dental *t* or a dental *n*, and before consonants like *m* in tatsamas. In *patumam*, the *u* is anaptyctic.

But, besides *āṇmā*, there is *āttumā* and sometimes *ārṛumā*. In compounds like S. *ātmanēpada-*, we observe the change '*ārpa-nēppatam*'. This is noticeable again in the tadbhavas of S. *padma-*. We have *parṇam*, *parṇam* (a hypothetical form) which later is difficult to pronounce. The change may be indicated thus:

S. *ātmanē* > *ārmane* > *ārpanē*.

S. *padmam* > *parṇmam* > *parṇam*.

Compare Prakrit *appā* (Pischel, p. 82) from S. *ātman-*. From S. *bhasman-* also Tamil has a tadbhava *parṇam*.

Again, *t* in combination with *s* changes in Malayāḷam tadbhavas into *l*.

S. *utsāha-*, 'energy'; Ma. *ulsāham*.

S. *matsya-*, 'a fish'; Ma. *malsyam*, also *maccam*; Pr. *maccam*.

S. *vātsalya-*, 'affection'; Ma. *vālsalyam*.

The same words would, in Tamil, become

S. *utsāha*-; Ta. *urcākam*, *uccākam*.

S. *matsya*-; Ta. *maṛcam*, *maccam*; Ta. *maccemu*.

S. *vātsalya*-; Ta. *vāṛcalliyam*, *vāccalliyam*.

The forms *uccākam*, *maccam*, and *vāccalliyam* show Prakritic influence. (*uccāha*—Pischel, p. 225; *maccha*—Pischel, p. 228).

When *t* or *d* is final, it changes into *l* in Malayālam. The *t* is, however, retained when it is followed by another *t* in composition. Final *dh* also becomes *l*.

S. *iṣat*, 'a little'; Ma. *iṣal*.

S. *pariṣad*-, 'an assembly'; M. *pariṣal*, *pariṣa*.

S. *samidh*-, 'sacrificial sticks'; Ma. *samil*, *camata*.

The *t* is retained in sentences like *samittinnu vēṇṭi kāṭṭil pōyi*. *camata* and *pariṣa* are tadbhavas. The Ma. *upaniṣattu* from S. *upaniṣad*- shows influence of Tamil.

The same words would, in Tamil, become

S. *iṣat*-; Ta. *iṣattu*.

S. *pariṣad*-; Ta. *pariṣattu*.

S. *samidh*-; Ta. *camittu*.

Now *t* and *d*, when they change, in Malayālam, change into *l*, and in Tamil usually into *r* and occasionally into *n*, which is the nasal of *r*.

The change in Malayālam differs from the change in Tamil only in appearance. For in reality it is the same change and Malayālam shows only an intermediate stage in the passage of *t* or *d* into *r*.

If we analyse the Tamil words *saṛkuṇam* and *tarparam*, for example, we find they are

sal + *kuṇam*.

tal + *param*,

and *l* becomes *ṛ* according to the rules of Tamil grammar :

kal + ka = kaṛka.

nūl + ka = nūṛka.

The vulgar pronounce *kalkka* and *nūlkka* with the consonant *k* doubled as it is in Malayālam. *ṛ* obviates the need for a second *k*.

Compare also

S. *kalpa-*, 'end of the world'; Ta. *kaṛpam*.

S. *valkala-*, 'bark-garment'; Ta. *vaṛkalai*.

Again, in compounds also, the same change is noticed :

Ta. *pāṛkaṭal*, 'sea of milk'; Ma. *pālkkaṭal*.

Ta. *ēṛpāṭu*, 'arrangement'; Ma. *ēlpāṭu*.

It is noteworthy that Malayālam does not double the consonant. *p* after *l* except in *malppiṭi*, as it does in the case of *k*. Dr. Gundert transliterates this word with a single *p* only. And the doubling in these cases seems to be to represent the voiceless sound, rather than the double sound. Compare *pālkkaṭal* with *akkaṭal*.

The *m* changes the preceding *l* into *n* in Tamil, e.g.—

Ta. *naṇmai* *nal + mai*, 'good'.

Ta. *mēṇmēl* *mēl + mēl*, 'more and more'.

S. *sālmali*, 'the silk-cotton tree'; Ta. *cāṇmali*.

S. *gulma-*, 'chronic stomach-ache'; Ta. *kuṇmam*.

In some other cases, too, *l* changes into *n*, e.g.—

Ta. *nāṇku* (*nāl + ku*), 'four'.

Ta. *naṇku* (*nal + ku*), 'well'.

The form *nāṅku* is actually found in the *Porunarārruppaṭai* (1.165) and in the *Perumpāṇārruppaṭai* (1.489); and the alternative form for *naṅku*, *naṛku*, found in the *Malaipaṭukaṭam* (1.392), is perhaps the regular form.

In Malayālam we find *l* takes the place of the Tamil *n* in certain words, e.g., *mul* is often found for Ta. *muṇ*.

Ma. *mulkkaram* 'the forearm'; Ta. *muṛkaram*, *muṇ-karam*.

Ma. *mulkkālam* 'ancient times'; Ta. *muṛkālam*, *muṇ-kālam*.

Possibly *ṛ*, *ṇ* and *l* (found in these words) belong to the same class. They must all be alveolar. As there is no separate symbol in the Tamil alphabet to represent the alveolar *l* as distinguished from the dental or cerebral *l*, one will have to be content with merely pointing out this peculiarity.

It has been found that, in Tamil, *l* interchanges with *ṛ* or *ṇ*. It depends on the succeeding letter. As a rule *l* changes into *ṛ* before voiceless stops.

The change of *l* into *ṇ* is found also in Malayālam. In compounds we are told *vaṇ=val* (Gundert's Dictionary, p. 906), e. g.—

vaṇkōpam, 'wrath'.

vaṇkāṛṛu, 'strong wind'.

The Malayālam alphabet in vogue at present does not make any difference between the dental *n* and the alveolar *n*. In pronunciation, however, such a difference is made as, for example, in words like *onnu* and *nannu* which correspond to Ta. *oṇṇu*, *naṇṇu*. *l*, too, is distinctly alveolar when it is found doubled in words, e.g.—*illa*, *nalla*.

In Madras, Ta. *ponṇaṇ* is pronounced with a distinct medial alveolar *ṇ*. Compare also *uṇṇai*, *aṇṇu*. That *ṛ* is alveolar can be seen from the pronunciation of Ta. *maṛṛa* which is almost *maiṛṛa*, and that accounts for the colloquial form *maitta*. Similarly *paṭṭu* from *paṛṛu*. Subtle observation will reveal the alveolar nature of *l* in words like *ellā* and *nalla* as they are pronounced in Madras.

Such expressions as Ma. *vaṇkōpam* are employed in Tamil too, but often the following velar influences the alveolar *ṇ* and converts it into its own nasal, e.g., *vaṇkilaṭu* is pronounced as *vaṅkilaṭu*.

The change in Tamil of *r* into *r + a* consonant similar to the one succeeding is sometimes noticeable :

S. *tātparya-*, 'object'; Ta. *tārppariyam* for Ta. *tārpariyam*.

S. *udbhava-*, 'birth'; Ta. *urppavam* for Ta. *urpavam*.

S. *utsava-*, 'festival'; Ta. *urccavam* for Ta. *urcavam*.

That is, however, wrong spelling and misleads one in respect of the derivation of words.

The reverse of this is sometimes noticed :

S. *durguṇa-*, 'vice'; Ta. *tuṛkuṇam* for Ta. *turkkuṇam*.

S. *arcanā-*, 'worship'; Ta. *aṛcanai* for Ta. *arccanai*.

S. *karpūra-*, 'camphor'; Ta. *kaṛpūram* for Ta. *karppūram*.

In these and similar cases, there is nothing to justify the introduction of the alveolar *r*. The Sanskrit words transliterated in Tamil would become

turkuṇa

arcanā

karpūra

But, *k*, *c*, *p* are not voiceless stops medially. Although in the case of the first word a soft sound only is required, there is a feeling in the Tamil mind that in all these cases the proper enunciation is not obtained unless the consonant is doubled. Thus to insert the alveolar *r* and keep the consonant single is an orthographical expedient.

Again, in Tamil, in the vulgar dialect, there is practically no difference between *t* and *r* when these are doubled :

Ta. *paṛṛu*, 'hold' > *paṭṭu*

Ta. *kāṛṛu*, 'air' > *kāṭṭu*

Ta. *iṛṛu*, 'decaying' > *ittu*

Ta. *kīṛṛu*, 'a line' > *kīṭṭu*

Ta. *cuṛṛu*, 'go round' > *cuttu*

Ta. *ūṛṛu*, 'a spring' > *ūṭṭu*

Ta. <i>ne<u>rru</u></i> , 'dried fruit, specially of the coconut palm'	>	nettu
Ta. <i>nē<u>rru</u></i> , 'yesterday'	>	nēttu
Ta. <i>o<u>rru</u></i> , 'a consonant'	>	ottu
Ta. <i>pō<u>rru</u></i> , 'take care of'	>	pōttu

The above examples indicate the change of *rr* to *tt*. *tt* does not become *rr*. The people are prone to choose always the easiest way of pronouncing a word, and do it regardless of any other considerations. It is certainly easier to pronounce the dental *t* than the alveolar *r*. Take again the peculiar Tamil *l*. By very few people is it pronounced properly. In the so-called Shen-Tamil districts, Tinnevely and Madura, they do not make any difference in speech between *!* and *l*, although particular attention is paid to it in literary writing. When they are in doubt, they ask if it is *uḷāṇā* or *aḷāṇā*, in other words if it is the *!* that occurs in the Tamil word *uḷa* or the *l* that occurs in the Tamil word *aḷa*. In northern districts and about Madras, they make it equivalent to *y*. Thus *kiḷavi*, 'an old woman', becomes *kiyavi* first, and then *kēvi*; *paḷam*, 'fruit', is invariably *payam*.

Some Sanskrit words have entered Tamil and Malayāḷam through Prakrit.

S. *airāvata*-, 'Indra's elephant'; Ta. *airāvaṇam*; Pr. *airāvaṇa* (Pischel, p. 55).

S. *pratimā*, 'an image'; Ta. *paṭimai*; Pr. *paḍimā* (Pischel, p. 156).

S. *prakṛti*-, 'nature'; Ta. *pakaṭi*, *pakiṭi*; Ma. *pakiṭi*; Pr. *pagāḍi* (Pischel, p. 158).

S. *dambha*-, 'ostentation'; Ta. (i)ṭampam; Ma. ḍambham; Pr. ḍambha (Pischel, p. 160).

S. *pattana*-, 'a town', also *paṭṭana*-, Ta. *paṭṭaṇam*; Ma. *paṭṭaṇam*; Pr. *paṭṭaṇa* (Pischel, p. 227).

S. *vr̥tta*-, 'a circle'; Ta. *vaṭṭam*; Ma. *vaṭṭam*; Pr. *vaṭṭa* (Pischel, p. 227).

S. *praticchanda-*, 'likeness'; Ta. *paṭiccantam*.

S. *kadamba-*, 'a tree'; Ta. *kaṭampu*; Ma. *kaṭampu*.

The normal tadbhavas according to the rules of Tamil grammar would be *airāvatam*, *piratimai*, *pirakiruti*, *tampam*, *pattanam*, *viruttam*, *piraticcantam*, *katampam*, and in fact all these forms are found in Tamil and they should be regarded as doublets, forms directly borrowed from Sanskrit in later times. Ta. *paṭimai* is found in the Kampa Rāmāyaṇam; Ta. *pakaṭi* is popularly almost a synonym of S. *vikāṣa-* which is doubtless a Prakrit form from S. *vikṛta-* (Pischel, p. 157) and both are used in the sense of mockery, jest, etc. It is a curious transformation of meaning and ought to be of interest to a student of Semantics. But *pakaṭi* as an approved tadbhava of S. *prakṛti-* is found in a Jaina work, the Tirunūṛṇṇantāti, wherein it is, according to the commentator, employed in the sense of *karma*, 'action'. *Paṭiccantam* is found in the Tirukkōvaiyār. It is doubtful, however, if S. *paṭṭana-* is not a Dravidian word borrowed by Sanskrit, as words like Ta. *paṭṭi* would indicate. There is also a Tamil word *paṭṭiṇam* employed, in older works, in the sense of a sea-side village or town. *kadamba-* is a puzzling word. One is not able to find the tadbhava *kaṭampa* either in Prakrit or in Pali. Perhaps analogy accounts for it. There is in Sanskrit itself a variant *kalamba-* which, if it was pronounced with a cerebral ! instead of the dental as is often done (for instance, *mangaḷam*), could account for *ḍ* (in Tamil of course *ṭ*), which change cannot be abnormal.

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SANSKRIT SIBILANTS

Their treatment in Tamil and Malayāḷam Tadbhavas

The Palatal Sibilant

The palatal *ś* is not altogether foreign to modern Tamil, although there is no distinct symbol to represent the sound even in the enlarged alphabet that is in use in school-books as well as in popular literature. The enlarged alphabet contains *j*, *ś*, *s*, *h*, and the compound letter *kṣ* too. *ś* is represented by the Tamil letter *c* which is pronounced *ś* except when it is doubled, in which case it has its normal value, the value that it has in Sanskrit of the palatal affricate. It must be admitted that in recent times some editors have found it desirable to adopt the Grantha *ś* (𑌑) in printing maṇipravāla literature.

The Malayāḷam alphabet, however, is not defective in this respect.

S. *śara-*, 'an arrow'; Ta. *caram*; Ma. *caram*.

S. *śāṇa-*, 'a whetstone'; Ta. *cāṇai*; Ma. *cāṇa*.

S. *śilā-*, 'stone'; Ta. *cilai*; Ma. *cila*.

S. *śūla-*, 'colic'; Ta. *cūlai*; Ma. *cūla*.

S. *śava-*, 'a corpse'; Ta. *cavam*; Ma. *cavam*; Pa. *chava* (Andersen, p. 99).

This is how the intial *ś* changes in Tamil and Malayāḷam. There is a difference of opinion about the pronunciation of the initial *c*, be it in a tadbhava or a pure Tamil word. Some contend that *c* is always voiceless. But one who has observed the pronunciation of *c* by various classes is inclined to hold that the pronunciation of it as a voiceless palatal affricate is vulgar and unrefined in the present age.

There is also another pronunciation of it as dental *s*, observable among certain classes of people all over the Tamil country. They hold it to be a more refined mode of pronouncing *c*.

But this change itself is perhaps due to the same influences that are at work in Telugu and Kanarese. For in these languages the Sanskrit *ś* becomes *s*.

S. *śuddha*-, 'clean'; Te. *suddamu*; Ka. *sudda*.

S. *śālā*-, 'a hall'; Te. *sāla*; Ka. *sāle*.

S. *śāṇa*-, 'a whetstone'; Te. *sāna*; Ka. *sāṇe*.

Even the Tamil *c* they transform into *s*.

Ta. *cāvu*, 'death'; Te. *sāvu*; Ka. *sāvu*.

Ta. *cutti*, 'a hammer'; Tel. *sutti*; Ka. *suttige*.

It must, however, be remarked here that in Malayālam the initial *c* is pronounced distinctly as a voiceless stop. That circumstance may be taken to indicate that Malayālam, as well as the Tamil vulgar dialect so-called referred to above, retains the older pronunciation of *c*.

That there is absolutely no difference between the pronunciation of the Tamil *c*, except when it is doubled, and that of the Sanskrit *ś* may be proved in another way.

S. *cakra*-, 'disc', is in Tamil *cakkiram* or *cakkaram* (pronounced [śakkirəm], [śakkərəm]).

S. *ācāra*-, 'conduct', is in Tamil *ācāram* (pronounced [a : śa : rəm]). Some people, feeling that when it is a single *c* they do not get the proper Sanskrit pronunciation, write the word as *āccāram*. That indicates that one *c* can give only the *ś* sound. Compare S. *samācāra*.

In Malayālam, however, curiously enough, one hears *ājāram* and *ājamanam*, although the words are written *ācāram* and *ācamanam*, 'sipping water before religious ceremonies'. This peculiarity is found only in the case of words which have a medial *c*. When *c* begins a word, as already pointed out, it is voiceless, unlike the initial *c* in Tamil. This clearly indicates that the medial *c* in Tamil as well as in Malayālam must have been originally pronounced as *j*. That the initial *c* must have been originally pronounced as a voiceless stop, has, with the help of

Malayālam, already been shown. Once the original pronunciation of the medial *c* is taken as established, the change of *ś* to *y* in tadbhavas is easily explained. A transition change of *ś* to *c* and then a change again of *c* to *j* have to be inferred. *j* to *y* is of course a change quite common.

S. *bhuja-*, 'arm'; Ta. *puyam*.

S. *gaja-*, 'an elephant'; Ta. *kayam*.

S. *rājan-*, 'a king'; Ta. *rāyan*.

Malayālam shows *vāyakam* from S. *vācaka-*, 'a reader'. It may not be possible to assert that the peculiar pronunciations as indicated by Malayālam are the oldest or the original Dravidian pronunciations, but it would be quite safe to say that they are pretty old.

The medial *ś* remains so in Malayālam, which has adopted the Sanskrit alphabet, but, in Tamil, is changed into *c*, as when it is initial.

S. *āśā-*, 'desire'; Ta. *ācai*; Ma. *āśa*.

S. *dēśa-*, 'region'; Ta. *tēcam*; Ma. *dēśam*.

S. *pāśa-*, 'a noose'; Ta. *pācam*; Ma. *pāśam*.

The sound does not change, however, in Tamil. It is *ś*, as it is in Sanskrit and Malayālam.

But there is another kind of change noticeable in regard to the medial *ś*. It is replaced by *y* in Tamil, and in Malayālam too. In view of what was mentioned already, one has to suppose an intermediate form with *c* which must have been pronounced as *j*.

S. *ākāśa-*, 'the sky'; Ta. *ākāyam*.

S. *dēśa-*, 'region'; Ta. *tēyam*, *tēm*.

S. *paśu-*, 'cattle'; Ta. *pacu*, 'a cow'; Ma. *pai*, *Payi*, 'a cow'.

S. *vaśa-*, 'influence'; Ta. *vayam*; Ma. *vayam*.

S. *śmaśāna*-, 'cemetery'; Ta. *mayānam*; Te. *maśānamu*, *masa namu*.

S. *śmaśru*-, 'beard'; Ta. *mayir*, 'hair'; Ma. *mayir*.

This kind of change is certainly old, for alongside of these are found in Tamil later forms which indicate only transliteration (i. e., *c.* for *ś*). Again, this change is not confined to borrowed words. That is another proof in support of my statement that the medial *c* was pronounced formerly as a voiced stop.

Ta. *paci*, 'hunger'; Ma. *payi*.

Ta. *pāci*, 'moss'; Ma. *pāyal*.

Ta. *pacai*, 'glue'; Ma. *paya*.

It must be noted here that *y* sometimes interchanges with *ś*, or the Tamil medial *c*, as in

Ta. *ayal*, 'neighbourhood'; *acal* (phonetically [ʌśəl]).

Ta. *iyai*, 'agree'; *icai* (phonetically [iśe]).

Ta. *kayam*, 'a spring'; *kacam* (phonetically [kʌśəm]).

Ta. *kuyavaṇ*, 'a potter'; *kucavaṇ* (phonetically [kuśəvən]).

Ta. *payalai*; *pacalai* (phonetically [pʌśəle]).

Ta. *puyal*, 'a storm'; *pucal* (phonetically [puśəl]).

Ta. *muyal*, 'a hare'; *mucal* (phonetically [muśəl]).

Ta. *uyir*, 'life'; *ucir* (phonetically [uśir]).

The forms with *ś* are all colloquial. Tamil *ucir* is found in Telugu and Kanarese also: Te. *usuru*; Ka. *usir*.

Initial *ś* is sometimes dropped although this is a common enough phenomenon with *s*.

S. *śaraṇa*-, 'refuge'; Ta. *araṇam*, *araṇ*, 'a fortress'; M. *araṇ*.

S. *śālā*-, 'an abode'; Ta. *ālai*; M. *āla*.

S. *śmaśāna*-, 'cemetery'; Ta. *mayāṇam*; Pr. *masāṇa* (Pischel, p. 215)

Dr. Gundert suggests S. *araṇya*-, 'forest' as a possible source of *araṇ*. Again he gives S. *śālā*- only as an alternative

Ta. *tuccāri* is found in the Nālaṭiyār. Pischel gives *duccara* corresponding to *duścara-* (p. 206). *Nikṣaya* appears to be an unnatural tadbhava. It is not really a Tamil form but the result of a re-Sanskritization. Pischel gives a similar form derived from S. *paścima-*, *pakṣima* (p. 206). One often meets with *nicciyam* in Tamil colloquial speech. But it is doubtful if it is the Prakrit form of S. *niścita*. It is probably a corruption of Ta. *niccayam*. Ma. *paccima* is found in the Rāmacaritam.

ś followed by *y* takes an anaptyctic vowel or drops the *y*.

S. *śyāmala-*, 'black'; Ta. *ciyāmaḷam*, }
cāmaḷam. }

S. *śyāmālā-*, 'name of a goddess'; Ta. *yāmaḷai* } ; Pr. *sāmalā*
cāmaḷai } (Pischel, p. 85).

S. *śyāmaka-*, 'a grain'; Ta. *cāmai*; Ma. *cāma*.

S. *kāśyapa-*, 'name of a sage'; Ta. *kācipaṇ*.

Pali has *sāma* from S. *śyāma*. (Andersen, p. 268). In Ta. *kācipaṇ*, there has not been the mere dropping of *y*. The *y* has influenced the succeeding vowel before it dropped off.

The authors of the Malayāḷam Vyākaraṇa-mitram give an instance of the dropping off of *l* after *ś*.

S. *ślāghaya-*; Ma. *cākkiyar*.

Dr. Gundert thinks that the Malayāḷam word may be a tadbhava of S. *sākṣin-* or *śākya-*. It may be noted that Tamil has *cākki* from S. *śākṣin-*.

When *ś* is followed by *v*, *v* is assimilated to *ś*.

S. *iśvara-*, 'lord'; Ta. *iccuraṇ*. }
icuraṇ. }

When *iśvara-* is used in the name of place, there is no change of the vowel, e.g., *paṭṭiccam*. The vowel change is due to the presence of *v* in the word as in *kācipaṇ* above; *v* has suggested *u* as *y* suggested *i*.

But S. *aśva-* becomes in Tamil *accuvam* or *acuvam*. The former is the older form. Words like *accuvam* and *iccuraṇ* would seem to suggest that *ś* medial was once written as *c* and pro-

It is also worthy of note that s changes into l as in

S. *aṃśa-*, 'part'; Ta. *aṅkiṣam*.

S. *vaṁśa*-, 'family'; Ta. *vaṅkisaṁ*.

S. *māṃsa*-, 'meat'; Ta. *māṅkiṣam*.

The name of a king *vaṅkiya-cēkaraṇ* would suggest that S. *vamśa* became also Ta. *vaṅkiśam* (compare Te. *vaṅgasamu*) for such a form only can yield *vaṅkiya* (compare Bengali and Oriya *vaṅśa*). The name in Sanskrit is *vamśa-sēkhara*. But what led to the change of *ṃ* to *ik*? The Tamil change perhaps indicates that *ṃ* was regarded as an *anunāsika*. These forms are, however, considered to be not quite literary. The forms *amicam*, *vamicam* and *māmicam* are more commonly found in literature.

The Cerebral Sibilant

The cerebral *ṣ*, unlike *ś*, has been given a separate symbol adopted from the Grantha alphabet. Still, the sound is recognized to be distinctly foreign to Tamil. And as *ś* and *s* are usually represented by *c*, it being a difficult matter for an ordinary Tamilian to pronounce the sounds properly, *ṣ* also for the same reason is represented by *c* whose value in Tamil either initially or between vowels is always of *ś*, e.g.,

S. *ṣaṇmukha*-, 'the six faced'; Ta. *caṇmukan*. }
cammukan. }

S. *ṣaṣṭi-*, 'sixty'; Ta. *caṭṭi*, as in *caṭṭipūrtti*.

S. *bhāṣā*, 'language'; *pācai*.

Initial *ṣ* is represented in Malayālam as well by *c*.

S. *ṣaḍaṅga-*, 'six auspicious things'; Ta. *caṭaṅku*, 'ceremony';
Ma. *caṭaṅku*.

ṣ in the middle of a word and between vowels changes into *ṭ* (*ḍ*) or *ḷ*. *ḍ* changes into *ḷ* also in the passage of words from Sanskrit into Tamil, e.g.,

S. *pīḍā*, 'pain'; Ta. *pīlai*. *ḍ* is put in as an alternative of *ṭ* as that is the sound-value of the medial *ṭ* in Tamil where it is not doubled. Strictly speaking, the medial *ṭ* has a spirantal sound like the medial *k*, *t* and *p* in Tamil. Where *ṭ* is doubled it has its normal value. And *ṭ* cannot begin a word or end one.

S. *anuṣa-*(?) 'name of an asterism'; Ta. *anuṭam*; Ma. *anuḷam.*
aniḷam.}

S. *bhāṣā*-, 'language'; Ta. *pāṭai*.

S. *ṛṣabha-*, 'a bull'; Ta. *iṭapam*; Ma. *iṭapam.*
iṭavam.
eṭavam.}

S. *uṣā-*, (*uṣas-*), 'dawn'; Ta. *uḷai.*
uṭai.}

S. *kaṣāya-*, 'a decoction'; Ta. *kiyāḷam*; Ma. *kaḷāyam*.

S. *kaluṣita-*, 'dirty, muddy'; Ta. *kaluḷi*, 'a flood'.

S. *auśadha-*, 'medicine'; Ta. *avīṭam*
avuṭatam
auṭatam} ; Ma. *avīṭatam.*
aviṣadham.

S. *jyōtiṣa-*, 'astronomy'; Ta. *cōṭiṭam.*
jōsyam.
cōṣiyam.}

S. *kṣaya-*, 'consumption'; Ma. *kīḷayam*.

S. *mahiṣa-*, 'a buffalo'; Ta. *maḱiṭam*
mayiṭam} ; Ma. *maḱiḷam*.

S. *maṣi-*, 'ink'; Ma. *maḷi*.

S. *māśa-*, a particular weight of gold'; Ta. *mālai* }
mātai } , 'gold'.

S. *mēśa-*, 'a ram'; Ta. *mētam.* }
mēlakam. } ; Ma. *mētam.*

S. *viśa-*, 'poison'; Ta. *viṭam*; Ma. *viṭam.*

S. *suśira-*, 'hollow' (Vedic); Ma. *tuḷiram*, 'a hole'.

S. *suśupti-*, 'sleep'; Ta. *cuḷutti.*

S. *suṣumnā-*, 'an artery'; Ta. *cuḷimunai.* }
cuḷunai. }

S. *śēśa-*, 'remaining'; Ta. *cētam.* }
cēlam. }

S. *santōśa-*, 'joy'; Ta. *cantōṭam*; Ma. *tantōlam.*

It would appear from these examples that the change $\text{ṣ} > \text{l}$ is older than $\text{ṣ} > \text{ṭ}$. As a rule all the forms with *l* are older in Tamil literature. Ma. *iṭayam* is found in the Rāmacaritam. Ma. *makiḷam* is found in the same work in the phrase *makiḷa-nāṣini*.

S. *anuśa-* as the name of the 17th lunar mansion is not found in Apte's Practical Sanskrit-English Dictionary or the Vācaspatyam. The Vaijayanti of Yādavaprakāśa gives *anuśa* in the sense of demon. The word given is *anurādhā*. But Dr. Gundert has given in his Malayālam Dictionary *aniḷam* as a tadbhava, and suggests that it is from S. *anuśa-* and is a medial term. He gives below that word *anuḷam*, 'the 17th constellation'. The Tamiḷcollakarāti published by the Madura Tamil Sangham gives Ta. *anuṭam* as a tadbhava of S. *anuśa-*, which word is not found in Sanskrit dictionaries, as already pointed out.

Besides *pāṭai*, there is another tadbhava from S. *bhāṣā-*, viz., *pācai*, 'a curse'. Ta. *uḷai* is found used in Villiputtūrār's Bhāratam and *uṭai* in Aracakēcari's Rakuvamicam. Ta. *kiyālam* is used only in Madras and the adjacent districts. The Tamil Sangham Dictionary does not recognize it. There has been also metathesis in the word, *y* and *s* have changed places. And *i* in place of *a* is justified by the popular pronunciation of the Sanskrit word

even in the south as *kṣāyam*. Once the word is hyper-Sanskritized that way, the anaptyctic vowel comes in all right. Compare Ta. *sundiram* from S. *sundara-* through **sundram*. Ta. *kaluḷi* is found in the Kuṛiñcippāṭṭu (I. 178). Ma. *aviḷatam* is straight enough, only *i* has been substituted for *u*. Ta. *aviḷtam* is a little puzzling. Did Ta. *amiḷtam*, a tadbhava of S. *amṛta-* suggest this word? Possibly: for learned men have always regarded *aviḷtam* as *amiḷtam*. Compare the common word Ta. *maruntu*, 'a medicine', which is considered to have been employed in the sense of nectar in the Koṅṛaivēntaṇ (*maruntāyiṇum viruntōṭuṇ* = Be it nectar, share it with guests). Ta. *jōsyam* or *jōsiyam*, and *cōṣiyam* are found in colloquial speech, the former in the speech of the higher castes, and the latter in vulgar speech. In the case of Ta. *jōsiyam*, the *s* of S. *jyōtiṣa-* must have been pronounced as a palatal *ś*, and *s* indicates the reverse of the usual change *s* > *t*. In Ta. *cōṣiyam*, the dental *ṣ* has been cerebralized.

S. *suṣira* means a hollow in the R̥g-vēda (Grassman: Wörterbuch zum Rig-veda, p. 1556).

Ta. *cuḷutti* is a word used only in philosophical works. Ta. *cuḷimunai* also belongs to that category and is used to denote the place of union for the breath of both nostrils.

Ta. *cēḷam* is colloquial in Tinnevely.

Ma. *tantōḷam* is found in the Rāmacaritam.

In form the Tamil letter *l* (ல) so much resembles the Tamil-grantha *ṣ* (ṣ) that often some people mistake the one for the other. S. *bhāṣā-* which becomes in Tamil *pāṣai* is often found written by school boys *paḷai*. Sometimes in laying stress on the *l* in a word, people are heard to pronounce it as *ṣ*, e. g. *maḷai*, *vaḷukku*. This kind of pronunciation is perhaps peculiar to Tanjore and the neighbouring districts, as M. Julien Vinson points out (Manuel de La Langue Tamoule, Grammaire, p. 18). He would equate it with the French *j*. This probably explains the old system of transliterating *l* by *zh*, followed even today by people trained in old methods. Such a pronunciation, however, can be regarded only as a dialectal variety and cannot be allowed to have any better

When *ṣ* occurs either at the beginning or in the middle of words in combination with voiceless stops, particularly the velar *k*, it is either assimilated or undergoes some other change.

S. *kṣamā*-, 'patience'; Ta. *kamai*; Pa. *chamā* (Victor Henry, p. 169).

S. *kṣaya*-, 'a disease in general'; Ta. *kayam*, 'consumption'; Ma. *kiḷayam*; Pa. *khaya* (Andersen, p. 82).

S. *kṣāra*-, 'pungent': Ta. *kāram*; Ma. *kāram*; Pr. *khāra* (Pischel, p. 221).

S. *kṣāma*-, 'destruction'; Ta. *cāmam*, 'famine'; Ma. *cāmam*.

S. *kṣīra*-, 'milk'; Ta. *kiram*; Pa. *khira* (Andersen, p. 83); Pr. *khira* (Pischel, p. 220).

S. *kṣēma*-, 'well-being'; Ta. *cēmam* } ; Ma. *kēmam* ; Pa. *khē-*
ēmam } *mam* (Andersen, p. 84).

S. *aksa-*, 'an axle'; Ta. *accu*; Ma. *accu*.

S. *akṣara*-, 'a letter'; Ta. *akkaram*; Ma. *akkaram*; Pa. *akkharam* (Andersen, p. 10); Pr. *akkharam* (Pischel, p. 236).

S. *kakṣa-*, 'the arm-pit'; Ta. *kakkam*; Pr. *kakkha*. (Pischel, p. 219).

S. *kukši*-, 'the belly'; Ta. *kukki*; Pr. *kukkhi* (Pischel, p. 221); Pa. *kucchi* (Andersen, p. 78).

S. *takṣan-*, 'a carpenter'; Ta. *taccaṇ*; Ma. *taccan*.

S. *pakṣa-*, 'a side'; Ta. *pakkam*; Ma. *pakkam*; Te. *pakkamu*; Pa. *pakkha* (Andersen, p. 147).

S. *bhikṣā-*, 'alms'; Ta. *piccai*; Ma. *picca*; Te. *biccamu*.

S. *yakṣa-*, 'a demi-god'; Ta. (i-) *yakkaṇ*; Pa. *yakkha* (Andersen, p. 212).

S. *dakṣiṇa-*, 'the south'; Ta. *takkaṇam* } ; Te. *dakkinamu*
takkiṇam }

These changes, although usually found in Prakrit or Pali, may not altogether be due to the influence of either of these. The same laws that operated in the case of Prakrit and Pali might have operated in the Dravidian languages as well. Still the change of *kṣ* to *k* or *kk* seems to be foreign to Tamil if one is to judge by the popular pronunciation of today. S. *kṣaṇa*=*canam*; S. *kṣaya*=*cayam*. *cāmam* and *cēmam* are words in every day use. Again S. *akṣara*=*accara*. The words *taccaṇ* and *piccai* indicate the characteristic Dravidian change.

The change of S. *kṣaya-* into *kiḷayam* in Malayāḷam is peculiar. Bishop Caldwell says: "ṣ is sometimes, though rarely, converted in Tamil into *l*. Dr. Gundert supplies me with some instances of this in Old Malayāḷam, e.g., *kṣaya*, Sans. 'loss,' is in old Mal. written *kiḷayam*, and the name *lakṣmaṇan* in an old copy of the Rāmāyaṇa is written *ilaḷkkaṇan*. Here *lkk* stands for *kṣ*" (Dravidian Comparative Grammar, p. 163). In this change, *kṣaya* must have first got the anaptyctic *i* for facility of pronunciation and then *ṣ* became *l* as in several similar cases. The presence of *l* in *ilaḷkkaṇan* is unintelligible. In the Ms. of the Rāmacaritam I examined I remember to have seen only *Ilakkaṇan* without the *l*, if I may rely on my notes. The Tamil form is *Ilakkuvaṇ*. If there is an *l* in any Ms., that has to be accounted for by the anxiety of the scribe or even the reader to see that *ṣ* was represented by the usual substitute *l*.

Ta. *ēmam* is possibly an old *tadbhava*. It is used in the sense of protection, prison, etc. If it is a *tadbhava*, the initial sibilant must have dropped off.

S. *kakṣa-* also appears as *kaṣkam* in colloquial Tamil. This must be a re-Sanskritized false form from Ta. *kakkam*. Pischel gives instances of *kṣ* changing in Prakrit into *śk*, *pakṣa* = *paśka* (p. 222).

The Tamil *takkan* is a recent tadbhava from S. *dakṣa*-, 'name of a Prajāpati'; *taccan* is a very old word. The trade itself is known as *taccu*.

cāmam in Tamil, as well as Malayālam, is also a tadbhava of S. *yāma*-, 'a period of three hours' through the Prakrit *jāma*.

Again,

S. *pakşin*-, 'a bird'; Ta. *paŋci*
pakki } ; Ma. *pakki*; Te. *pakki*;

Ka. *hakki*; Pa. *pakkhin*. (Andersen, p. 147).

S. *sākṣin-*, 'a witness'; Ta. *cāṭci*
cākki } ; Te. *sākiri*.

In the case of *paṭci* and *cāṭci* it should be observed that *ṭc* is but a mode of transcribing *kṣ* in Tamil. Any word with *kṣ* may be written with *ṭc* instead, e.g., S. *nakṣatra*-, 'a star'; Ta. *naṭcattiram*. It must be mentioned, however, that elegant pronunciation of words transcribed thus would make *c* sound like *ṣ*. And in vulgar pronunciation *ṭ* is assimilated to the succeeding *c* and both together are sounded like a doubled palatal *cc*. There are two exceptions to this mode of transcription among the words given above, viz., *accu* and *taccaṇ*. They are completely Tamilized.

When *ş* follows *r*, an anaptyctic vowel seems to be a necessity. *ş* of course, in accordance with the general law, is changed into *t* (*d*).

S. *ākarsana*-, 'attracting'; Ta. *ākaruṭaṇam*.

S. *ārṣa-*, 'relating to the ṛṣis'; Ta. *āriṣam*.

S. *varṣa-*, 'a year'; Ta. *varuṭam*; Ma. *variṣam*.

The same phenomenon is noticeable in cases where *s* follows the vowel *r*.

S. *r̥ṣi-*, 'a sage'; Ta. *iruṭi*.

S. *śrēṣṭhin-*, 'the head of a mercantile guild'; Ta. *ceṭṭi*, 'a merchant'; Ma. *ceṭṭi*; Te. *seṭṭi*, *ṣeṭṭi*; Pr. *seṭṭhi* (Pischel, p. 217); Pa. *seṭṭhi* (Andersen, p. 276).

Some dialects of Tamil and Telugu have forms like *vēṣṭi*, and *naṣṭam* where *ṣ* becomes a kind of alveolar *s* in spite of the presence of *ṭ*, changing the *ṭ* also into an alveolar *t*. Compare Prakrit *kaṣṭa* = S. *kaṣṭa-* (Pischel, p. 207). Strictly speaking separate symbols are required to represent these alveolar *s* and *t*. They may perhaps be indicated by a dash underneath as the other alveolar symbols *l*, *r*, and *n* of Tamil.

The change of S. *śrēṣṭhin-* to Ta. *ceṭṭi* does not follow the rules of Tamil grammar like another word *kaṭṭai*, a tadbhava of S. *kāṣṭha-*. These forms must be ascribed to Prakrit or Pali influence. Only that can account for the long *e* becoming short *e* before the double *ṭṭ*. There is, again, a word in Tamil *ceṭṭu* meaning frugality, and this word might possibly have given the personal noun *ceṭṭi*. But the difficulty in deriving *ceṭṭu* and the Telugu tadbhavas would induce one to conclude that it was formed from *ceṭṭi* as *taccu* was formed from *taccan*.

jyēṣṭhā- becomes *cēṭṭai* when it means 'eldest sister,' also when it means 'the goddess of misfortune,' and *kēṭṭai* when it means 'the eighteenth lunar mansion.'

It is curious that *ṣ* before *n*, too, changes into *ṭ*, although the words undergo further changes before they are incorporated in the Tamil vocabulary.

S. *krṣṇa-*, 'an avatar of Viṣṇu'; Ta. *kiruṭṭinan*
kiṭṭan
kuṭṭan
kaṇṇan } ; Ma. *kuṭṭan*.

Pa. *kaṇha* (Andersen, p. 66); Pr. *kaṇha* (Pischel, p. 215.)

S. *viṣṇu-*, 'the god of protection'; Ta. *viṭṭunu*
viṭṭu
viṇṭu } ; Ma. *viṇṇu*.

Ka. *viṭṭu*; Pr. *viṇhu* (Pischel, p. 215).

kiṭṭan and *viṭṭu* are easily derived by the dropping of the succeeding *n* with a view to shorten the words. It may be interesting to see that in colloquial Telugu we find *kiṣṭa* which cannot be explained by saying that *n* changed into *ṣ*, but rather than *n* dropped off while the *ṣ* inherent between *ṣ* and *n* (though unrepresented in writing) remained. *viṇṭu* is perhaps a nasalized form of *viṭṭu*. It may also be regarded as a case of metathesis *viṇṇu* > *viṇṭu*. The Malayālam *viṇṇu* is given here on the authority of Dr. Gundert, who writes under the word: "T. M. Te. (Te. also *miṇ* from *min*?; rather Tdbh. of *viṣṇu*)" and gives as meanings 'the sky, heaven'. The Prakrit *viṇhu* seems to lend support to Dr. Gundert's derivation. But one would expect *viṇṇu*, 'the sky' to be connected with the Tamil word *viṇ* which is again, derivable from *viḷ*, 'to open'. Compare the de-cerebralized Te. *vinnu*. Bishop Caldwell has a remark on this very word. He says: "Sometimes *ṣ* is assimilated to a succeeding *n*—e.g., the name *Viṣṇu* becomes sometimes, both in poetical Tamil and in Malayālam *Viṇṇu*. This name appears also in poetical Tamil as *viṇṭu*, a word which denotes the wind as well as *viṣṇu*. Dr. Gundert identifies the *viṇ* of *viṇṇu*, '*Viṣṇu*', with the Tam.-Mal. word *viṇ*, 'sky', a true Tamil word connected with the root *viḷ*, 'to be bright'. The derivation of *Viṣṇu* from *viḷ* and *viṇ* looks very tempting, but I fear Sanskrit lexicographers will refuse to yield to the temptation." (Dravidian Comparative Grammar, page 163). Judged by the dictionary from which I have quoted, published in 1872, three years before the date of the publication of Bishop Caldwell's Grammar, second edition, Dr. Gundert would rather derive *viṇṇu* from S. *viṣṇu*. And *viṇṇu* in the sense of *Viṣṇu* is unknown to Tamil literature. *kuṭṭan* may be ascribed to the peculiar pronunciation of *r* which yields *ru* as in *iruṭi* > *rṣi*. The Telugu people of some districts pronounce *graha-* as *gruha*, and *krṣṇa-* as *krusṇa*. Some Tamil scholars in the vicinity of Madras have been heard to refer to Sanskrit as *samskrutam*. The old Tamil word *amutu* indicates this pronunciation, being derived from S. *amṛta*. Dr. Gundert does not give the Malayālam *kuṭṭan* as a tadbhava of S. *krṣṇa*. Evidently he connects it with *kuṭṭi* which is ultimately derived from *kuḷ*.

S. *tikṣṇa-*, 'sharp, warm'; Ta. *tiṭṭaṇam*
tikṣaṇyam }

S. *uṣṇa*-, ‘heat, warmth’; Ta. *uṭṭanam*
 uttinam }

s followed by *p* is assimilated, or changed into *t*.

S. *puṣpa*-, 'a flower'; Ta. *puṭṭam*; Pr. *puppha* (Pischel, 09).

S. *puṣparāga*-, 'a topaz'; Ta. *puṣparākam*
purutarākam } ; Ka. *puṣyarāgam*;

Ma. *pusyarāgam.*

s followed by *m*.

S. *dusmanta-*, 'Duṣyanta, a king'; Ta. *tuṭṭantaṇ*.

S. *bhīṣma-*, 'a Bhārata hero'; Ta. *vīṭṭuman*.

bhīṣma- is simply explained, changing as *viṣṇu*, and *bh* first becoming *b*, then *v*. In the case of *duṣmanta-*, the disappearance of *m* is inexplicable except by the usual change of *m* to *v*, and the final assimilation of *v* as in S. *khaṭvāṅga-*, 'a club with a skull at the top'; Ta. *kaṭṭaṅkam*.

S. *sūkṣma-*, 'subtle'; Ta. *cūkkumam* }
cūkkam }

The word first became *cūkṣumam* with an anaptyctic vowel between *ṣ* and *m*, and then *cūkkumam*. The other form was obtained by a kind of assimilation which may be termed Haplology. There is another form which may perhaps be called a re-Sanskritized form, *cūkṣam* or *cūṭcam*, 'a trick'. Malayāḷam also has *sūkṣam* and Dr. Gundert gives the meanings 'minute, subtle', and 'care'. It has also formed a verb from the word, *sūkṣikka*, 'to watch'.

S. *griṣma-*, 'the summer'; Ta. *kiriṭṭumam* }
kiriṭam }

kiriṭṭumam is like *viṭṭumam* explained above, only the anaptyctic vowel came in to make *gri kiri*.

S. *lakṣmaṇa-*, 'a brother of Rāma'; Ta. *ilakkumaṇaṇ* }
ilakkuvaṇ }

Ma. *ilakkaṇaṇ*.

S. *lakṣmī-*, 'the goddess of fortune'; Ta. *ilakkumi* }
lekṣumi }
lecci }
ecci } ; Te. *lacci* ;

Pr. *lacchī* (Pischel, p. 216).

Ta. *ilakkuvaṇ* is clearly derived from *ilakkumaṇaṇ*, *m* changing into *v* and *ṇa* being assimilated. There are also popular forms like *leccumaṇaṇ* and *lekṣumaṇaṇ* corresponding to the tadbhavas of S. *lakṣmī-*. This vowel-change *a* > *e* is peculiar to Tamil and is common in words beginning with unaspirated voiced stops and liquids, e.g., *keṇēcaṇ* [geṇe:ṣaṇ] *ceyam* [dʒe:jəm], *terittiram* [de:ridrəm], *pelam* [be:ləm], *yemaṇ*, *reṇkaṇ* [re:ṅgən]. Except *ceyam* and *pelam*, these examples are only heard in popular speech. People write the words all right although they pronounce them with an *e*. The explanation would appear to be that people

who pronounce so pronounce *a* as a diphthong *æ* and hence we hear an *e*. Really it is not a clear *e*. Compare also the pronunciation of the Malayālam speaking people in regard to words with a medial *r* followed by *a*, which I observed as peculiar, e.g. *kuraññu*, 'a monkey,' *pūram*, 'name of a lunar mansion'.

In the case of *lecci*, *m* has been lost by assimilation, and in (y-)*ecci* the loss of the initial consonant may be noticed. Ma. *ilakkaṇan* has been dealt with in another connexion.

S. *ślēṣman-*, 'phlegmatic humour'; Ta. *cilēttumam*;
cēṭṭumam;
cēttumam, *cērrumam*;
cilēppaṇam;
cilēṭṭpaṇam, *cēṭṭpaṇam*;
cērpam, *cēppaṇam*.

Ma. *culēṇṇam*; Pr. *sēpha* (Pischel, p. 185).

It looks curious that this Sanskrit word of all should have so many tadbhavas in Tamil. But this is a word that cannot escape being used oftener than any other, indicating as it does the humour that kills. When the *ślēṣma-dhātu* makes its presence felt, then it is a sure sign that death is knocking at the gate. Considering the circumstances in which the word is employed, one cannot be surprised at the changes the original Sanskrit word has undergone. *cilēṭṭumam* is formed after the model of *viṭṭuman*, or *kiriṭṭumam*. In *cēṭṭumam*, we have assimilation. *Cērrumam* is a case in which the cerebral *ṭ* becomes an alveolar *t*. There is absolutely no difference in pronunciation between a double *tt* and a double *rr*. The double *rr* often, we may say almost invariably, becomes *tt*, e.g., *kārru* > *kāttu*. S. *ślēṣman-* must have been pronounced with a dental medial *s* before it became *cilēṭṭpaṇam*. Compare S. *bhasman-*, Ta. *paṇṇam*. *cēppaṇam*, *cēṇṇam*, and *cērpam* point to assimilation. Compare the Prakrit form *sēpha*. *cilēppaṇam* also got *pp* by assimilation of *r* to *p*.

S. *bhāṣya-* 'a commentary'; Ta. *pāṭiyam*.

S. *puṣya-* 'name of an asterism'; Ta. *pūcam*; Ma. *pūyam*.

S. *lakṣya-* 'an aim'; Ta. (*i-*)*lakkiyam*, 'poetical literature.'
(*i-*)*lakku*, 'aim.'

Ta. *pāṭiyam* is plain enough. Ta. *pūcam* may perhaps be regarded as a case of compensatory lengthening. The vowel *u* is lengthened to compensate for the loss of *y*. Ma. *pūyam* must have been derived from Tamil when the medial *c* was pronounced as *j*. The *i* in the Tamil forms of S. *lakṣya-* is prothetic. Ta. *ilakku* may be derived from *ilakkiyam*, but the process is not plain. It seems likely that there was another tadbhava *ilakkam* from S. *lakṣa-*, 'aim', which led in course of time to the formation of *ilakku* by the dropping of the final *-am*. There is, of course, a Ta. *ilakkam* which means 'number.' Brown's Telugu Dictionary (Second edition) gives the corresponding Telugu word *lekka* and suggests that it is a pure Telugu word when it means 'number' and makes it a tadbhava of S. *lakṣya-* when it means 'esteem'. I am inclined to think that 'number' and 'esteem' are closely related and that both are denoted by the tadbhava of S. *lakṣya-*. Compare also Ta. *eṇ* which means 'to count' as well as 'to regard, to think,' etc., and again Ta. *mati* which means 'to estimate or appraise' as well as 'to regard'. The noun *matippu* means 'estimate' as well as 'esteem'. Ta. *ilakkam*, 'a lakh' is also a tadbhava of S. *lakṣa-*.

The Dental Sibilant

The dental *s*, like the cerebral *ṣ*, has been given in the Tamil alphabet a separate symbol adopted from the Grantha alphabet. This symbol, however, did not exist as a letter of the Tamil alphabet in the earlier language. Even today the dental *s* is popular only in the case of words where it occurs as part of conjunct consonants, e.g., *pustakam*, *stiri*.

Ordinarily the dental *s* is represented in Tamil or Malayalam by the palatal *c* which letter is in fact made to answer, as has been shown already, for *ś* and *ṣ* as well, being the nearest phonetic representative.

S. *siṃha-*, 'a lion'; Ta. *ciṅkam*; Ma. *ciñnam*.

S. *siṇḍūra-*, 'red lead'; Ta. *cinturam*; Ma. *cintūram*.

S. *sanghāta*-, 'association'; Ta. *caṅkāttam*; Ma. *caṅṇātam*.

S. *sēvaka*-, 'a servant'; Ta. *cēvakaṇ*
cekuvāṇ } ; Ma. *cēvakan*.

S. *svāti*-, 'name of an asterism'; Ta. *cōti*; Ma. *cōti*.

Such words as *sāvu*, 'death', *soṛa*, 'a shark', *sōna*, 'rain' in Telugu corresponding to *cāvu*, *cuṛā* and *cōṇai* of Tamil, and again such words as *sāvu*, 'death', *sōne*, 'incessant drizzle', *suttu*, 'surround' in Kanarese corresponding to *cāvu*, *cōṇai* and *cuṛru* of Tamil, prove that the sound of *c* is related to that of *s*, and Telugu and Kanarese with their enlarged alphabets have preferred to represent it by the latter symbol in the words shown. That the sound of *s* is adopted for *c* by some classes even among Tamils has been shown already.

Ta. *cōti* is also the tadbhava form of S. *jōytiṣ*-.

One would expect the dental *s* to change into the dental *t* judging from the close relationship to each other and the difficulty of pronouncing the spirant for children and untrained people. And so it does. In Tamil the change is not common at the beginning of a word whereas Malayālam can supply a number of instances. They are mostly from the Rāmacaritam, the oldest Malayālam work extant.

S. *satkāra*-, 'hospitable reception'; Ma. *takkāram*.

S. *santati*-, 'progeny'; Ma. *tantati*.

S. *santōṣa*-, 'delight'; Ma. *tantōlam*.

S. *sambandha*-, 'relation'; Ma. *tammantam*.

S. *sāyaka*-, 'an arrow'; Ma. *tāyakam*.

S. *sārathi*-, 'a charioteer'; Ma. *tārati*.

S. *surāṅga*-, 'a mine'; Ma. *turaṅkam*.

S. *sōdara*-, 'a uterine brother'; Ma. *tōtaran*.

S. *sēnā*-, 'an army'; Ta. *tāṇai*; Ma. *tēna*.

The change of *ē* to *ā* in Ta. *tāṇai* is somewhat difficult to explain. Compare Te. *ēnugu* and Ta. *āṇai*. There is another instance in

Tamil illustrating this change of *s* to *t* which is of doubtful validity. In Tamil one meets with the word *tattiyam* which may be taken as a tadbhava of S. *satya*-. But there is in Sanskrit *tathya*- which means 'truth, reality'. That obviates the need for formulating any change of *s* to *t* with regard to that word.

Proper names also seem to have been affected by this change.

S. *sampāti*-, 'name of a fabulous bird in the Rāmāyaṇa';
Ma. *tampāti*.

S. *samiraṇa*-, 'air'; Ma. *tamiraṇan*.

S. *sumitrā*-, 'one of the wives of Daśaratha'; Ma. *tumittirai*.

It may be noted in this connexion that Prakrit shows this change in regard to *c*. Pr. *tigicchā* < S. *cikitsā*- (Pischel, p. 224).

When *s* occurs in the middle of a word between vowels, the change is found as often in Tamil as in Malayāḷam.

S. *asī*-, 'a sword'; Ma. *ati*.

S. *asura*-, 'a demon'; Ma. *aturan*.

S. *āyāsa*-, 'fatigue'; Ma. *āyātam*.

S. *āsana*-, 'seat'; Ta. *ātaṇam*.

S. *kusuma*-, 'flower'; Ma. *kutumam*.

S. *dāsa*-, 'a servant'; Ta. *tātaṇ*; Ma. *tātan*.

S. *nāsikā*-, 'the nose'; Ma. *nātika*.

S. *niyāsa*-, 'a house'; Ma. *niyātam*.

S. *māsa*-, 'a month'; Ta. *mātam*.

S. *musala*-, 'a club'; Ma. *mutalam*.

S. *vaśiṣṭha*-, 'name of a sage'; Ta. *vatiṭṭaṇ*.

S. *vilāsa*-, 'sport'; Ma. *vilātam*.

S. *vyāsa*-, 'name of a sage'; Ta. *viyātaṇ*; Ma. *vīyātan*.

S. *rasa*-, 'juice'; Ta. *iratam*; Ma. *iratam*.

S. *śvāsa*-, 'breath'; Ta. *cuvātam*.

S. *śāsana*-, 'a deed'; Ta. *cātaṇam*.

Medial *s* sometimes changes into *y*, like *ś*.

The Tamil form presupposes a form *vacantam* in which *c* was pronounced as *j*. Ta. *vayantam* is a pretty old word. The modern form is *vacantam* in which *c* is pronounced as *ś*. The tendency of the Tamil-speaking people in Trichinopoly and the neighbouring places to substitute *y* for *c* (*ś*) even in Tamil words, as e.g., *pēcātē* > *pēyātē*, as they pronounce them, would lead one to doubt if the intermediate change of *c* > *j* has to be taken for granted.

S. *skanda-*, 'the war-god'; Ta. *kantan*; Te. *kanduḍu*.

S. *stuti*-, 'praise'; Ta. *tuti*.

S. *sthūṇā*-, 'a pillar'; Ta. *tūṇ*; Ma. *tūṇ*; Pr. *thūṇā* (Pischel, 01).

has *paḷuṅku*. Telugu has *palugu* with an ardhānusvāra before *-gu* which makes the form almost identical with the Malayāḷam form.

In some words *s* preceding a vowel also has shown a tendency to drop off.

S. *sabhā-*, 'an assembly'; Ta. *avai*.

S. *sandhyā-*, 'twilight'; Ta. *anti*, 'evening'; Ma. *anti*.

S. *samaya-*, 'opportunity'; Ta. *amayam*.

S. *sindhu-*, 'the Indus'; Ta. *intu*; Ma. *intu*.

S. *siṃhala-*, 'ceylon'; Ta. *iḷam*; Ma. *iḷam*.

S. *śiśa-*, 'lead'; Ta. *iyam*; Ma. *iyam*.

S. *sahasra-*, 'a thousand'; Ta. *āyiram*; Ma. *āyiram*.

S. *sūci-*, 'a needle'; Ta. *ūci*; Te. *sūdi*; Ka. *sūji*.

Many of these have other forms with *s* retained, of course changed into the Tamil *c*, as *capai*, *canti*, *camayam*, *cintu*, *ciṅka-lam*, *cakacciram*, and *cūci*. In the expression *anticanti*, if *anti* is taken to mean 'evening', *canti* may be taken to mean 'morning'. S. *sandhyā* means 'twilight hour', and *anti* has come to mean 'evening' in Tamil and Malayāḷam. There is another *anti* in Tamil met with in expressions like *antikkālam*. There, of course, it is a tadbhava of S. *antya-*, 'last'. S. *siṃhala-* has undergone many changes. There is the modern tadbhava *ciṅka-lam* (Te. *siṅgaḷamu*) which is employed to denote the language *Singhalese*, and the country inhabited by the people that speak it. But *iḷam* is derived in a different way: Pali has *siha* corresponding to S. *siṃha-* (Prakrit also has that form.—Pischel, p. 68). The Tamil tadbhava of S. *siṃhala-*, through Pali, would be *siyāḷam*. And the stress on the first syllable has led to the dropping of *ya* after it. We thus get *siḷam* from which by the dropping of the initial *s*, the word *iḷam* or *iḷam* is obtained. One is not inclined to attach much value to the change of *ḷ* to *l*, as often the Tamils in the so-called pure-Tamil districts, Tinnevely and Madura, make no difference between them.

S. *svalpa-*, 'insignificant'; Ta. *corpam*.

S. *svadēśā-*, 'one's own country'; Ta. *cutēcam*.

S. *svatantra*, 'self-dependent'; Ta. *cutantaram*.

Ta. *cāṇi* is not used alone. It is only an affix as in *turai-cāṇi*. In many of the Tamil words *u* after the initial consonant is pronounced as *o*, and in course of time is bound to be written so. *cayampu* is a classical word (the Nīlakēci, quoted in the Maṇimēkalai commentry, p. 254). Evidently it is a form borrowed through Prakrit. Prakrit has *sayam* for S. *svayam* (Pischel, p. 237). Pali also has that form (Andersen, p. 265).

There is in Tamil a word *cantam*, 'one's own'. Sanskrit-knowing people pronounce it as *sontam* and *svantam*. Dr. Gundert gives in his dictionary *svantam* and transcribes it in English as *sondam* and indicates that it is connected with *sva* of Sanskrit. Dr. Kittel gives in his Kannada Dictionary *svanta* and says it is equivalent to *sonta*, and makes both tadbhavas of S. *sva-*. In Brown's Telugu-English Dictionary (second edition) *svantamu* and *sontamu* are regarded as the same word and both are connected with S. *svatantra-*. If *contam* must be connected with Sanskrit, no other derivation seems to be possible. S. *svatantra-* might have been corrupted into *svantam*, rather than S. *sva-*.

S. *svatantra-*, one would expect to become *cutantiram*. Indeed the scholars are very particular about the vowel *i* before *r*, that being the natural anaptyctic vowel. But people would not have it so. *cutantaram* is a common word and perhaps looks neater to them than the word with *i*.

S. *snēha-*, 'oil, love'; Ta. *ney*, 'ghee'; } Ma. *neyi* } 'ghee'
 nēya } 'love'; } *nai* }
 nēsa } *nēsam*, 'a friend'

This word could have been put along with others of the same kind, the words that drop the initial *s*, with a further change as happens in *siha* of Pali. But it has undergone some curious changes, and deserves separate handling. Besides the loss of the

initial *s*, the vowel is shortened when we get *ney* in Tamil and *neyi* in Malayālam. Malayālam would make it *nai* as well, the reverse case of what happens in S. *daiva* > Ma. *teyyam*. Telugu has *neyyi* and *neyi*; both mean 'ghee'. Kanarese has *ney*; Dr. Kittel is, however, not sure of its being a tadbhava of S. *snēha*. In Tamil, *ney* when used independently means 'ghee', and in composition, 'any oily thing' as in *veṇṇey*, 'butter' (lit. 'white ghee'), *eṇṇey*, 'gingelly oil'. It is a pretty old word and one has to think well before he sets it down as a tadbhava. The chances are more with regard to *nēya*. Even in that case one has to take into consideration words like *nē*, 'affection,' found in Tamil classics like the *Puṇanānūru*. Assuming that *nēyam* is a tadbhava, one has to explain another form of the word *nēcam* by analogical instances, like *uyir*, *ucir*, or by metathesis. And Kanarese has *nēsta*, *nēha*, meaning 'love'. Telugu has *nēstamu*, *nēyamu*. While *nēha* and *nēyamu* can be easily explained to be tadbhavas of S. *snēha*-, Ka. *nēsta* and Te. *nēstamu* are harder to account for. S. *sēnhita*- is possibly the source of these forms thus: *snēhita*- > *nēsita* > *nēsta*. Ta. *cinēkita* with an anaptyctic vowel may also be noted. Compare Pali *sinēhita* (Andersen, p. 270).

S. *stambha*-, 'a pillar'; Ta. *kampam*; Ma. *kampam*.

This equation is accepted by almost all Dravidian grammarians and lexicographers. Dr. Gundert doubts the derivation. Dr. Kittel regards Ka. *kamba* or *kambha* as a tadbhava of S. *skambha*- or *stambha*-. The Telugu form is *kambamu*. That Prakrit has *khambha* and that the Prakrit word has been borrowed by all these languages is the only possible explanation. But Dr. Kittel's alternative derivation from *skhambha*- seems to be nearer the truth. Pischel (p. 4) equates *khambha* with the Vedic *skambha*-. Grassman in his *Wörterbuch zum Rig-veda* (p. 1585) has given *skambha*- as meaning 'prop, support.' And the omission of the initial *s* is more natural than a change of *st* to *k*. The Tamil *kampu* meaning 'a stick', used only in the southernmost districts of the Madras Presidency—in Madras the word is *kompū*—is possibly a corruption of *kampam*.

The medial *s* followed by dental stop consonants is assimilated.

S. *astra-*, 'an arrow'; Ta. *attiram*.

S. *astamana-*, 'setting of the sun'; Ta. *attamaṇam*; Pr. *attamaṇam* (Hēmacandra's Kumārapāla-carita, V. 88).

S. *avasthā-*, 'state'; Ta. *avattai*; Pr. *avatthā* (Pischel, p. 211).

S. *pustaka-*, 'a book'; Ta. *puttakam*; Pa. *potthaka* (Andersen, p. 183).

S. *mastaka-*, 'skull'; Ta. *mattakam*; Pa. *matthaka* (Andersen, p. 201).

S. *hasta-*, 'the hand'; Ta. *attam*; Pr. *hattha* (Pischel, p. 211); Pa. *hattha* (Andersen, p. 279).

S. *hastin-*, 'an elephant'; Ta. *atti*; Pr. *hatthi* (Pischel, p. 213); Pa. *hatthin* (Andersen, p. 280).

But the medial *s* followed by a guttural or a labial is changed into *r*, the alveolar *r*.

S. *bhāskara-*, 'the sun'; Ta. *pārkarana*.

S. *āspada-*, 'a place'; Ta. *ārpatam*.

S. *brhaspati-*, 'Jupiter'; Ta. *pirukarpati*.

The medial *s* followed by *m*, the labial nasal is transformed into *r* changing the succeeding nasal into a stop.

S. *bhasmam-*, 'ashes'; Ta. *parpam*.

The intermediate form *paspam* is also used by people in the sense of 'a medicinal powder'. In another connexion it has been pointed out that *parpam* is also a tadbhava of S. *padma-*, 'the lotus.'

The medial *s* followed by *y* takes an anaptyctic vowel.

S. *nasya-*, 'a sternutatory'; Ta. *naciyam*.

The final *-as* is replaced by *-am* in Tamil tadbhavas. Perhaps the Prakrit languages in which *-as* also becomes *-am* have exerted some influence on Tamil words.

S. *tamas-*, 'darkness'; Ta. *tamam*; Ma. *tamam*.

S. *śiras-*, 'the head'; Ta. *ciram*; Ma. *ciram*.

S. *manas-*, 'the mind'; Ta. *maṇam*; Ma. *manam*.

S. *tapas-*, 'penance'; Ta. *tavam*; Ma. *tavam*.

There are, however, later tadbhavas with *u* affixed to the Sanskrit bases: *ciracu*, *manacu*, *tavacu* and *tapacu*. *manacu* also appears as *manatu*. These words are popular; *tamam* is only classical. These later tadbhavas are the result of a second borrowing.

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THE SANSKRIT SPIRANT *h*

Its treatment in Tamil and Malayāḷam Tadbhavas

The spirant *h* is a sound not altogether foreign to Tamil. For Tamil has the *āytam h* (∴) which is almost an equivalent of it. But the *āytam* differs from *h* in some ways. The *āytam* is found in a very few words in Tamil and is peculiar to Tamil of all the Dravidian tongues. It is, however, not a recent introduction, being referred to in the Tolkāppiyam, the oldest Tamil grammar extant (Eḷuttatikāram, 2). Tolkāppiyar refers to it as 'the three dots known as *āytam*, 'thus indicating its shape when committed to writing. And it is mere dots not a linear symbol like those for all other sounds. Again he says: "The consonant *āytam* comes in only after a short vowel and before the six vowel-consonants *k, c, ṭ, t, p, and ṛ*" (Eḷuttatikāram, 38). Thus it is only medial, and its use is much restricted.

Dr. Caldwell says: "Tamil makes no use whatever of aspirates, and has not borrowed any of the aspirated consonants of Sanskrit, nor even the isolated aspirate *h*. It professes to possess a letter, half vowel, half consonant, corresponding in some respects to the Sanskrit *visarga* and called *āytam* (that which is subtle, minute). It is pronounced like a guttural *h*, but is only found in the poets, and is generally considered a pedantical invention of the grammarians" (Dravidian Comparative Grammar, third edition, p. 130). Dr. Caldwell's statement regarding the Tamil *āytam* is, I am afraid, not based on a knowledge of facts. The *āytam* is not considered by any one, so far as I know, a pedantical invention of the grammarians. What could have been their purpose in inventing such a letter? This calls in question the very fundamental principle of Tamil grammar-writing. Tamil grammarians have always held that literature should precede grammar, and the fact that reference is made to the *āytam* in the Tolkāppiyam would put it beyond dispute that it is no idle invention of the grammarians.

The words in common use where the *āy*ta^m occurs are Ta. *aḥtu*, 'that', and Ta. *iḥtu*, 'this'. These ought to be pronounced with the aspiration, but the popular pronunciations are [ʌḡũfũ] and [iḡũfũ] where *h* is represented by [ḡũ]. There are some words found only in books where *h* occurs : Ta. *eḥku*, 'steel' is one. This is popularly pronounced as [ɛḡũ] as if there were no *h* at all, and it is worth noting that *eḥu* is only another form of *eḥku*, corrupted from it. Compare S. *muhūrta*, 'a period of 48 minutes, auspicious hour' > Ta. *mukūrttam* > *muḷuttam*. In the case of *eḥku*, *h* cannot be pronounced as [ḡũ] as it is itself followed by *ku*. Ta. *kaḥcu*, 'a weight, $\frac{1}{4}$ oz.', is another word, and is pronounced as [kaḡũsũ]. Some other words are Ta. *aḥkam*, 'food-grain' and Ta. *veḥku*, 'desire ardently'.

The *āy*ta^m sometimes comes in when words combine as in the case of *pal + tuḷi = paḥruḷi*, 'many drops', which is pronounced [paḡuḷi]. There is also another compound, *paṛruḷi*. Ta. *muhḥitu*, 'the thorn is bad', is another example. This is pronounced [muḡũḍiḍu]. There is *muḥḥitu* as well.

The tendency of modern speech, however, it must be admitted, is to discard the *āy*ta^m altogether. The words *aḥtu* and *iḥtu* referred to above are about the only ones commonly met with, but only in books and in pedantic speech. They are also acknowledged to be variants of *atu* and *itu*, and considered to be necessary when these words are in sandhi followed by words beginning with a vowel or *y*, e.g., *aḥtaṭuppu*, 'that is the oven', *iḥtūr*, 'this is a village'. But to argue from that circumstance that the *āy*ta^m is only an invention of the grammarians is like arguing that the letter *r* is an invention of the Telugu or Kannada grammarians because modern speech makes no distinction between *r* and *ṛ*, or rather knows only *r*.

Sanskrit words where *h* occurs, when they enter Tamil, invariably have it changed. It must be noted, however, that in recent times, the Grantha symbol has been adopted in the Tamil alphabet, and is often found used in books, especially school books. When it does change, it follows certain laws. When *h* is initial, it disappears in the tadbhavas.

S. *mahēndera*-, 'name of a mountain range'; Ta. *mayēntirām*.

In all these cases, there is the alternative tadbhava with *k*. *y* seems to have crept in as a glide, as in *narahari*, when *h* was dislodged, e. g., *mahiṣa* > *maīḍa* > *mayiḍa* or Ta. *mayiṭam*. The *y*-glide has evidently been suggested by the *i* that precedes or follows. Ta. *dakikka* (S. *dah*) and Ta. *vakikka* (S. *vah*) are pronounced as if they were written *dayikka* and *vayikka*. Malayālam has the colloquial *vayyā* for *vahiya*, 'intolerable, impossible.' Telugu has *bayilu*, 'the open', obviously from S. *bahiṣ*-. The Hindustani *nahi* is colloquially *nayi* or *nai*. Compare also Ta. *mailāppūr* supposed to be connected with S. *mahiṣārūpya*-, and *maisūr* (mysore) with S. *mahiṣāpura*-.

The following compounds follow the rule mentioned above regarding words that have a medial *h*. Although *h* is initial in the second words of these compounds, the compounds have to be regarded as single words.

S. *paramahaṃsa*-, 'an ascetic of the highest order'; Ta. *paramakañcaṇ*.

S. *śiśuhatyā*-, 'child-murder, infanticide'; Ta. *cicukatti*. Strictly viewed, these compounds should be *parama* + *añcaṇ* = *parama* (v) *añcaṇ*, *cicu* + *atti* = *cicu* (v) *atti*. But these have not been treated as compounds. Thus there is no initial *h* in these, it is only medial. And the medial *h* has, following the usual rule, become *k*. But the medial *k* is hardly *k*, and is often interchangeable with *v*, as has been shown above. Compare also *nōvum*, *nōkum*; *nāval*, *nākal* (in *nākappaḷam*). The medial *k* has a peculiar sound-value in Tamil. Of course it is that of *g* when it follows its nasal. Some people would pronounce it as *g* in other places as well. Others would make it an equivalent of *h* and pronounce it as an aspirate. This appears to be due to Sanskrit influence. Others again would pronounce it as *k*, unvoiced velar pure and simple. The correct pronunciation of the *k* between vowels, however, seems to be none of these but that very nearly akin to the modern Greek γ. Dr. Gundert adopted this symbol in transcribing the Malayālam words with the medial *k* in his Malayālam Dictionary. It may be

are but modifications of the symbols for voiced consonants, this would complete the symmetry. But Tamil perhaps owing to Sanskrit influence has altered the pronunciation of the medial *c*, and there it remains, a sound between *ś* and *s* as already pointed out. The same is the value of the initial *c* also in modern Tamil. *c* preceded by its nasal is *j*; and preceded by another *c*, it regains its palatal sound.

When the medial *h* is found in Sanskrit words before a consonant, it is either assimilated to that consonant or elided.

S. *vahni*-, 'fire'; Ta. *vanni*.

S. *brahman*-, 'the creator'; Ta. *piramaṇ*; Te. *bomma*.

S. *madhyāhna*-, 'noon'; Ta. *mattiyāṇam*.

In some words when *h* happens to be between vowels (*a*'s) it is neither merely lost nor assimilated as already pointed out, but lengthens the vowel that precedes it before disappearing.

S. *kalaha*-, 'quarrel'; Ta. *kalām*.

S. *grahaṇa*-, 'an eclipse'; Ta. *kirāṇam*.

S. *mahat*-, 'greatness'; Ta. *māttu*.

S. *rahasya*-, 'secret'; Ta. *rāciyam*.

S. *gahana*-, 'the sky'; Ta. *kāṇam*.

S. *sahavāsa*-, 'dwelling together'; Ta. *cāvācam*.

S. *sahasra*-, 'a thousand'; Ka. *sāvīram*; Ta. *āyiram*.

This kind of change is met with in pure Tamil words too. Ta. *akam*, 'a house', of course pronounced as if it were *aham* by the Brāhman people, has an alternative form *ām*. Ta. *āttāl*, *āmuṭaiyāṇ*, etc., are all compounds of *ām* or *akam*. The Sanskrit word *aham*, 'I', never takes this form except in the compound *āṅkāram* for S. *ahaṅkāra*-. Compare Ta. *pakal*, *pāl*; S. *śakaṣa*-, Ta. *cakaṣu* and *cāṣu*.

S. *mahān*-, 'the active agency of nature, a great man'; Ta. *māṇ*. In this as well as in the Hindustani *mahāl* which becomes *māl*, e.g., the Tirumalaināyakkāṇ Māl at Madura, *ah* is assimilated to the long vowel *ā* that follows.

LIST OF BOOKS AND PAPERS QUOTED OR REFERRED TO

Abhinava Maṅga Rāja : Maṅga Rāja Nighaṇṭu or Kavi Maṅ-
gābhidhāna. [Kanarese].

Amarasipha : Amarakōśa. [Sanskrit].

Andersen : Pali Reader, Part II : Glossary.

Āndhranāma-saṅgrahamu. [Telugu].

Āndhranāma-śēṣamu. [Telugu].

Apte, V.S. : Practical Sanskrit-English Dictionary.

Aracakēcari : Irakuvamicam. [Tamil].

Aruṇandi Śivācārya : Śivajñāna-siddhiyār. [Tamil].

Avirotiyālvār : Tirunūrrantāti. [Tamil].

Avvaiyār : Koṇṇaivēntan. [Tamil].

Beschi, J. : Caturakarāti. [Tamil].

Bhaṭṭakalaṅka : Karṇāṭaka-śābdānuśāsana. [Sanskrit].

Böhtlinck and Roth : Petersburg Sanskrit Wörterbuch.

Brown, C.P. : Telugu-English Dictionary (Second Edition, 1903).

Caldwell : A Comparative Grammar of the Dravidian Lan-
guages (Second edition, 1875).

Caldwell : A Comparative Grammar of the Dravidian Lan-
guages (Third edition, 1913).

Cāttaṇār, Kūlavāṇikaṇ : Maṇimēkalai. [Tamil].

Cinnayya Sūri : Bālavayākaraṇamu. [Telugu].

Ekākṣara-nighaṇṭu. [Sanskrit].

Fick : Indogermanisches Wörterbuch.

Grassman : Wörterbuch zum Rig-veda.

Gundert, H. : A Malayālam and English Dictionary (1872).

Do. A Grammar of the Malayālam Language (1868),
[Malayālam].

Do. The Dravidian Element in Sanskrit (Journal of
the German Oriental Society 1869).

Hēmacandra : Kumārapāla-carita. [Prakrit].

Henry, Victor : Précis de Grammaire Palie.

Kapilar : Kuriñcippāṭṭu. [Tamil].

Kēśirāja : Śabdamaṇidarpaṇam. [Kanarese].

Kētana : Āndhra-bhāṣā-bhūṣaṇamu. [Telugu].

Kittel, F. : Kannaḍa Dictionary.

Do. A Grammar of the Kannaḍa Language.

Do. The Dravidian Element in Sanskrit Dictionaries
(Indian Antiquary for August 1872).

Kumārila Bhaṭṭa : Tantravārttika. [Sanskrit].

Maṇḍalapuruṣar : Cūṭamaṇi-nikaṇṭu. [Tamil].

Māṇikkavācakar : Tirukkōvaiyār. [Tamil].

Do. Tiruvācakan. [Tamil].

Muṭattāmakkaṇṇiyār : Porunarāṇṇuppaṭai. [Tamil].

Muttucāmi Kavirāyar : Nānārtha-dīpikai. [Tamil].

Naccinārkkiniyar : Commentary on Tolkāppiyam, Collatikāram.
[Tamil].

Nāgavarma : Karṇāṭaka-bhāṣā-bhūṣaṇam. [Sanskrit].

Nakkīraṇār : Tirumurukāṇṇuppaṭai. [Tamil].

Nālaṭṭiyār. [Tamil].

Nālayira-prabandham. [Tamil].

Nallantuvāṇār : Kalittokai. [Tamil].

Nannayya : Nannayya-Bhaṭṭiyamu. [Telugu].

New Tamil Dictionary of the University of Madras (in preparation).

Nilakēci. [Tamil].

Oldenberg, H. : Buddha.

Parañcōti Munivar : Tiruviḷaiyāṭarpurāṇam. [Tamil].

Patirruppattū. [Tamil].

Pattuppāṭṭu. [Tamil].

Pavaṇanti Munivar : Naṇṇūl. [Tamil].

Peruñkaucikaṇār : Malaipaṭukaṭām. [Tamil].

Piñkala-nikaṇṭu. [Tamil].

Pischel, R. : Grammatik der Prakrit-Sprachen.

Pope, G. U. : A Larger Grammar of the Tamil Language in both its dialects.

Puṛaṇāṇūru. [Tamil].

Rājarāja Varma : Kēraḷa-Pāṇinīyam. [Malayāḷam].

Do. Śabdaśodhini. [Malayāḷam].

Rāmacaritam. [Malayāḷam].

Śaiva-tirumuraikaḷ, comprising the Tēvāram, Tiruvācakam, etc. [Tamil].

Seshagiri Prabhu, M. and Krishnan, M. : Vyākaraṇa-miṭram. [Malayāḷam].

Sitarāmācāryulu : Śabdaratnākaramu. [Telugu].

Śivajñāna Yōgi : Kāñcippurāṇam. [Tamil].

Subrahmaṇya Dikṣitar : Prayōga-vivēkam. [Tamil].

Svāminātha Dēśikar : Ilakkaṇakkottu. [Tamil].

Tamiḷccollakarāti of the Madura Tamil Sangham.

Tiruttakka Tēvar : Jīvaka-cintāmaṇi. [Tamil].

Tiruvaḷḷuvar : Tirukkuṛaḷ. [Tamil].

Tolkāppiyam, Collatikāram. [Tamil].

Toṇḍadārya : Kaṇṇāṭaka-śabdamañjari. [Kanarese].

Tolāmolittēvar : Cūḷāmaṇi. [Tamil].

Uhlenbeck : Etymological Dictionary of Sanskrit.

Do. Manual of Sanskrit Phonetics.

Uruttiraṇkaṇṇanār : Perumpāṇāruppaṭai. [Tamil].

Villiputtūrāḷvār : Mahābhāratam. [Tamil].

Vinson, Julien : Manual de la Langue Tamoule.

Vireśaliṅgam Pantulu : Lives of Telugu Poets. [Telugu].

Vyāsa : Mahābhārata. [Sanskrit].

REMARKS

Mr. Anavaratavinayakam Pillai has dealt, in my opinion, in a highly praiseworthy way with an important section of the data bearing upon the relation of Sanskrit and the Prakrit dialects to the Dravidian languages, more especially to Tamil and Malayālam. The material that has been collected and arranged cannot but be of great value to future investigators. I venture to add the following remarks, more by way of accompaniment than by way of comment.

It is a well-known law that, when one speech-community borrows from another, the imported words are inevitably modified in accordance with the speech-habits of the importing community. Old Irish possessed no *p*, and when it imported the Latin word *purpura*, 'purple', it changed it into *corcur*. In French there are numerous words of Teutonic origin which show an initial guttural in place of an original *w*-sound. Some of these, as is well-known, were brought to England by the Normans and now form part of the Anglo-Norman element in English, such as *guard* by the side of *ward*, *guise* by the side of *wise*. Similarly the Hindustani *khāki*, 'like dust, dust-coloured,' is regularly pronounced, as a borrowed word, with an initial *k* instead of the sound heard in the Scotch *loch*. It is with such changes as these in the case of Sanskrit or Sanskritic words borrowed by Dravidian peoples that Mr. Anavaratavinayakam Pillai is mainly concerned.

The Dravidians of Southern India have borrowed a great number of such words. To a large extent they are cultural terms, but there is also a considerable number of purely Āryan vocables expressive of ideas for which the language already possessed sound-symbols. This seems to be especially the case with Malayālam, and it is interesting to note the curious changes in meaning which such borrowings frequently show. I would instance the words Ma. *samsāri*, 'to converse' [S. *samsāra*-, 'the (constantly recurring) course of mundane existence'], Ma. *tāmasi*, 'linger, loiter,'

(S. *tāmasa-*, from *tamas-*, 'darkness, the guṇa or quality of ignorance etc.'). Ma. *dāhi*, Ta. *tāki*, 'be thirsty' (S. *dāha-*, 'burning, feverish heat'). Similarly Ta. *mōcam*, in the sense of 'deceit, treachery', bears a meaning quite foreign to the S. *moṣam*, 'theft,' 'with which it seems to be connected. Ta. *coraṇai* or *curaṇai*, 'sensation,' moreover, is fairly widely removed in meaning from the original S. *smaraṇa-*, 'memory'. It need hardly be said that these changes in meaning need as careful investigation as the changes in form.

These borrowings, whatever modifications they may present, affect only the vocabulary. In structure the Dravidian languages of the south have remained true to the old type. With the race or races who occupied the greater portion of northern India in primitive times the case is different. These came at a very early period into direct contact with the encroaching Āryans, and here we find a state of things quite analogous to that which obtained in those parts of Europe into which Roman soldiers and Roman settlers successfully penetrated. The Romance languages may well be called Prakrits of Latin, and there can be little doubt that the history of the rise of these new languages in Europe is closely akin to that of the rise of the Middle Indian languages of India. In each case a period of more or less complete bilingualism must have preceded the establishment of the supremacy of the invading speech; and in each case the victorious language emerged greatly modified by the speech-habits of the invaded areas. In the Prakrits and in the Roman languages the local sounds, the local idioms, the local sentence-structure made their influence felt upon the adopted speech. In French the word for 'eighty' is *quatre-vingts*, i. e., 'four twenties'. Latin has *octoginta*; but in Modern Irish the word is *ceithre fichid* and in Modern Welsh *pedwar ugain*, both showing the same idiom as French. This was evidently a Keltic, and therefore Gallic, way of reckoning, and the Latin was modified in accordance with it. The running on of a final consonant when the next word begins with a vowel (as in *vous-avez* 'you have') is characteristic of Keltic sandhi. And such keltic peculiarities are frequently to be met with. Similarly, in India, the element of local colour is, I think, unmistakable.

This element presents an aspect which harmonizes well with the assumption that the northern parts of India were once occupied mainly by Dravidians. The Dravidian languages employ only post-positions: the Middle Indian dialects—The Prakrits, including Pali—, and the Modern Indian dialects, their lineal descendants, have completely abandoned prepositions and have substituted post-positions for them. The dative termination of nouns both in the vernaculars of the north of India and the Dravidian languages of the south consists of a *k*-sound (sometimes modified to a *g*-sound) followed by some vowel. The same grammatical psychology lies behind the Hindī *naukar-lōg-kō*, 'to the servants,' and the Tamil *viṭu-kaḷ-ukku*, 'to the houses'; both are distinctly agglutinative in type. The use of *iruntu* in the formation of the ablative in Tamil is quite parallel with the use of *hōi*, 'having been,' in the same case in Oṛiyā. Similarly the generalization of *kāraṇ* in Tamil as a suffix denoting an agent, 'one who has to do with something', is answered in Hindī by a similar use of *wālā* (S. *pāla*-, 'protector'); one often hears in Madras *pāni-wālā* substituted for *taṇṇir-k-kāraṇ*, 'water-man'. Both in the north and the south the word for 'foot' is used to denote 'a quarter', and in both these areas are to be found single words expressing the notions 'one-and-a-half' and 'two-and-a-half,' respectively. Moreover, the comparative and superlative have ceased to be expressed morphologically in the Sanskrit areas and have never been so expressed in the Dravidic areas: Malayāḷam *itu at-il nallatākunnu* is comparable in structure with Hindī *yih us-sē acchā hai*, 'this is better than that'; both languages employ a post-position (Ma. *-il*, locative; H. *-sē*, ablative) and a positive. Marāṭhī agrees with Kanarese (and other Dravidian tongues) in its method of expressing indirect narration: the direct speech is made indirect by adding in Marāṭhī *hmaṇūn*, a gerund from the root *hmaṇ*, in Kanarese *endu*, an adverbial participle from the root *en*, both roots meaning 'say'. Again the use of what may be called a gerundial construction is characteristic of both north and south. Hindī *lē-ā*, 'bring (thou)', *lē-jā*, 'take (thou) away,' are very un-Indogermanic in type, but answer perfectly to the Dravidic idiom, e.g., to Tamil *koṇṭu-vā*,

koṇṭu-pō. These resemblances and many more could be adduced-point unmistakably to the existence of a Dravidic substratum in the languages of northern India.

This Dravidian element makes its influence felt in the sounds employed, not only in the Sanskritic vernaculars, but, to a certain extent, in Sanskrit itself. The cerebral stops, so characteristic of Dravidian, are found even in the earliest Sanskrit. Sanskrit ज (*j*) stands for an original *z*-sound, which is regularly preserved in Avestan: S. *jantu*-, 'creature', is in Avestan *zantu*; S. *ajati*, 'he drives,' is *azaiti*, and so on. In northern India to-day the words containing a *z*-sound that have been imported from Persian (or Arabic) are popularly pronounced with a *j*: *zin*, 'saddle', is usually *jīn*; *ḥuzūr*, lit. 'presence', usually *hujūr*. Just as the Dravidian languages of the south have no true *z*, so in the north no true *z* appears to have been known. In the Middle Indian dialects the three sibilants of Sanskrit, श *ś* (palatal), ष *ṣ* (cerebral) and स (*s*) (dental), are, as a rule, reduced to one, and, similarly, the modern vernaculars only employ one *s*-sound; Hindi, for example, has *s* only, Bengali *ś* only. I am inclined to connect this treatment of the sibilants with the fact that in the Tamil alphabet, as in the Vaṭṭeluttu script upon which it is based, there is no symbol for *s*. In the Tamil-Malayaḷam country, at least, the pronunciation of the voiceless *s*, as well as the voiced *z*, evidently formed a difficulty, and it would appear that our (assumed) Dravidians of the north had no very good ear for sibilants of any sort. It seems to me that the evidence supplied by words borrowed from Sanskrit indicates that the pronunciation of श as a palatal *s*, which is heard over a very large portion of the Tamil-speaking area, is a comparatively recent development. Had this pronunciation existed in early times, Tamil would never have had recourse to த (*t*) to represent Sanskrit *s* between vowels but would surely have employed ச (*c*) as it does in what appear to be modernized forms, மாதம் (*mācam*) 'month', for instance, by the side of the older மாதம் (*mātam*). The sound of த between vowels (like the *th* of *then*) was a lisping approximation to the sibilant of the original, and evidently seemed to

the speakers to come nearer to this sibilant than the then pronunciation of *ṣ*. I think there can be little doubt that the early pronunciation of *ṣ* was that which it has now when doubled, and which the corresponding letter still retains in Malayālam, viz., that of Sanskrit *ṣ*. Between vowels, single consonants in Tamil, except when a Sanskritizing pronunciation is affected, are always (1) voiced and (2) spirantal, or fricative. It seems probable that the voicing preceded the spirantalization, that, for example, when the Sanskrit word *pitā* (nom.) was borrowed into Tamil, the original *t*-sound became first *d* and then the sound which the *த* of the Tamil word (பிதா) now represents—a voiced spirant dental. Similarly the *ṣ* of the word *ஆகாசம்* (*ākācam*) was almost certainly in earliest times, as in Malayālam to-day, pronounced as the Sanskrit *ṣ*, English *j*, the voiced sound corresponding to Sanskrit *ṣ*, English *ch* as in *church*, which would have been, I contend, the pronunciation of *ṣ* as an initial consonant. I consider it to be highly probable that the spelling *ஆகாயம்* (*ākāyam*) represents the further stage of spirantalization—the tongue remaining in approximately the same position, but the air-passage being less obstructed, the resulting sound, therefore, assuming a character verging upon that of the vowel.

With the above view of the original pronunciation of the sign *ṣ*, initial and medial, in mind, I should like to offer a suggestion as to the possible source of the word *pūjā*. I do so with some hesitation since it involves to a certain extent the assumption that what is true of Primitive Tamil is also true of Primitive Dravidian in general. The word *pūjā* is distinctly a Sanskrit word and as such appears in Kanarese as *pūje*, in Telugu as *pūja*, in Tamil as *pūcai*, and in Malayālam as *pūja*. The pronunciation *j* (and not *dz*) in the Telugu word, and the spelling with *j* (and not *c*) in the Malayālam word are indications that these words are considered to be of Sanskrit origin; and the final vowel in all the above four words can well be explained as resulting from a final long *-ā* in a borrowed Sanskrit word, when this word is feminine. In Tamil, when a masculine form in *-ā* was borrowed from Sanskrit, a slight *u*-sound seems to have been tacked

on. This sound is no longer heard in nominative forms in Tamil (though it is still present in such forms in the kindred Malayālam, for example, in *pitā-vu*, *ātmā-vu*, from the Sanskrit nominatives *pitā*, *ātmā*), but forms like the accusatives *pitā-v-ai*, *ātmā-v-ai* (Ma. *pitā-v-e*, *ātmā-v-e*) seem clearly to show traces of such a sound. On the other hand, when the borrowed word in *-ā* was feminine, a slight *i*-sound seems to have been added, akin, apparently to the short *i* that marks the feminine in such words as *aṭi*, used in calling a female of a lower caste, *māmi*, 'aunt', *ampaṭṭacci* or *ampaṭṭatti*, 'a barber's wife,' and possibly in *maṇuṣi*, 'woman,' etc. This *-ā-i* in a final unaccented syllable would naturally become shortened to *-ai* just as, for instance, *tāy* (i.e., *tā-i*) 'mother,' lit. 'yielder, producer, parent' (from the root *tā*) becomes in composition *-tai*, as in *mun-tai*, 'ancestor, forefather'. Hence in such Sanskritic feminines final *-ai* (an *e*-sound) in Tamil and in Malayālam final *-a*, with the *i* (or *y*) reasserting itself in sandhi (e. g., *pūja-y-uṇṇu* 'there is worship'). The final *-e* in such words in Kanarese appears to be of a similar origin, and therefore, probably, or at least possibly, the final *-a*, in Telugu.*

In Sanskrit we find a root *pūj*, and at first sight it might seem that this was a development from the simpler radical *pū*, 'purify,' in the same way as the Sanskrit root *yuj*, 'join,' is a development from *yu*, 'unite.' But there are serious difficulties in the way of such an explanation. The Sanskrit root *pū* has its counterpart in other Indo-germanic languages, but one looks in vain for traces of a root *pūi* outside of India,- not even in Avestan, that has so much in common with Sanskrit, is such a radical to be found. And in Sanskrit itself formations from a root *pūi* are very rare before the sūtra-period. The form *pūjana-* occurs once in the Rg-Veda in an epithet of Indra, *sāci-pū*ana* voc. (viii, 17, v. 12)

* These are exceptions, due mainly to the influence of analogy. The final *-ā* of *mātā* 'mother' appears to be due to association of this word with its correlative *pitā* 'father'. In composition such words seem regularly to retain the Sanskrit termination. The final *-ai* of *mahimai*, from *S. mahimā*, 'greatness' (a nom- from the mas. stem *mahiman-*), is clearly due to the influence of the numerous Tamil abstract nouns in *-mai*.

the translation of which is uncertain,* the verbal forms *apūjan* (a doubtful reading), and *pupūjire* occur once each in the Mahābhārata; *pūjā*- 'honour, worship' and the so-called causative verb *pūiayati*, -te, 'treat with respect or reverence,' are found in sūtra-literature, in the epics (along with a few other derivatives) and, of course, in classical Sanskrit. There can be little doubt that all this indicates that our so-called root *pūj* is an abstraction that arose in India, and that it is not of Indo-germanic origin. The word *pūjā* is Sanskrit in the same sense that the word *bishop* is English. This is, of course, from the Latin *episcopus*, which is, again, from the Greek *ἐπίσκοπος*. The word *btshop* undoubtedly belongs to the English language, although of Græco—Latin origin, and the word *pūjā* as undoubtedly belongs to the Sanskrit language, although almost certainly of Dravidic origin.

Gundert in his Malayālam dictionary suggests that *pūjā* may be derived from the Primitive Dravidic base which in Tamil appears as *pūcu* with the meaning 'smear, anoint, wash, adorn.' This word would then seem to have had reference originally to the smearing (with saffron-paste, etc.)—possibly also to the washing and adorning—of an image or symbol of some deity as a mark of honour, or as part of the ritual of worship. I wish to suggest another etymology. I would connect the word with the Tamil *pū*, 'flower,'—I do not, of course, mean to say that the word is necessarily of Tamil origin. The Tamil verb *pūci* (Ma. *pūji*, etc.) would appear to be a secondary formation based upon the Sanskrit *pūjā*-. Such verbal formations are as a general rule formed from Sanskrit nominal stems—*vāci*, 'read,' from *vāc*-, *vādi*, 'argue, discuss,' from *vāda*-, etc.—rather than from Sanskrit verbal stems. But in Winslow's dictionary the first meaning given to *pūci* is 'offer flowers, etc., in worship.' The Sanskrit *pūjā*- would hardly warrant such a meaning in a verb-form derived from it. This leads me to suggest—at present very tentatively—that in this Tamil verb there is a reminiscence of the original meaning of the Sanskrit

* 'Honouring or acknowledging zeal' (Grassmann), 'honoured by śāci' (Ludwig), 'honouring the strong ones' (Wackernagel), 'worshipped well' (Griffith, following Sayana).

pūja-, that this is in fact, is from a Primitive Dravidic compound which in Tamil would have appeared *pū-cey*. I repeat, this is a mere suggestion. But it may be pointed out that, granted a primitive *pū-cey*, used in the sense of 'flower-act, offering flower's (cp. the Sanskrit *paśu-karman*- 'an animal offering', *karman*, from the Sanskrit root *kr*, 'make'), it would be impossible for Sanskrit speaking people to distinguish between a final *-ey* (or *-ei*) and a final *-ay* (or *-ai*); for the short *e* was a sound unknown. This being so, during a stage of bilingualism such as I have spoken of above, it would not be unnatural, when so many Sanskrit words ending in *-ā* were pronounced by Dravidians as ending in *-ai*, for the Āryan community to Sanskritize a Dravidian word ending in *-ay* or *-ai* by changing this into *-ā*. The word *pūjā* would then be a Dravidic word that passed with slight modification into Sanskrit and then, again with slight modification, back into Dravidian. Such migrations of words are common enough. The old German word *Beiwache*, for instance, meaning 'watch,' as a military term, passed into French as *bivouac*, a word which we have borrowed from the French; it was then re-imported into German as *Bivouac* or *Biwak*. That a similar migration has taken place in the case of some early cognate of Tamil *pūcai*, etc., admits of hardly any doubt. Whether my interpretation of the history of these words is correct must, however, remain an uncertainty. There is every need of further investigation.

The *śambhu*-, as a vedic epithet, is well-known to be derived from *Śam*, 'blessing, welfare, prosperity,' plus the radical *bhū*, 'be, become,' and to mean 'being a blessing, beneficent.' As a name in later times, of Śiva, I feel that it is likely to have been chosen because it suggested in the minds of the speakers some Dravidian word akin to the Tamil *cem*, 'redness' (cp. Tamil *cempu*, 'copper'), the colour red being always associated with this deity. That is to say, the application of this epithet to Śiva—a euphemistic application—seems to me to become more intelligible under the above assumption of the existence in Northern India at an early period of a race or of races related to the Dravidians of the South. *Śambhu* as a name of *Śiva*, be-

comes in Tamil *campu*, which, if an early importation, would, as I argue, have been originally pronounced with an initial sound like that of the English *church*. I venture the suggestion that this word has reverted to Sanskrit from some Dravidic dialect in the form *jambu*, as a name of Śiva bearing the connotation of 'redness, reddishness'. Both *jambuka-* and *śiva-* are used to denote a jackal, possibly because of the tawny colour of this animal (?). And, when it is considered that the area characterized pre-eminently by the worship of Śiva must have lain originally south of the zone into which Āryan civilization had advanced, it will not, I think, be felt to be impossible that it was to this unknown region that the expression *jambu-dvīpa*, 'the Śiva-country, first had reference.

According to the mythic geography of Paurāṇic lore, *Jambudvīpa* derives its name from a gigantic rose-apple tree growing on mount Meru, which overlooked this continent, the name for a rose-apple tree being *jambu-* or *jambū-*. Is it too much to suggest that here again we have Dravidic intrusion and confusion? I know of no modern authority for a conceivable early *cem-pū-maram*, in the sense of 'rose, or rose-like tree'. But it is curious that the Hindustani name for this tree is made up of the word for rose, *gulāb* (lit. 'rose-water'), plus a derivative from the word *jambu-gulāb-jāman*. This would, of course, imply a very late date for the origin of this myth.

Sanskrit स्त्री (*ś*) is so regularly represented in Tamil by *ṣ* that one hesitates to accept *tiru*, 'Laksmī, wealth, beauty,' as directly connected with the Sanskrit *śrī-*. It might be from the Prakrit (Mahārāṣṭrī) *sīri*, which is from the Sanskrit *śrī-*. But the representation of an initial *s-* sound by a *t*, though fairly common in Malayāḷam, is extremely rare in Tamil. I surmise that since *śrī* is frequently pronounced as *strī*, which is the Sanskrit word for 'woman', some contamination has taken place between these two words. Sanskrit *strī* becomes *tirī* or *tiri* in Tamil, and Sanskrit *śrī* is represented in Malayāḷam by *tiru* or at the end of a word by *tiri*. The final *-u* remains a difficulty. It may be due to a rapid, unaccented pronunciation of *tirī*, regarded as equivalent to

śrī, as *tr*; or it may be due to the influence of the radical element in *tiru-ttu*, 'set right,' some connexion being felt to exist between 'rightness, correctness' and 'beauty, prosperity.'

I will make but one other remark. In a form like Tamil *kēṭkizēṇ*, 'I hear,' the *!* of the root *kē!* passes before a stop consonant into the corresponding stop of its own series, viz. *ṭ*. There takes place a species of assimilation unknown to students of Indogermanic philology. Just as, between vowels, as original stop consonant becomes spirantal, becomes, as it were, assimilated to the adjacent vowels taking on something of their nature, so when a spirantal sound like *!*, for instance, is juxtaposed to a stop consonant like *k*, it takes on, by a similar kind of assimilation, something of the nature of the following sound—it assumes, not the place of articulation of this sound, but the kind of articulation. So in the case of borrowings from Sanskrit. The Sanskrit *puṣkala*- 'plenteous,' is represented by *puṣkalam*, the Sanskrit *āspada*-, 'seat, site,' by *āṭpatam*; *ṭ* being the corresponding stop to the cerebral *ṣ*, *t* the corresponding stop to the dental *s* of the Sanskrit word. Now the latter word is also represented in Tamil by *ārpatam*. It seems to me perfectly clear that the sound of *r* (*ṛ*) in such a position was not, at the time when this and similar words were imported, the 'rough, vibrating *r*' that Pope in his Handbook sets down as the value of this symbol. It was clearly consonantal, like its alternative *t* (*ṭ*). It was almost certainly an alveolar stop resembling our English *t* (probably with modifications which may, for the present, be overlooked). That is, to say, its place of articulation lay between that of the dental *t* (*ṭ*) and that of the cerebral *ṭ* (*ṭ*). It would seem, therefore, that when *l* (*ṷ*) alternates with *r* (*ṛ*), as in *nirṭirēṇ*, 'I stand,' it was alveolar in nature. In this connexion it may be pointed out that evidence seems clearly to indicate that the Tamil symbol *ṛ*, which, in consideration of a wide-spread pronunciation of this letter, has been transliterated in these articles as *l*, was certainly originally a cerebral *r*. It seems, in the first place, unreasonable to suppose that one and the same sound was represented originally by two symbols: in Malayālam there is practically no distinction in pro-

nunciation between the symbols corresponding to the Tamil ஂ and ஃ, and in Tamil these symbols are pronounced alike over a large area. And then the facts supplied by Kanarese point clearly to a primitive distinction between the sounds corresponding to these symbols in that language. In early Kanarese the symbol ૐ is the representative of Tamil ஃ. But this symbol cannot be dissociated in form from the symbol ૑, the neighbouring alveolar sound, as I suggest, corresponding to Tamil ஂ. It was evidently emphatically an *r*-sound and quite distinct from the sound represented by ૐ, the Tamil ஂ, as emphatically a cerebral *l*-sound.

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DRAVIDIC STUDIES

No. IV

ON THE OCTAVAL SYSTEM OF RECKONING IN INDIA

BY

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ON THE OCTAVAL SYSTEM OF RECKONING IN INDIA

Man, we are told in the *Chāndōgya-upaniṣad* (vi. 7. I), is made up of sixteen parts. Those parts are given in the *Śatapatha-brāhmaṇa* (x. 4. I. 17) as *lōman*, 'hair', *tvac*, i.e., *tu-ac*, 'skin', *asrj*, 'blood', *mēdas*, 'fat', *māṁsa*, 'flesh', *snāvan*, 'sinew', *asthi* 'bone', *majjan*, 'marrow', the sixteen parts (*kalā*) being represented by sixteen syllables (*akṣara*). Nor is this by any means the only instance in which Indian lore has found some difficulty or uncertainty in filling in the details of such groups of sixteen or multiples of sixteen, though I imagine it would not be easy to discover another that called forth quite so much complacent ingenuity as is here exhibited. In the case of the sixteenfold division of ancient India which prevails in Buddhist literature¹ there was no great difficulty in discovering the requisite number of suitable geographical names. But who would venture to draw up a definitive list of the sixty-four arts,² or who—to descend to matters of less moment—would name to-day with absolute certainty all the constituents of the *sōlah singār*, 'the sixteen ornaments of the body (or appliances for decoration)'.³ A similar indefiniteness attaches

1. Rhys Davids, *Buddhist India*, p. 63.

2. Ancient lists are brought together by A. Venkatasubbiah in his inaugural dissertation (Bern), *The Kalas* (Vasanta Press, Madras, 1911).

3. Platts, *A Dictionary of Urdū, Classical Hindī and English*, *S. V. singār* : the very connotation of the word seems to be uncertain.

to the numeral in *sōḍasāṁsu*, or *ṣōḍasārcis*, 'of sixteen rays', as a name for the planet Venus, and probably—at least in the first instance—to such groups as the eight lucky things (*aṣṭa-maṅgalam*), and the sixteen modes of doing homage to a deity (*ṣōḍaṣōpacārāḥ*), or even the thirty-two kinds of arsenic.

There can be little doubt that, in such instances as these, it was never intended that the numbers should be taken literally. We have to do, rather, with generalized expressions, with 'round numbers', used much in the same way as 'dozen' or 'score' may be used in English to-day, or as 'forty' was so frequently used in the time of Shakespeare.¹ At the same time it seems fairly clear that such generalizations imply the existence at an early period of a system of reckoning in which the number sixteen figured prominently: and, as a matter of fact, numerous instances of such a system—or at least of such a remarkable predilection for this and related numbers in unmistakably real groups and especially in connection with weights and measures as can hardly be otherwise interpreted—meet us, not only in Indian literature, but in every part of India at the present day. Amongst these related numbers the number eight, the half of sixteen, holds an important position and may, indeed, be regarded as the base of the whole series, and originally, as I suggest, probably was the base.

The division of the rupee into sixteen parts will occur to every one, and the seer employed as a weight over almost as large an area, is of course similarly divided. Sixteen *māṣas* (a kind of bean used for weighing gold and jewels) in ancient times made one *karṣa*: in modern times this is the weight of a sicca rupee, a tola; and one *māṣa* is said to be equal to eight (or ten) *rattis* (the seed of the plant *Abrus precatorius*); and so on. In Buddhist literature we hear of royal gifts consisting of sixty-four objects, eight groups of eight objects each (eight elephants, eight horses,

1. For example, *King Richard II*, iii. 2.85 ('Is not the king's name forty thousand names?'); *Coriolanus*, iii. 1.243; *King Henry V*, iv. 4.12; *Merry Wives of Windsor*, i. I. 179.

eight men-slaves, eight women-slaves, etc.).¹ In Sanskrit we have the *Aṣṭādhyāyī* of *Pāṇini*, his grammar in eight chapters, but the *R̥g-vēda* itself is divided for practical purposes into eight *aṣṭakas*, each of which is again divided into eight *adhyāyas*, or readings. And to these instances we may add the fantastic table given in the *Mārkaṇḍēya-purāṇa*, in which eight atoms (*Paramāṇu*) are said to be equal to one molecule (*para-sūkṣma*), eight molecules to one mote (*trasa-rēṇu*), eight motes to one grain of sand (*rēṇu*), eight grains of sand to one hair-tip (*vālāgra*), eight hair-tips to one nit (*likṣā*), eight nits to one louse (*yūka*), eight lice to one barley-grain (*yava*), eight barley-grains to one finger-breadth (*aṅgula*), etc.²

The use of the word *kalā* above in the sense of a (sixteenth) part (of the human body) is alone sufficient to suggest that this method of calculation arose from the observation of the moon and its phases such as regularly-recurring religious rites would make inevitable. For this word *kalā* denotes, more particularly, one-sixteenth part of the moon's disc: and not only does the word *ṣoḍaśin*, 'of sixteen parts', occur in connection with sacrificial matters (e.g., as the name of a certain *stōtra*, or hymn; the name of a certain day of *sutyā*, or sōma-pressing, etc.), but is an epithet of *Prajāpati* who in the mystic lore of the *upaniṣads* is identified with *prāṇa*, the vital breath, and compared to the waxing and waning moon.³ As all the other *kalās* become gradually merged, as it were, in the sixteenth *kalā*, called *dhruva*, 'fixed' or 'permanent', and then gradually appear again with the new moon, so, according to this lore, the world at dissolution becomes merged in *Prajāpati*, and the fifteen other elements of man become similarly merged in the *prāṇa* and are thence again produced. At the same time it is clear that for all practical purposes such a division of the half-month into sixteen parts would be worse than

1. The *sabb-aṭṭhakam dānaṃ*, mentioned in the ninth story (*Sumanamāla kāravatthu*) of the fifth section (*Bāla-vaggō*) of the commentary on the *Dhammapāda* (ed. for the Pali Text Society by H. C. Norman, vol. ii, p. 45 f.).
2. Barnett, *Antiquities of India*, p. 217.
3. Deussen, *Die Philosophie der Upanishads*, p. 93 f.

useless. The *tithis*, the lunar days, whether of the bright half or of the dark half of the moon, are, of course, but fifteen;¹ nor is it possible for any intelligent method of computation to extend the fortnight (the period of fourteen nights) beyond fifteen days (*quinze jours*).

Whence then comes this mysterious number, sixteen, which seems to have been seized upon so readily both by ritual theory and by mystic speculation; this number whose intimate association with lunar reckoning seems so unmistakable, and yet which such reckoning seems unable clearly to account for? I believe it can be shown to be highly probable that the word *kalā* is of Dravidic origin, and that this way of calculating by sixteens, or rather by eights, the simpler and probably earlier base—an octaval system of reckoning—is also Dravidic.

But it must at once be made quite clear that the word 'Dravidic' is not here used as a name merely for the language of southern India, as if a Dravidic origin meant necessarily a southern origin. It is well known that Dravidic dialects are spoken to-day by tribes of the Central provinces and adjacent regions to the north, and as far away as Balūcīstān an isolated dialect, the Brāhūr, has been recognized as belonging to this family. There can be little doubt that, as these facts suggest, the greater part of northern India was in the possession of Dravidians in those early days when the bands of Aryan adventurers made their first incursions and wrested for themselves settlements doubtless in much the same way as their brother Aryans of the west did in ancient Greece, in both cases the new civilization which was thus imported preserving much that belonged to the earlier race. I wish the word 'Dravidic' or 'Dravidian' to be understood in a sense that will include this assumed northern element, with which, indeed, I am intimately concerned in what follows. If we admit thus, for primitive times, the existence of a language or languages in northern India having the peculiarities which are characteristic of those Dravidic languages known to us in other parts of India,

1. In astronomical terms, the *tithi* is the thirtieth part of a synodic month of $29\frac{1}{3}\frac{6}{1}$ days.

especially in the south, we find that considerable light of no mean value is thrown upon Sanskrit, both Vedic and classical, upon the Prakritic dialects, and upon their descendants, the modern vernaculars of Hindūstān. Such languages, under normal conditions, that is to say, when they have not been systematically eradicated, still live on and still make their presence felt. Though they may appear to have been completely supplanted by the language of the invader, yet will always be found scattered fragments of the old speech cropping up here and there like the strange rocks that we may often see breaking through some smooth terrain, and the speakers of the new language will be sure to preserve some traces of the earlier phonetic peculiarities, some traces, though in a new garb, of the earlier ways of thought and turns of fancy. The Keltic language of the greater part of ancient Gaul was replaced by the Latin of Roman colonists and Roman soldiers; yet not only is there in French of today a very considerable number of vocables of Gallic origin, but its grammatical psychology shows here and there distinct traces of Keltic parentage, so that, for example, French idioms may often be well illustrated by a comparison with those of Irish.

We will deal first with the word *kalā*, 'a sixteenth part'. One looks in vain for any helpful parallels in Avestan; and the comparisons which have been made with the Greek *κείρω*, 'I cut',¹ or with the Greek *σκάλλω*, 'I hoe', Latin *scal-p-o*, 'I cut, carve, etc.', are not satisfactory. Both of these etymologies assume that this word meant primarily 'a division'; and this would suit well enough. But in the case of the former the original palatal *k* which the Greek represents, would require to be represented in Sanskrit by *ś*, श² (Cf. *śarad*, 'autumn', *śirṣa*, 'rent, withered', from this root). In the case of the latter it is true that, with the exception of the loss of the initial sibilant—a common enough occurrence—there are no phonetic objections, yet the rarity of this word in the ancient literature, its absence from the so-nearly-allied Avestan and, still more, its highly

1. Grassmann, *Wörterbuch zum Rig-veda*. s. v. *kalā*.

2. *The Pali Text Society's Pali-English Dictionary*, s. v. *kalā*.

specialized meaning even at its first appearance without doubt justify the assumption that this word *kalā* is not Aryan. It occurs once in the R̥g-vēda (viii. 14. 7), and the same verse, without its refrain, is found again twice, with a slight variation in each case, in the Atharva-vēda (vi. 46.3 and xix. 57). In all three instances it stands side by side with the word *śapha*, 'hoof', which is interpreted as 'one-eighth', that being the relation of the half-hoof of cattle to the four feet. The verse, as it appears in the sixth book of the Atharva-vēda, is thus translated by Professor Bloomfield :

As one pays off a sixteenth, an eighth or an (entire) debt,
thus do we transfer every evil dream upon our enemy.¹

The association of *kalā* here with *śapha*, 'a hoof', may be purely accidental. But it suggests what seems to me to be a very reasonable explanation of the origin of this word. I would connect it with the Dravidic word *kāl(u)*,² 'leg, foot'. Like the Sanskrit *pāda*, this word also means 'a quarter' and is in common use in that sense at the present day in Dravidic-speaking areas. It is from this sense 'quarter' that I consider the notion of 'one-sixteenth' to have probably arisen.

Let me make my position quite clear, confining myself for the sake of simplicity—as I propose to do throughout, wherever it is possible—to Tamil as the main source for details in illustration. It must be pointed out that a Sanskrit word of the feminine gender terminating in *-ā*, if borrowed into Tamil changes this termination into *-ai*;³ Skt. *gītā* 'song', becomes *kītai*;⁴ Skt. *sabhā*, 'an assembly', becomes *avai*, and so forth, and it seems a reasonable assumption that conversely a Dravidic word having the termination

1. *Sacred Books of the East*, vol. xlii, p. 167.

2. The *u* is sometimes present, sometimes absent. It is a small enunciatory vowel, and forms no essential part of the word.

3. In Canarese the corresponding termination is *-e*; in Telugu and Malayalam *-a*.

4. In all cases Dravidic characters are transliterated, not represented phonetically. A table of the symbols used in transliteration will be found at the end.

which appears in Tamil as *-ai*, if borrowed into Sanskrit, would change its termination into *-ā*. Now Skt. *kalā* has its exact counterpart in Tam. *kalai*. Was the Sanskrit word borrowed from Dravidian, or was the Dravidian word borrowed from Sanskrit? Nothing could be easier or indeed more reasonable than to regard the Tamil word, with its specialized meaning, as a tatsama of the highly specialized Sanskrit word, that is to say, as a word taken over from Sanskrit without any radical phonetic modifications. But in Tamil, by the side of the noun, there is also a verbal base *kalai* bearing a meaning that seems clearly related to that of the noun. This certainly rather changes the situation, for such a verbal base would seem far more likely to be indigenous than to be due to importation. And the fact that Tamil, like Canarese, shows *l* and not *!* (which, however, is found in Telugu) might be held to be opposed to the notion of a Sanskrit origin. Nevertheless it must be admitted that the exact relation between Skt. *Kalā* and Tam. *kalai* remains, for the present, uncertain. All that it is permissible to do is to point out the possibility of *kalai* and its Dravidic congeners being indigenous to their respective languages, whether modified in meaning or not under the influence of Sanskrit.¹ But in any case, whether Tam. *kalai* be an importation or not, it is my contention that its counterpart Skt. *kalā* was originally a Dravidic term connected with a phase of Dravidic culture, and that the Dravidic word *kāl* probably gives us the key to its interpretation.

One would be inclined to expect that a long syllable like *kāl* would show a tendency to shorten when other syllables were added to it as in *kalai*, and examples of such apparent shortening are not wanting. The Tamil verbal root *kāṇ*, 'see', has for its past base *kaṇ-ṭu*; *tāṇ*, 'self' makes *taṇ-mai*, 'quality'; *pāṭu* 'occurrence', is related to *paṭar*, 'sorrow'. On the other hand instances in which no such shortening is found seem to predominate, and we often find long and short standing apparently quite independently side by side. For instance, by the side of the Tamil root *kāṇ*,

1. A similar ambiguity appears in the case of Skt. *vīṇā*, 'the Indian lute' by the side of Tam. *viṇai*, and elsewhere.

'see', just mentioned (which, like other long verbal roots, is quite unaffected by the addition of terminations), we find the noun *kaṇ*, 'eye'; by the side *pāṇ*, 'singing', *paṇ*, 'music'; and by the side of *nāru* 'to emit fragrance', *naṛu* 'fragrant'. But though we may not perhaps be entitled to regard the short vowel in *kalai* as definitely due to the addition of the termination *-ai*, we are at least justified in regarding *kāl* and *kal-ai* as possible phonetic variants. That is, granted a radical *kāl*, whatever its signification may be, we may admit the possibility of a variant *kal* bearing the same or a related signification.

The particle *-ai*, seen in *kalai* and other bases, I would tentatively compare with the plural suffix of neuter pronouns such as *av-ai*, 'they, those (things)'.¹ I conceive that it added a sort of abstract-plural connotation. From the notion 'fourth', present in *kāl*/*kal* might thus be derived, by the addition of this particle, the conception of 'fourthness' as a quality belonging to many fourths; and such a new base, it seems to me, would be well in a position to express both (1) the notion 'one-sixteenth' (the notion of multiple fourth-ness) and (2) that of having many parts. The former, would, of course, be seen in Skt. *kalā* as a word of Dravidic origin; and therefore, according to my view, in Tamil *kalai*. The latter would be seen possibly in the Tamil verbal base *kalai* which means 'disperse', that is, 'break up into its many parts (as a crowd)'

But, we may ask, does this base *kāl*/*kal*, which has been here suggested as providing an explanation of the Sanskrit and Dravidic words for 'a digit of the moon', also help us to understand other words which in sense suggest the bright digit and in form are not incompatible with such an origin—for instance, Tamil *kālai*, 'early morning', etc. This word reminds us at once of *kalai*, but it is clear that if it is to be connected directly with

1. Compare the compound bases formed similarly with the far commoner plural suffix *-ar*, for example Tamil *malar*, 'flower' (with the same plural connotation as is expressed in Hindi *phūl*, if from Dravidic *pū*, 'flower', plus the plural suffix *(-lu)* as it appears in Telugu); *amar*, (1) 'battle', (2) 'agree' (with the common notion of uniting opposites); Malayalam *kalaru*, 'be mixed, united', etc.

this word we must assume a transfer of application from the light of the (young) moon to that of the (young) sun. Such a transfer is intelligible enough; for it is natural that a people, when it passes from a condition in which the moon is all-important into one in which the sun is supreme, should give to its lunar terms, where possible, a solar application. But the transfer of meaning need not have been quite so simple and direct; and, moreover, there are other possible associates for such a word as *kālai* which call for some consideration.

First, there is the Tamil *kāl*¹ meaning 'a shoot, a sprout,' with which we may, I think, justly compare the Sanskrit *kalikā* in the sense 'bud'. This word is doubtless to be identified with Tamil *kāl* 'leg'. According to some the meaning 'sprout' developed out of that of 'stalk'. This is possible, but it seems to me quite as reasonable to see in this *kāl* the underlying notion of 'thrusting out,' which is manifest in another word for 'bud', *taḷ-ir* (as a verb, 'to bud, shoot-forth'), from the word *tāḷ*, also meaning 'leg'. The interpretation would certainly be in keeping with another meaning of Sanskrit *kalikā*, namely, 'digit', for nothing could be more natural than to regard the first digit of the moon as a young moon-shoot (compare the name *Kalāṅkura*). In this case the radical sense of *kalā* as a derivative from *kāl*/*kal*, 'leg', 'quarter', would still be felt. But these two *kalikās* may be different words. The notion of 'thrusting forth' is present in *kālu*, 'shoot forth (as rays, etc.),' but this base has also the meaning 'eject from the mouth, vomit', and probably belongs elsewhere.² We may, however, place here legitimately, I think, the base *kali* which means, on the one hand 'grow abundantly, sprout', and, on the other, 'clamour, shout,' as well as 'to clamour, to shout.' This base provides a good example of a phenomenon observable, not only in the enraptured utterances of poets, but in the simple products of primitive thought. The distinction between sight and sound does not here exist, or has been utterly neglected, just as must have been the case when such

1. See Winslow, *A Comprehensive Tamil and English Dictionary*, s. v. *kāl*.

2. See p. 185.

a word as Skt. *ravi*, 'sun',¹ arose (cf. *rava*, 'roar'), or Skt. *cakṣ* i.e. *ca-k(a)s*: cf. *vi-kas*, ('to blossom') with its double meaning, 'see' or 'say'. More clearly related in sense to *kalai* than either of these bases would seem to be the base *kāli*, 'rise with lustre (as a heavenly body).'²

Then there are the words *kāl* and *kālam*, meaning 'time'. The first of these is hardly an independent word. It is used either (1) as a particle which, in composition with a preceding verbal form, becomes a substitute for what in an Indo-germanic language would be a conjunction ('when', etc.), or (2) in composition with *oru*, 'one', with the meaning 'once, sometimes': in Malayālam this last appears also as *ori-kkal*, with *kāl* shortened to *kal*.³ The second, *kālam*, is the ordinary word for 'time', and denotes also 'day-break'. This word, however, unlike *kāl* (*kal*), which can hardly be regarded as other than purely Dravidic, is ambiguous. The termination *-am* is, of course, not to be confounded with the similar neuter termination of Sanskrit. It belongs certainly to Tamil and has its counterpart in the other Dravidic languages. It forms primary and secondary derivatives such as *nil-am* 'ground, land, earth', from *nil*, 'stand'; *maṛ-am*, 'evil, sin', by the side of *maṛu*, 'spot, blemish'; *iṇ-p-am*, 'delight', by the side of *iṇ-pu*, 'delight', from *iṇ*, 'sweet'; *nēr-am*, 'time', from an early *ñāyir*, later *ñāyiru*, 'sun'. It is also made the distinctive ending of nouns denoting inanimate objects borrowed from Sanskrit, when the Sanskrit noun ended in the nominative singular in *-as* (in pause *-aḥ*) whether they were neuter, as *maṇam*, 'mind',⁴ from Skt. *manas*,

1. Compare: Thou as a lion roar'st, O Sun,
Upon thy satellites' vexéd heels.

(Francis Thompson, *Orient Ode*).

2. See p. 187.
3. Compare Canarese *ā-gal*, 'that time, then'; *i-gal*, 'this time, now'. It is hardly to be doubted that from *kāl-kal*, in the sense of 'time-reckoning', comes Skt. *kalpa*, 'a cosmic period', Drav. **kal-p-am*: cf. Tam. *iṇ-p-am*, 'delight', etc.
4. Neuter *n*-stems also took on this ending, as *nāmam*, 'name', from Skt. *nāman*. It is important to note that such forms as *manam*, *tavam*, (Skt. *tapas*), *tamam* (Skt. *tamas*) are identical with those found in Prakrit, which are clearly due to the linguistic tendencies of Dravidic speakers.

or masculine, as *pākam*, 'share', from Skt. 'bhāga.' It is clear that *kālam* might well be a tatsama of Skt. *kāla*, 'time'. But whether it is a tatsama of this word or not, it cannot, I feel, be separated from *kāl*, 'time': in other words Skt. *kāla* (like Skt. *kalā*) must be regarded as Dravidic in origin.

These examples are enough to show that a word like Tam. *kāli*, beside being compared directly with Tamil *kalai* or Sanskrit *kalā* for its explanation, and thus derived ultimately from Drav. *kāl*, 'leg, foot', might also be regarded as (1) arising directly, like *kāl*, 'sprout', from this base *kāl*; or as (2) immediately connected with the radical element seen in *kāl-i*, 'rise with lustre'; or, again, as (3) belonging to the group represented by *kāl*, *kālam*, 'time'. They exhibit, it is true, no apparent connection with the notion of 'fourthness' which we suggested as part of the connotation of *kalai*, but we have, at least, been led in our investigation from a word denoting a certain period of moon-time to a word, whether related or not, which denotes time in general. This word and the conception which underlies it I wish to consider a little more fully.

In Tamil a common word for 'time' is *porutu* or *pōtu*. In Canarese we find, corresponding to this, *pottu*; in Telugu *poddu* or *proddu*. 'That time, then' is, in Tamil, *ap-porutu*, and, in common speech, *ap-pō*, with apparently stands for *ap-pō!*, a form which is found in Malayālam; in Telugu it is *ap-puḍu*.¹ The radical element is probably seen in Can. *poḷe*, 'shine, be bright', and in Tel. *polucu*, 'appear, become visible.' In the latter language a verbal base *poḍucu*, has been formed from the noun, meaning 'to rise', and is used especially of the rising of the heavenly bodies. Indeed this word *porutu* and its cognates are as a matter of fact, variants of an old name for the sun, and they still bear that meaning.² It is from the sun as time-

1. Cerebral *ḡ* is due to the *ṛ* which has disappeared: in *poddu* cerebralization apparently does not take place because the consonant is doubled.

2. In Malay the word *hārī*, which represents the Skt. *hari* in the sense of 'Sun', similarly means 'a day'.

measurer that the notion of time has here arisen. But before time was reckoned by suns, that is by days, it was reckoned by moons and by nights. It is important to notice that, although Tel. *poḍupu*, 'a rising' (from Tel. *poḍucu*, above), is now used more especially of the rising of the sun, yet one speaks regularly of moon-rise as *nela-poḍupu* (*nela*=moon), and *poṟutu* itself is said to be found locally in the sense of 'new moon' in Mala-ya-lām.¹ Is it possible that we may see in the Tamil word *kāl* 'time'—which certainly does not mean 'sun'—the reflexion of some Dravidic word for moon, the other great time-measurer? If we may, then the same should be also discernible, if I am correct, in Skt. *kāla*, 'time', and, indeed, more clearly discernible, on account of the early preservation of this word in a varied and extensive literature.

Here I hesitate. It is usual to connect Skt. *kāla*, 'time', with Skt. *kāla* 'black', and say that it meant originally 'the darkness before dawn', then 'dawn', as a point of time from or to which one might reckon.² Equally intelligible, if not more intelligible, it seems to me, would be the explanation of *kāla*, 'time', from the 'bright dawn' as a starting-point, finding here, as elsewhere, a close association between the notion of '(burning) brightness' and of '(burnt) blackness'.³

But when one considers how widely spread and how deeply rooted are the superstitious feelings with which the moon is in India regarded; when one realizes the significance of a term like *kalā* as indicating the intimate association of lunar reckoning with primitive ritual; and when, above all, one finds the god who bears the moon as his crest, who is indeed called *Sōma*, 'the Moon', brought in his epithets into such close relation with this word *kāla*—he is called *Kāla-nātha*, 'lord of *kāla*', *Kāla-nidhi*,⁴ 'receptacle of *kāla*'—one feels convinced that the source

1. Gundert, *A Malayalam and English Dictionary*, s. v. *poṟutu*.

2. See the Pali Text Society's *Pali-English Dictionary*, s. v. *kāla*.

3. For instances in Dravidian see p. 183.

4. *Kālā-nidhi*, 'the receptacle of the *kalās*, or digits', is a name for the moon. It must not, however, be assumed that there is necessarily any

of this word is to be sought, not in the dawn, or other bright-or even misty—beings of Aryan myth, but in the mysterious moon. How, then, did such a meaning arise? Did the word *kāla* in the sense 'a quarter', from being applied to the quarter-moon, come to be used for the moon itself? Or was *kāl* a name of the moon as 'the Runner', arising from the meaning 'leg, foot'? Or, again, was the moon regarded as a heavenly wheel?'—for *kāl* had also this meaning. None of these suggestions seems altogether satisfactory. It is, however, a curious and interesting fact that our moon-crested deity, though apparently not regarded as a runner, was certainly associated with the dance. Śiva is well known in southern India as *Naṭēśa*,² the lord of *naṭas*, or dancers, and in

close connection between *kalā* and *kāla*, as was done, for instance, by Grassmann in his *Wörter-buch zum Rig-veda*, s. v. *kalā*.

1. Compare the Sanskrit expression *kalā-cakra*, 'the wheel of time'.
2. This name suggests the existence of a ritual dance similar to those of ancient Greece, and, as in Greece so in India, such a dance would seem to have been one of the sources from which the drama arose. The name for a dramatic performance (*nāṭaka*), dramatic art (*nāṭya*) are of course, formed from *naṭa*, to explain which a Sanskrit root *nṛt* has been invented and has given rise to many new formations, such as *nṛtya*, 'dance, mimicry'. The word seems clearly to be Dravidic, and to be connected with Tel. *naḍucu*, 'move, proceed, etc.'. Tam. *naṭai*, 'walk, gait, etc.'. (Tamil *naṭi*, 'dance, act', is probably to be traced to the Dravidic-Sanskrit root *naṭ*). The ritual dance here denoted was evidently a sort of processional like that of the Kourētes in Crete (see Jane E. Harrison, *Themis*, p. 7 ff.), though naturally enough wild leaping would not be long absent; if followed certainly in Crete, and the frantic dance of Śiva shows that in India it became a characteristic feature. Greek drama never freed itself from the chorus (χορός) originally the name for the body of dancers; and in India a theatre is still called a *nāc-ghar*, that is, a nautch-house. The orchestra (ὄρχήστρα) or dancing place, in India would seem to have sometimes been the round threshing floor, if we may compare Tam. *kaṭari*, 'a circular area for dramatic performances, etc.' with Tam. *kaṭam*, 'a threshing-floor,' etc. Both words mean also 'a field of battle', and are probably to be connected, on the one hand, with the base seen in *kaṭ-i*, 'exultation, revelry', etc. and on the other, as indicating its Dravidic source, with Skt. *khala*, 'threshing-floor; field of battle, etc.' It seems to me that one may see to-day just such 'dancing' as one imagines must have taken place on the Dravidic

the north there is the word *tāṇḍava*, which denotes especially the frantic dancing of this deity. This latter word is clearly to be derived from Drav. *tāl*,¹ 'leg', mentioned above; but the parallel base *kāl* seems never to have developed in this direction. I believe it is the 'horned moon', considered as a bull, or as a buffalo, that we have to see—however dim its outline may be—forming the distant background both of Drav. *kāl* and Skt. *kāla*, 'time'.

There is a word *kālai* in Tamil meaning, according to one authority² 'bull' or 'bullock', according to another,³ 'steer, young bullock' and then 'young man, head man in the village districts'. In Malayālam *kāla*, its exact phonetic counterpart, means 'bull'. These words might be regarded as arising from the notion 'male'. The radical *kāḷ* (or *gāḷ*) does certainly bear this connotation. It is, however, more usually found in derivatives, and in the shorter form *kaḷ* (or *gaḷ*). For example, we have in Tamil *kaḷ-iru*,⁴ 'a young elephant'; in Malayālam *kāṇṭan*,⁵ 'the male, especially of

threshing-floors of ancient times in the dancing of Santāl women. Those who have seen this will recall the slow rotatory movement of the line of performers linked arm to arm. The dance is like a solemn procession, but a procession that is constantly wheeling. I suggest that the rotatory nature of this performance may be an indication of its one-time connexion with the limited conditions of a threshing-floor. Time is kept in this dancing by means of drums beaten by men, but when the women break into song, which they do at intervals, their song may be said to follow the rhythm of their feet, rather than that of the drum, which is liable to spasmodic irregularities. And I am inclined to think that, in India generally, musical time must have been similarly marked by means of the feet, rather than with the hands, as it is usually marked now; so that I would connect the Sanskrit word *tāla*, in the sense of 'musical time', not with *tāla*, 'palm tree; palm of the hand', but rather with Dravidic *tāl*, 'foot', mentioned in the text.

1. The base *tāl*, when modified by the particle *-tu*, becomes in Tamil *tāṇṭu* (*ṇṭ* pronounced as *ṇḍ*), 'a leap': from such a stem Skt. *tāṇḍav-a* has been formed.
2. Pope, *Handbook of the Ordinary Dialect of the Tamil Language*.
3. Winslow, *Tamil and English Dictionary*.
4. Compare Skt. *kala-bha*, 'a young elephant or camel'.
5. Pronounced as in Tamil, with *ṇṭ=ṇḍ*; compare *tāṇḍava* from *tāl*. Dravidic *l*, when followed by a stop-consonant, apparently in all cases passed

the cat'; in Telugu *gaṁḍa*, 'a male, a hero'; in Canarese *gaṇḍu*, 'bravery, a male', (so also in Telugu), and with the long vowel, *kāṇ-me*, 'great valour'. I believe that the notion underlying these words for 'bull', though probably contaminated with the notion 'male', is really from another source, namely, from a base denoting roaring, as of wind or fire or a wild animal, and which sometimes appears as *kā!* (*gā!*), sometimes as *kāl*, i.e. *kā!*.¹ The latter we see, I think, in Tamil *kāl*, 'wind', and probably in the more usual form *kāṛṛu* (*kā!-tu < kāṛtu > kāṛ-ru*).² The former is represented by Mal. *kālu*. This radical, besides meaning 'to bawl, cry', means also, 'to burn' (intr.). In Telugu the corresponding radical shows only the latter sense: *kālu* means 'burn, be consumed, be scalded, baked, etc.,' but also 'to shine'; its causative *kāluṅu*, 'to burn, roast, scorch, etc.' Probably allied with this are Tel. *gaṁḍamu* and Tam. *kaṇṭam*, both meaning 'diaster, baleful influence of the stars'; and almost certainly from this source sprang the name for the Indian fire-water, Tam.

into the nasal of its own class. The development was then two-fold; either the nasal, being voiced, voiced the following consonant so that e.g. *l + t* became *nd*; or being voiceless, as it would seem, became assimilated with the following consonant, so that e.g. *l + t > nt > tt*. When followed by a nasal, *l* is similarly changed to the nasal of its own class.

1. In the Tamil, Malayalam and Canarese scripts (and in the last case in the script only) three different *r*'s are represented, but only two *l*'s. In Tamil, moreover, there are nasals corresponding to these *r*'s though these are to be found neither in Malayalam nor in Canarese. It would seem as if one of the primitive *l*-sounds had been lost, or rather had merged into the neighbouring *l*-sounds, just as the original *r*'s in Canarese and in Telugu have merged into one. The *r*-symbols in Tam., Mal. and Can. represent (1) a dental sound, (2) a cerebral sound and (3) a sound lying between these two and which may be called alveolar, though it does not seem to be, or to have been, of a purely alveolar character. As transliterative symbols for these, *r* (dental), *ṛ* (cerebral) and *ṛ* (alveolar) have been assigned. I assume that in primitive Dravidic there were corresponding to these three *r*-sounds (and to the three *n*-sounds of Tamil, which are similarly transliterated as *n*, *ṇ* and *ṇ*) three *l*-sounds, a dental (*l*), a cerebral (*ḷ*), and an alveolar (*ḷ*). The alveolar sounds show a tendency to become cerebral.

2. Compare, however, the root *kāl/kāṛ* below.

kaḷ and *kaḷi*.¹ One feels that it is the roaring forest-fire, twin-brother of the roaring storm-wind, that has here been the source of inspiration. The storm-wind, however, is heard in Can. *gāḷi*, Tel. *gāli*, and, for the speakers of Telugu, something not unlike it, apparently, in the bray of the ass, one of the names for which in that language is *gāli-vāḍu*. This animal is called in Tam. *kāḷa-vāy*, which possibly means 'bull-mouth'. And it seems to me clear that the bull, Tam. *kāḷai*, like the lion, which in Tamil is *kāḷi*, received its names from the power of roaring, though, as I have suggested, it is quite possible that the notion of 'male' also entered into the connotation of this word.

When in Sanskrit a bull was called *nada*, 'the roarer', I cannot help feeling that the speakers were conscious of some such Dravidic word as *kāḷai*; certainly both words seem to be founded on the same idea. Similarly the word *nandin* as the name of Śiva's bull (also of one of his attendants, and of Śiva himself) becomes, I feel, more intelligible in the light of this word; for there can be no doubt that the radical *nand* is intimately related to the radical *nad* both etymologically, *nad*, (*nnd*) being apparently a weak form of *nand*, and semasiologically, shouting being one of the natural expressions for the feeling of joy. But there is another and commoner word for bull in Sanskrit than either of these, namely *vr̥ṣan*, and in the case of this word, too, there seem to be indications of a possible fusion, though they may be due to a similarity of Aryan and Dravidic thought. The word *vr̥ṣan*, of course, is Indogermanic: *varsna*, 'male', in Avestan and *ἀρσην* (i.e. *Fáρσην*), 'male', in Greek are its next of kin. But it is remarkable that nowhere but in India do we find this word developing an affinity with the notion 'rain'. The words *vr̥ṣṭi*, *varṣa*, 'rain,' and the Sanskrit root *vr̥ṣ*, 'to rain', were from the earliest times associated, wrongly or rightly, with *vr̥ṣan* and the related *vr̥ṣa vr̥ṣabha*, all meaning 'bull'. In the Dravidic of southern India, it is

1. The word *kaḷi* also means 'joy, riot, wantonness, etc.' and is to be compared with Skt. *kali* as a name for the fourth and worst age of the world.

true, we find no exact parallel to this, but even here we do find, I think, the closely related conception of the black, serviceable clouds being like the black, serviceable cattle. The clouds that are the cows of heaven and bring the rain are, of course, a well-known Vēdic figure, and one which would seem to belong to the primitive poetic conceptions of both the Aryan and Dravidic community. I would postulate for primitive Dravidic a radical *kāl*,¹ varying with *kār*, the fundamental notion of which arose from the dark storm-clouds, the bringers of rain and wind, which seem clearly to have reminded the early Dravidian of his herd of buffaloes. Such a radical appears in Canarese *kār* (written also *kār* and *kār*), 'blackness; cloud; the rainy season', which would seem to be related to *kār*, 'vomit', which in Tamil, as *kālu*, means also 'to discharge, as clouds the rain, lightning, etc.' A shorter form of this root in Canarese *kare* means 'to milk; cause to flow, emit; rain, etc.,' and with this one may compare the Malayālam *kāli* in the sense of 'cow, cattle; she-buffalo', and the Tamil *kāli* 'a herd of cows'. In the north of India we should have found in early times, as on the earth so in the sky, not only the cows that give the refreshing moisture but, quite probably also, the bull that roars, but also fertilizes,—the counterpart of *vr̥ṣan*.²

But the place of the sky-bull in the northern India of Dravidic times would seem to have been, not so much among the rain-cows, as in the watery moon. Indeed he seems there to have become the special representative of the moon with its golden horns, the bringer of the seasons, and among them the most important one that gave the rain; and, as the moon, he became a time-measurer. And just as the word for 'sun', Tamil *poṟutu*, etc., was used, as we have seen,³ in the sense of 'time'; and just as from

1. With this compare *kāl* above, which represents another side of the storm-wind's character: the two radicals may be ultimately identical.

2. In Vedic mythology, of course, the bull is Indra, the storm-god. For his association with rain see especially Rv. vi. 44, vv. 18-21, where *vr̥ṣa*, *vr̥ṣabha* are rendered by Manmathanath Dutt in his translation by 'showerer' and similar words.

3. See p. 178 f.

another name for 'sun', seen in Tamil *nāyiru*, there arose similarly a derivative *nēr-am*, meaning 'time';¹ so, it seems to me, in the north, from an early name for 'moon' there arose, on the one hand, a word corresponding to Tamil *kāl*, 'time', and on the other hand, with the same suffix as is seen in *nēr-am*, the word *kāl-am* or *kāl-am*, 'time'. This would appear, borrowed into Sanskrit, as *kāla*: in Prakrit, reflecting as it so largely does the phonetic conditions of Dravidic, we are not surprised to find both *l*'s preserved. But the moon as agent, the giver of the seasons, etc., he would be represented in early Dravidic by some such form as *kāl-aṇ* or *kāl-aṇ*. This word, I think, we may see in Sanskrit in the names *Kāla*, *Mahā-kāla*, as epithets of Śiva; and the underlying conception in other epithets—in Nandi, 'the Roarer' or 'the Bull'; in Nandiśa,² 'lord of the bull'; in Nandivardhana,³ he that increases or prospers the bull.

But in *Kāla*, and still more in *Mahā-kāla*, it is not the figure of the horned moon, with all its promise, that presents itself to our minds; far more it is a sense of blackness, darkness, invisibility. Tamil *kālaṇ*, identical with the assumed agentive form above, is a name for Yama, and is certainly to be regarded as a tatsama of Skt. *Kāla*, the god of death. Here, I conceive, we have the moon-god from another point of view; and a second Tamil *kālaṇ*, possibly also a tatsama but which may be pure Tamil, will help us to see how it arose. This second *kālaṇ* has for one of its meanings 'one of the unseen planets.'⁴ There is no need to suppose that the word *kālaṇ* here means

1. See p. 178.

2. Only another aspect, it seems to me, of *Kāla-nātha*. Notice also the parallel epithets *Kāla-kaṇṭha* and *Nila-kaṇṭha*. It seems highly probable that in *nila* we are to see a Dravidic word for moon (cf. Tam. *nilavu*, *nilā*) modified, under the influence of popular etymology into a form that was intelligible, viz., *nila* 'blue'. The same modification has probably taken place in *nilōtpala*, as a name for the moon + lotus.

3. This word is also used to denote the day both of full and new moon.

4. In Winslow's *Tamil and English Dictionary* (s. v. *kōḷ* 'planet') *kālaṇ* is mentioned among the *kāṇākkōḷ*, the invisible 'planets' such as *Rāhu* and *Kētu*, but is not further defined. It probably stands for Saturn.

‘the moon’, but it is clear that it was felt to be a fitting name for dark invisible objects in the sky; and such was the moon between the months. It is hard to doubt that it is the unseen moon, considered as a black malignant ‘planet’, that represents the god of death, the lord of the invisible world; the moon as he is during *amāvāsyā*, the black bull without his bright horns—a source of great trouble to the primitive mind; the moon-god Śiva, when he has withdrawn into himself all the digits of his crest and left the word in dangerous darkness.

The name *Kāla*, it is clear, has come to be associated mainly with the dark aspect of the moon; more especially, as it seems to me with the invisible moon. But that it could represent the other side of the moon’s character, as the bringer of light seems to follow from the apparent identity of the name *Kāla-kaṇṭha* with the name *Nīla-kaṇṭha*, in which, as I suggest, it is replaced by some Dravidian word similar to the Tamil *nilā*: for this word like *candra* in Sanskrit, denotes the bright moon and the moonlight. As we have seen, this notion of the moon-bull grows out of root-thoughts expressed in root-sounds—in radicals in bases—which seem to be inextricably intertwined. But—to return to our early examples—we may perhaps see in Tam. *kālai*, ‘bull’, Tel. *kālu*, ‘be scorched’, that is, ‘blackened’, traces of that current of thought from which flowed—possibly with much meandering—the darker element in this concept; while we may possibly catch a glimpse of the brighter stream of thought in Tam. *kāli*, ‘rise with lustre’, primarily, I would suggest, applied to the moon, then, probably as lunar conditions gradually yielded to solar, to the sun, making possible such a form as *kālai* ‘early morning, etc.’

There is another word for ‘time’ in Tamil, namely *paruvam*. This is, of course, the Sanskrit *parvan*, from which it is formed just as Tam. *nāmam*, ‘name’, from Skt. *nāman*, but showing the Tamil antipathy to conjunct consonants by the insertion of *u* between *r* and *v*. Neither Tam. *paruvam* nor Skt. *parvan* is found in the sense of ‘moon’, though both may mean either full moon or new moon. It seems to me that in this special use of the word *parvan*

we may see the superimposing of Aryan terminology, and possibly Aryan thought, upon Dravidian. The Aryan had his own practical way of dividing up the month; but for both Aryan and Dravidian the new and full moon were common. In naming these the Aryan seems to have adopted the term employed by the Dravidian, namely 'node', which he turned into Sanskrit. For the Dravidian the use of such a term would be readily suggested by the bamboo with which he was so familiar. The ordinary word for 'node' in Dravidian is the same as that for 'eye', to which the node was compared: Tam. *kaṇ*, *kaṇu*; Can. *kaṇ*, *kaṇu* *kaṇṇu*; Tel. *kanu* or *kannu*. These would go back upon a primitive *kāṇ/kaṇ*, or possibly *kāṇ/kaṇ*.¹ This base seems to have early made its way into Sanskrit. The word *kaṇḍa*, 'a piece, the section of a plant from joint to joint (as of a bamboo)',² seems clearly to contain it; and I think it may be seen too in *Gaṇḍiva*, the name of the bow of Arjuna; the bamboo still is largely used for making bows in India. Similarly it seems to be present in *khaṇḍa*, 'section, etc.', and possibly also in *kaṇṭha*, 'the neck', as one of the most important joints of the body, dividing it as it does into such supremely different segments. But this word for 'node' does not seem to have entered into the formation of names for the moon so readily as did the word for digit. Taking into account the ambiguity of the *n*-sound, traces, faint and uncertain, of such formations may possibly be seen in (1) Tamil *kaṇṇā!* (*-ā!*, a feminine suffix) as a name of Sarasvatī, the watery one, she whose *vāhana*, or vehicle is the peacock (*nila-kaṇṭha*) with its innumerable noods (*candra*, *candraka*); in (2) the name of Kaṇva, associated as he is with Duṣyanta and the lunar kings of northern India; in (3) that of Kaṁsa, also called *Kalāṅkura*, 'the *kalā* sprout' (that is, evidently, 'the new moon') as the enemy of Kṛṣṇa, representing, in the story of his conflict

1. See note 1 on p. 183. The corresponding verbal base in Telugu, *kanu*, *kānu*, 'see', is also without the cerebral.

2. It is interesting to note that the Malay word for 'bamboo' (*bambū*) is defined by the abbé Favre in his dictionary (*Dictionnaire malais-français*, Vienna, 1875) as 'un morceau de bambu d'un noeud à un autre, servant de mesure'.

with Kāṁsa, the dark half of the moon in its monthly victory over the bright half; in (4) Skt. *kānti*,¹ as the name of the tenth *kalā*, and in the sense 'radiance of the moon'; and in a few other words.²

Whether these forms point to the existence of names for the moon formed from the Dravidic word for 'node' or not, it seems clear that the notion of the node was closely associated with lunar calculations. I believe that evidence of such association is seen in the widely spread southern use of *kāṇi* in the sense of 'one-sixty-fourth,' and further in the Sanskrit *gaṇa*, as the name of the retinue, or member of the retinue, of the moon-deity, Śiva. But leaving these to be considered later on let us return to our word *kalā*—Dravidic *kalai*. It seems to me not improbable that it was under the influence of the Dravidic *kaṇ*, used, as the Sanskrit *parvan* was, to denote a segment of the moon's disc, that this word *kalai* developed the meaning 'joint, to join.' This meaning appears clearly in Can. *kali*, 'join, meet, etc.', Tel.

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1. A derivative, apparently, from the Skt. root *kam*, 'love', and expressing the relation believed to exist between love and moonlight, but possibly chosen or preserved because of its similarity to some lost name for the moon, derived from the above word for 'node'. It would not be impossible to regard Pārvati (Marāṭhi also Pārvati) as also reflecting such a name, the Dravidic word for 'node' being here replaced by the Sanskritic, and the form and the sense both modified under the influence of *parvata*, 'mountain'. In Tamil, from *paruvam* it would certainly be possible to form a feminine of agency *paruvatti* (i.e. *paruvam-ti*), and it is conceivable that some such form, with the meaning, 'the lady of the nodes', that is, 'the moon', existed in early times in the Dravidic of the north. Compare for the form Skt. *mālātī*, *Jasminum grandiflorum*, probably to be connected with Tam. *mal-ar*, 'flower' (Dravidic base *māl|mal*).
 2. Compare the Marāṭhi Khaṇḍē-rāv, Khaṇḍē-bā, 'an incarnation of Śiva' (Molesworth, *A Dictionary of Marathi and English*). It should be pointed out that the inflected forms of this radical often contain a cerebral stop; for instance, Tel. oblique sg. *kaṁṭi*, pl. *kaṁḍlu*. It seems highly probable that the simple base has made its way into Sanskrit as *kṣana*, over Prakrit *khaṇa*.

kaliyu, 'join, mix, etc.', and in the Dravidic-Sanskrit *kalita*, meaning 'mixed, furnished with,' and [(from a new root *kal*) *saṁ-kalana*, 'the act of heaping together, junction, addition, etc.']. The meaning 'part,' arising readily from either the notion of 'digit' or that of 'node,' may have been the first stage in this transition: compare Skt. *sa-kala*, 'with (all) the parts, entire, all,' *vi-kala*, 'deficient in its parts, defective,' both from *kalā*.¹ And there is another sense of *kalā-kalai* which, it seems to me, this contamination with the word for 'node' made possible, namely, that of 'artistic skill.' I suggest that this has arisen from the notion of 'joining,' as a putting together, constructing, contriving, from which sense it passed on to denote 'practice, skill'—in Dravidic, apparently, especially 'martial skill'—and finally 'knowledge,' the science of such skill.²

There is one point more to be added before we pass on to consider more particularly what I have called the octaval system of reckoning in India. It is, perhaps, hardly necessary today to emphasize the fact that the cult of patriarchal deities seems to have been regularly preceded by that of matriarchal deities. It was so in India in the case of the moon-deities without a doubt.

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1. In Tam. *kala*, 'mix, adulterate; mix in friendship; join in battle', *kalaṅku*, 'be stirred, be confused'; in Tel. *kalacu*, 'trouble, disconcert', *kalaka*, 'turbidity, trouble'; in Can. *kalaku* 'agitate, perturb', *kalaṅku*, 'perturb, stir' (cf. Skt. *kalaha*, 'dispute, quarrel', *kalaṅka*, 'blemish, stain'). The base seems to be *kal-am*, with some such sense as 'mud' [as the material out of which the potters (Tam. *kalan-tarunar*) made their pots (*kalam*)?], though there may be contamination with the other base *kali* (to *kalai*), whose main meaning is 'join, unite'.
 2. Magic contriving, magic art, would inevitably form a part of the connotation of this word; and the association of the moon with magic must be forgotten. It is suggested further on (see pp.191, 196 f.) that the sixty-four *yōginis* associated with Durgā are a personification or the sixty-four quarter-digits of the moon; and the moon-god Śiva is, of course, the typical *yogin*, and bears this name. Tam. *kal*, 'learn, study, practise arts'. Can. *kal*, 'learn', etc. I would regard as back-formations from *kalai*. From their northern equivalent I would derive Skt. *kalpa* in the sense of a 'a body of rules on ritual'.

I consider it quite legitimate to derive the form *try-ambaka*,¹ as a name of Śiva, from that of the name of the corresponding mother-deity, *try-ambikā* (later, *try-ambakā*). Pārvatī has not homonymous counterpart. As I have quite tentatively hinted, it is just conceivable that this name may have originally denoted 'the mistress of the nodes' (*parvan*). In any case, like Durgā, and like Gauri,² it is doubtless to be regarded as indicative of matriarchal habits of thought. Kāla, the Indian counterpart of Kālī,³ is well known to us from Indian literature, but, apart from literature, his name has practically disappeared. He came to replace Kālī, and, as Śiva, he is still supreme. But before him, we may be sure, ruled kālī; and today she is probably the most popular deity of the whole Indian pantheon. To remind us of her relation to Śiva as Naṭeśa, we have her well-known figure in its frantic dance; to remind us of the buffalo behind the primitive conception of the moon which she represented, we have the expression *kālī-tanaya*, 'a buffalo,' literally 'son of a kālī,' where *kālī* seems to be an early name for buffalo cow.⁴ She is associated closely not only with Śiva's *gaṇas*, but with the sixteen mothers, whom I would regard as personifications of the sixteen *kalās*, and also with the sixty-four *yōginīs*, who can hardly be anything else but similar personifications of the quarter-digits. Lastly we have the

1. It seems to me that the first part of this word may well be compared with the southern (Tam.) *tiru-* as a prefix resembling in its function the Skt. *śri-*. Similarly *Tri-kūṭa*, as the name of various unidentified mountains, becomes more intelligible if we regard it as denoting some holy mount, rather than some mount with three peaks. Is not *Triśaṅku*, who was raised to the stars as the Southern Cross, a personification of the sacred, 'chank' (Tam. *caṅku*), the conch-shell so peculiarly honoured in southern India?
2. As an appellative, *gaurī* denotes the female of a certain species of *buffalo*.
3. Does the representation of Kālī or Durgā fighting Mahiṣāsura, the buffalo-demon, by the aid of her lion-*vāhana* reflect a confusion between a Kālī that was associated with the buffalo and a Kālī that was associated with the lion (cf. Tam. *kāḷi* 'lion')? Or does it mark a transition from the one aspect of this deity to the other?
4. Compare Mal. *kālī*, 'cow, she-buffalo'. It is worth while to notice that in Santālī a buffalo cow-calf is called *kaḍi*, a buffalo bull, *kaḍa* or *kaṛa*.

lonely, learned Sarasvatī, she of the watery places beloved of the buffalo (sarasvat), reminding us of Śiva with her dancing, moon-bedecked vehicle, the peacock.

Quite apart from these more or less definite allusions to a bull or buffalo-moon we find the moon in northern India, clearly associated with a dark animal in the epithets *ēṇa-bhrt*, 'bearer of the *ēṇa*,' *ēṇāṅka* 'ēṇa-marked.' The word *ēṇa* is here rendered by 'black antelope,' and there can be no doubt that this was the normally accepted meaning. But it is difficult to separate this word entirely from such forms as Telugu *enu-mu* or *enu-peṁṭi*, 'a female buffalo,' *enu-pōtu*, 'a male buffalo;' and I think we may fairly see in these names for the moon some further support for the suggestion that in early Dravidic India, or in parts of it, the characteristically dark buffalo, rather than the bull, was the form in which the moon as a mysterious sky-power presented itself to the minds of men. Indeed, when we find in Telugu the word *kāru-pōtu*¹ used to denote a wild male-buffalo and the word *kāru* used to denote anything black, it seems impossible to resist the conclusion that, here at least, the word for 'buffalo' has supplied the word for 'black.' Both the antelope and the buffalo have cloven hoofs. We have seen how one name for such a hoof, namely the Sanskrit *śapha*,² was employed to denote the fraction one-eighth. Is it an unreasonable suggestion that the whole animal to which these eight half-hoofs belonged {should have given its name to the number eight, or at least should have come to be intimately associated with this number? In Telugu the radical for 'eight,' is *en*, Drav. *eṇ*, apparently identical with the radical in Tel. *enu*, in Skt. *ēṇa*. Whatever be the case, whether the dark animal received its name from the number, or—what seems to me more likely—the number eight received its name from the dark animal, or, indeed, if the identity of name is merely accidental, certainly the connexion of the moon with an octaval system becomes still more intelligible; and possibly this association of the moon with the number eight by the side of its association, in the case

1. The word *pōtu* means 'male'. Compare, for the radical *kār*, p. 185

2. See p. 174

of the *kalās*, with the number sixteen may throw light upon the existence in India of both an eight-base and a sixteen-base in contemporaneous use.

As to the number of *kalās* as arts there can be no doubt that in ancient India they were spoken of as sixty-four just in the same way as the Greeks spoke of hundred-gated Thebes, or the Romans called a certain insect a centipede, a thing with a hundred legs. For those employing a decimal system of reckoning, a hundred, that is 10×10 , is thus often used to denote an indefinite large number, and, similarly, where the system in use was octaval we may expect to find sixty-four, that is 8×8 , serving the same purpose. There can, I feel, be as little doubt that the source of this curious method of counting is to be traced to the primitive custom or cult which regarded the moon possibly, in the first place, as representing the number eight¹ and certainly in the second place, as divided into sixteen *kalās* or digits. I have endeavoured to show that this manner of regarding the moon may be with reason attributed to Primitive Dravidians of northern India who preceded the Aryans as settlers along the Indus and the Ganges. A consideration of the Dravidic numerals serves to confirm this view.

It is generally accepted nowadays that the numerals in the idioms of southern India are pure Dravidic vocables only as far as the number eight, that the words for 'nine' and 'ten' are importations from Sanskrit. The word for 'ten' in Telugu is *padi*, in Tamil and Malayālam *pattu*, in Canarese *pattu* or *hattu*. The forms in *-tu* are derived from Drav. *padu*, found in composition,² by means of the particle *-tu*. This *-tu*—a sort of particularizing particle or suffix—seems here to indicate the end of a series, just as it apparently does in the word for 'eight,' Tam., Mal. *eṭṭu*, Can. *eṇṭu*, from Drav. *eṇ* (the composition-form), which stood at the end of what I consider to have been the old series. Drav. *padu* is a modifi-

1. Compare, in addition to what has been said above, the use of *gauri* in Sanskrit to denote a girl of eight years.

2. For example, Tamil *pat-iṇ-āṟu*, 'sixteen'; *iru-patu*, 'twenty'.

cation of Drav. *padi*,¹ seen in Telugu, which again seems undoubtedly to be derived from Skt. *pañkti*, or *pañti*, as it is sometimes written. This word, of course, denoted originally a group or row of five (one hand), then, apparently, a row of ten (two hands) and then a row in general. The name Daśa-ratha appears as Pañkti-ratha, Rāvana is known as Pañkti-grīva as well as Daśa-kandhara (of ten necks); and the metre called *akṣara-pañkti*, though usually regarded as a type of verse consisting of eight lines, each of five syllables, would seem rather to have been regarded—as was its Avestan counterpart—as four lines, each of ten syllables, and to have received its name accordingly. The Sanskrit *pañkti* is not only found in the Dravidic numeral system, it occurs also independently of this, for example, in Tam. *panti*, ‘row, a row of guests seated for a meal; a row of horses or elephants, stables, stalls,’ which is evidently derived from Skt. *pañti*, read with assimilation of the nasal, as *panti*, or rather *pandi*; and in Tam. *patti*, ‘row series, class; column in writing, etc.’, formed from the same word with further assimilation of the nasal.

The word ‘nine’ in Dravidic is derived from the word for ‘ten’; and it is derived in two distinct ways. First we have Tam. *on-patu*, Mal. *on-patu*, Can. *om-battu*, formed from *patu*, *pattu*, ‘ten’, as it would appear, under the influence of Skt. *ūna-vimśati*,²

1. From an earlier *pandi*: cf. Tam. *panti*, below. That apparently no trace of an original *n* is found in these words for ‘ten’ makes certainly against this derivation. But two considerations greatly lessen the force of this objection. First, the *-tt* of forms like *pattu* may stand for *-nt* (representing *-ntt*); cf. Tam. *patti*, ‘row, etc.’, which is certainly from Skt. *pañ(k)ti*, and see note below. Secondly, haplological omission may account for both such forms as *on-pa(n)tu* (see next paragraph) and for such as *pa(n)t-iṇ-āṭu*.
2. This Sanskrit form does not affect the Dravidic word for ‘nineteen’, where it might well have been expected that Sanskritic influence would first have made itself felt. The word for ‘nineteen’ in Dravidic is made up of the two words for ‘ten’ and ‘nine’, for instance Tam. *patt-on-pattu*; and it is reasonable to suppose that the constraint of system in the scheme of numbers has eliminated or prevented the influence of Sanskrit at this point, the numbers one to nine being exactly repeated in the numbers eleven to nineteen, and so on. Caldwell in his *Compa-*

'nineteen,' conceived as meaning 'one less (*ūna*) than twenty' (*viṃṣati*), by prefixing the Dravidic base for 'one,' namely *on* or *on*. Secondly we have Tel. *tom-midi* from an original *tol-padi* (or *toḷ-padi*) over *tom-badi*, *tom-bidi* (with assimilation and vowel-harmony) which also seems to me to have arisen under the influence of *ūnaviṃṣati*. Whereas, however, the Sanskrit word denotes a deficient twenty, the Dravidic denoted, rather a defective ten. Caldwell, it is true, thought the Dravidic word might denote 'the number before ten.' This, I feel, is far less probable. The Dravidic base *tol* (*toḷ*) certainly came to signify, 'old, former,' etc., Tam. *toḷtu* (i. e. *toḷ-tu*), for instance, means 'antiquity—the before-time'; it also, like Tel. *tom-bidi*, means 'nine'. But I hardly think that we are justified in interpreting this word in the latter case either as 'the number before ten', or even as 'the before (i. e. old) number ten'. Its true interpretation, as of Tel. *tom-bidi*, is clearly indicated, it seems to me, by the Tamil verbal base *tol*, which means, primarily, 'to perforate'; by Can. *toḷe*, 'hole', etc. It seems clear that 'nine' was regarded in much the same way as a perforated cowrie (H. *kāni kauṛi*) was regarded: it was a ten with a defect in it, a defective ten. The notion of 'antiquity' would follow readily, for is it not the old cowries that are perforated, the old things that have holes in them?

I have already alluded to the apparent terminal nature of the Dravidic word for 'eight' as indicated by its form. That it was formerly thus regarded as a terminal is made still more probable by the existence of such words as Tam. *eṇṇu* (compare the compositional form of the word for 'eight', *eṇ*), 'count, guess, think, ponder, etc.', with which we may well compare the Greek *πεμπάζω*, 'count, reckon, consider', originally 'to count

rative Grammar (1913), pp. 349-50, suggested a 'Turanian' type, but if the Dravidic word for 'ten' is rightly derived from the Skt. *pañkti* which however, Caldwell was not prepared to admit (*ibid.*, p. 353), it seems natural to suppose that the word for 'nine' also shows in its formation traces of Sanskritic influence.

1. *A Comparative Grammar of the Dravidian or Southern Indian Family of Languages*, 1913, p. 348.

on the five fingers', from the Greek word for 'five'. All this is now further confirmed by our consideration of the almost certainly Sanskritic origin of the Dravidic word for 'ten', and is entirely in harmony with the custom—it would seem to have been an hieratic custom—of dividing the moon's disc into sixteen parts. It would, of course, be quite possible to regard this sixteen-fold division of the moon's disc as reflecting an already existant octaval system. It seems to me, however, more probable that the reverse is the case, that lunar reckoning preceded and gave rise to a widely prevalent practice of reckoning by eights—or by sixteens. At the same time it must be borne in mind that such a system of reckoning could hardly fail, popularly if not hieratically, to be accompanied by and associated with the habit of counting upon the fingers of each hand; and, indeed, it would be rash to assert that such a habit played no part in the building up of this system.¹ As I view the case, it did not play the main part.

The moon's disc was first divided, naturally enough, into four parts; each of these was then again divided into four parts;

1. In Bengal the word *gaṇḍā* denotes an aggregate of four, originally of four cowries; *gaṇḍākiyā*, the method of counting by such *gaṇḍās*. Here certainly we find evidence of a four-group being employed in counting; and, of course, rupees are so counted today in most parts of India. We may, I think, compare with this use of half-eight as a unit the converse use of *pañkti* in Sanskrit with the meaning twice-five, the single or the double hand being regarded at will as the initial group; as also were, apparently, eight and sixteen, ten and twenty, which last, the score, is generally held to have reference to both hands and feet. It is interesting and important to note that here too we seem to have the same stem *kaṇ* as, we have suggested, is to be seen in Skt. *khaṇḍa* and *kāṇḍa* (p. 188). The Hindūstānī *gaṇḍa* also denotes an aggregate of four as well as the method of counting by fours: but, besides being used in these senses, it may also mean (1) 'a joint'; a reed; sugar-cane', and (2) 'a ring, a circle, especially a magic circle or one which is supposed to act as a charm or asnulet i.e., as an obstacle or impediment to the influence of evil spirits, etc.'. (Platts, *Hindūstānī Dictionary*). Here we may see, not only confirmation of the connexion of this word with *kaṇ*, 'node', so intimately associated, as it seems to me, with the moon and the measurement of moon-time, but also what may be fairly regarded as a reminiscence of moon-magic.

and then again each of these was further divided into four parts. These last, the quarter-digits were called *yōginis* and, I have suggested, were personified as witches or sorceresses (*yōginī*) attendant upon Kālī or Durgā,¹ a moon-goddess. It is, however, quite possible that the word *yoginī*, as here employed, was not in the first instance associated with magic, but meant merely 'a joint', or 'a little joint'² being derived from the Sanskrit word *yōga* in the sense of 'joining, union, etc.,' under the influence of the Dravidic word for 'joint' *kāṇ/kaṇ* to which I have already alluded as providing the Dravidic substrate of the Sanskrit *parvan* in its association with the moon. The specialized sense of *yōginī* as a name, not merely for a small part of the moon's disc, but for a sixty-fourth part, is intelligible if we assume that among the northern Dravidians the name for the sixty-fourth part of the moon's disc was a derivative from *kāṇ/kaṇ*, as *yoginī* from *yōga*. Such a word, conveying precisely this lunar sense, is not found: but there is a well-known word in the Dravidic idioms of today which bears the general sense of 'one sixty-fourth part' and of which there are also clear traces in the idioms of the north. This word is (Tam., Mal., Can.) *kāṇi*, whose connexion with the word for 'joint, node', is unmistakable. For the traces of this word in the north it may be sufficient to refer to the Bengālī *kāni* or *kāṇi*, as the name of a measure of land which, at least in eastern Bengal (Tipperah) is equal to one-sixteenth of a 'doran', the Skt. *drōṇa*. This word is phonetically identical with the Dravidian word, and, in meaning, may be compared with the Tamil *mā-kāṇi*, that is 'great *kāṇi*', which means 'one-sixteenth', though, of course, the Bengālī *kāni* may have been the sixty-fourth part of some measure four times as great as the 'doran', which is

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1. Durgā herself is known as *Yōginī*, evidently a projection of the group of *yōginis*, just as the name Mother (*mātr*) which she bears may mark a similar individualization of the group of sixteen mothers, the *kalās*, as I would suggest; both being instances of primitive generalization.
 2. Rather, perhaps, 'one of many joints', as *padminī*, denotes not only a lotus but a bed of lotuses, and *rāginī*, one of the whole series of modified *rāgas*, or (characterized) musical modes.

no longer in use.¹ In any case it seems probable that we have in Skt. *kākiṇī*, which means 'one-fourth of a *māṣa*', that is to say, 'one sixty-fourth of a *karṣa*' (a *karṣa* being the weight of a coin in common use in earlier times, namely the *karṣāpaṇa*), a Sanskritization of this Bengālī word *kāni*, or of one of its Prakritic peers.

With these *yōginis*, the attendants upon Durgā and, by a later transference, upon her consort Śiva, I cannot refrain from associating the *gaṇas*.² These are, of course, in classical literature, the special followers of Śiva and are sometimes spoken of collectively as 'the host', a sense denoted by the same word *gaṇa*. But if Śiva is the leader of the *gaṇas*, Gaṇa-nāyaka, Durgā holds an identical position as Gaṇa-nāyikā; and she is, moreover, as Pārvatī, the mother of the *gaṇas*, Gaṇa-janani. It is the same story, it seems to me, of the moon and its nodes or divisions:³ only here we are amongst the Indian Olympians, respectable married deities and their offspring. Gaṇēśa, the son, who continues his father's title as 'lord of the *gaṇas*', is, I

1. May we not see in the Hindūstānī *ānā*, 'an anna', as the sixteenth part of a rupee, a similar use, or misuse, of this fraction? It seems to me not improbable that forms like *du-annī*, (*du-ānī*), 'a two-anna piece, two annas', '*cau-annī* (*cau-ānī*),' a four-anna piece, 'four annas', etc., may be derived from earlier *dvi-kāṇī*, *catu(r)-kāṇī*, etc., with loss of intervocalic *-k-*. The frequent use of such compound forms would then have given rise to an assumed singular *āṇa* (*ka*), pairing off with the compositional form *-āṇī* as, for instance, does Skt. *vēda* with *vēdī*, in *tri-vēdī*, 'the three Vedas', etc.
2. If we may regard Ṛśya-śṛṅga, as I think we should, as another presentation of the 'horned moon', it is interesting to find him so closely associated with *gaṇikās* in the story of his magic power of producing rain.
3. The word *gaṇa* seems clearly to be connected, like *kāṇī*, with the Dravidic base *kāṇ/kaṇ*. From these words denoting divisions of the moon and providing a means of computing time has arisen, it would seem, the general notion of computing, reckoning, expressed in Sanskrit by the radical *gaṇ* (of Dravidic origin). The relation between *gaṇ-* and *kaṇ-* may be compared with that between *gāṇḍ-* and *kāṇḍ-* (p. 188) and probably with that between *gaṇḍ-* (note on p. 196) and *khaṇḍ-* (p. 188). The Sanskrit root *gaṇ* is, of course, usually regarded as standing for *grṇ* and connected with the Greek ἀγείρω, 'collect'.

would suggest, the new moon; he represents that auspicious moment when we in the west still feel as if we ought to turn over the money that is in our pockets, or the keys—anything metal—for ‘luck’; the time when sympathetic magic would lead the primitive mind to feel that every undertaking then begun must grow and prosper along with the growing moon. And Kumāra, the other son, I would regard as the new moon also. But he is the new moon as the bright power that overcomes the malignant forces of darkness when, month by month, they seize upon the light of heaven’s friendly lamp.

To return to the octaval system and its sequel the sedecimal, if my contention is sound, if we admit that in the earliest times there existed among the Dravidians of India a method of counting by eight and that this method only gradually gave place to the decimal system which the Aryans brought with them, then at once certain other numerical peculiarities find a satisfactory explanation. These peculiarities arise from the conflict of two systems, or from an attempt to find a *via media* between them. The predilection for the number eighteen,¹ found throughout Indian literature, would seem to arise by a compromise between the decimal and the octaval systems ($10+8=18$), and the number eighty (10×8), which not infrequently varies with sixty-four,² seems also to bear the stamp of such a compromise. Other instances of such interplay appear to arise rather from the collision of the sedecimal system, as a method of counting and expressing more readily higher groups by means of a double-eight, with a similar method used by the Aryans in which a double-ten was employed for this purpose.

The former prevalence of sixteen as a group-number in northern India is made manifest linguistically by the fact that the

1. It may be sufficient to mention the eighteen purāṇas; the eighteen kinds of learning, that find a place in both Sanskrit and Buddhist literature; and the Pāli expression *aṭṭhārasa-kōṭṭi(ya)*, ‘of eighteen *kōṭṭis*’, to denote a great mass or multitude.
2. For instance, *kāṇi*, in Malayāḷam may mean, not only ‘one-sixty-fourth’, but also ‘one-eightieth’, and this is the usual meaning of the word in Tamil.

medial cerebral which this number legitimately shows—Sanskrit *ṣōḍaśa* (from *ṣaṣ-daśa*), Pāli *sōḷasa*—has, in modern Hindī and other vernaculars, influenced the whole series of the tens from eleven to eighteen, changing an original *d*, over, *ḍ*, into *r*.¹ The Pāli form shows in its *l*, it may be noted in passing, what I would regard as a Dravidic phoneticism; and, similarly, the prevailing modern forms, Hindī *gyārah*, ‘eleven’, *bārah*, ‘twelve’, etc., show in their final a change of Prakritic *s* (itself a rough approximation to the original palatal *s*) to a silent *h*, which is also common enough in early Dravidic borrowings, there having been apparently, no true sibilant in northern, and none possibly in primitive Dravidic. In northern India at the present day higher numbers are ordinarily counted by twenties, by pairs of tens. This method may be Indogermanic; for the Indo-germanic word for twenty (*ui-kmt-i*) has a dual ending, and the dual was originally employed to denote, not two, but a pair; the method of counting by twenties or scores, moreover, is found among the Kelts and among the Teutons. But it seems to me quite conceivable that in India the twice-eight system called into being the twice-ten system as its decimal counterpart. However this may be, it seems quite clear that these two systems existed side by side in early times, and it would be quite possible to regard the above-mentioned preference for the number eighteen as more especially due to a compromise between the Aryan twenty and the Dravidic sixteen, rather than to the simple combination of Aryan, ten with Dravidic eight. But what appears to be conclusive evidence of such contamination, involving a confusion between name and number, is to be found in the use of Skt. *viṃśa*, ‘one-twentieth

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1. This is, or at least was, of the nature of a cerebral (Hoernle, *A Comparative Grammar of the Gaudian Languages*, p. 13). The frequent interchange of *r* and *l*, both in Pāli and in Dravidic, shows that these sounds were not felt to be greatly different: both have become practically merged into one in modern Malayālam. It is possible, but, I think, less likely, that the cerebralization of the *d* took place by regressive assimilation at a time when *s* was not differentiated in pronunciation from *ṣ*; cf. Mahārāṣṭri *ḍahai*, ‘he burns’, arising apparently from Skt. *dahati* under the influence of forms like the future *dhakṣyati*; Bengālī *ḍā(i)na* (for *dāhina*), ‘right’, Skt. *dakṣiṇa*, etc.

part', to denote 'one-sixteenth part', in all the languages of southern India: Tam. *vicam*, Mal. *viṣam*, Can. *visa*, Tel. *visamu*, evidently all Dravidized forms of the Sanskrit word, with vowel-lengthening in compensation for the loss of nasalization as, for example, in Tam. *ciyam*, 'lion', from Skt. *siṃha*.¹ These terms were employed primarily in connexion with the weighing of the precious metals, and they denoted the amount of gold or silver that was equal in weight to one grain of rice. There was sixteen times this amount of gold in the gold *paṇa* (commonly spoken of as a *fanam*), and sixteen times this amount of silver in the silver *paṇa*,² the typically Dravidian currency of the south.

A *paṇa*, in Sanskrit, meant also a coin having the value of eighty cowries. This is, of course, the modern obsolescent *paṇ* as the name for an aggregate of eighty cowries, the fifth part of an anna; which, like the Sanskrit word, bears also the meaning 'handful'. This meaning is suggestive. In measuring grains it would be not unnatural to reckon by means of (double) handfuls;³ and we may well imagine that, in paying for them, the cowries—which, of course, in earlier times were a widely-spread medium of traffic with a value probably due to their demand for purposes of ornament—were treated similarly. Such double handfuls of cowries would necessarily vary in the number contained; but, according to my contention, the Dravid would be satisfied if it was not less than sixteen, about sixteen; the Aryan, if it were not less than twenty, about twenty, these numbers being their respective bases for higher calculations. Five of these handfuls would make, in the one case, a 'round' hundred; four, in the other case a 'round' sixty-four. The Aryan five got the upper hand, and five handfuls became a customary standard, a 'round' number (eighty)

1. Pāli *siha*, which again shows close approximation to the Dravidic form.
2. The occurrence here again of the number sixteen should be noted.
3. Compare the use of Skt. *muṣṭi*, 'handful', to denote a certain dry measure; of Beng. *kuñci* or *khuñci*, related apparently to *kuñcikā*, 'branch or shoot of the bamboo', in the sense 'a measure of eight handfuls'. The word *paṇa* itself (for **plna*) is clearly akin to the word *pāṇi* (for **palni*), 'hand'.

being thus eventually arrived at which was common to the systems of higher calculations of both parties. The next step, where Aryan influence prevailed as it did in the north of India, was inevitable. The Dravidic system broke down.

In Hindūstānī the word for 'score', used in such calculations is *kōṛī*. The corresponding word in Bengal is *kuṛī*, and it would not be impossible to see in this, as a term prevailing at an early time in this centre of commerce, the source of Hindī *kōṛī* and to derive both from the Dravidic base *kuṛī* (Tam., Can. *kuṛī*, Tel. *guri*) which denotes an aim, a mark, an end, a limit. The close connexion between the sounds represented by the symbols *r* and *ṛ* has already been pointed out;¹ and that the difference between the sounds represented in Bengālī script by the equivalents of the nāgarī *ō* and *u* is, for the present day certainly, practically negligible, a glance in any Bengālī dictionary will make manifest. It seems, however, more reasonable to connect *kōṛī*, and probably also *kuṛī*, more immediately with the Sanskrit word *kōṭī* or *kōṭi*. This word seems also to be of Dravidic origin, for it can hardly be separated from the Dravidic base which is seen in Can. *kuṭi*, 'top; sprout; pointed flame; flag', Tel. *koṭi*, 'top; mark; flame; flag', Mal. *koṭi*, 'top, extremity; sprout; flag'. Tam. *koṭi*, 'creeping plant; standard, etc.' The original meaning of this base and of Skt. *kōṭi*,² would thus seem to have been, not merely 'an end-point', but 'the point or end of something curving', as of a bow, a sprout, a flame, or a flag.³ There is agreement, however, between this base and the base *kuṛī*, with which it may be ultimately related, in respect of that which here concerns us most, namely, that both may be used to denote an end or limit. The end which *koṛī* and *kuṛī* were employed to denote was the end of a summation, just as Skt. *kōṭi* itself was employed to denote a sum-

1. See note 1 on p. 183.

2. The long *o* in this word would be due to its importation into Sanskrit, in which short *o* did not exist, or at least was unrepresented.

3. The notion of 'curving' is also seen in Tam. *kuṭu-mi*, 'a man's single lock of hair'; (Drav.-) Skt. *kuṭi-la*, or *kuṭ-ila*, 'crooked, tortuous, fraudulent', etc.

mation, a limit in counting, when it was given the meaning 'crore'.¹ The limit marked by *kōṛi* and *kuṛi* was a more practical one. Today it is the limit of a twenty-group, adopted as a basis for more conveniently reckoning and naming higher numbers. Formerly, if my contention is right, it marked the limit of a sixteen-group employed in precisely the same way and fulfilling precisely the same purpose.

That such a cultural shift in the manner of reckoning has taken place is, I think, confirmed by a consideration of some of the names for weights which are employed in the Malay Archipelago and which would seem clearly to have found their way there as the result of an active commercial intercourse in early times between India and China. We all know the word (tea-) *caddy*. It is from these parts and denotes a certain weight (of tea), originally a weight of sixteen Chinese ounces (liang or tael). In the Arabic script in common use in the Archipelago this word is not distinguished from the word for 'crore' or 'lac'.² The latter is identified with the Sanskrit *kōṛi*, and it seems highly probable that the former is to be similarly derived, namely from *kōṛi* in that sense of 'limit in counting' which has given the modern word *kōṛi*, but that, having been introduced at a very early date, it has preserved its old octaval sense. We find, I

1. Hindi *karōṛ*, which seems clearly to be from the same word *kōṛi*, but curtailed in popular use and showing a modification of the initial consonant, under the influence of the final, similar to that seen in the vulgar pronunciation of 'theatre' as *thre-atre*.
2. At least this is the case in the dictionray of the abbé Favre. Here both are written كتي, which is transliterated, in the case of the first word mentioned above, as *kati*; in the case of the other, as *keti*. A weight of one hundred 'caddies', or 'catties', is called a *pī-kul*, where the final element seems to suggest the original presence of a cerebral sound, if we may compare Malay *gūla*, 'sugar', with Skt. *guḍa*, 'molasses': but this is a doubtful matter. For the *pī*-compare what is said in the next paragraph of the text. It should be remarked that the Indian word for 'a score' is undoubtedly to be seen in the Malay *kōḍi*. If my contention is right, however, this would be a later importation, as, indeed, the *d*, for *ḍ*, in this word would seem to indicate a later stage than the *t*, for *ṭ*, in *kati*.

think, also an early representative of our word *kāṇi*, namely, in the word which is usually written 'candareen'.¹ Cerebral *n* is certainly sometimes represented in Malay by *nr*,² and between *n* and *r*, *d* is a very natural glide; the nasalizing of the final vowel would appear to be characteristic of Malay. A candareen is the one-hundredth part of a liang or tael: and this is also the value of the Chinese *fên*. Now the Chinese character which represents the word *fên*, is made up of two elements, one of which denotes a knife, an instrument for cutting, and the other the number eight. So that it seems fairly clear that in early times the *fên* must have stood for the fraction of one-sixty-fourth (the eighth of an eighth of a liang or tael), as *kāṇi* does in India, and only later, with the in-coming of decimal calculation, came to denote the one-hundredth part.

To this intercourse between India and China, it may be remarked by the way, is due the existence of certain terms for mediums of exchange which are common to these two countries. Mal. *kāśu*, Tam. *kācu*, Can., Tel. *kāsu* are certainly to be identified with the 'cash' of China, the Chinese *ch'ien*, the name of those copper coins of former days that were perforated in order that they might be strung together and carried more easily. The Malay *pēkū*, which stands for the Chinese *pai ko*, 'a hundred pieces', that is, 'a hundred "cash"', reminds one curiously of the Telugu *paikamu* in the sense of 'cash, money'. The word for 'cash' (literally, 'a hundred "cash"') in Java is *picis* (Malay *pītis*): have we not here the parent of another Indian word for money namely *paisā*? The Sanskrit *māṣa* seems certainly to be discernible in the Malay 'mace',³ the tenth part of a Chinese tael or ounce';⁴

1. Probably the *kundir* (کندر), 'un certain petit poids d'or', of Favre.

Compare also *kenderi* (کندری), 'ancienne monnaie de douze à quinze duwits'.

2. For example, Skt. *kuṇapa*, 'corpse', is represented in Malay by *kunarpa*. Sometimes it is represented by *rn*, as in *berniyāga* '(one) who traffics', from Skt. *vaṇijya*, 'trade, traffic' (Favre).

3. Written *amās* (امس) and *mās* (مس) by Favre and defined as 'la seizième partie du tael'.

4. *The Century Dictionary*.

and *pāi*, which in India is the name of an insignificant copper coin, now rarely to be met with, is remarkably similar to the Chinese name for the insignificant cowrie, especially in the form *puai* which it is said to have had in ancient times.¹

But to return: we find in Sanskrit the words *kōṭira* and *kōṭira*, both bearing the meaning 'hair collected on the forehead by ascetics in the shape of a horn'. The former is also given by Indian lexicographers as an epithet of Indra. Such matted and braided hair (*jaṭā*) is better known to us today as characteristic of Śaiva ascetics and of Śiva himself, the successor of Indra as god-with-the-bull. These words appear to be simple derivatives, primarily adjectival, from Skt. *kōṭi* *kōṭi*, formed like, for example, *mukha-ra*, 'talkative', from *mukha*, 'mouth'. The resemblance of such matted hair to a horn is unmistakable enough. But I consider that it would be equally appropriate to liken it to a shell, and I imagine that everyone who has seen typical specimens of the *jaṭā* in, let us say, the holy places of Benares, would agree with me. As a matter of fact the braided hair of a Śaiva ascetic is actually spoken of as a *kaparda*, or shell; and this word, along with its derivative *kapardin* is one of the epithets of Śiva. Are *kōṭi* and *kaparda* related? The origin of *kaparda* is unknown, but theoretically such a relationship is quite conceivable. One might, indeed, be even tempted to suggest that we may see in *kaparda* an instance of false Sanskritization, or that, at any rate, its diminutive *kapardikā*, which denotes a small shell or cowrie, has arisen in this way from some Middle Indian form of *kōṭi*, or rather *kōṭi*. The *-ō-* of a form *kōṭi*, one might contend, has been changed into *-ava-*, just as it was, apparently, in the word *yavana* for *yōna* (compare the Greek plural "Ἴωνες" the Ionians), and then further Sanskritized into *-apa-*, as has apparently happened in the case of *kapaṭa*, 'deceit' (compare Tam. *kōṭu* 'crookedness, etc.';² the *ḍ* being then treated as if its cerebral character were due to a

1. Karlgren, *Analytic Dictionary of Chinese and Sino-Japanese*, Paris, 1923, p. 217.

2. Also (Skt.) *kaṭa*, 'fraudulent, false', and the base mentioned above as the probable source of Sanskrit *kōṭi*.

preceding *r*. But the word *kapardin* is found as early as the hymns of the Rg-vēda,¹ and it is reasonable to suppose that the relation between these two words, if such there be, is the reverse of this, and that *kōṭira* and *kōṭira* arose, not perhaps directly from Skt. *kōṭi*, *kōṭi*, but, under the influence of this pair, by the Sanskritization of a form *kōḍira*, which came into being at a time when *kapardikā* had been Prakritized, over *kavaḍ(ḍ)īā* into *kavaḍi* and *kōḍi*. But of course, it is possible, that there is really no radical connexion between them, and that the epithets *kōṭira* and *kapardin* express quite independently one and the same thing from two different points of view, the former having regard to the pointed, horn-like character of the Śaiva head-gear, the latter to its resemblance to a (pointed ?) shell.

Such a Prakrit *kōḍi*, the representative of Skt. *kapardikā*, whether it is to be seen reflected in the Sanskrit *kōṭira*, *kōṭira* or not, would pass by a regular change into a modern *kōṭi*. It would thus become identical with the Hindī word for a group-number—now a score—which we have sought to connect with Skt. *kōṭi*, *kōṭi*. But the modern representative in Hindī of the Sanskrit *kapardikā* is *kauṭi*, not *kōṭi*. It would seem as if some need for differentiation between these two forms had been felt and met. It is conceivable that the shorter form in *-ō-* may have been retained to indicate the group-number under the influence of a northern Dravidic *koṭi* or *koḍi* whose short vowel may well have affected the Prakritic pronunciation of *kōṭi*, its Sanskrit representative, as I suggest. The fuller form in *-au-*, assigned to the shell, may have arisen in one of two ways; either from a Prakritic by-form *kavuḍ-(ḍ)īā*, *kavuḍi*, in which the second vowel (*a*) has been assimilated by the preceding labial (*v*), or by the adoption of a dialectic variant. In the latter case one would naturally think of the coast of Bengal and its immediate neighbourhood, since it is in this part of India that the use of the cowrie possibly arose and certainly

1. It occurs, usually, associated with Rudra, Pūṣan or Indra; once, however, it is used as an epithet of the *Ṛtsus* (Rv. vii. 83. 8), and once as an epithet of Indra's bull (Rv. x. 102.8).

prevailed at an early time.¹ Here, as a matter of fact, we find in Oṛiyā and in the fourteenth century Bengālī of caṇḍīdās a form *kaudī* which could well mark the source from which the *au*-vocalization of Hindi sprang. This form goes back, apparently, upon an earlier *kavaḍī*, to be found in the early Bengālī texts collected as *Bauddha-gāna ō dōhā*;² and from this earlier form have arisen the names for cowrie in use in the Dravidic countries further south—Can. *kavaḍī*, Tam. *kavaṭi* (a mere difference of spelling), Mal. *kavaṭi* and *kaviṭi*.

The undoubted connexion of the word *kapardikā* with the word *kaurī* would be more intelligible from a semasiological point of view if we might assume (1) that *kaparda* denoted originally a pointed protuberance like a horn,³ or an arrangement of the hair resembling such a protuberance; (2) that this word, or its derivative *kapardikā*, came then to be applied to a certain pointed shell, the conch (*śankha*), which was similar in general shape to the *kaparda* and which, like this, played a conspicuous part in priestly ceremonial; and then (3) when the cowrie rose into prominence as a medium of exchange, to this shell as *the* shell with which every one was familiar. The first of these assumptions would seem to be warranted by the existence side by side in post-vēdic Sanskrit of the two epithets *kapardin* and *kōṭira*, both, apparently, having reference to the same manner of arranging the hair. With regard to the other two all one can say is that neither *kapardin* nor *kōṭira*, as epithets descriptive of a manner of wearing the hair, could have had reference to the cowrie, since this shell is quite small, is not spiral, and has no point.

1. See, for instance, *The Travels of Marco Polo the Venetian*, bk. II, chap. xxxix and note on page 245 of the *Everyman's Library* edition, which speaks of boat-loads of the Bengal *kari*, i.e., cowrie, being collected in Sylhet, near the Chinese frontier, and transported to Fort William at some time, apparently, in the eighteenth Century.

2. Edited by Haraprasād Śāstri, Calcutta, 1917.

3. With a *kapar-da* having this sense one might perhaps compare Ved. *kapṛ-th*, *membrum virile*, Latin *caper*, 'goat', Germ. *Hafer*, as 'the *spiked* grain', etc.

We have pointed out that the word for cowrie as a representative of the Sanskrit *kapardikā* would naturally have assumed a form *kōṛī* identical with that of the word denoting a certain group-number, now twenty. We have, indeed, suggested that this word for cowrie is to be seen in the first element of the words *kōṛī-ra*, *kōṛi-ra*, though they could hardly have had reference to the shell which is now known by this name, and, moreover, in this case it would be extremely difficult to maintain the connexion of these words with the Sanskrit *kōṛi*, the assumed parent of the modern *kōṛī*, 'a score'. But whatever the actual connexion may be between the present-day names *kauṛī* and *kōṛī*, or even if they must be regarded as etymologically quite unrelated, in practice we may be sure they were from the earliest times very intimately associated. The relation of cowries to counting is clear. In Bengālī *kaṛā* means 'one (in reckoning cowries or shells)', in Santālī this appears as *koḍa*, which is defined as 'in arithmetic one'.¹ But cowries would seem to have been regarded as members of groups rather than individually, much in the same way as the 'cash' of China were regarded. We have already met with one such group, that consisting of four cowries, the Bengālī *gaṇḍā*.² If my contention as to the one-time prevalence of an octaval system of reckoning is correct, we may be tolerably certain that names also existed for groups of eight and for groups of sixteen cowries. That for the eight-group seems to have definitely disappeared.³ But I suggest that the name for the sixteen-group is still preserved in the word *kōṛi*, employed, however, nowadays to denote the new group of twenty which, it seems to me, has taken its place. The number sixteen possessed ritual sanction. It was a convenient base for calculating and expressing such higher groups as thirty-two, sixty-four and others, the conventional use of which would inevitably have long survived the introduction and regular employment of the

1. Campbell, *A Santālī-English Dictionary*.

2. See note on page 196.

3. One name may have done duty both for the eight-group and for the sixteen-group, just as Skt. *pañkti* may denote either a group of five or a group of ten.

decimal system of counting for ordinary use. What wonder if the name expressing this group lived on also? And what wonder if, as the old group of a double-eight gradually made way for the new group of a double-ten, the name which had denoted the one was transferred to the other and that, as in the south, a word denoting one-twentieth came to be employed in the sense of one-sixteenth, so here, as an indication of quite similar cultural conditions, the word for a group of sixteen came to be employed to denote a group of twenty?

As we have already seen, the older method of counting was closely associated with cowries. It is probable that, besides being counted in a particular way as a medium of exchange, these shells were also frequently employed, after a similar fashion, as counters when more or less complex calculations had to be made. Now I have tried to show the probability that this older system was one in which the word *kōṛi*, earlier *kōḍi*, was used to denote the group-number sixteen (probably also, at an earlier period, the group-number eight). To count by *kōṛis*, therefore, and to count by *kauṛis* might well have meant one and the same thing, and one might feel tempted to see in this apparent equivalence an independent argument for the identity of these two words. But the linguistic evidence is distinctly not in favour of such an identification. It would involve the assumption that both *kōṛi* and *kauṛi*, as also Can. *kavaḍi*, etc., go back upon the same Prakritic *kōḍi*. This in itself would not be impossible, but such a collocation leaves the relation between *kauṛi* and the Sanskrit *kapardikā* unnecessarily problematic and can hardly be seriously maintained. But if counting by *kōṛis* did at one time mean the same thing as counting by *kauṛis*, it would not be strange if a transfer of meaning had taken place and if the word *kauṛi* should have been sometimes used in the sense of 'sixteen'. This may possibly have happened in Malayālam. Here we meet with the compound verb *kaviṭṭi-kaṇakku*, which is said to mean 'to calculate with cowries on the decimal system'.¹ Cowries, we must judge from this, might be, or have been, reckoned

1. Gundert, *A Malayalam and English Dictionary* S. V. *kavaṭṭi*.

according to some system which was not the decimal. That system can hardly have been any other than the octaval, with its characteristic sixteen-base for higher numbers; so that *kaviṭi* in this expression, if it did not actually assume the meaning 'sixteen', was certainly well on its way towards acquiring such a meaning.

POSTSCRIPT

It is curious to observe how often the number eight or multiples of this number find their way into the accounts of the life of Asōka. He is the son of Bindusāra, who had *sixteen* wives.¹ In edict VII we read of *eight* means which he adopted for the promotion of piety.² According to Megasthenes his city of Pāṭaliputra had *sixty-four* gates.³ And the occurrence of the number 156 at the end of the first minor rock inscription⁴ finds its simplest explanation if we regard it, to use a pardonable Irishism, as a sedecimal centenary. To Asōka the fact seemed worth recording that *sixteen* times *sixteen* years had elapsed since the 'departure' of the Buddha. Moreover the arrangements for dealing with military and civil matters respectively in the time of his grandfather, Candragupta, as reported by Megasthenes seems clearly to reflect lunar notions of time. The heads of each department were *thirty* in number, and they met in each case in *six* boards of five members each.⁵ A similar division of the thirty days of the moon-year, or month, would help us to understand why the Indian sun-year is divided into six seasons; and much more. But we are not here concerned with lunar reckoning in general but with a particular method of reckoning which seems to have had its origin in lunar times, namely the octaval.

Traces of this predilection for the number eight are discernible also in Chinese. We have seen how the symbol for 'eight' enters into the ideogram for a certain Chinese weight. The same

1. V. A. Smith, *Asoka*, p. 160.

2. Ibid., p. 153 ff.

3. Ibid., p. 81.

4. Ibid., p. 139.

5. Ibid., pp. 77-82.

ideogram denotes also the act of dividing, and is, in itself, a clear indication of a tendency to cut things into eight parts. The 'caddy' of tea, as we have also seen, consisted of sixteen ounces, the ounce here really representing the Chinese liang, *sixteen* of which make a Chinese *chin*. Then we meet with such categories as the eight (mystic) diagrams, the *eight* (annual) festivals, the *eight* views, that is, sights worth seeing in any neighbourhood, familiar both in China and Japan :¹ and there are probably many others. It would almost seem as if this manner of counting and grouping, which spreads over so wide an area in the east, formed a part of that culture which, as has been suggested, was shared by the ancestors of the Chinese with the Sumerians in the earliest times, possibly in some common home, and that the Dravidic habit to a consideration of which these pages have been mainly devoted, represents the outcome of Sumerian influence in primitive India. The latter suggestion would be quite in keeping with the fact that one of the Assyrian-Babylonian determinatives for numbers, which has as its syllabic value, that is, as its Sumerian original, *kan* or *gan*,² is identical in form with the base seen in Gaṇeśa, in all probability, as have tried to show, a moon-deity, and with the Dravidic-Sanskritic root *gaṇ*—related to Tamil *kaṇ*, 'node', etc.—which means 'to count'.³



1. Chamberlain, *Things Japanese*, p. 331.

2. So King, *First Steps in Assyrian*, p. ciii : the sign is used to indicate order, grade.

3. It is interesting to note that the ideogram for the eight festivals contains the radical for 'bamboo'. This group is known as *pa chieh*, i.e., the eight joints, or nodes, the festivals being held at certain node-like turning-points of the year, viz. the first day of each of the four seasons, the two solstices, and the two equinoxes. The symbol for 'bamboo' is also seen in the sign for the numerative *ko* (p. 204) ; in the word *têng*, 'grade, class', which is often used as a sign of the plural ; in the word *suan*, 'calculate', etc.

TRANSLITERATION-TABLE

	Nagari.	Tamil.	Malayālam.	Canarese.	Telugu.		Nagari.	Tamil.	Malayālam.	Canarese.	Telugu.
a	अ	அ	അ	ಆ	ఆ	th	త	—			
ā	आ	ஆ	ആ	ಆ	ఆ	d	డ	—			
i	इ	இ	ഇ	ಇ	ఇ	dh	ఢ	—			
ī	ई	ஐ	ഐ	ಐ	ఐ	n	న	ణ	ని	ನ	న
u	उ	உ	ഉ	ಉ	ఉ	t	త	త	తి	ತ	తి
ū	ऊ	ஊ	ഊ	ಊ	ఊ	th	థ	—	త	త	తి
r	र	—	—	ರ	ర	d	ద	—	ద	ద	తి
ṛ	ठ	—	—	ಠ	ఠ	dh	ఢ	—	ద	ద	తి
l	ल	—	—	ಲ	ల	n	న	న	ని	న	తి
e	—	எ	എ	ಎ	ఎ	n	—	ణ	—	—	—
ē	ए	ஏ	ഈ	ಃ	ః	p	ప	ప	ప	ప	తి
o	—	ஒ	ഒ	ಒ	ఒ	ph	ఫ	—	ప	ప	తి
ō	ओ	ஔ	ഓ	ಓ	ఓ	b	బ	—	ప	ప	తి
ai	ऐ	ஐ	ഐ	ಐ	ఐ	bh	భ	—	ప	ప	తి
au	औ	ஔ	ഓ	ಓ	ఓ	m	మ	మ	ప	ప	తి
m	॑	—	॑	॑	॑	y	య	య	ప	ప	తి
k	क	க	ക	ಕ	క	v	వ	వ	ప	ప	తి
kh	ख	—	—	—	ఖ	r	ర	ర	ప	ప	తి
g	ग	—	—	—	గ	r	—	ర	ప	ప	తి
gh	घ	—	—	—	ఘ	l	ల	ల	ప	ప	తి
n	ङ	ந	ങ	ಙ	ఙ	l	ల	ల	ప	ప	తి
c	च	ச	ച	ಚ	చ	s	స	(స)	ప	ప	తి
ch	छ	—	—	—	ఛ	s	శ	—	ప	ప	తి
j	ज	(ജ)	ജ	ಜ	జ	s	ష	(ష)	ప	ప	తి
jh	झ	—	—	—	ఝ	h	హ	(హ)	ప	ప	తి
ñ	ञ	—	—	—	ఞ	h	—	—	ప	ప	తి
t	ट	த	ത	ತ	త	h	—	—	ప	ప	తి

