AN INTRODUCTION TO
COMPARATIVE PHILOLOGY
12857

BY
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(With supplementary notes, appendices, glossary,
charts and maps and brought up-to-date)

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By
N. P. GUNE

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TO

the sacred memory

of

my Mother.
हस्यात: प्रथम वाचो आग्रं 
यवेऽरत नामवेषयं दर्शानां:।
हृदेषु भेष्टु यद्विग्नमसीति
श्रेणा तदेषु निहितं गुहाचि:।।

सकुमिर्वत तितुढन चुनन्तो
यत्र धीरा मर्यदा चार्चमकत।
अत्र सर्वाय: सर्वज्ञानि जानते
भृद्वयं लक्ष्मीनिनिहिताविधि वाचि।।

यहेिन वाच: पद्मवेयोभयतः
तामवेविन्दर्द्वीरिषिषु प्रविद्याम्।
तामामुवित्या व्येदु: पुरुषा
तं सस्रेष्ठा अभिसंवतः।।

अरभेव्या चरिति मायेण
वाचं शुधीव्यो अक्षतामपुष्पाम्।
यस्तित्वार्ज सचिविदं सर्वाय:स्यं
न तस्य वाच्यपि भागो अस्ति।।
यदी शृणोत्सवल्के शृणोति
न हि प्रवेदे सुकृतस्य पन्थाम् ॥
इति ये नार्योऽह न परत्वर्तिति
न व्रज्ञाणासो न सुन्ते सरकारसः ॥
ते एते वाचमानिष्यः पापया
सिरिस्तन्यं तन्वते अप्रजजः ॥
सर्वे नन्दन्ति यशसामुतेन
समासाहेन सरव्या सखायः ॥
किल्लिपस्तु हिंदुपणि हेवापाम्
अरं हितों भवति चारिजिनाय ॥
ऋचां त्वः पोषयते पुपुष्वान्
गायत्रं लोः गायति श्रवरीषु ॥
श्रवा लोः वदंति जातविद्याम्
यज्ञस्य मात्रां वि मितोन्त उत्त्वः ॥

— ऋग्भेदः, १०.७१.१५.
DR. P. D. GUNE, M. A., Ph. D.

Born 20 May, 1884   [ Died 25 Nov., 1922

सं गंगच्छस्त्र पितृभि: संयममेव-शुपूत्तने परमे व्योमन।
हितवायानंदं पुनरस्तेहि सं गंगच्छस्त्र तन्यां सुरच्च।।
PREFACE

This little book is the outcome of a course of postgraduate lectures that I delivered in 1916–17 at the Bombay University. In its attempt at organising the teaching side, the Senate has instituted a course of post-graduate lectures in Indian Classical Languages, Philosophy, Indian History and Economics. I was invited to deliver twenty-four lectures on Comparative Philology and the Nirukta. The eighteen lectures which I devoted to the former subject form the basis of the present volume. I had to rearrange and partly rewrite the whole thing in order to suit the book form.

I believe I need offer no apology for writing this book. The University has introduced Philology amongst the subjects to be studied by candidates for the M. A. who offered languages. There are already some excellent introductions to Comparative Philology, but unfortunately they are not available to our students as they are written in the French, German and Russian languages. Secondly, they are of a general character and, as a rule, written with reference to the European classical and modern languages. Giles’ *Manual of Comparative Philology* is the only useful book in English, but it has reference to the Teutonic and Classical languages. A book, therefore, which combined principles of the Science of Language with practical illustrations from the Indian branch of the Indo-Germanic family was wanted; and I have tried to supply the need.

I have divided the book into five parts. The first part deals at some length with the principles of the Science. In this I have drawn the illustrations from the Indian languages
along with others. The second part is a small one, but it was necessary in order to show the relationship between the European and the Indian Aryan languages. I have called it 'Families of Languages.' The third part treats of the Avesta and ancient Sanskrit and is intended to present a comparative picture of the two old languages. The fourth part deals with the next stage in the development of Indian languages and is called 'Pāli and the Inscriptional Prākrits'. The last part bears the title 'the literary Prākrits and the modern Vernaculars'. The latter portion of this part has been necessarily brief and at some places suggestive only, as most of the modern vernaculars lack well written historical grammars. A detailed and scientific comparison of these will be possible only after such grammars become available. However valuable in other respects, I must say that the 'Linguistic Survey' cannot form the basis of comparison, because it is necessarily of a sketchy character and deals with specimens of the vernaculars in their latest phase only.

For convenience of printing, I have followed the Greek method in marking accent of Sanskrit words, and marked udātta only.

I have acknowledged the help of my literary predecessors in the list of books consulted. The deepest debt of gratitude that I owe is to Professors Brugmann and Windisch of the Leipzig University, who initiated me into Comparative Philology and Pāli Inscriptology respectively.

Before closing, I must thank my colleagues Prof. K. N. DRAVID and Mr. N. B. UTGIKAR M. A., for having kindly gone through part of the proofs, and Professors G. C BHATE and G. H. KELKAR for having gone through the whole for correction of such mistakes as might have still remained. The credit of the index at the end is entirely due to my friend Mr. UTGIKAR. Lastly I must express my obligation to Mr. Anant
Vinayak Patwardhan, Manager of the Aryabhushan Press, for having struck new types for some Greek, Gothic, and Avesta words, and generally deferring to my convenience and time. To Dr. Sardesai of the Oriental Book-supplying Agency is due the entire credit of the publication of the book itself, for had he not undertaken to do so, my wish to publish it would have remained a wish only.

FERGUSSON COLLEGE,  P. D. GUNE.
Poona, July, 1918.  }

The Editor's Foreword

This handy volume on the science of Comparative Philology was first printed in 1918 and it soon acquired a scarcity value as it went out of print but long remained in demand as it so competently leads the young student into the laws and principles of Indo-European and Indo-Aryan linguistics. Among its principal qualities were a breadth of vision, inductive method, freedom from dogmatic assertion, clearness of statement and adequate illustration which did not escape the notice even of European critics. In placing its second impression in the young student's hand, I have submitted the printing of it to a thorough revision, and in its present form, therefore, it is a neat reprint of my revered Father's book, published by me as a memorial edition which has indeed been long over-due. In doing this, I derived inspiration from Dr. S. K. Chatterji, Dr. S. M. Katre and Prof P. K. Gode; in fact it was Dr. Katre who informed me that in the opinion of many senior Indian Linguists it was essential to reprint the book.

With the advice and blessings of the above-mentioned Savants I read all the reviews on the book and have brought out this impression in the light of suggestions found therein as
well as else-where. I found the reviews of Professors Silvan Levi and A. A. Macdonell most constructively helpful and of great assistance to me particularly in the correct printing of Greek words. I have also added a note on Greek Language and alphabet which the students will find greatly helpful in understanding the book. Students of English will find the note on IE, Germanic, and English very useful in their study of the Aryan affinities and of the foundations of English.

As it was necessary to bring the book up-to-date and so to extend its utility, I have added three appendices or chapters on the more recent topics viz. Indo-Aryan and Hittite, The IE Wanderung and IE Urheimat in the New Perspective. I was greatly encouraged in this by Dr. Chatterji who also readily agreed to furnish this book with an Introduction. He has earned my gratitude for this. I must also express my thanks to Dr. R. N. Dandekar of the Poona University for his advice and suggestions as well as for his permission to use a part of some of his articles in the notes.

With a view to providing visual aid I have added two maps showing the extent of IA influence in India to-day and the IE relations in Europe and Asia. My thanks are due to the General Manager of the Oxford University Press (Indian Branch) for his permission to insert Dr. S. K. Chatterji’s map of the Languages of India. The other sketch was made by me with the help of the map in the Linguistic Survey, but I have made an attempt to show the grasslands, the first settlements at Balkh and the Pripet Regions and the Hittite “push” in the Middle East, which the student will find very easy to visualize.

I cannot conclude this foreword without recording my thanks to Mr. D. K. Gondhalekar, Proprietor of the Poona Oriental Book House and Mr. B. G. Dhavale of the Karnataka Printing Press for undertaking the printing of this work in spite of more pressing demands on his time in these very difficult years of the post-war world.
I was assisted in the proof correction work by Dr. M. M. Patkar of the Deccan College Research Institute. The scheme of transcription followed in this book is the one commonly used in lexicons and dictionaries. Under the present circumstances in India, a phonetic representation of the Greek words in Roman transcription was not possible; and therefore the student will be well advised to rely on Greek illustrations. A key to Greek alphabet and pronunciation is provided on page 36 of the notes. I was advised to do away with the Nāgari alphabet altogether and to give Roman transliteration of Sanskrit, Marathi and Hindi words and passages; but I thought that this would be a great inconvenience to our students and so I have retained the Nāgari passages and words which are also given in Roman transliteration for the benefit of the European and American readers and students of the subject. I have to thank Mr. Patkar for his patient zeal and alertness in the correction work. The student is also advised to make himself thoroughly familiar with the Glossary which gives a short and lucid definition of every technical term used in the text.

Any critical suggestions and advice for the improvement of the book will receive proper consideration from me.

Kayakalpa,  
F. C. Road,  
POONA 4.  
28 Feb. 1950.

N. P. GUNE
INTRODUCTION

I consider it a great honour to be asked to contribute an introduction to the second edition of the late Professor GUNÉ'S well-known work on Comparative Philology.

Since its first publication in 1918, Professor GUNÉ'S book which was the pioneer work of its kind in India, has been in use all over India particularly amongst students of Sanskrit and Indian Languages, and has remained an authoritative textbook in most of the Universities of India for nearly two generations. A second edition was long overdue, and it is a matter of great personal gratification for me as a student and teacher of Indian Linguistics to find that with the help of an enterprising publishing agent of Poona, the late Professor'S son, Prof N. P. GUNÉ, in a spirit of filial devotion to the memory of his illustrious father, has finally brought out the second edition.

Professor GUNÉ'S book, despite its deficiencies—its faults of commission and omission and its typographical handicaps (which were noted by competent critics like the late Prof A. A. MACDONELL of Oxford who were also quite appreciative of the merits of the work otherwise), has remained for Indian students, and even for students of Indian Linguistics abroad, the most convenient short work in a single volume giving the rudiments of general principles which form the basis or background of all specialized study of a particular linguistic group or family, together with a sufficiently full narrative history elucidated by a wealth of illustrative examples of the Aryan speech in India through the centuries in its three stages of Old, Middle and New—Indo—Aryan. Professor GUNÉ had a very erudite predecessor who was one of the pathikrtas or path makers in Indo—Aryan Linguistics viz the late Ramakrishna Gopal BHANDARKAR in his Wilson Philological Lectures, which were delivered as early as 1877 in the University of Bombay and were confined in the pages of the Journal of the Bombay
Branch of the Royal Asiatic Society (Vols XVI & XVII) until their final release in book form in 1914 from Bombay. In fact Professor Gune's work in its treatment of Middle and New Indo-Aryan frequently reminds us of the great Ramakrishna Gopal Bhandarkar. But with his knowledge of the Indo-European background, Professor Gune had a wider vision. Subsequently Indian scholars have come forward to meet the need for works on general linguistics and on the linguistics of Indo-Aryan among our students apart from special works on the development of Indo-Aryan through intensive and exclusive study of the history of a single speech. We may mention the English work of Dr. I. J. S. Taraporewala (first published from the University of Calcutta, in 1932, a second edition is expected to be out soon), and the following works in Indian Languages: Professor Mangal Deva Sastri’s, Nalini Mohan Sanyal’s, Baburam Sakseña’s and Syam Sunder Das and Padma Narayan Acharya’s works in Hindi, S. Mohiyuddin Qadri’s in Urdu, and Sukumar Sen’s in Bengali. All these and a few more like Dr. Batakrishna Ghosh’s Linguistic Introduction to Sanskrit and Dr. S. M. Katre’s works on Prakrit and on the general history of Indo-Aryan form a modest library gathering together the contribution of modern Indian Scholarship to the science of Linguistics as established by Western scholars during the last three or four generations. Professor P. D. Gune’s work stands at the head of this literature of Linguistics which is slowly gaining in volume (and in importance) in India.

The present second edition is not a mere reprint, it seeks also to extend the scope of the first edition in several matters. The three Appendices and the seven Notes are all new, and will certainly be very helpful, while they seek to complete the original work in certain topics of recent investigation. The Diagram of the Organs of Speech and the tables and charts, and the Linguistic map of India as well as the additional Bibli-
graphy and Glossary will also serve to enhance the utility of the book.

Thus the work is already a well-known work. Additional chapters have increased its utility. It is a work from which I have derived great help some thirty years ago when I was in the first stages of my career as a student and investigator of Indo-Aryan Linguistics. Some of the reviewers of the first edition found fault with the printing of the Greek words, and one was painfully conscious of this; but the original Greek words and forms are happily generally correctly printed in this edition, though their Roman transcriptions given in the brackets should have been more carefully printed. The students would be better advised to learn the Greek letters and take note of the original Greek forms (for which a key is furnished in note 1, page 38). There are a few transcriptions incorrectly printed which can be easily set right by the teacher and can be removed when a third edition of the book will be called for. I wish greater care were paid in this connexion.

These deficiencies notwithstanding the present edition gives in these days when good and faultless printing has become an exacting and expensive job, particularly in India, a very fine rendering of a very useful work. The paper and typography are both beautiful and inviting, the bright appearance of the book helping to make the reading of it very easy and pleasant. I trust that the work will have a renewed career of usefulness in the cause of a science which was very dear to the author, as it is to a great many of us in India and for the study of which among his compatriots the author was a pioneer. The book forms one of the best monuments to his memory; and may his memory as a scholar and educator remain for ever green through further editions of his Introduction to Comparative Philology.

University of Calcutta
20 February 1950

SUNITI KUMAR CHATTERJI
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AN
INTRODUCTION
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PART I
PRINCIPLES

1. NAME OF THE SCIENCE.—Comparative Philology or simply Philology is the science of language. Philology strictly means the study of a language from the literary point of view. In Germany as elsewhere in Europe, Philology still means study of the literature of any people. Thus there are at every German University Klassische Philologen and Romanische Philologen, meaning Professors who have studied and are now teaching classical literature, Romance literature etc. But when this new science, one of the many new acquisions bequeathed to us by the 19th century, came into being, it usurped for itself the name of Comparative Philology. Comparative Grammar is a name less inclusive than Comparative Philology, although perhaps less faulty. Science of language is a comprehensive and exact name for our science and some scholars prefer it to the more usual Comparative Philology.

2. AIM AND OBJECT.—Sanskrit, Persian, Greek, Latin, Celtic, Teutonic, Slavonic, Litho-lettish, Armenian and Albanian languages show a similarity in grammar and vocabulary. In the same way Hebrew, Assyrian, Arabic, Aethiopean, Syriac also appear to form a group by themselves, having resemblances to one another, but not to any one of the former group. Certain African people speak languages which are very similar in
grammar and vocabulary. Similarly our south Indian languages—Telugu, Tamil, Malayalam, Kanarese form a group by themselves.

These resemblances enable us to put forward several groups or families of languages, viz., the Indo-European or Indo-Germanic as it is more usually called, the Semitic, the Bantu and the Dravidian. Similarly it is possible to arrive at several other groups, e.g., the Mongolian group, the Finnish group, the South American group.

Now the aim and object of Comparative Philology of a particular group of languages is to find out and explain the similarities that these languages show with one another.

The scope of the science of language is, therefore, as wide as the whole of humanity, as it deals with human speech itself. It has to do with the facts of a speech not only of a particular time; it has not only to collect, arrange, tabulate and regularise them; this latter is the province of descriptive grammar. The latter is, so to speak, the logic or philosophy of a language. It deals more with abstractions than with facts. But Comparative Philology has to do with facts of language in the past, as well as at present, to give its history by comparing those facts at various periods in its life. In fact it has to deal with the various phenomena of speech—the production of sounds, their combinations into syllables, the grouping of these into words and finally putting them into sentences. It also includes larger questions like that of the origin of language, the cause of its growth and change and the like. Its problem therefore is a dynamic problem; it has not only to recognise and point out that there is a constant change in language but also to try to find out the cause of that change. Our science therefore is both historical and comparative, or rather, it is comparative because it is historical. The comparison of languages like the Sanskrit, Latin, Greek, is only the extension of the historical investigation
of a single language through its different stages; just as when we trace the development of the Māhārāṣṭrī Prākrit through old pre-Jñānesvara Marāṭhī into our modern Marāṭhī: for no language can be treated as if it were fixed and unchangeable but rather as a growth, whose different phases should be outlined in a connected series of successive periods. The very attempt of certain philologists to reconstruct a parent language is due to this historical treatment.

Our science strives, to quote WHITNEY,¹ "To comprehend language, both in its unity, as a means of human expression and as distinguished from brute communication, and in its internal variety of material and structure. It seeks to discover the cause of the resemblances and differences of languages, and to effect a classification of them, by tracing out the lines of resemblance and drawing the limits of difference."

3. WHAT IS LANGUAGE?—But what precisely do we mean by language, when we speak of a science of language? If we mean, that it is the means of expressing in an intelligent manner our thoughts to others, then we give it a wider signification than is intended by linguists generally. For, our thoughts could be well conveyed to others by gestures and grimaces, or pictorial or written signs, or lastly, by articulate sounds. The first is used by mutes and even by others when they meet with persons speaking a language unintelligible to them. The second is most helpful, yet subordinate to the third. The last is the legitimate and the most important means of expressing thought. While in gesture-language, the movements of face and the like are themselves symbols of thought, in spoken language, the results of such movements become symbols. Language² in its widest

1. Life and Growth of Language, p. 4.
2. PORZEZINSKI-BOEHME, Einleitung in die Sprachwissenschaft, p. 1.
sense means, therefore, the sum-total of such signs of our thoughts and feelings as are capable of external perception and as could be produced and repeated at will.

4. **Physical and Psychical Aspects of Speech**—The conception of language therefore is based, on the one hand, upon articulate sounds and on the other, upon our thoughts and feelings. Thus our speech has a physical and a psychical aspect. It would not do to regard language merely as a physical movement of speech-organs; but it should be remembered in addition, that it is at the same time a psychical activity. For, when we utter the word *mango* or *red*, it is not the mere act of the organs of speech. We have not merely produced certain sounds, but a certain psychical process has preceded our utterance of the word *mango*. A vast process of arranging and definitely denoting the thought-material or of breaking up a complex thought-material into its elements and definitely symbolising it, has preceded it. By the word *mango* a variety of visual, tactile and other sensations are united and made into a unit, while by the word *red* an element of the compound sensation produced by a certain object of a particular colour, size and shape, is analysed and singled out by being attached to the word-symbol *red*. This arranging and denoting of thought-material must be accompanied by articulate sound in order to produce the desired effect. We thus see how the physical and psychical elements go hand in hand in speech.

It is the thought-material and not the articulate sound that gives a language its special character.

Thus, the recognition of this fact,—the importance of the psychical element in speech, led philologists to turn their attention to the psychology of speech. What led to this effect more chiefly is, according to Oertel, the following:

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2. Oertel, *op. cit.* p. 68.
The employment of analogy as a methodological principle and the first beginnings of what we now term Semantics. We shall deal with both of these subjects later.

Not all the psychical processes which form an important factor in speech, could be observed and detected. Many of them take place without any clear consciousness on the part of the speaker, and whatever has passed through one's consciousness remains as a potent factor in a subconscious state. All expressions of speech-activity flow from this subconscious state in the soul. It should be noted, however, that some eminent psychologists deny that there is anything in the soul that is beyond consciousness.

a. OUTER SPEECH:—Before proceeding to consider how language comes into being and develops, we shall first of all see how speech-sound is produced. We are able to produce sound when we have taken breath into our lungs. Articulate sound is nothing else than the working up, by means of the speech-organs, of the air pressed out from the lungs. When the breath passes through the lung into the larynx (Adam's Apple as it is popularly called), the vocal chords placed in it begin to vibrate. We can feel them when we put our hand on the apple while speaking. These vibrations are communicated to the passing stream of breath. As the breath passes through the upper part of the throat, it can take two ways, viz., through the nose—which is its natural course when the mouth is shut (for instance when we say m by the shut mouth), and through the mouth. To make the former possible, the soft palate with the uvula must hang down straight. When they are pressed towards the back of the throat, the breath passes into the cavity of the mouth. This breath, which has now become sound, is not yet distinctly articulate. When it passes through the mouth, it can meet with obstructions at several places from the tongue, viz., at the roof of the mouth (or soft palate), at the hard palate, at
the hard gums of the upper teeth and lastly at the lips; and by different parts of the tongue, viz., its back, middle and tip; e.g., when we produce the sounds k, c, and t, in slow succession, we feel the gradual change of the place of obstruction by the tongue. When the breath tries to escape obstructions and explodes, we have the several consonants. In the production of vowels the tongue does not actually obstruct the breath, but only helps in widening or narrowing its passage, upon which the quality of the vowels depends. The vowels and the consonants together make up the sound-material of language.¹

All the vowels and all the consonants with their different classes, combine into syllables and these latter into words.

b. STRESS OR ACCENT:—But all the syllables of a word are not of the same value. Usually some one of them is brought into prominence. This could be effected in different ways: by uttering the syllable in a particular tone or with greater stress. In the north of Germany for example, both these coincide; e.g. vater—the first syllable carries not only the stress but the pitch. This special treatment of a syllable is called accent. The latter or pitch accent is also called musical accent. Sanskrit and most of the Indo-Germanic languages had originally a musical tone; e.g. रजिव्यन्, गायत्रिं, इन्द्र:, इद्रामृ′, (Rjīśvān, Gāyatrām, Īndraḥ, Indrāgni) where accent is musical; Marāṭhi काम (kāma), देतु (deūla), Gujarāṭi बारणु (bārāṇū) etc.; but it is neglected as it has ceased to play any part in these languages. The two accents

¹. See MERINGER’s excellent description of the physical process of speech, in the Indogermanische Sprachwissenschaft pp. 13-21.

Linguistics takes the aid of Physics to count the number of vibrations produced by each sound. The sounds differ in wave-lengths from individual to individual. We can classify sounds into families or phonemes and assign diaphones to particular groups of men using the same language. (for further particulars see Glossary). Ed.
however need not necessarily be borne by one and the same syllable. When, for instance, we ask a question तु कमाला गेला होतास ? (tū kāmālā gēlā hotāsa ?) the stress is on का (kā) but मा (mā) is pronounced with a higher pitch. One thing is to be borne in mind in this connection, that, sometimes a syllable might begin by a lower pitch and finish in a higher pitch and vice-versa. This gives what is called in Sanskrit the स्वरित (Svarita) and in English the circumflex; ब्रह्माणस्पति: (brāhmaṇasaptiḥ), इन्द्रशत्रुः: (indrāśatruḥ) etc.

5. INNER SPEECH:—We now turn to the psychical part—the thought or inner speech; for actual spoken words are but the clothing of our thoughts.

We learn our speech in childhood; it is a process of slow acquisition; but while learning we do not accept the ready-made words of our elders. We hear them repeat some words often and often. We try to catch their precise sound; we also try to mark the position of the organs of speech and thus imitate it as closely as possible. Thus when a child hears the word bell, first of all there is the acoustic sensation; at the same time it tries to see the movement of the speech-organs and imitates them; here is a motory impression produced on his brain. Our speech is therefore composed of acoustic and motory images of a spoken word. In other words, inner speech depends upon memory images of the words and sentences heard and spoken by ourselves. These memory images (Erinnerungs-bilder) are called speech or sound-ideas (Lautvorstellungen).

When a child trying to imitate the word काका (kākā) actually says ठाठ (ṭāṭā), or calls a cat tat, it has no idea that it has mispronounced the word. It has tried to pronounce it as faithfully as possible. As it grows up, as the use of the organs of speech becomes freer, it slowly assimilates its pronunciation of the word to the standard.
Nor does a child try to imitate only; but while imitating, it creates new forms and words on the analogy of those it has heard. Thus because it has repeatedly heard forms like धरले (dharalē) and भरले (bharalē), it forms others like करले (karalē) and मरले (maralē). It invents the new past tense in place of the more correct केले (kelē) etc. Thus, then, the speech of an individual is traditional and yet peculiarly his own. Paradoxical as it may seem, it is this fact which serves as a conservative element and is at the same time one of the factors contributing to a change in language.

As language is a means of communication, every individual tries to avoid innovation as far as possible and therefore resents it at the hands of others; and yet is the system of associations of sensations (visual, acoustic, olfactory, tactile etc.), and movements peculiar to every individual. But the relieving feature of it is that similar associations have a firmer hold on all the members of a group of individuals, than any social institution. So that although in one sense language depends upon an individual, the individual on his part is a creature of the language, which as a child he has to acquire.

6. LANGUAGE AN ACQUISITION:—Language therefore is more or less traditional and social. It should not be supposed, as is sometimes done, that it is inherited as a race characteristic.\textsuperscript{1} A child can acquire any other language in much the same way as it does its mother-tongue. Imagine, for instance, a child of Gujarātī parents kept with a Marāṭhā nurse. Sure enough the child acquires the language of the nurse. If the father speaks one language, say Marāṭhī, and the mother another, say Kanarese—the child will learn both languages and show the same mastery over both. Children of missionaries in India easily pick up the language of their Ayyah.

\textsuperscript{1} WHITNEY, Life and Growth of Language, pp. 8 ff.
History has some very interesting examples that go against the theory that language is a race characteristic and is inherited like other characteristics. The French people are the descendants of the Celts of the Roman days. But what language are they speaking now? Not their own, the Celtic, which has long since disappeared from France before the more cultured speech of the Roman conquerors; they speak a language—the French, which originally was a dialect of the Latin language and hence is included among the 'Romance' Languages of Europe. Another example is the language of the Indian Parsees. They speak a language, which, though remotely and indirectly related to their old speech, is really as foreign to them as any other Indian dialect. The Bhils of Central India and Satpura too speak the Bhili language, which is very akin to the Khāndešī, although they belong to the aborigines of India, and as such must have spoken a dialect of the Munḍā group.

The other theory that language is independently produced by each individual, meets with no better fate. What we have said above is a sufficient argument against it. A language is acquired by each individual, but not produced. In the latter case, he would have to spend his whole life-time in finding out things, which have already long ago been found out for him by others; and there would be absolutely no progress. His task again would be made more arduous, as, whatever he produces would be unintelligible to others and would not be accepted by them.

7. **Origin of Language:**—It may be allowed to pause a little and consider the question of the origin of language. Now with us it is an achievement, an acquisition. We have acquired it from the previous generation through communication. But how was it originally acquired by man? The theories that it is a gift of God or that it is the result of a
deliberate convention arrived at by the members of the most primitive community, may be brushed aside at once. No linguist believes in them to-day.

Here the theory of evolution is our chief help. We know that the civilised man of to-day, has developed from a very primitive mammal, that could only utter a sound like an animal. In fact our complete vocal organs are the result of a very slow natural growth. We can therefore imagine a time when man, like the lower animals, could only cry. This cry went a good way in indicating feelings of joy or pain; it was of course also a call. In this connection we must quote at some length the interesting remarks of Lefevre,¹ the Paris anthropologist: "When experience and induction, by their mutual aid, had at length succeeded in tracing the genealogical tree of mankind, a fortunate discovery was made in anthropology. In embryology the student found an abridgment, a summary of the transformation discovered or assumed from age to age. By the aid of the microscope, foetal life reveals to the eye all the phases in the development of the cell, of the egg, of the very simple material aggregate which is destined to be clothed with the dignity of humanity—that is to say to realise within a few months the work of a thousand centuries. Now it seems that language also has in some sort its embryology. Not that we can ever be the spectators of the formation of the language; but we possess the germ nevertheless, the undoubted embryology of speech—the cry—which in most of the higher animals, even in man himself, exists as an independent utterance, and suffices for the expression of certain sentiments and even of a few ideas, and is consequently the first element of the crudest forms of speech." And further, "Repetition, continuance, the raising and lowering of the tone, mark the earliest efforts to attain to the expression of more varied and more distinctly realised sensation. Modula-

tions, more or less uncertain, more or less fixed by practice, as consciousness dawns, come to increase the vocal resources. A given vocabulary will include five, six, or even ten variations of the specific cry, each one doubled by a stronger or weaker form, and susceptible of expressive combinations, comparable to our derivatives and compound words; the language thus reflects, so to speak, the shades of joy and pain, fear or desire, sickness or health, hunger or thirst, changes of temperature, the approach of day, or night." "The summoning cry, so largely used by animals, has been developed and defined into command, into indication of distance, number, person, sex, etc. With regard to the emotional character, it is perhaps in spite of its reflex and involuntary character, a yet more important factor. Being associated with all the movements called forth by these, it affirms a state, the passing of one state to another and subsequently, an action and the result of an action."

The next step, yet in the pre-historic stage, in the development of language, is the imitation of natural objects, both animate and inanimate. This theory of onomatopoeia has been maintained by renowned linguists like WHITNEY, PAUL and others. Although in the present highly developed state of language, there are very few, almost no, traces of this, there is no doubt that this formed an important factor in the earliest stages of human speech. For, granting that mutual communication and understanding is the sole aim of language, what would be more natural and easier to the most primitive man than to denote various animals and objects in nature by imitating their distinctive cries? To quote WHITNEY, "If we thus accept the impulse to communicate as the governing principle of speech-development, and the voice as the agent whose action we have especially to trace, it will not be diffi-

1. Race and Language, p. 28.
cult to establish other points in the earliest history. Whatever offered itself as the most feasible means of arriving at mutual understanding would be soonest turned to account. We have regarded the reproduction, with intent to signify something, of the natural tones and cries, as the positively earliest speech; but this would so immediately and certainly come to be combined with imitative or onomatopoetic utterances, that the distinction in time between the two is rather theoretical than actual. Indeed, the reproduction itself is in a certain way onomatopoetic; it imitates, so to speak, the cries of the human animal, in order to intimate secondarily what those cries in their primary use signified directly. Just as soon at any rate, as an inkling of the value of communication was gained, and the process began to be performed a little more consciously, the range of imitation would be extended. This is a direct corollary to the principles laid down above. Mutual intelligence being aimed at, and audible utterance the means employed, audible sounds will be the matter more readily represented and conveyed; just as something else would come easiest to one who used a different means. To repeat once more the old and well-worn, but telling illustration: if we had the conception of a dog to signify, and the instrumentality were pictorial, we should draw the outline figure of a dog; if the means were gesture, we should imitate some characteristic visible act of the animal for example, its bite or wagging of its tail; if it were voice we should say "bow-wow." This is the simplest explanation of the importance which is and must be attributed to the onomatopoetic principle in the early stages of language-making."

From the cry and onomatopoeia, with their various combinations, by means of association and metaphor, we arrive at a vocabulary, sufficient for the purposes of primitive man. For a primitive hunter, and man was only such at the
beginning, the stock of words need not have been very large. But as the hunter further developed into the herdsman leading a nomadic life, the original stock of words would not suffice. Here is then work for convention based upon mutual understanding. Certain words to represent new objects and ideas were used by certain individuals and upon their being accepted by the tribe or community, became by repetition quite current coin. It must be remembered, however, that the basis for this is always the small original stock, which is thus improved upon and added to by manipulations of various kinds, based upon association of various kinds and metaphor.

8. LANGUAGE IS NOT AN ORGANIC GROWTH:—After all this, very few words are needed to refute the theory, that language, like plants and animals, is an organic growth. We have seen above, that it is the result of the psycho-physical and physiological dispositions of man and more or less a social institution. It is interesting, however, to note that the theory owes its origin to certain resemblances between the growth of a language and organic life. In the latter we find the gradation of individuals, the species, the genus, although of course class, species, and genus are more or less subjective and have no real existence. In the same way there is the speech of the individual, the dialect to which it belongs, and the general language of which the several dialects are local variations and so on. There is another analogy. The development, say of an individual animal, depends upon two factors: its parents and its surroundings. The same with language. It depends upon the community\(^1\) in which the individual lives and secondly, upon the peculiarities and movements of mental and physical nature of the individual. It has like the organism or species a birth, development, decay and the like. But here the parallel does and ought to end.

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1. PAUL, Prinzipien der Sprachgeschichte, pp. 37-8
Because language after all has no separate existence apart from the psycho-physical dispositions of an individual.

9. **Constant change in language** — It may sound a bit astounding, but it is no less true, that every language is, at any moment in its life, in a state of change; and within one homogeneous looking language, there are as many variations¹ as there are individuals speaking it. For, we have seen that speech depends upon certain psycho-physical processes. Now these latter are bound to differ, however imperceptibly, with different individuals. We have also seen that language is an achievement. In the very process of this acquisition, certain linguistic factors are dropped out of consideration, as certain other new ones are added; because a successful achievement depends as much upon the capacity of an individual (both in point of hearing and the basis of articulation), as upon the circumstances in which he is placed. "The inner speech organism or the groups of speech-ideas are constantly changing in every individual." The three causes enumerated by Paul² should be noted. First, every impetus that is not, in consciousness, supported by the renewal of the impression or by itself being repeated, becomes weaker and weaker. Secondly, every activity of speaking, hearing, or thinking adds something new to the speech-material. Even in faithful reproduction of an original activity, at least some of the moments of an existing speech-organism are strengthened. And thirdly, as well by the strengthening of old speech elements as by the addition of new ones, the conditions of the associations inside the speech organism are always shifted.

There would, therefore, be as many dialects of our Marathi or Gujarati language, as there are individuals speaking it. Only they have not yet assumed the dignity of dialect because there is the unifying factor of mutual understanding.

2. Prinzipien der Sprachgeschichte, p. 27.
10. Dialects:—We may therefore define dialect as the speech of a group of individuals, who can make themselves easily and perfectly intelligible to one another; or to put it in other and more accurate words, dialect is constituted by the speech of all those persons, in whose utterances ‘variations are not sensibly perceived or attended to.’

Besides individual differences, which are not yet called dialects, there are differences between persons forming different religious, social, political or economic groups. These are more conspicuous than individual differences. We perceive them and call them dialectal. Thus the ordinary everyday speech of a Brahmin differs in certain points from that of a high class Marāṭhā; and that of the latter from the speech of a coolie. Although these classes make themselves mutually intelligible, yet within themselves they show peculiarities in grammar, vocabulary, and even in intonation, which are at once noticed. Thus for instance the बेस्तूरी (besarvāra) of workmen is the same as ब्राष्पतवार (braspalavāra) of Brahmin women, and the ब्रह्मस्तिवार (brhasilavāra) of Brāhmans. The word is originally the same; but how it has changed its form! In Kolhapur district, we often hear an expression, to us very strange, तो तुम्हाला कोण पाहिजे, तो आम्हाला पाहणा पाहिजे (to tumhālā koṇa pāhijē, to āmghālā pāhūna pāhijē); queerly enough सोयरा (soyarā) has acquired a bad meaning in that district. In the Ahmednagar district, they say ओघेन निघालें (odhe nighālē) at which a Poona gentleman laughs because he knows only उत्तेन निघालें (uttē nighālē). The राजा धरात (raṭṭā dharatā) of Marāṭhās in the districts close upon the Karnatic, is equally ridiculous in his eyes. Thus again the word carriage means in Poona Marāṭhī खाफर (khaarā) and in Berar Marāṭhī खाचर (khācara). To take other examples from the dialects of Marāṭhī: the Deccan Marāṭhī होता (hotā) is represented by Koṅkaṇī Marāṭhī असिलू (əsīlō) etc. The latter four examples are

1. See also Meillet-Prinz, Vergleichende, Grammatik, p. 23.
specially chosen as not being class variations; but they are the
differences of district. Every district of Mahārāṣṭra shows
such peculiarities and we call them dialectal variations.

Then there are variations due to differences in education
and general culture. The speech of a highly educated man
of today would naturally differ from that of a quiet country-
gentleman. The latter might not understand words like
विश्लेषणक्रम, सन्दर्भर, निरस्त्रितिस्तु हक्क, प्रातिनिधिक, संसारसुधारा परिषद्, केलवणी,
तत्त्ववाद (śikṣanakrama, sanadaśra, nisargasiddha hakka,
prātinidhika, samsāra-sudhāra pariṣad, kelavanī, tattvavāda)
and the like. On the contrary an educated gentleman might fail
to understand words like वाहतुक, खेती, रा, बे (vāhātuka, khoti,
rāba, bēnē) and the like. Some of the words and phrases
of the uncultured people are, more often than not, mispronun-
ciations, mistakes of grammar and syntax, e.g. बक्स, हायको,
इति, ऊच, वराल्दा, पल्डा (bakhāla, hāyati, itabhara, uca
varālda, palda).

When we say these are dialectal differences, we do not
mean they are something less than language. They do not
differ in kind but only in degree. The individuals speaking two
different dialects, might find it hard to understand one another
as readily as they would understand those who spoke in their
own dialect. But they may in general matters speak in such
a way as easily to understand one another. Because, despite
these petty dialectal variations their language is one. For, in
the words of WHITNEY¹ “the possibility of communication
makes the unity of a language.”

The dialectal or semi-dialectal differences within the limits
of the same language and the same community tend to become
greatest when the differences between classes and sections
are greatest. Mutual understanding is the force that is both
restrictive and communicative, because it is by its means that
an innovation in a speech is communicated to others and

possibly accepted by them. Whatever, therefore, tends to increase communication, like education, newspaper, trade, travel, railway etc., also tends to make for unity in speech. A common history, national feeling, national poetry, written literature are also among causes that may be called conservative. On the other hand, whatever slows down communication tends to accentuate and for the matter of that, perpetuate differences. Thus although in a barbarous community, the possibility of innovations is very small, when that community breaks up, say by quarrel or migration and is separated by a river, a dale, or a mountain without any possibility of further intercourse, the difference will be so accentuated, that in course of time, there will be developed two entirely different forms of speech. How want of communication isolates a dialect is best exemplified in our Beräri and Końkañi dialects. The speakers of these separated somehow from the main body of Marāṭhās and were so surrounded by peoples speaking foreign languages and were also for a time so isolated, that they have yet preserved a form of Marāṭhī that is as old as the 13th century, if not earlier. The influences that tended towards change in Mahārāṣṭra proper were absent in these cases. The Brahui, a Dravidian language, in the midst of Iranian languages like the Pashto and Baloch, is a good example of isolation.

However strong the variations, there are several things that bind dialects together. A largely common vocabulary, a system of inflection and conjugation that easily discover commonness of source, a distinctly related phonology, easily disclose the relationship of dialects. MEILLET\textsuperscript{1} has very succinctly expressed this view of dialects in the following words. "One and the same language shows, in every section of the community in which it is spoken, certain peculiarities in pronunciation, in grammar and in vocabulary. These

\textsuperscript{1} Einführung in die Vergleichende Grammatik Pp. 22-3.
peculiarities are handed down from generation to generation and every generation seeks to increase them. The totality of such changes in the same tongue we call dialects, which, without being identical, have certain common peculiarities and a general resemblance which is so recognised by the speakers.” Some of the most instructive examples of dialectal growth are shown by the Romance languages on the one, and the Germanic languages on the other hand in Europe; and the Aryan branch of the Indian dialects in Asia. Frater, the Latin word for brother, is seen in the French as frère, confrère, in the Italian fra with change of meaning as in certain proper names, e.g. Fra Bartholomeo, Spanish Fray, also with change of meaning (seen in English friar), so that in Italian a new word fratello, the diminutive, had to be used for brother and in Spanish a word of quite a different sort had to be substituted for it, e.g. hermano from Lat. germanus (seen in the English word german). In the Germanic group we find the same differences, which however point to unity: Dutch broeder, German bruder, Icelandic brothir, Swedish broder, English brother, Danish bror. Another example is the word for wife in the Germanic languages; English wife, German weib, with change of meaning, and vif are the dialectal variations of the same primitive Germanic word.

EXAMPLES FROM INDIAN DIALECTS: Coming to the Marāṭhi, we find the interesting dialectal variations in the word for म्व्; मोजे (mojē) Koṅkaṇī, मालेगे (mālegē) Kārṇārī, माझो (majho) Ratnāgiri, माझा (mājhā) Poona, माही (māhī) Berārī; all of which we can trace to the मज्झ (majjhā) of Māhārāṣṭrī Prākrit. In मालेगे (mālegē) we trace the influence of the Kanarese, on whose borderland, we know, this Marāṭhi dialect is spoken. Brother is in Koṅkaṇī भाव (bhāva), Kārṇārī भाव (bhāvu), Ratnāgiri भास (bhāusa), Poona भाव (bhāv), which could be traced to Jain1

1. Pischel, Grammatik der Prakrit Sprachen, p. 112.
Māhārāṣṭrī माछ (bhāu), in भाज्य (bhāujā) for Sanskrit भाज्य (bhrājtāya). The most instructive words in this matter are the numerals, the pronouns and words of immediate relationship. If in the case of other resemblances, the possibility of mixture of dialects, of borrowing, make the solution of the problem difficult to a linguist, these words at any rate are such that even in the case of the most primitive people, no one will possibly think of a borrowing. A comparison of these is very interesting; word for two is in Marāṭhī दोन (dona), in Hindi दो (do), in Gujarāṭi बे (be), where the second consonant in Sanskrit द्वै (dvau) is retained; word for eleven is in Marāṭhī अक्त (akarā), Gujarāṭi अष्टादश (agyāra), or अष्टादश (agyārāha), Hindi ग्यारा (gyārā). We can at once see that these are variations of the common Sanskrit द्वै (dvau), द्व (dvā) and एकादश (ekādaśa). The word for we is in Marāṭhī आही (āhī), Gujarāṭi अम (ame), Hindi हमे (hame), Bengāli এমি (ami). These have that part common, which is seen in the base of the Sk. acc. अस्मान (asmān). Word for sister is in Marāṭhī बहिण (bahīna), Hindi बहन (bahana), Gujarāṭi बहेन (bahēna, be’n) from the common Sanskrit महिनी (bhagini).

11. DIALECTS POINT TO A COMMON MOTHER LANGUAGE.—These correspondences in the variety of dialects clearly point to an original unity. In the case of the older languages like the Latin, Greek, Sanskrit, we can only point out the correspondences, but cannot with any surety lay our finger on any known form, which we could call their common source. But the observed facts in the modern dialects justify our applying the principles won from an observation of them, to the older languages. We can therefore say, with as much surety as when we were dealing with modern dialects, that the older languages, which show in their variety such striking resemblances, are really dialects of an original speech, which is called the Indo-Germanic or Indo-European mother language.
How can we explain the diversity in the reproduction of a sound in the original language? Why is it that an original bh is represented by b in English and German, bh in Sanskrit and ph in Greek and Latin? One of the causes may be, that the races that separated, gradually changed their basis of articulation as they changed their homes and surroundings. But it is also likely that the original sound was itself so uncertain, that different peoples reproduced it in different ways. If you all of a sudden find yourself among strange people, you find it difficult to reproduce certain of their vocables. If you are in a tram-car in Munich, it is ten to one, that you will not understand whether the conductor says Parer Strasse or Barer Strasse; or in Leipzic, you cannot make out whether your best Professor of languages says Kössel or Gössel (a proper name). This fact is perhaps better illustrative either (1) of the uncertainty of the pronunciation itself or (2) the uncertainty of the acoustic effect produced by it.

12. Practical illustration of linguistic change.—If we follow the course of the life of any language, we clearly see, what has been already indicated above, that no language is ever in a static condition; that it always changes and grows.¹ Taking for example that language of the Indo-German family, which is more closely related to Sanskrit than any other of that group, viz., the Avesta, we find that it has always and gradually undergone a change. The language of the inscriptions of Darius, the language of the sacred books of the Parsis called Avesta, the later language of the commentaries called Pahlavi, the old Persian of poets like Firdausi, are the most obviously notable changes in the life of the language of the Persians. Coming nearer home, we find that the Vedic Sanskrit is already a more ancient and archaic idiom than the

¹. It is always in a state of flux. Just as, in Mathematics, line is the flux of a point, so language is the flux of the mind. Ed.
anguage of the theological books, that this latter differs from the epic Sanskrit, and between that and the classical Sanskrit there are differences that are equally obvious.

Our own Marāṭhī shows behind it a development of at least one thousand years, if not more. The earliest authentic literature in Marāṭhī belongs to the thirteenth century A. D., if not earlier. As a spoken dialect it must have existed some centuries before that at least. Now when we compare the Marāṭhī of Jñānesvara with the Marāṭhī of to-day, we find that an astounding change has come over it. Even if we compare that old Marāṭhī to the Marāṭhī of two to three centuries later, Ekanātha's Marāṭhī, we are struck with a great difference not only in the vocabulary but also in the grammar of both.

As a concrete example, we take the following passage from the 15th Chapter of Jñānesvarī, vs. 47 ff.

(To hā jagadambaru) Navhe yetha samvasāru hā jānāi mahātaru thāvalā ase || pāri yerū rukhā sārikhā || tāli mulē varī sākhā || taisā navhe mhaṣaunī lekhā || naye kavhaṭā || āgi kā kurhādī || hoe rigāvā jāri budī || Tari hokā bhale tevhaḍī || varaciṇa vāḍhī || je khulaṭeṇu mulā-pūṣi || uḷandaila kī sākhāī || pāri taisī gothī kāyasi || hā sohāpā navhe || Arjunā hē kavatika || sāṅgata ase alau-kika || jē vāḍhī adhomukha || rukhā yā || āṇi āthi nāthī titukē || rundhalē ase ēndci ekē || kā ravicā astamānī || andhārena konde rojanī ||)
We pick up from this passage some forms, and examine them: संवसार, जाणि, थावला, येरा, खान, म्हणौनि, भेंठेवाडी, उरुऱ्ड़, आचि रवीसां, अंधारे. (सांवसारु, जाणि ठावला, येरा, रुख्हा म्हणौनि, भाळे तेवहाड़ी, उलंडाईला ठिथी, रविचार, अ०ंधा-रेना.)

a. संवसार (सांवसारु). What strikes us in this word is the termination of the nom. sing. It is उ (u), which is the remnant of सू (s), which in Sanskrit before soft consonants becomes ओ (o); this latter form is generalized by the Prākrits, where the nom. sing. of masc. in अ (a) is ओ (o). e.g. गोदमो (Godamo), बुधो (Buddho). Māgadhī however has changed it to ए (e). The Māhārāṣṭrī has shortened it to उ (u) as in पुत्तु (puttu) or पुत्र (pūṭrī). Our modern Marāṭhī has lost the उ (u) and has simply the अ (a) ending. We can Mark the stages thus: Sanskrit संसार: (सांसारह), Prākrit संसारो (सांसारो), old Marāṭhī संवसार (सांवसारु) and modern Marāṭhī संवसार (सांवसार) or संसार (सांसार). This is a change that has affected the formantic element सू (s). Then there is a phonetic change observable in the body of the word itself, the stem as it is called. The Sanskrit संसार (सांसार) has व (va) developed between the nasal and the स (sa). This is introduced for facility of pronunciation, as a transitional sound between the nasal and the following sibilant. Perhaps the transitional stage is साँसारी (सांसरी), e.g. साणाडी (साणाडी), modern संवादी (सांवादी); also Ap. भमर (भमरा), भमर (भमराः) for भमर (भरामरा). The present संसार (सांसार) is not a development of the old संवसार (सांवसारु). It is borrowed from Sanskrit directly. Of this process of borrowing from the old stock and its effects, we have to speak later on.

The Gujarāṭi has generalised the ओ (o) ending of the nom. of masc. in अ (a); e.g. गोदो (ghodo).

b. जाणि (जाणि) is more interesting still. First of all the formantic element or termination appears to be ई (ī) or ए
(ai). This is for the 2nd pers. sing. of the Imp. which becomes in later Marāṭhī जाण (jāṇa). The genesis of this termination is not clear. The possible forms,¹ say of a root वृत (vṛti), in the 2nd. pers. sing. Imp. are in Prākrit वट (vaṭṭa), वटत्व (vaṭṭasu), वटेसु (vaṭṭesu), वटेहि (vaṭṭehi), Amg. वटाहि (vaṭṭāhi), Ap. वट्त (vaṭṭu), वट्तहि (vaṭṭahī). जाण (jāṇa), the representative of Sanskrit ज्ञा (jñā), could not have so many forms; ज्ञाहि (jñāhi), probably also ज्ञाहि (jñāhi), which through ज्ञाने-ठी jñāne-ṭī) would give जाण (jāṇa). With सु (su) it is not found used. With the dropping of the हि (hi), we arrive at the form, the अनुनासिक (anunāsika) compensating for the loss of aspirate. So far for the form, which has changed. Then the change in the body of the word. The original conjunct is already in the Prākrit dissolved and the component parts are made into separate syllables. So that the monosyllabic tends to become disyllabic. Or rather, the conjugational sign as seen in Sk. ज्ञाति (jñāti) is retained, and the termination applied. In Prākrit we have कृण (kuṇai) from क्र (kṛ), which goes back upon the old 5th conjugational form of the root seen in Vedic कृणोति (kṛṇoti).

C. तावला (thāvala) is the 3rd pers. sing. of the past tense. ताव (thāva) is from Sanskrit causal base स्थाप (sthāp) of स्था (sthā). The dialect does not allow a sibilant in the beginning of a conjunct and drops it. Other examples are फुढ (phuda) for Sanskrit स्फुट (sphuta), थेर (thera) through थविर (thavira) from Sanskrit स्थविर (stHAVIRA). In the representation of the Sanskrit स्थ (stha), however, there is a hesitation in the Prākrits.² Sometimes we get ठाव (thāva), but also ठाव (thāva). The ज्ञानेवरी (jñānevarī) has ठाव (thāu) also. The non-initial प (pa) has become व (va), as in पप-पाव (papa-pāva), हुप-हुव, आप-आव, कप-कौ, दीप-दीव (rūpa-rūva, ńtapa-ńava, kopa-kova, dipa-diva). Then the past tense is not

1. PISCHEL, Grammatik der Prakrit Sprachen p. 331.
2. PISCHEL, Grammatik der Prakrit Sprachen, p. 212.
made up, as in Sanskrit, by adding an augment and joining the terminations of that tense. Here we have a suffix which makes the root a participle, as most Pr. tense-suffixes do. According to one theory, this has probably come from the तृ (t) of the Sanskrit past. pass. part. through तृ, तृ (d) (d) in some Prākrits, by the phonetic law obtaining among the Indian languages, that तृ (d) and तृ (l) are similar sounds. “In the Prākrits the past tense is indicated by the present (historical) or in an indirect way by the past pass. part., in which case the agent of transitive verbs is used in the instr. case.” The Sanskrit तृ (t) becomes तृ-सूदम् (d-sudam), अनुचित्तिदम् (anucitthidam) in Śaur. Pr. In certain dialects it also becomes तृ (d) but only under certain circumstances; कृत (kṛta) for कृत (kṛta) J M. Amg. etc. cf. मद्यो (mado) for मद्य (mṛta), हड्ढा (hada) for हड्ढा (hṛta). It is through this latter that the तृ (l) becomes generalised as the participial termination for the past tense.

HOERNLE regards the form as past participial suffix in अल, हड्ढा (al), (il).

The other and most likely theory is that this form of the participial tense was evolved independently of Sanskrit. It is seen, besides in the Marāṭhī, also in Oriyā, Bengāli, Bihārī and even in the Assāmese, languages, which according to GRIERSON belong to the Outer Circle; e.g., Mar. उथिता (uṭhīṭā)

1. PISCHEL Op. cit. p. 361; BHANDARKAR, Philological Lectures p. 219; RAJAWADE in his Jñāneśwari-Grammar Pp. 80, 81, tries to derive the forms of the present used for the past from Sanskrit लञ्च (lañ) or imperfect; असे, असे (ase, ase) from ज्ञान, ज्ञात, असा, (āsam) (āśīl), (āasa) from आसी: (āśīl). Says he “the Augment which roots take in Sanskrit when लञ्च (lañ) follows, is not found in Marāṭhī and the Prākrit.” This derivation of the historical present is scarcely likely.

2. PISCHEL, op. cit. 157.
3. BHANDARKAR, Philological Lectures p. 221.
5. Languages of India p, 68.
or उठला (uṭhala), O. उठिल (uṭhil), लेखिल (lekhila), B. उठिल (uṭhila), कहिल (kahila), Bih. उठल (uṭhala), Ass. उठिल (uṭhila). In Gujarāti, too, it is found in restricted use and in Sindhi also. In these latter languages it is applied to already formed past participles and hence it is to be regarded as distinct from them. Even in old Marāṭhī, we find it at the end of some past participles, दिनहल (dīnhala), हाणितल (hānitala), भिनल (bhinala) (through भिन्न bhinna). RAJWADE\(^2\) regards it as a स्वार्थेल (svārthe la) suffix, applied to forms of past participles.

c. येरा रङ्क (Yerā rukha):—These are the forms of the acc. plural. The old acc. plural ending (ns) न्त्, which in Sanskrit itself had dropped the final and become simply n (n) as in देवान (devān) is found in this form only before such words as सारक (sārakhā), प्रमाण (pramānē) etc. Ordinarily it is dropped and the base form only serves as a plural; येरा रङ्क (yera rukha) would be the acc. plural. This form is responsible for the अनुनासिक (anunāsika) in plurals of other cases.

Today, of course, येरा (yera) and रङ्क (rukha), would be looked upon as सामान्य (sāmānyarūpa) or crude or base forms, i. e. stems before any terminations are applied to them.

Then येरा (yera) is from एर (era). Māgadhī\(^2\) (Pāli) and others insert a य (ya) before (e) ए, e. g. येव (yeva). We find in certain Marāṭhī dialects of today forms like येवढेय (yevadhē), येक (yeka) instead of एवढेय (evadhē), एक (eka) in normal speech. येथे (yethē) for एथे (ethē) from Pr. एथ (ettha), Sk. इथ (ittha) has become current coin, although एवढेय (evadhē) and एक (eka) would lead us to

expect एथे (ethē) here too. The ज्ञानेश्वरी shows both य (ya) and (e)ए, e.g. एकोल (ekola) and येकोल (yekola). रुक्ष (rukha) is from Sk. रुक्ष (vrksa) through Pr. रुख (rkkha) like भिख्खु (bhikkhu) from भिख (bhikṣu). The र (ru) for रु (vr) is interesting, as it is a case of metathesis and samprasāraṇa.

d. धाणौन (mhanauna) is the most interesting form in the passage. It is made up of धाण (mhana) and ओन (auna). This latter is the termination of the abolute, legitimate representative of the Māhārāṣṭrī ओण (ūṇa) in काऊण (kāūna) for क्षण (kṛtvā-nam), Gujarāṭi कारन (karinē), लईन (lāinē) etc. जीण (jeūna) also J. M. जीण-ओण (jini-ūna) from जिता (jita) and the like. In our present Marāṭhī, it is ओन (ūna) and not ओन (auna). In old Sanskrit the termination is लां (tvām) or ली (tvī) and लानम (tvānam) or लीनम (tvānam). M. ओण (ūna) would go back upon the latter. म्हणौन (mhanauni), धाणौन (lāgauni) are also seen on the Nagaon inscription of 1367 A. D. We see therefore that the Māhārāṣṭrī has discarded the current Sanskrit termination and adopted a new one, probably from an ancient Sanskrit dialect parallel to the Vedic.

Secondly ध्वण (mhana) is the legitimate development of Sanskrit धण (bhana), also seen in our म्हातल (mhaṭalē), धणजे (mhanaje). Not only has the word changed on its formal side, but it has also changed in its contents or meaning. Strictly the form ought to mean after having said that, then, because we have said that and from that simply, because or therefore. The word has lost much in meaning. It was a root and has now become a mere conjunction. Just as the old gerund कारि (kari), करि (kara) has later in Hindi become a

1. PISCHEL, op. cit. p. 221.
2. PISCHEL, op. cit. p. 396.
3. RAJWADE, संकृतिशिलासंस्थान No. 23.
simple suffix, making gerunds; *e. g.* लेकर (lekara), करकर (karakara).

*e.* मझे तेवढी (bhole tevhaḍi) is a compound expression important in two ways. First of all the word मझे (bhole). We have other combinations with this in the ज्ञानेश्वरी (Jñānesvari); महतेवहा (bhalatevhaṭa), महतेथे (bhalateṭeṭhe) (where perhaps we have to expect महतेते तेथे (bhalate tethē), with haplography of the former ते (te), महतेतुके (bhalateṭukē) महतेउते (bhalateuṭe). The first part of the compound, therefore, is either महतेत (bhalatē) or मझे (bhalē). This word alone is found in several places in the ज्ञानेश्वरी (jñānesvari) either as महतेत (bhalatē) or as महतेते (bhalatēte). We can see that मझे (bhalē) is in the former compound shortened to मझ (bhalā). मझे (bhalē) is from महत्रक (bhadraka) through महल (bhallaa). RAJWADE’s derivation1 from हवल (haval) is untenable. द्र (dra) is sometimes2 changed to द्र (lla) in the M. and Pāli; for आठ-आल (āḍra-alla), for चिद्रित-चिल (chidrita-chilla), c.f. कुल्लवग-कुत्रकर (cullvagga-kṣudrakavarga). मझे (bhalē) or महतेत (bhalatē) therefore only means good one and then since one would always choose good things, महतेत (bhalatē) came to mean any you choose. Thus we find change in form accompanied by change in content or meaning.

We see, that the word मझे (bhalē) in this particular meaning is still retained in certain parts of Maharashtra. We often hear an expression like the following: मी तुमची सोय केली आहे; मग तुम्हाचा भीक मागावची असली तर मझे मागा (mī tumacī soya kele ahe maga tumhāla bhīka māgayacci asali tara bhalē māga).

महतेते तेथे (bhalatē tethē) would thus mean where you will or at any place. In the same way महतेवहा (bhalatevhaḍi) would mean of any dimension, however much.

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तेवहडी (tevhaḍī) corresponds in meaning to Sanskrit तावती (tāvatī). But the one is probably not to be derived from the other. तावत (tāvat) becomes in Pr. दाव (dāva), rarely ताव (tāva). This with a suffix ड (ḍha) and unaccountable change of आ (a) to ए (e) would give तेवडी (tevāḍī). This same process will have to be assumed for एवढी (evāḍī), केवडी (kevāḍī), जेवडी (jēvāḍī), etc. Regularly वृद्ध (vrddha) ought to and does actually give व्रुढ़ि (vṛuddha), as र (r) follows labial. But this is not an absolute phonetic law, as we find forms like मच्छू (maccū) from मृत्तु (mrtyu), मऊ (mau) from मृद्व (mrdv), वगी-वक्त (vagi-vrkt); वृद्ध (vrddhi) itself actually gives वृषी (vṛddhī) and वृषी (vṛddhī). The distinction in meaning, interest and growth is not very consequent, for we find परिवद्धी (parivāḍhī) when we should expect परिवृद्धी (parivṛddhī). cf Marāṭhī वाढ (vāḍha). The Karpūramaṇjari I. 34 c. has actually वाणवाण्ड्दिम (vaṇṇavāṇḍḍhim) for growth, bigness, where the sense that वृषी (vṛddhī) itself was an abstract noun was lost and a further abstract term was added to it. Very likely ते (te) is a representative of the demonstrative तत (tat) through त्यत (tyat), तित्यत (tiyat) [इयत (iyat) and कित्यत (kiyat) lead to the latter] and वृषी (vṛddhī) comes from वृद्ध (vṛddha), श्रद्ध (vrddhi), which would give वृषी (vṛddha), वृषी (vṛddhī) and ultimately वृषी (vṛddhī). The अप्रभ्रम्ण (apabhrāṃs) form, which according to RAJWADE is तेवड (tevāḍa), would corroborate this. Cf. also Jain M. एवढा (evāḍa) which WEBER and after him PISCHEL rightly trace to इयत (iyat) which becomes ए (e).

One word more. तेवडी (tevāḍī) and तेवहडी (tevhaḍī) are not separated by time; they are dialectal variations current in the same period; in the second form we have an anticipation of the aspirate in the second place, a phenomenon not un-

2. PISCHEL, Grammatik der Prakrit Sprachen, p. 113.
common in any language. The same is observed in forms like केव्हड़ा (kevhaḍā), एव्हड़ा (evhaḍā), जेव्हड़ा (jevhaḍā).

f. उलंडईल (ulaṇḍaila) — This is the future of the root उलंडा (ulaṇḍa) with the participial termination of the future ऐल (aila) or इल (ila). This is another testimony to the same peculiarity of the modern Indian dialects, which is already seen above in the form of the preterite धावल (thāvala). Excepting the Gujarati, which has preserved Sanskrit स्य (sya) in the forms करीशा (kariśa), करासे (karaśe), करिङ्ग (kariṅga), करासो (karaśa), and the Hindi करीहै (karihaī) and in a solitary Marathi form करीशीला (karaśila), a combination of the old synthetic tense and the modern termination इल (ila), they have banished the old form and coined a new one for it. This इल (ila), इन (ina), with root ending in अ (a), is seen in Tukārāma; e. g. त्याच्या पायी ठाव मागिन (tyācyā pāyi thāva māgaīna).

Old Hindi only of the remaining dialects has preserved this remnant of the old synthetical tense. Cf. करीहै (karihaī), करिहै (karihaĩ).

This root उलंडा (ulaṇḍa) appears to be a pure Prākrit form and is not, as some suppose, connected with the Sanskrit उलंधू (ullaṅgh). The primary sense is to fall or cause to fall topsyturvy, to topple or cause to topple. The Marathi ओलंडणे, (olāndanē) which has kept the form, has changed the meaning. उलंडिले तकळेच (ulaṇḍilē takrācē) of Tukarāma has still the old sense.

g. आधि (āthi) is from Sanskrit अस्ति (asti), where the sibilant, being transferred to the end of the word, gives the final its aspirate character. We find the same phenomenon in Gujarati हाठ (hātha) from हस्त (hasta), Guj. हाठी (hāthī), old Marathi हाठिही (hāthirū) from हस्ति (hasṭi), पोथी (pōthī) through पौल्स (pōlihaa) from पुस्तक (pustaka) etc. We have

1. Beames, Comparative Grammar, 3. 112.
changed the form into आहे (āhe), Gujarātī होय (hoya), Hindi हो (ho). Sindhi has also आहे (āhe).

h. रवीचा (ravicā) is the modern रवीच्या (ravicyā), the oblique form of the possessive adjective रवीचा (ravicā). The original seems to be the loc, form of the same. We find it lengthened into चिवे (ciye) e.g. देवाछिवे द्वारी (devāciye dvāri) etc., which is only another form of देवाच्या (devacyā) by स्वरभक्ति (svarabhakti) in the last syllable.

This चा (cā) is a suffix that makes possessive adjectives of nouns. Its genesis is yet a debatable point. Krishna-shastri CHIPLOONKAR¹ derived it from the Sanskrit तद्धित (taddhita) ईय (iya), and Krishnashastri GODBOLE² supported his derivation. DR. BHANDARKAR³ sees in it the phonetic descendant of the Sanskrit suffix त्य (tya); DAMLE⁴ and RAJWADE⁵ follow him. The difficulty in the latter case is, that the त्य (tya) is in Sanskrit added to certain indeclinables only. There would be some difficulty in deriving चा (cā), ची (cī) from ईय (iya) through इज (iija), जज (jja), like the Sindhī जी (jo), जी (ji). Still there is the satisfaction that ईय (iya) is a nominal suffix. It is curious to note that the Yadava inscription of Nagaon, dated A. D. 1367 shows both जा (jā) and चा (cā). Pātan inscr. of 1208, however, has uniformly चा (cā).

g. अंधरेन (āindhārena) is the usual instrumental. We have changed the termination into नें (nē) by a simple transposition; other forms are जाणतेन (jānatena), मागिलेन (māgilenā).

The Hindī and Gujarātī too have made the same change. This is primarily a pronominal termination, borrowed by nouns in अ (a) even in Sanskrit. The Gujarātī has preserved it in

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4. Śāstriya Marathi Vyākaranā, p. 347.
some of the pronouns like ले (tenē), जे (jenē). The word अंधार (aṁḍhāra) is from the original अंधकार (aṁḍhakāra), through अंधआर (aṁḍhaarā). Here we find that even so much as one whole syllable is lost; this is a phenomenon called syncope.

RAJAWADE¹ says “In short, in modern Marāṭhi the Instr. sing. was formed from the Instr. pl.” पूतेहि (puttehi), पूतेनि (putteni), पूतनि (pūteni) पूतानि-पूतानि (pūtāni-pūtāni) gives the plural. Then पूतानि (pūtā) becoming पूता (pūtā) and निं (nī) becoming नें (nē), we get the sing. पूतनें (pūtānē)! This is a piece of very subtle logic, to say the least of it. He has changed since 1912, in a criticism on DAMLE’s grammar, and accepted the Sanskrit न (na), एन (ena) as the termination of the Instr. sing. RAJAWADE’S etymologies are in most cases very hasty.

Now what have we learnt from a detailed examination of all these words? We have learnt, (1) that there is phonetic change in the body of a word, whereby it is understood that the meaning is not changed, e. g. अंधार (aṁḍhāra), लाव (ṭāva), रक्ख (rukha) etc; (2) that there is formantitic change or a change in the terminations etc. e. g. सावसार (saṁvasāru), जाण (jaṇaṇi), लावल (ṭāvala), अंधरेन (aṁḍhārena) and (3) that there is change in meaning, it being understood, that all the while, the form is supposed to be one and the same, वाणिण (hmaṇauni), बल (bhale), It should not be supposed, that both these changes might never take place together. (4) Lastly, there is change in the syntax. The whole passage shows a departure from our modern sentence form.

13. THE CAUSES OF CHANGE:—What then are the causes of the change that leaves no unit of the sentence—the sound, the syllable, the word, and the sentence itself—untouched? What leads to the phonetic change, as well in the root form

as in the formantic element of a word? Why should the meaning of words undergo transformation?

A reply to this question, so far as phonetic change is concerned, is already indicated in the beginning. The very fact of the acquisition of language presupposes change; for no generation can take up a language from its predecessors in exactly the same outward form. This change might be caused in the production of speech by one individual, as also in the transmission of speech from one individual to another. (1) In imitation therefore there is a potent cause for change. But, as we have seen, an individual also imitates himself, when he is engaged in the production of speech. This, OERTEL calls *intra-individual* imitation. (2) On the analogy of certain known forms certain others are produced. Analogy based upon association, is the second cause of change. If the former cause is mainly physiological—for much depended on the power of the individual's ear in properly hearing sounds and upon the power of his eye in noticing the positions of the speech organs, and thirdly upon the speech-organs themselves, which reproduced the observed positions,—this latter is psychological. Besides the examples already quoted from child language, others may be added. एकादश (ekādaśa), for instance, owes its long vowel आ (ā) to द्वादश (dvādaśa), where it is legitimate as being a dual form, with which the former is associated. Of this more below. (3) Accent is another factor which causes change. The shifting of accents backwards or forwards, causes the loss of whole syllables; *e.g.* Fr. *frere* which is the poor remnant of Latin *frater*. The Marathi अठांगले (aṭhaṅgale) is the remnant of the Sk. अष्टांगलय (aṣṭāṅgalya); वाहाण (vāhāṇa) through पाहाणाव (pāhāṇāva) of उपाणह (upāṇah); or in the above passage अंधार (aṁḍhāra) of अंधकार (aṁḍhakāra). Other causes like general conditions of culture, mixture of races, conquest, mixture of dialects etc. may cause change. But compared
THE ORGANS OF SPEECH

- Nasal Cavity
- Nasal Passage
- Hard Palate
- Soft Palate
- Front of Tongue
- Back of Tongue
- Uvula
- Pharynx
- Root of Tongue
- Epiglottis
- Esophagus Channel or Gullet
- Vocal Cords
- Wind-Pipe
- Larynx or Adam's Apple
- Glottis
- Lips
- Teeth Ridges
- Blade & Tip of Tongue
with the above, they are not very potent. Because even where race mixture, conquest and such other cultural conditions are absent, we see that constant change is going on in language. The Dravidian languages, comparatively at peace and safe from foreign invasion for a long period, are a good case in point.

a. Physiological and Acoustic Causes of Change:—All change proceeds along certain lines. For reasons already explained (the psycho-physical disposition of the individual of a community speaking one language, is at any one period in the life of that language generally the same), any change in the body of a form or its ending (phonetic and morphological change) spreads itself evenly over all similar forms and endings. This is, as we have already pointed out, due to the transmission of language from one individual to another and from one generation to another generation. This transference can only be the transference of the sounds, not of the accompanying physical and psychical processes. These belong to every individual separately. When the hearer's sounds correspond to those of the speaker, then only is the former said to speak correctly. When a similar sound is produced, we can safely infer, that the motory sensation preceding it is also the same. It is, however, possible to produce an almost similar sound by different movements of the speech organs; it must, therefore, be admitted as possible, that the motory sensations (feeling of movement) of a hearer are a bit differently formed from those of the speaker. It is chiefly owing to this that the sound of \( t \) and \( t \) is so similar, although their articulation is different. It is the motory sensation


The Science which accounts for the phenomenon of sound is called phonetics. With the help of modern scientific apparatus we are now able accurately to count the number of vibrations produced by us when we pronounce words. Thus, we know that the two o's in moon produce
which principally determines the production of a sound; *ease* plays a very insignificant part.

When a change, thus produced by an individual speaker in an individual form, spreads itself over similar forms in the whole language, it becomes a regular change. It is this regularity of the change, as also of the preservation of the old material, that makes linguistic study possible. The rules deduced from such a uniform change or preservation are called *phonetic laws*. When, for instance, a certain sound in a word is kept on or undergoes change, this also happens in all similar words under the same conditions; *e.g.* the Sanskrit initial स (sa) is preserved in Mar. words like सात (sāta), साहे (sāde), सर्व (sarva) from Sanskrit सप्त (saptā), सर्व (sārdha) सर्व (Sārva); but in certain Gujarāti dialects it becomes ह (ha) *e.g.* हात (hāta) and हांड (hāndā), हामान (hāmāna), हमांठ (hamhāla) (Surat). The initial Sanskrit व (va) which is preserved in Mar. words like वीस (vīsa), विष (vīṣa), वाँ (vāṅha), वेत (veta), becomes in Hindi ब (ba) as बीस (bīsa), बिष (bikha), बाँ (bāṅha), or बांध (bāṅgha), वेत (beta). If the cause for the former change, Sk. स (sa) into Guj. ह (ha), is mainly physiological — the stop of the breath at the hard gums in pronouncing the sibilant which is already loose and lets the

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225 vibrations per second. The long ड in मड produces 1050 vibrations per second. Our vocal cords are like violin strings. They vibrate as a whole and also in segments. Thus if the whole cord produced 100 vibrations per sec. half the cord will produce 200 vibrations. We are now able to define the vowels as pure *voice* without any co-mingling of other elements. A consonant is a *noise* produced when the pure vibrations are stopped by the speech organs. There are two varieties of stops: Sudden and gradual or, more technically, *explosive* and *frictional*. Thus ड, क are explosive stops. झ, छ, ठ, थ are frictional stops; च and ज are called affricates because they have an element of friction in their make-up. Our vocal cords are very delicate. Our mouth acts as a resonating agent. The resonating power of our mouth makes our voice nearly 300 times louder. There are also Implosive sounds or recessives as in Sindhi स. (ed).
breath pass away sideways, becomes still looser or is completely removed and we get the aspirate—the cause of the latter change, of the Sk व (va) into Hindi and Bengali ब (ba), is more acoustic than physiological. The same is the case when the Germans try to pronounce the English th in the, there, that; they say ze, zere, žat and believe that they have rightly pronounced the word. The same probably happens when a Japanese always substitutes an l for r in foreign words. The basis of articulation (i.e. structure and position of the speech-organs) in his case has so altered itself, that he cannot physiologically distinguish between the two sounds and his ear also has got so accustomed to the l, that it makes no difference between l and r. The Munician confusion between p and b, mentioned above, is also a good example. The ear and the basis of articulation are thus both interfering with each other in changes like the two above.

14. What is phonetic law:—The phonetic change indicated above is caused by a change in the conditions of the production of the respective sounds. When, for instance, the original medial aspirate is always seen in Greek to change into a tenuous aspirate e.g. Sk. नभस (nabhas), Gr. νέφος (néphos); Sk. भ्रतु (bhrátar), Gr. φράτηρ (phrátir); Sk (bhájati), मंजिति Gr. φαγέιν (phágēin); Sk. धरसति (dhárṣati), Gr. θάρσως (thársos): Sk. मधु (madhu), Gr. μέθυ (méthu); we infer that different representation of the same sound in two languages is due to causes that we call physiological, and we make the generalization, that original medial aspirates are always in Greek changed to ten-aspirates. This generalization of a regular phenomenon in language we call phonetic law. We make the same generalization when we observe correspondences like Sk. भरति (bhárati), Lat. ferō; Sk. महति (mahati), Lat. sum, futurus; Sk. ध्रेन (dhēmāḥ), (Gk. θομός, (thúmós) O. Ir. dumacha = mist,) Lat. sumus; Sk. अधाति (adhāyat), धेना (dhēnā), Lat. fēlare, fēmina; only, in the two latter cases the place of articulation or स्थान (sthāna)
is changed in the old Italic dialects, so that the dental ḷ (dha) has become the labial ḷ (pha). A comparison of Sk. तु-ध्यय्यम् (tu-bhyam) and Lat. ti-bi, Sk. रुद्धिर्द (rudhirā) (= red), Gr. ἐρυθρὸς (eruthrōs), O. Ir. ruad and Lat. rubros, Sk. ह (idha), (original of ह iha) and Lat. ibi, Sk. नाब्हस (nābhas) and Lat. nebula, enables us to generalise, that even the ten. aspirate representing the original medial aspirate, is shifted in Latin to a simple medial between two vowels. Thus the original law is modified by a change in the surroundings of the original sound. Conversely, comparison of Lat. for-es and Sk. द्वार (dvāra), Lat. fortis and Sk. द्वार (dvārā), Lat. of-sendimentum and Sk. बन्ध (bandhāḥ), shows that the ten. aspirate, Latin representative of the original medial aspirate, finds in Sk. a medial to represent it; the Sk. form must, therefore, have been ध्रधा (dhṛḍha), ध्व (dhvāra), भन्ध (bhandha) in consonance with the original law. That the roots गृह (gṛdh), बुध (budh), वृ (badh), द्व (dabh), दह (dah), and others, must have originally begun with a med. asp. which was displaced before the following med. asp, or ह (h) in the body of the word, is shown by comparison with Goth.gredus, Eng. greed; Goth. biudan, Ger. bieten; Germ. binden; Arm. davel; O.'E. dæg, (cf. Sk. निद्र, (nidṛgha), G. tag, Goth.dags, Eng. day, and others whose initial corresponds to an original med. aspirate. Even some Sk. forms of these roots throw light on this fact; e. g अभृति (abhaṅśī) (बुध) (budh), अभृति (वृ) (abhaṅśī-bandh), अधक (adhak) (Vedic of दह (dah), Pr. दज्जति (dajjati) for दह (dah) is also eloquent. We therefore put forward the law, that in Sk. a medial aspirate becomes a medial, when followed by a medial aspirate in the same word. This is dissimilation of which we have to speak later on.

Coming to the Aryan group, we compare Sk. तवम् (tvām) and Av. थवम्, Sk. त्रि (tri) and Av. ṭrī, Sk. मित्र (mitrā) Av. Miṅka, Sk चत्वार्ह (catvārāḥ) Av. caṅvara and find that
in Avesta a dental spirant corresponds to the Sk. tenuis. The Sk. स (sa) in सप्त (saptā), सत्य (satyā), सिन्धु (sindhu), etc., is represented by the aspirate h, as in hapta, haidya, hindu in the Avesta. In this the Greek agrees with the Avesta; e.g. ἕπτα (héptā) ἕδος (héodos), Sk. सादस (sādas). Compare हगदा (hagadā), हादा (hādā) and हात (hāta) of vulgar Gujarāti.

a. **GRIMM’S LAW OR SOUND SHIFTING:**—The Sanskrit, Greek, Latin and Slavonic languages have generally preserved the consonants as they originally were, except local changes indicated above. But the Germanic languages show a wholesale change, as the following equations will show:

1 Tenues.

<table>
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<tr>
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</thead>
<tbody>
<tr>
<td>पशु (paṣuḥ)</td>
<td>pecus</td>
<td>faihu</td>
<td>vich</td>
<td>fee</td>
<td></td>
</tr>
<tr>
<td>नेपात (nāpāt)</td>
<td>nepos</td>
<td></td>
<td>neffe</td>
<td>nephew</td>
<td></td>
</tr>
<tr>
<td>त्रातम (triṇam)</td>
<td></td>
<td>ḫairnus</td>
<td>dorn</td>
<td>thorn</td>
<td></td>
</tr>
<tr>
<td>वार्तते (vārtate)</td>
<td>verto</td>
<td>wairhan</td>
<td>weren</td>
<td></td>
<td></td>
</tr>
<tr>
<td>त्रय (trayaḥ)</td>
<td>trēs</td>
<td></td>
<td>preis</td>
<td>drei</td>
<td>three</td>
</tr>
<tr>
<td>छुन (śūnāḥ)कुνός (kunōs)</td>
<td></td>
<td>hunds</td>
<td>hund</td>
<td>hound</td>
<td></td>
</tr>
<tr>
<td>(छ. for old क) (śō for old k)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>दिशात्ति (diśāti) δε'κυμυ (deiknumi)</td>
<td>gateihaṃ</td>
<td>zeigen</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>कः (kaḥ) Ved कद (kad) quod hwas</td>
<td>was</td>
<td></td>
<td>what</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. The pronunciation of this word is still true to its genesis. We pronounce it properly as hwas.

Further examples from the Teutonic group will be found interesting by Students of the English Language:

<table>
<thead>
<tr>
<th>Skr.</th>
<th>Greek</th>
<th>Teutonic.</th>
</tr>
</thead>
<tbody>
<tr>
<td>कः (kaḥ)</td>
<td>...</td>
<td>Goth. hwas</td>
</tr>
<tr>
<td>ह्र्षा (tṛṣā)</td>
<td>(tērsōmai)</td>
<td>Goth. thairsan = to be dry</td>
</tr>
<tr>
<td>त्वर्तो (tvarto)</td>
<td>O. E. thurst = thirst.</td>
<td></td>
</tr>
<tr>
<td>श्वर (śvarū)</td>
<td>ekūra (hekūra)</td>
<td>O. E. sweger = mother-in-law</td>
</tr>
<tr>
<td>गध्म (gharmaḥ)</td>
<td>θερμός (thermós)</td>
<td>O. E. wearm Norse varmr = warm.—Ed.</td>
</tr>
</tbody>
</table>

फेन (phéra)  fam  feim  foam

θοέζομαι  Goth. bragjan thrall

(kh)  haban  have.

We see therefore that the original ten. and the ten.
aspirates have fallen together in the old Germanic language
and are represented alike by hard spirants; i.e. p, t, k, and
ph, th, kh, are represented by old Germanic (e.g. Gothic)
spirants f, b, x, (pron. ch).

2 Mediae.


duco  tiuhan  ziehen  tie, tow

Lith. dubus  diups  tief  deep

দা (dása)  decem  tahirun  zehn  ten

जानु (jānu) Gr. ρόου, (go’nű) kniu  kuie  knee

अंज्र: (ājraḥ), ʿāyros, (āgrós) akrs  ...  acre

वुगम (yugām), ʿuγon, (zugón) juk  jock  yoke

Asp.

भराम (bhāram) Gr. φερευ, (pherein) bairan  bear

(वसु) विचि: (vāsu) dhitiḥ, θέσις, (thēsis) ga-dēds that deed

हें: (ह = घ) (ha = gha) Xην, (khēn) O.H.G. gans goose

वाहाम (vāhām) Lat. veho gawigan bewegen weigh

This is called sound-shifting, in German Laut-ver-
schiebung, of the Germanic languages, or after its
traditional discoverer GRIMM, simply GRIMM’s law.¹
This, however, is only the first sound-shifting, which took
place even before the Christian era, as certain references of
the old Roman historians show. There was another sound-
shifting, which appears to have taken place after the Anglo-

¹. DANE RASK was the real discoverer of this law. He published
the results of his investigations in 1818 and they were adopted by
GRIMM in the second edition of his Deutsche Grammatik, in 1821.-Ed
Saxons separated from their North-German cousins, about the seventh or eighth century.

b. SECOND SOUND-SHIFTING:—If we cast a glance at the last three columns of the examples for the first shifting according to GRIMM, we shall find, that in most cases the Gothic or other forms of the old Germanic, correspond to the Anglo-Saxon and English forms but that the German forms I.e High-German forms, disagree.

Goth. has *paurnus* Eng. *thorn* but Germ. *dorn*

*breis*  three  *drei*

*ga-teihan*  *zeigen*

*dags*  *tag*

*helpan*  *helfen*

*plegen*  *pflegen*

This leads us to formulate the law, that old Germanic *b, t, k*, become the affricates *pf, t z* (written *z*), *k, ch* (written *ch*), and the hard spirants *f, þ, and ch* become soft spirants *b, d, and z* (which last disappears intervocally); *z* becomes *r*—(O. H. G. *was : warun*). This is called the second sound ~ shifting. The Anglo-Saxon escaped this shifting, as did certain Low German dialects. This is an important fact. Thereby we, know the limitations of phonetic laws. They have thus a time limit as well as a place limit, and we have, therefore, to be very cautious in formulating them. When we, therefore, put forward a phonetic law, we have to indicate all its limitations. It is, in fact, nothing more or less, than generalization based upon observed linguistic facts and holding good under stated conditions only.

c. VERNER’S LAW:—To quote one more example, where the conditions are slightly different from what we have already spoken of. फिता (*pita*), Gr. πατήρ, (*patēr*), Lat. *pater* becomes in Goth. *fadar*, Eng. *father*, where indeed we expect a *þ* in place of *d*, as in Goth. *broþar* which corresponds
to Sk. भ्राता (bhrāṭā), Lat. frater, Eng. brother, etc. In old days it was thought to be an irregularity and left unaccounted for. But when the idea of phonetic law was formulated and began to be scrutinized, linguisticians were not satisfied with saying that it was an irregularity, but wanted to trace the reason. And it was found out by VERNER, who, on observing other similar cases, e. g. Goth. sibun, Sk. सष्टि (saṣṭā); Goth. halsagga Sk. अंकेश: (aṁkāh), haidus (Germ-heit) Sk. केतु: (ketūḥ) O. H. G. swigar, Sk. अष्ट्रु (śvaśru) where आ (śa) represents old क (ka), put forth another law, a corollary to GRIMM’s law, that the HARD SPIRANTS ज, झ, छ, (फ्रूक्ष्य) (ph, th kh) in the middle or at the end of words become SOFT, only when the original Indo-Germanic accent was not on the immediately preceding syllable. This is what is called VERNER’s law, after its discoverer.

We have been dealing upto now with what is called phonetic change as such, and then too, of consonants. This change is not at all affected by the character of the neighbouring sounds and is therefore called Unbedingter Lautwandel or unconditional phonetic change.

d. UNCONDITIONAL PHONETIC CHANGE:—We shall now take examples of vowel change from the Aryan group.

I. When we compare e. g. Sk. भरामि (bhārāmi) which shows an आ (a) in the first syllable with Gr. φήρω (phērō) Lat. fero, Arm. berim, Got. baira and Old Sl. bera; Sk. अहाम (ahām), Av. azem, with Gr. ἀγώ (egō),1 Lat. ego, Arm. es, Goth. ik; or Sk. अष्ट्र (āsvah), Av. aspah with Lat. equos Goth. aihwa, we find that Indo-Aryan आ (a) is, in these and other cases, represented by e in all the other languages of the great family; see also Sk. आस्ति (āsti), Lat. esti, Goth. ist.

[.] Sk. and Av. आ = e in the other Indg. languages.

1. KARL ADOLPH VERNER formulated this law in 1875. It explains certain apparent exceptions to GRIMM’s law. There is a hexameter about the exceptions to GRIMM’s law which is quoted on page 41.
[Continued from previous page]

The Grimm-Verner Hexameter.

<table>
<thead>
<tr>
<th>Indo-Aryan &amp; Sanskrit</th>
<th>पद (pada)</th>
<th>अज्रस (ajras)</th>
<th>साति (satein)</th>
<th>भार (bhar)</th>
<th>दी (dhe) or धो (dho), दीनिति (didhiti)</th>
</tr>
</thead>
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<tr>
<th>Greek</th>
<th>τυρβη</th>
<th>ποδας</th>
<th>ἁγρος</th>
<th>κατον</th>
<th>φέρε</th>
<th>θετα</th>
<th>χόρνοις</th>
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<tr>
<td></td>
<td>(τυρβ)</td>
<td>(ποδας)</td>
<td>(ἁγρος)</td>
<td>(κατον)</td>
<td>(φέρε)</td>
<td>(θετα)</td>
<td>(χόρνοις)</td>
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<td></td>
<td>(turb)</td>
<td>(podas)</td>
<td>(agross)</td>
<td>(katon)</td>
<td>(phere)</td>
<td>(tet)</td>
<td>(khortois)</td>
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</table>

<table>
<thead>
<tr>
<th>Latin</th>
<th>turba</th>
<th>pedes in agris</th>
<th>centum</th>
<th>fert</th>
<th>facta et</th>
<th>kortis</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Old English</th>
<th>thorpe</th>
<th>feet in acres</th>
<th>hund red</th>
<th>beareth</th>
<th>deed</th>
<th>garth = yard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teutonic &amp; German</td>
<td>Dutch-dorp</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

—Ed.
II. Taking other words:—

Sk. अ (अ) Lat. ovis Gr. ὅις (oís) O. Ir. oi

,, अश्ल (aslii) ,, octo ,, ὁκτὼ (oktō) ,, ocht

,, कः (kāḥ) ,, quod ,, πόθεν (pó-then) Ved कठ (kad)

,, सर्तति (bhr-anti) ,, ,, φεροι (phéronsi) (for onti), cf Dor. φεροντι (phéronti) O. Per. barantiy).

,, असचत (āsa-cata) ,, sequi ,, εἴπετο (eípeto)

,, तत्त (tāt) ,, is-tud ,, τό (tó) Goth. ḣata

,, विकः (vīkah) ,, ,, λύκος (líkos)

We can formulate our law thus:—Indo-Aryan अ (अ) is in some words represented by o in most of the other Indo-European languages, only the Germanic showing a similarity with the Sanskrit.

.: Sk. and Av. अ (अ) = o in the other Indo-European languages except Germanic.

e. g. Sk. जम्ब (jambhaḥ) Gr. γόμφος (gómphos) but Goth-chanb

,, ददर्स (dadārśa) ,, δέδορκα (dédorka) but Goth band (perf. of bindan)

,, सर्तति (bhrantī) Gr. Dor. φεροντ (phéronti) but Goth bairand

III. And lastly comparing

Sk. अजति (ājati) Gr. ἀγιω (ἀγο)

Lat. ago Arm. acem O. Ir. agat

,, (चतुर) अध ,, ἀκρος ,, acus

(�तुर) (aśra) (akros)
Sk. अनिति (āniti) Gr. ἀνεμος, " animus Goth. us-anan (ānemos)
,, अंज्र: (ājrah), ,, āypos, " ager ,, akrs E. acre (āgrōs)
,, अक्सम् (āksman) ,, ἀκμόν (άκμον) Av. asman
and so on, we find that the Indo-Aryan अ (अ) is also represented by an a in the other languages of the family. Thus we find that an Indo-Aryan अ (अ) finds in the other languages sometimes e, sometimes o, sometimes a to represent it. The same is the case with आ (आ).

IV. Sk. आविव (ādivah) Gr. ἀδιδός (edidós) Lat. edimus
,, प्रात: (prātāh) ,, πλῆτο (plēto) ,, ...
(p.p. of pra to fill)
,, मास (mās) Gr. μήν (mēn) Lat. mēnis Goth. mena. E. month.
,, स्नावन (snāvan) Gr. νημα (nīma) Let. nēmen Goth. nēbla E. needle

*: आ (आ) = ē in other Indo-European languages.

V. Sk. इद्वात (idda) Gr. οδωσι (didōsi) Lat. dōnum
,, δύα (dvā) ,, δῶ (dō) ,, duo
,, प्रात: (prātāh) ,, πρω (prō) Osk. (Italian, O. H. G. fruo (morning) dialect) pruentpan
*: आ (आ) = õ in the Western Indo-European languages.

VI. Sk. मातार ग्र. (Dor) ματήρ (mātir) Lat. māter Old Ir. Māthir
,, स्वादु (svadu) ,, सदस ἱδος (had'us, hīdūs) ,, suāvis ,, ...
,, ब्रात (bhrātar) ,, φράτωρ (phrāter) ,, brāler ,, brāhir
*: आ (आ) = ā in Gr. Lat. and other Western Languages.

When the science of philology was in its infancy, it was believed by scholars like BOPP, GRIMM and others, that the
vowels in the Indo-Aryan branch represented the old conditions and that the single and simple अ (a) split up later into three vowels a, e, o.

For a long time this view was accepted as the correct one. But such a phenomenon was after all unprecedented in the life of any language and younger philologists like AMELUNG, BRUGMANN and COLLITZ, disbelieving it, tried to show that the Greek language had preserved the original vowels in their entirety and therefore presented a more faithful picture of the primitive Indo-German vocalism than did Sanskrit.

They based their conclusions chiefly on the following grounds:—Firstly a splitting up of the a into a, e, and o can not be phonetically proved; secondly, in those cases where Indo-Aryan अ (a) corresponds to Greek e, there appears before that vowel a palatal instead of a guttural; e. g.

Sk. च (ca), Gr. τε (të) (the t for kw for certain reasons in Greek.) Sk. संवते (sacale), Gr. ἐπεταυ (hepetai), Lat. sequor; Sk. चिंति: (citih atonement), Gr. χίος (tisis); πολυ (poini), Av. kaena, Old. Bul. cena fine; Sk. चिंत (cit), Gr. τι (ti), Lat. quid; Sk. जनस, (jana), Gr. γένος (gënos); Sk. चिंत (cit), Gr. τερτας (tertas); Sk. पंच (pañca), Gr. πέντε (pëntë), Lat. quinque.

But when the अ (a) corresponds to Gr. Lat. etc. a or o, this change does not take place; Sk कतर (katarah), Gr. πότερος (poteros), Lat. quod; Sk. कत (katah), Pruss. kertos, (Eng. court); Sk. कविः (kavih), Lat. cruor, Ger. roh O. sax. hrä; Sk. कक्ष (karkah), कक्त (karkhat), Gr. καρκανδος (karkinos) Lat. cancer.

1. HIRT Handbuch der Griechischen Laut und Formen Lehre p. 202. The Indoger, labiovelar kw = Lat. qu, Go. hw, Sk. क or क, (ka or ca). Old Bul. k or c. Lith k, but Greek ρ (ρ), where the labial character predominates and a t before e, and i.
These correspondences show, that originally, Sk. अ (a) which showed in Gr., Lat. etc. an e, was not the same as the आ (a) which stood for Gr. and Lat. etc, a or o; and that in the primitive Indo-Aryan period, it had almost an Ṛ (i) colouring, because the palatalization of original gutturals only takes place before Ṛ (i) or यु (y). This change from gutturals to palatals under certain conditions, is discovered in the Sanskrit language itself. In the perfect, where the reduplication vowel is e, e. g. Gr. δεδόρκα (dédörka), γέγονα (gégôna), Lat. tetigi, we have in Sk. a palatal in the reduplicative syllable, but a guttural in the original reduplicated syllable; e. g. Sk. कर्क (cakāra), जगांम (jagāma), जघान (jaghāna), etc.

A similar phenomenon is observable before the suffix (a) अ which does not correspond to e in Gr. and Lat. It shows the original guttural before it; e. g. भुचि: (sūcīh) but चुर्क: (sukrāh), रोचते (rócate), लोचन (locana), but रोक (roka) and लोक (loka); ओजसु (ójas) but उर्ज़: (ugrāh). This is the celebrated palatal law in Sanskrit.

It must be remembered that the e and o are simple vowels and not diphthongs like Sk. ए (e), and ओ (o). It is, however, remarkable, that the Prākritis unlike the Sk., should appear to possess the simple vowels1 e, o. The e appears before conjuncts to represent Sk. a, i or e; Pr. एत्य (etīha), Sk. इत्य (itīhā), Mar. एण (Penda), Sk. पिण (piṇḍa); Pr. गेन्हि (genhai), Sk. ग्रहाति (grhnāti); Pr. तेतीस (tetīsa), Sk. त्रयास्तिनिषत् (trayastriniṣat). In the same way the o of Prākritis represents Sk. उ (u) before conjuncts, Mar. तोण्ड (tonta), Sk. तुण्ड (tunda); सोण्ड (sonđa), शुण्ड (śundā); Pr. पोक्कर (pokkha), पुक्कर (puśkara); मोगर (moggara), Mar. मोगर mogara), मुद्गर (mudgara). Long i and long ū are also likewise represented in the Prākritis; जाणेज्जा (janejjā) (Mar.

The change of the original e, o into Sk. ṁ (a) is an unconditional change and the change of the gutturals into palatals consequent upon the change of e into ṁ (a), is a conditional change. As further examples of unconditional change ought to be quoted Pr. पीठ (pīṭha), Coll. Mar. पिठ (pīṭha), Sk. पीठ (pīṭha); मिग (mīga), Sk. गुग (mṛga); हियाय (hiyāya), Mar. हिया (hiyā), Sk. ह्रदय (ḥṛdaya); वरघ (veragga), Sk. वैराग्य (vairāgya). सिंह (siha), Sk. सिंह (simha) and अंधु (aṁsu), Sk. अंधु (aṁsu) show us that as far as quantity went, a long and a nasalized vowel were regarded as equal. But there is no acknowledged condition or cause of such a change.

The consonantal changes referred to previously and the vowel changes now referred to, are called unconditional changes. Brugmann¹ defines unconditional change thus: "Unconditional phonetic change is the change which an individual sound undergoes, without the determining influence of the particular kind of the accompanying sounds, or the accent, or the language rhythm, while conditional change is where such influences take place".

(e) Conditional phonetic change:—Suitableness of place of a sound in a word-initial, medial, final—accent, contact of two words in a sentence or सन्धि (sandhi) etc., influence of neighbouring sounds, make what are called conditional changes.

(1) In Greek, for example, consonants at the end of a word fall out, with the exception of ν (n), σ (s), ρ (r): Gr. ἐφερέ (ἐφερέ). Sk. अभरत (ābharat) but Gr. ἐφερόν (ἐφερόν) अभरत (ābharat). The Sanskrit does not suffer two consonants to stand at the end of a word, with the exception of k, t, ḍ and ṭ.

¹ Kurze, Vergleichende Grammatik, p. 38.
when they follow a \( r \) in the Vedic language\(^1\): वर्क (vark) 3rd sing. Aorist of व्रज (vṛj), उर्क (urk) nom. sing. of अर्क (ārj), अमार्क (amārkt), अमार्द (amārd), आवर्त (āvart) 3rd sing. Aorist of वर्त (vṛt) सुहार्द (suhārd) for सुहार्द (suhārd). Examples for the rule are: वाक (vāk) (वाक + स) (vāk+s), क्रिदन (krīdan) (क्रिदन्त + स) (krīdant+s), अभरन (abharan) (from अभरन abharant).

The Prākrits (Māhārāṣṭrī particularly) like the Gr. do not at all allow a consonant to stand at the end of a word: पच्छ (pacchā), Sk. पच्छत (paścāt), जाव-यावत (jāva-yāvat), पुष्प-पुनर् (puṣpa-punar), सम्मेम-सम्मक (samman-samyak). The nasals become अनुस्वार (anusvāra).

The Prākrits change an initial र (r) to री (ri) or sometimes to ह (ru), रिण (riṇa) (Mar. रिण riṇa)—ऋण (ṛṇa), रिख (rikkha) (Mar. रिख रिṣa) —ऋख (ṛkṣa), रूक्ख (rukkha) (Mar. महा-रूख) (mahā-rūkha). वृक्ष (vrkṣa).

(2) Many changes in sounds are dependent upon accent, e.g. Goth. fadar for पितृ (pitār) but bropar for भ्रातर् (bhrātar). VERNER’s law is a great illustration of this class. The change of Indo-Germanic tenues \( p, t, k \), into sounding spirants \( b, d, ḍ \). instead of into \( f, ṭ, ḷ \), as we expect according to the law of sound-shifting called GRIMM’s law, is entirely dependent upon accent. Original \( p, t, k \), become the sounding spirants \( b, d, (h,x) \) only if the preceding sonant does not bear the accent e.g. Got. hund, Sk. शतम् (sātām); O. H. G. Swigar, Sk. श्रुत् (śvaṣrūḥ), Gk. hekurá, O. E. sweger.

What is called ablaut\(^2\) or vowel gradation, a phenomenon which played a great part in the formative period of most of the Indo-German languages, is held by scholars to depend

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1. MACDONELL, Vedic Grammar, p. 61.
2. MERINGER, Indo-germanische Sprachwissenschaft, p. 88 ff.
entirely upon accent. Ablaut means the change, qualitative or quantitative, of the vowel phenomenon between related words or parts of words; e. g. πέτομαι (pētōmai), ποτάμαι (pōtāmai) ἐπτόμην (ēptomin).

Here the medial form of the present shows e under accent, and the variant o before it, and is altogether dropped when it is further removed. These are called the e, the o and the nil grades.

δέρκομαι (dérkōmai), δέδορκα (dēdōrka), ἔδρακον (edrákon) Sk. δάρσα (dadārśa), ὄρα (drāta).

This gives εφ, οφ, ρ, (ερ, ορ, ι) i. e. nil as the grades.

The series of forms showing e or o are called the strong and the series showing i, u, l, r, or nil the weak grade. Diphthongs too show the gradation. Thus there would be:

Strong grade. | Weak grade.
---|---
 e  :  o  |  nil  
 ei  :  oi  |  i  
 eu  :  ou  |  u  
 em  :  om  |  m  
 en  :  on  |  n  
 er  :  or  |  r  
 el  :  ol  |  l  

Examples:
Gr.¹ πέδα (pēḍa)  πόδα (pōḍa)  ἐπίβδα (epībda)
(f) eido mai  (f) oida  (f) id-eiv
...  ἕδα (vēda)  βιδά (vidmā)
πατέρες (patēres) ἀπάτορες (apātōres) πατρός (patrōs)
πितάρα (pitaṛaḥ) त्वात्पिताराः (tvātpiṭāraḥ) T. S. piṭra, (piṭrā)

PRINCIPLES

प्रेम (प्रेरो) फोरो (फौरोस) दूःफोस (दीफौरोस).
क्षेर (भारे) ब्रह्मार (बाब्रह्मार) (व्र-अर, (स्वा-भ्रा)
विभ्रति (विभ्रति),
सृति: (भृति)

est
sunt

अस्ति (अस्ति) सन्ति (सन्ति) (where dropping of the अ (a) is weak grade)
पपात (पपाता) पप्ति (पप्तिमा) (classical पेतिम petima)
नपात (नपात) नप्ति (नप्ति) Vedic.

непос

जनसू (जाना) जाति (जाति)
रेवोस (रेवोस) रे-वोबा (रे-वोबा) गि-गोबा (गि-गोबा)
चत्वाराः (चत्वाराः) तुरिया (तुरिया)

(for तृतीया turiya)

Add:—

एमि (एमिः)
इमषः (इमां)

ददर्सा (ददरसा)
दद्रुष (दद्रुष)

विभ्रारणि (विभ्रारणि) विभ्रृति (विभ्रृति)

In the same category fall changes called संप्रसारण (संप्रसारण). The Sanskrit grammarians were conscious of this vowel-gradation above spoken of. Some modern scholars therefore call this *Ablaut simply संप्रसारण. (Samprasaraṇa).

*Ablaut = Regular vowel gradation. DR. SUNITI KUMAR CHATTERJI suggests 'अपश्रुति' (apashruti) for ablaut in his Indo-Aryan and Hindi, 1942. Examples of Ablaut from English: sing—sang—sung, song. A vowel-change to indicate tense-change in strong verbs. Similarly, this law is seen operating in the formation of plurals in English: man, men mouse, mice; goose, geese; foot, feet; Also money, mint; book, beech; doom, deem. Brother—Brethren is interesting as it gives actually a double plural. There are two varieties of ablaut in Indo-European: (1) qualitative and (2) quantitative. The Sanskrit grammarians have only noticed the quantitative ablaut in गुण (गुणa), प्रश्र (प्रश्रधि) and संस्करण (संप्रसारण). Ed.

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० व, र, (ya, va, ra) changed to इ, उ, ऋ (i, u, r); यास्तेवे, याः (yāstave, yajñā) changed to इ (isā); वाक्लेवे (vāklave) changed to उक्तः (uktā); ब्रभे (grābhe) changed to गुम्भे, ग्रहीत (grbhē) (grhīta); सुष्वाप (susvāpa) changed to सुष्वांस (susvāṃs); वष्टि (vasti) changed to उष्मसि (uṣmāsi); स्वप्नः (svāpnah) changed to Gr. ὑπνός (hūpnōs) O. Sl. sūnḥ; वारस (vārca) changed to उल्कः (ulkā).

Other examples of संप्रसारण (samprāsāraṇa) under the influence of accent are

वक्षस (vāksas), उर्जो, उर्जति (uksā, uksati); अवसर (avasran), उर्ज, उर्जस (usrā, usās); वरियस, वरिष्ठ (vāriyas, vāriṣṭha) उर्ज (urum); (सं) बसर (sam-varṣa) Gr. Fétis (fétos), परत (parut), परूस (pūrasi); स्वर्ग, स्वदित (svadhā svadhitā), तु–Cl. तुया (su) (sudhā) राजि, राजित (rājih rajīṣṭha), कुर्ष्टि, कुर्ष्टि (rjū, rūṇjati); प्राथति (prāṭhati), प्रथिवि, प्रथु (privi, prithu) चत्तर: (catvāraḥ) चढ़िर: (catūraḥ); स्वान् (svan); सुन: (sūnah).

WACKERNAGEL has put together quite a number of examples of gradation of vowels under the influence of accent.

(3) The गुण (guna) and वृद्धि (vṛddhi) phenomenon, according to which the same root or stem, either in accordance with its meaning or the kind of formation, shows now an इ, उ, ऋ, ल, (i u, r l) or य, व, र, ल, (y, v, r, l) now an ए, ओ, ओर, ाल, (a, o, ar, al) and now an ए, ओ, ओर, ाल, (ai, au, ār, āl) was observed and properly understood by our old grammarians. The same was also acknowledged by philologists to belong to the primitive Indo-germanic language and was, together with संप्रसारण (samprāsāraṇa), by them called ablaut. The change between गुण (guna) or वृद्धि (vṛddhi) and the simple or basic vowel depends almost exclusively upon accent. And, as a general rule, the syllable of the stem under accent shows

1. WACKERNAGEL, Altindische Grammatik, p. 64.
गुण (guna), the syllable before the accent however only shows the simple vowel,

एमि (émi), एषि (ēsi), एति (ēti): इमि (imā), इषि (ithā),
यंति (yānti); आमग्नि (āpnomi), आमग्नि (āpnomi), आमग्नि (āpnoti);
आप्नुम (āpnumā), आप्नुह (āpnuhā), आप्नुह (āpnuvānti); ददर्सि (dadarsa),
ददर्सित (dadarsitha), ददर्सि (dadarsa): ददर्सिम (dadarsimā),
ददर्सि (dadarsā), ददर्सि (dadarsāh); वार्ड्ह (vārdhāya):
वर्धया (vrdhaya); विद्वेष (vidvēsa); विद्वेष (vidviśā).

A few exceptions, like the weak form with ॠ (r) under accent, e.g. विक (vika), can be explained as partly due to the transference of the vowel from related forms and partly to the shifting of the accent. The theories, that some function was expressed by the गुण (guna) of the basic vowel, or that the suffixes caused that change, are only interesting from the antiquarian’s point of view.

(4) Phonetic change also takes place in a syllable of a word owing to the influence of another syllable.

In Lat. quinque, the first syllable owes its labio-velar to the influence of the last syllable. Sk. स्वरुः (svārūḥ) owes its initial स्र (ś) to the second one, as words like Lat. socer, O.H.G swīgar show. The former is an example of the influence of a whole syllable upon another. But simple sounds affect other simple sounds, as in Gr. ei, which becomes ee = ē, ou, oo = o. Vowels affect vowels, as in O.H.G. gesti, for Goth. gasti, where i has affected a and consonants as in Gr. σι (si) which comes from τι; in Gr. te (te) Indog. qwe; o palatalises the labio-velar in quo which becomes το (po). Consonants also affect consonants, as in Gr. omma for ὄπμα (opma); Sk उर्ता, उर्ता, Lith. viūna, Goth. wulla, Ger. wolle. These are called combinatorial changes.

(5) Assimilation.—We shall however speak only of changes represented by O.H.G. gesti fr. Goth. gasti, Pr. सिविण (sivina) through सुविण (suvina) from स्वप्न (svapna) and Lat.
quinque from pinque. These are called changes due to assimilation. This is of two kinds (a) either progressive, when an earlier sound or syllable affects a later one; e.g. सत्रोति (ṣṭrōtī) where the previous र (r) has affected the original dental न (na) and changed it to cerebral न (ṇa). This has been recognised by पाणिनि and generalized in the सूत्र, रशास्यां नो ना: समातपदे (sūtra, rasāśhyāṃ no nāḥ samānapade) and by prakritists like Jacobi1.

Pr. चक (cakka) (Mar. चक cāka) from Sk. चक (cakra) shows progressive assimilation. वज्र (vajra) from वञ्ज (vajra), चतुर (caccara) from चतुर (catvāra), सवत्ति (savatī) (Mar. सवत) (savāta) from सपत्ति (sapatī), अत्त (ātā) (also अध्या) (āppā) from आत्मन (ātman), सुधु (mukka-mukta), वेंगन (veiragga-vairāgya), अग्नि (aggī) (Mar. अग्नि) (āga)-आत्म (agni), ताक (takka) (Mar. ताक) (tāka)-तक (takra), वाघ (vaggha) (Mar. वाघ) (vāgha) from व्याघ (vyāghra) गम्भ (gabha) (Mar. गम्भ) गम्भ (gābha-gābhaṇa) from गम्भ (garbh), show the great effect of this law in Prākrīts; or,

(b) regressive, when a following sound or syllable affects a previous one and lends it its own character; e.g. It. otto, Viittorio, for Lat. octo, Victūrio, quinque for pinque; Pr. की (kajja) (Mar. काज) (kāja) for Sk. कार्य (kārya) where the र (ra) assimilates itself to the य (ya), which is palatalised. Sk. स्वास (svāsaṇa) from original स्वास (svaśura), shown by Gr. ἕκορος (hekōros), Lat. socer, Goth. swunhra etc., Sk. ह्यास्र (śmaśrū), Old Ir. smeč, छिन्न (chinna), अन्न (anna) from छिन्न + न (chid + na) and अन्न + न (ad + na) are other

examples of regressive assimilation. Pr. लिवि (siviña) through मुवि (suviña) from स्वम (svapna); उच्छ (uccha) (Mar. उच्छ-द्र बु (ūśa)-(ikṣu), सद्व-सार्थ (sattha-sāriha).

The explanation of the fact is not very difficult. Although a word or sentence is produced by a succession of articulatory movements, still, so far as the speaker is concerned, he has the idea of the whole in his consciousness the moment he begins a word or sentence. He has the apperception of the sound and its meaning together in a uniform simultaneous act. When, therefore, an assimilation takes place, the process is something like this. An individual sound-idea, which has some sort of superiority over another, gets into the place of that other, and thereby the articulatory movement which corresponds to the former, pushes itself into the place of the other.

A law of assimilation has been postulated for the Prākrits by BOLLESEN, according to which मिष्टिन्धिः (miśṭiṇḍhiḥ) or माणिि (maaṭiṇḍhiḥ) would represent Sk. मृगात्सिनिक (mṛgatśiṇiṇī); i.e. if त्रु (tṛṣṇā) be changed in Pr. to तण्ड (taṇḍā), the word मुग (mṛga) before it will have an अ (a) by assimilation, but if it be तिन्ध (tiṇḍā), then मुग (mṛga) would be मिष्टं (miśṭa). This, however, PISCHEL rightly points out, cannot be insisted upon, as the grammarians and the texts give now one form and now another. Thus, for instance, we have both मठं (maṭamka), मिटं (miṭamka) and a third मिटं (miṭamka) for मुगं (mṛgāṁka). We also have मं (maγa) for मुग (mṛga), but मिट (miṭa) for मुग (mṛgaya). अण्ण (aṇṇa) for अल्प (aṇya) and काल्ल (kalla) for कल्य (kalya) are other examples.

(6) Dissimilation:— The opposite of this is dissimilation. Sometimes two similar sounds are instinctively avoided, by

*Examples from English are God + sib=Gossip; ad + seacre=assize. Ed.
displacement or change of one of them. It can be both progressive, and regressive like assimilation.

Our Prākrits abound in the second class of dissimilation. मऊद (maudā), Sk. मुक्त (mukta), गछा (garua) (e. g. गरावी गुजरात-गुर (garavi-gujaratā-guruka), नेउर-नूपुर (neura-nūpura), पुरीस-पुरुषा (purisa-puruśa), नांगल (nāngala) Mar. नांगर-लांगल (nāngara-lāngala); Gr. Θηλητηρ (thilitir), for Θηρητηρ Lat. celebrum for cerebrum. Examples of the first, where a similar sound is lost are: वध्रा (vadhra) Vedic, for वध्र (vadhra), Gr. φάρτρα (phatria) from φράτρα (phratría), नाद्ध्य (nabdhyā) from नाद्ध्य (nabdhyā) dat. plu. of नपत (napat); टिष्ठ (tiṣṭha), टस्त (tasthau) from स्था (stha); कस्कन्द (caskanda) from स्कन्द (skanda)— in fact all reduplicatives of conjuncts.*

It is interesting to note that the Latin shows in the reduplicative syllable the full conjunct; e. g. as against ठिष्ठ (tiṣṭha), टस्त (tasthau), Lat. has spopondi to spondere, steti to stare, sicidi to scindo. Yet it has not escaped the law of dissimilation. The same phenomenon, with a slight change, is seen in intensives in colloquial Marāthi, म-मह (ma-marūna) to classical मरमह (maramarūna), म-मह (ma-mārūna) to classical मारमह (māramārūna). Of course forms like घे-घेऊ (ghe-gheūna), खा-क्खाऊ (khā-khaūna) which show the regular reduplication of the monosyllable, must have had influenced such formations as म-मह (ma-marūna). Nothing need be said of contact of words in sentences or of stems and terminations, known as the सन्धि (sandhi) phenomenon. It is familiar to the students of Sanskrit. We find there some kind of assimilation हरी + इच्छा = हरिच्छा (Hari + icchā = haricchā) or जगत + जीर्णत = जगजीर्णत (jagat + jirñatā = jagajjirñatā) due to associative interference.

*Eng. opposal, puzzle, poser; cinnamon for original cinnamom and Mar. नेज mensa for मोम (moma). Ed.
Before closing this branch of the subject, we have to deal with certain phenomena of sounds, without which this topic would be incomplete.

7) Prothesis:—We find that in some languages certain vowels are developed before certain consonants. The Greek, for instance, has an e before words beginning with sounds like r, n, m, w; Sk. रुद्धिर (rudhirā), Lat. ruber, Ger. roth, Eng. red, O. Ir. ruad; but Gr. ἐρυθρός (eruthrós); Sk. राज (rājaḥ), Goth. riquis, Gr. ἱερός (hieros); Sk. लघु (laghu), Lat. levis, but Gr. ἠλάχυς (ēlechus); Sk. नर (nr), Gr. ἄνήρ (anēr); Germ. melken, Lat. mulgeo, but Gr. ἀνέλγω (amélgo); Sk. नख (nakha), Gr. οὖν (ōnū), नामन (nāman), Gr. ὀνομά (onomā).

Our Pr. इत्तिय (itthiyyā), हृथिय (itthi) from Sk. श्री (strī) is a good example. In the Panjab and U. P. people still say हृथि (istrī), इस्कुल (iskūla). In colloquial कुबि Marāthī we have अस्नान (asnāna) for स्नान (snāna), अस्तुरी (asturī) for श्री (strī). Probably a difficulty was felt in pronouncing the conjunct with an initial sibilant, and as a sort of balance a vowel was pre-pronounced. Mohommedans always say इस्कुल (iskūla), इस्तेसन (isṭeśana), इस्तात्द (isṭāntāda), इस्तीक (isṭika), for इस्कुल (iskūla) etc. The French école for Lat. schola shows the same thing. This phenomenon is called prothesis.

8) Anaptyxis:—Another similar phenomenon is the insertion of a vowel between combination of sounds, which are difficult to pronounce. Gr. ἑβδομός (hēbdomos) from old ἡβδόμος (hēbdmos). English elm is actually pronounced elem. This is called स्वरभक्ति (svarabhakti) or anaptyxis. In some hymns of the Rgveda, इंद्र (Indra) becomes trisyllabic, इंदर (Indara), दर्शन-दर्शन (darśata-darāṣata). This is very common in colloquial language; Mar. पराकार for प्रकार (para-kāra for prakāra), भरम for भ्रम (bharama for bhrama), इपर for विप्र (ipara for vipra), प्रथिति and प्रथ्वी, (prthiitī and prthvī)
and स्नृ (suvar and svar), सुवर्ण and स्वर्ण (suvarṇa and svarṇa) are cases where both forms are current in the Sanskrit language. धर्म (dharama for dharma) is found in Mar. inscriptions of 13th and 16th centuries A.D. Pr. किलिन्त (kilinta), सिन्द्ध (sīniddha) for Sk. क्लांत (klānta), स्निग्ध (snigdha). A variety of the same phenomenon is seen in the insertion of a consonant between two consonants belonging to different places of articulation. This newcomer helps the tongue in passing from one place to another and is in fact a transitional sound; Gr. ἀνδρός-ἀνίρ (ándros-ánir), Mr. तुम्बळ (tumbala), Sk. तुमुल (tumula); Col. Mar. कम्बळ for कमळ (kambala for kamala); सुन्दर (sundara), Ved. Sk. सुनृ (sūnari); Col. Mar. वान्द्र, वान (vāndara vānara); Mar. ताम्बळ for ताम्र (tāmbāḍa for tāmra) हुम्बरी-तम्बरी (humbari-tumbari), कम्बळ (kambala) अंबळ, (Ambala), तान्ताबल, (tārāmbala), उंबळ (umbala), हृष्टेल (hṛṣṭalē) for हृष्टेण (hṛṣṭalē), म्हृष्टेल (mṛṣṭalē) are other examples. आम्ब (āmbā) from आम्र (āmra), however belongs to progressive assimilation.

9) Syncope.—Opposite of this is what is called syncope. The name is applied to loss of a vowel, the loss of a syllable being named haplology. Lat. dexter for deksiteros, जम्च (jagmuh), जम (jmā), गम (gmā) from गम (gam), राज (rājan) from राजज + आ (rājan+ā) show syncope of अ (a). भूम (bhūmā), प्रेम (premā) are other examples. अपस्त (apastā) is a typical verbal form showing syncope of अ (a). Col. Mar. पाल (paldā), वर्त (varāḍā). Sanskrit inflection and conjugation show many examples of dropping of vowels.

(10) Haplology.—Haplology is a name given by Bloomfield to the phenomenon where of two similar syllables following each other, one is dropped. The condition for haplology is that one sound, at any rate, in the two consecutive syllables must be common: e.g. semimodius gives semiodius;

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1. Brugmann, Kurze Vergleichende Grammatik, p. 244.
Gr. ἀμφί-φορεὺς (amphi-phoreus) gives ἀμφορεὺς (amphorēus)
(ševa-vṛdhaḥ) gives शेव्र्द्ध: (śevṛdhaḥ) जलौहि (jālhī)
gives जहि (jahi), imperative of हा (ḥa) to abandon; शस्प+पिन्जराहः
(śaspa+piṇjaraḥ) yields शस्पिन्जराह: (śaspiṇjaraḥ); Col. Mar.
गेलौ (gelō) for गेलो-होत: (gelō-hotō); Mar. विता (vita)
for वितस्ति (vitasti), गुराखि (gurākhi) = गुरे + राखि (gure +
rākhi); गुरेक+केले (suke + kelē) gives गुरेकेले (sukele).

(11) Metathesis:—Lastly metathesis plays a considerable
part in phonetic change. This is when two sounds in a word
change places. * It is transposition of sounds or letters in
word. The word आस्त (āpta) from आत्मा (ātmā) through
आत्सा (ātpā) is held by PIschel\(^1\) to be an example of
metathesis. Striking examples of this are our मरहत (marahaṭṭa)
(Pr. and classical too), Mar. मरहह (marahē) (often in
जानेश्वरी (jānēśvarī) for महराप्त (mahaṛaśtra), वाराणसी (vārānasī)
the original of the Eng. word Benares) for वाराणसी (vārānasī);
दीरह (dīrha), (Hindi देर) (dera) from दीर (dirgha) through
dीर (diraha); पाह्यामो (pāhaṃmō) (Mr. बाह्यम) (vāhyā), Sk.
उपाण्डो (upāṇaḥo); Mar. हाँ (hānum), Sk. लघु (laghu); लात (lāта)
by dissimilation gives लात (nalaṭa), then by meta-
thesis नालता-नाथाल-निर्धार (nalaṭa-naḍāla-nīdhāra), seen in modern
Mar. निर्धार (niṛḍhāra) e. g. निर्धारता (niṛḍhārtā) घाम (ghama);
Col. Mar. फाक (phākaka) for Col. Mar. फाक (phākaka); Col.
Mar. फाल्का (fālēka), ववत (varuḍa); चितक (citaṭaṃ), and
चितक (citaṭaṃ), दोक (dokasē), and दोक (dosakē),
टिका (ṭikā) for टिका (tilaka), माहोत (māhotara) for मुहुरती
(muhūrta). पत्त्व (pachāna) in जानपद्ध (jānapachāna) through
पत्त्व (paccabhāna) from Sk. प्रत्यभिज्ञ (pratyabhijñāna),
नाहें (nāhēṃ) through न्या (niṃ) from Sk. न्या (niṃ); Col.

* It is called Spoonerism, when occurring in a phrase or sentence:
boiled iced for oiled bicycle is given by Oxford Dictionary. Many
thinks were for many people the same; and the church for

Hindi नखलौ (nakhalau) for लखनौ (lakhanau), समग्नेर (samamganera) for संगमनेर (sangamanera), Mar. तहान (tahāna) from Pr. तण्ड (tyānā), which again is due to metathesis from तृण (tṛṇa).

(12) Change conditioned by rhythm and quantity:—There are two minor classes of conditional changes. The change for rhythm; e. g. the prosodical lengthening of a final अ (a) seen in Vedic विदा मघवन विदा (vidā māghavan vidā); and change conditioned by quantity. For example नीच–नित्य (nīcānitya) through निच (nicca); the lengthening of the first syllable is due to the preservation of quantity. The quantity-law, as it is called, has exercised a powerful effect over the phonology of the Prākrit languages. पक्व (pakva) through पिक्क (pikka) gives पिक (pika); प्रेष–पुष–पाठ (prśha–paśha–pāśha), रक्ष–रिक्ष–रिस (ṛksa-richha-risa); वितस्ति–वीति (vitasī-vīta) is a fine example of haplophony and quantity-law combined. वर्तिका–वात (vartikā-vattā-vāta) is a further example.

Some of these phonetic phenomena were recognised by Sanskrit grammarians much older than Pāṇini. Yāska, for instance, who may have belonged to the 7th century B. C., points out some of these in the second chapter of his निरुक्त (Nirukta) thus: (a) अथायास्तर्निर्मितिस्थानेनु आदिलोपो भवति स्त: सन्ततिः (athāpyāsternirnirmitiśṭhāneṇu ādi-lopa bhavati stak samtti); this is recognition of accent as a factor in phonetic change; (b) अथायास्तर्निर्मितिः भवति गृह्य गत्तम इति (athāpyāyantalo po bhavati gattvā gatam iti); this is combinatory change; (c) अथायास्तर्निर्मितिः भवति जग्मतुजःगुमितिः (athāpyāyupadālopo bhavati jagmaturjugmuriti); this is syncope in modern language; (d) अथायायायायिनिमयिः भवति ज्योति घन: (athāpyādiphāvaya bhavati jyotik ghana) etc; this is partly assimilation, partly dissimilation; (e) अथायायायायिमयिः भवति लोकः रज्जुः सिक्ता इति (athāpyādyantavuparyayo bhavati stokā rajjuḥ sikata iti); this is metathesis; (f) अथायाय वर्णपानन: अस्यत भवति महः इति (athāpi varnopajanaḥ āsthat bharūjā iti); this is anaptyxis.
15. **Phonetic laws not absolute like natural laws:**—If we explain sound-changes in any language historically, of course comparing various stages in its life with one another, we shall arrive at thousands of laws. There is, for instance, in Sanskrit what is called the *palatal law* with which we shall deal later. Then there is the law of quantity in the Prākrits whereby, in order to keep the quantity of the syllable inviolate, the preceding vowel is lengthened when the Sk. conjunct is simplified. But we must always remember, that these are not laws in the sense of invariable principles at all times, like scientific formulæ. When hydrogen and oxygen are chemically mixed together in certain fixed proportion, they will always produce water. Such an inexorable inevitability and strict consequence is never claimed for the phonetic laws. So that the principle so emphatically laid down in the eighties of the last century by Leskien, that phonetic laws brook no exception, need not be misunderstood. The curious fact however is, that whatever seems to break the recognised phonetic laws was sought to be accounted for. If, for instance, the form ꜊k ꜊w (hoktó pronounce hocto) in certain Gr. dialects seemed to militate against the accepted correspondence of aśṭa (aṣṭaì) or aṣṭa (aṣṭā), Lat. octo Goth. ahtau, Ger. acht, the reason was at once demanded. It was found out that ꜊k ꜊w (hoktó) got its aspirate on the analogy of ēptā́ (heptá́), with which the former was closely associated in the mind of the speaker. *Analogy* was thus accepted as a great force in phonology. We have seen how words like Goth. *fador*, which appeared to go against Grimm’s law, attracted attention and were satisfactorily explained. But nobody cared to explain why at all the first sound shifting took place. Thus while causes of apparent exceptions were eagerly sought for and accepted, the general rules were accounted for by general causes of phonetic change.
a. Recapitulation of Causes of Phonetic Change:—
Of course the causes for phonetic change in general, of which we have spoken in a previous section, are always adduced, when phonetic change as such is in question. The very give and take of daily intercourse, Verkehr or Usus of Paul, wherein no speech material can be expected to remain intact, the basis of articulation, i.e. peculiar position and structure of speech organs, of a given community, which accounts physiologically for certain changes, the motory sensations which in the nature of things cannot be identical even in the case of two individuals of the same speech-community, all these internal causes, and extraneous circumstances like social, religious, political upheaval, conquest, migration, contact due to commercial and other intercourse, language mixture etc. account in a general way for phonetic change in the abstract.

But some philologists are not satisfied with this general explanation. Oertel1 says, almost in a complaining tone, "But how about the phonetic law itself? Is the demand for a causal explanation extended to it? By no means. The phonetic law rests its claim to recognition not upon a causal explanation but upon its relative universality. That is to say, because a certain sound change can be observed in a large number of cases, it is elevated to the rank of phonetic law. The question why such a change took place is not asked. It is only in the case of exceptions that we meet the demand for a causal explanation." After explaining how Brugmann and others distinguished between mechanical phonetic change due to association i.e. analogy formations, which changes are explained by others by the words physiological and psychological changes, he draws attention to the twofold result of the creation of this term phonetic law.

The wholesome result of this was, that it enforced strict scientific methods of phonological investigations.' But the deplorable result, according to him, was, in the words of the celebrated philosopher Eucken quoted by him, that 'A liberal use of the term law has made very complicated problems appear as if they were simple and stood in no need of further analysis'. He states a double problem, the investigation of the degree of uniformity which sound-changes exhibit; and the reason for such uniformity. He comments upon the usual reply, as he calls it, to the latter problem, viz., simultaneous change in the articulation of a large number of individuals tending in the same direction. He says it rests upon three fundamental errors, (1) regarding linguistic facts as individual; instead of as social production, (2) seeing in social inter-communication a conservative factor only, while in fact social contact and the imitation which it involves are at the bottom of the changes as well, (3) failing to distinguish between the origin of a change and its spread.

The only constructive solution which he offers of the second problem stated above, is the immense importance that he arrogates to social imitation. This in fact was never denied by eminent philologists, like Whitney, Paul and Brugmann, who have given imitation its due. Again it is as general as the causes of phonetic change suggested by others. Once for example, while trying to find the cause of the German sound-shifting, Oertel has tried to put forth specific causes. While considering individual causes for phonetic change and dismissing many as unsatisfactory e.g. lethargy, or the uselessness theory, he allows some merit to speed of utterance as a cause of change. 'It is' he says¹ 'also the immediate reason why words which are often used, undergo phonetic changes which do not affect words, which are more rarely used and therefore more slowly pronounced.'

¹. *op. cit.* p. 209.
the bye, we might not agree with the *therefore* of OERTEL. For, frequency of use of a word already learned and stored in memory cannot affect perceptibly the time required for its pronunciation. He is right when he says, that we have no grounds to believe that in many languages the rate of speed increased as time went on. He almost apologetically puts forward as likely 'another cause', which might be immediately responsible for this change, namely "an increase in the force of the expired current." It may be a good cause, when we assume that it was a fact. But the external *why* still remains. Why should the Germanic tribes only find it necessary to increase the force of the expired current? Was it climate or the country or the general surroundings that made them do so? Or was it some physical incapacity that made them do so, just as the South American Abipones were said to have no labials, because they were supposed not to be able to close their lips?

16. **Importance of Association:**—The words that we hear others speak and ourselves utter are not preserved in our mind in an isolated form; but as soon as they are heard, they attract each other in the mind and form several groups. These latter enter into larger ones. Nor should it be thought that these groups themselves are not interrelated. They cross and recross one another. A network of associations is formed which makes it possible for the individual to remember most of what he hears and to be able to recall all that is learned and thereby also to help in making new words and forms.

This association of the ideas or impressions of words in the brain, is the basis of all *analogy* formation *i.e.* the second important kind of linguistic change.

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1. *op. cit* p. 213.
2. PAUL, *Prinzipien der Sprachgeschichte* p. 106.
Before psychology was recognised as an experimental science, the truths of which could be tested, any unaccountable change in language was treated as irregular and inexplicable. If a certain form or group of forms appeared to militate against a recognised phonetic law, it was simply set aside as an exception. So that as the regular science of language progressed, the number of exceptions, unaccountable as they were thought to be, seemed to grow, threatening to upset the small claim the study of language had established for itself to the title of science. But about the eighties of the last century, a band of young philologists arose—BRUGMANN, OSTHOFF and others—who boldly came forward offering an explanation of the so called exceptions. They proved conclusively the claim of analogy based upon association as a principle to be reckoned with in the phenomenon of linguistic growth. It was pardonable, that in the enthusiasm of this discovery, some of them went rather too far, and wanted to set down any divergence from the recognised rule as due to analogy. But as they sobered down, the fact remained, that many disturbances observed in the phonology, morphology, syntax and semantics of a language, were due to the working of this psychological principle of analogy. It was also for some time called false analogy. Since association of speech material into various groups, caused by similarity of sound or sense or both, is the basis of all analogical change, it will be worth while to know this aspect of language better. Because analogical disturbance, caused by one word or phrase in another, or by a form of one word in another form of the same word, is "impossible without some sort of associative contact." The converse, however, it should be remembered, is not always true.

'Association', as OERTEL describes it, 'in the broadest sense of the term, is the recall to consciousness by some conscious element, of one or more psychical elements which

1. OERTEL, Lectures on the Study of Language p. 150.
have passed from consciousness'. Association is immediate or mediate. In linguistics we have chiefly to do with imme-
diate association. This latter is divided into association by
sound and association by sense. The first is the basis of
analogical disturbances in phonology, morphology and syntax;
the second of disturbances in the semantics of a language.
OERTEL assumes a third group of functional associations,
because certain analogical disturbances cannot properly be
brought under the first two. The s, for instance, that certain
adverbs like sometimes have taken on the analogy of noun
adverbs like always, lengthways (wise), sideways, is not due
to the association of sound or sense of these words, but only
to the association by function viz. that they are all adverbs.

Analogical change does not touch the pronunciation of a
language as a whole, as phonetic change does; it chiefly
affects formation of words, inflection, syntax and meaning of
words or group of words. We shall speak of the last when
we come to semantic change.

Note that we advisedly say language as a whole, because
there are stray phonetic changes due to analogy as in Gr.
επεταί (épetai) which ought to be ἐπεταί; (épetai) but the
π (p) is there on the analogy of ἐπομαί, (épomai) where π
(p) is regular. Then वच (vachau) and वचः (vakah) dual
and plural, are irregular, because we expect वचौ (vachau),
वचः (vakah); but the former are formed on the analogy of
वचम (vacam) where च (ca) is legitimate.

(1) Analogical change in the formation of words:—
'Sometimes' quoted above is an example. The s of adverbs
like always was felt to be a formantic element and was isolated
from it to be used also in the case of words like sometimes
which clearly are adverbs.

The same is to be said with regard to र्तस्पति (rtaspati)
and रथस्पति (rathaspati) which take the स (s) on the analogy
of बृहस्पति (brhaspati), जास्पति (jaśpati), मास्पति (gaśpati), where it is legitimate as the gen. ending of these words that have entered into a compound. This was, however, looked upon as a distinct formantic element that could be isolated, and thus transferred to words like रथ (ratha) and कुट (ṛta) where it was not legitimate.

The same is to be said of एकादश (ekādaśa), where the अ (a) following क (ka) becomes long on the analogy of द्वादश (dvādaśa), where the long आ (ā) being the dual is legitimate. But that sense was lost, and it was also transferred to the form एकादश (ekādaśa). The Gr. ὑπτάκις (hoptakis) on the analogy of ἑπτάκις (heptakis) tells the same story. The latter two examples are not those of functional association, but of associaton by contact; एकादश (ekādaśa) and द्वादश (dvādaśa) ἑπτά (heptá) and ὑπτό (hopto) being closely associated in the speaker's mind. The same is observable when a child, asked to repeat simple arithmetical tables says तेवन (tevana), चोवन (covana) instead of त्रेपन (trepana), चोपन (copana) on the analogy of एकावन (ekāvana), बावन (bāvana). The child feels from एकावन (ekāvana) and बावन (bāvana), that वन (vana) the second part, is the element repeated and thus adds it to subsequent formations. Another change, or rather mistake, which we notice, is the confusion of the two decades from एकावन (ekāvana) to अश्ववन (aṭṭhāvana) and from एक्यावन (ekyāvana) to अश्वणव (aṭṭhyāvana), whereby the child unconsciously begins to say पञ्जावन (paṅcāvana), etc. in place of पञ्जावन (paṅcāvana). This is due to the disturbing influence of association, here of course by sound, helped by metathesis. Another interesting example is the compound अग्निमरूत (agni-maruta); it is irregular because we expect अग्निमरूत (agni-maruta) or at best अग्निमरूत (agnimaruta) with the lengthening of the े (i). It is due to the analogical disturbance caused by formations like इन्द्रमरूत (indrāmaruta) which probably also is due to इन्द्रगङ्गी (indrāgni) where long आ (ā).
is legitimate.) e. g. द्यावप्रथिवि (dyāvaprthivi). The word पश्चिमत्य (pāscimātya), which is becoming classical in Marathi instead of the regular पश्चाय (pāscātya), is due to the association of दक्षिणत्य (dakṣinātya).

(2) Analogical disturbance in inflection and conjunction:—This is a very vast field for analogical disturbance; because not only do forms of one word influence other forms of the same word, but forms of other words also influence the forms of different words.

(a) The instrumental, dative, genitive, and locative forms of feminine nouns in आ (ā) are formed on the analogy of those in इ (i). Thus देव्या (devyā), देव्ये (devyai), देव्या: (devyāh), देव्याम (devyām), are legitimately formed by the terminations आ (ā), ऐ (ai), आस (ās) and आम (ām). But प्रियया (priyāyā), प्रियये (priyāyai), प्रियया: (priyāyāh) and प्रिययाम (priyāyām) are not. Because the terminations being the same, we would expect forms like प्रिया (priyā), प्रिये (priye), प्रिया: (priyāh), प्रियाम (priyām). The Vedic language has kept the original instr. in आ (ā) e. g. दक्षिणा (dakṣinā). गुहा (guhā) but it was probably felt that ये (yai), या: (yāh), याम (yām) were terminations and hence forms were made like प्रियया (priyāyai), प्रियया: (priyāyāh) etc. These forms drove out the old regular ones, with the exception in some cases of the instr. sing. e. g. गुहा¹ (guhā) where the old instr. is looked upon as an adverb; also दक्षिणा याति (dakṣinā yāti). This was later looked upon as the crude form without termination used for sing. and on its analogy instrumental forms were formed from इ (i) ending nouns without termination; e. g. चुनीतिः (suniṭi) for चुनीत्या (suniṭyā), प्रणीतिः (praniṭi) for प्रणीत्या (praniṭyā), अचितिः (acitti) for अचित्या (acittiyā).

1. Rg. II 4, 9.
2. Rg. VI 45, 1.
3. Rg. III 51, 1.
4. Rg. IV 54, 3.
(b) The nominative and accusative plurals of neut. nouns in अ (a) appear to be formed on the analogy of nouns in अन (an). Thus कर्माणि (karmāni), सद्यांि (sadmāni) are legitimate but प्रियाणि (priyāni), दिनािि (dīnāni) are not. They are formed on the analogy of those of the former. In fact the nom., acc. pl. forms of all neuter nouns are formed on the analogy of those ending in अन (an). Thus analogy appears as a leveller, a force that makes for uniformity, just as phonetic change makes for difference and diversity.

(c) Here we find what is called proportion in analogy; for we can put in the form of proportion what we have said just above.

द: प्रिया : ( devi : priyā ) : : देव : प्रियाघ ( devyai : priyāyai )
सद्य : प्रिय ( sadma : priya ) : : सद्यांिि ( sadmāni : priyāni )

(d) The same is abundantly found in conjugation. Roots with a prosodially long अ (a) like कु (añj), अघ (arc), अढ (ardh) (कुध्र) ( rdh ) form perfect like आनि (ānāje ), आनिि (ānarca), आनििि (ānardha ). On that analogy roots without long vowel like कु (rc), अघ (as) etc. reduplicate in the same way, i. e. by lengthening the अ (a) and infixing a न (na); आनि : (ānrcuh ), आनिि : (ānāse ).

अघ : अघ (añj): ( as ) : : आनि : आनिि (ānāje ) : (ānāse ).

(e) The Vedic word नयांि ( napāt ) is a peculiar example where the old regular phonetic form and the new change brought on by analogy are still found side by side.

नयांि ( napāt ), नयांिि ( napālam ) but also नयांि ( napīrā ), नयप्रेष ( naptre ), नसि ( naptah ) in Veda itself; (तनुपाति ) ( tanūnapāt ), ( तनुपातिि ) ( tanūnapālam ). The latter is an analogy formation. Because नयांि ( napāt ) is a word indicating family relationship, words of which class show the suffix त (tr) त (tara), त (tūra) ( ṭr, tr, ṭr, ter, ṭor, tor ), on the analogy
of such, नपत् (napāṭ) was given a second form नप्त्र (napṭr), like पित्र (pitr), (which is current in classical Sanskrit), the inflections of which run side by side with those of नपत् (napāṭ).

नपत्तम् (napātām), नद्र्क: (nadbhiḥ) (from original नदब्र्कः (nadbṛkḥ), नपारम् (napārām) etc.

The same is the case with the oblique cases of पति (pati) and साखि (sakhi). पत्ये (patye), पत्युः (patyuh), साख्ये (sakhye), साख्युः (sakhyuh) are formed on the analogy of पित्रे (pitre), पितुः (pituḥ).


This is partly analogy based on association by sense.

The instr. sing. of nouns in अ (a) is formed after pronouns, रामेन (rämena) on the analogy of तेन (tena), अनेन (anena). Regularly it ought to be formed by adding आ (a) as in राजा (rājā).

(3) We come now to the third class of changes due to associative interference. This is also sometimes called contamination. Two phrases or sentences representing the same idea but in slightly different form, are apt to be so confused that they interchange parts with each other. There must, however, be some pivot common to both, round which the two parts of both the phrases appear to turn. OERTEL has quoted several German examples, put together with so much care and effort by the German scholars MERINGER and MEYER. He has quoted only one English example, e.g. Living in what to the Chinese is regarded as wealth. This is a fusion of the phrases:—

Living in what by the Chinese is regarded as wealth, and living in what to the Chinese seems wealth.

अरे, तू हें मनाल ठेवील (are, tū hē mandāvara ṭhevasīla) of an enraged missionary, is the fusion of तू हें मनाल ठेवील (tū hē
manāta thevaśīla) and ānāhī maṇavara gheśīla. 

Mālā tē kāma hota nāhī (mālā tē kāma karaṇa nāhī) is again a good example of the fusion or contamination of:

Mālā tē kāma karaṇa nāhī (mālā tē kāma karavata nāhī) and mājhyānē tē kāma hota nāhī (mājhyānē tē kāma karaṇa nāhī).

Tō jañēse ḫaṇato (to jāvesē ḫaṇato) is a contamination of the two good sentences tāla jāvesē vālātē (tyūlā jāvesē vālātē) and tō jañēse ḫaṇato (to jāvesē ḫaṇato).

Even mālā tē kāma karaṇa tē (mālā tē kāma karavata) which is good classical Marāṭhī arising from a fusion of

Mālā tē kāma karaṇa tē āhe (mālā tē kāma karavata āhe) and mājhyānē tē kāma karaṇa (mājhyānē tē kāma karavata). This contamination is inexplicable without a close association of the sentences in the speaker's mind.

The following from Moropantī is also a good example: 

Pāhūni tattkalatrē smarāṇē munivaca manāta satvāra tē (pāhūni tattkalatrē smarāṇē munivaca manāta satvāra tē): which is a fusion of tattkalatrē smarāṇē (tattkalatrē smarāṇē) and tattkalatrē āṭhavāle (tattkalatrē āṭhavāle).

17. SEMANTICS:—The class of change we are to treat now is semantic change, or change in the meaning of words. This part of the science of language received but scanty attention in the early days of our science and perhaps for good reason. The phonetic side of language attracted most attention, because the material it offered was copious; it was also more interesting. Such was not the case with semantics. It was not possible to say what meaning a particular word or words carried in prehistoric or even in historic times; and the connection between the old meaning, whatever it was, and the current one, it was not possible correctly to establish. Students of the Veda can testify to the correctness of this remark. Not only is there great difference of opinion regarding the

Āryabhātṛata, Vanaparva, 13.48
meaning of words like व्युन (vāyuna), वेदस (vedas) but there are also words the sense of which is not yet possible to determine., e. g. नद् (nada) and लोध (lodha).

Yet the task of reducing this side of language to an intelligent branch of study was not hopeless and PAUL in his Prinzipien has devoted one whole chapter to it. BREAL, the French scholar, made this his special subject, wrote a monograph on it and afterwards published it in book-form. This book is available in the English translation of CUST.

*Intellectual laws of language:*—In the first part of the book, BREAL lays down certain laws which he calls intellectual laws of language. They are, (1) the law of specialization, (2) the law of differenciation and lastly (3) the law of irradication.

(1) As example of the law of specialization, he takes the comparative and superlative degrees.

In the old languages, the comparative could be marked by the suffixes *ro*, Sk. ऊपर: (uparâ), Lat. superus; Sk. अद्वर: (adharâ), Lat. inferus; *tero*, Sk. अत्तर: (antarâ), Lat. interus; *ior*, Sk. वरियस (varîyas); Lat. purior; the superlative by *mo*, Sk. अधम: (adhamâ), ऊपम: (upama), Lat. infimus; *temo*, Sk. अतिम: (antimâ), Lat. intimus; *issimo*, (Sk. नेदियस) (nediśha), Lat. dulcissimus.

But the old languages themselves have tried to generalise one set of termination as against another, e. g. Sk. ईयस: (iyas), ईष (iṣṭha); Lat. ior, issimus. This is the first step towards simplicity.

But the later languages, French, German, Marāṭhī, for instance, while still keeping some comparatives in the old manner, have lost this dead mechanism. “Not”, as BREAL rightly says, “in consequence of phonetic law.” The law that operates here is, according to him, the law of specialization.
One single word assumes the functions of all these comparatives and superlatives. In French it is *plus*, in English *more*, German *mehr*, Marāṭhī अधिक (*adhika*). It must be noted that this specialized word is, in many cases, itself a comparative. To quote BREAL, "Among all words of a certain kind distinguished by a certain grammatical imprint, there is always one which is little by little drawn apart from its fellows. It becomes the pre-eminent exponent of the grammatical conception of which it bears the stamp. But at the same time, it loses its individual value, and is no more than a grammatical instrument, one of the wheels of the phrase."

The substitution of prepositions for the ancient declensions is another example, e.g. मजपेश्वां (majapekṣā) for Sk. मत् (mat) or मत्त (matāḥ), मजकरितां (majakaritā) for Sk. महयम् (mahyam). The termination of the preterite, *ed*, which was originally only a preterite form of the verb *do* e.g. *dide*, hunger-dide, hunger-de, is specialized as a termination of the preterite. असें (asē), अससा (asasa), असें (asē), themselves forms of the present historically used, of अस (as), are specialized to signify habitual past and used with pres. part. of roots, e.g. मी करित असें (mī karita asē).

(2) Differentiation is defined as the 'international ordered process, by which words apparently synonymous, have nevertheless taken different meaning' and can no longer be used indiscriminately.

Take, for instance, the words माता (matā) and आई (āī), both meaning originally *mother*. The latter word is borrowed from the Dravidian languages. The word आई (āī) is the more homely, affectionate name for mother, while माता (matā) is meant to give expression to awe and reverence. Take the words कार्य (kārya), कज्जा (kajjā) and काज (kāja) the legitimate Prākrit-Marāṭhī descendents of Sk. कार्य (kārya). But when
the word कर्य (kārya) itself was borrowed from Sk., they were no longer looked upon as mere synonyms; but कर्य (kārya) came to mean ceremonial and कर्त्ता (kajjā), a legal cause. The same process is observable in the French chose—a thing and cause—reason, legal affair.

Again, for instance, मनस (manas), मनुष (manuṣ), मति (mati), मनन (manana), मन्य (manyu), all belong to root मन (man) to think. In the last the feeling aspect is emphasized, the first three relating to thought. Even amongst them, there is differentiation as मनस (manas) mind, मति (mati) thought, मनन (manana) constant thought, deep concentration. This last form is a transition to मन्य (manyu). हृदय (hrdaya) a तत्सम (tatsama), and हिया (hiyā), a तद्भव (tadbhava) are also good examples. The latter, which in the Jñāneśvarī itself is used in its original sense of heart, came later to be used in the sense of courage; for heart the Sk. हृदय (hrdaya) was borrowed. The same is the story of पुस्तक (pustaka) and पोथि (pōthi), मार्ग (mārga) and माग (māga) which latter means trace or track, e. g. of a thief, स्थान (sthāna) and ठाण (thāna), स्थान (snāna) and नाहाण (nahāṇē) which in its Pr. from ठाण (ṭhāna) meant bath only, but now it is used in a specialized sense; वेण (veṇā) from वेदन (vedanā) through Pr. वेणण (veṇāṇa) and the तत्सम वेदन (tatsama vedanā) itself are good examples.

(3) The third phenomenon is that termed irradication. It covers quite a series of facts.

Take for instance the Sk. verbs in च्छ (ccha), called inchoatives, because they denote the beginning of an action or an action that comes about gradually, e.g. गच्छति (gacchati). Here the termination is used in its proper function. But in verbs like कच्छति (rcchati), यच्छति (yacchati), प्रच्छति (prcchati) it does not have that sense at all. The suffix is isolated or irradicated from its legitimate roots and applied to others,
where it was originally out of place. The Latin *maturesco* is all right, because it denotes an action or process that gradually takes place. But in *nosco*¹—I know, *pasco*—I nourish, it loses its original meaning.

After dealing with some other principles of language, namely *survival of inflections, false perception,* which leads to a further principle *analogy, new acquisition* and *dropping* of useless forms, BREAL comes in the second part of the book to the subject proper of his essay *i. e meaning of words.*

Before coming to the various tendencies seen at work wherever words have changed their meanings, we shall advert to one or two more general points which, though not very immediately connected with *change of meaning,* are better in place here than anywhere else.

They are (1) the disappearance of old words for certain ideas and (2) the appearance of new words. Words disappear because the ideas of which they are symbols also disappear; sometimes they disappear because the ideas they represent find new symbols. For a time, the disappearing and the new symbol must live side by side, otherwise the new symbol would be unintelligible and would die out.

(1) Examples of disappearing words: Hundreds of Sanskrit words, which denote sacerdotal objects and ideas, have disappeared from the descendants of Sanskrit, because those objects and ideas dropped out in later ages. वेदी (*vedī*), दर्वी (*darvī*), असामिदी (*āsāmīdī*), होता (*hota*) पुरोढासा (*puroḍāṣa*) and a host of such words have died out without leaving any traces. Loss of words is always connected with great upheavals in civilization, migrations of peoples and such other important events. The loss of the whole heathen terminology in the Slavonic and German languages after conversion of those people to Christianity is a good example.

¹. For other examples see BREAL, Semantics p. 42.
(2) To revolution, to reformation, to geographical discoveries, to scientific invention so many words owe their birth that it is in fact impossible to count them. Commonwealth, representation, franchise and other socio-political terms are new, although of course coined out of old material. Contact of languages, either as neighbouring ones or as those of the conquerors and the conquered, is responsible for a host of new words in any language. e.g. If we read letters of the time of Shivaji or the Peshwais, we can not help stumbling against five words of Persian or Arabic extraction, amongst any ten words. Words like बंदा (banda), गुलाम (gulama), तबियत (tabiyata), बंदोबस्त (bandobasta), बिगर (bigar), बिन (bin), बेशरम (besrama), बरदास्त (baradasta), किराया (kiraya), शर (sura), इलाज (ilaja), ऐना (aina), हवालदिल (havaladila), पागल (pagala), वास्तपूत (vastapūta), कलमदान (kalamadana), अतरदानी (attaradani), गुलाब (gulaba), स्वारी (svāri), बादशाह (bādasha), तख्ता (takhta), वजहर (vajhira), पेशवा (peśava), रवाना (ravāna), have now become so familiar to us that we inflect them as if they were good Marathi words; they have now come to stay with us. कोलेज (koleja), मार्किता (markīta), थेसा (thesana), (for स्टेशन, steśana), कुलिया (kulī), टेमा (tema), मास्तारा (māstara), बुला (buła) लैन (raina), वानिस (vānisā), are now known even to coolies. In words like पोषा (poṣa), हापिसा (hapīsa), तिकिता (tikīta), श्तम्पा (śtampa), इस्पिताला (ispitāla), we already see the tendency to naturalize them by making them conform to native phonology; other examples—रपोटा (rapota), मोफारा (mofara), इष्टिका (iṣṭika), or इष्टक (iṣṭaka). New words to represent foreign ideas are also formed by drawing on the old material.

We shall now deal with several tendencies observable in semantics. It is of course possible to supplement them. Restriction and expansion of meaning:—We often see that words originally intended to carry a certain meaning and to

(1) Eng. coolie is a loan word from H. quli O.E.D. Ed.
express a certain idea are either (a) restrained e. g. साँई (sāī) a religious mendicant, originally meant lord, शेज (ṣeja) straw-bed for a horse, originally meant bed generally or (b) expanded* e. g. गोसावी (gosāvī) which originally meant only rich in cows, means in modern Marāthī lord, शहर (śahara) to a rustic means only the particular town near his village. One can hear farmers and lower caste people saying चाहरी (cāhari) (शहरी) गेल्तो (śahari geltō) when only they mean संगमनरास गेल्तो (śaṅgamana rāsa geltō hotō) or (c) transfer their meaning to other words.

Pejorative tendency:—BREAL speaks of the pejorative tendency, whereby whatever is disagreeable or repulsive is veiled or disguised. We find, for instance, in some of the native states people speaking of बादशाहके दुष्मनकी तजीयत अच्छा है (bādaśahke duṣmankī tabīyata acchā hai), when what they really mean is बादशाहकी तजीयत बीमार है (bādaśahkī tabīyata bimāra hai)—the Emperor is ill. The word शौच (śauca) which means only purity or cleanliness, is used to veil the disagreeable but all the same everyday bodily necessity. The same is the case with अमक्याला देवआङ्ग शाली (amakyla devaṅga jhāli) or even अमक निवर्तला (amakā nivartalā), where the देवआङ्ग शाली (devaṅga jhāli) and निवर्तला (nivartalā) are euphemistic for तो मेला (to melā), he died; बांगडी फुटली (bāṅgadī phutalī) would be revolting to an orthodox woman; she would say बांगडी बाँधवली (bāṅgadī bādhavali)—bangle increased. Polite language abounds in such expressions as रावसाहेब खाली आले (rāvasāheba khāli āle), for the disagreeable रावसाहेब चोक्कावृन्द पड़े (rāvasāheba ghodyāvarūna padale). The opposite of this tendency is seen, when words which primarily are not polite or desirable, are used in a sense that is far too dignified for their appearance. Such is तासपिंठ केली (ṭasāpāṭṭī)

* The word budget originally meant a knapsack: (bulga); now it means estimate of revenue and expenditure of a state, submitted by the Chancellor. Ed.
kelī) or हजामत केली (hajāmata kelī), a strong expression for remonstrated with.

Associative disturbance in meaning:—Association, both by similarity and by contact is responsible for a good deal of change or shifting in meaning. Yāska, the author of the निरुक्त (Nirukta) appears to be cognisant of this fact when he says, while deriving कस्या (kakṣyā) as कस्यां सेवते (kakṣaṁ sevate), अयमपीतरो मत्तयक्ष्ठ एतस्मादिव बाहुमूलसामान्याद्वक्ष्ट् (ayamapītaro manusyakākṣa etasmādeva bāhumālasāmayādaśvasya). Here, of course, there is some expansion due to association by similarity. पत्रम् (patram), for instance, is first leaf, and then by association, by similarity paper, letter. पाद (pāda) is foot, then part. e. g. निरुक्त-पाद: पद्यते: अयमपीतर: प्रभाषापदे: पथुपादप्रकृति: (nirukta-pādah padyateḥ ayamapītaraḥ prabhāgapādah pāsapādaprakṛtiḥ). In काय बाजार भरला आहे (kāya bājāra bharalā āhe), बाजार (bājāra) means the noise and confusion associated with a बाजार (bājāra) or marketplace.

As examples of semantic change due to association by contact, we might cite Sk. मण्ड्रि (maṣṭi) collirium, then ink; Sk. आम्र (āmra), the tree, then its fruit; Mar. तात (tāta) dish, plate and then meals taken in the dish, in the language of the Marāṯhās; दिव (divā) first light and then lamp; गाँव (gāva) first a village, and then the people in the village उज्जयिनी (ujjayini) for the crowds in the town, in सुच्छकातिक Mrčha-kāti) I. विषमबहरणस्ता गौरिव पयाकुला उज्जयिनी असीत् (viṣamabharā krāntā nauriva paryākula Ujjayini āsit) is a good classical example.

Metaphor:—Between this and transferred sense or metaphor there is not much difference. Sometimes the metaphors are not felt as such, but often they are too transparent. हात (hāta) hand means mainstay or support also; तौ माझा उजवा हात आहे (to mājhā ujavā hāta āhe). Most of the
words of abuse must belong to this class; गळ्धव (gādhava), बैल (baila), म्हसोबी (mhasobī), are some of them. In words like सज्ज (sajja) ready, however, the metaphor ceases to be felt and the word is taken primarily to mean what it only signifies secondarily. The original meaning is with the bow string, चर्वतर्वण (carvitacarvāṇa) repetition, चर्वल (carvala), a tiresome speech, किस काष्ठि (kīsa kādhani) to find out subtle distinctions or descend into wearisome detail, तिलिजलि चेचल वसला आहे (tilīnjalī gheūna basalāahe) waiting for an opportunity to ruin a man, हातघाँवर आखा (hātaghāvarā ākā) was very much irritated, देव for a Brahmin when a village farmer says to a Brahmin, देवा मोहोतर सांगा (devā mohotara sāṅga) are examples. Here too the idea that this is primarily a metaphor is lost sight of. The list of examples can be multiplied at will.

Words which primarily denote only one object come to denote also other objects of the class; or in other words proper names become common names. The word father means to the child only its father; but it is later extended to the class of persons of that relationship. Thus also गंगा (Gamgā), which is the name of the Ganges only, is applied to big and probably holy rivers like गोदावरी (Godāvari), कृष्ण (Kṛṣṇā) and कावेरी (Kaṇevari). A woman in Sangli will always say गेगेर गेलेहोतें (gāmegēvarā gelē hotē), when she only means कृष्णेवर (Kṛṣṇevara) etc. A village woman, asked the name of the little stream near the village, will always say गंगा (gamgā). In सोने नाणे आमेचे जवळ कोही नाही (sonē nānē āmacejavāla kāhi nāhi), the word नाणे (nānē) has an expanded meaning. This is the same as the expansion of Breal, referred to above.

The contrary of it is restriction, also attended to above, whereby a word primarily denoting a class etc. simply denotes an individual or detail of that class; e. g. शहर (śakara), town above mentioned. सोने (sonē) gold is also restricted to mean ornaments of gold, देश (deša), country to mean the part
of a country, even a village to which a man belongs, e. g. वायदेस (vāyadesa).

There is a tendency in some words to lose their independence and become dependant upon some other words to which they appear to be tacked on. The copula is a good example. It loses its primary sense of existence, being, and becomes simply an auxiliary in forming some compound tenses. e. g. तो करित आहे (to karita āhe) and तो आहे (to āhe). This is, however, best seen with negation of the last, तो तेथे नाही आहे (to tethē nāhi āhe) where आहे (āhe) becomes simply an unmeaning appendage.

To this class belong prepositions and conjunctions, and personal terminations. They were originally as good flexible words as nouns and pronouns, but are now merely reduced to a secondary importance, in drawing out the case and other relationships in a sense. Yāska, the author of the निरूक्त (Nirukta) had apparently seen this, when he said न निर्वेच्या उपसर्गार्थं नामाध्यायोऽस्तु कर्मोपसंग्रहयोतस्थिः भवति (na nirbaddhā upasarga arthānirāhuk, nāmākhya tyostu karmopasamgraha dyotakā bhavanti). The prep. पश्चात् (paścāt) is an old ablative in the same way as अभित: (abhitā) and परित: (parītā) which use the case-ending and become simple अभि (abhi) and परि (pari).

The adverb विशेषेष्ठ (viśeṣe karūna, particularly) was and has still kept the unmistakable signs of a gerundial phrase. The Sk. preposition उद्दीश्या (uddīśya), which governs the accusative, is nothing else than an absolutive. The conjunction यत् (yat) was originally a pronoun. So was the Marāṭhī की (kī) originally the pronoun किम् (kim).

Most of the adverbs also belong here. तत् (tataḥ) was originally abl. of तत् (tat), the demonstrative pronoun. शैः (śanaiḥ), नीच (nicaiḥ) have still preserved their instrumental ending in ऐ: (aiḥ). In सुख (sukham), the adv., one clearly sees the acc. of the noun सुख (sukha). हेलया (helayā),
old Marāṇhi है (he′) (as in एक है eki he′, Jñānesvari 4, 39; 9, 130 etc.) is an old instrumental. This is more a change of function than of meaning. The same has happened to the personal terminations म (mi), ति (si), ति (ti), etc. which really were pronouns.

Sometimes one finds double forms of a word current in a language at one and the same time. Originally, of course, both must have signified the same thing; but later the superfluity of such a thing led to the differentiation in meaning e.g. Mar. काज (kāja) from Sk. कार्य (kārya) through Prākrit कज्ज (kajja); कज्जा (kajjā) the borrowed word and कार्य (kārya) which was bodily borrowed from the Sanskrit. A differentiation was sought in this way. काज (kāja) came to mean ordinary business or object; कज्जा (kajjā) a legal business, quarrel; कार्य (kārya) ceremonial. See French chose above quoted. Sometimes words that signify an idea or object are used to signify a feeling. e.g. रामा, रामा! (Rāmā, Rāmā!) देवा, देवा! (devā, devā!), आई, आई! (āī āī!) अरे बापेरे! (are bāpere!) side by side with interjections like अरेरे, अबध (ārere, abāba). Even whole phrases sometimes weaken into interjections; विष्णु नमः (viṣṇave namah!), रामाय तस्मि नमः! (Rāmāya tasmai namah!) हरा शिवा गोविंदा! (Harā śivā Govinda).

These changes make it manifest that they are entirely independent of phonetic change. But sometimes they do coincide, as when we have man, one man and men, more men; foot one foot, but feet more than one; हर (hari), one person but हरय: (harayah) many of them. This change in meaning is not, however, of such a nature as to justify its being placed side by side with the semantic change above spoken of. For, the change in the meaning here, is only of degree and not of kind.

18 Syntax:—Syntax is the arrangement of words in a sentence according to mutual relationship, as determined by
their usage. This was recognised as a legitimate part of grammar in ancient Greece, Rome and India. But it did not come by its own in Comparative Philology until very recently. The phonetic and formal side of language was considered most important and the sentence with its various vicissitudes was set aside. Historical syntax was unduly neglected in the time of BOPP; and with the exception of LANGE’s essay in 1852, there was no literature on that subject, until WINDISCH and DELBRUCK took up the study of comparative syntax in their Syntaktische Forschungen (1871–88). It received full recognition in the Vergleichende Grammatik by BRUGMANN and DELBRUCK and forms its fifth volume called Vergleichende Syntax (1893). Even now, text books of comparative grammar of the individual languages generally contain only two divisions, Lautlehre and Formenlehre or phonology and inflection; e.g. SOMMER, HIRT, THUMB’s Handbooks of the Latin, Greek and Sanskrit languages.

Consideration of syntax is mainly the consideration of the different parts of speech, their genesis and function. Even very primitive languages must show names for objects or substantives, for attributes or adjectives and for actions and states or verbs; whether or not they are distinguished as such is a different question. There are certain languages which do not distinguish between them; and it is not at all improbable that our languages, too, might not have distinguished them originally.

Some of the remaining parts of speech, the adverb, the preposition, the conjunction give us a good insight into the gradual formation of syntax; because they are formed in historic times and bear clear marks of their genesis. The first and foremost of these is the adverb. Words like किम् (kim), दक्षिण (dakṣiṇa) to the right, एना (enā), दिबा (divā), श्नेन् (śnaṇaḥ) slowly, काम (kāmaṇ), तत् (tat) therefore, कुत्र (kutra) and यत्र (yatra), उपाञ्जे (upāje) and अन्वाजे (anvāje)
so as to support, हृदया (helaya) easily, सहसा (sahasā), forcibly, सन्तो (sûkain) with, सुकी (sukhain) or सुखेन (sukhena) happily, show that they are cases of nouns, pronouns, or adjectives, acc. inst. abl. and loc. The way these forms hardened into adverbs seems to have been something like this. Originally their case function must have been as alive as that of other words. But because these forms became more closely attached to verbs than others, they were attracted by them. They then became isolated and thus came to be looked upon as adverbs, instead of so many cases of nouns or pronouns or adjectives. The Greek οἶκος (oikoi), πέδοι (pédoi), κακός (kakos), Latin rechte, primum, Avesta yôba, òwato, dakśina, òdh (then), Marāṭhī कधी (kadhī), हलके (halkē), झटिडिव (jhatidiv), पलिकादे (palikâde) आरता (a'rata) are examples of such adverbs. In Marāṭhī today we can form adverbs from nouns by adding the न (n) of the instrumental. मोड्यांने ओराडी (mothyâne orâde), झटकावांने वे (jhalakânyânे ve) etc. ‘If a word’ says BREAL, ‘ceases in the smallest degree to be perfectly clear in its conception, if, above all, any appearance of irregularity be in the least degree visible, it is classified apart.’ Such has actually been the case with our adverb and some other parts of speech.

From the fact that the Indogermanic languages show no agreement in the choice of the inflection which was isolated as an adverb, BREAL concludes that the adverbs are of a recent date, although the idea of such a modification of the adverb must have been existing in human intelligence long before. Another part of speech, the preposition, also has to tell the same story. The prepositions are original adverbs as कृते (krite), कृते (rite), पव्वत (pascât), सत्र (satrâ), सार्थ (sārdham), सम (samam), Marāṭhī पासी (pâsî), कडे (kade) show. WHITNEY’s1 words on this point are appropriate:

many of the adverbial words indicated above are used with
nouns in a way, which approximates them to the more fully
developed prepositions of other language.' BREAL\(^1\) goes
further still when he says "the preposition is even more
modern than the adverb. At the time that our languages
separated, there was not one single genuine preposition." If
so, how did prepositions arise at all?. To this BREAL\(^2\) has a
carefully considered answer. "It is well known that at first
every substantive marked the relations of dependence, of
interiority, of instrument, etc. by modifying its formal syllables.
But this method of expression was at once complicated and
insufficient. It was complicated, because substantives, not
being all constructed alike, appeared under different forms in
one and the same case (gen. domini, rosae arboris). It was
insufficient, because the cases of the declension were too few
in number to express all the relations that the mind was
capable of conceiving. This was the reason why adverbs
were placed by the side of these cases to define them. But
the habit of placing the same adverb by the side of the same
case could not fail in the long run to produce upon the mind
of men an effect of which we shall presently give other
examples: between the inflection and the particle of place or
time they supposed the existence of some special connection,
some relation of cause to effect. Instead of considering the
adverb as a mere determinant of the case, popular intelligence
saw in it the actual cause of the case; a well-known paralogism
that philosophy designates by the formula 'cum hoc, ergo
propter hoc.' But when a paralogism is universal, it is
undoubtedly not far from giving the impression of a truth. In
the matter of language, that which the people believes itself to
feel, passes into the condition of reality. Adverbs of place
and time like ἀπό, περί, ἐπί, πρός, μετά, πάρα, (ἀπό, περί,

Conjunction:—The fact that while the Latin and Greek languages show a number of conjunctions as such, in Sanskrit the conjunction as a class should be wanting is a significant fact and shows that perhaps many of them are not Indo-European. Whereas the other languages combine clauses by means of these, the Sk. language\(^1\) generally satisfies itself with composition of words, with gerunds and with इति (\(iti\)), with abstract nouns in case-forms.

यत् (yat), तत् (tat), यदि (yadi), तर्थि (tarhi) the most common conjunctions in Sanskrit, are pronominal (relative etc.), bases. So are Latin \(ut\), \(ne\), \(quominus\), \(quin\) and the Gr. \(ός\) (\(ós\)). These were all of them once full fledged words having their own declension and signification. But the latter was lost and the pronoun came to be looked upon as a conjunction. Among the few examples of conjunctions being derived from substantives is कारण (\(kāraṇa\)), मला तेखे येतां आँ नाही, कारण मी गुंतलें होतां (\(maḷā \text{teṭhē yēṭhē āḷē nāḥī kāraṇa mī guṃtalō hotō\)) where कारण (\(kāraṇa\)) a noun is evidently used as a conjunction.

Thus three parts of speech—the adverb, the preposition and the conjunction—prove themselves to be new formations from existing old material. The process of their formation was a slow one. It belongs to historical times. Applying the results gained by observations upon existing facts, it is not improbable that even the substantive, adjective and verb did not originally exist, but were the result of a slow process of growth. Time must have been when primitive savage men could denote only objects and states. From them must have developed the substantive and adjective,

\(^1\) Whitney, Sanskrit Grammar p. 416.
verb etc. But even before the substantive, the pronoun perhaps existed. दीदम (didomi), ददामि (dadami)—I give, contained the idea of the subject in the termination मि (mi) and the want of a different subject was never felt. Again to a savage, himself, i.e. I, his ego is the most important person; all else are others. Amongst these others there are some closer to him, whom he calls you; the rest are they. It is the pronoun therefore that must have been the word to be the earliest distinguished from others. “It is more primitive, more instinctive, and more easily explained by gesture” etc. than substantive which it must have preceded.

Speaking of pronouns, the genesis of the relative pronoun is worth considering. It is also an example of syntactical conversion. In the case of the adverb, the preposition and the conjunction, conversion took place from one class to another; here it takes place within the same class. BREAL points out the conversion thus: a certain pronoun, in no way distinguished from others externally, acquires by the use to which it is put, a force of union which allows it to weld together two propositions. This is expressed in grammatical language as follows: from demonstrative it becomes relative. This explains how the demonstrative that could have become the relative that. Here again it must be remembered that the idea of the relative must have been there before the Indo-Germanic people separated. There was some way of expressing the relative idea e.g. the Sanskrit addage बुद्धिर्यस्य बलं तस्य (buddhiryasya balam tasya) or यद्दानसि तत्ते वित्तम् (yaddadasi tatte vittam).

The same is the case with the article, which exists only in some Indo-German languages, not in all. It is the old demonstrative pronoun. The English the, German der, Gr. (relative) ὁς (ὁς), French le are all original demonstratives, however, with a certain change in meaning; they have lost their independence and become a syntactical instrument.
The so-called *copula*, Eng. *to be*, Ger. *sein*, Fr. *etre*, Marāṭhī असैं (asaṁ) shows the same history behind it. It was originally an independent finite verb and generally singified existence. But it was brought to the help of other verbs and has almost become an auxiliary, excepting when it is used independently. In sentences like *he is dead*, Ger. *er ist tot*, तो मेला आहे (to melā āhe), it is simply a syntactical instrument and nothing else. When we say तो मेला नाही, तो आहे (to melā nāhī, to āhe) we use the word both as a copula and as a finite verb. Other auxiliaries also share the same fate; e. g. Eng. *have*, he has lost all he had, is as good an example of this fact as the above Marāṭhī sentence.

Coming to verbs, we find distinction made between *neuter* and *transitive* verbs. Neuter verbs are those which acquire no object to complete their sense. They are self-sufficient and thus have a claim to precedence. The transitive sense must have been a later process because mutual understanding in the old primitive state required words to possess their full signification. Some of the neuter verbs were frequently associated with words which dertemined them or pointed their action towards a particular object. When the mind got accustomed to this phenomenon, it required such words (completions) of most verbs. Thus स गच्छति (sa gacchati) conveys a complete sense; but it was often associated with words like ग्रामम् (grāmam), ग्रहम् (grham). By a transfer of ideas, analogous examples of which are found outside philology, our intelligence believed that it felt in the very words themselves that which is the mere result of our habit or thought. From that moment arose verbs that demanded a complement. This led to a twofold result; the meaning of the verbs was modified; and the significative value of case terminations was restricted. The root ग्रह (r) thus means *to go* simply. But with objects it slightly changes

1 BREAL, Semantics p. 190
its meaning: Sk. स मरणमृच्छ्ति (sa maraṇamṛcchati) he meets death. The same is the case with पत (pat) to fall; नरके पति (narakem patati) means goes to hell.

Sk. अधि (adhi) originally an adverb, became prepositional and governed an object. Later it was joined to roots and transferred its object to the root. Sk. अर्थ अधिगच्छति (arthaṇi adhigacchati) he gets wealth was originally like अधि अर्थ गच्छति (adhi arthaṃ gacchati) goes towards etc. The prepositional adverb has kept its independence in Vedic language. The root या (yā) means to go. Followed by the acc. it means to pray: तत्त्वा¹ यामि ब्राह्मणा वन्द्मानां (tattvā yāmi brāhmaṇā vandamānaḥ). BREAL has quoted interesting examples from Latin and Greek. The German word abstreten—to retire is a neuter verb, becoming transitive taking the dative of the person in a sentence like 'jemandem etwas abstreten'. Lastly we shall turn to the noun, especially its syntax of cases. All the Indo-European languages had the seven cases. In some, however, even in the olden times same cases were fused together as the dative and instrumental, the ablative and locative in the Greek and Latin languages. The function of the instr. and the loc. has been taken over by the dative in Greek and by the ablative in Latin. In Greek the instr. and abl. have totally disappeard and locative, dative have almost fused together. Really speaking the difference in the functions of these cases was not very great and in their very genesis lay the germ of their decay. In some cases, similarity of form was the root of all confusion; e. g. instr. plur. of the stems in Greek, οἴς (ois), was confused with the ending of the loc, οἰς-(t) (oīs-ι), in words like οἶκοις, οἶκοι (oikoi, oikoisi).

1 Rv. I 24,11.
2 HIRT, Handbuch p. 306.
phonetic, e.g. the inst. and loc. in Greek. A third cause is the comparative frequency or want of it. The dual and many of the plurals are less needed than the singulants and are therefore disappearing; they have mostly disappeared in the western group. The dual had disappeared even in the old languages except in Sanskrit and plurals of many cases had the same form e.g. रामेभ्याः (rāmebhyaḥ) for dative and ablative plural; रामाभ्यां (rāmābhyaṃ) for instr. dat. and abl. dual., रामयोः (rāmayoh) for gen. and loc. dual; रामाः (rāmau) nom. acc. and voc. dual.

But there are really many more syntactical relationships than could be well distinguished by the cases. The instrumental itself shows in Greek and in other languages double endings, and has led scholars to believe that they represented originally two distinct cases. HIRT1 calls it *Casus Indefinitus*. Languages like the Finnish and Turkish have a vast number of cases and can therefore express greater definiteness of relation than the Indo-German languages could do. Again the relations that were expressed were felt to be less definite than required and hence the aid of adverbs was profusely taken. This tendency is seen even in the oldest of the Indo-German languages. It grew as time went on, as it was found very convenient; until we see to-day languages which have already given over most of the cases, and have made adverbs or rather prepositions current coin. From synthesis they have passed to analysis. The English language is the best example of this. The one form *me*, with proper preposition, is made to serve for all cases: 'by me, to me, for me, in or at me, of me.' Even the acc. *me* was thought inadequate to express the relationship of the indirect object and the preposition *to* was prefixed to it; e.g. he gave *me* a book, but, he gave a book *to* *me*. The French language compares favourably

105 cit. 305
with the English in this respect. The rigid inflexibility of the cases is there less felt and a variety of relationships is expressed with greater ease. The German has preserved four cases in the article and in some declensions. But a different picture is presented by the modern dialects of India. They are not, as was naturally to be expected, getting so pronouncedly analytic, as the English and the French languages have been. They have on the contrary, invented newer inflections. The former, like the Japanese and Chinese, caught hold of the order of words or a fixed position as the best mode of expressing syntactical relation. Thus ‘RĀMA defeated RĀVAṆA’ will yield the desired sense only in this order. If it is reversed, it gives quite the opposite sense. In Marāṭhī, for instance, राम रावणाल्या मारतो (Rāma Rāvaṇālā mārato) could also be expressed as रावणाल्या राम मारतो (Rāvaṇālā Rāma mārato) without detriment to the sense. Thus the Indian languages have apparently gone a different way. Here the tendency is not towards wholesale analysis; but rather towards a more or less halting synthesis. Thus to the old Sk. cases were added prepositions, just like those in Greek and Latin, but they were so welded together that they soon were looked upon as new inflections. Guj. गाम (gām) or Hindi गाव (gāv) is from Sk. गाम-मात्र (grāma-mātrī) through गाम-मात्र (gāma-mātrī), मात्र (mātrī) माछ (māci) माही (māhi) माही (mahi), मां (mā) मां (mā) etc. To-day मां (mā), मां (mā) are looked upon as locative case-endings. The same is the story of गावत (gāvatā) which originally is गाव + अत (gāva + ātā) from अत: (antaḥ), the adverbial post-position. But no one now thinks that it is an adverb—it has now become a regular inflectional ending. The ला (lā) of the dative goes back upon लाग (lāg) in what may be called mid—Marāṭhī, which again is traceable to लाण (lāaunī), evidently a verbal form, seen on the Nāgaon inscription of A. D. 1367. ला (lā) goes back upon लाई (lāi), लागी (lāgi) too. Cf. Maith. लै (lāi).
# THE FAMILIES OF LANGUAGES.

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<td>Asiatic: Chinese, Siamese, Burmese, Tibetan</td>
<td>Japanese, Magyar, Old Persian, Sanskrit</td>
<td>Greek, Latin, Hindi, Bengali, German, English, Gypsy, Russian, Marathi</td>
<td>Tamil</td>
<td>Telugu</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*To face page 89.*
PART II

FAMILIES OF LANGUAGES

In the first part of the book, we dealt with the general principles of our science. We looked at language from both aspects, the formal and the material. While dealing with the formal side of language, we observed how language was formed, how it grew, what were the laws that governed its growth, what were phonetic laws, what were the principles that apparently counteracted them and other cognate points. In dealing with the material and content of language, we took notice of the two branches of semantics or the science of meaning of words, and syntactics, if it may be so called, or the science of the mutual relations of words in a sentence.

20. LANGUAGE GROUPS:—We shall now speak of the division of languages based upon the difference in morphology or word formation, before going to the history and description of the Indo-Germanic languages proper. This morphological classification is to be distinguished from the genealogical classification of languages. Here four classes are put forward:

(1) The *agglutinative* languages. The name comes from Latin *gluten*, lime, *glutinare*, to glue with lime. The forms of words are made up by suffixes and the two appear to be *glued* together to some extent. However, the stem and suffix always keep their individuality and are felt as individual parts within the word-form. If there is some phonetic change, while the suffix is added, it is not, as in the Indo-Germanic languages, a necessary condition. The suffixes could thus be consciously separated from the stem and may be looked upon,
as independent words. The one advantage of this is, that the singular and plural then need not have separate terminations; the change of the suffix between stem and termination is sufficient for that purpose.

The Turkish language is an example of agglutination and the instance oft quoted\(^1\) is that of *ev*, house:—

<table>
<thead>
<tr>
<th></th>
<th>Sing.</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nom.</td>
<td><em>ev</em></td>
<td><em>ev-ler</em></td>
</tr>
<tr>
<td>Acc.</td>
<td><em>ev-i</em></td>
<td><em>ev-ler-i</em></td>
</tr>
<tr>
<td>Dat.</td>
<td><em>ev-e</em></td>
<td><em>ev-ler-e</em></td>
</tr>
<tr>
<td>Abl.</td>
<td><em>ev-den</em></td>
<td><em>ev-ler-den</em></td>
</tr>
<tr>
<td>Gen.</td>
<td><em>ev-in</em></td>
<td><em>ev-ler-in</em></td>
</tr>
<tr>
<td>Loc.</td>
<td><em>ev-de</em></td>
<td><em>ev-ler-de</em></td>
</tr>
</tbody>
</table>

The inserted syllable is either *e* or *a*, (e.g. in *ler* or *de*) according as the syllable of the stem is *e* or *a*. Thus then, there is a kind of vowel harmony. There is a variety of case-relations unknown to the Indo-Germanic languages. The process of adding or removing syllables at will, adds a power to the agglutinative languages. Besides the example quoted above, we have, for instance, this other one:—*el* hand, *el-im* my hand, *el-im-de* in my hand, *el-im-de-ki* being in my hand. Besides the Turkish, the Hungarian & Finnish languages belong to this group.

(2) The *agglutinative-inflectional* languages have both suffixes and inflection like the Indo-Germanic languages, for the formation of words. The difference of this class from the former one is that here the stems must have inflection before the suffixes and the similarity is the addition of the suffixes. The Semitic languages show vowel-change in the root. Words are formed in such change by varying in a particular way the

---

vowels attached to the consonants, partly by prefixes and partly by suffixes; e.g. root *sgd* gives *masgid*. The root *slm*, gives *selima, salam, islam, muslim, selim*, and *suleyman*. The Tibetan language is also an example of Agglutinative language.

(3) The third class is formed by languages that do not have complete word-forms. They are the so-called *root* or *isolating* languages. The Chinese language is an example. Here it is the position of the word in a sentence that determines its character. Thus a word is a verb, noun, or adjective, not because it has the distinguishing characteristics of these, but because it occupies a peculiar position in the sentence. The position and the tone determine the meaning of the word in a sentence which is a string of words. Old Chinese and Burmese are Isolating languages. These are called *root* languages, because what are roots in other languages, are in them complete and independent words. They may be simple or compound. Another name for these is isolating languages.

(4) The *inflectional* languages:—e.g. the Indo-Germanic and the Dravidian groups. These are distinguished from the others by their pronouncedly inflectional character. From the Turkish they are distinguished by the absence of the inserted syllable which serves for inflection, by a lesser number of cases, (and we have seen, there is a tendency to lessen these still more, e.g. English, French, etc.) by possessing compound words which the *agglutinative* languages do not possess, by the demarcation of the various parts of speech, whereas in the lowest form of the Hungarian, for example, there is little difference between noun and verb. In the latter language the ending part for the first person is the suffix used in the noun to express *my*; *hal-unk*\(^1\) means

---

our fish and var-unk we sow. Cf. ur-am our master, ur-unk our master. In the Turkish language the verb is mostly formed of a participle with personal pronouns appended to the 1st and 2nd person; for the 3rd person the mere participle is used.

(6) **DIFFERENCE BETWEEN PURELY INFLECTIONAL AND AGGLUTINATIVE-INPLEXIONAL LANGUAGES:**—The distinguishing characteristics between the Indo-Germanic and the Semitic families, to which latter belong the Assyrian, Hebrew, Aramaic, and the languages of the Arabic family are (1) the vowel gradation of roots and stems in the Indo-Germanic; (2) the peculiar form of the Semitic roots. These latter, with very few exceptions, possess three consonants. The vowel-change within the root is of a different character from that in the Indo-Germanic; e. g. the roots sjd and slm. The verb alone is highly inflected in the Semitic languages and consists of noun and adjective forms, combined with fragments of personal pronouns, prefixed or affixed.

The question, whether the Semitic and Indo-Germanic languages are related to one another, is as old as 1828, when KLAPROTH raised it. Since then it has been the subject of many essays and monographs but no definite conclusion could be drawn. In the case of the **isolating** and merely **agglutinative** languages, such questions could not arise, as


The famous Danish philologist, Otto JESPERSEN gives the following instance from a Chinaman’s description of a three-masted screw steamer with two funnels: “Thlee picce bamboo, two piece puff-puff, walk-along inside, no can see”. There is a movement to day towards flexionless languages, with freely combinable elements, and Dr. CHATTERJI has given a lucid explanation of this phenomenon in Modern Hindustani, which he styles Bazaar Hindustani. See his masterly treatise, **Indo-Aryan and Hindi** (1942). English resembles Chinese in its movement towards flectionless freedom. Ed.
they showed nothing like a kind of inflection. But the Semitic languages possess a kind of inflection and hence the necessity of the question. But in other things like phonology, morphology and syntax, which are the backbone of a language, they show such a wide divergence, that it is not possible to say from them alone, that the Indo-Germanic and Semitic languages are interrelated. Scholars like Möller have very recently (1907) tried to reconstruct the parent Semitic language, and they seem to compare this with the so-called parent Indo-Germanic language. But a comparison between such hypothesized languages, for which there is no historical proof that they ever existed, or if at all, in the particular form in which they are reconstructed, defeats its own end.

There appears however to be a close resemblance and therefore a relationship between the Semitic and the Hamitic languages. These latter comprise the Egyptian and the Koptic (now dead) languages. Certain other North-African languages—the Berber language and the languages of Abyssinia—are believed to belong to this group.

Some scholars contend that the Semitic and the Chinese are related with each other. This whole question of language-relationship is as difficult as it is vast. Considered in an abstract way, the question may perhaps be generally accepted. Although such a connection between the languages of the different groups, and languages within one group, like the Indo-Germanic and the Dravidian which also are highly inflectional, cannot as yet be historically proved, yet there is perhaps nothing unnatural if we accept the possibility of such a connection. Men and their language have a long history behind them, and if at all the Indo-German and the Chinaman, to take extreme cases, were once living together, and what is more pertinent, speaking the same or closely allied languages, the separation took place in such a
hoary past and took such divergent ways, that all traces of a possible companionship were totally obliterated. As a matter of fact, the day is not yet come when one could brush aside the question as settled one way or the other; for, so much is yet to be done for other groups of languages, the Semitic itself for instance. Until all the chief languages of the world are studied as closely as are the Indo-Germanic languages, no one has the right to say that the question is closed either one way or the other.

21. **Some Dravidian Tables:**—Among the greatly inflectional and partly yet agglutinative languages, the Dravidian languages—Telugu, Tāmil, Malayālam, Kānarese etc.—take a high rank by their developed form, which compares favourably with that of the Indo-Germanic. These have very great affinities with the Scythian or Turanian group; some scholars hold that they actually belong to it.

The two following tables clearly show their character.

<table>
<thead>
<tr>
<th>Sing.</th>
<th>Telugu</th>
<th>Tāmil</th>
<th>Malayālam</th>
<th>Kānarese</th>
</tr>
</thead>
<tbody>
<tr>
<td>N.</td>
<td>gurram-a tree</td>
<td>maram</td>
<td>maram</td>
<td>maram</td>
</tr>
<tr>
<td>A.</td>
<td>gurramunu</td>
<td>maratte</td>
<td>marattine</td>
<td>maranam</td>
</tr>
<tr>
<td></td>
<td>gurram</td>
<td>marallka</td>
<td>marattinnu</td>
<td>marake</td>
</tr>
<tr>
<td>D.</td>
<td>gurramunaku</td>
<td>marallirku</td>
<td>marattinnu</td>
<td>marakke</td>
</tr>
<tr>
<td>G.</td>
<td>gurramu</td>
<td>marattinadu</td>
<td>marallindre</td>
<td>marda</td>
</tr>
<tr>
<td></td>
<td>gurramuyokka</td>
<td>marattina</td>
<td>marattinnçe</td>
<td>maradā</td>
</tr>
<tr>
<td>Plu.</td>
<td>gurramulu</td>
<td>maraṅgāl</td>
<td>marāṅi.əl</td>
<td>maragat</td>
</tr>
<tr>
<td></td>
<td>gurṟelu</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.</td>
<td>gurramulanu</td>
<td>maraṅгалεi</td>
<td>marai.əle</td>
<td>maragaləm</td>
</tr>
<tr>
<td></td>
<td>gurrālanu</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G.</td>
<td>marai galinadu</td>
<td>marai.əluqe</td>
<td>maragi.əla</td>
<td>maragaḷa</td>
</tr>
</tbody>
</table>

**I.**

<table>
<thead>
<tr>
<th>ëmu, e, nē</th>
<th>yān, nan</th>
<th>nān</th>
<th>yān, ān, nā</th>
</tr>
</thead>
<tbody>
<tr>
<td>ëmu, n.ēmu</td>
<td>yām, nām</td>
<td>nām, nammal,</td>
<td>ām, ānu, nānu</td>
</tr>
<tr>
<td>we</td>
<td>nāṅgal</td>
<td>nāṅgal</td>
<td></td>
</tr>
<tr>
<td>nīv, nī sēu</td>
<td>nī, nīy</td>
<td>nī</td>
<td>nīn, nī nīnu</td>
</tr>
<tr>
<td>thou</td>
<td>nīr, nīvir</td>
<td>nīr, nīr</td>
<td>nīr, nīv</td>
</tr>
<tr>
<td>mīρu, ìρu</td>
<td>nīr, nīr</td>
<td>nīr, nīr</td>
<td>nīr, nīr</td>
</tr>
<tr>
<td>you</td>
<td>nī gal</td>
<td>nī gal</td>
<td></td>
</tr>
</tbody>
</table>

**II.**

<table>
<thead>
<tr>
<th>nā, nan</th>
<th>my.</th>
<th>nin, nun, un</th>
<th>nin</th>
</tr>
</thead>
<tbody>
<tr>
<td>nī, nin</td>
<td>thy</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
THE INDO-EUROPEAN OR ARYAN
FAMILY OF LANGUAGES.

The I. Group

Aryan or Indo-Iranian

Balto-Slavonic

Albanian

Indo-Aryan

Iranian

Baltic

Slavonic

Classical Greek

Latin

Celtic

Gothonic

Teutonic

Italian

Spanish

Portuguese

French

Gothonic

Teutonic

Gothic

Old Norse

Irish

Danish

Swedish

Norwegian

English

Frisian

To face page 95.
22. The Indo-Germanic Family:—The Indo-Germanic family includes several groups of languages. They are (1) the *Aryan, which comprises the ancient Sanskrit and the Avestan languages, (2) the Armenian, (3) The Greek, including Ionic, Attic, Doric and other important dialects, (4) the Albanian, (5) the Italian group, consisting of Latin, Oscan, and Umbrian dialects, (6) the Celtic, composed of Britannic and Gaelic (Irish and Scottish), (7) the Germanic branch including Gothic; the Norse, (Icelandic, Norwegian, Swedish, and Danish), the West Germanic (Anglo-saxon, Frisian, Low German, Low Frankish), (8) Balto-slavonic or Lithu-Slavonic, composed of old Prussian, Lithuanian, Lettic and the Russian, Bulgarían, Czech, Slovakian etc.

The eight groups, together with the recently discovered Tokharian, go to form the great family called the Indo-Germanic. That they are called Indo-Germanic is perhaps only an accident. In the early days of the science of philology, the Celtic group was not yet recognised as belonging to the Indo-Germanic family. A name had to be given to the family, which would include all the acknowledged languages, and it was found in the combination of the most easterly and the

*Hittite, as has now been proved by German Scholars, belongs to the Indo-European family of Languages. The tendency to-day is to regard Hittite as a sister language to primitive Indo-European. Scholars have indicated the relationship thus:—

```
Indo-Hittite
  |                |
  v                v
Pre-Hittite      Pre-Indo European
  |          |          |
  Hittite    Indo-European
                        |
                        Indo-Aryan or Greek Latin. etc.
                        |
                          Vedic & Avestan
```

See Appendix I: (Table, from Dr. S. K. C.)

Ed.
(till then) most westerly languages belonging to that family. It was Indo-Germanic. But the name became inadequate on the discovery of the Celtic. Some scholars proposed to call the family Indo-Celtic but it was not generally accepted. The other name Indo-European perhaps became more popular, and scholars, excepting Germans, used it freely. The Germans however stuck to the old name, perhaps out of patriotism, but more out of habit. Japhetic, the old Biblical name, was easily discarded. Indo-Aryan is an ambiguous name; it more usually designates the Sanskrit-Avesta group.

The comparison of the several branches with one another has made the task of ascertaining, whether any given language is Indo-Germanic or not, very much easier than at first. We have to note the following four points carefully, before giving our opinion that a particular idiom is Indo-Germanic. They are:—(1) That the roots or bases of a language are to a great extent the same as those which appear in other Indo-Germanic languages i.e. it has a similar phonology; (2) That the way in which nouns, verbs and other parts of speech are formed from these roots is essentially the same as in other recognised Indo-Germanic idioms; (3) That the morphology or the inflectional and conjugational changes of words, in order to express relationship within the sentence, are of the same nature as in other Indo-Germanic languages. (4) If a language shows the same pronouns and numerals, and some of the most common words, e.g. those of family relationship etc. it is sure to be Indo-Germanic; because these are the words that are most essential in the language and will not be given up in favour of others belonging to a strange idiom. Of these, morphological resemblances are most important and telling. Compare the following tables:

I. Pronouns in the different Indo-German languages.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>N. अहैम् (ahām)</td>
<td>मैं (maṁ)</td>
<td>azem</td>
<td>ἐγώ</td>
<td>(ἐγὼ)</td>
<td>ego</td>
<td>ik</td>
<td>as</td>
</tr>
<tr>
<td>A. माम (mām)</td>
<td>मूझे (mujhe)</td>
<td>mam</td>
<td>μί</td>
<td>(me)</td>
<td>mihi</td>
<td>mik</td>
<td>...</td>
</tr>
<tr>
<td>D. मात्रम् (māhyam)</td>
<td>मूझे (mujhe)</td>
<td>mī</td>
<td>μοι</td>
<td>(moi)</td>
<td>mī (mis)</td>
<td>mi</td>
<td>mē</td>
</tr>
<tr>
<td></td>
<td>सू践 (suṇa)</td>
<td>(mujhe)</td>
<td>ेमोि</td>
<td>(طعم)</td>
<td>्तु</td>
<td>्तु</td>
<td>्तу</td>
</tr>
<tr>
<td>N. त्वाम (tvām)</td>
<td>तू (tū)</td>
<td>...</td>
<td>ἂν (sū)</td>
<td>tū</td>
<td>्तु</td>
<td>tu</td>
<td>ty</td>
</tr>
<tr>
<td>A. त्वाम (tvām)</td>
<td>तुझे (tujhe)</td>
<td>θωπ (sē)</td>
<td>(tē)</td>
<td>्तु</td>
<td>बुक</td>
<td>...</td>
<td>te</td>
</tr>
<tr>
<td>D. ते (te)</td>
<td>तुझको (tujhako)</td>
<td>te</td>
<td>(sō)</td>
<td>(tib)</td>
<td>...</td>
<td>...</td>
<td>ti</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>न:</td>
<td>साह (sāh)</td>
<td>यह (yaha)</td>
<td>ho</td>
<td>ὰ (ὁ)</td>
<td>iste</td>
<td>sa</td>
</tr>
<tr>
<td>त:</td>
<td>तम (tām)</td>
<td>यह (yaha)</td>
<td>tem</td>
<td>τόν (tόn)</td>
<td>istum</td>
<td>घाना (ɡhānā)</td>
</tr>
<tr>
<td>G:</td>
<td>तस्य (tāsyā)</td>
<td>इसको (isako)</td>
<td>tahe</td>
<td>τοῖο (toio)</td>
<td>istius</td>
<td>ἰς ( ἰς)</td>
</tr>
<tr>
<td>Abl.</td>
<td>तस्माद (tāsmād)</td>
<td>इसमे (isame)</td>
<td>...</td>
<td>τῶ-δέ (tō-de)</td>
<td>istō (d)</td>
<td>ἤπαμμα (ephāma)</td>
</tr>
<tr>
<td>Loc.</td>
<td>तसम्य (tāsmi)</td>
<td>इसमे (isame)</td>
<td>...</td>
<td>τοῖ (pōi) or</td>
<td>(is) tod</td>
<td>ἰς ( ἰς)</td>
</tr>
<tr>
<td></td>
<td>तस्मिन (tāsmi)</td>
<td>...</td>
<td>...</td>
<td>τεῖδε (tēide)</td>
<td>...</td>
<td>...</td>
</tr>
</tbody>
</table>

### III. Numerals in the different Indo-German languages

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>दो:</td>
<td>(dvāṇa)</td>
<td>दुः (dvāṇa)</td>
<td>दो (dō)</td>
<td>duo</td>
<td>twai</td>
<td>dva</td>
</tr>
<tr>
<td>त्रयः</td>
<td>(trāyaḥ)</td>
<td>तीन (tīna)</td>
<td>त्रे (treis)</td>
<td>trēs</td>
<td>treis</td>
<td>trije</td>
</tr>
<tr>
<td>चत्वारि:</td>
<td>(cātvāraḥ)</td>
<td>चार (cāra)</td>
<td>कासवर τεταρτες (kāswar tētāres)</td>
<td>quattuor fidwor</td>
<td>cetyre</td>
<td></td>
</tr>
<tr>
<td>पंचः</td>
<td>(pānca)</td>
<td>पांच (pāca)</td>
<td>पांच (pānce)</td>
<td>quinque</td>
<td>finf</td>
<td>penki (Lith)</td>
</tr>
<tr>
<td>षष्ठी</td>
<td>(sāṣ)</td>
<td>छ (cha)</td>
<td>छ (hex)</td>
<td>sex</td>
<td>saṭhs</td>
<td>sţesťi</td>
</tr>
<tr>
<td>सप्तः</td>
<td>(saptā)</td>
<td>सात (sāta)</td>
<td>हप्ता हेप्तα (hapta ḫepťa)</td>
<td>septem</td>
<td>sibun</td>
<td>septyni</td>
</tr>
<tr>
<td>अष्टः, (aṣṭau), आष्टः (aṣṭā)</td>
<td>आठ (aṭha)</td>
<td>आठ (aṭha)</td>
<td>आठ (aṭha)</td>
<td>octo</td>
<td>ahtau</td>
<td>asztāni</td>
</tr>
<tr>
<td>नौ:</td>
<td>(nāva)</td>
<td>नौ (nau)</td>
<td>नव (nava)</td>
<td>novem</td>
<td>niun</td>
<td>newints (O.Prs)</td>
</tr>
<tr>
<td>दशः</td>
<td>(dāśa)</td>
<td>दस (dasa)</td>
<td>देखा (déka)</td>
<td>decem</td>
<td>tehun</td>
<td>deszimtis</td>
</tr>
<tr>
<td>एकदशः (ekādaśa)</td>
<td>एक्याराह,</td>
<td>एक्याराह</td>
<td>एक्याराह</td>
<td>(egyāraha)</td>
<td>(egyāraha)</td>
<td>venū-rika (Lith)</td>
</tr>
</tbody>
</table>
For one some two or three stems are current, some only common to some of the Indo-Germanic languages. Lat. has unus, Goth. ains, Sl. ino, Gr. οὐνη (in a peculiar sense): Av. aevα, Gr. ο—I(F) οι—I(F)οις alone, Sk. एक (eka); (οὐνη) Gr. έσις (eis) from οίς, σεμηabic, (sems) Sk. सङ्कु (Gr. ˈάπαξ, (apaz), Lat. semel is the third stem.

Compare with these, for example, the numerals of the Dravidian group:

IV. Dravidian Table of Numerals.


one okati² ondru onnu ondu

two rendu irandu rendu eradu

three mūdu mūnru mūnna mūru

four nālugu nālu, nāngu nāl, nāngu nālku

five eidu eindu aṅju eido

ten padi pattu pattu pattu

hundred nūru nūm nūru nūru

As another instance, the following from the Khassi language, an agglutinative one like the Turkish language would be interesting.

(1) Pronouns.

 nga = I, ia nga = me, jong nga = my, mine ngi = we

me thou ia me = thee jong me = thine phi = you

ame (f) pha (f) pha (f) pha

u, ka = he u = him jong u = his maki = they

ia ka = her u ka = her

(2) Numerals.

shi or wei, ar, lai, saw, san, hinriw, hinnew, phrā, khynaid, shi-phew = one to ten; khadwei, eleven.

1. CALDWELL, Comparative Grammar of the Dravidian Languages p. 358.

2. Marāthā readers will recognise in these numerals (चक्क vakaṭa, रेड reṇḍa, मुंद मुंढa) etc. of their favourite game of इत्तदाड ि (iṭ-danḍu). Although the Marāthi has its own numerals, it borrowed these others along with the game, faithfully reserving them for that play only.

3. ROBERTS, Khassi Grammar pp. 31 and 38.
<table>
<thead>
<tr>
<th>1 English</th>
<th>2 Greek</th>
<th>3 Sanskrit</th>
<th>4 Persian</th>
<th>5 Russian</th>
<th>Eng.</th>
<th>Greek or Latin</th>
<th>Skr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bid = command</td>
<td>πενθ-ομαι (pe' nth-oai)</td>
<td>बुध (buddh) to understand.</td>
<td>muzd = wages</td>
<td>Meed =</td>
<td>मीदम् (midham)</td>
<td>Hind. सज्जर (majdur)</td>
<td></td>
</tr>
<tr>
<td>Bind</td>
<td>बन्ध (bandh)</td>
<td>लू = a light</td>
<td>λευκός (leukós)</td>
<td>रूच (ruc) &amp; Lat Lux</td>
<td>लक्ष्मी (laksâmi)</td>
<td>Lat lubido लभ (lubh) desire</td>
<td></td>
</tr>
<tr>
<td>Birch</td>
<td>भूर्जस् (bharjas)</td>
<td>ray</td>
<td>लूच (ruckos)</td>
<td>Lat domus</td>
<td>अदामस (adamas), a house</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bottom</td>
<td>तुम्बन् (tumban)</td>
<td>बुन (bun)</td>
<td>love</td>
<td>Lat lubido</td>
<td>लभ (lubh) desire</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bough</td>
<td>बाहस (bâhus)</td>
<td>अर्म</td>
<td>arm</td>
<td>Lat lubido</td>
<td>लभ (lubh) desire</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do</td>
<td>धा Indg. चं (dhâ, dhe)</td>
<td>मूलोको</td>
<td>milk</td>
<td>मृज (mrj)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frost</td>
<td>प्रस्तर (prastā)</td>
<td>O. Ir. dam =</td>
<td>wood</td>
<td>दोम-ोस (domos)</td>
<td>दमस (damas), Lat domus a house</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feather</td>
<td>पत्रम √पत् सफेत (patram √pat to fly)</td>
<td>सफेत (sapheta)</td>
<td>white</td>
<td>श्रेत (śvetà)</td>
<td>वास (vas)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full</td>
<td>पूणस (purnas)</td>
<td>धर्म</td>
<td>raw</td>
<td>Lat Vesta = Goddess of</td>
<td>क्रूयम् (kravyam)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kin</td>
<td>γε'νος (génos)</td>
<td>जन: √जन् (janaḥ jian)</td>
<td>zâda</td>
<td>Lat crūdus</td>
<td>कृदू (krūras)</td>
<td>A. S. hṛēaw</td>
<td></td>
</tr>
</tbody>
</table>
23. Characteristics of the Principal Groups:—
The chief characteristics of these languages or groups of languages might be noted here.

1. Some of the characteristics of the Aryan group: the merging of the simple vowels ए, ओ, ऐ, in अ (a) e.g. भारमि (bhárāmi) for Gr. ἕρω (phéro), Lat. fero, Goth. baira, Old Irish berim, Sl. bera; Sk. अवि (āvi), for Gr. ὅς (ōs), Lat. ovis, Goth. awēhi, (where ḫi denotes group or herd), Lith. aves, Ir. oi: Sk. अजति (ājati), for Gr. ἰγό (īgo), Lat. ago, Old Ir. agai, etc.. (2) change of Indog. ṛ, into i, Sk. ष्टमि (ṣṭ̐m̐i), Gr. πατέρ (pater), Lat. pater, Goth. fadar, Old Ir. athir. (3) Change of the original s into š, after i, u, liquids, s and k: तिष्ठति (tiṣṭhati), Av. hīstaiti, Gr. ἵστημι, (hīstemi) etc., (4) gen. pl. in नाम (nām) of vowel stems.

2. The Armenian language is known to us only from the 5th century A. D. (1) Loss of i and u in syllables except at the end of a word, ḫnōy from hinoy, Sk. सन: (sānah). (2) Change of Indo-German Ṛ, Ṣ, into an and am. (3) Change of original mediae in tenues, tān, Sk. ध (dāsa).

3. The Greek language is known to us chiefly through Homer and some old inscriptions. (1) Change of ῥ, ῥ, into αρ, ρα, αλ, λα, (ar, ra, al, la). (2) Change of j, into ḏj. Skr. युगम (yugām), Gr. ξύγον (zúgon). (3) Dropping of s between sonants γένεος (géneos) Sk. जनास: (jānāsah). (4) Perfect in k, ἴστημι (īstekā), Sk. तस्थी (tasthau). (5) Aorist in θην (then), ἓδοθην (edōthen).

4. The Italian languages:—known to us since 300 B.C. (1) Original ṛ, Ṧ, become en, cm. (2) ῥ, ῥ, become or, ol. (3) f, b, x, from original bh, dh, gh; e.g. fero, Sk. भरमि (bhárāmi). (4) z (later ῥ) from s between vowels; eum (now ero), Sk. असत (asat).

5. The Germanic languages:—the oldest branch of which viz., the Gothic language, is known to us since the 4th century A. D., mainly on account of the translation of
* the Bible by Bishop Ulfila. (1) ŋ, m, r, l, become un, um, ur, ul; e.g. H. Ger. kumft, Sk. गति (gātiḥ); (where अ (a) represents the sonant m. (2) The great sound-shifting, in accordance with what is called Grimm's Law; for examples see supra.

6. The Balto-Slavonic group is known to us not earlier than the 9th century, when a translation, of the Bible was made in one of the dialects of the group. (1) ŋ, r become in, ir in one of the important branches. (2) Simplification of double consonants between vowels. (3) Some peculiarities of inflection.

7. The Keltic language, which once spread itself over the whole of western Europe and the British Isles now lives only in small tracts of land like Ireland, Scotland (where it is making room for English) and the Isle of Man. It shows i for indg. ɔ, ri, li, for r, l, etc.

8. The Albanian language known only since the seventeenth century from scraps of inscriptions, has so changed its character by borrowings from Romance, Slavonic and Turkish languages, that it has almost lost its individuality.

9. The Tokharian¹ language is only recently known to us through the Turphan expedition of German Scholars, during 1902–3 and 1904–5. A people of that name are known to us through the Greeks, who called them Τοξαροῦ (Tocharoi). They were a section of the Indo-Scythians; they are also known

* Date: middle of the 4th century B.C. The Germanic is sometimes called Primitive Teutonic from which the Scandinavian or Norse and Anglo Frisian or maritime Teutonic are presumed to be descended. A passage in Gunnaugs Saga, ein var tunga i Englandi ok Noregi, 'the same tongue in England as in Norway' points to the affinity between the Scandinavian and the old English languages, Ed.

¹ The Tokharian language, was discovered in the first decade of the 20th century. It belonged to Turkistan in Asia. Some of its words have a hard k: ku=dog; while Indo-Germanic languages of the Eastern group show a palatal sibilant in that place: Sk. ष्व (śvan). Ed.
to the Mahābhārata¹ as तुखःरा (Tukhāraḥ) and are mentioned together with खस्ता (Khaśṭā). What is more important is that their language shows affinities with the centum group; e.g. kandh = Lat. centum hundred; śak for dek = Lat. decem ten.

24. Inter-relations amongst the groups:—These eight groups, besides having a general affinity with one another, show a near relationship with one or several amongst themselves. First and foremost is the broad distinction that divides all the groups into two broader ones. This is based upon a sound-law that is the most celebrated of all such laws for its broadness. It is that certain throat-sounds, called by scholars the palalals in the original Indo-Germanic language, were changed into sibilants in several of the groups, while they retained their explosive character in the remaining groups. This could be easily seen from the word for 100 in the various groups. In Sk. शत्म (satām), in Avesta salem, in Lith. szintas; but in Lat. centum, (pronounce kentum), Gr. ἕκατον (hekaton), in Celt. cet, (from kent), in Germ. hund. (Goth. from Indo-Germanic. kent, by the first sound-shifting) in Tokh. kandh; or the word for 8 in the different languages; Sk. आठ (aṭā), Lit. asltun, Lat. octo, Gr. ὠκτὼ, (okto), Old Ir. ochtu, Goth. ahtau - or such a word as Sk. चुर (śrutāh), Old Sl. slovo (word), Gr. κλυτός, (klutós) Lat. inclitus, Old Ir. cloth, Goth. hliuma; o.E. hlud; or Sk-अष्ट्र (aṣra), Arm. aseln (needle), Lith. asztrus, Gr. ἀκρός, (akros), Lat. ains, Old. H. Germ. ahiv; or the word for ten, Sk. दशा (dāśa), Arm. tasn, Gr. δεκά, (deka), Lat. decem, Old Ir. dech; or Sk. अष्ट्र (śvan), Lith. sunis, Gr. κυνός (kunas), Lat. canis; compare also the word for twenty, Sk. विनासति (vināsatî), Gr. εἰκοσι, (eikosi), Lat. viginti, Tokh. wići; or Sk. विष (viś) Av. vis, Gr. (F)-οικος, (F)-oikos) Lat. vicus.

Thus we see that the Indo-Aryan, the Armenian, Albanian and the Litho-slavonic languages show a sibilant,

1. GRIERSON, the Pahâri language, Ind. Ant. 13. 146
where the Greek, Latin, Germanic, Celtic languages have a palatal sound (what is in Indian grammar called a guttural). To these must be added the recently discovered Tokharian language. These groups are called the satem group and the centum group respectively; the Avesta on the one hand and the Latin on the other are regarded as representatives of the two groups. In the treatment of the labiovelar also the two just named groups of languages differ. In the place of the labiovelars, the so-called satem languages substitute simple gutturals: e. g. πόθεν ( póthen ) (π for qu according to a special Gr. phonetic law). Lat. quo, quis, Goth. hwas (Eng. what for hwat), but Sk. квіті (c for к (ka) (cil) (ca for ka) according to the Sk. Palatal law), Alb. ke when, Lith. kas; Gr. ἔπομαι, (ἐπομαι) Lat. sequor, Old Ir. sechen, but Sk. сачті (sacate ), Lith. sek., One would almost be tempted to translate the distinction to the geographical sphere and say, that the Eastern group shows a ś or s, k or c where the Western group shows a k or kwa; but the newly discovered Tokharian language, which, although found in the East, belongs phonetically to the Western group, comes in our way. 100 in that language is expressed by the word kandh. Another grouping, not so evenly distributed, is caused by the falling together of the simple vowels e, o, a into a in the Indo-Aryan group, which therefore is to be distinguished from the remaining Indo-Germanic languages.

But the law or laws on which the distinction is based are at any rate broader. We cannot, for instance, put forward a different grouping, say like Sanskrit, Avesta, Gothic on the one side and the Armenian, Albanian, Greek, Latin, Celtic, Lithuanian and Slavonic on the other, simply because the treatment of the old Indo-Germanic o is common to the three first named languages; e. g. Sk. जम्भ: (jāmbhah), Gr. γόμφος, (jōmphos), O. H. Ger. chamb; Sk. तत् (tat), Gr. το, (to), Lat. istud, Goth. ōata; Sk. भारण्ति (bhārantī), Gr. (Doric) φέροντι (φέροντι) Lat ferunt, Goth. bairand, because it is not possible to say,
for instance, to which group the Slavonic language should belong, which shows zab for Sk जम्म (jāmbha), berant, for Sk. भरन्ति (bharanti) but again, to for Sk. तत् (tat); and it would land us into unnecessary difficulties, as a chance coincidence of a simple sound in a few Indo-Germanic languages only, but not in others, will necessitate redistribution into different groups. For the same reasons we cannot recognise a Germanic-Armenian group, simply because in both of them the treatment of the tenuis is similar; e.g. Sk. दश (dāṣa), Latin decem, Gr. δέκα, (déka) but Germ. taimun, Arm. tasn; Sk. वेद (veda), Gk. ὁδα (oida), Lat. video, Old Sl. vede, but Germ. wait, Arm. gitem. HIRT actually makes a distinction between West Indo-German and East Indo-German.¹

Except when we know for certain from other sources that the languages, which show certain marked resemblances with one another as against others, were in some remote period neighbouring languages, or at least that there was a free and close intercourse between them, we can only call these resemblances accidental ones. The assimilation of conjuncts in various modern languages, e.g. Prākrit kk for kt in मुक्त (mukka) for मुक्त (mukta), Italian cotto for Lat. coctus is to be explained in this way. Such resemblances are due to a general tendency observable in all modern languages owing their origin to the old Indo-Germanic languages. It is sufficient therefore to have recognised certain groups based upon broad principles of phonology.

25. INDO-BALTO-SLAVONIC AND GRAECO-ITALO-CELTIC GROUPS:—The close affinity of the Sanskrit & Avestan i.e. the Aryan group with the Lithu-Slavonic or Balto-Slavonic group, is incontestably proved and recognised by all scholars. But there has always been an attempt on the part of certain scholars to set up other groups, e.g. the Graeco-Italian or the Italo-

¹. HIRT, Handbuch der Griechischen Laut-und Formenlehre p. 22.
Celtic group. Now it is true that these resemblances cannot be called accidental or due to a general tendency. The resemblances observable in such closely associated languages as the Greek and the Italian, or the Italian and the Celtic, or the Celtic and the Germanic, cannot indeed be so explained away. We can believe that the Greeks and the Italians had independently adopted certain new changes before they separated and descended from the Danube plains into Greece and Italy respectively. Just the same is the case with the Italians & Celtic people who dwelt amongst the Alps before separating west-and southwards. Certain peculiarities belong only to the Greek and Italian languages: e. g. (1) the change into hard aspirates of the middle aspirates of the old Indo-Germanic language. Sk. ṇābhas (nābhas), Gr. νέφος (néphos); भ्रात (bhrala), Gr. φράτωρ (phrator), Lat. frater; Sk. term. ब्हिस (bhis), Gr. φιν (phin), Lat. bus; (2) the formation of gen-plu. of 7 stems by adding asom in the manner of pronouns; Gr. θεαὸν (theaon) (from θεασων, theason), Lat. mensarum (v for intervocalic s); (3) treatment of o stems as feminines; Gr. ἐφήγος (ēphegos), Lat. haec fagus. On the other hand, certain changes are common to Greek, Italian and Celtic, showing that these were once close neighbours, and, after adopting certain common changes, separated, the Italo-Celts towards the South-West and the Greeks towards the South-East. The former, after living together for some time in the Alps, again separated, the Italians to the South, and the Celts to the West-North-West. Besides belonging to the great centum group, these three languages show other common peculiarities e. g. (1) they represent the original long liquids and sonant nasals by ṛa, ṛa, ma, nā. Sk. स्त्रिणि (stirna), Gr. στρωτός (strotos), Lat. stratus; Sk. पूर्व (pūrva), Gr. Doric πράχ (prān), πρᾶτος (pratos); Sk. पृंि (pūrṇa), Celtic i. e. Old Irish; or Sk. आँि (ānā), Lat. āna, (for vlāna); Sk. दाम्यति (dāmyati) Gr. δμητός (dmētos) (η from η, e. g. νεδ-δματος (neō-dmatos), Lat. māteres, gnātus Gallic cinīu-gnātus; Sk. आि (āti) water fowl, Gr. υφσα (uessa) (η for ā); Sk. धवान्त (dhvānta), Gr.
Θυτός (θνητός) for Φηνάτος (θφνάτος). They all drop the ancient intervocalic $j$. Examples are rare and disputed. HIRT\(^1\) quotes Gr. ħάσκω (χάσκω), Lat. hiare, and πιύω (πιύω) from πιύω (πιυω).

**a. Individual isolated resemblances do not warrant closer grouping:**—If individual resemblances here and there could enable one to establish closer affinity between two languages, the treatment of the sonant nasal, for instance, in the Greek and the Aryan languages ought to suggest that these two perhaps were more closely associated than others. e. g. Sk. शतम् (śātam), Gr. ἕκατον (hékaton) (a for sonant nasal in both), but Lat. centum; Sk. गम्यते (gamyate), Gr. βλήνω (baino) (for bainio), but Lat. venio; Sk. दश (dásā), Gr. δέκα (déka), but Lat. decem; Sk. मतम् मति: (matám matih); Gr. ματός (matos) in αὐτόματος (autó-matos) but Lat. mentis; Sk. नामत् (nāman), Gr. ὄνομα (ónoma), Lat. nomen. Nor should the resemblance in the infinitive formation between the Greek and the Aryan group be taken as a conclusive proof of their close association: Gr, ἰδμεναί (idmenai), Sk. विधनेः (vidmane); in Sk. this infinitive is rare: Gr. δοναί (donai), for δοφεναί (dufenai), Sk. दार्वेः (dāvāne); Gr. τιθέσθαι (tithésthai), Sk. पिबाध्याई (pibādhyaī) etc. The Latin too shows some of these forms; and the coincidence between the two languages is rather to be explained in this way, that the old Indo-Germanic language had a variety of these forms and only the Greek and the Aryan branches agreed in retaining some peculiar ones. The relation of the Greek with the Avesta would perhaps have to be recognised as closer, if the simple fact, that both represent an initial sibilant by the aspirate is taken into consideration: Sk. सष्ट् (saptā), Av. haptā, Gr. ἑπτα (hepta); Sk. श्च-तिश्धति (sthātiśthāti), Av. histāti, Gr. ἵστημι (histēmi); Sk. सुक्तर (sūkara)

\(^1\) AIRT Op, cit, p. 191.
Gr. ὅς, (us) Lat. sus; Sk. सचे (sácate) Gr. ἐπομαί (hépomai).
But this is impossible, because of such history of the wanderings of the various Indo-German stems as can now possibly be reconstructed.

b. The Tokharian, a centum language:—It is but right that some reference should be made to a newly discovered language, viz. the Tokharian. It was discovered among the mass of Buddhistic plays—rather fragments of them—as a result of the German Turfan expedition in Eastern Turkestan (1902-3 and 1904-5). From these, scholars have been able to gather some knowledge about the languages; it appears to be a centum language; e.g. okadh = 8, okduk = 80; wiki = 20, and kandh = 100. Words like por, Gr. πῦρ, (pūr) O. H. G. fiur, Eng. fire, laks, a kind of fish, O. H. G. laks, also show that it is a language similar to the Western group.

The speakers of this language were known to the Ancient Greeks, who called them 'Τούχαροι (Tocharoi)' a race recognised as part of the Indo-Scythians. They founded their power upon the ruins of the Graeco-Bactrian Empire about the 2nd century before Christ.

Besides these—now nine—principal languages or groups of languages there are others less known, now totally extinct. There is the language of the Phrygians who, together with the Armenians, migrated from the north of Greece into Asia Minor; that of the Venetors and so forth. It is not at all paying to devote more than passing attention to these, for their remains are so scanty and unreliable that nothing more could be said about them. It is enough to know that they were Indo-German idioms.

26. THE COURSE OF MIGRATION OF THE SPEAKERS OF DIFFERENT GROUPS:—It is these affinities of certain groups that have enabled us to guess the general course of the migration of the Indo-Germanic people. The migration of the big-
gest of them *i. e.* the Germanic group has gradually taken place in historicial times. We know, for instance, how the Angles and Saxons migrated from their home in the heart of Germany to Great Britain. When they appeared in England, the country belonged to the Picts and Scots. The same was the case of the habitation of Iceland to the north of Great Britain. The Danes, the Swedish and the Norwegians also migrated from their home in middle Germany. History has told us part of this only; but comparative study of languages keeps no secrets. It tells us that all these were once one people and spoke one common language; and linguistic science, aided and supplemented by early history where possible, has shed astonishing light over these questions.

Coming nearer home, we find the Indian Aryans entering India through the Khyber pass and fighting their way across the country of the seven rivers. The earliest historical and semi-historical document tells us that in those days, *i. e.* some three thousand years before the Christian Era, they had not quite settled themselves as yet along the banks of the Jumna and the Ganges. Their immigration into trans-Vindhyan India is a matter of still later date and is sung by the people amongst their oldest legends. Comparison between the Vedic Sanskrit and the Avesta takes us still further back, and points to a hoary past, when the speakers of these two languages were living together in the region between the Caspian Sea and the Sea of Aral or north of Persia and Afghanistan. That this place too was not their original home, but that they, together with the speakers of the Balto-Slavonic languages, must have had a common home somewhere in North mid-Russia is made clear by the resemblances between the Indo-Aryan and the Balto-Slavonic languages, two sub-groups of the great *satem* group.

The spread of the Latin idioms or Romance languages is an event of still later date. We know how the language
of the conquering Romans accompanied them wherever they conquered and succeeded in ousting less finished idioms. The history of the dispossession of the Celtic, however tragic it must have been, is a very interesting study from the linguistic point of view. But the language that travelled from Rome into Portugal, Spain, France, and Roumania was itself a newcomer in Rome. It had got in there, after its speakers and the speakers of the Celtic language had parted from the mid-Alpine region. And this too was not their original home.

They and the speakers of the Greek dialects possessed linguistic affinities, which point to a very close contact. Such was possible to both only on the plains of the South-Danube. From here the Greeks descended through Macedonia into the several isles of Greece, and their epic bears full testimony to this fact. One branch shot eastwards and settled along the coast of Asia Minor.

The Celtic wanderings, too, are as interesting as the others. After occupying the greater portion of France, they shot across the Channel into part of England, Wales, Scotland and Ireland. The Celts in France abandoned their language just as the Parsis in India abandoned theirs. But the Irish still speak their old language with much feeling.

We have roughly followed the course of the wanderings of the several branches of the Indo-German family. After tracing these, we ask ourselves whether this is all. It cannot of course be all. The Germans on the course of the upper Danube, the Italians and Greeks on the lower Danube, and the Indo-Aryans and Balto-Slavs in mid-Russia, must have migrated from a common home, if the similarity of the idioms they speak has got any value. Where could it have been?

27. THE ORIGINAL HOME OF ALL:—There have been several attempts to answer this question, and there will be
many more without perhaps settling the question once for all. For, the means to arrive at a solution are wanting, and what one can do in their absence is mere guess work. So many points in the history of those languages must have been irrecoverably lost, that what has remained to us is perhaps only a fragment. The same is the difficulty in the reconstruction of the original language. No one knows how many idioms are lost without any trace, whose discovery might have revolutionized our linguistic ideas, as the discovery to Europe of the Sanskrit language actually did during the first half of the 19th century. No one also knows how many languages will be discovered like the Tokharian.

Still the question of the original home can be negatively answered. It could not have been France, it could not have been India, nor Iran, nor Central Asia. A long stretch of land between the North Sea and the Sea of Aral comes into consideration in this respect. But it is likely that there was still a smaller home. Some claim that it was in the Arctic regions in the extreme north of Russia or Russian Siberia. Others believe that it must have been in Scandinavia, which theory Lokamānya Tilak has controverted, and which is impossible from our tracing of the migration of the Germanic branch of the Indo-Germanic group. So far at any rate is clear, that the original home must have been somewhere to the Northeast of Hungary and to the North of the Black and Caspian Seas. Further than this we are not justified in saying in the present state of our knowledge. Keith has most recently dealt with the whole question at length.

28. Civilization as disclosed by comparison of languages:—Just as from the comparison of several languages, we are able to trace one common language called the

1. Tilak, Arctic Home in the Vedas, p. 418
Indo-Germanic language, their common parent, in the same way we can conclude that that language must have been spoken by one people whom we are pleased to call primitive Indo-Germanic people, and thus we can form an idea of the culture of that people. Comparative Philology is the first means to that end, because that science determines the stock of words that belonged to that language, and thus makes it possible to know what ideas had even then found expression.

When we perceive that our word गाय (gāya), Sk. गो (gō), corresponds exactly to the words Gr. βους (bōus), Lat. bos, Irish bo, old Slav. govedo, or our word पिता (piṭa) to the Gr. πατέρ (patēr), Lat. pater, Goth. fadar, Irish. athir, or our Mar. जी (jī), Sk. युगम (yugam), with Gr. ξύγων (zugón), Latin jugum, old Slav igo, we are justified in drawing a conclusion that the objects, ideas and customs represented by these and such other words were already primitive Indo-Germanic. We are here not mere linguists but naturalists, antiquarians, and sociologists in one.

The aid of archaeology:—But it is not always that all Indo-Germanic languages possess the same word. Sometimes only two or three of them have a word for an idea common amongst themselves. Here archaeology helps us. We shall look into the periods it puts forward, and see whether the characteristics of each discovered by that science, agree with the results of our science.

(a) Characteristics of the Stone age:—People lived in houses in raised stockades of wood, which constituted the chief material; the weapons were of stone. The culture represented by this is the same as our linguistic historical studies would have us believe. This is subdivided into palaeo-lythic and neolithyc.

(b) Metal age:—Copper, they say, was the first metal to be discovered. Sk. अद्यस (adys), Lat. aes, Goth. aiz-erz, Ger.
aehern. This was melted and poured into certain weapons (1) Sk. परशु (paraśu), Greek πελέκος (pelekos), (2) Sk. असि (asi), Lat. ensis. (3) Sk. आर (ārā), O. H. G. ala, Germ. apla.

The original Indo-German period could therefore be characterized as stone-copper period.

Moreover, the existence of many important items e.g. the domestic animals, the arts of sowing, spinning, weaving etc. is conclusively proved—by comparing the several Indo-Germanic languages—during the primitive period of the Indo-Germanic language. Such other animals, things and objects, as for instance, the ass, mule, cat or rye, hemp etc. which are not proved to have existed in this period are also absent from the oldest phase of the Indo-Germanic language.

The history of iron is very interesting. The Teutonic languages borrowed it from the Celtic: Germ. eisen Goth. eisarn, Kelt. iarn, while yet the intervocalic s was present in the Keltic isarno. Very likely, together with the name for iron, the Germans borrowed the name of the spear from Celts: O. H. G. ger, Celt, gaiso, Irish gai. Ultimately, the Germans carried the word to the Romans, Lat, gaesum, and to the Greeks, Gr. γαυσός (gaisós). Archaeology, in perfect accord with this, has proved that the oldest iron-fields in Bornholm or Hallstatt, were of pre-Roman days and to a great-extent, point to a Celtic possession.

Archaeology and linguistics therefore must go hand in hand and aid each other in these things. But the province of archaeology is necessarily limited, as its sole basis is the things that are preserved; food and drink, on the other hand, or how milk-preparations were made, or how the agricultural instruments were prepared,—on these points archaeology is necessarily silent. And, what is most important, archaeology has not told, and can never tell us, any thing definitely about the primitive family, the state, law and religion, in short, about all that we understand by mental culture.
In these cases comparative linguistic study is the only guide. If, for instance, we find a particular institution say marriage or church, or particular facts and realities e.g. an immoral act like theft, described and severely punished, in all the Indo-Germanic languages, we conclude that it must have been so with all those peoples in pre-historic times.

Compare for instance *Sk. विहाव (vidhāvā)*, Lat. *vidua*, Goth. *weduwo*, Germ. *witwe*, English *widow*; there is, however, no corresponding word for *widower*. The very word *widower* is based upon the old word *widow* and was not independently used; e.g. *Sk. विदुर (vidhura)* is an adj. and means *bereaved*. We see, therefore, what is meant by this: the institution of widowhood must have been pre-historic; and in such a way, that widows were either not allowed to remarry, or great obstacles were placed in the way of their marriage, but none in the case of men.

Take *Sk. अघिः (āvih)*, Gr. (όις). Lat. *ovis*, O. H. G. *ou*, Engl. *ewe*. It shows that this domestic animal was already known in old Indo-Germanic times. Goth. *hliswan*, Lat. *cleptor*, Gr. *κλεπτω (klēpto)*, show that theft also was a time-honoured institution! These and other identities clearly tell us that the institutions and facts, thus expressed by a common term, in all these Indo-Germanic languages, must have belonged to a period before their separation.

We shall now try to paint a picture of the culture of the people, and following SCHRADE, who is the best authority on the subject, deal with the following points: (i) Domestic and communal life. (ii) Habitation. (iii) Drink. (iv) Industry and commerce. (v) Divisions of time. (vi) Family. (vii) Tribes and nations. (viii) Blood revenge. (ix) Religion.

1. **Domestic and communal life.** The first important fact is that the names of domestic animals, excepting the ass, mule and cat, are found in the European as well as the Asiatic Indo-Germanic languages.
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Sk. उक्सान (uksān), Goth. aihsa, Ger. ochse; Av. staora, big cattle, Goth. stiur Ger. stier; Sk. गो (gō), Gr. βόος (bōus), Lat. ēs, Ger. kuh; Sk. सुकरा (sūkara), Gr. σῦς (sûs) Lat. sūs, Ger. sau and schwein; for अवि (āvih) see above. Sk. अश्व (āśva), Gr. ἵππος (hippos), Lat. equus; Sk. अवि (āvi), Gr. κυόν (kúon), Lat. canis, Ger. hund. Then the word for cattle in general is Sk. पासु (pāsu), Lat pecus, Goth. faihu. Ger vieh, Eng. fee. These also show the acquaintance of the pre-historic Indo germans with cattle-breeding. पासु (pāsu), was to them also wealth. In Veda गवेशण (gavēşana), गविष्ठि (gavīṣṭhi), means search for wealth, also battles for its possession. In Lat. pecunia means money; this is taken over into the English language in the form pecuniary.

In hoary days the dowry was paid in cows; Dakṣiṇā was paid to Brahmans in cows. Even as late as in the Upaniṣads1 we find the old custom preserved, when जनक (Janaka) wanting to settle a dispute says: ब्राह्मणा भगवन्तो यो यो ब्रह्मिष्ठाः स एता गा उद्धताम् (brāhmaṇā bhagavanto yo vo brahmīṣṭhah sa etā gā udājatām) ‘whoever among you, ye revered Brahmans, knows ब्रह्मन् (brahman) best might carry away these cows’.

The main subsistence was also on cattle and their proude. The Vedic word गावशिर्म (gavāśiram), food mixed with some form of milk, गाव्य (gāvya) and the name given to the north Europeans of old, Gr. γαλακτο-ροφοῦντες (galaktot-rothoûntes) ‘those who subsist on milk,’ also point to the same thing. Cattle-flesh prepared in a certain way is called in Sk मांस (māmsā), Goth. mīz; Sk. मज (majā), Av. mazga, O. H. G. marg. Food is cooked and boiled; Sk. पच (pac), Gr. πέσσω (pēssō), Lat. coquo, Ger. backen, Eng. bake. Germ. mark was also used as food. A common word for milk is found only in the western Indo-German languages; Gr.

γάλα (gala) milk and άμελσος (amelgo), Lat. mulgeo and Ger. melken. But for milk preparations we have Indo-German words; Sk. सर (ṣara), Lat. serum, Gr. ὤρος (ōros); Sk. अज्ञय (ājya), Lat. unguen, Ger. anke; Sk. गरिष्ठ (sārpiḥ), Gr. ἐλφος (élphos-helphos) (butter), Ger. salbe.

Cattle served them for dress also. The Germans are described by Cæsar as clad in hides. The Greek word for them ιηνοφορέας (r'enophorēs) 'wearing sheep skin' is connected with Sk. उणा (ūraṇa), Gr. ἄρην (ārēn,), a lamb. They knew the use of wool; Sk. उणा (ūraṇa), Lat. vellus, Goth. wulla, Ger. wolle, and also how to weave it; e. g. Gr. υφαίνω (hūphaino), O. H. G. weben, seen in the Sk. word (आण)–वाम (ūraṇa)–(vābha).

But besides cattle-rearing, they also carried on agriculture, which perhaps was new to them; Gr. ἀξος (árod), Lat. arare. It is significant to note that the Aryan branch has not much in common with the European branch in this respect, i. e. in so far as words for seed, instruments etc. go. Sk. अज्र (ājra), Lat. ager, Ger. acker, Eng. acre, although phonetically identical differ slightly in meaning. The names of different kinds of corn and trees e. g. Sk. भुर्ज (bhūrja) Ger. birke, Eng. birch, are also not common to the two groups. We may assume therefore that agriculture was taken up later by the Eastern than by the Western branch.

Hunting appears to be a common pastime, known to the pre-historic peoples living together. Some wild beasts then known are Sk. वर्क (vṛ'kaḥ), Gr. λύκος (lúkos), Ger. wolf; Sk. उड्र (ūdra), Gr. ἀρκτος (arktos); Sk. गुड्र (gūdṛ), Gr. ὠδρος (hūdros), Ger. otter, and other game is Sk. सस (sasā), Ger. hase; Sk. शेस (ṣēṣya), Ger. alces. For oriental wild beasts there is no common word.

II. Habitation. The idea of a country looked upon as motherland, is a much later one, and this is but natural in the
case of a people that is yet in a migratory state. The idea of a clan, Gr. γένος (génos), जन (jana), tribe, people, विश्र (viś), or Gr. οἶκος (oikos), was more primitive and therefore more predominant. We have यादवम जनम (yādvam janam), and पाचजनी विश्र (pācajanī viś) in the Rgveda: thus also we have the Bharatas first, and then their country भारत (Bhārata) or भारतवर्ष (Bhāratavarṣa).

The idea of village, town, city, etc., developed later. The word पु (pū), Gr. πόλις (polis), originally meant only a burg, a castle; e. g. Ακρόπολις (Akropolis), a citadel of copper. what among the Greeks is known as ἀκρόπολις, (ákrópolis), fort Lith, pilis, Let pilseta.

The same is expressed by the old Celtic dunum, (found in names like Novis-dunum) which is also found in English town, Ger. zaun, which word means hedge. To these corresponds in meaning the old Slavonic gores, a city e. g. Ivan-gorod, Novgorod, the Ger. garten, English garden, from the same word, originally meaning a plot of ground with a hedge surrounding it. The village then must have first consisted of a number of such plots or castles within one definite area. Such a village is called in Goth. weihs, Lat. vicus, Sk. विश्र (viś), Av. vis.

The people lived in houses with doors and posts. Sk. द्वार (dára), Gr. δόμος (dómos), Lat. domus; Sk. द्वार (dvār), Gr. θύρα (thura), Lat. fores, Goth. daur, Ger. für. Eng door; Sk. स्थ्ल (sthūlā), Gr. στήλη (stēlē), O. H. G. stello, Ger. stollen; Gr. στέγος, τέγος (stégos, tégos), O. H. G. dah, Ger. dach, Eng. thatch. This gives an idea of roofed houses, supported by pillars. They had open fire, and cooked in earthen or iron utensils. Sk. कर (karu), Old Ir. core, old Nors. hverr; Sk. उख (ukhā), kettle, Lat. auxilla, Ger. ofen.

1 Rv. VIII 6, 48.
2 Rv. VIII 63, 7.
3 Rv. VII 15, 14.
III Drink:—Much need not be said regarding this. Sk. मधु (māḍhū), Av. madu, Gr. μέθυ (méthu), O. H. G. metu, Eng. (mead) was the common drink. It must have been sweet, as the word modified denoted sweet; Gr. μέλι (méli), Lat. mel, Goth. milip. Sk. सोम (sōma), Av. haoma, stands by itself. It has not been possible to identify the plant or the stuff that was brewed and drunk with so much relish.

IV Trade and Industry:—That even in pre-historic times of which we are speaking, there must have been some commerce between village and village or town and town, is clearly shown by antiquarian research. The science of language also points to the same fact. Commerce must have consisted chiefly in barter¹, and been carried on by strangers who were often hated; e. g. the पानि (pañi) in the Rv. who are called usurers, ungodly and the like. The word is generally related to Gr. πέρνημι (pérnēmi).

Sk. कीमामि (kīmāmi), Gr. πραμαί (prīmāi) to sell; for the price paid we have Sk. वस्न (vasnā), Gr. ὑνος (unos), Lat. venum. This price was measured in cows, if no barter was possible. The German word kaufen, Old Ger. koufan, meant both to buy and sell.

Sk. मिमामि (mimāmi), Gr. μέθυμος (médimnos), Lat. modius, seen in Eng. commodity, Ger. messen are common words showing that the people could measure things. Words like वितस (vitasti), Gr. ωλένη (olēnē), Ger fuss, show that parts of the body were used as measure. Metals were known from the earliest times, but whether they were used in trade is a question. Sk. लोह (loha), Av. rōd, Lat. raudus. For copper and परसु (parasū), Gr. πέλεκυς (pèlekus), see above. The Indo-Germans knew many arts and bartered away or sold the products. Besides weaving, they also knew sewing; Sk. शीत (sīv), Lat. suo, Goth. sitjan; they made bow-string; Sk.

¹ ZIMMER, Altindisches Leben, p. 257.
² Rv. VIII. 66, 10. Especially MACDONELL and KEITH Vedic Index 1. 47.
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V Divisions of time:—The year was the longest unit; but it seems to have originally been named after the season. The first name it received was after winter, Sk. हेमन्त (hemant), हिम (him) Gr. χιμαρός (khimaros), Lat. hiems, winter. The Latin words himus, trimus meaning two and three years old, come from hiems; the same is the case with Gr. Χιμαρός (khimaros), a goat, which originally meant an yearling. Even the Indian Aryans spoke¹ of शत (sātām) हिम (himā), hundred winters, i. e. hundred years; although in other places, they preferred to name the year after autumn e. g. शत नारा रासव सारदाह (sātām no rāsva sāradāh)². The old name for summer, which the Indian Aryans called वर्षा (varṣā) in conformity with the climatic conditions of the land they entered, is still to be seen in the word सम (samā) which originally meant half year and then a year. Sk. सम (samā), Av. ham, Arm. amarn, Ir. sam, O. H. G. sumar, Eng. summer. It is remarkable that Sk. वसन्त (vasanta,) Gr. ἡαρ (ēar), Lat. ver spring, was never raised to that dignity. But a common independent word for the year was already there; Sk. वसर (vatsara,) Gr. Fέτος

1. Ṛv.. II. 33, 2; V. 54, 15.
2. Ṛv.. II. 27. 10.
(Félos), Alb. viét, Sk. प्रत् (parut), उत् (ut) from वत् (vat) in वत्सर (vatsara), Gr. τεσσούς; (pesv úsi) last year.

The month was already known to be the next smaller division, as the day and night was the smallest. Sk. मास (más) also चन्द्रमास (candramás), Gr. μήν (mén) μήνη (méne) moon), Lat. mensis, Goth mēna, Ger. monat, Eng. month, and moon. The names of months were evolved separately and later by each people, or rather by the two groups of people. There is also no common word for week. Words for day and night are common; Sk. दान (dāgha), in निद्रा (nidāgha), Ger. tag, Eng. day; Sk. नाक्तम् (naktam), Gr. νύχτ (núkh), and Ger. nacht, Eng. night.

For divisions of the day, there were expressions of a rather primitive kind. e.g. सामग्र (sangavá) midday, lit. the time when cows came together; or Gr. θου-λυτόν-δε (bou-lutón-de), the time when cows are let loose; or Irish im-buarach, morning i. e. the time the cows are bound.* The names of days, however, show a reciprocation which is not at all found in names of months.

VI The Family:—All the branches of the Indo-Germanic family of languages show the family relationships and names indicating them in the same developed state. Besides words for father, mother, brother, sister, and grandson, which we saw were common to all branches, there are a few others worthy of note.

Sk. पितु (pítvya), Gr. πατρῶς (patrós), Lat. patruus, Ger. vetter (orig. uncle)
,, सनु (snuśā) ,, νήσ (néos), Lat. nurus,
,, देवर (devár) ,, देव (daër), Lat. levir,
,, सनु (snuśā) ,, देवर (devár) ,, नेच (níc), Lat. janitricus,
,, सनु (snuśā) ,, देवर (devár) ,, नेच (níc), Lat. janitricus,
,, सनु (snuśā) ,, देवर (devár) ,, नेच (níc), Lat. janitricus

* The most auspicious point of time in India is still the गोरज (goraja) मुहृत्त (muhūrt). Ed.
Amongst the pre-historic Indo-Germans, marriage appears to have taken place in two ways: either by buying,—a form preserved and mentioned in the Manusmrți¹; or by carrying away the girl by force, also mentioned in ancient Law-books.² पाणिग्रहण (pānígrahaṇa) or taking of the hand appears to have been the central part of the marriage. The bride was carried away from her father's house; she is called Sk. वधृः (vadhūḥ), Av. vadu; Old Rus. woditi which means carrying away of a bride. Cf. also Sk वहति (vahati) marriage, Av. vāz.

Man and wife filled a very important position in the old family system. The man is the master of the house e. g. Sk. पति: (pātiḥ), Gr. πόσις (pósis), Goth. fahš, contained in bruhfaḥs bride-groom; Sk. दंपतिः (dāmpati), Gr. ὑσ–πότης (des-pótes), for ἕρσ πότης (dems-pótes). The wife correspondingly is called Sk. पत्नी (pātnī), Gr. πότνια (pótnia). Their chief aim was by progeny to continue the race, and make for bliss in the other world. Such being the importance attached to progeny, we find prevalent in ancient India, as in Greece, Italy, Germany and Scandinavia, the practice of what is called नियोग (niyoga).³ It is needless to go deeper into details of this subject, and to indicate the position in the family of the several relations, who were called in Sk. बंधृः (bāndhūḥ), Gr. πένθερος (pentherōs), in a slightly different sense.

VII. Tribes and people:—The common word for people is Sk. जन (jāna), Gr. γένος (génos), found also in English generic. The Gr. ἡμος (dēmos), ἑθνος (ēthnos), φυλον (phulon), as also the O. H. G. liute, Ger. leute find no counterpart in the Aryan group. We already know the word¹ Sk. विस (vis), Gr. ὀικος (oikos). These people or tribes had their own leaders and

¹ 3. 29.
² Manusmrți 3. 33.
³ Manu 9. 59 ff.
were often recognised by their names e. g. याद्वम जनम् (yādvam janam) (see supra). The leader of the clan or people was विसपति (vispāti), Av. vis-paiti, Lith. wiesz-pats; if several clans combined, a राज (rāj), Lat. rex. This leader or king was often elected by the people in an assembly called Sk. सभा (sabha), Goth. sibja, Ger. sippe, but more often he was hereditary. But still he respected the सभा (sabha), or समिति (samiti) of the people where public questions were discussed. It is always to be understood, as is so clearly demonstrated in the Dāsarājīya hymns (ten-kings-fight) in the Rgveda, that these tribes by no means lived always in peace with each other.

The other fact that these tribes, races, or peoples did not preserve their solidarity, but mixed even with the aborigines, is equally obvious. The question of race-mixture therefore need not detain us.

VIII Blood revenge:—This is a remarkable feature of the primitive people. Life was taken for life with the unfailingness of a natural law. The idea is conveyed by such words as Sk. चि (ci), चयते (cayate), अपाचित: (apacitiḥ), Gr. τύεσ (tis), and Av. kaēnā, Ir. cain. Gr. ποινή (poiné). Of course the duty of revenge fell upon certain very close

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1 We cannot agree with the difference pointed out by Zimmer Allindisches Leben, p. 15 between विस (viś) & जन (jana). In Veda they are synonymous.

2 Rv. X. 124, 8 विसो न राजान् बुजाना: (viśo na rājānāṁ vṝṇānāḥ) like people electing their king.

3 See the long line of वयाध्रस (Vayadhraśa), दिवोदस (Divodāsa), and सुदस (Sudas) पावजन (Pajavani)

4 Rv. IX. 92, 6 राजा न सम्: समितिरियान: (rājā na satyāḥ samitirīyānā) like a good king going to assemblies.

The daughter of the family also appears to have had the duty of milking the cow allotted to her; and from Skr. to Swedish the word for daughter is the same, with some phonetic changes: Skr. दुहित्र (duhitṛ), Gk. thyater, Goth. and Mod. Eng. daughter, Germ. tochter, Sw. dotter, Armenian dustr, Dutch dochter, Dan. dotter. Ed.
relations. But there was always the possibility of escaping revenge by payment of a fine or wergeld. This idea is contained in Sk. वैर (vaira), M. H. G. were, O. Russ. vira. The original meaning of the word wergeld, is man-money e. g. Sk. वीर (vīra), Lat. vir, Goth. wair (cf. Danegeld).

IX. Religion:—Antiquarian research and linguistics teach us that even the most primitive people believed in a soul and a life after death: thus Sk. आत्मन (ātmān), O. H. G. ātum, Ger. atem. The passing of the soul was celebrated in ceremonies common to all the Indo-German people, with slight differences. The chief difference is that the Indians burned their dead, while the Western people buried them.

Another feature of the religion of these primitive people is ancestor-worship. Daily service offered to them is called in Sk. पितृयज्ञ (pitṛyajña). The Śrāddha ceremony finds a counterpart in some old Russian customs of feasting the poor on the day of fathers.

Although there were many Gods, the idea of a God-Father was even then known: Sk. दिव (dviḥ pitaḥ), Lat Jupiter, Gr. Ζεύς-πατέρ (Zeus-patér). There was also a mother of Gods, the अदिति (aditi), of the Rgveda. Fire was due to them both, and was worshipped with oblations. Sk. अग्नि (agni), Lith. ugnis, Russ. ogon, Lat. ignis. Sk. उष्ण (uṣās), Gr. ἔως (ēos), Homeric form ἔως (ēos), Attic ἔως (ēos), Lat. aurora was amongst the many luminaries that were worshipped. Among the common words for God were Sk. देव (devaḥ), Lat. deus, Lith. dievas. Another deity worshipped is वरुण (vārūna), Gr. ὤμον (Oůrnōs).

The worship was by sacrifice, and was elaborate, and required a priest-class that was in the nature of things pre-eminently.

1. Rv. X, 14 and 16.
The ethical value of the worship of gods was perhaps not very great. The gods are mighty, full of dazzling light, and therefore to be feared, always to be held in awe. Epithets like अतिथि जनानाम् (atithim janānām), the guest of men, and Gr. Zeus (Zeús), Ἐννίος (Kh'énios), the protector of hospitality, are rare. Of all the Vedic gods, only वरुṇ (vāruna), impresses us by his moral grandeur.

Priesthood was perhaps even then existent, although not so powerful as it became later on, with most of the branches, after they separated by migration from their original home.\footnote{See Appendix II.}
PART III

THE INDO-IRĀNIAN OR ARYAN GROUP

29. ARYAN GROUP:—We enter upon the third great division of our subject, the Aryan group. To this group belong, as we have already seen, the Vedic language with its developments viz. Pāli and the Prākrits, called middle Indian dialects, and the modern vernaculars; and the old Irānian, consisting of the language of the Avistāk or the oldest scriptures of the Pārsis or fire-worshippers, called Avestā, and that of the Inscriptions of king Darius and his followers.

The story of the discovery of the Irānian language to the world of scholars is interesting, although perhaps not germane to our subject. The texts of the Avesta were taken to Europe in the first quarter of the eighteenth century, but no one could read them, until an enthusiastic Frenchman, ANQUETIL du Perron sailed for India in 1754, and studied the language and character with the Pārsī priests at Surat for about eight years. He published a text and translation in 1771.

The study of the language by Europeans dates from the close of the eighteenth century; and although the close affinity between the two languages was noticed by different scholars, the exact relation between the Sanskrit and the Avesta was pointed out in 1826 by the Danish scholar RASK, who had travelled in Persia and India, and had taken back to Copenhagen many Mss. of Avesta and Pahlvi works. It was indeed when Sanskrit scholars began to study Avesta that the relationship was fully discovered and finally settled.
The results of that labour are embodied by Bopp in his comparative grammar. Now-a-days in Europe, just as much importance is given to Avesta studies as was being given to Sanskrit in the latter half of the last century; and, Darmesteter, Bartholomae, Spiegel, Hübschmann, Justi, Mills, and Geldner are now among the most famous Avesta scholars.

The Avesta is the language of the collection of only books of the Zoroastrians. Part of this collection is written in a dialect called Gāthā-Avestic, which is older than the other one, and bears very close affinity to the language of the Vedic hymns. It is impossible to determine the date of the language or the works written in it, just as is the case with our Veda. But so much is certain, that the oldest part, at any rate, does linguistically in no way fall far behind the Veda in antiquity.

While speaking of the Avesta or language of the Zoroastrian Veda, we cannot lose sight of the other old Irānian dialect, namely that represented by the cuneiform inscriptions of Darius, called by scholars old Persian dialect only. These two are supposed to form the Eastern and the Western forms respectively of the old Irānian language. The old Persian was the court language of Persian kings from Darius I. (B.C. 521–485) and is found in the inscriptions of several kings of his dynasty, called the Achemenian dynasty.

A younger form of old or Achemenian Persian is the Pahlvi, preserved for us in the inscriptions of kings of the Sassanian dynasty. The oldest of such inscriptions is the one dating in the reign of Artasatar-i-Pāpakān or Ardashir (226–241 A. D.). It is in a form of this Pahlvi that commentaries on the Avesta are written. In fact the whole of the old Avesta literature consisting of Yasna, Vispered, and Vendidad was rendered into Pahlavi. This is called mid-Irānian by the linguists.
Thirdly comes what is called the modern Iranian, dating from about the 9th century A.D. It includes Persian proper, Kurdish, Afghan or Pashto, Ossetish, Beluchi or Baloch, Ghalcha and some minor dialects, including the so-called Pāmir dialects.

The relation of these three stages to one another is the same as the relation of the Vedic or old Sanskrit to the Pali and Prakrits or Mid-Indian and the present day Indian dialects or the Modern-Indian. What is more remarkable is that the relationship between the older or Gāthā–Avestan and new–Avestan finds a parallel in the relationship between Vedic and classical Sanskrit.

How closely allied the Avesta is to old Sanskrit, although individually quite distinct from the latter, is clearly seen from a passage like the following:—

'Τομ amavantom yazatem | Sūrem dāmōhu savištəm
miḥrom yazai zaohrydbyō |

which, with certain phonetic changes, gives the following almost Vedic version:

तत्र अमवंत्यर्यजतम् | सूरम् धामसु सविष्ठम् |
मित्रम् यजै होत्रक्षयः:—

(taṁ amavantam yajatam | sūram dhāmasu saviṣṭham
mitram yajai hotṛābhyaḥ)

As Jackson¹ properly remarks ‘Almost any Sanskrit word may be changed at once into its Avestan equivalent or vice versa, merely by applying certain phonetic laws.’ Such very close affinity between two Indo-German languages is found in this branch only.

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30. THE PHONOLOGY.—The Avesta agrees with the Sanskrit in a general way. Agreement of vowels both in quality and quantity is shown by equations like the following:

<table>
<thead>
<tr>
<th>Sk.</th>
<th>Av.</th>
<th>Gr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(अ) (a)</td>
<td>अञ्ज्ञ: (āsvaḥ) aspaḥ</td>
<td>अञ्ज्ञात् (āṣman) asman</td>
</tr>
<tr>
<td>(आ) (a)</td>
<td>मातर: (mātāraḥ) mātarō</td>
<td>मुट्टिर (mēlēr)</td>
</tr>
<tr>
<td>(इ &amp; इ)</td>
<td>(i &amp; i)</td>
<td>चित्तिस (cittiś) cistiś</td>
</tr>
<tr>
<td></td>
<td></td>
<td>पुत्र: (putraḥ) puḥrō</td>
</tr>
<tr>
<td></td>
<td></td>
<td>कर्णयात् (kṛṇyāt) kṛṇenyāt</td>
</tr>
<tr>
<td>(उ &amp; ऊ)</td>
<td>(u &amp; ū)</td>
<td>उत (utá) uta</td>
</tr>
<tr>
<td></td>
<td></td>
<td>भूमिम (bhūmim) būmim</td>
</tr>
</tbody>
</table>

Examples of अ (a) and आ (a), which represent in the Indo-Aryan branch the old e and o, ē and ō respectively:

(a) अ (a) for e. Sk. अञ्ज्ञ: (āsva) and Av. aspa; Sk. अञ्ज्ञ: (āsti) and Av. (asti); whereas Lat. has equus, Gr. esti; Sk. अ (a) Av. ca, Lat. que.

(b) अ (a) for o. Sk. द्वार्स (dadārśa) Av. dādareśa, Gr. δέορκε (déorke); Sk. बरंति (bhārantī), अभरान्त (abharan.), Old Pers. bārantii, abaran, Gr. (Doric) φέρον (phéronti), ἑπερον (héperon); Sk. व्रक (vrika), Av. vahrkas, Gr. λοκος (lukos).

(c) आ (a) for ē. Sk. आङ्जङ्ग (ādhāt), Av. ād̪al, Gr. ὕστε (thési); Sk. आङ्ग: (āste) Av. āste, Gr. ἱσταυ (hestai), Sk. आङ्ग (ās), Av. as, Gr. (Hom) ᾨ (ea).

(d) आ (a) for ō. Sk. वांचम (dātram), Av. dābrəm, Gr. root do (dō) in διδωμι (didomi); Sk. वाक (vāk) Av. vās, Lat. vox; Sk. त्व (dvā) Av. dvā (Gāthā), Gr. εύ (duó), Lat. duō.
Besides these, there is a vowel, a weakening of \( \ddot{a}, \ddot{o}, \ddot{u} \), called Schwa\(^1\) Indogermanicum. \( \ddot{a} \) is represented by an inverted \( e, i, e. \) as \( a \). It has remained separate from original \( a (a) \) only in the Indo-Iranian branch, where it is changed into \( i (i) \).

Indg. \( a \) : Sk. \( i (i) \), Av. \( i \), Gr. and Lat. \( a \) : पिता \((\text{pita})\), Av. \( \text{pita} \), Gr. πατέρ \((\text{patēr})\), Lat. \( \text{pater} \); Sk. शिस्ता \((\text{śisṭā})\), Av. \( \text{siskoit} \), Lat. \( \text{castus} \).

Examples from Sanskrit only; स्थिति \((\text{sthitāḥ})\), Gr. στάτος \((\text{statōs})\), Sk. दुहितर \((\text{duhitār})\), Gr. θυγάτηρ \((\text{thugāter})\).

Sometimes however the Avesta shows difference with Sanskrit in quality or quantity.

(A) Quantity:—

<table>
<thead>
<tr>
<th>Sk.</th>
<th>Av.</th>
<th>Sk.</th>
<th>Av.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(अ &amp; आ)</td>
<td>नाना</td>
<td>nanā</td>
<td>अथर्वो</td>
</tr>
<tr>
<td>(a &amp; अ)</td>
<td>यतरः</td>
<td>yatārāḥ</td>
<td>मावते</td>
</tr>
<tr>
<td>(इ &amp; ई)</td>
<td>विस्वम्</td>
<td>visvām</td>
<td>वितासिम्</td>
</tr>
<tr>
<td>(i &amp; i)</td>
<td>अनिकम्</td>
<td>ānikam</td>
<td>इसानम्</td>
</tr>
<tr>
<td>(उ &amp; ऊ)</td>
<td>सुनाहः</td>
<td>sūnāḥ</td>
<td>...</td>
</tr>
<tr>
<td>(u &amp; उ)</td>
<td>सूरनः</td>
<td>sūranāḥ</td>
<td>hūnavo</td>
</tr>
</tbody>
</table>

These appear to be sporadic cases, but mostly there are certain laws governing the change of quantity. A few are indicated below:—

---

1. BRUGMANN, Kurze Vergleichende Grammatik pp. 80 & 141.
(a) Sanskrit इ (i) & उ (u), are regularly lengthened before final म (m). पैतिम् (pātim -paitim), पितुम् (pitum -pitum), धासिम् (dhāsim -dāhim).

(b) Sanskrit short monosyllables are regularly long हि (hi) -Zi, नु (nu) -nū, आ (pra) -frā.

(c) In Gāthā—Avesta all finals become long, अष्टू (āṣura) -ahurā, कु bra (kubra) -ahī.

(B) Quality:—

Sk. अ (a) Av. ə before n, m ; संतम् (sāntam)-hōntēm, उपामम् (upamām) -upōmēm.

" अ (a) " i (through ə) before n, m ; याम् (yām)-yim, वाचम् (vācam)-vācim, द्रुहम् (drūham)-drugim

" अ (a) " ə अह (aham)-azom.

" अ (a) " e, before y, when i, i, रोक्यति (Rocayati)-(rocayeti) ए, e, follow ; अयानि (ayāni)-ayeni, य (yajña)-yesne

" अ (a) " o वसु (vasu)-vohu, मसु (maksu)-mosu

" अ (a) " ō धामसु (dhāmasu)-dāmōhū.

There are also other examples1 of change in quality; we shall speak of only one more.

Sk. र (r), Av. ər* or ar* क्रृति (krūti)-ker*naoti, मृत्ति-(mṛtyuh)-mrtyuh

" द्र, उद्र, (ir), (ur), Av. ar, ər इतस्वयम् (hiranyasya)-zāranyēc, गैरि: (girih)-gairś

The Avesta shows the following diphthongs to correspond to the Sanskrit diphthongs:

ए, (e)  
ॆ: पौर्तत (etāt)-aētat,  
ैद (vēda)-vaēdā,  
ूदूरेड्स (dūredrīs)-dūraēdārs

ौ, (o)  
ॉ: ओजस (ojas)-aojā,  
ॊ: प्रोक्ताह (proktāh)-fraohtō

ौ: क्रातो (krātōh)-kratōus,  
ौ: वासो (vāsōh)-vaphōus

Since these vowels, ए (e) and औ (o) play a great part in गुण (guna) and वृद्ध (vṛddhi), their correspondents in Avesta also do the same.

We shall pass over abbreviations and reductions in the Avesta, such as are exemplified e. g. in the reduction of य (y) into इ (i), व (v) into उ (u) i. e. सूप्रसरण (saṃprasāraṇa), or abbreviation as in प्रतियन्तु (pratiyantu)-pātyantu, and notice certain sound phenomena in the Avesta, which are very remarkable. These are called epenthesis, prothesis, and anaptyxis.

1. Epenthesis is a very special characteristic of the Avesta. It consists in the insertion of an anticipatory इ or उ, when the following syllables contain इ, इ, इ, य, or उ, व.

   Sk. भवति (bhāvati) Av. bavaiti, एत (eti)-aēti, भाति (bhārānti)-bāraṇti
   "अव्रथ: (ārvantāh), āurvanto, अर्ध: (ārṣāh)-a rṣo, तरण: (tārunaṃ)-ta"rnom
   "पह (in पहलव) (paru)(paruḥhepa)-po"ru

2. Prothesis. This is the same as epenthesis, with this difference, that the anticipatory syllable comes initially. It takes place regularly before र, followed by इ or उ.

   Sk. रिवति (rīvati)-rīvanti, रिषयति (rīsyati)-rīsyetī, रिपयति (rōpayanti) "rōpayetīnti

3. Anaptyxis. This is the name of an irrational vowel that develops between two consonants, especially if one of them be र, and regularly after final र.
(b) The Avestan consonantal system is not as rich as the Sanskrit one. The Avesta has only two palatals c and j; cerebrals are entirely wanting; there are no aspirates i.e. the tenuez aspirates and medial aspirates: the nasals are only partly the same as in Sanskrit. Of sibilants however the Avesta shows a profusion unknown to Sanskrit.

(1) The Sk. tenuez are kept almost the same in Av. Sk. उपारि (upāri), Av. upā'ri, क्रृव (kṛpā)-kṛṛs, पत्तनि (pātanti)-pānti, त्र (tad)-tā, अति (āti)-ati, अति (āsti)-asti, ततपयति (taptayati)-tāpayeti, कत्र (katará)-kalārō, कः (kāh)-kas, चरति (cārati)-carāti, चाकन (cākan)-cakana.

But the same tenuez are in Avesta changed to spirants before consonants:

Sk. क्रुद्ध (kratūh)-kratuś, छल्ल (kṣatrām)-kṣāṛom, स्वप्न (svāpnam)-hvasnom, सत्य (sātyah)-haiṣyo, प्रध (proktah)-fraohtō, द्रप्त (drapsāḥ)-drafśō.

So that they have fallen together with the spirants that are due to tenuez aspirates in Sanskrit, which we shall now treat.

Exception:—No change takes places when a sibilant precedes.

उष्र (uṣtram)-uṣrōm, अस्पुरत (āspurat)-sparaṭ, स्त्रृत (sthrām)-stāṛom, a bullock, स्खलयति (skhalayati)-skarayant; त (ṭa) remains unchanged, सप्त (saptā)-hapla, सुप्त (sūptiḥ)-hupti

1. JACkSON, Avesta Grammar pp. 27 ff.
(2) Tenuez aspirates are represented by spirants \( f, ŋ, h \) in Avesta.

Sk. सक्षा (sákṣha)-haha, सप्तथस (saptáthas)-háptáhóm, कफस (kaphas)-kafóm, शैफस: (sapháśah)-safaóvho, खा (khá)-háæ, गाथा (gáthá)-gañæ.

(3) Sanskrit mediae are also represented by mediae in Avesta. Sk. उपबद (upabda)-Av. upabda, दीर्घ (dérgha)-

दर ga, सद (sadáh)-hadis, उग्र (ugrāna)-ugræg, बिद्रा (vidvān)-vidvæ. These have fallen together with the Avestan media, which represent Sanskrit medial aspirates.

(4) Sanskrit medial aspirates are represented by mediais; भ्र (bhṛtā)-brāta, भि (bhis) and भ्य (bhyas)-bya,

उभ (ubhāhyām)-uböibhā, मधु (mādu)-madu, and धर्षति (dharṣati)-darsis, अध (adha)-adā.

(5) The Avesta \( j \) represents Sanskrit ज (j), जीवनम् (jívantam)-jívántom, ज्ञ (jya)-jyaæ, अजिष (ājīṣṭha)-

अजिष्टो. But it also represents Sanskrit \( h \), हन्तारम् (hántáram)-jantarem, अर्हति (árhati)-arojaṭi, ध्रु (drúham)-daujim.

This double character of the \( j \) is due to the fact that the original sonant aspirates (see 4) coalesce with the mediais and that in Sanskrit itself \( j \) and \( h \) have a double nature.

(6) The semivowels and liquids are generally the same as in Sanskrit. याः (yājñám)-yasnom, अष्ट्रस्य (āsurasya)-ahurahyā, ब्राह्म (vástram)-vastrém, वा (vāta)-vāṭo, स्व (svaśva)-havspō.

त्व (tva) in combination becomes \( bva \) but remains when sibilant precedes; क्र (krátva)-krañwō, तम (tvām)-\( bwa \); but \( varśva \) and not \( bva \). Sk. स्व (śva), appéars in Av. as \( sp \). विष् (viṣvam)-víspetm, अष्ट्र (āṣva)-aspō, श्व (śva)-spaëtōm.
(7) Sanskrit $m$ has an Avesta $m$, but Sanskrit $n$ is represented in different ways.

Sk. $m$: (manah)-manahva, tanus (tanis)-tanus, 
$k$, janta (janigha)-zaiga, nima (nima)-nim, bharanti 
$k$ (bharranti)-baraiti.

(8) Sibilants:—Original $s$ remains the same under certain conditions but generally becomes $h$;

a. स्तम्भम् (skambham)–skombom, स्तोत्रास (stotaram)–stotaram, स्पर्थानि (sparthani)–sparthani; but सार्ह (saptah)–hapta, सिंधु (sindhuh)– 

हिंदु, सङ्ग (sangam)–haomom, सङ्ग (sakhā)–hahā, सर्व (sarva)–harva, सव (savya)–havoya

b. अंसि (asi)–ahī, नमसि (nāmasi)–nomahi, असुम (asum)–ahīm, but वसनम (vasanam)–vavhamom, अवसो (avasō)–avahho

c. पुष्क्रम (putras)–puhro, इष्व (isavaḥ)–iśavo

This last treatment of स (s) in a termination finds a parallel in the Prākrits.

For the representation of $s$ with other consonants see Jackson, Avesta Grammar pp. 45 ff.¹

अश्व (asyā)–ahe, असुरस्य (āsurasya)–ahurahyā
सहस्रम (sahasram)–hazaprem दृषि (dasrāḥ)–daprō
स्मृत्व (smāt)–mat स्मांसि (smāsi)–mahī
buts कासम (kasmāi)–kahmai द्रास (drapsāḥ)–drafso
मृत्व (mātsya)–masyo दास (dāsva)–dasva

There are three or four other sibilants, for which see Jackson op. cit. pp. 49 ff. The $z$ in Avesta represents Sk. 

$\eta$ or $h$ as remarked above; e.g. जात (jātā)–zātō, यज्ञेत (yajāte)–yazāte, and हस्त (hāsta)–zasta, अहम (āham)–azem.

1. See also Reichelt:—Avestisches Elementarbuch, § 81-100.
31. **Inflection**—In declension Avestā agrees entirely with Sanskrit. It has eight cases, three numbers and three genders. The uses of the cases are generally the same. The endings are:

<table>
<thead>
<tr>
<th>Sing.</th>
<th>Plur.</th>
</tr>
</thead>
<tbody>
<tr>
<td>N.</td>
<td>ō, ā, apho</td>
</tr>
<tr>
<td>A.</td>
<td>ō, ā</td>
</tr>
<tr>
<td>I.</td>
<td>biś</td>
</tr>
<tr>
<td>D.</td>
<td>byō</td>
</tr>
<tr>
<td>Ab.  (a)</td>
<td>byō</td>
</tr>
<tr>
<td>G.</td>
<td>am</td>
</tr>
<tr>
<td>L.</td>
<td>su, śu hu</td>
</tr>
</tbody>
</table>

We decline one or two words which will show clearly how the Avesta is in perfect agreement with the Sanskit.

yasna—yaṅāḥ (yajñāḥ)  
yasnaḥo—yaṅā (yajñāḥ)  
yasna—yaṅām (yajñām)  
yasnaḥis—yaṅā (yajñāḥ)  
(yedic Inst.)  
yasna—isya (yajñāya)  
yasna—byō (yajñābhyah)  
yasna—isya (yajñāsyā)  
yasna—isya (yajñānām)  
yasna—isya (yajñās)  
yasna—isya (yajñā)

We give singular paradigms only of an ā and i base
daṇā—conscience, religion, ga'ri—mountain

daena—ā (āḥ)  
daenam—ām (ām)  
daenaya—āya (ayā)  
daenayā—āyi (āyai)  
daenayāt—ā (yāḥ)  
daenayās—ā (yāḥ)  
daenaya—is (yām)  
daene—ē (ē)  

gãris Sk.  
gãrim  
gãri  
garo  
garois  
gare  
gaire  

गिरिश (girish)  
गिरिम (girim)  
गिरि (giri) Vedic.  
गिरये (giraye)  
'गिरे (gire)
Stems in र (ur) are declined on similar lines; i.e. of र (ir) stems. Consonantal stems are declined as in Sanskrit. The only difference being in the abl. where at, variant of ad, as seen in feminine ए bases and of oit seen in ए, ऊ bases, is invariably used; abl. visat, Sk. विश (viśah). The other cases of the word are viś, visem, visa, vise, viso, visi.

It is not possible to treat in this short space other stems also. We refer the reader to the excellent summary in Jackson.1 dāta, dātāram, dābra, dābre, dābrat, dābro, datare, dātari, are just like the declension of Sanskrit दृ (dār) with phonetic changes, excepting the persistent at, of the ablative. a'ryama, a'ryamanem, a'ryamna, a'ryama/ne a'ryamnat, a'ryamno, a'ryama'ni, a'ryama, may be compared with the paradigms of Sk. अर्यमन (aryaman).

(a) Adjectives agree as in Sk. entirely with nouns in declension and therefore need not be treated separately. Only the comparison need be shortly noted. As in Sanskrit, there are two ways of forming the two degrees; (1) adding-tara, Sk. तर (tara), tōma, Sk. तम (tama), and (2)-yah-यस्त्र (iyas), ista-इष्ट (ista).

<table>
<thead>
<tr>
<th>amavant—strong</th>
<th>amavastara</th>
<th>amavastoma</th>
</tr>
</thead>
<tbody>
<tr>
<td>huyāṣta—Sk. स्विष्ट (sviṣṭa)</td>
<td>huyastara</td>
<td>maziṣṭa—महिष्ठ (mahiṣṭha)</td>
</tr>
<tr>
<td>maz— मह (mah)</td>
<td>mazyas</td>
<td></td>
</tr>
<tr>
<td>vohu— वस (vasu)</td>
<td>vahyah—वस्य (vasyah)</td>
<td>vasiṣṭa—वसिष्ठ (vasiṣṭha)</td>
</tr>
<tr>
<td>āsu— आश (āsu)</td>
<td>āsyah</td>
<td>āsiṣṭa—आशिष्ठ (āsiṣṭha)</td>
</tr>
</tbody>
</table>

1. Avesta Grammar pp. 82 ff.
(b) We have given a specimen of Avestā numerals in the previous part, where we considered what constituted an Indo-Germanic language. A repetition, however, is not without benefit.

There are, as in Sanskrit, both cardinals and ordinals and they have declensions like nouns. Cardinals aēva, dva, ṭri, caḥwar, ṭanca, hśvaś, hapta, aṣṭa, nava, vīsaṭī, ṭrisat, etc sata, duye saītō, caḥwārō sata, etc, hazavra, baēvar; ordinals fatōma or, proīrya, biṭya, prītya, tuīrya, ṭuhda hśtva, haptṛya, aṣṭōma, etc.

(c) Pronouns:—Most of the Avesta pronouns correspond to Sanskrit pronouns. A few specimens will suffice:

1st. person N. azēm, A. maṃ, mē; D. māvōya, mē; Ab. maṭ; G. maṇa, mē; pl. vaēm, ahma, or no, ahma'byā etc.

2nd. person N. tūm, tū; A. ḫwam ḫwā; I. ḫwā; D. taibyā, tē; Ab. ḫwat; G. tava, tē; plu yūzēm, vo, yūsma'oyō, hēmāvōya, yūsmākōm, vo.

The third personal pronoun hēm hē, is defective. Its deficiencies are partly made up by the demonstrative pronoun ( ho, tōm, ta, tahe etc.); this is also in keeping with Sanskrit.

Relative pronoun—yo, yim, yā, yahmāi, yahmāt, yehe, or yevhe, yahmi; pl—yōi, ya, yāiś, yaēbyō, yaēsam, yaēsū.

One sees at once, that granting phonetic changes, there is no difference between Avesta and Sanskrit forms of pronouns. We might pass over other pronominal bases and their declension, and turn to the conjugation of verbs.

A. Conjugation:—The Avesta agrees with the Vedic Sanskrit in voices, tenses and moods (subjunctive included). In their usage, too, there is no difference. There are also infinitive and participle forms. In person and number there is perfect accord, as was to be expected.
There are primary and secondary endings.

(a) Active, mi, hi, ti, mahi, (मति) (masī), pa, nti. Middle e vhe,te, maide. ḥwe, nte.

(b) m, s, t, ma, ta, n, are secondary.

The Imp. has di, tu, ta, or na, ntu, Sk. द्वि (dhi), तु (tu), and त (ta), and न्तु (ntu), vṛha, tam, dṛṃ, nṛam, Sk. स्व (sva), त्तम (tām), व्रम (dvam), र्तम (ntām).

The roots, as in Sanskrit, fall into two groups, thematic and non-thematic according as they insert the stem-vowel a or not. There are like Sanskrit ten classes in all. Two a classes, a ya and an aya class, all of thematic roots; a root class, a reduplicative class, a nasal class, and nu,-u,-nā classes of non-thematic roots.

We give paradigms of the indicative of bar, Sanskrit भर (bhar).

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>(bārāmi)</td>
<td>bārāmaḥi</td>
<td>(bāreṁ)</td>
<td>bārāma</td>
</tr>
<tr>
<td>Present</td>
<td>bāraḥi</td>
<td>bārāḥa</td>
<td>Preterite</td>
</tr>
<tr>
<td>barāti</td>
<td>baronti</td>
<td>barat</td>
<td>baron</td>
</tr>
</tbody>
</table>

The close similarity of this with Sanskrit भरामि (bhārāmi), भरंतु (bhārantu), and अभरम (ābharam), अभरन (ābharan), will be easily recognised.

The imperative forms are bara, baratu, barata, barontu, corresponding to भर (bhāra), भरतु (bhārata), भरत (bhāreta), भरंतु (bhārantu), for Active and barepuha baralam, baradwem, barontam corresponding to सर्स्त्र (bharasvā), सर्ताम (bharām), सर्ताम (bharantām), for Middle.

Omitting other moods, we shall only give the paradigms of the subjunctive.

<table>
<thead>
<tr>
<th>Sing.</th>
<th>Plu</th>
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<tbody>
<tr>
<td>bārāni</td>
<td>bharāni, bārāma</td>
</tr>
<tr>
<td>bārahi</td>
<td>bharāṣi, bārāḥa</td>
</tr>
<tr>
<td>bāraṭi</td>
<td>bharāti, bāran</td>
</tr>
<tr>
<td>bārāt</td>
<td>bharāt</td>
</tr>
</tbody>
</table>
The optative agrees entirely with Sanskrit optative; *barōis*-मेँ (bhareh), *barōilt*-सेँ (bharet), etc.

The present participles are *barant* and *baromna*, Sk. भरत्तु (bharant), भरमण (bharanĩna).

Of the root or non-conjugational class, we shall take the root *ah*, Sk. अस (as).

Sing. Plu.

Present

\[ \begin{align*}
& \text{Sing.} \\
& \{ahmi, mahi (समि- (smasi) Ved) \\
& \{ahi, sta \\
& asti, honti
\end{align*} \]

Preterite

\[ \begin{align*}
& \text{Sing.} \\
& \{aś Ved. āsū (āś) \\
& \{as, " asūti (āśti)
\end{align*} \]

Imper.

\[ \begin{align*}
& \text{Imper.} \\
& \{aždi, Sk. एधि (edhi) \\
& astiū
\end{align*} \]

Subj.

\[ \begin{align*}
& \{avha, असति (asati) \\
& avhati, असति (asati)
\end{align*} \]

Optat.

\[ \begin{align*}
& \{hyem, स्यास (syām) \\
& avhat, स्यात (syāt)
\end{align*} \]

Pres. Part—*hant*, Sk. सन्त (sant).

Dadami, kor'naomi, frināmi, are examples of the reduplicated, *nu*, *na*, classes.

The perfect is formed with reduplication in most cases, and without it in a few cases as in Sanskrit. The rules of reduplication are almost identical.

*didvāsa*-दिवस (didvesa), *dādarša*-ददर्श (dadarśa) va'da-

*vedr* (veda), chakana-चकन (cākan), dadāra-दादर (dadhāra).

These typical examples will show the wonderful similarity, almost identity, of the forms in the two languages.
In aorist the Avesta shows as great a variety as the Sanskrit. There are the non-sigmatic and the sigmatic groups. But as in the imperfect, the Avesta differs from Sanskrit in not always having an augment; though there are several augmented forms in the Avesta such as *āpataṭ* and *abavat* e. g.

Simple Aor. \{ *dūt-अधात* (*adhāt*), *dāmā-अधाम* (*adhāma*),
\*dārōsem-अदर्शेम* (*adarśam*)

Redup. Aor. *vaocom-अवोचमृ* (*avocam*), *zīsanāt-अर्जीजनात* (*ādījanat*)

S. Aor. \{ *masta-अमांस्त* (*amainsta*) *dāīs* from *da*
\*prāzdūm-श्राध्वमृ* (*trādhvam*)

The last example shows that the Avesta forms sigmatic Aorist from roots, which are conjugated otherwise in Sanskrit in that tense. The Av. agrees with the Sk. even in the *i* of the 3rd sing, of the passive aorist e. g. *srāvī*, Sk. श्रवावि (*aśrāvi*).

*The Future* :—The characteristic श्य (śya) (श्य) (śya), of the Sk. future is seen in the Av. *hya*. The root assumes the same form before it as in Sanskrit:

*fravahśya-प्रवक्ष्यामि* (*pravakṣyāmi*), *harśyente-हर्ष्यन्ते* (*srakṣyante*)

*būśyant, sūśyant* are fut. part. corresponding to Sk. भविष्यन्त (bhavisyant), सोष्यन्त (sosyant).

The Avesta shows the same variety of other verbal forms, e. g. passive, causal, denominative, desiderative, frequentative, and participles, gerunds, infinitives as the Ṛgveda. A few examples will suffice to show, that here too, there is perfect accord between the Avesta and the Sanskrit.

Pass. *kiryēti-किर्येति* (kriyāte), *maryate-मर्येति* (mriyāte)
Caus. *vaēdayēnti-वैदयन्ते* (vedāyante), *raocayēti-रोचयति* (rōcayati)
Denom. *nemahyati-namasyate (namasyate), paipyeti-patyati (patyati)

Desid. *jijisati-jijisati, siksati-sikhiti (sikhiti)

Freq. *zaozaoti-johaviti, daedosti-adedista (adedista)

We have already given pres. part. forms, which are seen to agree with corresponding forms in Sanskrit to an astonishing degree. The past. pass. part. is formed by adding—*ta-, *ita or-*na; *uhta-urka (uktå), *raodita-radir (ruditå), *perenna-puran (puranå). The gerund occurs only in stray forms; *patiricyna pratiricya (pratiricya). The infinitive has quite a variety of forms; *dorydyai = Sk. dhé (dhyaï), in pîcchay (pibadhyai), *koroteq = Sk. -taye (tyae), lê (tyai), in lêy (ityai); *avaphi = Sk. -aše (ase), in chaśse (cakśase); *vidvanoe = wydane (vidmanoe).

The above will have made it clear that old Sanskrit and Avesta are sister languages, which separated from each other in at least the second millennium before Christ, and what is also very likely, from a land lying north of Afganistan and east of the Caspian sea. Here they must have lived as dialects of one common language, differing as little as possible from each other in all essential points.

32. Vedic Sanskrit:—The Vedic language (add thereby we mean the language of the oldest part of the Vedic literature) has preserved to us some of the oldest features of the original Indo-Germanic language. Its consonant-system has preserved almost intact the old Indo-Germanic system, although in vowels it has suffered losses. In inflection and conjugation too, it has preserved several of the old peculiarities that other languages have lost. Of consonants it has preserved the medial aspirates, which both the Greek and

* The names of the Vedic deities like Indra, Varuna &c. found on the Hittite inscriptions of Mitani, do affect this. See Appendix 1 for the archaic nature of Hittite phonology.
the Latin have lost; e. g. श्रेष्ठ (bhārtar), Gr. φράτωρ (phrātor), Lat. frater: Sk. दाधामि (dādhāmi), Gr. τιθημι (tithēmi), Lat. feci, Sk. घेन (ghēna), Lat. felis; Sk. हन (han), from घन (ghan), Gr. θείνω (theinō), etc. We have seen how the Sanskrit had confused the three short vowels a, e, and o. In inflections it has preserved all the eight cases, the duals, although the distinction between some stems, e. g. e and o, is lost. It has preserved all the ten classes of roots, all the moods and tenses, and the various forms of the aorist.

The language of the Veda, i.e. the literary language, is based upon a dialect that was the oldest of the Indo-Irānian branch. That underlying the Avesta is comparatively younger. The Rgveda and the later Samhitās show a slight difference in language. Much more does the language of the oldest Brāhmaṇas, the Tāṇḍya and the Taittiriya show this difference. In fact the Rgveda-Samhitā itself shows an older and a younger form of language. The language of the 10th Maṇḍala, for instance, is in some points different from that of the older parts, viz. the so-called family-books. In fact, the language of the 10th Maṇḍala represents, so to speak, a transition1 between the Rgvedic language and the language of the other Samhitās. We may notice certain points.

1. The hiatus, so frequent in the previous Maṇḍalās, becomes rarer. Such combinations, or rather want of combinations, as या ते शविष्ठ नाय्याः अर्थम् (yā tē savīśṭha nāvyā ākarma), V 29, 15, इव मनीष्यं इययम्बिन्ना गिहः (iyan maniśā iyamāśvinā gīh), VII 71, 6 tend to disappear.

2. यू (y), and वू (v), in the middle and end of a word often take the place of यू (iy), वू (uv); त्वम् (tvām), for instance, appears as त्वम् (tuvam), more often in the older Maṇḍalās. The same is the case with त्य (tya).

1. Wackernagel. Altindische Grammatik, XIV.
3. The Abhinihita-Sandhi, i.e. merging of initial \( \text{ऋ} (a) \), into preceding \( \text{ए} (e) \), or \( \text{ॐ} (o) \), becomes more frequent. e.g. अन्नवृत्तस्थिति (समुन्द अधवा प्रवर्तानुपुरुषे) II 13,2, and अवक्षिप्त दिवो अस्मानम् (वक्षिप्ता दिवो अस्मानम्) I 121, 9, आमिभिते अरोचत (agnirjāto arocata), V 14, 4, tend to disappear.

4. ड्र (I), representing old Indo-German \( \text{ष} (r) \) (rarely \( \text{ऋ} (l) \)) shows a tendency to increase; मङ्गुः (mluc), लभ (labh), लोम (loma), लोहित (lohitā), against the old Vedic नङ्गुः (mruc), सङ्ग (rabh), रोम (roma), रोहित (róhita), become more current. This ड्र (l) is eight times as frequent in the later Manḍalas as in the older ones, and seven times as frequent in the Atharva Veda as in the Rgveda. All these peculiarities the 10th Manḍala shows in common with the later Sanshitas.

5. Again the root ग्रभ (grabh), shows ड्र (h), in the older Rgveda only after a ड्र (r), as हस्तग्रह (hastagṛha), but हस्तग्रभाकः (hastagrabhakaḥ). In the tenth Manḍala, as in Classical Sanskrit, it has uniformly become ड्र (h) e.g. जग्रः (jagṛa), old Vedic जग्रः (jagṛha); ग्रहः (grha), O. V. ग्रभ (grabhāya). The same is the case with the termination of the 2nd sing. imperative, धि (dhi). As in classical literature, it consistently becomes हि (hi) in the later Manḍalas, and other Sanshitas. This, as we shall see, is a peculiarity of the Prākṛts.

6. Then the root \( \text{क्र} (kr) \) in the older Veda takes the conjugational sign नु (nu), क्रमः (kramah), but it becomes क्रमः (kurmah) in the 10th Manḍala, as in later literature showing an \( \text{उ} (u) \) instead of the older नु (nu).

7. In inflection, the older forms e.g. mas. nom. plu. in अस्स (āsas), inst. plu. in एभिः (ebhīk) become rarer in preference to forms in अस् (as) and ए (aiḥ) as in classical Sanskrit.
8. The most marked change, however, is found in the Vocabulary. Words like इम् (im,) अवस्यु (avasyu), विचरशं (vicarṣāni), वीति (viti), fall into disuse and new words come into vogue.

The language of the Rksaṁhitā is further essentially different from that of the younger Samhitās. Words quite usual in the Rgveda, for instance, like उर्विय (urvīyā), चक्वान (चक्वान), सीम (sīm), कन (kan), are not found in the latter. Others like इत्थ (itthā), इत्स (its), इम (im), उक्थ्य (ukthya), तव (tva), उदान (udān), उरुस्यति (urūsyaṭi), उत्ति (ūttī), rarely occur. Vocatives in वस (vas), and वन (van), and nom. plu. in आस (āsas) are almost absent.

It is to be remarked, however, as Wackernagel has pointed out, that the sound system has suffered the least change, because the redaction of texts of different Samhitās was done on similar principles. Yet the tendency to incline to a l in preference to r, noticed above, kept on to be on the increase.

The prose contained in the Yajurveda and in the oldest Brāhmaṇas, shows the same kind of development. Younger Brāhmaṇas, like the Aitareya and Jaiminiya show forms like आवम (āvam), for old आवम (āvam), and thus approach the classical stage to an appreciable degree; in the periphrastic perfect almost unknown to the Samhitās, the Aitareya Brāhmaṇa shows forms like आमन्त्रयम (āmantrayam āsa) where older Brāhmaṇas show चकर (cakāra) only and atm. optative forms in यित (yita), for the more usual येत (yeta), e.g. हयित, कामयित (havyīta, kāmyīta). The narrative perfect becomes more common in these than in the Tāṇḍya and Taittiriya Brāhmaṇas.

1. Wackernagel, op. cit p. xxx.
This prose has lost the richness in forms that the \textit{Rgveda} possessed, although the conjunctive is yet preserved and a variety of infinitive forms is shown. In syntax, however, this language presents a truer picture\textsuperscript{1} of the old language, than could be done by the metrical \textit{Rgveda}. It is remarkable that the oldest prose contained in the \textit{Yajurveda} and the old \textit{Brāhmaṇa} texts has no idea of a narrative perfect, which becomes prevalent later and which is found in the \textit{Rgveda} itself. This may be explained perhaps by difference in dialects underlying the two forms of the language. \textit{Wackernagel} is not ready to accept a difference in dialect as the only possible cause. He sees therein also the possible working of metrical style.

33. It should be remembered, however, that this is yet \textit{Vedic} or old Sanskrit. Only in the latest \textit{Brāhmaṇas}, in the \textit{Upaniṣads} and \textit{Sūtras} etc. do we find a distinct resemblance with the Classical Sanskrit, which was once and for all fixed by Pāṇinī’s Grammar and which evidently became incapable of further development. The younger language has lost much of the Vedic wealth of forms. It has lost the conjunctive except for the forms of the first person, which are incorporated into the imperative and limited the optative to present and preceptive. Of over a dozen infinitive forms तुम्, तै, तै, असें, अ, (\textit{tum, tave, tavai, ase, dhyai}), etc., only तुम (\textit{tum}) is preserved. The absolutive in ता (\textit{tva}) is used, but those in भ, भ, त्व, (\textit{tvī, tvāya}) and त्वैनम, त्वानम, (\textit{tvīnam, tvānam}) are neglected. The terminations मसि, व, ए, (\textit{masi, dhva, e}) which were used side by side with मसू, व्यमू, (\textit{mas, dhvam}) and त (\textit{ta}) in the Veda have disappeared. The \textit{र} (\textit{r}) of the third person plural perfect, which was seen in the Veda even in other tenses \textit{e.g. अवस्रन, अद्यतन}, (\textit{avrasan, adṛśran}) has

\textsuperscript{1} \textit{Wackernagel, op. cit} p. xxxi. Compare also \textit{Delbruk’s Altindische Syntax} where this has been made amply clear.

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almost disappeared, except in the forms of शी (śī) and those of atm. of 3rd. person plural perfect. Imperative छातु (dhvāt), and चि (dhi), which were frequently used in Veda side by side with हि (hi), are also lost with the exception of stray forms like ज्ञुधि (juhūdhi). In declension many of the double forms have totally disappeared e. g. आसस (āsas), of nom. plu आ (ā) of nom. acc. and voc. duals, आ (a) of the instr. sing of stems in आ (a) and the आ (ā) for आ (au) of loc. sing. of stems in आ (i). In the same way, what were recognised as irregularities viz. vocative in वस (vas) of stems in वन्त (vant) like अद्रिव: (adrivah), हृदिव: (harivah), gen. plu. गोनाम (gonām) for गताम (gavam), चक्रसम (cakrusam) for चक्रवासम (cakrvānsam) are dropped out of use. युवम (yuvam) and युवत (yuvāt) are abandoned in preference to युवाम (yuvām) etc. The wealth of verbal derivatives1 like अवस, दर्शत, चूठक, बच्छ (avas, darśata, mṛṭika, bahhari) is unknown to the classical Sanskrit.

This simplification and these losses are explained by Wackernagel in the following way. The spoken Sanskrit of the Vedic times was simpler and more modern than the Sanskrit of the hymns. Then again the language of the people which had surely lost old endings and forms, reacted upon the classical language, tending to simplify the latter. Old Sanskrit forms that had nothing corresponding to them in the colloquial language were therefore on their way to oblivion. But that is scarcely a sufficient explanation, for on the one hand the classical language has preserved nominal and verbal forms which the colloquial languages have not kept; and on the other, the latter show old Vedic forms and sometimes categories of forms like देवाओ, देवेहि (devāo, devehi) which presuppose देवस: (devāsah) and देवेभिः (devebhīḥ) which the classical language does not show. All languages that have passed into the literary stage show a tendency to limit the

1. Bhandarkar, Philological Lectures p. 16.
stock of forms, to drop what seems superfluous like double forms, and to regularise paradigms of nouns and verbs. This must have been accelerated by the science of Grammar, which in India arose very early. We know that a language that is bound by Grammar and passes into the literary stage, is less apt to develop than one that is less fettered. Moreover the language of the people was already making rapid progress, leaving Sanskrit only to be a language of books and of the learned.

Here it must be said, that the attempt of certain scholars to brand classical Sanskrit as an artificial language actually created\* by grammarians, is as ridiculous as it is unlinguistic. Grammarians can simplify and regularise language and perhaps stop its growth; they cannot create language. The attempt of certain enthusiastic idealists in Europe actually to create an international language, called Esperanto or Ido, and the fate that it met with, ought to convince any one of the futility of such a hypothesis. Languages cannot be made in that manner. It is strange to see scholars like Weber, Hoernle and Grierson advocating this theory of artificial Sanskrit. What is meant by Wackernagel and others, when they call classical Sanskrit a Kunst or Hoch-sprache is, that it is now already a fossilized literary language and that it has long ceased to be in touch with the popular dialects. Grammarians have only canonized it as Pāli has been canonized by the writers of Southern Buddhism.

\*The Classical Sanskrit is therefore, as we have seen, the literary development\* of the oldest Vedic prose. In other

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\*Bhandarkar, *Philological lectures* p. 27 has amply refuted this theory.
words, it is the canonized form of the literary Vedic which is based upon an old Indo-Irānian dialect. It is not a dialect itself, as between that and the spoken language of the people there is a wide gulf. This does not mean, however, that the oldest form of classical Sanskrit was never spoken. It was itself a भाषा (bhāṣā), a spoken colloquial language, but only of schools and priests and the educated and higher classes. We find Yāska, the author of the Nirukta, making a distinction between the Vedic and his Sanskrit. The former he refers to by words like अन्वद्वययम् (anvadhyāyaṃ), दासतयेव (dāsatayēva), and the latter as भाषा (bhāṣā), or colloquial speech. What is more important, he makes mention of प्राच्य (pracyāḥ), or easterners, and उदिच्च्य (udiccyāḥ), or northerners, while showing how roots are current among certain people and their derivatives only among others; e.g. दातिलवनाथः प्राच्येषु दात्रमुदिच्च्येषु (dātilavanārthe pracyeṣu dātramudicyeṣu), Nir II, 2. He was therefore conscious of provincialisms and these are impossible unless we presume that in his time Sanskrit was a colloquial language to a certain extent. Coming to Pāṇini, we find the same thing; he also draws attention to provincialisms and calls his language भाषा (bhāṣā), as distinguished from the Vedic language, which he designates as चन्दस् (chandas). So does Kātyāyana, so also Patañjali. Again Pāṇini prescribes certain rules which apply only in the case of colloquial speech: e.g., the rule of Pāṇini नातिन्याकोरे पुत्रस्य (nādinyākoroṣe putrasya) ‘the word पुत्र (putra), is not to be pronounced with a double ṭ (t) when the word आदिन्ति (ādinti) follows and the term is a reproach’, or एकश्रूति हृदासंवज्ज (ekasyutu dūrāsaṃvajjau), or the वृत्तिः विनिर्दिश्ते (vṛtyasya tēḥ pluta udattaḥ), प्रत्येकादेविषप्रय (pratya-

1. Pāṇini 8, 4, 48.
2. Pāṇini 1, 2, 33.
3. Pāṇini 8, 2, 82 ff. See WACKERNAGEL, op. cit. XLIII.
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<td>2 Long</td>
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<td>1 Short</td>
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<td>2 Long</td>
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<tr>
<td>3 Diph</td>
<td>au, eu, ou (first element short)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Thong</td>
<td>au, eu, ou (first element long)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Consonants</th>
<th>Labial</th>
<th>Dental</th>
<th>Palatal</th>
<th>Velar</th>
<th>Alveolar</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plosive</td>
<td>b, p, b</td>
<td>t, d, t</td>
<td>c, ch</td>
<td>k, g, kw</td>
<td>t, d, t'</td>
<td></td>
</tr>
<tr>
<td>Nasal</td>
<td>m, M</td>
<td>n, N</td>
<td>j, j'</td>
<td>η, η'</td>
<td>n, -</td>
<td></td>
</tr>
<tr>
<td>Fricative</td>
<td>h, th, fh, dh, t, d, th, d</td>
<td>s, z, srr</td>
<td>s, z, srr</td>
<td>h</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Senri Vowels</td>
<td>w, w'</td>
<td>j, j'</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rolled</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ɾ, r, ṛ, ḫ</td>
</tr>
</tbody>
</table>

**Key-words for affricate consonant groups**

- g: give  गिन्न 3: measure  मेसार
- η: long  लॊङ्ग  j: yes  जेस
- θ: thin  थिन  ts: chin  चिन
- ð: then  देन्  dz: jam  जम्म
- S: shih  शिख
bhivade śādṛere), and दूराट्वें च (dūrāddhaṭe ca). Patañjali refers to his language as लौकिक or लोके (laukika) or (loke), as against वेद (veda) and वेदे (vede), in reference to the language.

34. We shall now briefly consider the phonology of the Vedic Sanskrit which is called ‘das Altindische’ by German scholars.

A VOWELS:—अ, इ, उ, ऋ, (a, i, u, r) both short and long, and लू (!), are the simple vowels preserved in Sanskrit. We have seen how the simple e, o, of the western Indo-Germanic languages have been absorbed by the Sk. अ (a). The typical examples Sk. अज्जति (ājati), Gr. ἀγεῖ, (agei), Sk. अस्व (āsva), Lat. equus, and Sk. पाति: (pātiḥ), Gr. πόσις (pósis), show how the one अ (a), represents a, e and o of the other Indo-Germanic languages. There is one thing to be noted in this connection, that before that अ (a), which represents an Indg. e there invariably appears in Sk. a palatal for a guttural of the other languages; e.g. अज्जति (ājati) where the अ (a) after ज (j) represents an old e as the Gr. ἀγεῖ (agei) shows; and Sk. च (ca), Lat. que, Gr. τε. (te)

This अ (a), however, does not represent an a, e, o, of the other languages which form the low grade of original ᾅ, η w; in that case an इ (i), appears in Sanskrit, e.g. पितूर (pitār) Gr. πατέρ (pater), weak or low grade of पा (pā), and suffix तर (tar),-τε (ter).

Sk. अ (a) also represents what is known to philologists as sonant nasal i.e. in or ṅ, e.g. अस्त (as) of the acc. pl. beside न (n) (from न्त्रु) (ns), where अ (a) represents the nasal shown in the latter form of the termination; (b) अति (ati), अतु (atu) of the third pers. plu. of roots belonging to the third conjugation, beside—अति—अन्तु (anti—antu) of the other classes; (c) in the case of stems ending in अन्तु (ant'), मन्त्र (mant'), etc. अ (a) represents the nasal in
weak cases e. g. सन्तौ (santau) but सत, सन्त्र: (sata, sadbhīḥ); (d) in the case of stems in अन्, मन्, (an, man), and वन् (van), the nasal appears only before vowels; अ (a) appears before consonants e. g. नाम्ना (nāmnā), but नाम (nāma), नामभिः (nāmabhīḥ); (e) in the weak grade of roots ending in अन् (an,) अम् (am), अ (a) appears invariably; e. g. तनोति (tanoti), but तत् (tatā), वितत्य (vitatya), अतथा: (atathāḥ); गाम् (gam), has गाहि (gaahi), गविकी (gavitī), अगस्महि (agasmahi); (f) अक्तु (aktu), and नक्ति (nakti), अभ्र (abhra), and न्मस्तु (nābhas), Gr. αφρός (aphrós), and νεφός (nephos), are other characteristic examples of the representation of the sonant nasal.

2. ἰ (i) is the proper representative of the Indg. i. e. g. धविः (dvih) Lat. ovis; पतिः (pāthiḥ), Gr. πόσις (pósis). But as remarked above, it also represents the weak grade of the old ā (ē, ā) e. g. सिंहर (sthirā), सिंहर (sthitā), to स्थ (sthā), धित (dhita), to धा (dā); असिन (asinva), असिन्न्य (asinvan), सिन (sina) to सा (sā), सन (san) cf. Goth. sōha (satisfaction). This Sk. ἰ (i) corresponds to Gr. a, e. g. ιτάρ (itār), πατήρ (pater), from πά (pā), to protect, ἱθή (duhīr), Gr. θυγάτηρ (thugātēr).

3. ὰ (u) in the same manner represents old u, e. g. Sk. पुत्र (putrā), Lat. putulus; आर (srutāh), Gr. κλυτος (klutos); उ (nu), Gr. vu (nu). It also forms the weak grade to o, au, and of v, Sk. युग (yugā) and योग (yogā), स्वप्न (svāpna), Sl. supati.

NSUInteger sometimes appears to stand for ऋ, (ṛ), as in कृष्ट (kroṣṭu), for कृष्ट (kroṣtr), त्वाष्टुमानताः (tvāṣṭumantāḥ): for old त्वाष्टुमानत (tvāṣṭramantāh): This is due to contact with the colloquial languages which often represent Sk. ऋ (ṛ) in that way; e. g. उड़प (udupa), from ऋ (ṛtu). This tendency is observed in the oldest language.

1. See supra Section. 14. d.
2. Wackernagel, Altindische Grammatik 7-11.
4. ए (े) and ओ (ो) as vowels are only preserved in Sanskrit. In other languages they become ar, ur, or, ra, al, etc. e.g. Sk. सूर्त (mrida), Arm. mard, Lat. mortuos; Sk. द्रष्ट (drṣṭa), Gr. ἀρκεῖν (drakein); Sk. विकर्त (vikāṭa): Goth. wulfs; Sk. मुडु (mṛdu). Lat. mollis.

The long liquids are mostly changed; e. g. स्तर्न (stīrna), Gr. στρωτός (strotós); पूर्व (pūrva) Gr. πρῶτος (prōtos); पूर्ण (pūrṇa), Goth. fulls, Eng. full; उर्ण (urṇa), Lat. lana, Goth. wulla. They are seen unchanged in forms like Sk. रुणाम (rūṇām).

5. ए (e) and ओ (o) are regarded as monophthongs from the very beginning, even in the Prātiṣṭākhyās. But in most cases they are diphthongs of अ (a) or आ (ā), and इ (i) or उ (u) as the second element. Sanskrit grammarians have recognised them as Sandhi of अ (a) and इ (i), आ (a) and उ (u) etc.

They are also seen in gradation with इ (i) and उ (u), better known in Indian grammar as गुण (guna). e.g. सिद्ध (siddhā), but सेधति (sedhati), and सिद्धेन (sidadha), corresponding to the gradation in Gr. λεπέν, λεπτό, λεπτοτα, (lipēn, leipo, leloipa) or भुजम (bhujam) but मोह्यते (bhokṣyate), and बब्बोऽज (bubhōja).

In certain words ए, ओ (e, o) before medials, medial aspirates and ई (ha), appear to represent old Indg. az, aź, e.g. नेदीयाह (nediyāh) Av. nazdyo, सेद (seda) perf. form of सद (sad), Av. hazdyāt, from Indo-Āryan sazd. Sazd is to sad (sad) (sad) as papt (Vedic अपसत, apaptat) is to पत (pat); एधि (edhi), from अस (a), presupposes the middle step azdhi (अझ्धि) which is actually found in the Avestā without the अ (a); मेघ (medha) to Gr. μασθός (masthós), देहि (dehi) and देहिः (dhehi) to Av. dazdi, तुर्नेडिः (trnedhi) from तुर्नाह+धि (trnah+dhi), through तुर्नाश्रिः (trnajhdhi).
Also (o) also takes the place of आ (a) before ड (da), or ठ (dha) e, g. पोड़ा (sodasā), but भट्टि (saṭṭi), बोढ़मू (voddhum), from वहट्ट (vah), सोढ़मू (soddhum) from सहट्ट (sah).

6. These vowels following closely upon each other combine in various ways; and the combinations are called सन्धि (sandhi). But we have seen that in old Vedic Sanskrit, they had not yet become so rigid as in later literature. See supra about अभिनिहित सन्धि (abhinihita sandhi).

7. The quantity of these vowels is changed under various circumstances. (a) Vowels are lengthened before र (r), as in गृहि (girbhiḥ), पूर्ण (pūrṣu), in the Vedic language; this was not an absolute law and hence we get forms like हविर्ब्हि (havirbhiḥ), उर्वरा (urvarā), etc. (b) They are often lengthened as compensation of something dropped. When, for instance, a conjunct consonant is simplified, the preceding vowel is lengthened; e. g. ताढ (tāḍḥi) from तक्ष (taks), अर्षद्र (ārṣṭi) from साह (sah), इड (iḍ) from यज्ञ (yaj) or हृद (iṣ), नीड (niḍa) from Indg. nizda, Eng. nest, पीड (piḍa) from णष्ठ + ड (piṣ + da), सीद्वति (sidati) from Indg. sideti, भुढ (bhūḍha) from वहट्ट (vah), गृढ (gūḍha) from गृह (guh). (c) There is also lengthening due to several other causes; e. g. before य (ya) of the suffix, क्षीयते (kṣiyate) from क्षिति (kṣiti), सूयते (sūyate) from सू (su) or before य (y) of the denominative, इ (i), उ (u), when not radical are lengthened जानीयते (jāniyate), वल्गुयति (valgūyati).

8. We have already spoken above of the vowel gradation or ablaut, as it is called by GRIMM. The same is found in Sanskrit and was recognised by Sanskrit grammarians as गुण (guna), and वृद्धि (vṛddhi). Their reading of the phenomenon was, however, a bit different. They looked upon इ, उ, व, ल, (i, u, r, l), as the basic vowels, which were strengthened under certain circumstances, e. g. when preceded by अ (a). No doubt in certain cases the इ, उ, व, ल, (i, u, r, l) are basic.

1. Supra, Section 14 e. 2 and 3.
vowels, e. g. विद्वाह (vivāha) to वैद्वाहिक (vaivāhika); उर्ध्वाम (urṇavābha) to ओर्ध्वाम (aurṇavābha). But in almost all cases, they are what are called weak grades of ए, ओ, अरु, अल्लु, (e, o, ar, al.)
It will be clear from the forms पत्ताम (pātāmi) अपत्तम (āpaptam), and अपाति (āpāti), where पत्ताम (pātāmi), corresponds to Gr. πατομαί (pētomai) and shows therefore what is called the e or full grade. The second form where अ (a), which corresponds to Gr. e, is dropped, shows what is called the nil or weak grade; and the last form shows the strong grade. There are in all six series of ablaut, the e or Sk. अ (a) series, the o or also Sk अ (a) series, the a series, and the three long series, of ē, ō, ā.

The following examples1 will make it clear.

1. e series.

<table>
<thead>
<tr>
<th>Normal</th>
<th>Weak or Nil.</th>
<th>Lengthened or strong.</th>
</tr>
</thead>
<tbody>
<tr>
<td>पद्न (pad)</td>
<td>उप-द्व (upa-dva)</td>
<td>पद्म, पात (pādam, pāl)</td>
</tr>
<tr>
<td>पिटारम (pitāram)</td>
<td>पिटिक (pitik)</td>
<td>पिट (pīt)</td>
</tr>
<tr>
<td>पातेरा (patera)</td>
<td>पिट्रिसि (pitrasi)</td>
<td>पात्र (pātr)</td>
</tr>
</tbody>
</table>

2. े series.

| दाधामि (dādhāmi) | दाधामि (dadmah hitah) |
| तिथेमि (tithēmi)  | थेटोस (theos)        |

3. *a* series.

अञ्जामि (ajaṁi) (परिज्ञान (pari-jman) आर्जिस (ajīh)
Gr. ἄγω (āgo) στρατηγὸς (strategōs)

4. *a* series.

तिथिमि (tīśthāmi) स्थितमि (sthītah)
ιστήμι (iṣtāmi = istami) στάτος (statōs)

5. *o* series is very rare even in the Greek language where the distinction between the three vowels *a*, *e*, and *o* is kept up.

6. *o* series.

ददामि (dadāmi) आत्तमि (āttah) (देवत्तमि (deva-ttah)
Gr. διδόμε (didōmi) ὀντός (datos)

The reduction or weakening of the normal vowel of a base is due to the weakening\(^1\) or shifting of the accent.

Besides this quantitative ablaut, there was also a qualitative ablaut, where the normal vowel, say *e*, alternated with an *o*, *e*, *g*, Gr. φρένες (phrēnes), ἄφρονος (áphronos). But since in Sanskrit the distinction between the original simple vowels *e*, and *o* was lost at a very early date, this ablaut cannot be satisfactorily traced there; although equations\(^2\) like पितर (pitāraḥ) and लोकसंगतिः (tvātpitāraḥ), which correspond exactly to Gr. πατέρες (pateres), and ἀπότορες (ápótores), show traces of this alternation in old Sanskrit.

2. Wackernagel, op. cit. p. 75.
In connection with the Indo-Germanic ablaut, it must be remembered that although as a general rule monosyllabic bases, showing e. o or nil, are very numerous, still there are what are called dis-syllabic roots or bases. They generally show a long \( \ddot{e} \) or \( \ddot{a} \), which alternates with \( e \). The series of forms प्रथिमन् (prathimán), पृथिवि (prthivi), beside प्रथ: (práthah), and पृथु: (prthúh), जनिता (janitā), beside जनस (jánas), Gr. ἴνέτωρ (énétōr), γένος (génos), necessitate the postulation, beside प्रथ (prath), and जनु (janu), of roots pletho and geno. In like manner पारिमन् (pariman), when compared to अप्राध: (ápráh) and पूर्ण: (púrṇah), goes back upon the two-syllabled root pelo; पावित्रम्य (pavitram), leads to root pewo etc. This latter example is important because it shows, what has been proved by F. De Saussure in his *Memoire sur systèmes primitif voyelles des le langues indo-européennes* that long \( \ddot{a} \) (\( \ddot{u} \)) is no simple vowel but a combination of \( v \) and \( e \); just as Sanskrit ओ (\( \ddot{o} \)) is a combination of औ (\( a \)) and उ (\( u \)), which latter again is nothing else than the sonantised consonant \( v \). The discovery of this new vowel \( e \), which, as seen above, renders certain roots disyllabic, is due to the researches of Brugmann and Saussure, among others. They were led to the discovery by the weak grade of roots ending in आ (\( \ddot{a} \)), ए, \( \ddot{o} \), viz. Sk. स्थिति (s̄thitah), Gr. and στάτος (statós), Lat. status, where Sk. इ (\( i \)) corresponds to Gr. and Lat. \( a \), which was found to be unusual. The इ (\( i \)) and \( a \), then, forming the weak grade of roots in long vowels, must go back upon an Indo-German sound, other than the existing ones. It was called *schwa* and represented by \( e \). Cf. also हित (hita) from धा (dhā), पिता (pitā) from पा (pā). The ablaut itself therefore led to this discovery.

b. CONSONANTS.—The Sanskrit language has preserved the original Indogermanic consonants much better than it has done the vowels. It has preserved the original character of the tenuez mediae and the aspirates much better than Latin
and Greek. The Greek, the only language of the western group which has preserved the aspirates, has changed the medial aspirates into hard aspirates; e. g. Sk. भू (bhū) Gr. φω (φηο); धा (dha), θη (θη); नाभस (nābhas). υέφος (nēphos.) The Latin has changed them into unvoiced spirants, e. g. धा (dha), Lat facio. These, it should be remembered, are compound consonants, being made up of the tenuis or media of a class and the aspirate h. The र्क्त्रितिवक्ष्या the oldest work on Vedic phonetics, already recognises the compound character of these.

1. The Sanskrit language shows five series or classes of consonants, carefully distinguished from the oldest times according to their place of articulation. Thus there is a क (k) or guttural series, a च (c), or palatal series, a त (t) or dental series, र (p) or labial series and lastly द (t) or lingual series. Besides these there are the semivowels य (y), व (v), र (r), ल (l), and the three spirants श (ś), ष (ṣ), स (s). Of these the guttural, the dental and labial series correspond to those of the other Indo-Germanic languages, and are the regular representatives of the original Indo-Germanic classes. Only in the Sanskrit guttural class have merged the two other classes of the old language, namely the pure velar gutturals and the labiovelar gutturals. Thus Sk. क (k) represents both a k and a qu sound of the western Indg. languages.

* e. g. (a) कौरिय: (kravih); Lat. cruor; कार्व: (kārv:), Gr. κρυφ: (kīrūch) Eng. herald; शाखा (śākhā), Lit. szaka, (branch) Goth. hōha (plough). In primitive Germanic agriculture, a branch was used as a plough. भाग: (bhagāḥ), Gr. φαγείν (phagein), O. Sl. boge; स्तगयति (sthagayati), Lat. tego, Icel. þak, (Eng. thatch), which is a dialectic variation of thak.

Ⅰ. WACKERNAGEL, op cit p. 115. UHLENBECK, Sanskrit Phonetics p. 44.
O. H. G. gangan, Germ. gang; दीर्घ (dīrghāḥ), Gr. διόλλ.χός (dolicho's), Got. tulgus.

(b) क: (kaḥ), Lat. quo, Got. has, सачत (sacatē) [च (c) for क (k) by palatal law], Lat. sequor; चक्रम (cakram), Gr. kuklōs Ang. S. hweol, Eng. wheel; गम (gam), (Lat. venio), Got. qiman; राज (rājaḥ), [ज (j) for क (k)], Got. rigis.

2. The Indo-Germanic palatals have nothing to do with the Sk. palatals. These latter, as we shall see, are original velar gutturals palatalized on account of a following i or e. But the original Indo-German palatals have suffered a change in Sanskrit. They have become spirants, i.e. श, ज, स (ś, ś, s) and affricates ज्ञ, ज्ञ (j, jh).

E.g. (a) श्रुति (śrutī), Gr. κλήτος (klutōs), Lat. in-clutus; A.S. hlud = loud. O. Ir. cloth = fame, O. Bulg sluti. द्वार (dērā), Gr. δέκα (deka), Got. tainun, Eng. ten; अक्ष (akṣiḥ), Lat. acus, O. H. G. ahih; शंति (śamsati), Lat. conseo; विशाल (viśāl), Lat. vicus, Gr. οἰκος (oikos); चाया (chāyā), Gr. σκια (skiā), Got. skeinan, Ger. scheinen, Eng. shine.

(b) जरान्त (jaṛant), Gr. γέρον (géron); जानस (jānas), Gr. γένος (génos), Got. kuni; ज्ञ (jma), Lit. zeme, O. Sl. zemlja (e.g. Nova Zemla); जजत (yajātaḥ), Gr. ἄγειος (hagios); जीψ (joṣaḥ), Lat. gustus, Got. kiusan; आंह (āmhas) ह (h) for घ (gh) Lat. angus, Got. agwus (pronounce angwus), लिह (lih), Ger. lecken.

N.B. Sk. (ज) therefore is no real palatal, but an affricate that goes back upon an original Indo-German palatal, (what in Sk. Grammar would be called a guttural).

3. The Sanskrit palatal class as a whole is a newcomer. It is the old velar or guttural class, labialized or not labialized, before palatal vowels व (i), or ए (e), and the semivowel य (y). This is the palatal law.
e. g. (a) चर्थ (carūh), Icl. huerre, Gr. κέρνος (kérnos), चत्वार (catvāraḥ), Lat. quattuor; पंड (pañca), Gr. πέντε (pente), rocate (rocate), Lat. lucet; Cf. दुधिच (duḍiḥ), but दुर्थ (dūrkāḥ), rocate (rocate), but रक्त (roka, lokā).

(b) जार (jathōra), Got. kilheī; जार (jārāte), O. H. G. quirit, Eng. quoth; जान (jāni), Got. gens; जाम (jāmi), Lat. geminus; जासु० (jās Lat. auges Got. ankan); of जासु० (jās) but उर्म (ugarā).

(c) हम्म (hanmi), Av. janmi, हतार (hantāraḥ), jantāro, Gr. θεῖνω (théiō); हर (harāḥ), Gr. θέρασος (thérasos), कर्क, काल, बनतर, कर्क: युर्ख, गै, गिरी (karkhā, kāreṇ, kālā, katarāh, kaksah, yugam, gauḥ, girīḥ), यच्चत (yac̄t) and several other words show the guttural, because it is not followed by a palatal vowel, as their counterpart in other languages viz. Gr. καρκίνος, καρυς, κάλως, τοιερός, (Ion. kóteros); (karkinos, kārux, kōlos, pōteros, Ion. kóteros), M. H. G. hahse, Got. juk, (Eng. yoke), Gr. βοῦς, Lith. giria, Lat. jecur, show.

4. The dental and labial series properly represent the old series as the following equations will show.

e. g. (a) तनुः (tanuḥ) Lat. tenuis, Ger. dün, Eng. thin; त्र्यः (trūyaḥ), Gr. τρεῖς (treis), Lat. tres; वार्तते (vārtate), Lat. vero; थली (pātni), Gr. πότνια (pōtnia); वेष (vētha), Gr. oīsth (oīsthā).

(b) दुधा (duḍa), Gr. δέκα (dēca); दु (dru) Gr. ὃπος, ὄπου, (dru, dōru), Got. triu, Eng. tree; ह्र (dua dvah), Gr. ὁδό (duō), Lat. duo; सुद (sūdah), Gr. ὅσος (hedos), Lat. sedeo, Goth. sitan, Eng. sit; दूर्थ (dūmaḥ), Gr. θομός (thūmós), Lat. fumus;
मधु (mādhu), Gr. μέθυ (methu); धार; Gr. διάλος (thilus).

(c) पति: (pātiḥ), Gr., πόσας; पिता (pitā), Gr. πατέρ (patēr), (Goth. fadar, Eng. father); नापत (nāpāt), Lat. nepos; स्वाम (svāpnaḥ), Gr. ἑπνός (hupnos), instances of Sk. फ (ph), going back upon Indg, ph are not found. Sk. कफ (kapha), Av. kafa; साफ (sahpa), Av. safa.

(d) बेलम (bēlam), Lat. de-bilis; बर्बर (barbara), Gr. ὑβρᾶς (barbaros), πιβάμι (pibāmi), Lat. bibo; जम्भा (jambhā), जम (jam, earth,) A.S. pol, Eng. pool; सरामि, (bhārāmi), Gr. φερω (pherō), भ (bhū) Gr. φω (phō); श्रात (bhrāṭa), Lat. frater; त्र (bhrūḥ), Gr. ὑφόσ (ophōs), Eng. brow; जम्भ (jambha), Gr. र्मेस (gómphos).

5. Amongst the Sanskrit sounds, the cerebrals are the most important because they are found in no other branch of the Indo-German family—not even in the Avesta. Fortunately, however, the Sanskrit language itself offers a solution of the question as to how they arose only here. We have a rule, for instance, as a consequence of which the dental न (n) is changed to the cerebral न (n), when preceded in the same word by r, r or ś; e. g. उष्ण, खर, कि (usna, rya, kṛṇa); or that the dental sibilant स (s) is changed to the lingual sibilant श (ś) when it is preceded by the vowels ह, ह (i, i), and उ, ऊ, ए (u, ū, r, e) or ओ (o); e. g. करोषि, मात्सु (karōṣi, matṣu) etc. This gave the cue to scholars and many cerebrals were explained as being due to dentals, when originally a r or l preceded them. This explanation was offered by POOT. विकट, संकट (vikāta,

*nabhas=cloud, Old Bulg. nebo Gr. νέφος (néphos), welsh nef
=sky Lat. nebula.

मए, O. B. bera Lat. fero.

बलियां (balīyān), stronger, O. Bulg boliję,=bigger, better Gr.
sanaka) etc. from क्रत्; कर्त (kṛta; kāta) depth, Vedic कर्त (karta) a pit, from क्रत (kṛta) a root; (avata) a pit, Vedic अवर (avar) downwards; कर्त (kāta) a mat from क्रत, चूत (kṛta, cṛta); compare Gr. Καρταλος (kártałos), a basket. आधय (āḍhayah) from Ved. रधु (ṛdh) to prosper, पठति (paṭhati) from Vedic पत्तति (prthati), प्रथयति (prathayati), to make known, सुद्र (muṇḍa) from Ved. सुद्र (muṇḍa), to rub soft; कटि (kaṭi), compare कृमि (kṛmi).

This same law, differently worded, went by the name of the scholar FORTUNATOV. It is this: original l or l+ dental resulted in a change of the latter into a cerebral, the l or l being dropped; and secondly, r or r+dental remained unchanged. The l or r of course must be original Indo-Germanic.

(a) l or l+ dental.

पङ्खी: (paṭuh), Gr. πλατύς 
(πλατύς) 
वाल्तिस: (vaṭah), Lith.
स्फङ्ख (sphaṭ), O. H. G. spaltan जटस्र (jatharam), Goth.
किल्प्रेः (kīna), Lat. callus 
अन्हि: (ānḥi), Gr. ὀλένη 
(ὀλένη)
पण: (paṇah), Lith. pēlnas 
(παλάμ) Lat. palm. पर्लम्य (paṭah, paṭālam) 
Old Sl. platino.
भाषते (bhāsate), Lith. balsas पाणि: (paṇiḥ) Gr. παλάμη 
(κुष्ठα), Lat. culter 
λθος (pella-lithos)

(b) r or r+ dental.

कर्तंमि (kartāmi), Lit. वर्तमि (vartāmi), Lat. verto,
kerti 
Got. wairita
अर्धः (ardhaḥ), Lit. गर्धः (gardhaḥ), Got. gredus
ardyti
मर्दामि (murdāmi), पार्दामि (pārdāmi), Germ.
Lat. mordeo 
farzen
But this law was not accepted by linguists like 
Wackernagel, Brugmann and 
Bartholomae; and for very obvious reasons. For, the greater part of it is vitiates by excep-
tions e.g. गल्वा, पुल्ला, पृङ्खु (galdā, phulta, prthu) Gr. πλατύς (platús); श्रुद्ध (ṣṛdu), Lat. mollis; 
गर्द्ड (gardabha), Eng. colt; where l and dental do not show a lingual; and कट (kaṭa) which goes 
back on क्र्त (kṛta), भात (bhaṭa), on छृत (bhṛta), नट (nāṭa) on नृत (nṛt), which show a lingual as 
a result of r and dental.

This change could be traced within the Sanskrit language itself; e.g.

(c) उद्व, उद्वराज (udupa, uḍurāja) : Vedic क्रूट, तद्वित (ṛtuṇa, taḍit) Ved.
क्रूट (kṛṭ, ṭaṭ)
क्रूट्म (kuṭṭima) : "", क्रृत्रिम भट, भट्ट (kṛtrima, bhaṭṭa, bhaṭṭi)
: भृट्त (bharrṛ)
ग्राट्त, निग्राट्त (ghaṭate, nīghanṭu): "", प्रन्थ, निग्राट्त, हाटक (granth, nirgranth, hāṭaka),
: हृण्य (hirinya)
वां, वान्त (vaṭa, vaṭi) : Class श्रति (vṛti)
कुट (also कुट?) (kuṭa, kūṭa) : क्रूट (kṛṭa)

Nir. 5, 24 पिता कुटस्य चरणिन्द्र: (pita kuṭasya carṣaṇih):

The Prakrit origin of these words is clear. The Sk. r is in the Pr. represented either by रि (ri) or छ, द, त, (a, i, u) as the following examples will show:—

रिद्धि, रिण, महरितिः (riddhi, riṇa, maharishi): छर्दि, छण, महर्षि (ṛddhi, rva, maharsi)
रि: छ (ri: ṛ)
Then the representation of the dentals following r or क (r) by linguals is very common in the Prakrits:

(a) वुढ़-श्रृत (vuda-vr̥ta), कड़-क्रृत (kaḍa-kṛta), मड़-मृत (maḍa-mṛta).

(b) पुढ़म-प्रथम (puḍhama-prathama), दृढ़-दृष्ट (daṭṭa-dṛṣṭa), अड़-अर्थ (aṭṭha-artha), पढ़िमा-प्रतिमा (paḍimā-pratimā). We have also कड़ (kaḍhai) for कथति (kvathati).

From the first three examples we can see how the dental came to be cerebralized in the Prakrits. It was the preceding sound, which, while dropping lent its lingual character to the following dental. This took place also when the r and dental were separated by a vowel as in प्रथम (prathama), Pāli पढ़म (paḍhama); प्रति (prati), inscrip. पति (paṭi). This tendency once created, became generalized and dentals were changed to linguals even where no r or l preceded.

Paḍati-patati (paḍati-patati), पवित्रा-पतका (paḍā-patākā), वेदिस-वेतस कड़ (vedisa-vetasa kaḍhai), in (b) above; ढेकेहि (ḍhakkehi), Pāli ढेकेति (thaketi), Sk. स्थगयति (sthagayati); ढहइ (ḍhai), Mar. ढह (ḍaha), Sk. ढहति (dahati); Mar.ढापन (ḍhāpaṇa) from घा.
Oldest phase of the Pali & Prakrits side by side with the Vedic language:—From the above it will be seen, that the linguals in Vedic and later Sk. are due to the influence of the old Prakrits, which therefore must have existed side by side with the Vedic dialects. These gave us the later literary Prakrits.\textsuperscript{1} Side by side with the language of the Vedas and the priests there was current even during the period of the production of the hymns, a language which was much more developed than the priestly language and which had the chief characteristics of the oldest phase of the mid-Indian dialects, called the Pāli-stage. Bhandarkar\textsuperscript{2} also agrees with Wackernagel in calling Pāli the oldest Prakrit.

Words which in Vedic and later Sanskrit show a ण (\textit{na}), instead of a न (\textit{na}), belong also to this class; they are called Prakritisms.

\[(d) \text{ आणि पुण्य (\textit{ānī punya}), पण (\textit{pāṇ}), अन्तःनीपानिण} \text{त (\textit{anvāpanīphānat}), कण, कण, निपुण, घोण (\textit{kāna, karna, nipuña, ghona}), वणिज (\textit{vanij} (Ger. \textit{waare}), गण (\textit{gaṇ}) (Gr. \textit{ageirō, ageirō}), कुण (\textit{kūnāra}, (Gr. \textit{kóllos kóllos}), स्थाण (\textit{sthānu}) (Ger. \textit{still}), पण (\textit{pāṇ}) (Gr. \textit{pērnhii pernémi}), कण (\textit{kāna}), (class. कण (\textit{kata}), a part.).
\]

अण (\textit{aṇa}) (Gr. \textit{aλεω aλεθ}), एण (\textit{eṇa}) (Gr. \textit{ελαφος, elaphos}), तण, वेण (\textit{tūṇa, venu}) (Lat. \textit{wallus}), वेणी (\textit{venī}) (Lat. \textit{willus}).

In शिथिल (\textit{sithila}), the इ (\textit{i}) shows that it is a Prakritism. The root has a \textit{r}, which vocalised as \textit{r} gives the इ (\textit{i}) in Prakrit. Compare शिथिल (\textit{sīḍhila}) of Prakrit; also शिख (\textit{śīṅh}), (Mar. सुगण, सुगणे \textit{sumganē hunganē}), from श्रण समिध (\textit{śrīgha), (samiddha) from समुद्र, संगत (samṛddha), (śrīgala) (Naisadha

\begin{enumerate}
\item Wackernagel, \textit{Altindische Grammatik} p. XVIII,
\item Philological lectures p. 5.
\item \textit{Ro.} IV 40, 4.
\end{enumerate}
I. 9), Mar. इंगाल (iṅgaḷa), from अंगार (amgāra), are Prākritisms. क्रृष्ण (kṛṣṇa) and गृष्ण (gṛṣṇa) are also Prākritisms, where च (cchā) represents Sk. पस (ps), cf. Pāli अच्छर (achchara) for Sk. अपूसा (apsarā). तितु (titu) for तितु (titasu), प्र्वण (pravuṇ) for प्र्वुण (pravuṇa), cf. ग डो (gau) of Māhārāṣṭrī from गवय (gavaya), are also regarded as Prākritisms. In later Prākrits they are the rule; in the Veda their appearance is inexplicable, unless we presume, as some scholars do that they have crept into the Vedic language from an old Prākrit that was the basis of the mid-Indian Prākrits.

35. INFLECTION:—Much need not be said regarding morphology of the old Sanskrit. It does not much differ from that of classical Sanskrit which is familiar to us. However, we devote some short space to it for pointing out features common to other languages.

A. Unlike the classical languages of the West, Sanskrit has only three or four vowel stems, those in अ, इ, उ (a, i, u), and ऋ (r), short and long. It does not have the e and o stems, like Greek and Latin, since Sanskrit has kept no distinction between a, e, and o. Of consonantal stems the old language shows many, like those in च, क, त, थ (c, k, t, th), radical र, ध (d, dh), and भ, स (bh, s), and श (ś) and the derivative stems in वत, तत (vat, tāt) (उद्वत, निवत, सर्वतात, देवतात) (udvat, nivat, sarvatāt, devatāt), Gr. τατ (tatt), इत, उत, त (it, ut, t) (यकत), (yakrt), अत (at), and अन्त, मन्त् (ant, mant), and वन्त, अन्, मन्, इन (vant, an, man, in, min), and वन, अर (vin, ar), तर (tar) etc.

The Sanskrit, like Greek, and Latin, has three genders, three numbers (there are traces left of the dual in Greek and Latin in words like दो, (duo) although the dual as such is given up by these languages) and, unlike these, all the eight cases. The Greek has given up instrumental and ablative entirely, and confused locative and dative. For reasons see supra.
The terminations are the same for the three genders, excepting the nom. acc. voc. of the neuter, which in singular has no termination and in plural has ग. They are:

For singular
- Nom. नि (nil) or सू (s,)
- Acc. ম (m or m)
- Instr. (भी, न (this gives आ, इ)
- Dat. ए (e)
- Abl. अ (as, at) (for अ (a) stems)
- Gem. आ (as), सू (s), आ (sya)
- Loc. इ (i) no ending with lengthening of last syllable

For plural
- अस (as)
- नास (ns, अस (as) (from us after consonant)
- एस (ais,) and* भी (bhis)
- भ्य (bhyas)*
- अम (म) नाम (nām) (after vowels)
- ग (su)

These terminations are an inheritance from the old Indo-Germanic idiom and are therefore found with proper phonetic changes in Greek and Latin and partly in Gothic also. A few paradigms are given by way of comparison:

### I.* Singulars of अ-0 stem.

<table>
<thead>
<tr>
<th></th>
<th>Sk.</th>
<th>Gr.</th>
<th>Lat.</th>
<th>Got.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nom.</td>
<td>हुकः (vīkah)</td>
<td>λόκος (lukos)</td>
<td>lupus</td>
<td>wulf's</td>
</tr>
<tr>
<td>Voc.</td>
<td>हुकः (vīka)</td>
<td>λοκे (lūke)</td>
<td>lupe</td>
<td>wulf</td>
</tr>
</tbody>
</table>

*cf. Lat. omnibus, virginitus.
<table>
<thead>
<tr>
<th></th>
<th>Sk.</th>
<th>Gr.</th>
<th>Lat.</th>
<th>Got.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acc.</td>
<td>विकाम् (vikkam)</td>
<td>λύκον (lukon)</td>
<td>lupum</td>
<td>wulf</td>
</tr>
<tr>
<td></td>
<td>विकां (vika), षोव (pono) (adv.)</td>
<td>sacro- (sanctus)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>विकेन (vikeṇa) त (Common in Homer)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instr.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dat.</td>
<td>विकाय (vikāya)</td>
<td>λύκῳ (luكو)</td>
<td>lupō</td>
<td>wulfa</td>
</tr>
<tr>
<td></td>
<td>पत्ये (patye)</td>
<td></td>
<td></td>
<td>wulfa (O.H.G.)</td>
</tr>
<tr>
<td>Abl.</td>
<td>विकाद</td>
<td>Φοίκω (Foiκo) (adv.)</td>
<td>lupō (d)</td>
<td>haβρο (Av.)</td>
</tr>
<tr>
<td>राजः: (raja)</td>
<td>λύκολο (lukoio)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gen.</td>
<td>विकस्य (vikasya)</td>
<td>λύκολο (lukoio)</td>
<td>lupī</td>
<td>wulfs</td>
</tr>
<tr>
<td>राजः: (raja)</td>
<td>λύκον (lukon)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loc.</td>
<td>विके (vike)</td>
<td>οίκοι (oiκoi) (adv.)</td>
<td>bellī (adv.)</td>
<td>wulfa</td>
</tr>
</tbody>
</table>

II. Plurals of अ-о stem.

<table>
<thead>
<tr>
<th></th>
<th>Sk.</th>
<th>Gr.</th>
<th>Lat.</th>
<th>Got.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nom.</td>
<td>विकाह (vikaḥ)</td>
<td>λύκοι (luκoi)</td>
<td>lupī</td>
<td>wulfs</td>
</tr>
<tr>
<td></td>
<td>विकासः (vikaśaḥ) (ved.)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acc.</td>
<td>विकान् (vikan)</td>
<td>λύκους (luκoys)</td>
<td>lupōs</td>
<td>wulfs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>λύκους (luκous)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instr.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>विकाइ (vikaīh)</td>
<td>λύκολος (i) (luκois)</td>
<td>lupīs</td>
<td>wulfs</td>
</tr>
<tr>
<td></td>
<td>विकेत्व्रि (vikebhik)</td>
<td>λύκοल (luκoi)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sk.</td>
<td>Gr.</td>
<td>Lat.</td>
<td>Got.</td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>------------------</td>
<td>-----------</td>
<td>-----------</td>
<td></td>
</tr>
<tr>
<td>Dat.</td>
<td>कृक्रियः (विकेब्याः)</td>
<td>[λύκοισι] (lúkoisi)</td>
<td>(lupīs)</td>
<td>(wulfam)</td>
</tr>
<tr>
<td>Abl.</td>
<td>कृक्रियः (विकेब्याः)</td>
<td>(lúkon)</td>
<td>deum</td>
<td>wulfē</td>
</tr>
<tr>
<td>Gen.</td>
<td>सरणाम (एराठाः)</td>
<td>λύκον (lúkon)</td>
<td>deorum</td>
<td>wulfē</td>
</tr>
<tr>
<td></td>
<td>कृक्रियः (विकेब्याः)</td>
<td>λύκοσι (lukoisi)</td>
<td>lupīs</td>
<td>wulfam</td>
</tr>
</tbody>
</table>

III. Singulatrs of उ stem.

<table>
<thead>
<tr>
<th>Sk.</th>
<th>Gr.</th>
<th>Sk.</th>
<th>Lat.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nom. सुर्खः</td>
<td>(sūnūkha)</td>
<td>πηχος (pēchus)</td>
<td>सुर्खः (sūnāvah)</td>
</tr>
<tr>
<td>Acc. सुर्खः</td>
<td>(sūnūkha)</td>
<td>πηχον (pēchun)</td>
<td>सुर्खः (sūnūn, pasvāh)</td>
</tr>
<tr>
<td>Instr. कृत्वा</td>
<td>(krātvā)</td>
<td>(πηχει) (pēchei)</td>
<td>सुर्खः (sūnūdhikha)</td>
</tr>
<tr>
<td>Dat. सुर्खः, शिष्यः</td>
<td>(sūnāve, sīsve)</td>
<td>(πηχει) (pēchei)</td>
<td>सुर्खः (sūnūnābhyaḥ)</td>
</tr>
<tr>
<td>Abl. सुर्खः, पश्चः</td>
<td>(sūndh, pasvāh)</td>
<td>πηχεος (pēcheos)</td>
<td>सुर्खः (sūnūnām, pasvām)</td>
</tr>
<tr>
<td>Gen. सुर्खः, पश्चः</td>
<td>(sūnok, pasvāh)</td>
<td>πηχεος (pēcheos)</td>
<td>सुर्खः (sūnūnām)</td>
</tr>
<tr>
<td>Loc. सुर्खः, सुर्खः (sūnau, sūnāvā)</td>
<td>πηχे (pēchei)</td>
<td>सुर्खः (sūnūs)</td>
<td>(manubus)</td>
</tr>
</tbody>
</table>
V. Singulars of त्र-(tr) त्र stem.

<table>
<thead>
<tr>
<th>Sk.</th>
<th>Gr.</th>
<th>Sk.</th>
<th>Gr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nom.</td>
<td>माता (mātā)</td>
<td>म्यूटर (Mētēr)</td>
<td>मातार (mātāraḥ)</td>
</tr>
<tr>
<td>Acc.</td>
<td>मातारम् (mātāram)</td>
<td>म्यूटेरा (Mētēra)</td>
<td>मातिः (mātiḥ)</td>
</tr>
<tr>
<td>Instr.</td>
<td>मात्रा (māṭrā)</td>
<td>म्यूटερ (Mētēri)</td>
<td>मात्रभिः (māṭrbhīḥ)</td>
</tr>
<tr>
<td>Dat.</td>
<td>मात्रे (māṭrē)</td>
<td>म्यूटερι (Mētēri)</td>
<td>मात्रभय (māṭrbhyaḥ)</td>
</tr>
<tr>
<td>Abl.</td>
<td>मातु (māṭuḥ)</td>
<td>म्यूटρος (Mētros)</td>
<td>मातुणाम् (māṭuṇām)</td>
</tr>
<tr>
<td>Gen.</td>
<td>मातु (māṭuḥ)</td>
<td>म्यूटρος (Mētros)</td>
<td>मातु (māṭraḥ)</td>
</tr>
<tr>
<td>Loc.</td>
<td>मातरि (māṭari)</td>
<td>म्यूटερ (Mētēri)</td>
<td>मात्र (māṭraḥ)</td>
</tr>
</tbody>
</table>

VII. Singulars of न्त-(nt) न्त stem.

<table>
<thead>
<tr>
<th>Sk.</th>
<th>Gr.</th>
<th>Sk.</th>
<th>Gr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nom.</td>
<td>सन्त (sān)</td>
<td>धन (dān)</td>
<td>सन्त (sāntaḥ)</td>
</tr>
<tr>
<td>Acc.</td>
<td>सन्तम् (sāntam)</td>
<td>धन (dāna)</td>
<td>सन्त (sāntaḥ)</td>
</tr>
<tr>
<td>Instr.</td>
<td>सत (sāta)</td>
<td>(धन) (dānti)</td>
<td>सङ्क्र (sadbhīḥ)</td>
</tr>
<tr>
<td>Dat.</td>
<td>सते (sāte)</td>
<td>(धन) (dānti)</td>
<td>सङ्क्र (sadbhīyaḥ)</td>
</tr>
<tr>
<td>Abl.</td>
<td>सतः (sāthā)</td>
<td>धन (dāntos)</td>
<td>सताम् (sātām)</td>
</tr>
<tr>
<td>Gen.</td>
<td>सताह (sāthāḥ)</td>
<td>धन (dāntos)</td>
<td>सतार्य (sāthāraḥ)</td>
</tr>
<tr>
<td>Loc.</td>
<td>साति (sāti)</td>
<td>धन (dānti)</td>
<td>साति (sātī)</td>
</tr>
</tbody>
</table>
b. CONJUGATION:—The Sanskrit conjugation also is as rich as the declension, and here too it has preserved most of the Indo-Germanic form material. Of the other languages only the Greek language nearly approaches it in the antiquity as well as wealth of verbal forms. Like the Greek, Sanskrit has the active and medial or middle voices; the passive voice of the Sanskrit was probably a later creation and did not exist in the original Indo-German idiom. Then there is a number of modes or moods in the old Vedic language as in Greek; later Sanskrit has lost some of them. The modes are the indicative, the optative, the imperative and the conjunctive or subjunctive. This last is seen only in the oldest Sanskrit. The optative and imperative too are in classical Sanskrit never used except, in the present tense. There are four tenses, the present, the perfect, the aorist and the future; the imperfect, so far as the stem and formation goes, is reckoned with the present for morphological purposes. There are special uses of these tenses elaborately put forth and explained by Sanskrit Grammarians.

The augment य (a)-e plays an important part in the tense system of the Sanskrit and the Greek languages; the other languages, excepting the Armenian, do not show anything like it. It usually bore the accent and caused Guṇa or Vṛddhi. It was used to make the stem of the imperfect and aorist, the plue-perfect in Gr. and Vedic, and indicated past action¹. The perfect stem is made up by reduplication, not by augment. It is to be noted that one of the numerous aorists has augment and reduplication of stem together.

All roots are in Sanskrit, as well as in Greek, divided into two great classes, according as they do or do not take before personal endings the vowel य (a) e or o in Greek; they are called the thematic and the non-thematic classes; they are also otherwise known as conjugational and nonconju-

¹ BRUGMANN, Kurze Grammatik p. 484.
gational. The former again fall into four subdivisions, the 
two अ (a) the य (y) and अय (ay) classes; the latter into 
some six, the root, the reduplicated, the उ (u), the न (nu),
the न (nā), and न (n) classes. This distinction, with a 
variety of terminations, makes the study of Sanskrit so 
formidable to beginners.

The endings again are different for the active and the 
medial. Besides this distinction, there is another distinction 
into primary and secondary endings; the former are fuller,
the latter seem to be abbreviations of these. Then there are 
distinct endings for the perfect and imperative. In this 
complexity, the Greek language almost equals Sanskrit.

The following comparative tables will show how the great simi-
Harinity in this respect between the Sanskrit and Greek languages.

### I. Personal endings.

<table>
<thead>
<tr>
<th>Primary</th>
<th>Secondary</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Active</strong></td>
<td></td>
</tr>
<tr>
<td>मि (mi)</td>
<td>μν, ω (mi, o), अम् (am) ν (for μ) (n, m)</td>
</tr>
<tr>
<td>सि (si)</td>
<td>σι, s. (si, s) स (s) s (s)</td>
</tr>
<tr>
<td>ति (ti)</td>
<td>τι (ti) t (t) τ (t)</td>
</tr>
<tr>
<td>मस (mas)</td>
<td>μεν (men) म (m) μεν (men)</td>
</tr>
<tr>
<td>थ (tha)</td>
<td>τε (tē) t (t) τε (te)</td>
</tr>
<tr>
<td>अन्ति (anti)</td>
<td>ντι (nti) रन (ran) ν (τ) (n(t)</td>
</tr>
<tr>
<td>अति (ati)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Primary</th>
<th>Secondary</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Middle</strong></td>
<td></td>
</tr>
<tr>
<td>ए (e)</td>
<td>μαι (mai) इ, अ (i, a) μην (mēn)</td>
</tr>
<tr>
<td>सेते (se)</td>
<td>σαι (sai) थ: (thē) σο (so)</td>
</tr>
<tr>
<td>तेते (te)</td>
<td>ται (tai) τ (ta) το (to)</td>
</tr>
<tr>
<td>महे (mahe)</td>
<td>μεθ (metha) महि (mahi) μεθ (metha)</td>
</tr>
<tr>
<td>धेते (dhve)</td>
<td>σθ (sihe) ध्वम (dhvam) σθ (siha)</td>
</tr>
<tr>
<td>अन्ते (ante)</td>
<td>νται (antai) अन्त (anta) अन्त (anta)</td>
</tr>
<tr>
<td>अते (ate)</td>
<td>र (ran) रन (ran)</td>
</tr>
</tbody>
</table>

)}
II. Conjugation of verbs in—अ (a), Gr. ε, ο,

<table>
<thead>
<tr>
<th>Present Active</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>भरामि (bhārami) फέρω (phēro)</td>
<td>भरामः (bhāramaḥ) फेरोμες (phēromes)</td>
</tr>
<tr>
<td>भरसि (bhārasa) फेरεῖς (phereis)</td>
<td>भरस्य (bhāratha) फेरετε (phērete)</td>
</tr>
<tr>
<td>भरति (bhārati) फेरεῖ (t) (pheret)</td>
<td>भरतिः (bhāranti) फेरουτι (phéronti)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Middle</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>भरि (bhāre) फेरομαί (phēromai)</td>
<td></td>
</tr>
<tr>
<td>भरसेत (bhāraseta) फेρεσαι (old) (phēresai)</td>
<td></td>
</tr>
<tr>
<td>भरतेत (bhārate) फेρεται (phēretaī)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Imperfect Active</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>भरामस् (ābhrasm) एφέρου (ήφερον) एφέρομεν (ήφερομεν)</td>
<td>भरामस् (ābharam) एφέρου (ήφερον) एφέρομεν (ήφερομεν)</td>
</tr>
<tr>
<td>भरामः (ābharam) एφέρες (ήφερες) एφέρετε (ήφερετε)</td>
<td>भरामः (ābharam) एφέρες (ήφερες) एφέरετε (ήφερετε)</td>
</tr>
<tr>
<td>भरस् (ābhāraḥ) एφέρε (ήφερε) (έφερετ) एφέρον (ήφ. (τ) (έφερον) (έφρον)</td>
<td>भरस् (ābhāraḥ) एφέरε (ήφ. (τ) (έφερετ) एφέρον (ήφ. (τ) (έφρον)</td>
</tr>
</tbody>
</table>
III. Conjugation of verbs without thematic vowel

Present Active

<table>
<thead>
<tr>
<th>Sanskrit</th>
<th>Greek</th>
<th>Latin</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>द्धास्यि</td>
<td>(dādhami)</td>
<td>तिथ्यमि</td>
<td>(tithēmi)</td>
</tr>
<tr>
<td>द्धास्यि</td>
<td>(dādhāsi)</td>
<td>तिथ्यसि</td>
<td>(tithēs)</td>
</tr>
<tr>
<td>द्धास्यि</td>
<td>(dādhāti)</td>
<td>तिथ्यति</td>
<td>(tithēs</td>
</tr>
</tbody>
</table>

Middle

<table>
<thead>
<tr>
<th>Sanskrit</th>
<th>Greek</th>
<th>Latin</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>द्धे</td>
<td>(dadhē)</td>
<td>तिथेमाय</td>
<td>(tithemai)</td>
</tr>
<tr>
<td>धस्येः</td>
<td>(dhatse)</td>
<td>तिथεσαι</td>
<td>(tithesai)</td>
</tr>
<tr>
<td>धस्येः</td>
<td>(dhattē)</td>
<td>तिथεται</td>
<td>(tithetai)</td>
</tr>
</tbody>
</table>

Imperfect Active

<table>
<thead>
<tr>
<th>Sanskrit</th>
<th>Greek</th>
<th>Latin</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>द्धास्यान्</td>
<td>(ādadhām)</td>
<td>तिथν</td>
<td>(etithēn)</td>
</tr>
<tr>
<td>द्धास्या:</td>
<td>(ādadhāh)</td>
<td>तιθεσι</td>
<td>(etitheis)</td>
</tr>
<tr>
<td>द्धास्यात्</td>
<td>(ādadhāt)</td>
<td>तिथει</td>
<td>(etithēi)</td>
</tr>
</tbody>
</table>
Middle

अदधि (ādādhi) ἐτίθεμαι (ētithēmēn) अदधवहि (ādādhmahi) ἐτίθημεθα (ētithemetha)
अधधाभ (ādhaththāh) ἐτίθεσο (ētitheso) अध्वधम (ādhadhvam) ἐτίθεσθα (ētihestha)
अधधां (ādhatta) ἐτίθετο (ētitheto) अधधत (ādadhata) ἐτίθεντο (ētihen)

Older forms are ἐτιθεὶς (etethēs) and ἐτιθη (etithē)

IV. Conjugation of root verbs.

<table>
<thead>
<tr>
<th>Present</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>अस्मि (asmi)</td>
<td>अस्मि (esmi)</td>
<td>स्मः (smāḥ)</td>
<td>एस्मेन (esmēn)</td>
</tr>
<tr>
<td>अशि (āsi)</td>
<td>अशि (eśi)</td>
<td>स्थः (sthāḥ)</td>
<td>एस्ते (eśte)</td>
</tr>
<tr>
<td>अस्ति (āsti)</td>
<td>अस्ति (eṣti)</td>
<td>सांति (sānti)</td>
<td>एन्ति (ēnti)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Imperfect</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>असामृ (āsam)</td>
<td>असामृ (ēsma)</td>
<td>एस्मेव (ēmen)</td>
<td></td>
</tr>
<tr>
<td>अशी: (āshi)</td>
<td>अशी: (ešthā)</td>
<td>एस्तेह (ēste)</td>
<td></td>
</tr>
<tr>
<td>असित (āsīt)</td>
<td>असित (ēnt)</td>
<td>एसानू (ēsan)</td>
<td>एनू (ēn)</td>
</tr>
</tbody>
</table>

V. *The Aorists:*—In Sanskrit, as in Greek, there are several formations of this name; the root aorist, the s aorist and the passive aorist. Then in Sanskrit there is the reduplicated aorist. As the formation of these is so divergent, the common name must be due to the peculiar king of the action denoted. The agreement between the Sanskrit and the Greek is remarkable e. g.
Root-aorists:—अस्तात् (āsthāt), िर्न (ेस्तन); प्लेतो (pleto); the root झ (fīdā) forms root-aorist ग्न (ेग्नन) and not s aorist as in Sk. ाधात् (adāt), अरదात् (ādāt), Gr. ἑθὲ (ethēke), ἑθωκα (εθέκε), (the k which is unknown to the Sanskrit, remains unexplained).¹

s-aorists:—अर्ज: (āprāh) (from अत्सुस + सू) (aprās + s), अर्जम: (āprāh) (from अत्सुस + तू (aprās + ta), अर्जस (aprāasma), अर्जस्त (aprāsta), (अर्जस: अप्रसाह; Gr. ἑδείξα, ἑδείξας, ἑδείξε, ἑδείξαμεν, ἑδείξατε, ἑδείξαν, (ἐδείξα, ἐδείξας, ἐδείξε, ἐδείξαμεν, ἐδείξατε, ἐδείξαν, (ἐδείξα, ἐδείξας, ἐδείξε, ἐδείξαμεν, ἐδείξατε, ἐδείξαν).

Middle:—अर्जस्तिः (ārutsi), अर्जस्त: (ārutsīh), अर्जस्त (ārutta), अर्जस्तिः (ārutsmahi), अर्जस्तम् (āruddham), अर्जस्तः (ārutsata), Gr. ἑδείχαμην, ἑδείχε (σο), ἑδείχατο, ἑδείχαμεθα, ἑδείχατο, ἑδείχαντο (ἐδείχαμεν, ἐδείχα (σο), ἐδείχατο, ἐδείχαμεθα, ἐδείχασθε, ἐδείχαντο).

The question as to the origin of the aorist suffix, has occupied philologists since Bopp’s time. Bopp saw in it the past tense of the Indg. verbum substantivum esm. Phonetically there is nothing against it. It also finds support from other languages e. g. Latin and Goth., where the suffix of the past tense is nothing else than the past forms of roots सू (dhū) and डो (Sk. धा, धā) respectively. Lat. ama-bam, ama-bat; Goth. huggride, O. H. G. hungerede, Eng. hungered. The s would have to be looked upon as remnant of the imperfect, and that is the only flaw in Bopp’s theory.

VI. Perfect active.

<table>
<thead>
<tr>
<th></th>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>वेत (vēda)</td>
<td>Fōtā (Foīda)</td>
<td>बिज (vidmā) Fōdēmēn (Fidmen)</td>
</tr>
<tr>
<td>वेत्त (vētthā)</td>
<td>Fōtotha (Foīstha)</td>
<td>बिज (vidā) Fōste (Fiste)</td>
</tr>
<tr>
<td>वेत (vēda)</td>
<td>Fōtē (Foīde)</td>
<td>बिजु (vidūḥ) (Fīsoṣi) (Fisasi)</td>
</tr>
</tbody>
</table>

Gothic

\begin{align*}
\text{wait} & \quad \text{witum} \\
\text{waist} & \quad \text{wit-up} \\
\text{wait} & \quad \text{wit-un}
\end{align*}

Middle.

1st. तुदे (tutude) Lat. tutudi
3rd. तुदे (tutude) ...

It will be seen that the perfect has only one type, as against the manifold types shown by the present-aorist. The perfect is formed immediately from the root, without any augment or sign or infix. Every root can have its perfect, with but very few exceptions. The perfect is altogether non-thematic. The peculiarities are that the first syllable takes reduplication, and the root shows the o grade, where the reduplicated syllable shows an e, ओ (ə). This is clearly shown by forms like चकार, जघान, (cākāra, jāghāna), which show palatalization in the first syllable; Cf. also नेगोना, (gēgona) देदोर्का (dēdorka).

VII. The future system:—In Sanskrit as in Greek the future is made up by the addition of the suffix s. In Greek it has been dropped in certain cases, thus giving rise to a second type of future.

देस्यामि (deksyāmi) Gr. δείξω (deixo), from दिख, (diś deik); रेस्यामि (reksyāmi), Gr. λέπσω (leipso). The Lithuanian language also shows this s future; e. g. gélsu from gelu. to do harm; duršu, from duru. The Latin again takes the aid of an auxiliary, as in the aorist and has forms like ama-bo, amabis, amabit. Gothic has lost the old future, just as it has lost the old aorist. Most of the modern European languages have given up the old future and have substituted an auxiliary meaning ‘to wish’. The Rumanian\textsuperscript{1} has volo, the Germ. wollen, Eng. will.

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\textsuperscript{1} Zauner, Romanische Sprach-geschichte I p. 165.
VIII. The distinction between temporal stems and modal stems is not difficult to understand. We have seen sufficiently clearly how different temporal stems were made up. Of the four modes or moods the indicative is marked by absence of any further addition to the temporal stem; सर्ह (bhar) फेरो, or फेर, (phero, phero) बबर (babhar), नेसो (gegon), stems of present, aorist, perfect, are also the stems of the indicative. And it is only natural because it is the simplest mode of all, only asserting or denying something. The imperative too does not have any special stem; very often, as in Sanskrit, it borrows stems and forms of other moods.

The conjunctive and optative have special stems; the former is characterized by the addition of a thematic अ, (a) e, (o) to the temporal stem, the latter by the addition of a secondary suffix ब (yā), े (i), added on to the base without thematic vowel.

In the case of the nonthematic type of roots, the conjunctive is easily formed by adding अ, (a) e, o to the root e. g.

Pres. ind. अस्ति, (āsti) Lat. cs-t ; conj. अस्ति, (āsati) Av. aphaiti, Lat. er-i-t.

Aor. conj. नेषति, नेषत्र (nēsatī, nēsat) (with root vowel ने (ne) as in middle, not ने (nai as in active); Gr. τεῖσ-ο-μεν (tei-o-men), τεῖσ-ε-τε (where नेष (nes) τεῖσ are bases of the sigmatic aorist).

Pref. conj. तत्तनति, तत्तनत्र (tatānati, tatānat) Gr. πεποίθ-ο-μεν (pepoith-o-men). (In Homer, εἴδετε or εἴδοmen)

In the case of the thematic type of roots, the modal sign अ, (a) e, o appears to combine with the last vowel of the stem e. g.

Conj. भरान, भराति, (bhārān, bhārāti) Gr. φέρω-μεν, φέρη-τε (phēro-men, phērē-te), Lat. ferēs, for indicative भरति, (bhārati) φέρομεν (phēromen) etc.
The optative sign for non-thematic roots is या, य (या, या) ये, या, added on to the weak grade of the root; that for the non-thematic roots is इ, (ि) which combines with the thematic vowel making a diphthong with it. Secondary personal endings are then added on to the base formed in this way.

स्यात्, स्यु: (syāt, syuh), also सियात्, सियु: (siyāt, siyuḥ)  
Lat. s-ī-s, s-ī-mus. दद्यात् (dadyāt), दद्यु: (dadyūk), Gr. διδό-η-ν (dido-ē-n), διδό-η-μεν (dido-ē-men).
भरेत् (bhāret), Gr. φεροι (pheroi), Goth. bairai;  
ङ्रेत् (drēt), Gr. ὅρκοι (drako).

IX. There is what is called secondary conjugation. This comprises desiderative, intensive or frequentative, causative, denominative, which may be found in any descriptive Grammar.

Of verbal derivatives, both Sanskrit and Greek show a variety. We have already seen how the Vedic Sanskrit possessed more than half a dozen infinitive forms, three or four absolutive forms, three forms for the present participle, not to speak of any amount of verbal nouns. For these, refer to Whitney, Sanskrit Grammar p. 341 ff.
PART IV

PĀLI AND THE INSCRIPTIONAL PRĀKRITS

36. CHARACTER OF THE PĀLI.—The next stage in the development of the Indian branch of the Indo-German languages is the Pāli. This is a name given to the sacred language of the canon of Southern Buddhism. The name itself is a puzzle to many. European scholars, derive it from prali, a row or line of leaves of a book, then the book itself; and lastly the canon embodied in the book and its language. Another but a hardly likely derivation is from śrāvaka, प्रावद (prakata, páda), प्राव, पाठ (pāla, pāla), according to which Pāli means language of the common people. Kōsambi a Buddhist scholar, thinks, that the name is derived from the root पाठ (pāl) to protect, to preserve, and originally means the books or literature in which the Buddhist canon is preserved. The derivation apart, he rightly points out that Buddhaghoṣa, the author of a commentary on अःत्थकथा, (āṭṭhakathā) repeatedly refers to the Tipitaka or its teachings by the name Pāli.

That this Pāli i. e. the dialect at the root of the literary Pāli, called by European scholars the Pāli-stufe and the dialects of the oldest available inscriptions, could not be directly traced even to Vedic Sanskrit is clear from phonological reasons adduced above. There are besides several

1. RAJWADE, Introduction to Jñāneśvarī.
2. पालिभाष्य कालरिण्य, (pālibhāṣya kālanirṇaya) Vividha nānakāvistār, 41. 139. Cf. also CHILDERS Pāli Dictionary, Introduction.
3. JACOBI, Erzählungen. p. XI.
formantic elements that could hardly be traced to the Vedic dialect. As examples might be quoted the absolute suffixes तू (tu) of the Dhauli\textsuperscript{1} version of Asoka's edict number I and तूण (tūṇa, dūṇa) and तूण (tūṇa) of the Māhārāṣṭrī Prakrit. We cannot trace them back to Sk. त्वा, त्वायम् (tvā, tvānam ), but must regard them as collateral forms of another closely related dialect. In the same way the narrative perfect above referred to is seen to a certain extent in the Vedic, and regularly in the later Brahmanic language, but not in the Pāli and the Prākrits. Except अथ्य बभृत (ayāya, babhūva), and one or two other stray forms, which are to be regarded as Sanskritisms, the Pāli has not got the perfect.\textsuperscript{2} We shall have therefore to understand the relationship between the Vedic Sanskrit and the Pāli and Prākrits in some such manner. They are the direct descendants of a dialect, which was spoken in ancient India, side by side with the Vedic dialect, with which it was very closely related.

But the differences between the old Sanskrit and the Pāli and Prākrits are not so great as to warrant the conclusion that they do not represent successive steps in the development of the Vedic language. Some peculiarities pointed out above may perhaps be more provincialisms than dialectic. The languages of the inscriptions themselves do not lend any support to the theory that there existed in those hoary days a dialect which differed \textit{very considerably} from the Vedic dialect\textsuperscript{2}.

A. \textit{Causes of phonetic change shown by Pāli etc.:—}If then the Pāli and the inscriptive dialects are descended from Vedic Sanskrit, or at least from a dialect that was very close to it, how do we account for such a change in the phonology as is shown in the assimilation of conjuncts, simplifying a

\begin{itemize}
  \item[1.] BUHLER, \textit{Asoka Inschriften}, p. 89.
  \item[2.] Dr. BHANDARKAR, \textit{op cit 59}, was evidently misled by Kaccāyano, who, slavishly following the Kātantra, gives perfect endings for Pāli.
  \item[3.] MEILLET, \textit{Einführung} p. 26; FRANKE, \textit{Pāli und Sanskrit} p. 150
\end{itemize}
conjunct after a long vowel or shortening an original long one before a conjunct, the total disappearance of the vowels \( \ddot{r} \) and \( \ddot{l} \)?

The Indian Aryans entered into India through the North-Western Frontier and found a new fertile land here. Thus geographical and climatic conditions must have worked together with other causes of phonetic growth or decay. Apparently however, it is strange that the same people should find it difficult, when they were in different environments, to pronounce the original conjuncts and sounds like \( \ddot{r} \) and \( \ddot{l} \).

But the whole thing becomes clear, when we imagine to ourselves all that must have happened when the Indian Aryans penetrated into India. They did not find before them a desolate, isolated world or a world inhabited by a handful of negroes. Very probably they conquered land inch by inch from the Dravidians, and such other people who were in possession of the land before them. They inflicted not only their rule but also their superior language upon these natives, to whom it was a strange and difficult idiom. They learnt the new language just as children learn their mother tongue; whatever was rough they softened, whatever was difficult they made easy. The process of this acquisition is strictly psychological, as explained in the first part of this book. Thus all the phenomena called dissimilation metathesis, assimilation, etc., are seen to play a considerable role in phonology and what we know as analogy formation in morphology. The Aryan dialects were thus corrupted in the mouth of the original inhabitants and these corruptions reacted upon the speech of the Aryan settlers. This is the most plausible explanation\(^1\) of the growth of the Pāli and the Prākrits.

The part of the Vedic or of its sister dialect that was most affected in the manner described above was phonology. The

\(^1\) Bhandarkar, Philological Lectures p. 46, 47.
following passage taken at random from the Gajakumbha-
ˈjətaka<sup>1</sup>, is an illustration.

अतीते बारानसियम् ब्रह्मदेवे रज्ञम् कारेन्ते बोधिसत्तो तत्स अमरकरतं अहोसि. वाराणसीराजा आलसियजातिको अहोसि. बोधिसत्तो राजानं बोधेस्समाति एकम् उपायम् उपाधारेंतो चरति. अथ एकादिसं राजा उपायम् गन्तवा अमचपरितुतो तथय बिचरन्तो एक गजकुम्भम् आलसियम् पासि. तथाह्यं किर आलसिया सकलदिवसं गच्छतापि एकालंदुगुम्यमं एव गच्छन्ति. राजा ते दिशा वयस्स को नाम एसो ति पुनिचि. बोधिसत्तो गजकुम्भो नाम एस महाराज आलसियो, एवर्यो हि सकलदिवसं गच्छतान्ति पि एकालंदुगुम्यमतम् एव गच्छतान्ति वत्तवा तेन सदें सहायतान्, अम्मो गजकुम्भ तुम्ह्रकुम्भ दण्डहगामनम्, इसाति अरण्य दाग्ममित्र उठिते ति ततथा पठयम् गाथ्यम् आह.


Even a cursory examination of this passage shows (a) the phonetic peculiarities of the Pāli, and (b) the remarkable resemblance between Pāli and Sanskrit inflection and also syntax:—

(a) बाराणसियम् (Bārānasiyam) shows the change of च (va) into ब (ba), the स्थान (sthāna) of which is the same; then there is anaptyxis of स्थाम् (syām), with shortening of the final vowel.

रज्ञम् (rajjam) shows assimilation of वृ (y) to ज् (j), and the shortening of the long vowel before the conjunct. The

<sup>1</sup> Fausboll, Jātaka III 140.
same assimilation seen in सत्तो, तस्स, अमच्छ, स्पामि, उष्मानं (satto, tassa, amacca, ssəmi, uyyənam) shows regressive assimilation.

अमच्छ (amacca) shows shortening of long आ (ā) before conjunct, complete palatalization of य (ya), and assimilation of the preceding त (t) to it. मत्तम् (mattam) also is due to shortening before conjunct and assimilation.

आलशिय (ālasiya) shows a change in the consonant, apparently due to no cause. The क (k) is first vocalized i.e. becomes अ (a), and the semivowel serves as a bridge between the preceding इ (i) and the new अ (a). This is what is called यास्रुति (yasṛuti) in the later Prākrits. It should be noted, that with the exception of such stray cases, the Pāli has preserved the old Sanskrit consonants in tact, whereas later in the literary Prākrits many of the consonants, especially if they are between two vowels, are replaced by अ (a). This, coupled with the preservation, of most of the Sanskrit inflections, places it beyond doubt that Pāli is older than the Prākrits.

एसो (eso) shows the change of the Sanskrit श्र (s) into स (s), and of the स (s) of the termination into an invariable ओ (o), e.g. परिवुत (parivuto); the final अस (as) regularly becomes ओ (o) before sonant consonants. Ed. गच्छन्तो (gacchanto), आलशियजातिका (ālasiyājātiko) etc.

द्वांगुला (duaṅgula) has dropped the inconvenient यू (y).

पञ्चमम (pathamam) shows that the lingual र (r), which has dropped, has lent its character to the following consonant, a phenomenon that is common in the Prākrits and seen also to have effect on Sanskrit.

इमासिं (imassim) and दावांगिम्हि (dāvaggimhi) show a double representation of the same Sanskrit स्मिन (smin); in the former there is assimilation to the preceding स (s) in the latter there is metathesis first and change of स (s) to ह (h) afterwards.

1. JACOBI, Āyārānga Sutta part I p. VIII.
The inflectional resemblances between Pāli and Sanskrit are obvious:—

बोधिसत्तो (Bodhisatto), राजा (rāja), राजानं (rājanam), महाराज (mahārāja), गजकुम्भ (gajakumbha) are just the same as in Sanskrit. रतनं (ratanam), राजमु (rajjam), बोधिसत्त (bodhisattvam), दिवसं (divasam), उप्यानं (uyyānam) apart from the phonetic change, are identical with Sk. inflection of these words.

तं (tani), तस्स (tassa), कवस्स (vayassa), अतीते (atite), इमसिं (imassin), उत्थिते (uṭṭhite), are in perfect agreement, with their Sanskrit originals.

चरति (Carati), गच्छन्ति (gachhanti), आह (āha), बोधेसामि (bodhessami) are the same as in Sanskrit, and अहोसि (ahosi) पस्सि (passi), पुच्छि (pucchi) although differing a bit in formation, are aorist or past forms corresponding to Sanskrit aorists or imperfects, sometimes with but often without the augment. The Sanskrit augment of the preterite, like the perfect, is thus on its way to disappear in Pāli and has totally disappeared in the Prākrīts and the modern vernaculars. This also clearly shows the relationship, in time, of the two to each other.

कारेन्तो (kārento), उपदारेन्तो (upadhārento), गच्छन्ति, गत्वा, वत्वा, उत्थित (gacchantā, gantvā, vatvā, uṭṭhita) are verbal derivatives, the close similarity of which with like Sanskrit forms is almost too transparent.

37. PHONOLOGY OF THE PĀLI:—The Pāli possesses all the vowels of Sanskrit, with the exception of क, ख, ऐ (r, l, e) and औ (au).

1. Normal vowels:—

(a) अग्नि-अग्नि (aggi-agni), अग्न-अग्र (agga-agra),
अच्छ-अच्छु (accuta-acyuta), अध-अध्य (aṭṭha-artha),
आकाश-आकाशा (ākāsa-ākāsa), आसां-आशा (ōsaṅka-ōsaṅka),
आसां-आशा (ōsaṅkhi-ōsaṅkhi), साबक-श्राक: (sāvako-śrāvakah),
(b) इन्द्र-इन्द्र (inda-indra), इतिवृत्तक-इतिसृत्तक (itivuttaka-itivrttaka), इसिगिरि-इसिगिरि (isigili-rṣigiri), इसधार-इसधार (isadhara-isadhara), गोतमी-गोतमी (gotami-gantami).

(c) उक्कन्तित-उक्कन्तित (ukkanthita-ukkanthita), भिक्खु-भिक्खु (bhikkhu-bhikṣu), उग्गा-उग्रा (ugga-ugra), उपपलवण-उपपलवण (uppalavāṇa-uptalavarnā), खुज-खुज (khujja-kubja).

(d) एक-एक (eka-eka), एनी-एनी (enī-enī), खेम-खेम (khema-kśema).

(e) पुरोहित-पुरोहित: (purohito-purohitaḥ), गोपालपुत्र-गोपालपुत्र: (gopālaputto-gopalaputraḥ), कपोत-कपोत: (kapoto-kapotaḥ).

2. र (r) and ल (l) are represented in one of the following ways:—

(a) by अ (a) in गहा-ग्रह (gaha-grha), अच्छा-ऊक्षा (achha-ykṣa), मच्छा-मृत्यु (maccu-mṛtyu), मष्ट-मष्ट (mattara-mṛṣṭa),

(b) by इ (i) in इन्द्र-इन्द्र (ina-rṣa), किस-कृषा (kisa-krṣa) तिगल-द्रगाल (sigala-drīgala), इस-रषि (isi-rṣi).

(c) by उ (u) in उस्ब-ऊक्षम (usabha-rṣabha), पुच्छ-प्रक्ष क (puchhi-prkh), परितुल-परितुल (parivuto-parivrttaḥ). In this case a labial before or after the र (r) is responsible for the change.

(d) by रि (ri) or र (ru) in इतिविज-इतिविज (iritvijja-ritvij), रि-रि: (rite-rite), रुक्का-ऊक्ष: (rukkhva-vṛksa).

√ 3. ए (ai) and ओ (au) become ए (e) and ओ (o) respectively.

(ए: चेतियगिरि-चत्यगिरि, एरावण-एरावण, केल्ल-केल्ल, वेदेह-वेदेह; ओ: गोतम-गोतम, ओसध-ओषध, काल्य-काल्य, चोविर (र्क)-सोविराध). (e): cetiyagiri-caityagiri, eravana-
airavaṇa, kelāṣa-kailāsa, vedeha-vaideha; o: gotama-gautama, osadhā-auṣadha, koravya-kauravya, sovira (raṭṭha)-sauvīrarāṣṭra).

4. Change of vowels:—

(a) अ (a) becomes ए (e), हेत्रा-अवस्टात (heṭṭhā-ādhaṣṭāt), अन्तेपुर-अन्तःपुर (antepura-antakhpura), सेव्या-शेव्या (seyyā-sayyā), शेव्याल-परियाय (peyyāla-pariyāya); or इ (i), लिपु-नु (lipu-nu), तिमिसा-तमिस्त (timissā-tamistrā); or उ (u), chiefly beside labial, पञ्जुविलक्ति-पञ्चविन्वति (paṃjuvisati-paṇcaviṁsati), निमुञ्जति-निमुञ्जति (nimujjati-nimajjati), पञ्जुखऽ-पञ्जुख्या (paṃjuṃma-parjanya); or rarely ओ (o) सम्मोस संमय (sammosa-sammarṣa), तिरोक्क्ष-तिरस्क (tirokkha-tiraska).

(b) आ (a) becomes ए (e), पारेवत-पारावत (pārevata-parāvata), मेत्त-मात्र (metta-matra), आचेर-आचाय (acera-acāra); or ओ (o), परेवर-परावर (pāravara-parāvara), दोसो-दोष (doso-dosā); or ऌ, (u) especially in connection with roots गा (gā) to go and झा (jñā) to know, अद्धु-अध्व (addhagā-ādhvaga), सहवङ्ग-सर्वङ्ग (sabbaṁṇu-sarvajñah).

(c) इ (i) becomes अ (a), mostly as a result of dissimilation), घण्ठी-घ्रिं (gharani-grhini), पत्थरी-प्रथित (paṭhavi-prathivi); or ए (e), एल्ल द्वार (ela-tyāta) मांजैह-माण्डित (maṇjeṭṭha-māniṣṭha); or ओ (u) राजुल-राजिल (rājula-rājila), गेत्र-गैरिक (geruka-gairika), इ (i) also is subject to the same changes; e. g. खेल-क्रिडा (khela-krīḍa), गहेला-घ्रीला (gahetvā-grhīlā).

(d) उ (u) becomes आ (a), अगु-अगु (agaru-aguru), or ओ (o), ओका-उल्का (okkā-ulkā), अनोप्म-अनुप्म (anopama-anupama).
e) ए (e) becomes ह (i) before double consonants, पसिब्बक-प्रासेवक (pasibbaka-prasevaka), पतिविससक-प्रतिवेसक (pativissaka-prativeśaka).

f) ओ (o) becomes उ (u) in the same manner, जुन्हा-ज्योत्तना (juhā-jyosttana), विसुक-विशोक (visūka-visoka) The ओ (o) due to contraction of अव (av) also changes; उस्साव-अवस्यय (ussāva-avasyaya).

5. The law of quantity.—Long vowels are generally shortened before conjunct consonants:—

अजवाम-अज्जवाम, पुण्य (पुर्णि)-पूर्णि, तिथि-तीथि, पति-प्रासि, अत्तो-आत्तो, शक-शक्य, सन्त-शान्त, दस्त-दान्त, वन्त-वान्त, गह्ससति-ग्रह्सयति.


(a) Sometimes the double consonant is simplified and the long vowel is kept, thus preserving the quantity of the word as a whole.

आजव-अज्जव (ājava-ārjava), ओमि (also ओम्मि)-ओमि (ūmi) (ūmmi)-ūrmi, अहसि-अहर्षित (ahṣi-ahāṛṣi), उहसन-उद + हस, उहत-उदत (ūhasana-ud + has); (ūhata-uddhata).

(b) Sometimes, however, a long vowel is shortened and as compensation a following single consonant is doubled.

बहुमूनिव-बहुनाम, निद्ध-निद्व, जण्य-जातु, पञ्चमू-पञ्चानाम, उपिक्ष-उपिकृप (bahumūnam-baḥūnām, nidāha-nidā, jānu-jānu, pañcamaṇṇa-pañcāṇām, unhissa-ūṣnāśa).

(c) As a corollary of the above, the vowels ए (e) and ओ (o), are to be regarded as naturally short before a double consonant and long before a single one e.g. सेय्या, उपेक्खा, ओस्सजति, योधन, मोक्ख (seyyā, upēkkhā, ossajati, yobbana, mokkha).
(d) Often however, long vowels are shortened without any compensation.

आगहित-आग्रहित, संख्यात-संख्यात, पञ्चवा-पञ्चानात, अपपत्ति-
अपप्तीत, पानिय-पानिय, आचरिक (also आचरे)-आचार्य
(āgahita-āgrhīta, samkhṣa-saṃkhyāta, paññavā-
praṇāvān, appatita-apratita, pāniya-pāniya, āca-
riya (ācera)-ācārya).

(e) Short vowels are lengthened, mostly in the case of prepositions.

पाठिमौख-प्रतिमौख, पाठ-प्रकट, पावचन-प्रवचन (pāṭimokkha-
pratimokṣa, pākaṭa-prakāṭa, pāvacana-pravacana). Other cases of lengthening are:

- आजिर-अजिर, पायस-पायस, गाभुत-गाभुति (ājira-ajira,
pāyāsa-pāyasa, gāvuta-gavyūṭi).

Some of these cases may be regarded as compensatory for
the loss of a consonant; but others have no such justification.

(f) Nasalized vowels are often lengthened, when the
naso is dropped.

सीह-सिंह, वीसति-विशिश्ति, दाठ-दंश्र, (सं) दास-दंश, तीस-तिसत
(sīha-sīmha, vīsati-viśiṣati, dāśa-ḍaṁśra, (saṁ) 
ḍāsa-ḍaṁśa, ṭīs-ṭiṁṣat).

The opposite process, viz., the development of a nasal
where there was none originally is also observed. It is to be
remarked, however, that in such cases the nasal generally
repairs the loss of some consonant.

संवरी-शवरी (saṁvarī-śarvarī), मंकुला-मकुल (maṁkulā-
maṅkuṇa), cf. Pr. असु (aṁsu), दसन (daṁsaṇa) for अश्रु
(aśru), दर्शन (daṁśana). सिंगाल-श्रुगाल (siṁgāl-śṛgāl), दश-दंश,
नाग-नाग (daṁḍha-dṛḍha, nāmga-nāga), Sindhi नगर for Sk.
नग (naṁgar for nagara) are cases where the nasal does not
compensate any loss. Cf. मगितला (māgītalā) of Koṅkaṇi boys
for standard Marathi मगितलें (māgītelē).
6. Vowels are often dropped without any compensation भीता-दुहिता (dhitā-duhitā), लूक्कार-अलूक्कार (lamkāra-alamkāra), पिअपिव (pi-āpi), व-एव (va-eva), पराज्ञति-अपराज्ञति (parajjhati-aparādhyati).

a. Consonants:—The Pāli possesses all the Sanskrit consonants, except श (śa) and ष (ṣa)

1. (a) कण्ठ-क्रण (kaṇha-krṣṇa), कातिगामक-कातिगामक (kāsi-gāmaka-kāsigrāmakā); खज-खाय (khajja-khā-
        dyā), खर-खर (khara-khara), गांग-गाण (gaggaga-
        garga), गंधव-गान्द्व (gandhabba-gandharva),
        घटिकार (ghanṭikāra).

(b) चक्कवती-चक्कवती (cakkavatī-cakravarti), छतिय-चैत (cetiya-caitya), जम्बुदीप-जम्बुदीप (jambudīpa-
        jambudvīpa), जेठ-ज्येष्ठ (jetṭha-jyeṭṭha).

(c) तक-तर्क (takka-tarka), तिस्स-तिस्य (tissa-tisya), ठेर-स्थविर (thera-sthavira), दक्षिणापथ-दक्षिणापथ (dakhi-
        nāpatha-dakṣināpatha) दुवच-दुवचसू (duvaca-
        durvacas); नन्द, नगर (nanda-nagara).

(d) पार्व-प्रज्ञा (pārṇā-prajñā), पद्म-पद्म (padumapadma), फल्गुनी-फल्गुनी (phagguni-phalguni), बहुः (bahuka), बोधिसत्व-बोधिसत्व (bodhisattha-bodhisattva),
        भिक्कु-भिक्षु (bhikkhu-bihikṣu), महाय-मध्यम (majjhi-
        ma-madhyama).

(e) यस-यास (yasa-yaśa), रत्त-रक्त (ratta-rakta) लक्षण-लक्षण (lakkhana-lakṣaṇa), विरुपक्ष-विरुपक्ष (viru-
        pakkha-virūpākṣa).

(f) सक-शाक्य (sakka-sākya), सुदस्सन-सुद्दर्शन (sudassana-
        sudarśana), सादभ-षड्ष (saṭṭhi-saṭṭhi), हसि-हसि (hathipāla-hastipāla).

(g) As was to be expected, cerebrals are found much more profusely than in Sanskrit. Vide section 34,
5. मकुट (makuṭa), जतिल (jaṭila), तिकुट-त्रिकुट (tikū- 
*ta-trikūta), काता (kaṭāha), गहठ (ghaṭa, 
duṭṭha), पत्तम (pathama), चचड (caṇḍa), दचड 
(daṇḍha), पुण्ण (puṇṇa), जिः (jīnna).

2. But Sanskrit consonants are sometimes changed 
in Pāli.

(a) चुण्ड-कुण्ड, भिसक-भिषज, उत्सित-उच्छित, चेतक-चेतक, 
पञ्जुण्ड-पर्जन्य, सकट-संक्षित, देशाधिको-दोहितिनिः विलास-विलास, 
सुचुत-सङ्ग, वैष्णू-वाही, एण्ण-एण्ण, नलान-नलान (cuṇḍa- 
kunḍa), bhisakka-bhisaj, ussita-ucchita, cetaka- 
cetaka, paṇjuna-parjanya, sakkaṇa-samskṛta, 
dohalinī-dohadinī, bilāsa-vilāsa, sabba-sarva, 
laṭhī-yaṣṭi, elanda-eranda, nalāṭa-lalāṭa.

(b) Hard consonants are sometimes softened 
पसव-पशव, उद-उत, रुद-रत, व्यावत-व्यावत (pasada- 
prṣata, uda-uta, ruda-ruta, vyāvaṭa-vyāprta).

(c) य (ya) sometimes appears for द (da) thus 
anticipating the यशुति (yaśruti) of the Ardha- 
Māgadhī.

गोयन-गोदान (gojana-godāna), खाधित-खादित (khā- 
yīta-khādita), सायत-स्वादते (sāyati-svādate). Cf. 
आलसिय (alasiya) in the passage quoted above.

(d) Change is seen in the conjunct consonants, which 
show either simplification, when the preceding 
vowel is lengthened—vide 5 a above—or assimila- 
tion. मूत-मुक्त, दृढ़-दुर्ध, उपपतति-उपपति, दृढ़-दुर्ध, 
सह-शन्त, रुद्ध-रुद्ध, उपपतति-उपपति, एक्ष- 
एक्ष, तपति-तपति (mutta-mukta, duṣṭha-duṣṭha, 
napatati-utpatati, buddula-buddula, sadda-sabda, 
labda-labdha, ussukka-ausukka, vucauti-uccyte, 
ekacca-ekatya, tappati-tapate) show that a
\( \text{र् (y)} \) is generally assimilated to the preceding element of the conjunct. Often, however, the conjunct is dissolved by an intervening vowel, thus giving anaptyxis. \( e. g. \)

आचार्याः-आचार्यः, सूर्य-सूर्यः (\text{ācariya-ācārya}, \text{sūriya-sūrya}).

\( \) 38. INFLECTION:—The Pāli like Sanskrit is yet rich both in declension and conjugation. However, the peculiar tendency of the Pāli shared also by the Prākrits to either drop end-consonants or add an \( \text{ā} \) (\( a \)) to them, has resulted in almost driving out consonantal declension from the Pāli. However, some stray forms have still persisted in asserting their original nature; राजान (\( rājānam \)) in the passage quoted above, तवो (\( tavo \)) nom. pl. of तच्छ-त्वच (\( tac-tvā \)), बाच (\( vācā \)) instr. sing. of बाच (\( vāc \)), पमुदि (\( pumudi \)) loc. sing. of पमुद (\( pamud \)). But the way consonantal stems became vowel stems is shown by forms like गच्छन्तो (\( gacchanto \)), which formed the base by adding अ (\( a \)), Sk. गच्छन्त (\( gacchant \)). Still, there are certain consonantal stems like अत्ता (\( attā \)) Sk. अत्म (\( ātmā \)), राजा (\( rāja \)) Sk. राज (\( rāj \)). We therefore divide Pāli declension into two classes, the vowel class and the consonantal class. There are only two numbers, and seven, often only six, cases, the genitive and dative as a rule, and the instrumental and ablative often, having merged together. This prepares the ground for the total loss of the dative in the Prākrits, where the genitive has absorbed its functions. Thus we can understand expressions like दामिलय लेण (\( dāmilāya leṇa \)) in cave inscriptions, which means in Sk. दामिलस्य लयनम् (\( dāmilasya layanam \)).

A. Of vowel stems there are those in अ, आ, इ, ई, उ, ऊ, ो (\( a, ā, i, ī, u, ū, o \)). The terminations are the same as in Sanskrit, with proper phonetic changes; and those referred to above. We shall give a few forms.
धम्म (dhamma)—the law or religion.

Sing.

N. धम्म (dhamma) (dhammā)
V. धम्म-सा (dhamma-mā) (dhammā)
A. धम्मम्म (dhammāṁ) (dhamma)
I. धम्मन (dhammāṇa) (dhamma)
D. & धम्मस (rarely) (dhammassa)
G. धम्म (dhamma) (dhammā)
Ab. धम्म, धम्मस, धम्मन्त्र (dhamma, dharmas, dharmanta) (dhamma)
L. धम्मे, धम्मसम्म, धम्मस्त्र (dhamme, dharmassim, dharmashti) (dhammesu)

कुआ (kaṇṇa)—a girl.

N. कुआ (kaṇṇa) (kaṇṇa)
V. कुश (kaṇṇe) (kaṇṇa)
A. कुलम (kaṇṇam) (kaṇṇa)
I. कुशय (kaṇṇaya) (kaṇṇa)
D. & कुशय (kaṇṇaya)
G. कुशय (kaṇṇaya) (kaṇṇa)
Ab. कुशय (kaṇṇaya) (kaṇṇa)
L. कुशय (kaṇṇaya) (kaṇṇa)

The abl. and loc. of अ (a) stems show three forms each, one in keeping with Sanskrit but the other two formed on the analogy of the forms of the pronouns. The nom. plu. धम्मस (dhammā), inter abl. pl. धम्म (dhamme), धम्महि (dhammebhī, dhammehi) remind one of the Vedic forms देवासु (devasah) and देवभि (devabhī), to which, therefore, the former must be traced.
Instr. abl. gen. and loc. sing. forms of the आ (ā) stems are the same throughout. In this the Pāli appears to be influenced by classical Sanskrit, which has the same form at least for the abl. and gen. Pāli has drawn in dat. in the lot, as that case was on its way to decline. And all these appeared to influence the loc. which, side by side with the regular form कण्यायम् (kaṇṇāyam) also shows कण्याय (kaṇṇāya). This latter form, however, is very rarely found. Still further abridged, the dative shows the आ (ā) ending¹ in certain stray forms e.g. एसना = एसनाय (esanā = esanāya). A few forms of this dative in आय (āya), are used in the sense of the infinitive, भोजनथ् (bhojanattḥ), or ध्याय (thāya), in order to get food.

(b) In the declension of इ (i) and उ (u), bases, the अ (a), declension has influenced the masculine and neuter forms of the dat. gen. whereby we get an अगिस्त (aggissa), side by side with अगिनो (aggino). This is due to the influence of analogy, which has worked more havoc with the Pāli and Prākrit forms than with Sanskrit ones. The loc. is formed on the analogy of pronouns e.g. अगिस्त्मि (aggismiṁ), अगिस्त्मि (aggismiḥ). The form अगिनो (aggino), of the dat. gen. is due to the analogy of the neuter form of इ, उ (i, u), bases which show regular forms like अखिनो (akkhino), Sk. अख्यः (akṣaḥ). These bases also show स्मात् (smāt), forms for the abl. on the analogy of pronouns again e.g. अगिस्त्मा, अगिस्त्मा (aggismā, aggisṃḥā).

अगिना (aggina), for instr. and abl. of masc. and रतिया (ratiya), for the same cases of fem. bases in इ (i), show how the ablative is merging into the instrumental on account of the similarity of function of the two cases. The same is to be observed with regard to the उ (u), declension.

(c) Although forms like राजनम् (rājanam), रञ्ज्या (rañṇā), रञ्जो (rañño), and रञ्जिनो (rañjino), रञ्ज्ये (rañṇe), and रञ्जिनि

¹. E. MÜLLER, Simplified Grammar of the Pāli Language p. 67.
(rājini), for the acc., inst., gen. and loc. respectively, prove
the existence of consonantal declension in the Pāli, still other
forms like युवान्सा (yuvānassa), and युवसा (yuwasā), for gen.,
युवाने (yuve), युवानसिं (yuvanasmiṁ), युवानमिं (yuvanamhi),
and युवे (yuve), for loc. show how this great class was on its
decline, giving two bases—one by dropping the final con-
sonant and another by adding an अ (a), to it.

The declension of सखि (sakhi), is an interesting example
of contamination. The acc. shows सखान (sakhanam), and
सखी (sakhai), the former on the analogy of अन् (an) stems
that have retained their final and the latter on the analogy of
such as have lost it.

(d) Pronouns generally agree in declension with their
Sanskrit counterparts, with due phonetic changes.

e. g. अहम् (aham), मम् (mam) and ममम् (mamam),
माया मम-ममम् (maṣa, mama-mamam) and माय-अमम् मधि
(mayham-amham, mayi) are forms respectively of the nom.,
acc., instr-abl., dat-gen., and loc. of the pronoun of the first
person.

त्वम्-तुवम् (tvam-tuvam), त्वम्-तुवम् (tvam-tuvam) and
tम्-तवम् (tam-tavam), त्वा-त्वा (teyā-taye), तव-तवम् (tava-
tavam) and तुहम्-तुहम् (tuham-tuhum), तवी-तवी (tvai-
ti), are corresponding forms of the pronoun of the second
person.

For the third person, forms of the demonstrative are used
and they are almost like Sk. forms.

e. g. सो, तम्, तेन (so, tam, tena), तत्सा तत्सा, तत्सा, तत्सिं-तत्सि
(tasmā-tahmā, tassa, tasmini-tahmi).

(e) Pāli adjectives have declension and comparison as in
Sanskrit. The suffixes for the two degrees as in Sk. तर तम
(tara, tama) and इयो-यो, इह (iyo-yo, iṣṭha). There are
irregularities in comparison as in Sanskrit.
e.g. अप्प=अप्प (appa=alpa) कनीयो (kanīyo)
अन्तिक (antika) नेदियो (nediyo)
पसथ=प्रशस्य (pasattha=prasasya) सेययो=श्रयय (seyyo=śreyah)
कनिठ (kaniṭha) नेदिठ (nediṭha)
सेठ=श्रेष्ठ (setha=śreṣṭha)

(f) Pāli numerals follow Sk. numerals closely, as एक (eka), ति, छ, द्वादस (ti, cha, dvādasa) or बारस, बीसम (bārasa, visam) or बीसति (visati), तिसम (timsam) or तिसति (timsati), पाणिसम (paññ̄asam) or पाणिस (paññ̄asa) etc. show. In declension they agree with Sanskrit; e.g. तयो, तथभि, तप्तम (tayo, tibhi, tinam), तान्त्रय (tāntra), तस्व (taṣu=trayah, tribhik, trayāṇām tresu). The ordinals are पत्तम तुलिय तत्तिय (patthama, dutiya, tatiya) (by dissimilation), चतुर्थ (catuttha, chaṭṭha) etc.

b. Conjugation:—The Pāli shows as many classes of roots as the Sanskrit. Thus there are roots which take the conjunctival sign, before which the root vowel either takes or does not take गुण (guna); there are others which take no thematic vowel. Some show reduplication, while others infix a ण, ण or ण (ṇa, na no); there are also the ऊ (u) and अयू (ay) classes.

Although according to Pāli grammarians like Kaccāyana, there are two voices the परस्पर (parassapada), and अत्तनोप (attanopada), the Pāli literature favours the former. Forms like अन्य (amhase), from अस (as), द्वादश (dadāmha), अभिक्रीर (abhikiráre) show that although it is looked upon more as परस्पर (parassapada), the अत्तनोप (attanopada), is there. The Prākrits go a step further and drop the Ātmanepada altogether.

The Pāli has four moods, including the subjunctive and four tenses, the present, aorist-imperfect, future and condi-
tional. As we have remarked above, Pāli has no perfect.\footnote{E. MÜLLER also is misled by Kaccāyana, when he says that the Pāli possesses the perfect. \textit{op. cit.} p. 96.} As in inflection, the Pāli has given up the dual.

It must be noted, however, that many Pāli roots have changed their class; \textit{e. g.}, यायति (yāyati), from या (yā), to go अयय (ayāya), (which is to be looked upon as a form of the past tense of या (yā), and not as perfect of ह (i), or या (yā), as many scholars believe), दति (ṭhāti) from स्था (sthā), beside तित (tiṭṭhati), दाति (ṭhāti), from दा (dā), जितिति (jināṭi), 'from जि (ji) beside जयति-जमति (jayati-jeti); हनति (hanati), from हन (han), भायति (bhāyati) from भि (ḥi), etc. They also change the पद (pada); \textit{e. g.}, सेमि (semi) from शि (śi), although the pres. part. सेमान (semāna), still retains it.

\textbf{a.} The personal terminations are the same as in Sanskrit. Some paradigms will give an idea of Pāli conjugation:

\begin{align*}
\text{हू (hū)} & = \text{Sk. भू (bhū).} \\
\text{होमि (homi), होम (homa)} & \\
\text{होसि (hosi), होथ (hota)} & \\
\text{होति (hoti), होति (honti)} & \\
\text{बू (būr) Parsm} & \\
\text{बृमि (brūmi), ब्रम (brūma)} & \\
\text{बृसि (brūsi), ब्रथ (brūtha)} & \\
*\text{ब्रति, ब्रवति (brūti, bravati) ब्रवन्ति (bravanti)} & \\
\text{असू (as)} & \\
\text{आस्मि, अस्मि (asmī, amhī) अस्म, अस्म (asma, amha)} & \\
\text{असि (asi) अथ (attha)} & \\
\text{अत्थि (atthi), सन्ति (santi)} & \\
\text{Atta.} & \\
\text{ब्रवेय (brave), ब्रमहे (brūmahe)} & \\
\text{ब्रुएय (brūse), ब्रुवहे (brūvhe)} & \\
\text{ब्रुत्रे (brūte), ब्रवन्ते (bravante)} & \\
\end{align*}
N. B.—The pāli appears to make no distinction between strong and weak terminations. So that, if there is a strengthening of the root vowel before the sing. terminations; it is kept up also before the pl. terminations, as in होमि (homi) and होम (homa), अम्हि (amhi) and अम्हा (amha), ब्रवति (bravati) and ब्रवन्ति (bravanti). The form सन्ति (santi) is due to the influence of Sanskrit, which has often disturbed the phonology and inflection of Pāli and the Prākrits. This influence was at some period less, at another greater. It is perhaps an exaggeration to say that such interference came after the 2nd or 3rd century A. C.¹ and was due to an imaginary secondary Sanskrit.

b. The imperative shows the same forms as in Sanskrit, excepting the मि (mi) and न्ति (nti) of the first sing. and third pl., which are due to the analogy of similar forms of the present. The हि (hi) going back upon old Sk. हि (habi) is seen where it is unusual in Sanskrit; e. g. गन्धाहि (ganhāhi), गांध्राहि (gachhāhi). The स्त्र (−ssu) from स्र (sva) of the 2nd pers. attano. is seen even with roots of the parassapada; e. g. भवस्त्रु (bhavassu), Sk. भव (bhava). cf. करोथ (karotha) in the passage quoted above.

c. The subjunctive in Pāli was discovered by Pischel. As in Sanskrit it consists in the lengthening of the अ (a) be-

1. O. Franke, Pāli und Sanskrit p. 56-57. The statement of facts re. the Kharoṣṭhī inscriptions at p. 54a go against his own theory. Against Franke, see Windisch, Sprachlicher Charakter des Pāli, 21-22.
fore terminations; *e. g.* नासि (hanūsi), दासि (dahāsi), दहाति (dahāti).

d. The optative terminations are एया (eyāmi), एया (eyāsi), एव (eyya) for singular and एया (eyāma) or एम (ema), एवा (eyātha), or ए (etha), एयुम (eyyum) for the plural. This may be regarded as the strengthening of the Sk. terminations ठाय (iya) etc. or as due to the संधि (sandhi) of the conjugational sign घ (a) and ठ (iya). Besides these, there is also current an ए (e) for the three singulars; *e. g.* रोदे, आनये (rode, ānaye) etc. This ए (e) is to be traced to Sk. ऐ (ai) of first pers. sing. imperative. Examples:—भावभाषि (bhaveyyāmi), हुवेवभाषि, हारेरभाषि, जनेमु (huveyyāmi, ahareyyāsi, jānemu) (for म (ma), पसेमु (passemu). Besides these there are the attanopada forms एया—एवामहे (eyyam—eyyyāmahe) etc.

e. The imperfect and aorist are not strictly distinguished in ordinary cases, the formations only being distinctly aoristic. The augment, which originally indicated the past character of the two tenses, is not obligatory in Pāli and has totally disappeared in the Prākrīts.

Examples—अवचम् (avacam), अद्धसम् (addasam) and अहुम् (ahum) first sing. from भू, अहुवा (bhū, ahuvā), अद्धस (addasa) third sing.; अहुल्, अहुवत् (ahuhma, ahuvattha) first and second pl. अद्धह्म (assum:) third pl. from शू, अद्धह्म्ह्म (śru, adakkhhum), from ह्स (drṣ). The उम् (um) of the third pers. pl. is from Sk. उस् (us).

The terminations of the s aorist are supposed to be due to the root आस्त्र (as). Thus इष्ट—इष्ट, इँ—इँ, इँत् (iṣam–iṣma, ik–iṣṭa, it) and इँ: (iṣuḥ) give in Pāli इष्ट–इष्ट (im–imha), इँ–इँ, इँ (i–iṭha, i) and इँ (iṁsu) or इष्टु (iṣum).

Examples:—अद्धसस्म, अस्गहि (addassim, aggahi); the imperfect–aorist of आसः (as), आसिम, आसि (āsim, āsi), आसि
(āsi) sing. and आसिंढा (āsikha), आसिंथ (āsitha), आसिंस्तु (āsimsu) pl.

f. The future is easily formed after Sanskrit, with proper phonetic changes.

Examples:—विशेषक्र (vichessati), दक्खिनि (dakkhati) = Sk. दक्खिनि (draksyati), दक्खस्ति (dassami), जिनिस्त्व (jinnissati).

दक्खिनस्ति (dakkhissati) is evidently a double future.

g. Besides the ordinary bases, there are in Pāli causatives, desideratives, intensives and denominatives. There are as in Sk. causatives in अयु (ay) and पू (p), the latter much more frequent in the Pāli than in Sanskrit: नायति (nāyeti) from नी (ni), युपापति (yupapeti) from शु (śru), जिनापति (jinnapeti) from जि (ji). It is to be noted that before the पू (p), the root shows its full conjugal base.

पिपासति (pupasati), भुर्यवत (bubhukkhati), प्रहसिनि (prahaminsati) are desideratives.

ललक्षति (lālapatti), संक्रमति (samkamati), जंगमति (jamgamati) are intensives from लप (lap), क्रम (kram) and गम (gam).

पञ्चार्यति (pañcatāyati), गणियति (gaṇiyati,) धनेति (theneti) are denominatives of different kinds.

h. There are present, past, future and potential participles as in Sanskrit.

Examples:—उभन्त, कुब्जाण, (labhanto, kubbāna), सयामण (sayamāna) pres. part. from लभ, क्र (labh, kr) and श्र (śr). भाव, इश, निर्ध (pattā, ittha, bandha, pilandha) past. pass. part. from प्राप, इश, भाव (prāp, is, badh) and निर्ध (pinak) (the last by dissimilation).

दिन, जीन, शीन (dinna, jina, śina) are past. part. in न (na).

जिनित्व (jinitabba), कत्तव (katabba), हिर (hira) are pot. part. from जि, क्र (ji, kr) and ह (hr).

i. There are infinitives in तम, तवे, ते (tum, tave, taye) and तुये (tuye), thus showing the closer affinity of the Pali with the Vedic Sanskrit.
e. g जिनितम् (jinitum), पहातवे, गणेत्ये, (pahātave, ganetuye), etc. from जि, हा (ji, hā) and गण् (gan).

There is also a variety of gerunds as in Vedic Sanskrit.

त्वा: गन्त्व (tvā: gantvā), दिशौ (diśāvā); त्वान: चेत्वान, जिनित्वान (tvāna: cetvāna, jinitvāna); तुम: कातुम: सोतूमम् (tuma: kātina, sotīnam) य, आठ्च (ya: ṭhacca) from ह (hr), पतिच(atica) from ह (i with प्रति prati).

त्वान (tvāna) is traceable to Vedic Sanskrit, but not perhaps तुम (tuma) and तुमम् (tunam), unless one regards them as weakened forms of the first.

From this brief examination of the Pāli from the phonological and morphological points of view, it is clear that in all respects the Pāli stands closer to old Sanskrit than do the Prākrits. Although like the Prākrits some vowels are dropped, the consonants are not subjected to an emasculation as in the Prākrits. Pāli inflection has not lost as much of the wealth of forms as the Prākrits have. The Pāli stage, as it is called,¹ is therefore anterior to the Prākrit stage.

39. ORIGIN OF THE PĀLI LANGUAGE:—What is the basis of this literary Pāli? This is a question that has puzzled scholars, and is perhaps not yet set at rest. This question and the question of the home of the Pāli are so interrelated that we must not only treat them together, but rather take the latter first.

KUHN, following the tradition that Mahinda, Asoka’s son born in Ujjayini, took the canon with him to Ceylon, when Ujjayini was the capital of the Mālāva Country, thinks that the dialect of Ujjain was the basis of the literary Pāli. OLDENBERG, on the other hand, thinks that Pāli was the vernacular of Kaliṅga, and that the Buddhist migration to Ceylon must have gone from that country. This conclusion was arrived at after comparison of the Pāli with the inscription at Khapḍagiri.

¹. WACKERNAGEL, op cit p. XVIII.
E. Müller agrees with this conclusion, although on different grounds.

Franke, in his Pāli and Sanskrit, has dealt with the question at length. He has compared the language of the various Prākrit inscriptions, which he calls inscriptional Pāli and on noting that literary Pāli is different from the language of the Kharoṣṭhī inscriptions, inscriptions of the east and south and south-west, has arrived at the conclusion that the home of the literary Pāli must be within the region surrounded by the Prākrit inscriptions, i.e. the region round about Ujjayinī.

Windisch rightly points out that the Pāli did not agree with any of the Prākrits on the inscriptions, because it had long ceased to be a dialect of any province, but had become a Koinē or literary language, for the same reasons as Luther’s dialect became the High German. When a language becomes more and more a common language, it gives up, by and by, its original dialectic peculiarities. But even a literary language must have a dialect of some region as its basis, and Pāli, according to Windisch whom Grierson follows, had for its basis the Māgadhī. No doubt the Pāli does not show the peculiarities of the latter, viz. the ṛ (e) of the nom. sing. masc. of ḍ (a) bases, and the invariable ṛ (i) for ṛ (r). But these were given up by the Pāli, when it became almost a lingua franca, in preference to eṛ (o) and ṛ (r) which were more commonly found in other dialects. But some traces of these are yet found in the Pāli. Bhikkhave the vocative, modelled upon the nominative, is still preserved, as it was a word of address used by Buddha so frequently in his discourses. Tradition also

says that the Pāli represents the जिनवचनं (jinavacanam) or बुद्धवचनं (buddhavacanam) and that the Buddha spoke in मागधि (māgadhī). The characteristic र (r) of the Māgadhī is found in Pāli words like लुद्द (ludda), अगलु (agalu), पलिवेठति (paliveṭhiti), इसिगिलि (isigili), for Sk. रुद्र (rudra), अगरु (agaru), परिवेढ्यति (pariveshāyatī), रसिगिरि (rṣigiri). Cf. also मधुत (māluta) for मरुत (mārut). WINDISCH rightly points out that the र (r) and ए (e) were not peculiar to Māgadhī only; they were current in Kapilavastu also, as the Piprāvā inscription shows. That the Pāli had adopted more current form of other dialects, and had thus acquired a mixed character is shown by a variety of forms for one case like धम्मे (dhamme), धम्मसिं (dhammassim), धम्मि (dhamamhi).

40. THE INSCRIPTIONAL PRĀKRITS.—These are known to us from the rock—and pillar edicts of Emperor Aśoka (circa. 273 B. C. to 231 B. C.). The importance of these inscriptions from the historical point of view is indeed very great; but that from the linguistic point of view is not smaller. There are fourteen principal edicts promulgated on rocks and seven on pillars. The former are written in two scripts, the Kharoṣṭhī and Brāhmi. The inscriptions found at Shāhba-zgarhi, formerly called Kapurdigiri, near Attock and at Mansehra, near Abbottabad in Northern Punjab, are written in the Kharoṣṭhī script. Those at Girnar in Kathiawad, Śūrpāraka or Sopara in Thana district, Khālsī in Dehra Dūn district, Dhauli in Kuttak and Jaugaça in Ganjam districts are found in the Brāhmi script. The pillar-edicts were found at Siwālik, Mīrat, Allāhabād, Radhia, Mathia, Rāmpūrva etc. Besides these, there are versions of the edicts found on topeś and caves, e. g. Sanchi, Bhabra, Barābar (Nāgārjuni caves). There are also inscriptions of Aśoka’s successors. But later on the Prākrits as language of the inscriptions began to disappear, and Sanskrit usurped their place. FRANKE has shown that Sanskrit, as language of inscriptions, begins to appear from
the first century B.C. and becomes with the Guptas the only inscriptional language.

The first European to decipher the inscriptions was PRINSEP. CUNNINGHAM followed him and published them in the "Corpus Inscriptionum Indicarum", 1877. His edition is now antiquated. SENART then took up the work and began editing them from 1881 onwards in his "Les inscriptions de Piyadası". This has been translated by GRIERSON in the Indian Antiquary, Vols 9, 10, 12, 17 to 21.

The standard edition of these edicts is that of BÜHLER in Epigraphia Indica I and II. BÜHLER'S "Contributions to the explanations of the Asoka-incriptions", 1909 is also the best work of its kind.

Leaving the minor rock-and the pillar-edicts, we shall consider the principal edicts only. They are found at Shāhbāzgarhri, Mānsehrā and Khālsī in the north-west and north, Gīrnār in the west and Dhauli and Jaugaḍā in the east. They are supposed to represent what is called by PISCHEL the Leṇā dialect. This is a misnomer; because the inscriptions give evidence of difference in dialects, as the following comparison will show. We take for illustrations the first edict as it is found in the west at Gīrnār and in the east at Jaugaḍā.

a. Gīrnār version of the first edict:—

यन्म धम्मित्वा देवान् प्रियेन प्रियदसिना राजा देख्यापिता. इध न किचि जीवं आरम्भा प्रज्ञेयतंययम् न च समाजो कत्वतो. बहुं हि इस्स समाजम्धि पसति देवान् प्रियो प्रियदसि राजा. अस्ति पितु एक्षा समाजा साधुमता देवान् प्रियस प्रियदसिनो राजो. पुरा महतसमि देवान् प्रियस प्रियदसिनो राजो अनुदिवसं बहुं नर प्राणसतसहस्वाति आरभिषु सूपाथाय. से अज यदा अयं धम्मित्वा लिखिता ती एव प्राण आरभे सूपाथाय द्वो मोरा एषे मगो. सोपि मगो न धुवो. एतेरि श्री प्राणा पद्य न आरभिषेरेः.

1. FRANKE, op. cit. p. 50.
2. BÜHLER, E. I. II 448.
(a) iyaṃ dhāmmaliṇī devānām priyena priyadāsinā rāṇā lekhāpitā. idha na kiṃci jīvaṁ āraḥhitpā praṣūhitavyam na ca samājo katavyo. bahukāṁ hi dosāṁ samajamhi pāsati devānām priyo priyadāsi rājā. asti pūtukā samājā sādhūmatā devānām priyasa priyadāsino rāṇo. pūrṇā mahānasamhi devānām priyasa priyadāsino rāṇo anudivaśasīn bahūnī praṇa-satasahasārānu āraḥhisu supāṭhāya. se aja yadā ayaṁ dharmma-liṇī likhitā ti eva pāṇāna ārabhāre supāṭhāya dvo morā eko mago. sōpi mago na dhuvo. etepi trī pāṇāna pachā na ārabhisare.

b. Jaugada version of the same:—

iyaṃ dhāmmaliṇī khapigalasi pavatasi devānām pīyena rājinā likhitā. hida na kichi jīvaṁ ṣālabhitu pājohitaviye. nāpi samāja kaṭaviye. bahukāṁ hi dosāṁ samajāsā dakhati devānām pīye pīyadāsi lāja. athi pi cu ekatiyā samājā sādhūmatā devānām pīyasa pīyadāsine lājine. pūruvāṁ mahānasasā devānām pīyasa pīyadāsine lājine. anudivaśasān bahūnī pānasatasahasāni ṣālabhiyisu supāṭhāye. se aja aḍā iyaṁ dhamma-liṇī likhitā tini yeva pāṇāni ṣālabhiyanti duve maṇula eke mige. sepi cu mige no dhuvaṁ. etāni pi cu tīni pāṇāni pachā no ṣālabhiyantisānta.

First of all there is a phonological difference between the two versions, viz, that while Gîrnār shows a ṛ (r) like Pāli, Jaugada shows a ṛ (l) like Māgadhi e. g. rāja (rājā) and lāja (lājā), āraḥhitu (ārabhitu) ṣālabhitu (ālabhitu) whereas

1. Bühler, Asoka Inschriften p. 3.
Girnār shows conjuncts, Jaugāḍa simplifies them by स्वरभक्ति (svarabhakti) or anapyxis e.g. कतवयो (katabayo) bad writing for कतवयो (katabayo) and कतविये (katabiye); the loss of the lingual र (r) is not compensated in Girnār but is made up by lingualising the following त (ta) in Jaugāḍa, सुपठया, सुपठये (supathaya, supathaye). The Sk. र (r) is represented in Girnār by अ but in Jaugāḍa by इ (i) e.g. मगो (mago) and विगो (migo); इ (idha) and हिद्र (hida) show the same kind of variation as is seen in the Marāṭhī इथे (ithē) and हिते (hitē); Girnār has य (u), व (n) and न (n), Jaugāḍa न (na) only.

In morphology too there is a marked difference in the two versions. Girnār has पिय (piyo), like Pāli, Jaugāḍa has पिय (piye), like Māgadhi; मगो-मिगो (mago-mige), सो-से (so-se). Girnār has loc. sing. in मध (mhi), Jaugāḍa in लि (si), समाज्ञि (samajamhi), महानसि (mahānasamhi), but महानसि (mahānasasi), पवति (pavatasi). The former has the रें (re), of the third plu. seen in Vedic दुधें (duhe), शेर (šere), while the latter has the regular अंति (antī), of the Pāli and Prākrits; e.g. आरामिसि (arabhisāme), but आलभियिसि (ālabhiyisanti).

This is sufficient to show that the western and the eastern versions show variations sufficient to warrant their being called dialectal. We shall now take a specimen of the northern version and compare it with the two above.

(c) Mānsehra version¹ of the same edict:—

अथि प्रमदिपि देवन्य प्रियेन प्रयदिशिन रजिजिन विख्यति. हिद नो किचि किचि अरभितु प्रमोहालविधे. नो पिच समज कटविय. बहुक हि दोष समजस देवन्य प्रियेन प्रयदिशिन रजिजिन. अहिति पिचु एकतिय समज साधुमत देवन्य प्रियेन प्रयदिशिन. पुर महानसि देवन्य प्रियेन प्रयदिशिन रजिजिन अनुदिशिस बहुनि प्रणशत- सहस्तिर्य आरभितु सुपथयः से इदनि गद अथि प्रमदिपि लिखित तद्न तिनि बेच प्रणि अरभितु दुवे मजर एके प्रिगि. सेपि पिरि नो धुवि. एच्चि पि ष तिनि प्रणि पच नो आरभितिः.

¹. BOHLER, op. cit. p. 205.

It will be seen at a glance, that in phonology this agrees partly with Gīrnār and partly with Jaugaḍa. The agreement with Gīrnār consists in the preservation of the ṛ, ḍhīn, ṛur: (ṛ, rajina, puraḥ) but कटविये, मजुर (kaṭaviya, majura) agree with Jaugaḍa. In morphology, however, this agrees entirely with Jaugaḍa: e. g. ए (e) of the nom. sing. masc., सि (si) of the loc. sing. A remarkable feature, however, not common with the two above, is the perservation of the palatal sibilant श्र (śr), also of श्र (ṣ). This was perhaps due to the greater influence of Sanskrit that is seen throughout this version e. g. आसित (asti), श्राणा, प्रम (dipī) (prāṇā, dhrama) (dipī), प्रियदर्शिन (priyadarśina). Uncommon influence of Sanskrit is also seen on the Shāhbażgarhi version.

a. The inscriptions show at least more than two dialects:—

It will be clear from the above that the inscriptions show dialectal variations. There was one dialect current in the province round and about Gīrnār; another near Jaugaḍa and a third in the district round Mānsehra: or that there was a dialect of the north, another of the west, a third of the east, besides the one principal central dialect of Magadha in which the edicts must have been issued originally. This dialect must have exercised a greater influence over neighbouring dialects, e. g. that of Jaugaḍa and Dhaulī, than on others more distant, e. g. that of Gīrnār. This accounts for the ṛ (ṛ) and औ (o) of Gīrnār, and the छ (l) and ṛ (e) of Dhaulī–Jaugaḍa.
Taking the Shāhbhāzgarhi and Mānsehra versions we find that though there is a remarkable phonological resemblance between the two, yet morphologically Shāhbhāzgarhi version stands nearer to Gīrner and Mānsehra to Jaugaḍa at least in respect of the GetString(0) and GetString(e) endings. It is perhaps owing to this last consideration chiefly, that Senart speaks of the two great groups of inscriptional dialects viz. that comprising the Gīrner and Shāhbhāzgarhi inscriptions and that comprising Khālsī, Mānsehra, Dhauli, Jaugaḍa and all the minor ones. 'From this point of view (i.e. dialectic differences) the monuments of Piyaṇāsi divide themselves into two main groups. In the one there is no cerebral Ṽ, palatal Ṛ, an initial ṹ is elided, ḍ is substituted for ṛ, the nominative masculine and usually the nominative neuter end in e, and the locative in asi; the other distinguishes the cerebral Ṽ and the palatal Ṛ, retains the initial ṹ and the ṛ unchanged, makes the nominative singular of masculine a bases end in o, and the locative in amhi or in ṗ.¹

But apart from the agreement shown by the language of Gīrner and Shāhbhāzgarhi inscriptions in the points noted above, there are also differences which warrant their being classed as distinct dialects. The differences are:—

(a) Gīrner has only one sibilant Ṣ (s), whereas Shāhbhāzgarhi and for the matter that of Mānsehra also has all the three, Ṣ, Ṭ (s, ṭ) and Ṣ (s); e.g. देश, प्रयदर्शी, श्रवण (doṣa, priyaṇāsi, priasa);

(b) the groups Ṣa (ṭha) and Ṣa (sta) at Gīrner only; e.g. आरक्षिताय (āraḥhitāya), तिष्टात (tistanto);

(c) the representation of Ṭ (ṛha) by ॠ (tha) at Gīrner and Ṭ (tha) at Shāhbhāzgarhi; e.g. सूपथ्य (sūpathāya) and सूपध्य (sūpaphaye);

2. Bühlcr Asoka Inschriften p. 3 thinks that this is a careless writing for Ṣ (ṛta).
(d) the nominative singular neuter in मू (m) at Girnăr and in ए (e) Shāhbāzgarhi e. g. जीविं (jīvam) and जीवे (jīve);

(e) the third pers. pl. in-रे (re) at Girnăr and-सु (su) at Shāhbāzgarhi.

(f) the loc. sing. in -म्हि (mhi) (also -ए) (e) at Girnăr, and in -सि (si) (also -ए) (e) but never -म्हि (mhi) at Shāhbāzgarhi;

(g) the gen. sing. of इन (in) bases in -इनो (ino) at Girnăr and -इस (is), at Shāhbāzgarhi, e. g. प्रियदतिने (priyadatinē) and पियदतिस (piyadasa).  

SENArt admits¹ that 'to a certain degree at least,' these two inscriptions 'do reflect different shades of dialect'. But he is not ready to admit the same with regard to the other group, which shows more Māgadhisms than the one we have just dealt with. That even at Girnar and at Shāhbāzgarhi we have to reckon with certain Māgadhisms is clear from nom. sing. in ए (e), e. g. Girnăr, edict XII line 1 where प्री (priye) is quite distinct; and Shāhbāzgarhi, edict X line 1 where too it is equally distinct.

It is worth noting that the similarity between the Dhauli-Jaugāḍa and the Khālsī versions is very remarkable for their great distance. It can, however, be explained in this way, that both these provinces viz. the Kuttak-Ganjām and the upper-Jumna province, were so closely connected with the central province of the empire, that the peculiar dialects of these gave up their individual peculiarities in preference to the peculiarities of the court language.

FRANKE has taken great pains to prove the 'Pāligrundlade² (Pāli basis) of the dialects of this and the immediately following period. It is enough to say that the dialects represented on the Asokan and post-Asokan inscriptions are

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2. Pāli and Sanskrit p. 66.
the natural development of the dialects spoken in Buddha’s times, one of which is preserved to us in the literary Pāli. Nobody can think of tracing them immediately to Vedic Sanskrit.

We shall note some phonological and morphological peculiarities of the inscriptive dialects before proceeding to the consideration of the literary Prākrits.

41. PHONOLOGY:—The inscriptive dialects agree with the Pāli sound–system entirely. Of vowels ओ, ओ, ऐ (r, l, ae) and ओ० (au) are lost; consonants are still not on their way to decline as in the literary Prākrits. We shall only note changes¹ in vowels and consonants.

(a) Change in quantity:—lengthening apparently due to no cause in चिकित्स (cikīcha) Girnār II-Sk. चिकिस (cikitsā); सर्वत्र (sarvatā) Girnār II–सर्वत्र (sarvatā), मितरसंस्तुत (mitāsamstuta) Gir III–मित्रसंस्तुत (mitra-

samstuta); पियस (piyasā), पियदसिस (piyadasisā) Khālsī II–पियस्य, पियदसिस (sya) (priyasya, priyadarṣi (sya); अदमनस (adamanasā) Khālsī VI; shortening due to a conjunct or anusvāra in धम्मनसथियाँ (dham-

manusathiyā) Khālsī III–धम्मनसःस्थिया (dharmānuṣa-
sṭyā). This shortening often does not take place; but the conjunct is simplified and the vowel length-

ened in वामासित्तेन (vāsābhīsitena) Gir. III–वामासित्तेन (varṣābhiśiktena), रजिन (rajina), लिखिपित (likhāpita) Mānsehra I, दनेन (danena) Shāh. XII–

danēn, दनेन (dānena, devanān) Shāh. XI–देवानामू (devānām).

(b) Change in quality:—जू (cu) Gir. I–च (ca); मनो (mago) Gir I–मूग: (mṛgaḥ); लिखिपित (likhāpita)

Jaugaṇa I–लिखिपित (lekhāpita), कता (katā) Gir.

I-क्षेत्रे (क्रे); यारसे (यारसे) Gir. IV-याद्रे (याद्रे); पिरिंद्र (पिरिंद्र) Gir. XIII-पुलिंद्र (पुलिंद्र).

c) Anaptyxis in गलहा (galahā) Khālsī XII-गर्न (garhā); इथी (ithī) Gir. XII-स्थ्री (sṛī), प्रापुण्वित (प्रापुण्वित) Gir. XIII-प्रापुण्वित (प्रापुण्वित); वियंजनीते (वियंजनीते) Khālsī, Jaugāḍa III-वियंजनीत (वियंजनीत).

d) Syncope:—अलोधनसि (olodhanasi) Khālsī VI-अभवोधे (avarodhe); तेरे (there) Gir. IV through श्वरे-स्थ्वरे (sthaire-sthavire). Dropping of a consonant between vowels has not yet become so frequent as later.

e) Changes in consonants:—पवजितानि (pavajitāni) Khālsī XII-पवजितानि (pravrajitāni), संप्रतिपति (sampaṭipati) Gir. IV-संप्रतिपति (sampaṭipattih) showing cerebral in place of dental when a र (r) is dropped before it; यारिस, तारिस (yārisa, tārisa) Gir. IV where त (t) is changed to र (r); लहुक (lahukā) Gir. Khālsī XII-लहुका (laghukā), हंति अहुं (homti, ahunsu) Khālsī IV etc.—भवंति (bhavanti), अभवन् (abhavan) where घ (bhā) is simplified into ह (h); conjuncts are simplified in various ways, e. g. अभिमित (abhisita) Gir. III-अभिमित (abhiṣikta), अतिङ्कत (atikanitam) Khālsī IV-अतिकान (atikān tam); व्रच्छ (vṛchhā) Gir. III, लुक्कानि (lukhāni) Khālsī-ब्रक्का (vrkṣāḥ); अगिकामित (agikāmān) Khālsī IV, अगिकामित (agikāmān) Gir. IV-अगिकामित (agiskandān); आसपासंड (aśtapāsandā) Gir. XII, आतपासं (attapāsandā) Khālsī XII-आतपासं (ātmapāsandā); ग्रहस्ति (gharastāni) Gir. XII or ग्रहानि (gahānī) Khālsī XII-ग्रहस्ति (grhestānī) or ग्रहानि (grhastānī); वाधि (vādhī) Gir. Khālsī XII-वृद्धि (vṛddhi); (अज aja) Gir. Jaugāḍa I; उयानेश (uyānesu) Gir. VI, उयानेश (uyānasi).
Jaugada VI–उवानेशु (udyanesu); ब्राह्मणसामान्यां (brahma纳斯āmaṇānāṁ) Gir. IV, बंभनसमान्यां (bambhanasamanānāṁ) Khālsī–ब्राह्मणसमानाम् (brahmaṇasamaṇānam).

From all these cases it will be seen that the conjunct shows assimilation first and then simplification, even without lengthening of the preceding vowel.

42. INFLLECTION:—(a) As in the Pāli, the consonantal declension tends to merge into the vowel—especially the अ (a) class. Still लाजिना, लाजिने (lājinā, lājine), राजा, राजे (rājā, rāje), अराता, मातारि, पितारि, यसो (bhrātā, mātari, pitari, yaso) and other forms show that a few consonantal bases are preserved.

The nominative singular of masculine अ (a) bases ends in ऑ (o) in Gīrṇār, Shāhbażgarhi inscriptions and in ए (e) in the rest. But even the former show the distinctly मागधि (maγdhi) ending ए (e) e.g. राजुके (rajuke) Gir. III beside रजुको (rajuko) Shāh. III धर्मसांस्तवे (dharmaṃstave) beside धर्मसांविवागो (dharmaṃvivāgo) Shāh. XI. देवान पिये (devānām piye) beside देवान पियो (devānām piyo) according to Senart's reading.

The neuters show the usual मू (m) e.g. जीव (jīvā) Gir I; but it often takes the ए (e) on the analogy of masculine अ (a) bases e.g. जीवे (jive), Shāh. I जिए बहुविषय धम्मवर्जय (aje, bahuvride, dharmācarāne), Gir. IV. The distinction in gender is thus obscured and we get forms like हिरणपदविवधानो (hiraṇapati-vidhāno), Gir. VIII, if Senart's reading is correct. Bühler reads पदविवधान (paṭividhāne), which would be a good parallel to जिए (jive), of Shāh I.

The dative is in अय (aya), or अये (aye). एताय अधाय (etāya ʿathāya), Gir. III, एतय अडये (etāye ʿathaye), Shāh. V. Even feminines have य (ya); इमय धम्मात्सतिय (imāya dharmātusthiya), Gir. III,

1. Inscriptions de Piyadasi, Ind. Ant. 21, 5,
The ablative ends in आ (ā), as the final consonant is ever avoided सवलोक-हितस (savaloκa-hiτapā), Gir. VI. Fem. तम्बपणि (tambapāṇī), Gir. II.

The gen. ends in स (sa), through सस (ssa), from स्य (sya), even in the case of इ (i), bases. प्रियदेशिस (priyadasisā), Khālsī I, beside प्रियदेसिनो (priyadasino), Gir. I and प्रियदेसिनें (priyadasine), Jaugaḍa I. The ओ (o), gen. of रानो (rāṇo), is due to Sk. अस (as), in राज (rājāṇah).

The loc. ends in भिन्न (mhi), ए (e), in Girnār-Shāhbāzgarhi inscriptions and in सि (si), (through ससि (ssim), from स्मिन (smin), ए (e), in the other group. विजितम्भि (vijitamhi), Gir. II, विजिते (vijite), Gir. III. विजितसि (vijitasi), Jaugaḍa II.

The plurals are almost regular, with due phonetic changes. महामाता (mahāmātā), Gir. V—महामात्राः (mahāmāṭrāḥ), ओसधानि (osadhāni), Jaugaḍa II—औसधानि (auṣadhāni), नातिन (nātinam), Gir. IV—नातिनाम (nātinām), नातिसु (nāṭisu), Gir. IV—नातिसु (nāṭisu). A nom. plural in ए (e), is seen in पादेत्येके (pādesike), Gir., Jaugaḍa, Khālsī III—पादेसिकाः (prādesikāḥ); बहुहि वससतेक्षि (bahuhi vasasateki), Gir. IV is looked upon as plural of the ablative by SENART.¹

Of pronouns the following forms, occurring in most of the edicts, should be noted.

मम (mamayā, mama); अन्ते (aṁe), nom. sing. अन्तनि, अन्तानि (annāṇi, annāṇi), pl. अयम् (ayam), both masc. and fem., इम, इमाय (imāin, imāya), इमिना, इमस (imisā, imasa), इभिष्ट (imakhi), एस एताम् (esa, etam), एताय, एताय (etāya, etāye), etc. िंधि (kimci); सो (so), ताय, तम्मिः (tāya, tamhi); यं, यानि (yam, yāṇi), etc.

(b) In conjugation too, the dialects of the inscriptions agree materially with the Pāli, as the following forms will show.

1. भवति, भोति (bhavati, bhoti) and होति (hoti) Mānehra XII, where the first is to be regarded as a Sanskritism मनति, गल्हति (manati, galahati), पुनति (punāti), पसति, दक्खति (pasati, dakhati), कालति-प्राप्ति (kaleti-prāpti), पापुषस्ति (pāpūṣoti), पशति (pasyati) करोति (karoti) आरभारे (ārabhare)¹ is passive, explained by BÜHLER as comming through आरम्भरे (ārambhare) from आरम्भन्ते (ārabbhyante); Jaugadā has the pass. आलभियति (ālabbiyanti).

2. नियत (niyātu), or नियान्त (niyāntu), जुनत (yujantu), are imperatives and गच्छेत्यां (gachheyam), तिस्तेत (tistheyā, vāsesu), सिया (siyā) or शिया (śiyā) (स्त्राद्ध्) (syā), परिपालवत भ्रमित्वेष (pātipajeyā) (pratipadyeta), अस्त (āṣu) (= स्तुः) (syuh) are potentials.

3. आहुंस (āhunṣu, ārabhisu) from आरभिष्य (ārabhbhisu) according to SENART,² आलभियति (ālabbiyati) Jaugadā are aorists. आह (āha) is the only perfect seen in these inscriptions.

4. लिखापित स, आरभिष्य (līkhāpayisam, ārabhisare) (pass), अनुवतिस (अनुवत्यथः, (ānuvatisare (= anuvartiṣya-nte), अनापिसांति (anapayisānti) (causal), अनुसाधमिति (anusūsisamti), वदधिशति (vadhiyisati), equivalent to वदधिशति (vardhayisati), लिखापिसामि (nikhāmayi-sāmi) are futures.

5. Causal is formed by adding पु (p). लेखापित (lekhāpita), हारापित (hārāpitaḥ), रोपित (roppāpitaḥ) is a double causal; अनापिसांति (ānāpayisamti). Still there are some traces left of the य (y) causal; e. g. आलोचेत्व (ālocetvā)–आलोचवित्व (ālocayitvā).

6. There are absolutes and infinitives and participles of all kinds.

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¹ op cit p. 3.
² op cit p. 8.
e. g.  आरभितम् (ārakhimpla = त्वा = tvā) Gir. I, आलभित (ālabhitu) Dhauli I are absolutes.
आराधेतम् (ārādhetum); खामित्वे (khamitave) Gir. III appears to be an infinitive.
कट, कत, वधित (kaṭa, kata, vadhita), मत, विजित, खामित (mata, vijita, khānāpita) are past participles.
कर्तवी (karaṁtaṁ) Shāh. XII, कर (karaṁ) Gir. XII according to SENART (कुवंन्) (kurvan), करन्तो (karno) Gir. XII, तिस्तांतो (tistaṁto) Gir. IV are pres. part. कटविये (kaṭaviye), करत्वो (katayvo), पञ्चितविये (pañcāhitavias) are potential participles.

We have pointed out the Sanskritisms from time to time. FRANKE admits that they are more numerous in the Shāhbāzgarhi inscription, perhaps because it was very near Kāshmir, the home of the so-called secondary Sanskrit. But words and forms like प्राण, सहस्र, बहुक, अनुदिवसं, नास्ति (praṇa, sahasra, bahukam, anudivasam, nāsti) आह (āha), माताः (mātārī), पिताः, संस्कृत, भूत, अभिहिंसा, अनास्माः, भवति (pitārī, samstuta, bhūtaṁ, avihimsā, anārambiḥ, bhavati) that occur within the first four edicts alone of Girnār, show that Sanskrit tradition was current and unbroken then, as it was in later centuries and exercised its influence over the growing vernaculars. The same is observable in the literary Marāṭhī or Hindī or Bengāli of today.
PART V

THE LITERARY PRĀKRITS AND THE VERNACULARS

I The Prākrits

43. The name and genesis:—Under the name Prākrit, the grammarians understand various languages. The oldest of them, Vararuci mentions four: the Māhārāṣṭri, Paiśāci, Māgadhī and Śauraseni. Hemacandra, a Jain writer belonging to the end of the 12th century, mentions three more, the Arṣa which is nothing else than the Ardhāmāgadhī of others, the Cukkāpaiśācika and the Apabhramśa. Later grammarians follow Hemacandra generally.

Vararuci does not recognise Apabhramśa as a separate Prākrit, perhaps rightly so. It was what some rhetoricians called देशभाषित (desabhāṣitam) or spoken language of the country or people. Dandin¹ tells us that in Kāvya, Apabhramśa meant language of cowherds and such other people, and in text books (of grammar or rhetoric) whatever was different from Sanskrit was called Apabhramśa. Under Prākrit he understands महाराष्ट्री (Māhārāṣṭri), which is Prākrit pār excellence,² शौरसेनी (Śauraseni), गौडी (gaudī) and लाथी (lāṭī). गौडी (gaudī) was evidently another name for मागधी (māgadhī); what he understood by लाथी (lāṭī) is not quite clear.

All Prākrit grammarians understand that the origin of these languages was Sanskrit. We, however, know that this

1. Kāvyādarśa 1, 37.
2. op. cit. 1, 34.
could not have been the case. These literary languages are
derived from dialects—say Apabhramśas—which with the
dialects of the inscriptions, the Pāli and the Vedic Sanskrit
form one continuous chain. Their development from the
inscriptional dialects will be clear from the few points which
we note as follows:—

Pr. लिखाविसम (lihāvaiśsam)–Girnār लिखापिसम
(likhāpayisam)

" सयणिजयम (sayanījayaṃmī), पुत्तांसि (puttamisi)–
Gir. समाजहि (samājahmi), महानसाहि (mahānasaḥmi)

" अगीनो (aggino) and अगिस्स (aggissa)–Inscr.
पियदासिनो (piyadasino) and पियदासिस (piyrdasisa)

" पुतेिहि (puttehiṃ)–Inscr. बहुिहि (bahuhi).

Then the general agreement in phonology, which we shall
notice below, points in the same direction. Only, we cannot
show more points of harmony in morphology, as the Prākrīts
show a decidedly analytic stage.

That the Prākrīts, through the inscriptional dialects reach
back to the Vedic language\(^1\) directly is shown by facts and
forms like the following:—

(a) The looseness of Samādhi rules and स्वरभक्ति (svara-
bhakti), which is very common in the Prākrīts.
Pr. भारिया (bhāriyā), कसठ (kasaṭa) सनान (sanāna)
for भार्या (bhāryā), कसठ (kasta), स्नान (snāna) Cf.

(b) In phonology, the Prākrīts like the Vedic, change
single d, dh between two consonants to l, lh, Ved.
ईछे (iṣe); Pr. गुल (gula), Mar. गुल (gula); Pr. गोिस
(solasa), Mar. सोि (solī); Ved. गुल (gula),
समुिह (samulha), Pr. गोिह (golhā); the Vedic com-

1. Pischel, op. cit p. 4.
bination सङ्क (ska) is seen in Pr. ख (kha) e. g. सङ्कभ (skambha), Pr. खभ (khambha), This cannot go back to classical Sanskrit सङ्कभ (stambha). Ved. सङ्क्रिम (sadhrīma), Pr. सङ्क्रिम (saddhim); Ved. कष (kathā), Pr. कष (kidha), कष (kiha).

(c) In inflection certain forms go back only to Vedic Sanskrit, e. g. nom. pl. आहो (āho), Vedic आस: (āsaḥ), पुत्राहो (putraho); Ved. देवास: (devaśaḥ), gen. sing. fem. आए (āe) to Vedic आय (āyai) Cf. तज्जयम्ये जायाल्लमु (tajJayayai jāyātvam), Pr. जालाम (mālāe); instr. pl. पुत्र (putrī) to Vedic एभिमि (ebhiḥ); cf. देवेभि: (devēbhī), P. बहुहि (bahuchi), Pr. पुत्रेहि (puttehi); imp. 2nd. sing. होहि (hohi) to Vedic बोधि (bodhi), Pr. कुणदि (kunadi) to Vedic. क्रणोति (kṛṇoti); infinitives in आए (āe) and ताए (tāe), Vedic तव (tavai); cf. Pr. वत्थए (vatthae) to Vedic वस्तव (vastavai).

(d) In vocabulary, the Prākrits possess certain words that are traceable only to Vedic Sanskrit e. g. पासो (pāso) from Ved. पशु (paś); ता (tā), जा (jā), एतथ (eltha) from Ved. तत् (tāt), यात, इत्य (yāt, itthā); चिंतु (ghimsu), Ved. श्रेस (ghramsā).

Except in the महाराणि (Māhāraṣṭри), there is not much literature in the other Prākrits. But we find them used to a certain extent in the Sanskrit dramas. The शौरसेनि (Śaurasenī) is the language of prose in the dramas, although of course it is spoken by inferior characters and women only. It is the language of the prose in कपुरस्मार्की (Karpūrmanañjari) throughout. The अर्धमागधि (ardhamāgadhī), a border language between the मागधि (Māgadhī) and शौरसेनि (Śaurasenī) and therefore showing features of both, possesses a lot of literature. It is the language of the sacred canon of the Jainas and all their अंग (ānga) and उपांग (upānga) works like Āyāraṅga,
Uvāsagadasānu and Kappasutta are written in it. The Māgadhi fares worst of all. It is found used by some minor characters in the Mychhakatika and other dramas and the शाकारी (śakārī, चाण्डाली cāṇḍālī), बाह्लकी (bāhlīkī) are, according to grammarians, its sub-dialects.¹ The पैसाची (paiśācī) shows no extant literature. The Brhatkathā of Guṇādhya was, according to very old tradition, written in the पैसाची (Paiśācī). Hemacandra² mentions a dialect चूलिकापैसाचीकम (cūlikāpaiśācikam). When Dandin calls it a भूतमाय (bhūta-bhāsā),³ he only misunderstands the name. The माहाराष्ट्री (Māhāraṣṭri) is the most important of all these Prākrits. It must have become a literary language sometime before the first known dramatist wrote his work, as in all dramas Prākrit poetry is written in माहाराष्ट्री (Māhāraṣṭri) only. The heroines, for instance, ordinarily speak the शौरसेनी (Śauraseni), but when they speak in verse, they exclusively use the माहाराष्ट्री (Māhāraṣṭri). The entire verse-portion of the Karpūramanjari is written in it. The language and the form acted mutually upon each other: the verses were written in it, because it lent itself easily to poetic composition; and because it was almost exclusively used in such composition, its supple character was accentuated. It became, therefore, the language of poetic composition par excellence. Sattasaś and Vajjālagga, the two anthologies of lyrics, Rāvaṇavaho and Gaudavaho, the two epics, and the drama Karpūramanjari (partly) are the well-known works in that language.

अपाभ्रंश (apabhramśa), as we have seen, means a colloquial dialect underlying any of the literary Prākrits. Hence it is, that in enumerating languages, grammarians give it a separate place beside साम्स्कृत (samskṛta) and प्राक्रत (prākṛta).

¹ Pischel Grammatik p. 24.
² IV 325 to 328, in Pischel op. cit. p. 27.
³ Kāvyādāraśa I. 38.
Danḍin classifying literature speaks of सांस्कृतिक (śārṣṭē), प्राकृत (prākratī), अपभ्रात (apabhṛatāḥ), and मिश्रम (miśram). Originally it must have been the language of the people, and works must have been written in it later, to enable Danḍin to make this classification. The varieties of the अपभ्रात (apabhṛatāḥ), like नगर (Nāgara), व्राद (Vṛāda), उपनगर (upanāgara) and वारेण्ड्रि (vārendrī), are, according to grammarians, spoken in provinces like Sind in the West and Bengāl in the East. Pingala’s Chandassūtra and the Prākrit of the fourth act of the Vikramorvaśiyā are the only specimens of literature in अपभ्रात (apabhṛatāḥ) besides the verses quoted by Hemacandra in his grammar.

Pischel concludes from these facts that 'we have therefore to distinguish between a Śauraseni Apabhṛatā, the old colloquial language of the Śūrasenās of which the modern Gujarāti and Mārvāri are continuations, and a Śauraseni Prākrit, a literary language'. In the same way there was a Māhārāṣṭrī Apabhṛatā from which the modern Marāṭhi has descended, and a Māgadhī Apabhṛatā from which the Bihārī and the Bengālī have descended. We have to remark again that a literary language is not an artificial language made by any body, but one or the other dialect raised to the dignity of a common language of literature and which therefore has an accepted, fixed form incapable of further development.

It is to be noted that the names of these languages are derived either from the countries where they were current, or from the people by whom they were spoken. Thus the माहाराष्ट्री (Māhārāṣṭrī) was the language of माहाराष्ट्र (Mahārāṣṭra), the country lying south of the विन्ध्य (Vindhya), and north of the river नार्मदा (Narmadā). शौरसेनी (Śaurasenī) belonged to the शौरसेना (Śūrasenāḥ) the country round about मथुरा (Mathurā),

1. op. cit. I 32.
2. Pischel op. cit. 27.
3. op. cit. p. 3.
comprising, say, part of eastern Punjab also; अर्धमगधि (ardhamağadhī) lay to the east of शौरसेनी (Śaurasenī), in the district of Allahabad etc.; मगधि (māgadhī) had मगध (magadhā) or Bihar for its country, whose capital was first राजगृह (Rajagrha) then पातलिपुत्र (Pātaliputra). Thus they were spread over the whole of upper India, north of the Sātpurā range and west of the Hoogli river.

But where is the home of the पैशाचि (Paisācī) to be sought? The grammarians and rhetoricians had no idea of it. They misunderstood the name and thought that it was a language of spirits and goblins. The Mahābhārata mentions the पिछा (Pिषळa) people amongst the tribes that distinctly point to the north-west as their home. They are the काद्यारा, उरसा: (Kāsmirāh, Urasāh), according to GRIERSON the modern Punjab district of Hazara), पैशाची:, काम्येज्या:, पैिसाचा (paiśācāh kāmbojāh), a tribe of the Hindū Kush), the दर्दा: (daradāh) (or Dards) and the शशा: (Śakāh) - (Scythians). From such references and linguistic evidence, GRIERSON has conclusively proved that the wild tribes of the extreme North-west, immediately to the south of the Hindū Kush, are the modern representatives of the ancient पिछा: (piśācāh). Some grammarians state, that there were the केक्या (kekaya), शौरसेन (Śurasena), and पश्चा (paścāla) varieties of the पैशाचि (Paisācī). This would mean that the पिछा (piśāca) and their language had occupied a goodly portion of the modern Punjab and that on their border these mixed idioms arose. The connection between the पैशाचि (Paisācī), and शौरसेनी (Śaurasenī), which the above presupposes, is significant. And we have to understand the remark of Vararuci that the

1. VII. 499.
2. Indian Antiquary 43.144.
4. Märkandeya quoted in PISCHEL, Grammatik p. 27.
5. Prakṛitaṭrakāśa X, 2.
শৌরসেনী (Śauraseni), is the प्रकृति (prakṛti), or basis of the पैशाची (Paiśācī), in the light of it. All that is meant thereby is, that special features apart, both the languages underwent similar changes; and that perhaps the पैशाची (Paiśācī), borrowed much from शौरसे (Śauraseni) vocabulary as also from Sanskrit.¹ The above disposes of the theory of HOLMNE;² that Paiśācī was a Prākrit spoken by Dravidian aborigines.

It will be clear from the above and from the phonology of the Prākritis, which we shall presently take up, that the traditional view represented by the grammarians regarding the Prākritis is the right one. There is no doubt about the fact that Vararuci, the oldest of the Prākrit grammarians, and probably³ the same as the Vārtikakāra Kātyāyana, CANDA who is to be placed much anterior to Hemacandra, and even to Dhanapāla, the Prākrit lexicographer of the 10th century A. C. and Hemacandra were right in their four or fivefold classification of the Prākrit. HOLMNE’S only two varieties of Prākrit, the Śauraseni Prākrit and the Māgadhī Prākrit,⁴ accepted by GRIESSON⁵ also, has no foundation in facts. The principal Prākritis have distinctive features of their own (see below), which preclude the possibility of a re-classification as suggested.

44. PHONOLOGY OF THE PRĀKRITIS:—The vowels have generally remained the same, except छ (r) and द (l) which are changed and ळ (ai) and औ (au) which, as in Pāli, became ए (e), ओ (o). There are as many consonants as in Sanskrit, but they have suffered various changes.

a. VOWELS:—The Māhārāṣṭrī and others possess all the vowels, except the four mentioned above. We shall only note

¹ GRIESSON, Paiśācī, Pisācas and Modern Pisāca, ZDMG LXVI p. 65,
² GAUDIAN Grammar p. xix.
³ PISCHER, Grammatik p. 34.
⁴ GAUDIAN Languages p. xviii.
⁵ Seven Grammars of the Bihārī language p. 5.
the changes which are often observable either in the quality or in the quantity of the vowels.

(a) Changes in quality:—अ (a) becomes इ (i). M. इसि (iṣi), वेदिसो (vediso), इमालो (imālo) Mar. इगा (ingā), निदाल (nidāl) Mar. निदाल (nidāla) and मज्ञिम (majjima) from इष्यत् (iṣaṭ), वेतस (vetasā), अंगर: (amgǝraḥ), लला (lalāta), मध्यम मद्यमा (madhyama).

अ (a) becomes उ (u). M. खुदिअ (khudia) Mar. खुद खुदा (khuda) (ृहें) (lelē), गउओ (gauo), पुढ म (puḍhama) from खण्डित, गवय, प्रथम (khandita, gavaya, prathama). In the last two examples the change compensates the loss of a semi-vowel.

अ (a) becomes ए (e). M. सेजा (seja), सुन्दरर (sunderari), अच्छेर (achcheri) Coll. Mar. आच्छ (āchhra), उक्केर (ukkero) Mar. उकिरडा (ukirāḍa), गेन्द्र (gendra) Mar. गेन्द्र (genda) from शाय (śayā), सुन्दर (sundara), आध्य (āścarya), उत्कर (uktara) and कंदका (kanduka).

अ (a) becomes ओ (o). M. बोर (bora) Mar. बोर (bora), मोर (mora) Mar. बोर (mora), लोण (lonā) Mar. लोणा (lonā) जमीनल (loṇā lāgalā), ओपाइ (oppai) Mar. ओपाइ (opanē) from बदर (badara), मायू (mayūra) लवण (lavanā) and अर्पयति (arpayati). It is to be noted that the ओ (o) in the first case compensates the loss of द (d) and in the last two cases of a semi-vowel.

आ (ā) becomes इ (i) in some cases. M. नु (tai) Mar. नु (tai), जाई (jai) Mar. जाई (jai) from तदा (tadā) and यदा (yadā).

आ (ā) becomes ए (e). M. गेज्जा, मेत्ता (gejjha, metta) from गर्हया, मात्र (grāhya, mātra).

आ (ā) becomes ओ (o). M. ओली (olī) Mar. ओल (ola) from आलि (āliḥ).

(i) becomes अ (a). M. पहो (paho), हलद्दा (haladdā) Mar. हलद (halada) from पत्थि (pathi), हरिद्रा (haridrā).

(e) becomes ए (e). M. नैदाम (nedām), केरिसि (kerisim), एरिसि (erisim) from नीद (nīda), किद्राम (kidrām), इद्राम (idrām).

(u) becomes ह (i) or ए (e). M. पुरिस, गुज़रे (purisa, neuram), from पुरुष, नुपुरम (purusa, nupuram).

(r) becomes अ, ह, रि, (a, i, u, ri) when initial and even र (ru). M. तण (tana), वसह (vasaha) Mar. तण (tana), वसो (vase); M. ठिठि, विनिचु (dithi, vinichuo), किवा (kiva), Mar. ठिठि (dithi), विनिचु (vinicū), किव (kiva); पाउसो (pāusa) माउसिआ (maussīā), Mar. पाउस (pāusa), माउस (mausi); रिन (rinim), रिथो (richho), Mar. रीण, रीस; रुख (rina, risa, rukkha) Mar. रुख (rukha) (in maha, maharūkha); from त्र, यूम, रुख, बिंचु, बिंचु, कुङा, भारु, मूत्सा, भुङ्ग, बूझ (trna, vṛṣabhā, ḍṛṣṭi, vṛṣṇika, kṛpā, pārvṛṣ, mātrśvasā, rna, ṭkṣa, vṛṣa).

(e) sometimes becomes ह (i). M. विवणा (vianā) or वैवणा (vevā), Mar. वणा (vēnā) from वेदना (vedanā); अवरो (diaro), Mar. धीर (dira) from देवर (devarah).

(ai) invariably becomes ए (e). M. सेलो (solo), तेलोकम (telokam), सेच (seccam) from शळ (śaala), शैलक्षयम (trailokyam) and शैलम (śaityam). But in certain cases it is split up as it were into its component parts; e.g. दाइव (daicca) Mar. दायित्व (daiyā) (in the speech of women etc.), चाितो (caitto) vul. Mar. चाित्त (caita), महार (bhairava), सार (saira) vul. Mar. सारता (sairata), from दैत्य, धर, स्वर, स्वर (daiya, caitra, bhairava, svaira). In सैढवाम (simdhavām) the ए (ai) of सैढवाम (saimdhava) is weakened; which is perhaps due to the anusvāra which affects the quantity. In the Mar. सेलोण (śendelona) the ए (e) is regular. धीर (dhīram) shows a weakening of ए (ai) in दहयाम (dhairyam).

(o) in the same way becomes ओ (o). कौसंवी, जोक्कण (kosambī, jobbāna), H. जोबन (jobana) from कौसंवी, जोक्कण
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(kauśāmbi, yauvana). ॐ (au) is also weakened to Ṽ (u) in कृत्रिम (kaurava), पूर्विस (paurisa) from कृत्रिम, पूर्विस (kaurava, pauruṣa).

(b) Change in quantity:—The quantity of syllables in Prākrits is affected by the assimilation and loss of conjuncts. Whenever a conjunct is simplified, and it is invariably the case in Prākrits with the exception sometimes of the Māgadhī, the preceding vowel is lengthened in order to preserve the quantity. This rule is thus given by Hemacandra in a limited form: ‘The vowel preceding a य (y), र (ru), ल (l), श (ś), and स (s) that is dropped is lengthened.’

e.g. M. कासो, बीसो, (kūsavo, visāmo) Mar. बिसंव, बिसाम, पूतो (visāva, visāso, pūso) Mar. पुत, (pūsa) from कद्वप: बिन्धाम, (kaśyapah, viśrāmah) विन्धास, पुत्स. (visvāsah, pūṣyāḥ).

Other examples are पाहिवाय (pādivā) Mar. पाह्वा, (pādavā), सारिच्छो (sāriccho) Mar. सारिस्या (sārikhā) or सारिस्या (sārakāh) दाहिः, जीवा (dāhiṇa, jīhā) Mar. जीम, महर, (jība, marahāṭṭa) from प्रतिपत्ति, सहस्त (pratipat, sadṛkṣaḥ) वास्त्र, जिज्ञा (daksiṇaḥ jihvā) महाराश् (mahāraśṭraḥ).

On the contrary, if the conjunct is retained, the preceding long vowel is shortened.

e.g. M. अम्ब (amban), अम्ब (ambā), मुनिन्द्र (muniṇdo), लुप्त, नारिन्द्र, अहरद्र (cumno, narindo, aharūṭham) from आ, अम्ब (āmra, munindra), चुन (cūra), नाहिंत, अधूर (narendra, adharōṣṭha).

Since an anusvāra gives to a syllable the quantity of a conjunct, it causes lengthening when it is dropped.

e.g. सीघो, बीस (siho, visā), Mar. बीस (visa), तीस (tisā), Mar. तीस (tisa), from सिंह, विशाल्लि (sinha, viṃśati), त्रिशत् (trimśat). The same is the case with the visarga; दुहसो (dıṣaḥ) from दुहस (duhsaha).

1. I 43.
2. Hemacandra I 84.
Often, however, vowels are lengthened or shortened without any apparent cause.

*e.g.* पाणिअं (paṇiam, gahiram) Col. Mar. गहिरा- (gahirā), आणिऔं (āṇiam), Mar. आणि- (lele) (āṇi-(lele)), सूड्हवो (sūdhavo).

Sometimes ए (e) and ओ (o) represent an अ (aya) or अव (ava), e.g. थेरो (thero), तेरह (teraha) for स्थविरि (sthavirah), त्रियोदशा (trayodasha) and ओगह (oggaha), ओसूपिनि (osappinī), for ओव्राह (avagraha), ओसपिनि (avasarpinī).

Such an ओ (o) is sometimes further weakened. *e.g.* उगह (uggah), from ओव्राह (avagraha); उठ (uṭha) for ओढ़ (oṭha) from ओष (oṣa) ओ (o) often takes the place of उ (u) before conjuncts. *e.g.* तोड़ (touda), Mar. तोड़ (touda), from तुड़; (tunda), Mar. तोड़ (sonda), from शुड़ (sunda).

_N. B._—Examples are chosen from M. only because there is a general agreement in this respect amongst the Prākrits.

(c) Vowels are often dropped in Prākrits without any apparent cause. रणि (rāṇi) from अरण्य (arānyam), वि (vi) and पि (pi) from अषि (api), not in the beginning of a sentence; व (va) from व (iva) also in combinations: ति or (ti), तू (tti), after a word, दाणि (dānim) from इदानीम (idānim). This may perhaps be due to loss of accent. The Ardhamāgadhi shows words like दक (daka) from उदक (udaka), गार (gāra) from अगार (agāra), हेत्त (hetā), from अहस्ताल (adhastāl), वाक्म (vakkamai) from अपक्रमति (apakramati). The Māhārāṣṭrī too has रहत्त (rahaṭṭa) from अरहत्त (araghaṭṭa), वांस (vaṃsa) from अवांस (avatamsa).

b. _The Consonants:_—Like inflections, these serve to show the difference between the several Prākrits clearly. The vowels are not of much use from that point of view.

Here the Māhārāṣṭrī, Ardhamāgadhi and Śāuraseni show a closer resemblance with one another, than the Māgadhī and
Paiśācī. Māhārāṣṭrī, however, shows the consonants in a much more degenerate state than even the Ardhamāgadhī.

(a) Initial consonants generally remain unchanged except त (t) which in Śaurāsenī and Māgadhī becomes ऍ: e. g. ताव-तावत (dāva-tāvat) and द (d) which in Māhārāṣṭrī sometimes becomes द (d) e. g. दहाई (dañhaī), Mar. दाह (ḍāha), दसौ (ḍasai), Mar. दसौत (ḍasato), and क (k), which in almost a single case—perhaps borrowed—becomes छ (c), e. g. चिलाओ (cilāo),—किरात: (kirātaḥ), or ख (kh), in खूज-कूज (khuja-khuja), or ग (g), in गेंदू-कूंडू (gendua-kanduka), पू, त, न, मू, (p, t, n, m), also are changed in some cases; e. g. फाडे-पाड़यति (phāḍei-pāḍayati), टागर-टागर (ṭagara-ṭagara) नाराम-नागर (naaram nagaram), लिंमा-निम्ब (limba-nimba), वाहविष (vahāvia), Mar. नावी-नापित (nāvī-nāpita), वन्महो-मन्न्य: (vamāhā-wise-mannmathaḥ), which last is evidently a case of dissimilation. छ (ṣ), invariably becomes ज (j) in Māhārāṣṭrī, Ardhamāgadhī and Śaurāsenī. 

(b) Medially the single consonants क, ग, ज, त, द, प, (k, g, c, j, t, d, p), छ (ṣ), and व (v) are generally dropped in most Prākrits. e. g. छोने-लोक (loon-lokaḥ), नवर-नागर (nayaram-nagaram), कयागहो-कक्षाह (kayaggāho-kacagrahaḥ), गाज-गाजः (gao-gajhaḥ) रसायल-रसातल (rasāyalam-rasātalamb), मयो-मदन: (mayo-madanah), रिड-रिपु (riḍ-ripuḥ), विद्यो-वियोग (viyo-viyogah). मू (m) also follows them, but leaves its traces in an anuvātik (anunāsika); e. g. जैवन-यमुन (jāvaṁ-yamunā). The छ (ṣ) that is seen to take the place of the dropped consonants is euphonic. Sometimes it is written, but sometimes not. This is what is called by Prākrit grammarians the युक्तिः (yaṣruti).1


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e. g. फलिक्ष्ट (phaliha-sphatika), वेदिस-वेतस (vedisa-vetasana), पडिवर्त-प्रतिपनम (padivannam-pratipannam), दोहरा-दोहल (dohara-dohala) कदम्ब-कलंभ (kadamba-kalamba).

2. पू (p) in many cases becomes बू (u) सावो-शाप (svavo-sapa), पाव-पाप (pavo-papa); rarely मू (m), आमिलो-आपिड (amilo-apida) probably through आवेल (avela).

3. द (t) becomes ह्र (d); घडो-घट (ghado-ghatah) घडई-घटति (ghado-ghatati); sometimes also हू (l) as in फलिक्ष्ट (phaliha) and फालेश (phalei) from स्फातिक (sphatika), पट्टयति (pattayati). ध (th) becomes ह्र (dh) as in पिड-पिठ (pida-pitha); मदो-मठ (madho-matha); दू (l) becomes ह्र (l) ofter than दू (t); and ह (d), appears to change to दू (l); तलाय-तलाग (talaya-talaga), कील-किलद (kili-kiladati), बालिम (dali-mani) Mar दालिम्ब-दालिंम (dalimba-daliman).

4. The Paisāci differs from the other Prākrits in changing the mediae into tenues, e. g. मतन-मदन (matan-madan), नकर-नगर (nakara-nagara), किर-गिर (kiri-giri), तामोत-दामोदर (tamotara-damodara).

5. The tenues aspirates and medial aspirates generally become ह्र (h) in all Prākrits. e. g. साहा-शाख (saha-sakh), शेख-शेख (meho-mehah) नाहो (naho), old Mar. नाही-नाथ (naho-natha), बहीरो (bhiro), Mar. बहीर-बधिर (bahira-badhirah), सहावो-सवभाव (sahavo-svabhava). Exceptions are few, like पुद्र-पुठक (pudham-prthak), केतृयो-केतस (kedhavo-kaitabha). छ (cha) and ज्ञ (jha) remain the same, and दू (ph) becomes ह्र (bh) or ह्र (h)—रेमो-रेफ (rebho-rephah) मुत्ताहल-मुक्तापहल (mut thawalam-muktaphalam), सभरी (sahari) and सहरी (sahari)—सफरी (saphari).
In Paisācī again, the medial aspirates become hard aspirates. मेकोऽ-मेघः (mekho-meghaḥ), काण्डः-गाधः (kātham-gādhāḥ), मण्डः-मण्डः (mathram-madhurāṁ), रभासः-रभासः (rāphasaḥ-rāphasaḥ), ताठः-साठः (tāṭhā-dāḍhā-daniṣṭrā).

6. Of nasals, the Māhārāṣṭrī, Sāurasenī, and Māgadhī show न्, नु (n, ŋ), rarely न (ṅ). The Paisācī has a single न (n) that serves the purpose of all the nasals. In M. initial न (n) optionally, and other न (na) invariably, becomes न (ṅ). In Amg. and others initial न (n) remains.

e. g. M. नारः, नवरः (naarāṁ, navarāṁ), Amg. नारः (nayarām); but नाणी, नाणि (nāṇī, nāṇāṇi). Even in M. the न (na) of the instr. sing. remains unchanged e. g. पुत्तेन (puttena), नवणः-नयणः (nayaṇāṁ-nayaṇam), मद्यः-मदनः (madano-madanaḥ). Amg. shows अनलः (anala), beside नाणि (nāṇāṇi).

7. रू (r) remains the same in all dialects except Māgadhī where it must become छ (l). Mg. दलिड्डवाळदत्ते (daliddacudattā), पुलिशेः (pulise), M. and Ś. and Amg. चारुदत्तो (cārudatto), पुरिसो (puriso), तारितो (tāriso), नयरः (nayarāṁ), रयणि (rayanī). There are, however, cases where in other dialects छ (l) appears for रू (r); e. g. हलिड्डः (haliddāḥ), चलणः (calano), चलणः (valuno), इगालो (ingālo), जधः (jadhalam) from हरिद्रः (haridrā), चरणः (caranah), वरणः (varunah), अंगः (aṅgāraḥ), जधः (jatharam). In Māhārāṣṭrī, Ardhamāgadhī and Sāurasenī apparently, they are to be regarded as Māgadhisms.

छ (l) sometimes becomes छ (ś), न (n) in the dialects; नाला (nala) or नाला-लाला (sala-lāla), पूण्ड-पूण्ड (pūngala-tāngala). In फिर (phira) it has become रू (r). In Paisācī it has also become छ (l) according to grammarians. सिळ, कुल (sīlam, kuḷam).
8. The three sibilants become सू (s) in all the dialects invariably, except a form of Māgadhī which shows श्रू (ś) for these uniformly. पुरिस (purīsa), यारिसे (yārise), सोहि (sohai), सेसे (seso), for पुरुष (puruṣa) याद्व: (yādvśa), शोषते (śobhate), शेषः (śeśaḥ). But it appears that they are as often changed into ह (h); e. g. दहा (daha) Mar. दथा–दशा (dahā–daśa), पञ्चाण–पञ्चाण (pañcāna–pañcāna), सोक्षा (sokhā) Mar. सुन–स्नुषा (śūna–snuṣā); धनुह–धनुह (dhanuha–dhanuṣ), तन्व–तृषा (tanvā–trīṣā), दिवस–दिवस (dīva–divasa), हत्तरि–हत्तरि (hattari–hattati). छ (ṣ) sometimes becomes च (ch). e. g. छोटा–छह (chalṭha–saṭṭhaḥ), छम्मुहो–प्रमुह (chammuho–saṃmukhaḥ). Cf. छम्य (chappaya), ससयन्त (sasyanta), सेह (seha), सोम (soma) in Kappasutta¹ for पत्त्द (śatpada), शोषत्त (śosayanta), शेष (śeśaḥ), सुम्य (saumya).

9. Conjoined consonants are either assimilated, or simplified, in which case the preceding vowel is generally lengthened, or lastly split up by an intervening vowel.

(a) Very often the first member of a conjunct is assimilated with the following one; e. g. सक्र–सक्र (sakka–sakta), मुक्क–मूक्क (mukka–mukta), धम्भ–धम्भ (thambha–stambha), रत्त (ratta) and also रग्ग (ragga) from रक्त (rakta); the semi-vowels छ, र (l, r) always assimilate with the other member; e. g. चक्क (cakkam), वक्कल्ल (vakkalam) from चक्क (cakram), वक्कल्ल (vakkalam); but उविग्र (uvviga), उद्विग्न: (udvignaḥ).

(b) य (y) and व (v) often change to छ (c) and assimilate the first member to themselves; पञ्चच्य–पञ्चयुष (paccūsa–pratyūṣa), चत्वार–चत्व (caccara–catvāra),

¹ Ed. Jacobi, 1878.
and काज्ञम–कार्यम् (kajjam–kāryam), मृग–मथ्य (mājha–madhya), ज्ञान–ञ्ज्ञान (jñāna–dhyānam).

The Māgadhī retains य (y) in these cases. e.g. वियाहले (viyyāhale), अण्ज्ञ (aṇya), सुय्य (suyya) from वियासर: (vidyādharāḥ), अठ (adya), सूर्यः: (sūryaḥ).

(c) Nasals forming the second member are assimilated with the preceding consonant, e.g. त्विस्म–उद्विस्म (tvivasga-udvīga), अग्नि–अन्तिः (aggi-agnih), जुम–नूम (jugga-yugma). य (y) is assimilated with the preceding nasal:—रण–अण्ज्ञ (rāṇa–aṇya); अस–अन्त्य (aṇa-anya), किलम्मी–क्षम्यति (kilammāi-kīmyati). Māgadhī and Pāścāti, however, have य (y) in these cases; e.g. अण्ज्ञ (aṇa), पुर्ण (puṇa), अहिममण्ड (ahimaṇṇa). ल्य (lya) gives छ (lla); कल्य (kalla-kalyam).

(d) र (r) with dental gives a double lingual; कवद्ध (kavaḍḍa) Mar. कवड़ि–कपर्द (kavadi-kapardā), गद्धि–गद्ध (gaddhāhā–gardabha), तुढ़ि–तुढ़ति (tuttai-truṭati).

(e) फङ्क (sk) and ष्ठ (skh) give ख (kh). निन्यासते–निन्यासती (nikkhamadi–niskrāmati), चाक्क (caukkha) Mar. चौक–चतुष्क (cauk–catuska); ढ (ṭa) and ढ (ṭha) become ह (ṭha), e.g. अष्ठ–अष्ठ (aṭṭha-aṣṭa), द्विद्रि–द्वित (divthi-drīti). In Māg. the combination स्त (sta) is found for द (sta) and द (ṭha)1 e.g. विस्त, ब्यासालिका (cisa, bhasālīkā). स्त (sta) remains in Māg. but becomes त्व (ṭha) in other dialects; हस्त (hasta) and हथ (hatthā) from हस्त (hasta). स्ना (snā) gives ष्ठा (nḥa) in all dialects. क्ष (kṣ) is represented either by ख (khh) or च (cḥha); उख (uchhū), and दखङ्गु.

1. Grammatik pp. 185 ff.
(ikkhī); सारिच्छ (sārīccha) and सारिख (sārikha). For fuller treatment of conjuncts, see PISCHEL.¹

(f) Conjuncts are often split up into two syllables by means of a vowel. This is more usually found in the Ardhamāgadhī.

e. g. उत्न-उण (usina-usṇa), कसिन-क्रण (kasina-krṣṇa), सिनान-स्नान (sināna-snāna) in Amg. where other dialects, say the Māhārāṣṭrī, show उण, क्रण, न्या (nya, kaṇha, nhāna). The Paisāci also shows anaptyxis in words like भारिया (bhāriyā), सिनान (sināna), कसां (kasātan) from भारि (bhāryā), स्नान (snāna) and कष्ट (kaṣṭam). GRIERSON is perhaps right when he regards such words as clear Sanskritisms, made easy for pronunciation by the addition of a vowel.

The Māhārāṣṭrī and other dialects too show स्त्रम्भकिति (svarabhakti), as in किल्लम (kilmmai), Sk. किल्लमदि-क्षम्यति (kilammadi-klāmyati); M and Sk. मिलान-म्यान (milāna-māna); M. Ś. वरित (varisa) beside वास-वच (vāsa-varṣa).

(g) Examples of simplification with compensatory lengthening are:—वेराणो-विधाम (vīśāmo-viśrāmaḥ); वीराणो-निःशास (nīśūso-niḥśvāsaḥ), वीराङ्गो-विघ्वस्त (vīsattho-viśvastak), सीस-शिश्न (sīsa-sīṣya), सीह-सिङ्ग (sīha-simha); उसासिय-उघ्रसित (ūsasiya-uchhvasita).

(h) Consonants at the end of words are generally dropped in all dialects: ज्व, द्व-यावत, तावत (jāva dāva-yāvat, tāvat), पच्छा-पच्छ (paṛchā-paṛcāt); अभु-अभृत (abhū-abhūt); अकसी-अकारित (akāsi akārṣit). The स (s) of the nom. sing. becomes श except in Māgadhī and Ardhamāgadhī where only it becomes ए (e). In Apbh. it is further weakened.

¹ Paisāca, Paisāci and the modern Paisācas, ZDMG for 1912.
into उ (u), पुतो, (putto) Pai, मेको (mekho), Apbh पुत्त (puttu), स (s), in compounds becomes अ (a), as in जसवम्मा-यासवर्मन् (jasavamma-yaśovarman) sometimes it becomes ओ (o) as in Mg. शिलोहु (śiloluha).

There are, besides, what PISCHEL calls Sarndhi consonants in the Prākrits. e. g. मू (m) is in Amg. अन्नमानम् (annamannam) or अण्णमण्म-अन्योपयम्: (annamannam-anyonyam); M. एक्मेक (ekkamekka), Mar. एक्मेक (ekameka), Amg. एक्मेक-एक्मेक (egameka-ekaika). This मू is found in other cases also; गोणमाइ-गवादि (goṇamāi-gavādi), ह्रुत्माइ-हवादि (hrutmāi-havādi), एसमाधाओ-एष अघातः: (esamāghāo-esa aghātaḥ). Cases like हुयाहेण, तियाहेण, चउयाहेण (duyāhena, tiyāhena, cauuyāhena), where PISCHEL¹ finds the सन्धि (sandhi) consonant यू (y), are perhaps better explained in this way. In हुयाहेण (duyāhena) यू (y), is regular, as it is to be explained as due to स्वरभक्ति (svarabhakti) from व्यहेन (dvahena); in the same manner, the यू (y), in तियाहेण (tiyāhena) is easily explained. In चउयाहेण (cauuyāhena), however, it is to be explained as due to analogy of the former two cases. The यू (y) in these came to be looked upon as belonging to the form and was therefore added where it was not wanted regularly. हुयागुला (duyangula), सुयाख्याय (suyakkhaṇa) from व्यगुला (dvimagula), स्वाक्ष्याय (svākhyāta), are to be explained in the same manner. Amg. अणुरागयम् (anurāgayam), from अन्त्रागलम् (anvāgatam), is explained by PISCHEL as formed on the analogy of वायुरी (vāyurīva)² सिहिरिव (sihiriva) where र (r) is due to the nom. ending of the first member. But there is really hardly any analogy between these noun cases and the adverb अनु (anu). Beside this this is not the way analogy works. For two forms to affect each other, they must belong to the same grammatical category. The analogy for अणुरागयम् (anurāgayam), is there-

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2. PISCHEL op. cit. p. 240.
fore to be looked for elsewhere; and it is supplied by the word पुनराविः (punaravi)¹ पुनः (punah) generally becomes पुन (puṇa), but in combinations retains its र (r). This organic nature of the र (r) was forgotten and it was looked upon as a सन्धि (sandhi) consonant. Hence the र (r) in अरुणायम् (aurāgayam). The form Amg. दुरंगुल (durangula) again is to be explained as influenced by forms like चूरासीरम् (caurāsīham),² चूरन्त (cauranta) where र (r) is regular.

45. **Inflection:**—In declension and conjugation the Prākrits agree in a general way, when due allowance is made for phonetic changes. There is no consonantal declension, there is no perfect and conjunctive, and the preterite, which has lost the augment, shows the same set of terminations इत्य (iṭṭā) and इन्स (imsu) for all the three persons; a few forms in अम् (am) and शी (śī) शीत् (śīt) are to be looked upon either as stray remnants of the old conjugation or as influenced by Sanskrit, which, as we have seen, has always exercised a potent and often disturbing influence over the Pāli and inscriptive languages. The same is the case with respect to the Prākrits.

a. **Declension:**—As remarked above, the consonantal class has disappeared from the Prākrits, as they, like the Pāli, suffer no consonant at the end of a word. A few stray forms of the consonantal class are to be regarded as old remnants; e. g. M. विभा-विपदा (Viaṇ-vipadā); Amg. धम्मविज्ञ-धम्मविज्ञ (dhammavijñ-dharmanavijñ), तेजो-तेजस (teo-tejas), मनसा (manasa) मनसा (manasa), वयस्क (vayasā), वचस (vacasa); सरस-सरद् (saras-sarad).

The distinction in gender is often not kept up; the tendency to decline neuters like masculines appears to grow. Even in Sk. the neuters agreed with the masculines in all but the first two cases. The Prākrits have equalised even

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there, तुंगो मणो-तुंगम मनः (tuṅgo mano-tuṅgam manah) तथावे काओ-तपः कल्मू (tavo kao-tapah kṛtam), Amg. तमे-तम (tame-tamah); मणे-मण (maṇe-manaḥ): These are cases of neuters in "as" Neuters in अ (a) (as) also show the same tendency; the way was shown by the nom. plu. which in Prākritis, like the Veda, often end in आ (a) and thus were not distinguishable from masc. forms. This was carried further and even singular forms were made after the masc. e. g. Amg. जीवितेऽजीवितम् (jīvé-jīvitam), कम्म-कर्म (kamma-karma), विरितेऽविरियम् (vīrī-vīryam); ्पवहणो-पवहनम् (pavahano-pravahanam). This tendency is seen prevalent in the Amg., less so in the Mg. and rare in the other dialects. ¹ अन् (an) neuters have been turned into अ (a) masculines according to the grammarians e. g. जम्मो (jammo), कम्मो (kammo), वम्मो (vammo) etc. Vararuci lays² down a rule that nouns in अन् (an), अस् (as) and the words प्रव्रथ (prāvrś) and शरद् (śarad) are to be regarded as masculines. Hemacandra agrees with him; e. g. पाउसो (pāuso), सरदो (sarado), but तिरं (sirāni), नाहि (nāhāni) which apparently are exceptions. The pronouns also are affected and अयम् (ayam) serves for masc. fem. and neut, अयम् दहि-दधि (ayam dahi-dadhi), cf. अयम् धम्मलिपि (ayam dhammaliḍī) of the inscriptions. The Adbh. according to Hemacandra,³ observes no distinction in genders; लिङ्गमतन्त्रम् (liṅgamatantram) IV:445—the gender does not count, e. g. अभ्या-अभ्राणि (abhīḥ-abhrāṇi), अन्त्रधि-अन्त्राणि (antradhi-antarāṇi). This, however, may be ascribed to metre.

There is no dual in the Prākritis. दो (do) and बे (be) are the only duals preserved.

Following are the terminations⁴ for all classes, i. e. अ, ई, उ (a, i, u) etc.

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2. Prākṛtaprakāśa, IV 18 Ed. Cowell p. 34.
3. op. cit, I 31, 32.
Sing. Pl.

N. ओ, ए (o, e), nil आ, ओ (a, o) (for i) and उ (u)
A. म (m) ए, ओ (e, o) (for i) and उ (u)
I. (ए) (e) ज (u or ज्ञ (ज्ञान) हिं (हिं)
ण (णी (for i) and उ (u)
Abl. आ, दो, दे (दा, do, du, hi) हिंती, हिंतो (हिंतो, गुंतो)
Gen. स्त, गो (ssa, no) 'for इ (i)
and उ (u)

There is no real dative in the Prākrits.

Neuters of all stems have म (m) for nom. acc. sing. e.g. वर्ण, दर्श, मह (वर्णम, दर्शन, महत).

The few त (tr) stems agree generally with their Sk. counterparts, except in some cases like जामणर (jāmāreṇa), भामणर (bhāmāreṇa). The stem राज (rājan) has preserved some old forms like रामण (rāmāno), राजण (rājanō) or रण (raṇā). There are besides a few more examples of the consonantal declension. e.g. अल, अलाण (appā, appāno); आम, आमाण: (ātmā, ātmānāḥ); जुव (jūvā) and जुवाण (jūvāno): जुवा, जुवाण: (jūvā, jūvānāh).

Examples of Prākrit declension

I. The ए (a) class.

Masc. Singular. Plural

N. पुत्र, पुत्रे (putto, putte) Amg. पुत्र (puttra) all dialects; पुत्राओ (puttāo) Amg.
Mg., पुत्र (puttu), Apbh. पुत्र (puttra) Amg.
A. पुत्रम (puttam) पुत्रे; पुत्र (putte, putta) M. Amg. only.

I. पुत्रण, पुत्रण (puttena, putte) पुत्रण (putte) (S. Mg. and P. puttena) (S. Mg. and P. putte) M. Amg.
पुत्रण (puttena) (puttena) only).
Abl. पुत्ता (puttā) all dialects; पुत्तांतो पुत्ताहुंतो, (puttāsunīto, puttāhumīto) etc. Amg. also पुत्तेहि (puttehim); Apbh. पुत्तहु (puttahu).

G. पुत्तस्स (puttassā) all dialects पुत्ताण (puttānam) all. पुत्तान (puttaṇa) all. except S. Mg (puttāda) Apbh. पुत्तह (puttahe), पुत्तहु (puttahu); P. पुत्तातो (puttāto).

L. पुत्ते (putte), all dialects; पुत्तम्मपुत्तेहुं (puttammi, puttesum) all, पुत्तेहु (puttesu) except S, Mg. M. and S. पुत्तस्स, पुत्तम्म (puttammi, puttammi) पुत्तह (puttahi) Apbh. Amg. पुत्तहिं (puttahimi) Mg.

It will be easily observed that loc. sing. in भ (mmi), and अभि (animi) is borrowed from pronouns, as also the acc. pl. in ए (e). The instr. pl. एहि, एहि (ehim, ehi) is traceable to Vedic एहि (ebhiḥ). The abl. pl. has a composite ending; it is made up of the instr. (एहि + तस्तू) (ehi + tas) and the abl. suffix; सुन्तो (sunto) also is traceable to the loc. शु + त (sum + tah). This shows that the three cases really are interdependent, as their functions are very similar.

II. Feminines in आ (ā)

Sing. Plu.

N. माला (mālā) मालाओ मालाँ (mālāo, mālāu) except S. Mg.

A. मालम् (mālam) Do.
<table>
<thead>
<tr>
<th>Sing.</th>
<th>Plu.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I.</strong> मालाए (mālāe), M. has also मालाइ (mālāi), मालाअ (Mālāa)</td>
<td>मालाहि, मालाहि (mālāhīṁ, mālāhī) except Ś. Mg.</td>
</tr>
<tr>
<td>Abl. मालाऔ, मालाव (mālāo, mālāu) M. Amg. मालादो (mālādo) Ś. Mg.</td>
<td>मालाहि, मालाहि (mālāhīṁto, mālāhū) Apbh.</td>
</tr>
<tr>
<td>G. &amp; D. मालाए (mālāe), M. also मालाई (mālāi) मालाव (mālāv) A. मालाहे (mālāhe).</td>
<td>मालाण मालाण (mālāṇaṁ mālāṇa) except Ś. Mg.</td>
</tr>
<tr>
<td><strong>L.</strong> The same as Gen.</td>
<td>मालाखु, मालाखु (mālāku, mālāsumi)</td>
</tr>
<tr>
<td>III. Stems in े.</td>
<td></td>
</tr>
<tr>
<td>Sing.</td>
<td>Plu.</td>
</tr>
<tr>
<td><strong>N.</strong> अगी (aggi),</td>
<td>अगीयो अगी, अगी, अगीयो (aggino,aggi,aggi,aggio).</td>
</tr>
<tr>
<td><strong>A.</strong> अगिम (aggim)</td>
<td>Do.</td>
</tr>
<tr>
<td><strong>I.</strong> अगिमि (aggima)</td>
<td>अगिमि अगिमि (aggima,aggima) except Ś. Mg.</td>
</tr>
<tr>
<td>Abl. अगिमि अगिमि अगिमि (aggima,aggima,aggima) अगिमि, अगिमि (aggima,aggima) Apbh.</td>
<td></td>
</tr>
<tr>
<td><strong>G.</strong> अगिमि, अगिमस (aggino,aggissa) except Ś. (aggina) except Ś. Mg.</td>
<td></td>
</tr>
<tr>
<td><strong>L.</strong> अगिम्मि (aggimi); अगिसु, अगिसु (aggisu,aggisu).</td>
<td>अगिमि (aggimisi), Apbh. अगिमि (aggima).</td>
</tr>
</tbody>
</table>
IV. Stems in उ (u). 1

Sing

N. वाँ (vānī)

काणो, काणो (vāṇo, vāao),
वाँ, काणो (vāin, vāno) also

A. वांमू (vānum)

काणो, काण (vāṇo, vānī)

I. वाणी (vāṇā)

काण्ति, काण्ति (vāṇhim, vāuhi)
except Ś and Mg.

Abl. काणो, काण (vāno, vāunī)

काण्ति (vāṇhim), also काण्ति-भुनो (vāṇhinto-sunto)

G. काणो, काणस्स (vāṇo, vāussa)

काणणमू, काण (vāūnám, vāunā)
except Ś and Mg.

L. काणसु, काणसु (vāṇsu, vāusunī)

काणसम, काणसं (vāūmmi, vāūnisi).

The following forms of feminine bases in उ (u) and उ (u) should be noted:—वृद्ध (buddhio), घृद्ध (dheṇū) nom. pl.,
वृद्ध, घृद्ध (buddhi, dheṇū) nom. sing. and acc. pl., वृद्धि, घृद्धि (buddhim, dheṇuṁ) acc. sing., वृद्धि, घृद्धि (buddhihim, dheṇuhim) instr. pl., वृद्धिय (buddhia), घृद्धिय (dheṇuā) gen.
sing., वृद्धिय, घृद्धिय (buddhia, dheṇuā) instr. sing., वृद्धिय (buddhiya), घृद्धिय (buddhiya), घृद्धिय (buddhiya) are forms of instr. abl. gen. and loc. Hemacandra III 29.
There are corresponding forms of feminine उ (u) bases like
घृद्ध (dheṇuā), घृद्ध (dheṇuā), घृद्ध (dheṇuā), घृद्ध (dheṇuā).

But this great class has been sacrificed to the peculiar phonology of the Prākrits, which leans towards lengthening a short final. In literature, the Karpuramañjari for example shows the following forms:—

विद्र (ditthim) I 18, विद्र (ditthi) I 28, विद्रभूमि (vidūrabhūmim) I 34, मन्जरी (manjario) III 13, मुष्टि (muṣṭhia)

I 30 instr. sing., रू (rain) IV 9, रुच्चिस्स (ruccissa) III 14, रूहिई (rūḥī) I 1 nom. pl., रूहिई (rūḥī) I 20, केदैलीत्ती (kedailīttī) II 6 gen. sing.; दिल्ली (dīḷīhayā) the regular inst. sing. of दिल्ली (dīḷīhi) has become an indeclinable.

V. Stems in र् (r) are rare, as the Prākrits have changed it, but there are some few forms still left of this declension.

Sing.

N. भत्ता (bhatta), Km. II 8, स भत्तार (bhattāro), also भत्तू (bhatta), भत्तून (bhatta, bhattuno)

A. भत्तर (bhattaram), Mg. भत्तार (bhattāre)

I. भत्तणा, भत्तारण (bhattuṇā, bhattāreṇa)

G. भत्तुणो (bhattuno) Km. I 11, भत्तरस्त (bhattarassa)

L. भत्तर (bhattāre)

Pl.

But forms like माताए (mātae), gen. sing. Km. I 20 show the way this declension has gone. Hemacandra gives मा (ma, māra); मां, मारं (māṁ, māram); माताए, मारणा (māde, māraṇa) or माईं (māṁ), as nom., acc., gen. forms of मात (māt). In the same way पितु (pitr) has double forms, one set from an उ (u) base as पित्तण (piuto), पित्तण (piuto), पित्तण (piuto), पित्तण (piuto), and another set from the र् (r) base as पितार (piaram), पितारण (piarena), पितारहिः (piarehim).

गो (go), and नौ (nau) follow closely their declension in Sanskrit as गाओ (gāo), गोहिः (gohiṃ), गवं (gavan), from गावः.

1. Hemacandra III, 44
2. II 46.
(gāvah), गोभी (gobhiḥ), गवां (gavām), show. नौ (nau) has नावाए (nāvāe) instr., नावाओ (nāvāo), abl. which do not follow the Sk. declension.

VI. Stems in त (t), or अन्त (ant), and नू (n) or अनु, मनू, बनू, (‘an’), (man) (van), are preserved to a certain extent. But here too the tendency is to turn them into the अ (a) class, by adding that vowel to the final or dropping it

Sing.                      Pl.
N. राजा (rāja)          राजाओ (rājago), also राजा (rāja)
A. राजानं (rājānāṁ) but also राजाणो (rājāno), also राज, राजा (rāe, rāj)
I. रणा, राणा (rānā, rānā), but also राण (rāṇa),
       राणाहिं (rāṇāhini), राणहिं (rāṇahini)
       राणाहितो (rāṇāhito)
Abl. रणो, राणो (rāno, rāno),
       but also राणादो, राणाहितो (rāṇado, rāṇahito)
G. रणो, राणो (rāno, rāno) राणम्, राणाम् (rānām, rānām),
       also राणस (rānas), राणाम (rānām).
Pa. राणिनो (rācino)
राणिं, राणम्, राणे (rāmni)
       राणिसम् (rāsim) etc.
       (i. e. no-form from consonantal base)

For आल्मा (ālmā), ब्रह्मन, युवन (brahman, yuvan) and other consonantal stems, see Hemacandra III 56, PISCHEL Grammatik pp. 281 ff. Stray forms like मध्य (magnha) side by side with मध्य (magnha) show how hard this class struggled before dying; the Sanskrit always supported such stray strugglers.

Feminine consonantal forms have merged into the आ (a) class. दिस (dis) therefore becomes दिसास (disā). पदिवात, वाचा, धुरा (paḍiva, vācā, dhurā) are other examples. विद्युत (vidyut) becomes विज्जु (vijjū) and follows the उ (ū) declension which is quite regular.
(b) Adjectives follow nouns in declension. They have two grades of comparison as in Sk., formed by the suffixes तर, तम, ईयस, श (tara, tama, iyas, istha) with due phonetic changes.

M. उज्जलार (ujjalaara) Amg. पिययम (piyayama), Ś पियदम (piadama)

Amg. दद्हयर (dadhayara)

Ś. भूतो-भूयस (bhūo-bhūyas) Ś. भूत्ह (bhūttā)
पेज्ज-प्रेयस (pejja-preyas) जेत्त (jēttā)

(c) The Prākrits have pronouns like the Pāli, with which they agree in declension.

First person अहम (aham), Mag. हो (hage); मम, ममम, मे (mama, mamam, me); मए, मह (mae, mai); मामो (mamō), मामाहिन्तो (mamāhinto); मम, मह, मज्ज, मज्जम (mama, maha, majjha, majjham), A. मह (mahu); मह, सम्म (mai, mamammi) are the several cases in the singular; and अम्हें (amhe), Mg. हगे (hage) also अम्हें, अम्ह, णो, णे (amhe, amha, no, ne); अम्हेहिं (amhehī); अम्हतो, अम्हबहितो (amhato, ambehinto); अम्हण, अम्हम अम्ह or अम्ह (amhānam, amham, amha, mha), also णो, णे (no, ne); अम्हेसु, अम्हासु (amhesu, amhāsu) in the plural.

It must be noted that Hemacandra² gives several alternative forms for each case of this pronoun. Probably they were dialectic variations; no other explanation is possible. This also suggests that the literary Māhārāṣṭrī and other Prākrits were really based upon spoken dialects and not ‘artificial’ languages. There is no reason to doubt either the veracity or the ability of Hemacandra, simply because in the Prākrit literature that is so far available, these forms can not be satisfactorily traced.³

1. Vararuci IV 7. striyāmāt.
2. op. cit. III 105 ff.
3. See PISCHEL op. cit. p. 293 on this point.
हो (hage) of the Māgadhī must go back upon अहकम् (ahakam), with the dropping of the initial and softening of the surd. This is seen in the modern vernaculars in forms like ह (ham), or Koṅkaṇi Marāṭhi हाव (hāva). In मम (mamā), ममातो (mamāto), ममाहि (mamāhi), ममस्स (mamassa), the Sk. genitive is taken as the secondary base.

Second person:—तुम्सू, तुम (tumam, tum), Apbh. त्तु (tuhu); तुम्सू, ते (tumam, te); तए, तए, तुमए (tae, tai, tue, tumae); तत्तो, तुमाहि (tatto, tumāhi), तुमाहित्तो (tumāhīnto); तत्त तुज्जा, तुम, तुम्स (tava, tujjha, tuha, tubbha) etc; तस तुम्सम्ते (tai tumammi, tume). See besides the alternative forms in Hemacandra1.

It is clear that there are two bases underlying these forms, the Sk. त्वम (tvam), which with proper phonetic change becomes तुम्स- (tum-tu), and तुम (tuma). The one gives तुम, तुए, तत्तो (tum, tue,atto), etc, and the latter तुम्सू (tumam), तुमए (tumae), तुमाहि (tumāhi), etc. तुम (tuma), is also the base of the plural forms of this pronoun in Marāṭhi; तुम्स (tumhi) and तुम्स (tumacā), etc. The same remark holds good with regard to the pronoun of the first person.

Plural:—तुम्से, तुम्से (tumhe, tubbhe), Apbh. तुम्सहि (tumhai), which gives तुम्सहि (tumhi), in Marāṭhi; all these and वो (vo); तुम्सहि (tumkehiṁ), तुम्सहि (tubbehiṁ), also मे (me); तुम्सलो (tumhatto), तुम्सलो (tujjhatto), तुम्सलो (tuyhatto), etc; तुम्स (tumnaṁ), तुम्स (tumham, tumha), etc; तुम्सेसु (tumhesu), तुम्सेसु (tujjhesu), etc.

Third person:—सो (so), and से (se), are the only forms of the base for this person. For the other cases and even for the plural of the nom., forms of the demonstrative base त्स (ta), are used.

ते; तेन, तेन (te; tena, tenam), f. ताए, तीए (tāe, tīe); ताओ, तत्तो, तदो (tāo, tatto, tado); तम्सहि (tamha), तस्स, तस्स, तह (tassa,

1. op. cit. III 90 to 104.

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taśa, taha), f. tissas, tīye, tāye (tissa, tīe, tāe); tāmm, tāns, tassim. (tammi, tamsi, tassim). Tatth (tattha) and tāhi (tāhin) are used as adverbs of place, but they are loc. of the same base.

Then there are the idam. etat (idam, etat) bases, the relative pronoun yat (yat) and the interrogative kim (kim), which give forms like imo, ime (imo, ime); im, ime (imain, ime); imena, imassá, imassim, ehi, esu) and f. āhi, āsu (āhi, āsu). Kim (kim) gives ko, ke, kē, ke; kaṇa, kaō, kamhā, kado, kassa; etc. for which see Hemacandra III 63 to 85.

(d) The Prākrit numerals are ekkha, cf. Mar. ekha (ekkā); do, duve, be (do, dube, be); doh (doni); tārr (tao, tinī); chār, chārā, chārari (cattāro, cadasso, cattāri); pānca, cha, sattā, aṭṭha) and aḍha (aḍha) also, nava (nava), dāsa-dāha (dasa-daha-dasa). They are inflected in the regular manner.

The numbers from eleven upwards are also formed like Sanskrit:—ekkārasa or ikkārasa (ikkārasa) Amg., ekārh (eāraha) M., ekātasa (ekātasa) Paī; Amg. bārasa (bārasa), M. bārāha (bāraha) from which Mar. bāra (bārā); Amg. tērasa (terasa), M. tērāha (terāha), beḥā, cauddāsa, cauddā, cauddāha, cf. Mar. cauddā (cauddā); pānarasa, pānarāha (pānarāha) Apbh. cf. Mar. pāndhāra (pāndhāra) where dh (dh) is euphonic; sōlasa, sōla (solasa, solaha); sattāra, sattāraha (sattara- sa, sattaraha); aṭṭhāra (aṭṭhāra), aṭṭhāraha (aṭṭhāraha), H. aṭṭhāra (aṭṭhāra), Mar. aṭṭhāra (aṭṭhāra). Nineteen is Amg. ekuṇisa (ekuṇisa), Apbh. ekuṇisā (ekuṇisā); cf. Mar. ekuṇisa (ekuṇisa) or ekonisä (ekonisä). Amg. has also ekonisä (ekonisä) or visam (visam). The further nines are formed in the same way. Visā (visāi) or visam (visam). Tisai (tisai) or tisam (tisam) (cf. tettisamē, Mar. tettisa (tettisa) cattārisam (cattārisam) or sā (sā), cārisam (cārisam) which is the previous step to the contraction cālis (cālisa) in Jain,
Māhārāṣṭrī.¹ All the dialects contract it still further when a number like two, three is prefixed to it. E. g. Amg. बृयालिसाम् (bṝyālisām), तेयालिसाम् (teyālīsām) etc. चाली (cālī) is another contracted form of the same word; we find this when children repeat their multiplication tables, like एकेचाळ, बेचाळ (ekecāla, becāla). पण्णासाम् (pṇṇāsam), पण्णासा (pṇṇāsā) or पण्णा (pṇṇā), in the further numbers पण्णम् (pṇṇam) or वण्णम (vaṇṇam), cf. Mar. बावन, त्रेपन (bāvana, trepana) etc. साठी, साठिम (sāṭhim, saṭṭhī)—short in compounds, सतरिम (sattarim) or सतरिर (sattari), cf. बावतारी (bāvattari) for seventy-two, असीम (asīm) or असी (asī), cf. चोरसी (corāsi) for eighty-four, नाउम (nauim), नाउ (nau) cf. Mar. पञ्चाणव (paṅcāṁava). Word for hundred is M. सात (saṭ) cf. Mar. षे (ṣe). Amg. सय (saya) Ś. Mg. सद (sada), for thousand is सहस्स (sahassa). The हजार (hajāra) of the vernaculars is a loanword from the Iranian branch.

b. Conjugation:—The Prākrits have lost more here than in declension. The tendency of removing consonants from ends of words by adding अ (a) observed in declension, has also disturbed the whole conjugational system, making it easier and more uniform. The अत्मानपदा is entirely lost, some dialects showing stray participles in that pada. There is naturally no dual. Of moods, the subjunctive is entirely given up; of tenses the conditional, the imperfect, with the exception of the rare असि (āsi) or असी (āsi)स्—आसीत् (āsīt), the perfect are given up. There is a tendency to substitute in their place what BHANDARKAR² calls the nominal construction, i.e. use of participles with the verbum substantivum.

For personal terminations, see Hemacandra III 139. 147. He gives some अत्मानपदा terminations like से, ने (se,
nte); इरे (ire), but as said above, they are rarely used in literature.

मि (mi) or सि, मो (mhi, mo) or मह मो, (mha, mho) for the first person; सि, हि से, स्या, थ, ध (si, hi, se, tṭhā tha, dha), and ह (ha) for the second, and इ. ए, डि, नि, न्ते, इरे (i, e, di, nti, nte, ire), for the third, according to Hemacandra. अधि (adi) from अस्ति (asti) is used for all persons and numbers.

I. Conjugation of stem वत्त (vattā), Sk. वृत्त (vrt) in the present.

अपभ. has:—

वद्धमि (vattāmi)  वद्धमो (vattāmo)  वद्धउ (vattauṁ)  वद्धु (vattahum)

वद्धसि (vattasi)  वद्ध, वद्ध (vattaha, vattadhā) Ś., Mg.  वद्धसि-हि (vattasi-hi)  वद्ध (vattahu)

वद्ध, वद्धदि (vattai, vattadi) Mg. Ś.  वद्धसि (vattanti)  वद्ध (vattai)

वद्धति (vattati)  वद्धहि (vattahim)

The āṭmanepada forms would be:—वत्ते, वद्धसे, वद्धए or वद्धे (vattē, vattase, vattae vattade), and वद्धते (vattante), others wanting.

Stray āṭm. forms are found in literature; e. g. जाणे, माने (jāne, manne) बहे (lahe), सोहासे (sohase), मण्ने (mannade), लपते (lapate), बिहाने (bihante). For more examples see PISCHEL.1 As in the Veda and Pāli, forms in इरे (ire) are also found e. g. पुप्पह (pupphe), हसिरे (hasire).

II. The same stem in the optative. Cf. Hemacandra III. 177, 178.

वद्धज्ञा (vattējjā), वद्धज्ञ (vattējja), वद्धज्ञाम (vattējjāma)

वद्धज्ञामि (vattējjāmi)

(वद्धज्ञा, हस्सज्ञा (vadhejjā, hassejjā) in Hc.)

1 Grammatik. p. 324-25.
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बट्टेजाति (baṭṭejjāsī), बट्टेजाहि-जाति (baṭṭejjāha) or जाहि (vaṭṭejjāhi-jiṣasi) and-जाहि (jjaha) (jjahi) also
बट्टेजा (vaṭṭejjā), बट्टेज (vaṭṭejjā) बट्टेजा-बट्टेज (vaṭṭejjā-vaṭṭe-jja).

It will be seen that the forms for the first sing. and third sing. and plu. are the same. There are also the forms Ś. बट्टेमू (vaṭṭeam), बट्टेव (vaṭṭe) first sing., Amg. बट्टेव (vaṭṭe), Apbh. बट्टत्ति (vaṭṭti) second sing. and Amg. Ś. Mg. बट्टेव (vaṭṭe) third sing. and pl. For forms in literature, mostly Jain, see PISCHEL, Grammatik p. 326 to 330.

This mood is, according to PISCHEL, very frequent in the Ardhamāgadhī and Jaina Māhārāṣṭrī; not so frequent in the Māhārāṣṭrī and very rare in the other dialects.

III. Imperative forms of the same stem. Cf Hemacandra III 173-176.

हसाम (hasāmu), पेच्छास (pecchāmu) बट्टामो (vaṭṭāmo), also बट्टाह (vaṭṭahāma)
in Hc.
हसाम (hasāmo), हसाम (hasāma), हसेम (hasema) in Hc.
बट्ट, बट्ट (vaṭṭaha, vaṭṭadha), Ś. Mg.,
बट्टस (vaṭṭasu, vaṭṭesu) (vaṭṭatha) Pais.
हसाह, हसात (hasaha, hasata) in Hc.
बट्टहि (vaṭṭahi); also बट्टाहि (vaṭṭāhi) Amg.

Apbh. बट्टहि (vaṭṭa, vaṭṭahi), बट्टनु, तुवरन्तु-हसन्तु
हसाहु पेच्छास (hasasu, pechasu) Hc.
बट्ट बट्टस (vaṭṭasānu, pechhasu) in Hc.

हसाम, पेच्छास (hasāmu, pecchāmu), follow the analogy of बट्टस (vaṭṭasu), which itself is to be traced to the स्त्र (sva), of the second pers. ātm. of Sanskrit. उ (u) and दु (du), of the third person are to be similarly explained. The plural of the first person has borrowed its ending from the present; the ह्म (hma),
however, although not given by Hemacandra but found in literature, appears to be the true imperative ending.

IV. The S—aorist, which is the only aorist in the Prākrīts, shows the same forms for the first and third persons. The strong aorist is given up, with the exception of some very rare forms. The augment is mostly dropped.

अकासि (akāsi),—अकार्षम् वुच्छायु (vuchhāmu)—Sk.
(akārṣam)
अवास्न (avātsma)
कासि (kāsi) and क्यासि (vayāsi)—Sk.
आवादी: (āvādihi)

अकासि (akāsi), काहेसि (kāhesi), पचारी (pacāri)
पुच्छिसु (pucchhisum), कारिसु (karisum)—Sk. आकार्षु (akārsuḥ)
भुवि, अहोसि (bhuvi, ahosi), अण्नसि (annesi)—Sk.
अजनसित् (ajñāsit)

Amg. समुप्पाजित्था (samuppajitthā)

But a keen sense of distinction between the forms was already lost and the same form served for the first and third persons, or even for the singular and plural; e.g. कारिसु (karimsu) वाहम (vāham), for first pers. sing. The form क्यासि (vayāsi), is also used for third singular. The Amg. invariably shows त्था (tthā), for third person singular.

V. The future is formed by adding इस्स (issa), or इह (iha) to the root before adding the terminations.

इस्साम, इस्स्सामि (hasissam, hasissāmi), हसिस्सामो, हसिस्सामि, हसिस्सामि (karissā-
hasissāmi), हसिस्सामो, हसिस्सामो (karissā-
hasissāmi), हसिस्सामो, हसिस्सामो (karissā-
hasissāmi), हसिस्सामो, हसिस्सामो, हसिस्सामो (karissā-
hasissāmi), हसिस्सामो, हसिस्सामो, हसिस्सामो (karissā-
hasissāmi), हसिस्सामो, हसिस्सामो, हसिस्सामो (karissā-
hasissāmi), हसिस्सामो, हसिस्सामो, हसिस्सामो (karissā-
hasissāmi), हसिस्सामो, हसिस्सामो, हसिस्सामो (karissā-
hasissāmi), हसिस्सामो, हसिस्सामो, हसिस्सामो (karissā-
hasissāmi), हसिस्सामो, हसिस्सामो, हसिस्सामो (karissā-
hasissāmi), हसिस्सामो, हसिस्सामो, हसिस्सामो (karissā-
hasissāmi), हसिस्सामो, हसिस्सामो, हसिस्सामो (karissā-
hasissāmi), हसिस्सामो, हसिस्सामो, हसिस्सामो (karissā-
hasissāmi), हसिस्सामो, हसिस्सामो, हसिस्सामो (karissā-
hasissāmi), हसिस्सामो, हसिस्सामो, हसिस्सामो (karissā-
hasissāmi), हसिस्सामो, हसिस्सामो, हसिस्सामो (karissā-
hasissāmi), हसिस्सामो, हसिस्सामो, हसिस्सामो (karissā-
hasissāmi), हसिस्सामो, हसिस्सामो, हसिस्सामो (karissā-
hasissāmi), हसिस्सामो, हसिस्सामो, हसिस्सामो (karissामो, hohimo, hossāmo), from भुः, लब्धिस्सामो (bhū, labhissāmo)
भू, एस्सामि (bhu essāmi), from इ

1. Pischel, Grammatik p. 360.
IV

भविष्यति गच्छिसादि (bhaviṣṭaḥ)
हसिस्तन्ति, हसिहिर्ये (hasissanti, hasihire),

पराजिनिस्सि (parājinissai) Amg. भविस्तार्थ (bhavissanti-
होहिन्द (hohii), from भू (bhū) essantim)

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VI. The passive is formed by adding इँञ्ज (iṣja), Ś. भू (bhū)
(ṛa) to the root. निष्णुविज्ञानि (niṣṇhuviṣṭaḥ), Ś. निष्णुवी-
अदि (niṣṇhuviadi) from हु (hnu), नाजज (najja) from ज्ञा
(jñā), रुवव (ruvvai), रुवशु (ruvvasu), रुविजज (ruvijjai)
from रु (ru), पुनिजजे (punijje) from पू (pū), सुमरिजज (sumanijjai)
from सू (smṛ), रङ्ग (raṅga), रङ्गिजज (raṇgijjai) from रङ्ग (raṅg),
रादिअदि (rodiadi) from रु (rud), वुच्छ (vuca) for बच (vac).

For details see PISCHEL, Grammatik, 370-376.

VII. There are causatives, desideratives, intensives and denomina-

(tive as in Sanskrit and Pāli.

(a) Causal is formed by adding ए (e)-Sk. अध्य (ay),
वे (ve)-Sk. पर्य (pay), Ap. अ (a), व (va) to the
strong base of the root.

कारान्तिवक्ता (kārei-kārayati), पादेय-पाठयति (pādei-
pāthayati), दाबेय-स्थापति (thāvei-sthāpayati), दाबेय (dāvei) col. Mar. दाबेय-दर्शयति (dāvato-darśayati),
इसाबेय-हासयति (hasāvei-hāsayati), जीवावेय-जीवयतु (jīvavedu-jīvayatu), मोअवेय-मोचयमि (moāvemi-
mocayāmi), Abph. पादेय-पाठयति (pādai-pātayati)
उद्धाल्य-उद्धाल्यति (uddālai-uddālayati), घडावेय-घडतयति (ghadāvai-ghaṭayati).
(b) Desiderative is exactly formed on the Skt. model. जुगुच्छाई-जुगुप्सते (jugucchāi-jugupsate), खुसुसेद-खुसुसित (bubhukkhida-bubhukṣita), Amg. खुससूसई-खुससूसिते (sussusai-susṛusate).

(c) Intensive is formed as in Skt. चक्कमम-चक्कम्यते (cakkammai-cākramyate). लालपप (lālappai), डण्डोल (dhaṇḍoholai), चक्रमिज (camka-mmia).

(d) The most common denominative is formed by adding अ (a) to nouns immediately. जममै-जमनति (jammai-jamnati); हुक्कमि: (duḥkhāmi), हुक्कमि (sukhāmi) from हुक्क (duḥkha) and सुख (sukha); or to the stem with an आ (ā). चिलादिद-चिरायते (cilāadi-cirāyate), सुहक्कादि-सुहक्कायति (suhāadi-sukhā-yati). करुकुरासि (kurukurāasi), खलबलासि (kha-lakhalāasi).

VIII. There are participles of as many kinds as in Sanskrit, and infinitives and gerunds in the Prākrits.

(a) The present participle ends in अन्त (anta) and माण (māṇa)—the latter more frequent than the former in the Jaina literature. The passive participle of the present shows the termination मेण (mēṇa).

संत (santa) and असंत (asanta); fem. असाती (asatī), but असती (asati) also. गच्छात (gaccha-nta), हुवंत (huvanta), समाणी (sammāṇī)—often in Kappasutta from अस (as), ओहिरमणी (ohiramāṇī), एजमाण (ejjamāṇa) from इ (i). आगममीण (āgama-mīṇa), निकाममीण-निष्कम्यमाण (nikāmamīṇa-niṣkrama-myamāṇa).

(b) The past participle ends in त (ta) or न (na), Ś. and Mg. of. course द (da) and न (na). The suffix is added either directly or after इ (i).
The suffix न (na) is more common than in Sanskrit: खण्ण (khaṇṇa), उखण्णिद (ukkhaṇṇiḍa) from खन्नू (khaṇṇu), दिण्ण (dīṇṇa) from द्व (dā); रुण (ruṇṇa), औरुण (oruṇṇa) from रूड (ruḍ). This न (na) or त (ta) assimilates itself with the preceding consonant. उम्मिला (ummiḷa) from मील (miḷ), मुक्क (mukka) from मूच (muc), राग्ग (ragga) from राण्ज (rāṇj), सिक्क (sikka) from सिच (sic). खुडिल-खण्ण (khudīla-kuṇṇa) छठां-छन (chaḷa-channa) do not show न (na) as in Sk. There appear to be active past participles as in Sk. but Pischel does not seem to recognise them. पुछम-प्पछवान (puḷha-vam-sprṣṭavāṇ), भानिदवंतो (bhānidadvanto), फितवतो (kidavanto) etc. he says, appear in late writers and uncritical editions.

(c) Potential participles are formed by adding तव्व (tavva) or अणिज्ज (anijja), अणिय (anīya) to the stem.

इसिलव्व (hasiavva), होयव्व (hoyavva), S. Mgr. होदव्व (hodavva); अणुचिलव्व (anucīlhadavva), पुचिलव्व (pucchidavva), स्राणिज्ज-शयनिय (saṇīja-shayāniya), दांसर्स्तज्ज (damasanijjja), S राक्कानिज्ज (rakkha-ṇija), कज्ज (kajja) and कय्य-कार्य (kayya-kārya).

(d) There is only one infinitive in Prākrits, that in उम (um) or दुम (cum) as the dialect belongs to

Mahārāṣṭrī, Jaina Māhārāṣṭrī, Ardhamāgadhī or to Māgadhī, Śaurseni group.

पुच्छितम् (puchium), पुच्छितम् (puchidum) from प्रच्छ (pracch); धारितम् (dhārium), धारितम् (dhāridum) from ध्र (dhr); चित्थितम् (citthidum), धारितम् (thādum), उत्तितम् (uttium), गच्छितम् (gacchidum) or गच्छितम् (gamidum) show that the suffix is added to the root directly or to the present stem. The Amg. has a peculiar form of the infinitive in त्तेः (ttae), which is more frequent than that in तम् (um). This त्तेः (ttae) evidently goes back upon Vedic तव (tave), or तव (tavai), more likely the latter. भोत्तेः (bhottae), वत्तेः-भोत्तेः (vatthae-bhoktave), वत्तेः (vastave). The double त (ta) is, according to Pischel, probably due to accent, which तव (tavai) bears e. g. Panini अन्तः तव (antasc tavai yugapat), VI 1,200. इत्तेः (ittae), Kapp. therefore goes back upon ऐतव (étavai), पायवे-पत्तेः (pāyave-pātavai) etc. पुच्छित्तेः (pucchittae), सत्तेः (saittæ), एत्तेः (esittae), are other forms. The Apbh. has peculiar inf. endings in अन, एव, एपि, एपिन (ana, eva, eppi, eppinu) etc. according to grammarians. एच्छन-एस्तु (ecchana-ëstum), करण-कर्तम् (karaṇa-kartum). This is evidently a noun in अन (ana) used infinitively. The Mar. infinitive must go back upon this. A form in एवम् (evam) e. g. देवम-दातु (devam-dātum) probably leads to Guj. देव (dev, karavi). According to Pischel this is due to—वन (vane) in दवने (dāvane) etc.

(e) The absolutive suffix is त (tā), त (tā) after nasals, added either to the root direct or to the present stem in the Amg.

2. Ed. Jacobi p. 89
Besides this, the Amg. has an absolutive in ताणम् (tāṇam), Vedic तानम् (tvāṇam), पासित्ताणम् (pāsītāṇam), चित्ताणम् (citṭāṇam). Forms in तुण (tūṇa), ऋण (ṛṇa), दुण (dūṇa) are seen in Amg. in verses. These, however, are more regular in Māhāraṣṭrī, Jain M. and Pāśāci जेण (jeṇa), जिणिः (jiṇa) from ज्ञ (ji), पाण (pāṇa) from पा (pā), लघु (laddhūṇa) from लघु (labhī), मैत्र (mātṛṇa) from मूच (muc), बह्तुण (bhettūṇa) from बह्द (bhid), क्रण (kṛṇa) from क्र (kr), गहिण (gahiṇa), चेत्तुण (ghettūṇa) from ग्रह (grh).

The तुण (tūṇa), दुण (dūṇa), ऋण (ṛṇa) forms are to be traced to the pre—Pāṇinian ताणम् (tvāṇam), त्विनम् (tvīnam); compare लघु (laddhūṇa) with लघु (labdhvāṇa). A. च्चा (ccā), च्चाणम् (ccāṇam) also is found in Amg. Hem- candra traces it to ल्या (tyā); e. g. भोच्चा (bhoccā) from भूत्वा (bhuktvā), न्याच्चा (naccā) from ज्ञत्वा (jñātvā). विज्ञ (vijjām) from विद्वान (vidvān) supports his derivation. It could not be traced to ल्या (tyā), which is only a metrically lengthened form of the alternative suffix ल्य (tya).

1. GUNE, Dia Altindischen Absolutiva p. 12.
2. I. 15.
The Adbh. forms in यु (ppi), विषु (ppinu) are to be traced to Vedic forms in लिब (tvī) and लिःन (tvīnam), जी (jeppi) from जि (ji), देविण (deppinu), from दोिय (day), द्विहिष्वि (dakkhi) from द्व्य (drś). These are also used as infinitives. Absolutives in द्व्य (ia), उ व (ua), are rare. S shows गदु (gadua), M पाडिच (padia), पीछित (pekkhia). उ व (ua) goes back upon ल्या (tvā) and द्व्य (ia) upon य, त्य (ya, tya), निक्कहिन–निक्कम्म (nikkhamia–nikkramya), ओदिरिच–अवत्तिच (oda-ria–avatitya), आर्हिच–आल्या (āruhia–āruhya).

46. **Desi Words:** The Prākrit vocabulary mostly contains words that have phonetically developed from the Sanskrit. These are called by grammarians the तद्वव (tadbhava) words. There are, besides, many borrowed words which are called त्समस (tatsamas). The त्समस (tatsamas) have a tendency to increase in proportion to the influence of Sanskrit on any language. The modern vernaculars, especially on their literary side, are greatly influenced by Sanskrit; e.g. the Bengali language. Its form is so changed owing to this influence, that had it not been for inflection, one would have taken it to be a corrupt form of Sanskrit.

But besides the तद्वव (tadbhava) and त्समस (tatsama) words, the Prākritis show an amount of others that are called देव (deśya) or देषी (deśi), i.e. country words. Hamacandra has collected such words in his Desināmamālā. Some of these देषी (deśi) words were already collected by Dhanapāla in his Pāialacchi nāmamālā. Although it could be shown, that some of these words are real तद्वव (tadbhavas), in the main they are words of other than Sanskrit extraction.

Among words wrongly put down by Hemacandra as Desis are:—

अक्रंद (akรามda) I 15—अक्रन्द: (ākrandāḥ), अस्विर (ambira) I 15—स्वरभक्ति (svarabhakti) from आम्र (āmra), अमलेश
(aggagega) 129—अग्रवेग: (agrvagah), परं (gharam) I 53—by metathesis from ग्रह (grha), अवद्र (avado) I 53—वट: (avatah), Vedic अवट: (avatah), अद्वार्ण (airuni) I 58—अद्हिराणी (adhirajni), उलूध (uludha) I 100—उद (ud) and रुध (rudha), ओजज्ञ (ojalla) I 154—from ओजस (ojas) and the Pr. termination ओज (olla), ओकित्ति (osittami) I 158—अवसिक्षम (avasiktam), कन्तू (kantii) II 1—from कम (kam), कठरी (kaffari) II 4—from कृत (krt), कठिणो (kaddambo) II 15—from कर्दम (kardama), कणोम (kanovam) II 17—traceable to करोण (karoṣam), कडिख्यो (kadikhambo) II 17—from कट (kaṭi) and स्तम्भ (stambha), कारिम (kārima) II 26—from क्र (kr) with termination इम (ima), कुडिअ (kudii), कुडीर (kudiram) II 24—related to कुटी (kuti), कुक्कली (kukkhi) II 34—कुक्षि (kukṣi), कोडिलो (kodillo) II 43—from कुटिल (kutila), खङ्कि (khadada) II 66—from खङ्ग (khan), खङ्जोथ (khajjoa) II 69—from खङ्जो (khagyota), खङ्जोध (khanidhayattha) II 71—स्कन्धङ्ज (skanddhayaṣṭik), खङ्कि (kumpa) Mar. खोपी (khopaṭi) II 63—खङ्कि (kumpa), गणेती (ganettii) II 81—from गण (gan), गामेनी (gāmeni) II 84—from ग्राम (grāma) and एणि (enii), गणाराई (gayanarai) II 88—from गगान (gagana) and रति: (ratiḥ), गोवि (govi) II 96—गोपी (gopi) etc.

The Deśi words collected by Dhanapāla and Hemacandra deserve a critical study, as they would throw great light on the vocabulary not only of the Prākrits, but also of the present vernaculars and the non-Indo-Aryan element in them. Some of the words are clearly Dravidian.

47. The period of the Prākrits:—The period of these literary Prākrits and the underlying dialects has its two limits, the upper one in the Pāli and inscriptional Prākrits, and the lower one in the modern vernaculars. We have seen that the period of the inscriptional dialects reaches well-nigh into the first century of the Christian era. That gives them a period of some eight centuries from before Buddha’s days. The literary Prākrits make their appearance with
the Brhatkathā circa first century A. C. if not earlier. Vararuci’s grammar, the Prākṛta-prakāśa, presupposes the previous existence of the Prākrits at least in a spoken form. It is not possible to say if some Prākrit literature as we understand it, existed then and to what extent. Vararuci belongs to the first century1 B. C. at least, even if we do not regard him, with Cowell, Max Muller, Pischel2 and Konow, to be identical with the Vārttikakāra Kātyāyana as tradition would have it. So that we shall have to date the beginning of the Prākrits from that epoch. The lower limit would be about the eleventh century A. C. after which the modern vernaculars begin to appear on inscriptions or in literature. The period of the Prākrits, then, would roughly fall between the first and the tenth centuries of the Christian era. The last Sanskrit line on an inscription3 of the Cālukya king Vijayāditya Satyāśraya at Bādami, Śake 621 i, e. A. C. 699 or nearly the beginning of the eighth century, clearly indicates the existence of Prākrit in some form at that time. The line runs thus: अतः प्राकृतभाषया पवान्येतानि द्वानि (atah param prākṛta-bhāṣayā padyānyetāni datāni). Unfortunately for us, the further lines which would have shown us the actual form of the Prākrit, are obliterated. So much is, however, certain, that a Prākrit in some form was used on inscriptions between the close and the beginning of the 7th and the 8th centuries respectively.

1. Hörnle, Gaudīn Languages p. XVIII,
2. op. cit. 34.
3. Indian Antiquary X 10, 60.
II

THE MODERN INDIAN LANGUAGES

48. The principal Āryan Vernaculars of the present day:—Corresponding to the Prākrits that we have spoken of, viz. the Māhārāṣṭrī, the Śauraseni, the Ardhamāgadhī, the Māgadhī and the Paisaci, we have vernaculars spoken in different parts of India today. Thus the Marāṭhī is derived from Māhārāṣṭra Apabhraṃśa. The Gurjarāṭī, the Rājasthānī, a group of several dialects, the Panjābī and the Western Hindi, also a group of closely allied dialects, are to be traced to Śaurasena Apabhraṃśa; the Eastern Hindi, a group of dialects, to the Ardhamāgadhha Apabhraṃśa, and the Orijā, Bengālī, Bihārī, a group, and the Assamese to the Māgadhī Apabhraṃśa proper. The Sindī from the Vṛācaḍa and the Lahnda Kāsmīrī are probably derived from the Paisāca Apabhraṃśa. Besides these there are the Himalayan dialects, Garhwālī, Kumaonī and Nepāli, called by GRIERSON the Pahārī languages, by HOERNLE, the Northern Gaudian. Dr. BHANDARKAR appears to include them among dialects of the Hindi.

The question whether the Marāṭhī is to be derived from the Pāli¹ need not detain us here. The Phonology of the Marāṭhī has very close resemblance with the M. Apabhraṃśa or Dāksinātyya as it is called by later grammarians, e. g. Ap. कुम्भार (kumbhāra); Ap. कलाम (kaalam), Mar. केल (kel); Ap. का, गा (kaa, gaa), Mar. के (ke)(्लै)(वृक्ष), ने (ge)(ङ्कू)(लै); etc. No modern vernacular could today be directly traced to the Pāli, much less to Sanskrit.

¹ FRANKFURTER, Handbuch des Pāli, Introduction. This view is also held by others.
49. The topography of the Vernaculars and their sub-dialects:—It is not difficult to define geographically the modern vernaculars.

(a) The Marāṭhī is bounded on the south by the district of Canara, on the southeast and east by Telingaṇa (Hyderabad Deccan) and Chotanagpur, and on the north by the Vindhyā and Sātpurā ranges. Various sub-dialects are recognised by scholars, especially by Hoernle¹, who speaks of the Koṅkaṇi and Dakhaṇi and following Beames adds one more, that spoken in and about Kolhapur and Ratnāgiri. But these have not yet developed any considerable differences in phonology and inflection, to be classed as separate dialects. If at all, there is a difference only in pronunciation, the Koṅkaṇi showing a tendency towards wholesale nasalising. If they are recognised as dialects, we shall have to recognise various others, like the Kārvāri, the Goanese, the Mālavaṇī, the Sāvantvādi, the Chitpāvanī, the Sālsettī. Dr. Bhandarkar² mentions these and adds the Khāndeśī to the list; but he too agrees that these differ from the main language in unimportant particulars only. To add to these, there is the Poona or central dialect, which is becoming the Koṅvī (Koṅhē) of Mahārāstra, and the Berārī. The difference is mostly seen in the vocabulary, for in the Koṅkaṇi there is a strong mixture of Kanarese words, in the Berārī of Bhilī and slightly also of Telugu words, and in the Poona Marāṭhī of Persian words. In phonology too there is a slight difference, as already remarked; the Berārī, for instance, has a too open and rough pronunciation. Bhandarkar also mentions Khāndeśī, which Grierson³ puts down as a mongrel Gujarāṭī with a

1. Gaudian Languages, p. III.
2. Philological Lectures, p. 120.
strong admixture of Marāṭhī and Bhili words. It is, however, to be regarded as a mixed dialect, that develops on the border-land of two distinctly different languages of a large group. This is clearly shown by words and forms like मानुसे (mānusa-le), दोन (dona), बापले (bāpale), धाकला (dhākala), and दिदी (didi), पडनी (paḍanī), त्याले (tyāle), राजेश्वरी (rajkhusithi), भिलास (milasa), मरस (marasa), देख (dekhā); अंगमा (āngama), मोठा भाज (moṭha bhāzi), आजेव करी लागस (ārjava kari lāgas), मना पासेह (manā pāsatē), मेजवानी करस (mejavānī karas). The Gujarātī element becomes stronger in the western parts of Khandesh and the Berāri in the eastern-most part.

(b) The Gujarātī is bounded on the south and east by the Marāṭhī and Khāndeśi speaking districts, on the north by Mārwar and central India states speaking Rājasthānī and Western Hindi, and on the west by the Kacchi and the sea. The Gujarātī does not show any remarkable dialectal variations. Gujarāt is a fertile country and has therefore attracted immigrants from the most ancient times. We hear in the Mahābhārata of a Yādava immigration into Dvārakā; this must have happened about 1400 B.C. There were the Greek, the Mauryan and the Scythian invasions and settlements a few centuries before and after the beginning of the Christian era. In historical times, we have the Gurjarās¹ coming in through the Panjab, Rajputana and Malva into Gujarat to which they gave their name. The old name was Lāṭa and the language was known as Lāṭī.² Besides these, there are the Arabs, the Pārsis, and the Turks who found in Gujarat a welcome home. The Gujarātī language is thus a composite language having elements of the लाटी (lāṭī), Prākrit of Daṇḍin the Śauraṇeṇī Apabhramśa, and even foreign elements that it gathered from the language of the heterogeneous immigrants.

2. Kāvyādarśa I 35
P. 17
(c) The Gujarātī with the Mārwārī have sprung from one common dialect, called ‘Old Western Rājasthānī, by Tessitori\(^1\). Grierson in the Linguistic Survey has classed all the dialects of Rajputanā together under the name Rājasthānī, an invented name\(^2\) as he himself acknowledges. The dialects are Mārwārī, Jaipūrī, Mevātī, and Mālvī and one or two minor ones. Tessitori, however, thinks that the Mārwārī is more closely connected with the Gujarātī than with any of the others. He therefore classes it with the latter language and calls them the two developed forms of Old Western Rājasthānī; and leaves the others to be classed either under an unproved Old Eastern Rājasthānī or Old Western Hindī.

The Rajputāna dialects are surrounded on the west by Sindhi and Lahndā, on the north by Lahndā, Panjābī, on the east by Braj, Bundeli (dialects of Western Hindī) and on the south by Marāṭhī, Khāndesē and Gujarātī.

(d) The Panjābī is the language spoken in modern Panjāb, excepting the westernmost part along the banks of the Indus which is the place of the Lahndā. This latter, under the name of Multānī was classed amongst the dialects of the Panjābī by Hoernle and others, but it has proved to be an independent dialect, allied more with the Sindhi than with the Panjābī. The Panjābī has two well marked dialects, the standard language of Amritsar and the Mālvaī of the south eastern Panjāb.

(e) The Western Hindī is the name of a group of various dialects such as the Hindustānī, the Bāngarū, the Braj Bhākhā, the Kanaujī and Bundeli. Roughly speaking, part of eastern Panjāb, western half of the United Provinces, Bundelkhand, and part of Scindia’s territory

\(^1\) Ind. Ant. 43, p. 21.
touching the United Provinces and Bundelkhand is the region of these dialects. The Bundelkā runs also into the Central Provinces up to Chindwada—excluding Jubbalpore. The works of Sūradāsa, the well-known poet, the Satsai of Bihāri-lāla are written in the Braj dialect. The Braj and the Kanauji are not really very well distinguishable. The home of the Braj Bhākhā is naturally Mathura and the region round about it, reaching north to Bulandshahr in the west and Bareilley in the east, and extends southwards quite into the upper Gwalior state. The Western Hindī group has developed from the Śaurasena Apabhramśa, the most Sanskritised of all Prākrits, and what is also important, is situated in the ancient Madhya deśa, the cradle of Hindu Civilization.

(f) The Eastern Hindī is a group of dialects spoken over the eastern part of the United provinces, the central Provinces excluding Nagpur and its east, and west Chota Nagpur. The dialects are (1) Avadhī or Pūrbī as it is popularly called and spoken in the province of Audh as far south as Allahabad and Benares (2) the Bāghelī spoken in Rewah, and Gōṇḍavana, and (3) the Chattisgarhī spoken in part of Chota Nagpur and Bilāspur and Raipur districts of the Central Provinces.

Older scholars, including Bhandarkar, did not distinguish between the two great groups, but called them Hindī only, giving Braj, Pūrbī etc. as dialects of it. But later research has proved that what is popularly called Hindī is really divisible into two groups, which have sometimes less in common with each other than with Panjābī and Bihāri respectively. This is also in consonance with the division of the Prākrits, which are the parents of our modern vernaculars. A few examples will suffice to prove what is said above.

In the following comparison we shall take the Braj Bhāṣa to represent Western Hindī, and the Avadhī to represent Eastern Hindī. The pronunciation and vocabulary are less important in this connection than grammar.
(1) A very marked contrast is seen in the case suffixes or rather postpositions.

The Braj has कु, कौ, के, क (kū, kāu, ka, kē) for acc. and dat., whereas the Avadhī has क (kā) or क (kā). Braj. छोरेकु (choreku) to a son, Avadhī छोरेका (chorekā). Braj has न (nē) or न (na) showing agency, Avadhī has ऐ (se). Braj has for gen. के (ke) and की (kī), Avadhī has also के (kē), कर (kar) like the Bihārī and Bengālī. The Panjābī agrees with the Braj in having a न (nai) for agent. For the gen. it has a different suffix दा (dā).

The Braj shows ए (e) in the gen. form of the pronouns of the first and second persons, whereas Avadhī shows औ (o). Braj मेरो (mero), तेरो (terō), Avadhī मोर (mora). Here too there is agreement between the Braj and Panjābī on the one hand and the Avadhī and Bengālī on the other. e. g. Panj. मेरा (merā), तेरा (terā); Beng. मोर (mora), तोर (tora). The same distinction is observed in the case of the relative and demonstrative pronouns, only with the tables turned: i. e. here the Braj and Panjābī have औ (o), and the Avadhī and Bengālī have ए (e). e. g. Braj, Panj. औ (jo) or औ (jau), औ (so); Avadhī and Beng. जे (je), जे (se).

(2) This agreement of the Western Hindi with the Panjābī and others and of the Eastern Hindi with the Bengālī and others, is seen more markedly in conjugation.

The Braj has infinitive in अन्, तौ (an, nau); the Avadhī in ब (b). The Panjābī has infinitive in ं, ण (n, nā); the Bengālī in this case does not agree with the Avadhī; but the Maithili, a dialect of the Bihārī of the eastern group, does. e. g. देखवा (dekhava) to see.

As regards the past tense, the Eastern Hindi agrees with the Western Hindi only in the form of the base, i.e. the past. part., but it takes personal terminations like languages of the east. Here it does not agree with the eastern
languages in having a द (I) for the past form. e.g. Avadhī मध्य (māryaũ), Bihārī मध्य (māralō), Braj मध्य (mārā). In the future, there is a marked agreement with the eastern languages. e.g. Avadhī देखव (dekhava), करब (karaba), Beng. देखब (dekhaba), किरव (kariba); but Braj किरिहा (karihaũ) (where इ (iha) represents Sk. इ (isyā), मारिहा (mārihaũ). The Panjābī like Hindustānī, forms future with the help of a suffix गा (gā), किरगा (karuga), देखुगा (dekhūgā). The Braj, however, also shows a form देखिहा (dekhīhā) where the old future termination is still retained.

These few broad points are sufficient to show that the Western and Eastern Hindī must be classed as two distinct groups, having affinities and differences with each other, as they have with other groups.

(g) The Oṛiyā is spoken in the modern Orissa. It is also called Utkalī or Oṛi from the ancient name of the province. It is also the language of south Midnapore, southernmost corner of Bihar, a little portion of Chota Nagpur, Sambalpore, and the upper part of the Ganjam district. It has Bengālī and Bihārī on the north, Eastern Hindī on the west, the Telugu on the south and the sea on the east. It shows no dialectic variations worth mentioning.

(h) The Bengālī or Baṅgabhāṣā is the language of the lower Bengal province. But it is also spoken in a part of Chota Nagpur and the Assam valley. The Bengālī language shows two clear-cut dialects in the present day, the Sanskrit-ridden Bengālī of the educated classes and the genuine vernacular of the masses. About the former the Linguistic Survey¹ writes, ‘each decade it is becoming more a slave of Sanskrit than before’. The tendency is to discourage genuine Bengālī words in favour of highly

¹. Vol. V part p. 16.
Sanskritized expressions. There is, however, another and perhaps a better classification into (1) the central dialect of Calcutta and the region round about it, (2) the eastern dialects of Rangpur, Mymensingh, Dacca, Barisal, and (3) western dialect of Nadia and the twenty-four Parganas. There are sub-dialects of these with popular names like Khariaṭhār, Koch, Chākmā etc.

(i) The Bihārī is the name of a group of dialects spoken in Bihar. It has Eastern Hindī to its west, Eastern Hindī, Oṛiyā and Bengālī to its south and the Bengālī to its east. On the north it is bounded by Himalayan dialects Oudh and Fyzabad are just outside its limits on the west, but Benares and Mirzapur are within. It is spoken also in part of Chota Nagpur. There are three main dialects, the Maithilī, Māghai or Māgadhī and Bhojapurī. Of these Maithilī is the most important; it is spoken in Muzfarpur, Darbhanga, Camparan, Purnea and upper part of Bhāgalpur district. Its northern boundary is the lower Himalaya and southern roughly the river Ganges. Māgadhī is the dialect of the heart of old Bihar, being spoken in Patna, Gaya, and the Hazaribag districts. The Bhojapurī is the most westerly of the Bihārī dialects. Gorakhpur, Gazipur, Benares, Mirzapur, Chapra are the big towns in and round which it is spoken, besides also in some part of Chota Nagpur. There are sub-dialects¹ of these principal ones, with which we are not much concerned.

(k) The Assamese language belongs to the Indg. vernaculars and is spoken in the northernmost portion of Assam, in the valley of the Brahmaputrā river before it enters Bengal proper. There are two principal dialects, one in the east round Sivasāgar and other in the west.

(l) The Sindhi is spoken in the Sindh province, along both the banks of the lower Indus. It has to its west Balu-

¹. Cf. Grierson, Seven Grammars of the Bihārī Language, 1883.
chistan, to its north the district of Multan, to its east the Mārwāri speaking province of Rajputana and to the south the sea. Between it and the Gujārātī, there is the Kacchī, which is to be regarded as a mixed borderland dialect, partaking of the features of both. The Sindhī has borrowed freely from the Persian, as the population that speaks it is to a great extent Mussalmān. It has three main dialects, the Sirākī, the Lārī and the Thareli. The first is spoken in upper Sind, the second in lower Sind and the last in the desert of Thar. The Sindhī is the outcome of the Vṛācada Apabhramśa, as the Lahndā, which is closely allied to it, of the Paiśācī.

(m) The Lahndā is a language spoken in eastern Panjab along the banks of the upper Indus. It was called Multānī by other scholars and was classed amongst the dialects of the Panjābī. But this view has now been given up. The land of this language is where the ancient Kekayās had settled. The preservation of intervocalic ū (t), which in other dialects became ā (d) and was afterwards elided, is a special characteristic of the Paiśācī and it is seen also in the Lahndā, and partly in the Panjābī.

The dialects of the Lahndā are many. Pothwārī, Chībhālī, Tināolī, Ubhechī, Thallī, Khetrānī are the names of some of them. They have yet to be properly studied. Lahndā with the Sindhī, belongs according to GRIERSON* to the Outer Circle.¹

(n) Then there is the Khāsmīrī, spoken in Khāsmere a Paiśācī dialect² possessing considerable literature. It has

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* It is written in a script known as Arabic Sindhi which is a compromise between the Nāgari and the Urdu scripts. It has very large stock of Persian words though Aryan words are also found in plenty. Ed.
1. GRIERSON, Languages of India, p. 66.

*There are good authorities in whose opinion the Sindhi as a dialect is the nearest akin to Sanskrit, among modern Indian languages. Ed.
1. Languages of India p. 65.
2. GRIERSON, Manual of the Khāsmīrī Language, 1, 7.
shared the fate of Hindī, showing two dialects, a Hindī dialect full of Sanskrit loan words, and a Mohamedan dialect showing Persian and Arabic words in abundance.

(6) Lastly there are the Garhwālī, the Kumaonī and the Nepālī and other Himalayan languages, called by GRIERSON the Pahārī languages and by HOERNLE the Northern Gaudian. They are spoken in the lower Himalayan ranges from the Sutlej in the west to the Gogri in the east. Those who speak the western form of that group are called Khaṣas, the descendants of the Khaṣas figuring in the epic as foreigners together with Śabarās, Śakas and Yavanās. These languages have yet to be investigated.

50. THE AFFINITIES AND PROPOSED GROUPS OF VERNACULARS:—We have thus followed the development of the principal Prākrīts or Apabhraṃśas and given a general survey of the languages derived from them. Some of these show closer resemblances with one another than with others. It is on the strength of such resemblances that European scholars have distributed them into groups. Thus HOERNLE speaks of an Eastern Gaudian composed of Eastern Hindī, Bengālī and Oṛiyā and a Western Gaudian composed of Western Hindī, Panjābī, Gujarātī and Sindhi; to these he adds a Northern Gaudian consisting of Garhwālī, Kumaonī and Nepālī, and a Southern Gaudian consisting of the Marāṭhī only. It is to be noted that HOERNLE does not recognise Bihārī as a distinct group at all. He classes its dialects, e. g. Bhojapurī, amongst the dialects of the Eastern Hindī.

GRIERSON, of the Linguistic Survey fame, has planned his whole work on a different classification. He thus speaks of a central group formed by Western Hindī, Panjābī, Rājasthānī and Gujarātī, the Himalayan languages, a mediate group

1. Gaudian Languages p. III.
2. Op Cit pp. XIV to XVII, especially the last.
3. HOERNLE, op cit. XXXVI.
composed of Eastern Hindī only, an eastern group consisting of the Bihārī, Oṛiyā, Bengālī and Assamese languages, a southern group of the Marāṭhī only and a north-western group of the Sindhī, the Lahndā and the Kāśmīrī.

GRIERSON also refers to languages of the Outer Circle. By this he means the Lahndā, the Sindhī, the Marāṭhī, the Oṛiyā, the Bengālī, the Bihārī and the Assamese. These show certain characteristics in common, e. g. the ध्र (l) of the past participle and the past tense. e. g. Mar. उठिल (uṭhilā), Oṛiya उठिला (uṭhila), Beng. उठिल (uṭhila), Bihārī उठल (uṭhal), Assamese उठिल (uṭhil).

But in this respect it is always well to point out similarities and differences and not to be led into grouping and regrouping, which after all may be largely subjective and liable to be upset so soon as other facts come to light. If Marāṭhī agrees with the languages of the so-called Outer Circle, or eastern group in certain points, e. g. the ठ (la) above spoken of, the अ (a) of the strong masc. nouns, घोड़ा (ghoda), मला (bhalā), E. H. घोर (ghorā), मल (bhal), in pronunciation generally the Marāṭhī also agrees with languages of the central group. The pronunciation of the palatals in Mar. is similar to that in Kāśmīrī, Gujarātī and Rājasthānī of the central or western group. The distinction between व (v) and ब (b) is observed in the Marāṭhī, Gujarātī, Panjābī, and Sindhī, but not in the others. In possessing a व (v), Marāṭhī and Oṛiyā agree with Rājasthānī, Gujarātī and Panjābī only. Even inside the Marāṭhī itself there are dialects which show so-called eastern features as against others which show western peculiarities. Thus the Koṅkani nom. sing. of strong masc. nouns ends in ओ (o), e. g. गोरे (gore), चेव्यो (cevyo), and is thus in agreement with Gujarātī, Rājasthānī and others of the western or central group, as against the standard which shows आ (a), e. g. गौरा (gorā), मुल्ला (mulagā), and is in keeping with the eastern dialects.
Again if the Marāṭhī agrees with the eastern vernaculars in point of the nom. sing. in आ (a), it agrees with the western or rather central ones in respect of the nom. pl. Mar. घोडा (ghoḍā), E. H. घोरा (ghorā), a horse, but Mar. घोडे (ghoḍe), W. H. बेटे (bete), लरके (larake); as against E. H. लरका (larakā), or लरिका (larikā), sons; Guj. दीकरा (dīkarā), nom. pl. agrees with E. H. In the nom. sing. of relative and demonstrative pronouns, the Marāṭhī agrees with Western Hindi in having an ओ (o), ending. e. g. जो (jo), तो (to), (a) ओ (a) (ko-(na)); Braj जौ (jau), सौ (so), but E. H. जे (je), ते (te); Beng. जे (je), ए (e); Guj. agrees with the east, e. g. जे (je) and ते (te). The Marāṭhī agrees with Western Hindi in having a न (n) na (nē), infinitive; e. g. करण (karanē), देण (denē); Braj देनउं (dēnaū), देनउं (lenaū); but the Chattisgarhī also shows this न (na), infinitive, e. g. करन (karan), जान (jān), to do, to go. The Marāṭhī also shows infinitive in व (va), like the Gujarāṭī; old Mar. करवें (karaṇē) (-yālā), modern Mar. करवयाळ (karavayālā) Guj. करव (karav). The above will have made it sufficiently clear that the distribution of the vernaculars into allied groups is not as easy as it would seem at first sight. So many conflicting points of view are apt to crop up, that it will always be difficult to select some only as of first importance and neglect the others. It is none-the-less the linguist’s duty to point out all the resemblances and differences. Every such attempt, therefore, should be welcomed as a step forward in the proper understanding and study of the modern vernaculars.

51 Phonology of the Modern Vernaculars:—The modern vernaculars possess all the vowels except ॠ (ṝ), and ० (♭). Some of them have a short ए (e), and ओ (o), besides the diphthongal ए (e), and ओ (o). According to Hoernle, the Eastern Hindi has fourteen or fifteen vowels.
We have already met the short simple ए (e), and ओ (o), before conjuncts in the Prākrits. We shall only note changes in the vowels in the principal vernaculars.

_a. Changes in vowels:_—ॐ (a), before conjunct is lengthened and the conjunct simplified. This process had already begun in the Prākrits. But some times the conjunct remains. e.g. Mar. कातड़ (kātaḍē), Pr. कत्ति (katti), कत्ति: (kṛttīḥ); कान्हा (kānhaḥ), कण्ठो (kānho) Sk. क्रणः (kṛṣṇaḥ).

ॐ (a), is changed to इ (i), apparently owing to no cause. Avadhi चिन (chinu), Coll Mar. खिन khina—Sk. खन (kṣana).

इ (i), and उ (u), are changed to ए (e), and ओ (o), before conjuncts. This was already observed in the Prākrits; but in many of the vernaculars it has become universal. e.g. Mar. शेंदूर (śenḍūra), H. सेंदूर (seṇḍūra), Prākrit सिंदू (siṇḍūro), or सेंदूरे (seṇḍūro), Sk. सिन्दूर: (siṇḍūraḥ); पोथी (pothi) Mar. Guj. also पोथा (poṭhā), in H. and Panj., Prākrit पोथाम् (poṭthaaṃ), Sk. पुस्तकम् (pustakam), Mar. तोंद (toṇḍa), Prākrit तूंदम्, तोंदम् (tunḍam, toṇḍam), Sk. तूंदम् (tunḍam), Mar. घोश (ghosa), Pr. गोच्छ (goccha), Sk. गुच्छ (guccha). It is to be observed however that some vernaculars prefer to keep इ (i) and उ (u), e.g. Guj. and Beng. सिंदूर (siṇḍūra), Sindhi सिंधु (siṇḍhur), Beng. पुढ़ि-पुड़क (pudhi-pustkam), कुक्षि–कुक्षि (kukhi–kuki) O. मुक्कु (mukula)—Pr. मोक्कु–मुक्कु (mokka-mukta). The Prākrit ए (e), ओ (o), before conjuncts are short; wherein the vernaculars the conjuncts are simplified they become long.

इ (i) and उ (u) often become ए (e) ओ (o), although originally there is no conjunct in the word. Mar. मेहुना (mehuṇa)—Pr. मेहुन (mihuna)—Sk. मिहुन (mithuna), Guj. मोहुड़ (mohudū) Pr. मुह (muhā)—Sk. मुख (mukha); vul. Mar. भौय (bhoya)—standard Mar. भौ (bhui); Hindi नेवता (nevata)—Pr. निमंत्र (nimanta) Sk. निमन्त्र (nimantry).

इ (i) and ओ (o) are often shortened when the accent falls on the last syllable. Mar. किड (kidā)—Pr. कीडाओ (kipāo)—
Sk. किलक (kiḷakaḥ); Guj. कुव (kuvo)—Pr. कुव (kuvāo)—Sk. कुप (kiḷapaḷ); Hindi किल (kiḷa), Mai. किल (kiḷa)—Pr. किल (kiḷa)—Sk. किला (kiḷa). This is best seen in Mar. inflection, where, if the accent is thrown forward, the preceding long vowel becomes short. Mar. रित–रितीचें (rita–ritice), मुळ–मुल्ल (mūla–mulaśa), बिल–विल्ल (bila–bilśa).

ए (a) and ओ (̄o) also become ए (e), ओ (o). Mar. तांबोली (taṃbolī)—Sk. तांबूल (tāmbuḷa); O. भोक (bhoka)—Mar. भुक (bhūka); but more often आ (a) or आ (a). Hindi बभुत (babhūta)—Sk. भिभुती (vibhūti), Panj. निरक्षण (nirakhana)—Sk. निरिखण (nirikhana), G. लक्ष्यु (lakhva)—Sk. लिखु (likh), G. माणस (mānas)—Mar. माणस (mānisa)—Sk. मनुष्य (manusya), G. परशोतम–पुरुषोतम (parasottama–purusottama). This tendency is more wide-spread in the Guj. than in other vernaculars.

The vernaculars, like the Pāli and the Prākrits, have lost ए (ai) and ओ (au); in their place, as in the place of অ (a) and আ (a), they have the simple vowels ए (e), ओ (o). Mar. गेर (ger)—Sk. गैरिक (gairika), Mar. गेर (gor)—Sk. गैर (gaurāḥ), Hindi, Beng., Oriyā सोहाग–सौभाग (sohāga–saubhāga). मोली (molī) all dialects—Sk. मौक्तिक (mauṅtikām). In Mar. तेत्तिस–त्रयात्रिमसत (tettisa–trayastrimśat), ओळंबा–बलन्दक (oḷambā–avalambakah), the contraction is due to accent.

ए (ai) and ओ (au) that are seen in some words are due either to combination of ए (a), इ (i) and ओ (a), ओ (o) when the consonant between them is dropped, or to the influence of Sanskrit. e. g. Hindi भैस (bhaisa), Mar. म्हैस (mhaisa)—Sk. महिषि (mahiṣi), Hindi and Panj. मैता (maita), Mar. मैत (maita), a borrowed word—Sk. मलिन (malina); Mar. बैल (baila)—Pr. बैल (bailla)—Sk. बैलिवाण (balivarda), तैसा (taisa) most dialects—Apbh. तास (tāsa)—Pr. तादिस (tādisa)—Sk. ताद्रश (tādṛśa), Mar. चौथा (cauṭha)—Pr. चउध (cauṭha)—Sk. चउर (caurtha), O. बै (bau)—Ap. बै (bau)—Sk. बहू (vadhī), चौपुण्य (cungünî)—Sk. चउर्ण (caturguna). In words like नैन (nain)—Sk. नयन (nayana),
H. and P. धौला-धवल (dhautā-dhavala) they are due to अय (aya) and अव (ava).

Examples of assimilation are Mar. ऊस (ūsa), H. ऊख (ūkha)-Pr. ऊखच (ucchī)-Sk. ऊख (iksu), सेज (seja) and शेज (seja)-Pr. सेजा (sejā)-Sk. सेजा (sayā), मिरी (mirī)-Guj. मरच (maraci), Pr. मारियम (mariam)-Sk. मारिम् (maricam), H. इम्ली (imli)-Sk. अम्लिका (amlikā). Metathesis is seen in H. उंगली-अंगुली (ungali-aṅguli), Mar. हिरदा-हरितकी (hiradā-haritaki), H. अकेला-एकलक (aketā-ekallaka), H. बूंड-बिन्दु (būnda-bindu).

Bhandarrar draws attention to a sound-change which is due to accent. When the penultimate is accented, as is mostly the case in all vernaculars, the syllable under accent is lengthened and the final vowel is dropped. Mar. पद्दति (padhata-paddhati), कीर्ति-कीरति-कीर्तिं (kirta-kirata-kirti), रासराशि (rāsa-rāśi), मधातु (madha-madhū). Where the syllable is already long, it is uttered with a stress. This lengthening is accentuated in colloquial speech and we get words like पातल (patala) for standard पतल (patāla), वायन (vaṅgāla) for अंगन (omgala), जतन (jatāṇa) for जतन (jatana).

The shortening and elision of vowels in Guj. and Hindī, e. g. कुव (kuvo), ससुर (sasro), सीकु (sikū) etc., are also due to the shifting of the accent backwards. e. g. Mar. बैस ( baisa) from उवास (uvaisa).

Even initial vowels are elided under loss of accent; Mar. रान (raṇa)-Pr. रण (raṇa)-Sk. अरण्य (aranya); Mar. भितरी (bhitarī)-Sk. अभ्यंतर (abhyantaram), Mar. and Hindī राहत (rahatā)-Pr. अरहत्त (arahaṭṭa)-Sk. अरहात (arahaṭṭa). This change began in the Prākrit stage itself as forms like रण (raṇa) show, but had not become universal, e. g. अरहत (arahaṭṭa). Dropping at the end is seen in Mar. तेरा (terā), चौदा-चौदास (caudā-trayadasa) etc.

1. Philological Lectures, p. 152.
B. Consonantal changes:—After their emasculation in the Prākrits, the consonants do not appear to have suffered any further loss.

(a) Surds are often softened; e.g. Mar. साग्ग (sagaṭa)—Sk. सक (sakāla), Mar. बाग्ग (bagala)—Sk. बक (bakaḥ), Mar. काक्ग (kāgadā)—Sk. काक (kāka), cf. E. H. कागु (kāg), H. लोक (lok) — लोक (lōka), E. H. एगारह (egāraḥ), Guj. अगार (agyāra); Mar. त्वाद (nivaḍanē), E. H. निवाद (nivaḍai)—Pr. नवाद (navaṭtau)—Sk. निवादयति (nirvartayati); Mar. कवार (kavāra)—Pr. कवार (kavāra)—Sk. कवार (kavāra); Mar. घान (ghanē)—घानय (gahatayati); Sindhī, Panj. पञ्ज (paṇja)—Sk. पञ्ज (paṇca), Col. Mar. भी (pihē)—Sk. भी (pihām). It is to be remarked however that this softening had almost been completed in the Prākrits. Mar. भादव (bhādavā)—Pr. भादव (bhāddavaa)—Sk. भादप (bhādrapada); Mar. वाद (vāda)—Sk. वाद (vāpi).

य (y) and य (y) are softened into इ (i) and उ (u). Examples of the latter case are numerous. Mar. (अधोशी adōṣi) पडोशी (paḍoṣi)—Sk. प्रतি঵ी (prativē); P. जनेह (janeē), S. जनाह (janoē)—Sk. जनेव (jahā), Mar. भोव (bhōva)—Pr. भोव (bhāma)—Sk. भोव (bhāmara), Mar. सोप (sōpa)—Aph. सोप (savāmatta)—Sk. समर (samarpa), Mar. भुर (bhāra), Guj. बार (bāra) डार (dvāra).

अ (d) is softened into ए (e)—दादिम—दादिम (dālimba—dādima), पिलन—पिल (pilane—pī), गुल—गुल (gula—gula). The र (ra) of numerals from 11 to 18 is due to द (da) softened from द (da). Mar. बार (bāra), Guj. बार (bāra) डार (dvādaša).

न (n) becomes न (n) more generally than in the Prākrits. e.g. Mar. लुंब—लिंब (limba—nimba), Hindī लोक (loke)—Sk. निवा (nīvara), M. लुम (lavanē), H. लौक (launē)—M. नमन (namana), Mar. नागर—लाङ्ग (nāngara—lāngala).

र (r) and छ (ṭ) are interchangeable. Still the Hindi, especially E. H. and Braj. prefer र (r). Braj. धेरा (dhaurā), Col. Mas. धवला-धवल (dhavali-dhavala); सूञ्जरा (śuvarā), Mar. सूञ्जर (śuvala)-Sk. स्यामल: (syāmalḥ), Marāṭhi shows stray words like सूञ्जर (śuvarī) (but छेरी (śevarī) also)-Sk. शाल्मलि (śālmali).

स्त्र (ś) or छ (ṭ), original or derived, becomes ह (ḥ) in some vernaculars. In Marāṭhi this change is only seen in the word द्व (daśa) Mar. द्वा (dahā). The Hindi and Sindhī have preserved it only in numerals between ten and twenty. H. द्वार (gyāraha), तेरह (teraha), सोलह (solaha), S. कारहः (kārahāṁ), तेरह (terahāṁ), सोरहः (sorahāṁ). Guj. (param) द्वादश (dahāde), P. दिह (dihāṁ), Mar. however दिस (disa). The form दिह (dihā) is, however, found half a dozen times in the Jñānesvarī, Sindhī and Panj. prefer ह (ha). P. शहर (sahurā), S. सूहरो (sahuro)-Sk. श्वर (svahura).

Col. Guj. agrees with them in this preference. Guj. हमजे (hamaje), understand. Guj. समजे (samaje), हा, हुडः (hata, hāḍa), Mar. सत (sata), साे (sāde)-Sk. सत (saptā), सार्थम (sārdham).

मू (m) is changed to व (vam) in many vernaculars; this change already began in the Prākrit stage. e.g. Pr. भंवर (bhāmvara)-Sk. भ्रमर (bhramara). Mar. नाव-नाम (nāva-nāma), गाव-ग्राम (gāva-grāma), cf. S. नाव (nāv); Guj. गाम (gāma), H. गाम (gāma) are Sanskritisms or rather good तद्विव (tadbhava) words disturbed by तत्स (tatsama) again.

Some vernaculars show मू (m) for छ (v). e.g. Guj. ठाम (ṭhāma)-Mar ठाब (ṭhāva). Sindhī and Punj. मिनत (minnata), B. मिनति (minati)-Mar. विनति (vināinti), in verse विनति (vinati).

छ (ch) original or reduced in the Prākrits from छ (kṣ), त्सु (tsy), or त्स (ts), is further changed in Mar. to स (sa), e.g.
Mar. मासा (māsā), H. माछ (mācha) सत्स्य (matsya). Mar. ऊंड-उच्छ (ūsa-ucchā) Sk. श्चु (ikṣu), वास (ṛa) वच्छ-वत्स (vāsar-vaccha-vatśa), सान (sana) (vāra)-चाना-क्षाना; दोस-दोछ-मुछ (ghosā-gocha-guccha).

The aspirates, soft or hard, become unaspirated in most of the dialects. e. g. Mar. दिखा (sīkā)–Pr. तिखा (sikkha), Sk. शिख्र (sikṣ). But Hindi retains them. e. g. दिखना (likhanā), दिख (sikha), भिख (bhikha), हथा (hātha).

ख, य हृ (kh, gh, th, dh), and भ (bh) are reduced to ह (h). This change also is already Prākritic; so that we must recognise the Prākritis in some form or other as a stage between old Sanskrit and the modern vernaculars.

Col. Mar. मोहर (moharē), St. Mar. समर (samora), Guj. मोढ (modhū), Hindī मुख (muhā), Sk. सुख (mukha); Guj. Sindhī मेख (mehā), महु मैह (mahu-megha), माहर-मालवर-माट्रघ (māhara-māighara-mātrgrha) Hindī नीहर-नाइघर-नाटिघ (naihara-nāighara-nāttigra).


Mar. पहात-प्रभात (pahāta-prabhāta), Guj. वाल्हे-वह (vālko-vallabha), H. वहला-वहल-दुह (dulha-dullaha-durlabha) (another derivation, offered by BEAMES and BHANDARCAR1 is from उदुङक (udūkhaka), which is doubtful); cf. Old Mar. वाहूदुले (vāhādulē) which occurs a couple of times in the Jñānesvarī.*


* Further illustrations of the behaviour of ह (h) in Gujarāti deserve careful study: भें (bhenā) and घेले (ghelo). The change of h into a glottal stop is noticed in a number of words: (Pers. šahr Guj. šeher=city; Guj. leher=wave. Pers. zahr Guj. jher=poison. Sk. dvi + uhau Guj. beh, behu; Sk. megha Guj meh; Sk. vadhī Guj. vahu= (newly)wed. Sahāṇī=grown up) Ed.
For a detailed treatment of change of consonants see Bhandarkar² and Hoernle.³

Much need not be said regarding conjuncts. They already suffered a change in the Prākrits, being either assimilated or simplified. The modern vernaculars have carried on simplification further. Mar. काज (kāja)—Pr. कज्जा (kajja)—Sk. कर्य (kārya); Mar. हात (hāta), Guj. हाथ (hātha)—Pr. हथ (hatha)—Sk. (hastā), Coll. Mar. दीठ (dītha); Old. Mar. दीठि (dīṭhi)—Sk. दृष्टि (dṛṣṭi), Mar. चीज (vīja)—Pr. विज्ञान (vijjāna)—Sk. विद्युत्त (vidyut Mar. माथ (māthā), Guj. माथ (māṭhī) B. माथा—मस्तक (māthā— mastaka); Mar. शिरण (śīrāṇe), Panj. सिज्जाणा—स्वियति (sijjāna— svidyati), Mar. Sin. वाम्फ (vāmiha), O. B. वांश—विछ्या (vāmja— vāmdhyā); Mar. बुज्जाण (buṭjhāvanē), H. बुज्जाण—बुज्जाति (buṭjhana— buṭhyati) बाखाणण—बाक्ष्याण (vākhāṇanē—vyākhyāṇa).

Another way of avoiding conjuncts was by introducing a vowel between the components or स्वरभक्ति (svarabhakti). This as we have seen, has been in operation from the most ancient times. e. g. Col. Mar. वरीस (varīsa), Hindī वर्स—वर्ष (barasa— varśa); Panj. अग (aga), Beng. आगुन (āguna), Coll. Mar. आगीन—अभिम (āgīna—agni); शिलेक (siłoka), किस्हा (kilasa), नकेतर (nakhetara) are other examples. It is interesting to note that even foreign words are subjected to this process; e. g. पिलेग (pilega)—Eng. plague, सिलेट (silita)—Eng. slate, पलाटफारम (palāṭaphāram)—Eng. platform. वक्ख (vakhata)—Per. Arab. वेख (vakht), मुख—मुल्क (mulākha—mulk) etc.

Most of the conjuncts that have remained in the vernaculars are due to the influence of Sanskrit; some belong to foreign words; e. g. वक्तशीर, तक्तनशीन (vaktaśira, taktaṇašīna) etc. Some of them are adventitious; e. g. Hindī हन्स (hans) from Sk. हंस (hamsa), बंसी—बंश (bansi—vamśa) etc. and are due to the inability of properly pronouncing the अनुसारिक (anunāsika).

². op. cit p. 133 to 197.
³. op. cit. 31 to 45.
P. 18
52. Inflection:—It has been already observed that the modern vernaculars have passed into the analytic stage.* Thus they have lost the old Prākrit inflection and have adopted postpositions as substitutes for case terminations. e. g. Mar. लाटि (lāṭi), पाणि (pāṇi), ला (lā), col. Mar. प (pa) e. g. माध्यापाणि (māhyāpaṇi = majapaṇi), Guj. ने (nē), था (thā), नो (no), मा (mā) (from मध्यापाणि (madhyāpaṇi), Braj न (na), कू (kū) or कू (kaū), or के (ke), मे (mē), मै (maī), लाउ (laū) (cf. Mar. ला (lā), अवधि का (kā), से (se), केर (kera) or कर (kara), मे पर (mē para), Bengāli के (ke), रे (re), ते (te), अर (ar) or एर (er). etc. There is however some distinction. In some dialects, these postpositions are looked upon as almost part of the word, i. e. they are passing into the synthetic stage again; in others they are still regarded as quite distinct from the base to which they are added on.

The vernaculars, like the Pāli and Prākrits, have no dual.¹ In some there are three genders, but in others, like Eastern Hindi¹ and Bengāli only two; i. e. nouns in these latter are either masculine or feminine. In some vernaculars the plural is formed by adding a word meaning 'many or people'. e. g. Bengāli কুকুর সকল (kukkura, sakalā) dogs, Bihāri চকরালোক (chokarāloka). A trace of it is seen in Mar. दोघेजण, सर्वजण (doghejana, sarvajana).

There are no consonantal bases, most of them having dropped the final consonant or added an अ (a) to it. Some

* The Hindi is no exception to this progressive tendency of the modern Indian languages. This is observed also in what is, for the sake of convenience called Bazaar—Hindustani which is perhaps by "widest commonalty" expressed and understood to-day (1947) and whose area is growing very rapidly. In "Indo-Aryan and Hindi" Dr. S. K. Chattérji calls it the "ja-me-per-se-is-kis-mis-jis" language.

1. Rajwaude, Jñānesevarī Grammar, p. 20 says that the dual of nouns in अ (a) is found in Jñ. He adduces only one passage Jñ. 7 32, where it is highly doubtful, if not spurious.

bases in original ः (ी) have assumed an आ (ā) ending from the Sk. nom. of these bases; e. g. Mar. पिता—पितास (pītā—pītāsa), माता—मातेस (mātā—mātesa); some of them have an ु (u), Mar. माऊ (bhāu), जाव—जावास (jav—javāsa), जावेस (javēsa). So that there are really only vowel stems in आ, आ, इ, ई, उ, ऊ, (a, ā, i, ī, u, ū), and ए (e) etc.

(a) The modern vernaculars have preserved only some of the Apabhraṃśa case terminations. Thus the old Mar. has preserved the ँ (u) of the nom. sing., ए (e) and नें (nē) of the instr. sing., the Bihārī has preserved only the ए (e) termination; the Guj. has it without the nasal; e. g. Guj. चोकराए (chokarāe) by a boy; the instr. pl., the स (sa)² of the dative, which according to some is from स्त्र—स्थ (ssa—sya) of the genitive, हं (ī) of the loc. sing., from सी—स्मिन्न (sī—smin). Of the plurals, the Mar. has preserved the nom. pl. of neuters, कमले (kamale) from कमल (kamalai), the instr. pl. in देवी (devī), which is reduced from Apbh. ही (hi). The Sindhī and Panjābī have preserved the abl. द्वारा—स्मात (hmā—smāt) in आ (ā) and ओ (ō), the Hindī and Orīyā the loc. in ए (e).

These and the new terminations like Mar. ला (lā), लागी (lāgī), हुन (hūna) णत (āta), Guj. थी (thi), मा (mā), नें (nē), नो (nō), Braj. कू (kū), कूँ (kaû), सू (sū), Maithilī कृ (kē), and सो (sō), कर (kar), मा (mā), Beng. एर (ér), देर (der), दिगर (diger) etc. are added in the vernaculars, except in the Bengālī and Orīyā, to what is called the oblique from. This oblique form is nothing else than the old genitive.³

(b) The terminations that are not directly traceable to Apbh. or Prākrit are variously explained by scholars. Thus CALDWELL traces the क (ka) terminations in different vernaculars to Dravidian क (ku); this, as Dr. BHANDARKAR has

². According to BHANDARKAR, old Marāṭhī does not have this स (sa). Vide p. 204.
³. BHANDARKAR, op. cit. p. 234 and 241.
rightly pointed out, is absurd. The vernaculars, especially
the Marāṭhī, have drawn to some extent upon Dravidian voca-
bulary; but they have kept their grammar in tact. An isolated
borrowed form is a strange instance of linguistic borrowing,
even if granted for argument's sake. The other possible
derivation is from कृते (kṛte), but this leaves the anusvāra unexplained. Dr. BHANDARKAR\textsuperscript{1} traces them to the Apbh.
postposition केही (kehī). Thus तें (tē), ताइ (taī) etc. would
be traced to Apbh. तेही (tehī).

The Mar. ला (lā) of the dative is to be considered in con-

nexion with a similar postposition in the other vernaculars.
Cf. P. लै (lai), S. लाई (lāi), N. लाव (lāva) all meaning 'for'.
This has been connected with the root लग (lag); लागो-लाई-ला
(lāgo-lāi-lā). The ना (nā) of the plural is also to be con-
nected with ला (lā), the change being influenced by the prece-
ding anusvāra which in the vernaculars has come to be invari-
ably associated with the plurals. A subdialect of Mar. shows
त्यानत (tyānta) which is the intermediate step leading to त्याना
(tyānā). The idea that the ला (lā) is to be traced to Persian
र (rā) is as absurd as the Dravidian origin of the क (ka)
terminations above spoken of.

The Guj. नॊ (nō, ni, nu) are derived from the
Apbh. suffix तण (tana); the ने (ne) of the dative is also to be
traced to the same and is not to be regarded as due to लो (lo)\textsuperscript{3},
ला (lā). This latter change would be unaccountable in Gujarāṭi.

The abl. suffix is in Marāṭhī हुन (hūna) and सून (suṇa),
Old Mar. हुनिय (hūniyā). BHANDARKAR derives it from the

\begin{itemize}
\item[1.] Wilson Philological Lectures op. cit. 247. Otherwise BEAMES,
  Comparative Grammar II. p. 255.
\item[2.] RAJWĀDE, Jñānēśvarī Grammar p. 12 and 26. HOERNLE, Gaudian
  Grammar 244.
\item[3.] BEAMES, Comparative Grammar II. p. 260.
\end{itemize}
absolutive हृण (hoṇa) having become, but this is doubtful. European scholars think that it is due to the fusion of Apbh. forms हिन्तो-सुन्तो (hinīto-suṇīto), which themselves are composite forms made up by instr. and loc. terminations with the abl. तस (tas) added. It is perhaps to be traced to हु (hu) and हुम (hum) of Apbh. abl. sing. and pl. terminations, the anunāsika in the latter being responsible for the full nasal. This is still further reduced to जन (jīna) and जनिया (jāniyā), जौनिया (auṇiṇyā) of Jñānesvarī Marāṭhī. Maithilī सौ (saǔ), Braj. सो (so), सू (sū), Avadhī से (se), सेनी (senī) etc. to be traced to the Apbh. loc. शु (sum), which is also seen in Apbh. abl. शुतो (suṇīto). The Guj. थ (thi) Panj. थ, थ (thī, thō) are to be traced to Apbh. तह (tahī) with the aspiration thrown back.

The Mar. genitive is no real case. The suffix च (ca) makes of the noun a possessive adjective which agrees with the noun in gender, number and case. Thus Mar. has चा, ची (cā, cī) च (cē), Guj. नो, नी नु (no, nī nū), Sindhī जो, जी (jo, jī), W. Hindī का, की (kā, kī), Braj. की (kau), E. H. कर, कर (kara, kera), Panj. दा, दी (dā, dī), Beng. এক (ir, er), O. র (ra). The last to apparently do not change; and Sindhī, Hindī and Panjābī have two forms only as they have two genders only, the masc. and fem. The Maithilī shows a क (ka) e. g. पानिक (pānika) of water.

The Sk. and Apbh. origin of these is easily disposed of when it is pointed out that none of them is a real case suffix. The Marāṭhī च (ca) could not be traced to Pr. स्स (ssa). Sk. स्स (sya); besides it is phonetically impossible. Nor can it be derived from Hindī का, कर (kā, kera). The only likely derivations

1. Hoernle, op. cit. 221, Bhandarkar op. cit p. 256.
2. Hoernle, op. cit. 238 derives it in that way. His attempt to prove that अह्मेकायम्, तुह्मेकायम् are only other forms of अह्मकरे, तुह्मकरे (ahmekkāre, tuhmakkāre) has not in the east succeeded.
are (1) from the suffix ता (tya) which certain indeclinables take in Sanskrit; this would become क्र (cca) in Prakrit and simple च (ca) in Mar. and (2) from the suffix त्या (tya). Bhandarkar\(^1\) lends the weight of his authority to the former and Krishnashastri Chiplunkar, and Krishnashastri Godbole incline to the latter view. I am also inclined to side with the latter\(^2\). The त्या (tya) gives the Sindhi जो, जी (jo, ji). How the ज (ja) of इज्ज, इय (ijja, iya) came to be च (ca) will have to be investigated. The Guj. नी, नी, नू (nō, nī, nū) are to be derived from ताण (tāna) (Sk. त्वाण (tvana)?); the Old Guj. itself shows forms in ताण (tāna) e. g. चित्ताण (cittatāṇa) 'of the mind.' The suffixes कर, केर (kara, kera) and शर, एर (ir, er) are to be traced to Apbh. केरक, केरख (keraka, keraa) e. g. Mrchakataīka-पुल बाप्पकेरके उपाय (tuha bappakerake uyyāne)? In the latter case the क (ka) was softened into a vowel when it was no longer regarded as a postposition, but a suffix attached to words. It thus became medial and was, according to the well known Prakrit law, dropped. The other set of gen. suffixes क (kā), क्रू (kau) etc. are derived by Bhadarkar from क्रत (krta) through क्र (kaar). This same क्रत (krta) would in Sauraseni Apbh. become क्र (kada) and lose its क (ka) so soon as it ceased to be initial and thus give द, दी (da, dī) of the Panjāb. Hoernle\(^3\) derives it from root द (da). Beames's\(^4\) derivation from the present participle सन्त-सन्दो-हन्दो-दो (santa-sando-hando-do) is, to say the least, unthinkable.

The suffixes for the loc. are Mar. अंत (āṭa), Beng. and Panj. ते (te), Guj. माँ (mā), Braj. मे, मै (me, mai), also वे (pe) and लाँ (laū), Avadhī में (mē), Sindhi मे (me). These are not as tough to explain as were the gen. suffixes. अंत (āṭa)

1. Also Beames, Comparative Grammar II p. 289.
2. See supra p. 29. 30.
3. op. cit. 239.
4. op. cit. 291.
is from the Sk. adverb अन्त: (antaḥ); मां, मे, मै (mā, mē, māi) are from Sk. मध्ये (madhye) through Apbh. माहि-माइ-मै (mahi-mai-mai), or माई-मै (mai-maī); पै (paī) is from पाश्र्य (pāśra). We have पाश्र्य (pāśra) and Hindī and Guj. पास (pāse) used as postpositions. लौ (lau) has the same genesis as Mar. ल (la), Nepālī, Hindī लाई (laī).

(b) Adjectives follow nouns in gender, except in Oriyā and Bengālī where they change rarely, and in number and case also. But mostly they are used in what is called the oblique form; Mar. चांगल्या चोड्यास (cāṅgalīya ghodyāsa). The comparison is formed by words like अधिक, बहुत, क्षते, (adhika, bahota, sabase) and others. The Sk. ईयस (iyas), ईष (iṣṭa), are given up, and तर (tara) and तम (tama), are only used in what passes for classical style now-a-days.

(c) Much need not be said regarding pronouns. We shall only give the personal pronouns and their cases in the different vernaculars.

Mar.—मी, मला, मज्या, मज, माशा, माईंट; आझी, आझांस, आमचा, आमच्या, तू, तुला, तुज्या, तुज, तुला, तुम्थांत; तुली, तुझांस, तुमचा, तुमच्यांत. (mī, malā, majalā, maja, mājhā, majhātha, āhmī, āhmāsa, āmaca, āmacyāta, tū, tulā, tujalā, tuja, tujhā, tujhyāta, tuhmī, tuhmāsa, tumacā, tumacyāta)

Guj.—हु मने. मारे. हूंगी, मारेही. मारो. मारामां; अये, अमने, अमारो, अमाथ, अमारांमां etc.; तू, तने, तूघी-तारानी, तारो, तारामां-तुज्यांमां etc. तमे, तमने, तमारानी-तमाथ, तममां-तमारानी. (hū, mane, māre, hūthī, mārethi, māro, mārāma; ame, amane, amāro, amathi, amāramā, etc.; tū, tane, tūthi, tārāthi, tāro, tārāmā-tujamā etc. tame, tamane, tamārāthi-tamathī, tamamā-tamārāmā).

Braj—हूँ, मै, मोहि, मोइ; मेरह; हम, हमै, हमारी, हमारा; तू, तै, तोहि, तूहि, तेरी, तेरी; हुम, हुमै, हुमारी, हुमारा (haū, mai, mohi, mot, merau, ham, hamaī, hamārau, hamāryau, tu, taī, tohi, tūhi, tērau, teryau, tum, tuhmāi tuhmārau, tuhmāryau).
Maithili: मै (me मोहि, मोर हमार हम, सब; तोह, तोहार, तोह सब.
हम मा (mohi, mor (ham, sab, toha, tohar, toha
हम वह, topr, tora), sab).

Beng.:—মা, মোর, মোটে, (mai, mora, mote), মোরা, মোরের (morè, 
modera); তোহ, তোয়, তোরে (tuh, tor, tote); তোরা, তোয়ের 
(toṛa, todera),

Oriya.:—ସୁମ୍ୟ, ମୋଠ, (mû, mote), ମାରା-ମୋଠାର, (mârâ-mohârâ), ମୋଠା, 
(momâne), ମୋଠାକ, (momânka); ତୁ୨, ତୂରେ (tû, tote), ତୂରେ, ତୂରରେ 
(tor, tomâne), ତୂରାକ (tomânânka). There are 
also forms used in respectful language like ଆମଭୀ, ତୂମଭୀ 
(āmbe, tumbhe) etc.

Avadhī.:—मै, मोर (maï, mor); हम, हमार (ham, hamâr); तै or तु (taï 
or tû), तीर, हम (tor, tum) or तै (taï), तोहार, (tohâra), or तोहरे 
(tohare).

Sindhi.:—آو, ا (ǎer, ã), اسی (asî), तू (tû), and तवह (tavhâ), 
اہا, اکب, اکب, توان, میک, میک, مک, میک, 
mûjho, tûjho, avâjo, tavâjo).

These forms need no comment except that the Guj. and 
Braj. i.e. the Western Hindî, Panjâbî and Sindhi agree in 
deriving the first person from the Sk. base अहकम (ahakam), 
Mâ. हो (hage), and the rest viz. Marâthî, Eastern Hindî, 
Bihârî, Bengâlî and Oriyâ agree in having the base म (ma), 
which underlies the other cases in Sanskrit.

b. CONJUGATION:—It is in this respect that the verna-
culars have suffered great losses. Of tenses the old present 
only is preserved, but in a special sense and a new class of 
participial tenses is created. Of the moods imperative only is 
preserved. There are however the usual verbal derivatives.

The conjugational distinctions were already lost during the 
Prâkrit stage; but the additions that Sk. roots took in the 
various classes are seen in some bases in the vornaculars. e. g. 
Mar. विषि (bhišī)—Sk. विषि (vibhi), विषि (sijaṇā–svidya),
(a) The old present is preserved in most vernaculars

<table>
<thead>
<tr>
<th>Mar.</th>
<th>Apbh.</th>
</tr>
</thead>
<tbody>
<tr>
<td>हसें हसौ or हसू (hasē hasō or hasū)</td>
<td>हसुं हसाँ (for hasāmo)</td>
</tr>
<tr>
<td>हसस हसा (hasasa) हसां (सि) हसहु (hasahi hasahù) (si hasahu)</td>
<td></td>
</tr>
<tr>
<td>हसै हसत (hase hasata) हसइ हसां (हसति) (hasai hasahim–hasanti)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Guj.</th>
<th>H.</th>
<th>Benj.</th>
</tr>
</thead>
<tbody>
<tr>
<td>करह करिये (karū kariye)</td>
<td>करह करौ (karū karo)</td>
<td>कर हिर (kari)</td>
</tr>
<tr>
<td>करौ करो (kare karo)</td>
<td>करौ करौ (kare kare)</td>
<td>करिस कर (karis kara)</td>
</tr>
<tr>
<td>करै करे (kare kare)</td>
<td>करै करै (kare kare)</td>
<td>करै करैन (kare karena)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Or</th>
<th>S.</th>
<th>Panj.</th>
</tr>
</thead>
<tbody>
<tr>
<td>करई कर (karai karu)</td>
<td>हलं हलू (halā halā)</td>
<td>करा करय (karā karaya)</td>
</tr>
<tr>
<td>कर कर (karu kara)</td>
<td>हलू हलू (halē halo)</td>
<td>करे करौ (karē karo)</td>
</tr>
<tr>
<td>करई करन्तिक (karai karanti)</td>
<td>हलू हलनि (hale halani)</td>
<td>करे करण (kare karaya)</td>
</tr>
</tbody>
</table>

It will be seen that these forms are so transparent, that a glance at them will convince that they are an old inheritance preserved in these languages. In all cases the Apbh. हू (h) is dropped and the vowels combined. Some languages, like the Bengālī and Oriyā, have lost the nasal of the first person. Mar. Guj. and Hindī have lost the nasal in the third person. Marāthī second person sing. form हसस (hasasa) is not be traced to Apbh. हसहि (hasahi), but to be looked upon
as a Māhārāṣṭrī-ism, for we have हसस्य (hasasi) there like Sanskrit; Oriyā करन्द्रि (karantī) is also a borrowed form.

Of the old moods the imperative\(^1\) only is preserved. In Mar. for instance we have कह (karū) and कहें-कहें (karū-karo) for the first person, कर-कर (kara-kari) and करा (karā) for the second and करू, करू (karo, karota) for the third. The Bengālī and Oriyā have this mood; other languages have preserved the second person only. कह (karū) and करा (karā) are from करामु (karāmu), करामो (karāmo), the nasal having changed to an anunāsika. करू (kari) is regular Apbh. कर (karo) is from कर (kara), the अ (a) and उ (u) give ओ (o) in combination.

For Bengālī and Oriyā forms and their explanation see Bhandarkar\(^2\).

The Hindī, Gujarātī and Panjābī have क (kara) for the 2nd pers. sing. like Mar. and कर (karo) for the plural. This, it well be observed, is also the form for the present in these languages. Panj. ध (d) and Sindhī ह (h) and उ (u) follow Apbh. forms. The old Mar. forms in जो (jo) like अवधारिजो, दीजो, भोगिजे (avadhārijjo, dijo, bhogije) कीजे (kije) are from the pass. imperative and to be traced to अवधारिजकाई, दीजकाई, किजकाई (avadhārijkai, dijjkai, kijjai) etc.

(c) The old future is preserved wholly in languages like the Gujarātī and Hindī and partly in some others. Guj. करीजा, करिज (kariṣa, kariṣu); करेऽ, करेऽ (karaše, karaśo) and करेऽ, करेऽ (karaše, karaśe), old Guj. करिस (kariṣa) etc, show the characteristic यस्य (syā), यस्य (ssa) of the future. This same has become ह (ha) in the Braj\(^3\), where the forms are करिघो, करिघो (karihaũ, karihai); करिघ, करिघ (karihaṭ, kariho); करिघ, करिघ (karihai, karihai).

(d) The new present tense is formed in most vernaculars by taking the present participle as the base and adding

1. Bhandarkar Wilson Philological Lectures, p. 213
2. op. cit. p. 213.
3. Bhandarkar op. cit. 218, Hoernle op. cit 256.
terminations expressive of person and also gender. Mar. करतो (karaṭo), करते (karaṭe); करतोस (karaṭosa), करता (karaṭā); and करते (karaṭe), करतात (karaṭāta). The personal terminations are seen in the first pl., second singular and plural, which according to Dr. BHANDARKAR go back upon इत्या (iṭhā) of the Prākrits. In the others it had to make place for the termination of the adjective. The Hindi, Bengālī and Oriyā also have this sort of present, but it has acquired the sense of the habitual present, just as the old present has done in Marāṭhī.

(e) The past tense has the same story to tell. It is expressed in all modern vernaculars by the past participle with a few personal terminations. It is also an adjectival tense, Mar. केले (kelē), केलेस (kelēsa), केले (kelē) or गेले (gelē) गेलास (gelāsa), गेला (gelā) and गेले (gele) are clearly forms of the past participles के (ke) and गे (ge), Pr. काः (kaas) and गा (gaa) with a termination या (la), which now has acquired the past significance though it originally had none. For the genesis of this या (la) which is found besides in Bihārī; Bengālī, Oriyā, Assamese and Sindhi see supra. Pp. 24, 25.

The Bihārī and the Bengālī add to the या (la) what GRIBBON calls the enclitic pronoun, like the Marāṭhī. Thus Bhojapurī has मारते (māralo), मारतास (māralāsa), मारलास (mārālāsa) which correspond to the Mar. गेले (gelē), गेलास (gelāsa).

In the other languages the simple past participle serves as base of the tense. Guj लिधु (lidhū), किधु (kidhū) दिधु-खन्ध (dīdhū-labdaḥ), कुत (kṛta), दत (datta), गया-गाग (gaya-gaa-gata); Avadhī किन्हाँ (kinham) दिय (diye), मिल-कुत (mil-kṛta), दत (datta), मिलित-मिलिं (milita-milia). The Eastern Hindi differs from the others in adding to the participle the enclitic pronoun like the Bihārī and others.

(f) For the future the Mar. has a suffix न, या (na, la) which is added on to the old present forms. e.g. मी करीन

1. Linguistic Survey, 5. 5.
(mi karña), tū, karśīl (tūkaraśīla), tō karōl (to karīla), tuhi karal (tuhni karāla), te karśīl (te karatīla), ṛhmi karū (ṭhmi karū) is exactly like the old present. It seems that the old present did the function of the future also, but in order to avoid confusion a suffix was added to distinguish between the two. The Bengālī and Oṛiyā have taken the help of the potential participle in tavya (tavya), which when combined with the preceding root lost the medial t (ta) and gave by assimilation a vṛ, ṛṛ (vva, bba), e.g. Bengālī karī (kariba), karībe (karibe), karīben (kariben), Oṛiyā dekhibi (dekhibi), dekhibu (dekhibu), dekhib (dekhiba), Bihārī dekhā (dekhāba), dekhā (dekhabah) etc.

The Eastern Hindī is true to its character viz. of being a half Māgadhī idiom, and therefore shows forms like dekha-vu (dekha-vu), karāvu (karavu), dekhāba (dekhabasa) and dekhā, dekhā (dekhe, dekhihai) side by side. The Braj and the Panjabi have a future in gā (gā), e.g. kārū (karūgā), bōlū (bolūgā), and the Sindhi in dā (dā). These are generally added to the forms of the old present. This gā (gā) and dā (dā) are supposed to be participles1 of the past of roots gam (gam) and dā (dā).

(g) There are participles present past and potential; e.g. Mar. karītā, dhāvata (karita, dhāvata), Guj. karā (karata), Beng. karītā, dekhītā (karita, dekhita), Hindī karā (karata), Or. karānta (karanta) and S. mārīndo (marind). The last two only have preserved the nasal. Past part. are the same as in the Prākrits. H. gāyā (gayā), diya (diyā), Guj. īdī (īdhī). The Mar. has added one more ḍ (la) to the past part. in order to distinguish it from the past tense; ghetaleśe (ghetalele), and keleśe (kelele). Mar. karāvē (karavē), Guj. karāvu (karavū), Braj. karō (karavaū), S. karībo (karibo) are potential participles.

The absolutive is formed in various ways according to the genesis of the language. Thus the Mar. has kānā (karūna), deūna (deūna), Pr. kānu, dūna (kūna, dūna); Guj. has karīne

1, Bhandarkar op. cit. p. 271, Hoernle op. cit. p. 357.
(karīne), ḍraṭhe (daine) which are composite, either due to Apbh. evinu (evinu) or to Pr. ia (ia) and ū (nē) enclitic. Hindī has dekt (dekt), sukt (sunt), karī (karī) which are traceable to Pr. abs. ia (ia), karī (karī) is further shortened to kara (kara) and itself becomes a further abs. termination, e. g. sunakara (sunakara), jākara (jākara); Oṛiyā has ii (i) and Bengāli ii (i), iyā (iyā).

The Mar. only has preserved the infinitive of purpose. karen, boṭhe (karē, bolū) are to be traced to Pr. karīmū (karīmū) etc. from Sk. krtam (karum).

Verbal nouns are formed by various forms of anā (ana) which is both Sk. and Prākrit. Mar. karē (karanē), Hindī and Panj. karan (karanē), Sindhi karē (karanu), Bengāli and Oṛiyā karan (karana). Gujarāti has a verbal noun in ṃe-karat (vākara), ṃe (devē), ṃis (levē).

(h) The causal is formed in Mar. by adding i (iva), ab (ava) to root; karivē (karivanē), karivā (karivavā), laghavē (laghavā); Sindhi vānē, bhōānē (vānu, bhōānu). Hindī has nac ānā, padānā (nacānā, padhānā), also padvānā (padhavānā) and dilānā (dilānā), dilvānā (dilavānā); the two latter are evidently double causals. Beng. and Oṛiyā dekhō (dekhāi) etc. There are besides causals formed by strengthening the root vowel as in Sanskrit. मारण (māraṇē), तोफन (tofanē), फोटन (photonē) मरण (maranē), तुफन (tufanē), फूटन (phutōnē).

(g) The old passive is preserved only in Panjābī and Sindhi in forms like mārīe (mārie), māriava (māriava). This is from the Prakrit ia (ia) passive. There is also the ja (ja) passive in ṃi (pijanē). The old Marāṭhi shows a few old passive forms. The Jharāshtri has sāṅgijati (sāṅgijati), vādhijati (vādhijati), nāṣijala (nāṣijala), kījasī (kījasī). Old Hindī also shows a few of them e. g. puṭijit (puṭijat), cāhijat (cāhijat). The modern Marāṭhi has a periphrastic passive e. g. diḷe jāt (dile jātē), ṃeṭhe (ghetē) etc.
53. BEGINNING OF THE VERNACULARS:—The oldest Marāṭhī literature available is the Jñānesvarī and its date is Śaka 1212 i. e. A. D. 1290. Besides this there is inscriptive evidence also for the Marāṭhī. There is the Pātaṇ inscription of 1208 A. D. which contains some lines in Marāṭhī beginning with ‘इया पाटणी जे केणे उखटे तेहाचा’ (iya pāṭanī jē kenē ughaṭe tehācā) etc. There is another inscription, older still, found at Parel. It belongs to 1187 A. D. i. e. hundred years before the Jñānesvarī. It contains only about three lines beginning with ‘जो कोणि हुवि ए शासन कोणी तेम्य चेमनाभाची माळ सकुंदली आपडे’ (jo koni huvi e śāsana lopī tecyā vedyanāthācī bhāla sakuṃḍalī āpade) etc. This gives to the Marāṭhī a distinct un-Prākrit form in the twelfth century A. D. We can therefore safely put the beginning of Marāṭhī a couple of centuries back. The attempt of certain scholars to take Marāṭhī as far back as the 5th century is unsuccessful because it is not well grounded.

The other vernaculars are less fortunate in this respect than their sister. Thus the oldest work in Avadhi Hindī is that of Tulasidās, a poet of the 16th century. The Braj however possesses a work, the Prithvirāja Rasau of Chand Bardai who lived towards the close of the twelfth century. This also points to the same conclusion, that the Hindī, at least the Western Hindī, had a definite form by that time. Its beginning therefore can be placed a couple of centuries earlier.

Since the Marāṭhī, the southermost of all these vernaculars, is found in a distinct developed form so early, we presume that the others also must have developed about the same time. Early eleventh century, therefore, can be safely regarded as the beginning of the modern vernaculars.

1. Epigraphia Indica Vol. II.
3. RAJWADE, Jñānesvarī, introduction.
It is necessary here to refer to Dr. TESSITORI’s remarks in this connection. Speaking of the time of the final detachment of old Western Rājasthānī from the Apabhraṃśa, he fixes it at the thirteenth century\(^1\) or thereabouts. Old Western Rājasthānī is in plain words old Gujarātī. TESSITORI is rather over cautious. The Mugdha-vabodhamauktika is the oldest work in Gujarātī and it was according to him written in 1394 A. D. and in the completely developed form of the language. The prior date is supplied by the Prākrita-Piṅgala which by no means definitely, is assigned to, say, the 12th century. It is obvious that the work was written in Prākrit by way of fashion or habit and cannot be regarded as supplying the lower date of the Prākrit. For aught we know, the language in which it is written might have been some five centuries older than its author. Thus even the modest estimate of TESSITORI does not preclude our placing the beginnings of the vernaculars in the early eleventh century. The Nāgarāpracārīṇi Sabhā, it is said\(^2\), has discovered and published in its journal authentic documents in old Hindī belonging to the 10th century.

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2. Prof. H. R. DIVEKAR gave me this information orally. I have not yet got the original papers.
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APPENDIX I

INDO-ARYAN AND HITTITE

The greatest achievement of linguists of the past century was the scientific reconstruction of PRIMITIVE INDO-EUROPEAN in its phonology and inflexions. The sound of the human voice five thousand years ago was once again heard. PIE in Eurasia was the source of Sanskrit, Greek, Russian and the modern languages belonging to IE family.

The phonetic system contained \( a e i o u \) short and long, diphthongs formed by combinations of any two from these, short and long, and short \( y \), and \( i \) and \( ï \). The consonants contained the labials \( p, ph, b, bh, m \); the dentals or alveolars \( t, th, d, dh, n \); the palatais \( k, kh, g, gh, ñ \); the velars \( q, qh, g, gh, ñ \); the labialized velars \( q^u, qh^u, g^u, gh^u, ñ^u \); the liquid or syllabic \( r \) and \( l \) and the sibilant \( s \) with \( z \) as a modification. There was a total lack of spirants except in the solitary \( s \) (\( z \)). Some scholars hold that \( x, γ, θ, δ, z \) were also known.

IE morphology and declension were also generally discovered to be parallel to the Vedic.

The Twentieth century began with further discoveries of new linguistic material in Asia Minor belonging to the middle of the second millennium B.C. They are as follows:

(i) In 1902, a study of the two letters of the Pharaoh of Egypt, Amenhetep II to King Arzawa in Asia Minor, by J. A. Knudtzon revealed the Indo-European character of the language.

(ii) In 1907, Hugo Winckler discovered a whole literature in HITTITE language written in cuneiform manner of writing on 10,000 clay tablets in the Turkish village of Boghazköe which is the site of the ancient Hittite capital of
Hatusas. They are Royal Archives of the Chatti Empire containing the treaty records with the Mittani people. This proved to be a "veritable embarrassment de rechesse to the learned world". MEYER identified the names of Vedic Gods in the records.

(iii) In 1916, the Czechoslovakian scholar F. HRONZY was able to demonstrate the Indo-European character of the Hittite language. MARSTANDER gave a full sketch of the language in 1922 from Christina and STURETEVANT’S Comparative Grammar of Hittite came in 1933. Since then American scholars have traversed much additional ground.

Reconstructed IE explained all the IE languages. Hittite revealed itself as an IE language, but did not fit in with the other IE languages. Scholars therefore supposed that Hittite was an earlier branching off from a common source. STURETEVANT and other Hittitologists now take the position that Hittite is not a descendent of IE like Sanskrit or Gothic or Greek, but it is rather a sister of IE. Hittite on this view is the aunt or elder cousin of ancient IE languages like Sanskrit Greek and Latin. They put forward INDO-HITTITE as the common source of PIE and H. The relationship is best shown by the following table:

```
PRIMITIVE INDO-HITTITE (PIH)

I

PRE-INDO EUROPEAN (PIE)

<table>
<thead>
<tr>
<th>PRE-HITTITE(PH)</th>
<th>INDO-EUROPEAN (IE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HITTITE (H)</td>
<td></td>
</tr>
</tbody>
</table>
```

SANSKRIT GREEK LATIN

This hypothesis is not yet universally accepted, by scholars but, it must also be remembered that no alternative explanation
is yet put forward to the Pre-Hittite. Once the relation is firmly established, it will doubtless help us in solving many problems arising in the historical study of the Vedas and the IE culture in the Middle-East.

DESCRIPTION OF THE HITTITE WRITING:

In the Old Testament, the Hittites are called the children of Heth. The land of the Hittites is mentioned in the Old Testament throughout as a land flowing with milk and honey (Exodus). Father Abraham purchased a field in which there was a cave, from Ephron, the Hittite, and his wife Sarah was buried there (circa 1872 B.C.). They are referred to as archers on horseback; and Ezekiel, the Prophet, tells Jerusalem: “Thy father was an Amorite and thy mother an Hittite”. The great Hatti raid that broke the First Babylonian Dynasty took place about 1800 B.C. Three centuries later, Western Asia Minor was the Homeland of these Hittites (1500 B.C.). They are the name of several peoples mentioned in Old Egyptian and Assyrian inscriptions. They seem to have inhabited Palestine before the Hebrews, according to the Encyclopaedia Americana (1945). Solomon was eager to form alliances with these people who had a kingdom, in his days, in North-Eastern Syria. The Egyptian and Assyrian hieroglyphic inscriptions and records give the following information: The Heta offered a vigorous resistance in North Syria to the Egyptian King Thutmosis III, (circa 1560 B.C.), and to his successors of the 19th dynasty, Sethos I and Rameses I and III, (circa 1200 B.C.) Hatti of the cuneiform inscriptions frequently fought with the Assyrians from 1100 B.C to 700 B.C. after which they are heard no more. Thus this Ancient Oriental people were the rivals of the ancient Egyptians and the Assyro-Babylonians in the game of welt-politik. They overthrew the first Babylonian dynasty, coming as they did from the Taurus mountains in Asia Minor. The assumption that the Hittites were also called the Hyksos who were the
Shepherd kings and who seized the throne of Egypt (1800 B.C.) is not seriously challenged.

The Boghas-Köi Documents

These are Royal Archives containing treaty records (dating about 1400 B.C.) of the Mitanni people. They were, as is stated above, unearthed by the Berlin Assyriologist, Hugo Winckler at 145 Km. east of Angora. The Babylonian language and script were used in diplomacy in ancient international affairs. It was a kind of ancient oriental French. But the Hittite archives are in Hittite language, written in Babylonian cuneiform writing and at places take the aid of the hieroglyphic mode of the Egyptians.

Frederic Hrozný

The romance of this linguistic discovery centres round the figure of Professor Frederic HROZNY. HROZNY got a clue to the Indo-European character of the Hittite language from the discovery of a Hittite present participle ending in-anza in the Nom. sg. masculine and having -ant and -and in other cases. (cp. Latin ferens, ferentis Gr. pherón, pherontos). He also compared case endings of Hittite nouns and found counterparts more or less precise for them in IE languages:—

Hitt  khoaman-za = all. IE  Lat.
Nom. khoanza           s     ferens
Gen. khumandash        sya    ferentis

Hittite 'attach' Father, has for its acc. attan (cp. Sk. rāmān).

The Hittite word for water is vadār. HROZNY'S most important clue is supplied by the declension of this word. He found the word in the Hittite sentence:

nu ninda-an ezzaṭteni, vadār-max-ekuttēni.

Now here the meaning of the Sumero-Babylonian ideogram ninda, (bread) was known. Nind-an was therefore clearly interpreted as acc. sg. of a word for bread. Bread is to be
eaten, and thus *ezza clearly means 'to eat.' So also *ad, *adanzi (they eat, in other places). Compare Latin *edo OHG *ezzan and E. *edible, Sk. *ad, to eat. Other passages showed that-*teni is the ending of the 2nd pers. sg. Now HROZNY naturally thought that after eating bread the Hittites were in the habit of drinking water. And H. vadar gives rise to a surprising comparison with Eng. water O. Saxon water. The Oxford Dictionary gives the following sources for the modern English water:—OE wætær G. wasser Gk. hudor; L unda, wave; with which I suggest a further comparison of Sk. udn, samudra and *adbhyah.

The remaining part of the Hittite sentence is ekutteni. Here the stem is clearly *eku, drink, compare Latin *aqua. The whole sentence paraphrased in current INDO-EUROPEAN would run as follows:

*Now (nu) you eat bread; further you drink water.* In Hittite vadar is declined as follows:

<table>
<thead>
<tr>
<th>sg.</th>
<th>Dat. loc.</th>
<th>Abl.</th>
<th>Gen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nom. vadar</td>
<td>vedeni</td>
<td>vednaz</td>
<td>vadenash</td>
</tr>
<tr>
<td>Acc. vadar</td>
<td></td>
<td></td>
<td>(cp. \text{Lat. femur, feminis})</td>
</tr>
<tr>
<td>Instr. vedenit</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*eku, ekuzi, he drinks, cp. Tocharian ma jokalle = one should not drink.*

**Pronouns**

Professor HORIZNY also established resemblances between the Hittite system of pronouns and the Indo-European pronouns:

<table>
<thead>
<tr>
<th>Hittite</th>
<th>Latin</th>
<th>Greek</th>
<th>Germ.</th>
<th>Dutch</th>
<th>Gothic</th>
<th>Sanskrit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st person</td>
<td>(uga = &quot;I&quot;)</td>
<td>ego</td>
<td>(\varepsilon)</td>
<td><em>ich</em></td>
<td><em>ik</em></td>
<td>aham (\text{OED})</td>
</tr>
</tbody>
</table>

sg. *amugga"to me" emege

* cp. IA. and Mar. amuk and tamuk and Sindhi mokhe and tskhe.
2nd per- son  zig, ziga = "thou ſezē
Sindhi thuk tokhe
1st plu vesh = we wir weis vayam (OED)

\( kash = \) this Oscan ekas
Sah
shash = he

\( Kuid = \) Lat. quid
Vedic. Kad

Kuvabikki Lat. ubique

The Hittite verb was also proved to have resemblances with Indo-European verb-declensions: I give an example from Prof. HROZNY's tables—

<table>
<thead>
<tr>
<th>Hittite</th>
<th>Skr.</th>
<th>Gr</th>
<th>Common inflexion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Pers. Jami = I make</td>
<td>Yami = I go</td>
<td>tithemi</td>
<td>mi</td>
</tr>
<tr>
<td>2nd Pers. jashi</td>
<td>yasi</td>
<td>tithes</td>
<td>s, si,</td>
</tr>
<tr>
<td>3rd Pers. jazi, plu janzi yati, plu. yanti tithensi</td>
<td>zi, ti</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The imperative in \( u, tu \), is also found in Hittite as in Indo, Irāpian: berot-\( u \). The medio-passive form has frequently an \( r \) ending, resembling similar forms in Latin, Indo-Celtic and Tocharish. The 2nd person plural \( jadduma \) resembles Sanskrit \( aharadhvam \) and Old Avestic \( mazdazdum \). The Hittite had verb stems in – shk and – nu; eg.

\( dashk-ishi = \) thou takest  cp. L. posco.

\( arnu-mi \) = I send for.

From this correspondence, these similarities of grammar and structure Prof. HROZNY reported to the German Oriental Society in 1915 (No. 56), that HITTITE was an INDO-EUROPEAN tongue. His Hittite Grammar was compiled and published in 1916. He showed from the Hittite treatment of the gutturals that it has a greater affinity towards the WEST INDO-EUROPEAN
Languages of the so-called *kentum* group rather than towards  
the Indo-Iranian group of Indo-European.

From this simple treatment of this subject which would  
be easily grasped by the popular imagination, let us now turn  
to the more scientific aspect of our study.

We gather from Sturtevant's *Comparative Grammar of Hittite* (1933)  
that the museums of Stamboul and Berlin  
divide the clay tablets of Boghasköi. The literature in Hittite  
found so far is considerable, and contains a *Treatise on Horsemanship*  
and on how to tame and train a wild horse. The Treatise is in the Indic Court Language of Mitanni.

When we want to compare a new or old but unknown  
language and state its relationship with a language that is  
known to us already, we are required to refer to the following  
elements: Phonology, Declension of Nouns and Adjectives,  
the system of pronouns, the conjugation of verbs and morpho-  
ology. In the following pages, we shall compare these elements  
of the Hittite language with those of the Indo-European.  
This will enable us to realise its Indo-European character.  
I am indebted, in this brief resumé of the subject, to Dr. S. K.  
Chatterji's lucid account of Hittite in the *Indian Culture*,  
Calcutta, Vol. VIII No. 4, where we have an authoritative and  
and recent summary of the position from the pen of the Doyen  
of Indian linguists. I have also drawn upon Sturtevant's *Comparative Grammar of Hittite* (1933) wherever necessary.

**Vowels**

The Hittite has the vowels that Indo-European has.  
Thus there are the following vowels: *a e i o u* long and short;  
and there are diphthongs both long and short as in IE. But  
the following variations are to be noted. The whole position  
regarding the vowel system may be summarized as follows:—  
P. 20
(i) a remains unchanged in Hittite: Hit harkis = white or bright Sk. arjunas Gk. argos; Hit saklais = low L. sacer = sacred OE. seht = treaty.

(ii) ą remains in Hittite. Hit. tyezi = steals, Sk. (s) tays = thief. Hit arha Sk. ärät = away. H. mema say, Gk. memnaimi.

(iii) e remains, except before r + consonant: H. esmi, eszt, Lith. esmi, esti (i) = am, is. H. eshar, Sk. asrk blood. H. hwekzi Sk. vakti.

H. esmi, Sk. asmi, Lith esmi = am, L est = is ; H. eszi, Sk. asti, (inter −) est ; H. eshar, Sk. asrk ; H. hwezi, Sk. vakti ; H. hweszi = lives, Sk. vasati ; wisan = dwell OE wesan = be Mod. Eng. was ; H. Kwenzi = kills, Sk. hanti ; Ch. sl. zena = drive ; H. neya = lead, Sk. nayati, Av. nayeiti = leads ;

H nepes, Sk. nabhas Gr. nephos Lat. nebula IE, Ch. sl. nebo, sky. H wekzi, Sk. vašti asks, desires, wishes; H trepzi Sk. trapate ploughs, is embarrassed; H septamas, Sk. saptamas; H seszi, Sk. sasti = sleeps.

**Ablaut**

The **HITTITE** vowel system is a simplification of the Indo-Hittite vowel system, (Indo-Hittite = IH hereafter in the article). The change of vowels is therefore not easily perceived, and seems to be obliterated. This should not, however, lead us to assume that the ablaut distinctions do not occur in HITTITE. IH *ertori* (from er to move) gives ore, vreuti in IH but yields artari, ari and arnuzi respectively in HITTITE. But ablaut is seen in the plural of these words: erteni and erwen. IH diphthongs eu, ou, ă and u = Hittite u; ablaut being possible only in the long diphthongs or when followed by a vowel. The most important ablaut variations are:

- ęser = "be" eszi asanza
- ęter = "eat" etmi atanzi
- pęskęz = pęskanz
nai = "lead" nais neyanzi, nest
westen = "clothe" wasanzi usiyanzi
ekuzi = "drink" awkwanzi

PRONOUNS

HITTITE has four fully declined pronouns: uk = L. ego, zek = L. tu, wes, G. wir, L. nos Sk. nah, and sumes, L. vos, Sk. yushmed.

Pronouns occur in all texts in prepositional phrases: Kateme = 'with me'; starnesme = 'among them'.

HITTITE preserves only a minority of case systems for pronouns found in IE. It would seem that IE started the process of completion of the case system after its bifurcation from PRIM-INDO-HITTITE.

The personal pronouns in Hittite are:—H uk, Eng. I; H. wes Eng. we G. wir. H amuk, me; anz as us H zek, Eng. you; H tuk Eng. to you; H anz el = us, Sk. asmat

An example of the declension of the first personal pron. uk = I would be interesting:—

Nom: uk sg. amuk pl. (cp. M. amuk); Acc: amuk; gen: omel; dat: amuk; Abl: ametaz.

Hittite seems to be deficient in plural noun declension. They had a general plural case humandaz = all.

Hittite — as = "is" contains the pronominal stem which is found in Sk asya. Similarly, STURTEVANT has proved that Sk tasmin comes from INDO-HITTITE to-smi.

REDUPLICATION

Reduplication is fairly common in Hittite, and it belongs to nouns as well as verbs: H kwis-kuris = L quis-quis. H. awkawkas, = frog, is imitative, perhaps. For Karsikarsiyaz, 'in very truth' cp. M. Kharokharac or Guj Kharekharaj; tutumes, become deaf; Kuskuszi, he mixes cf. Mar. kuskar;

**verbs**

The behaviour of verbs in Hittite shows many points of contact with their behaviour in IE (a) — They admit of prefixes like *apa, awan, kata,* and *peran* whose general similarity to IE prefixes is obvious. The following Hittite sentence explains this clearly:

*Kururimu peran kata nata kwapiki tarnas.*

She did not at any time surrender me to my enemy. The H. prefix *pa* corresponds to Sk. *abhi* Lat. *amb* e. g. H. *pe-hutezi* = bring.

**reduplication**

(b) Reduplication occurs in H as in IE and gives us the intensive of the verb stem: *kat-kat-enu* = bathe; *lah-lah-inu* = cause to fight (cp Hindi *larhna* = fight). Other examples of reduplication are *papars* = sprinkle, Sk. *vavarsa*, Czech *preste* = rain; H. *titiya* = assign Sk. *tisthati* from *stha*.

**mood and tenses**

(c) There are two moods and two tenses in Hittite (Present future and preterite and the indicative and imperative). There are two Infinitives of which one is active; the other is weak or intransitive. There is also a participle and a supine in *tai*.

(d) Further, there is a causal or causative. (e) an iterative-durative (f) the perfect and (g) two more tenses with the auxiliary *hark* = have. (h) There is also a medio-passive which appears to be equivalent to the active.

Thus the semantic system is very simple. But the variety of forms brings in complications. Conjugations in the main,
are two: (a) *mi* and *hi*. The one (a) corresponds to the IE present and aorist systems and the other (b) to the IE perfect system.

The Hittite verb is more archaic than the IE verbs. Nonthematic root verbs are more frequent in IH than in IE.

The Hittite verb has two numbers only and many times a singular verb is used after a plural subject. Here the mathematical agreement between the numbers of the subject and predicate found in IA is conspicuous by its absence. Compare behaviour of verb in IE which seems to be different from that in IA.

The familiar three persons of the IE are present in Hittite.

Hittite first person plural is *meni* after *u* sound and *weni* after any other sound. Compare Sk. *vahi* and *mahi*. *weni* and *meni* are *was* and *mas* transformed by the influence of 2nd person plural *teni* which corresponds to Vedic *than*.

Third person plural of the present is *anzi* in Hittite. Compare IA *anti* — *onti* and — *nti*.

**Preterite**

(a) Preterite first singular of *mi* conj. ends in *un* for consonant stems and *mun* for vowel stems: e.g. *Kwenuun* = I slew Sk. *ahanam*. (b) 2nd pers. sg. ends in *s* e.g. *taskes* = you took. (c) 3rd pers. sg. always ends in *t* e.g. *henkt* = he determined. (d) Plurals are *wen*, *ten*, *er*; the singulars being *un*, *s*, *t*.

**Imperative**

*lu*, and *alu* are the terminations of the 1st person; e.g *peskelu* "I shall give", *memalu* "I shall say".

The 2nd person does not have any termination as frequently in IE and Sk. parsmaipada e.g. *nenk* = rise.
There is some connection between H \( t \) and IE \( dhi \). Rgvedic verbs take \( hi \) or \( dhi \) in 75 per cent cases. So H. \( i = \) to go, \( it go, you. arnut = \) bring you.

The 3rd person is easily recognized as IE. 3rd person in \( tu \) and the plural is \( antu \) as in IE. e.g. H \( aktu, saktu, talestu \). plural \( kunantu = \) Sk. \( ghnantu = \) Let them kill.

Here we have \( et \) to eat declined:

<table>
<thead>
<tr>
<th>Present singular Sk.</th>
<th>Pr. plural sk.</th>
<th>Pret.</th>
</tr>
</thead>
<tbody>
<tr>
<td>( etmi )</td>
<td>( atweni )</td>
<td>( wahi mazt )</td>
</tr>
<tr>
<td>( mazti )</td>
<td>( azteni )</td>
<td></td>
</tr>
<tr>
<td>( ezzi )</td>
<td>( atanzi )</td>
<td>( ante ezt )</td>
</tr>
</tbody>
</table>

Imp. sg. \( et \), Sk. 2nd person sg. of Imp. termination is \( nil \) Present participle \( atanz. (Sk-an, and OE pr. p. in-an Mod. Eng -ing) \).

Verbal nouns are formed with the participal suffix \( nt \) corresponding to Lat. \( tus. \) Infinitives end in \( wanzi, manzi. \) Also, genitives of verbal nouns in \( war \) and \( mar \) are used as adnominal infinitives.

Thus, the HITTITE verbal system is simple, whereas the IE verbal system, with its moods and tenses is complex. IE has many innovations like the simple and the periphrastic future and the system of aorists.

That the Hittite is an archaic language is proved by its (1) retention of \( h \) (2) distribution of \( m, n \), (3) retention of \( tst \) dental (4) the presence of \( ku \) instead of a labial (5) by the absence of the feminine gender (6) the frequency of non-thematic root verbs (7) by the simple and oblique pronominal declensions (8) by the presence of nouns in syllabic \( r \) \( n \) and (9) its ablative in \( ts \).

There are lexical archaisms e.g. H \( nekuz \) IE \( nokt. \) H \( eszi \) he sits, \( esa, esari; \) Skt. \( âste \) Gr. \( hēsta\), he sits.
APPENDIX I

PHONETIC CHANGES

(1) INDO-HITTITE $h$ is lost in INDO-EUROPEAN. (2) $k$, $kh$, $g$, $gh$. are palatalized.

Some remarkable words and forms establishing similarity or agreement of phonology and morphology are given below:—

H. e-ku-zī = he drinks. I.E. L aqua;
H. kuranzi = they cut off, I.E. L cultus
H. nekumanza = naked, \[
\begin{align*}
\text{IE. Gk. gunnos Sk. nagna;} \\
\text{IE. L. noktes Sk. naktam,} \\
\text{Gk. gunnos;}
\end{align*}
\]
H. nekuz bed taim, \[
\begin{align*}
\text{IE. Sk. ghnanti;}
\end{align*}
\]
H. nekuzi "undresses, i.e. 
    goes to bed,"
H. nekutat 'it was bed time'
H. kunanzi = they strike,
H. tekusami = I show,
H. hwek = conjure, Lat. vox

\[
\begin{align*}
\text{Sk. vakti-uktah; Gr. epos} \\
\text{I.E}
\end{align*}
\]

H. kwrezi = cut off flesh. Sk. krurah – kravis raw
    Gk. krepas.

Ind–Euro. $h$, $g$, $gh$, $kh$ = H. $k$, simple and lean.

H. kemanz Sk. hemanta Gk. cheima Lat. heims Czecho-slav zima
H. krap Sk. grabh Eng. grab;
H. laki Ch-slav. lezati, Eng. lazy;
H. talukaes (pl. da-lu-ga-e-es), long, Sk. deergha Gk. dolichos;
H. parkus Sk. brhant Av. berezent;
H. teepu = small, Ved. dabhra;
H. ueikzi = Sk. vashiti, asks, desires. Eng. ask;
H. taswanz = blind Ved. tamisra, tamas; Lat. tenebrae;
H. akukalet = water-pourer, pitcher; Sk. galati, drips, kalaśa; Eng. chalice;
H. mehur = point of time, Sk. mjuhuh, muhūrta Mar. mahorat;
H. pankus = all, whole, populace; Sk. bahus Gk. pachus = thick;
H. palhis = broad; palhan a kind of dish; Sk. prthu;
H. arsaniya = envy Sk. īrśyā Av. ardśyant OE eorsian M. īrśyā.
H. laman = Sk. naman Gk. ὄνομα Lat. nomen name, Sindhi. nalo, M. and Hindi nāma,
H. paszi = Sk. pāti L. potus Gr. pósis.
H. hastai = Sk. asthi, Gk. osteon, Lat. os = bone;
H. stamar Gk. stoma Av. staman = mouth of a dog;

We give below an example of noun declension in H.

Antuxas = man

Terminations

Nom. antuxas as, s (IA s) Loc. Dat. antuxse se (IA a smai, smin)

Acc. antuxsan an (IA am) Abl. antuxas as, s
Instr. antuxset t, ta, (IAā,ena) Gen. antuxas as, s (IA. s, sya)
In Ved. sureduhita = suras duhita; daughter of the Sun, we see nom. and gen. is the same.

There are r and n stems which are irregular, and they can be compared to the irregular stems in Sk and Gk. For example

Sk. asṛk = blood gives gen. asnas
,, yakṛt = liver gives yaknas
Gk. hepar ,, gives hepatos

Compare H esXar, blood gen. esXnas
,, stamar, ear gen. stamanas
,, kutur, neck gen. kutanas
,, paXur, fire gen. paXunas
Below are given some words for comparison.

H. \( ep = \text{IA} \bar{e}p = \text{get, obtain; H. harp = Sk. arpaya; H. lip} \) Gk. \( lipos = \text{fat, smear Sk. lip, limpati; H. titanu Sk. stha} - \text{tistha; H. mekis Gk. megas, Eng. mickle, Sk. mahas; H. wet Gk. etos year, Sk. vatsa, vatsara; H tarup, plait, assemble; Lat. turba Gk. tarbe, Eng. thorp H. tarpesar, assembly.} \)

**MISCELLANEOUS**

H. \( lutas = \text{luk = window cp. Eng. lattice; H. alis = white H. alpas = cloud, Lith. alvas, Lat. albus; H. anas = mother, hanas = grandmother Gk.annis; H. arwa = pray, Gr. ara; H. harkis = light, bright Gk. argos shine, Sk. arjunah; } \)

There is no feminine gender in Hittite; but only masculine and neuter genders are found. This corresponds to the incomplete gender in IE dialects.

The foregoing study of the nature of the language of the Boghasköi Archives will make it abundantly clear that the Hittite language is one of the oldest of the Indo-European languages so far discovered. Its phonology proves that it is archaic. "It is a strangely simplified and attrited language" (cp. \( k \) for \( \text{IE} \) \( k, kh, g, \) and \( gh \)). There are some words in the Archives for which we cannot give ARYAN roots; they may be non-INDO-EUROPEAN loan words borrowed from territories conquered by this powerful people. Some words are definitely Assyro-Babylonian or Sumero-Akkadian in origin (\( khabalu = \text{to destroy, for instance and pir = per which is of Egyptian origin, from which we have pharaoh; nimkhutun = woman, is Khattish.} \)) The H. language was associated with the languages of Asia-Minor for about a thousand years. It is probably the Assyro-Babylonian colonies of Asia Minor who gave them many religious and cultural goods, and the most important gift they received was the art of cuneiform writing from their newly conquered subjects.
HROZNY’s discoveries were not ungrudgingly accepted by scholars. But step by step the sceptics were silenced and in 1920 F. SOMMER declared “Hittite to be, by its flexional structure an Indo-Germanic language.” S. FRIEDRICH became a warm adherent in 1924.

The Boghas-köi records contain another big surprise. The Hittite rulers call themselves Maryani (Ved. marya = man). They worshipped In-da-ra, Mi-ittara, M-ru-wana and Na-sa-at-at-tiyas which are just the names of the Rg. Vedic Gods Indra, Mitra, Varuna and the two Ashwins written in Babylonian syllabic writing. The tribes speaking the Hittite language and writing in the same language but an adopted script were clearly Indo-Aryans, N. D. MIRONOV regards the language of these documents anterior to that of the Vedic speech (Acta Orientalia). The names Simalaya, Suwar-datta and Aitagma show that the Pre-Vedic diphthong ai is preserved in Hittite as well as the pre-Vedic zh and z. The state Archives also contained glossaries or Vyavaharakoṣas (like the Rājyavyavaharakośa made by Śivaji in later times!) from which it would seem that the compilers know six contemporary languages.

In 1937, Prof. HROZNY printed a French translation of Hittite hieroglyphic Inscription of king Varapalava of Tuvana. Tyana, which when Englished runs as follows:

‘The King Varapalavas of Tuvan-Tyana, had planted, as he was then a prince royal, a garden, which was, as it appears, dedicated by his grand-father, Valu-Dadas (?) to the God SANTAJAS (?). On this occasion, Valudadas had offered a libation to God Santajas. Later, Matusa, father of VARPALAVAS made in his turn, a similar libation when he became king. Undoubtedly, Varpalavas also offered a libation to Santjas; he prayed the latter to be protected by the bearer of the double axe i.e. by the statue representing Santajas.’
In the Hittite-Mitanni treaty between Šubandhu son of Tushrata and Šuttarṇa son of Artatama, the gods having names similar to the Vedic Gods Agni, Indara, Teshub were witnesses. Their chariots were of aik-vartanna, tera-vartanna, panza (panca) vartanna and shahota vartanna turnings. (—Chakraberty).

(This is a restatement of our present knowledge of Hittite language and literature based upon authoritative but cautious recent accounts by scholars like Dr. S. K. Chatterjee, Dr. R. N. DandeKar, and Dr. Sturtevant).
APPENDIX II

IE URHEIMAT IN THE NEW PERSPECTIVE

INDIAN HISTORY NOT AN ISOLATED PHENOMENON

The fact is now being gradually realised that Indian history is actually more ancient than some historians believed it was. In fact, it even goes beyond the Stone Age. Moreover, it is a part of world-history and not an isolated phenomenon. Our most ancient recorded period has therefore to be studied in this larger world-context; the Vedic period itself can now be studied in relation to other periods in world history.

MANY IA SPEAKING CULTURES

Vedic language and culture are not an isolated event-sequence. They are connected with other IA speaking cultures which had their origin and home in regions between the Volga and the Ganges. IA culture outside India has a bearing on IA culture in India.

INDUS VALLEY CIVILIZATION

The civilizations of Harappa and Mohenjo-Daro are no longer mere abstractions. It is now realised that they yield whole city-fuls of evidence and data. The relations of Vedic culture to this can now be studied with great accuracy. Here as elsewhere Philology and archeology must go hand in hand; if this does not happen our conclusions may remain wide of the mark.

MANY LAYERS IN VEDIC LITERATURE AND CULTURE

Vedic literature itself is a stratified literature; i.e. there is evidence in it of many layers of development from the most primitive type of culture to the most highly organised types of
social life. All phases of the historical situation are progressively reflected in it. From nomadic life to aristocratic and monarchical organisation, from pastoral communism to class-struggle, every phase of historical experience is in evidence in Vedic Literature. On the religious side we have the religion of magic and the religion of monism and the whole gamut of religious institutions from witch-craft to organised priest-craft. In short, Vedic literature holds the ‘mirror up to nature, and shows the age and body of time his form and pressure.’

Though Vedic culture is homogeneous it is not exclusive. Non-Aryan elements have crept into it in the form of the impact of the Vrātyās, the Südrās and the Dāsās.

**VEDIC KINGS AND PRINCES**

The history of the Vedic Kings and Princes again is related to the history of extra-Indian kings on the one hand and with the Dynastic lists of the Puraṇas on the other, so far looked at with some suspicion by the Indologist. The date of the Mahābhārata war is now presumed to be 1428 B.C. (Dr Altekar). The Dāsarājnya Yuddha took place in 1900 B.C. The date of Gṛtsamada is now fixed at 2700 B.C. and Śṛnjaya Sahadeva’s date is 2000–1800 B.C. Now the relation of the Vedic period to the MBh war can be explained, its antecedents and consequences can be studied with a greater amount of confidence than was available up till now.

**FOUR POINTS TO FIX UP**

Vedic Aryans were a branch of the Aryan speaking people. Where was the original home of these Aryan speaking-people? Who were the Hittites who built up an Empire in the Middle East? When did the “migrations” of the Aryans begin? Did they go out in batches and where did they have their colonies in ancient times? What is the relationship between the Aryan Indians and the Iranians?
ARYAN, NOT A RACE, BUT A CULTURE

Thousands of Aryan words are now reconstructed by Philologists. The search for the Urheimat is not therefore likely to be futile now. Moreover, archaeology and anthropology can always check up the guess-work of the mere linguist-ician who is notorious for his wild-goose-chase. So first let us deal with the problem: the Home of the Aryans.

We must disabuse our minds of the race theory at the outset. Max Muller' s dictum 'thought is thicker than blood,' should be followed in all such discussions. Aryan is that Aryan does. The idea that Aryan was identical with IE as a superior race is untenable. The words for Arya in the various languages do not give us the impression that they were regarded as a race. Celtic has two words *ariovistus* and *ariobriga*; Germanic has *ariobindus*; Ved Arya, Irāṇian. *Airya, harri* (cf the Mitanni records). Aryan does not represent a biotype; the tall bright-coloured blue-eyed blondes, born out of the European *milieu*, of the pet theory, has no place in such scientific discussions. This theory has bred the race complex which produced a Hitler in Europe. But the myth of the Nordic Race is now buried: by DIXON and CHILDE. It is now being said that the Nordics themselves were not a pure race. Blondes are found outside Europe, as well. RIPELY in his *Races of Europe* says that the size of the skull and the power of the mind do not always vary directly. Very often they may be found to vary inversely. The custom of burying the dead, again, cannot, according to CHILDE, be identified with a single ancient race but seems to be common among many peoples.

IE IN EGYPTIAN SCULPTURE

IE therefore in this discussion does not indicate a race but the language of several races. It is not an ethnological term. It has been said that even all the Nordics were not blondes.
Some of the IE speakers are actually represented as dark. Egyptian sculpture of the 2nd half of the second millennium shows IE speakers as bracy-cephalic. On the 8th Century (B.C.) column of victory of Tiglat Pileser IV of Assyria, IE are represented as dark coloured men.

THE HITTITES AND THEIR LANGUAGE

The speakers of the Hittite language mainly belonged to the Armenoid race. In sculpture they appear to be broad-skulled, long-nosed and middle-sized men. They were hefty and well-built. The conclusion is irresistible that there was no IE race, as such, but a culture-group consisting of men belonging to many biotypes-Nordic, Alpine, South-European, and Asiatic-Mediterranean. Even the Indian caste system is not based upon any theory of racial superiority. It is a division of Society based upon the principle of division of labour and aims at making merit, work and worth rather than birth or wealth, the criterion of social virtue, earning a status for the individual.

UR-HEIMAT: THEORIES OLD AND NEW

There are many theories regarding this very knotty problem. (1) The Arctic home theory supported by the late Lok. Tilak and more recently by Dr. Taraporewala is now receding in-to the background as the astronomers are divided among themselves over some calculations. (2) The Indian Home theory has many adherents and their number is on the increase since Aug, 15, 1947. There is no clear and unmistakable reference to the Aryan’s migrations from India on a very large scale. The Vedic Aryans on the contrary are known both to history and tradition as foreigners having a God whose name was ‘Purn-dara-breaker of forts’ (3) Kossina’s theory (Die IndoGermans, 1921) of the Aryans as the Supermen of History, the Herrenfolk of the World which they must conquer for its benefit—going out of Germany with their
battle-axes and riding in horse-drawn chariots and carrying with them chalices decorated with impressions of whip-chord is more appropriate to the race that produced Hitlers and Mussolinis than to the Aryan whose soul-thirst for peace is expressed everywhere in the literature that he has produced. (4) Dr. Giles thought that Hungary was the cradle of the IE culture as the custom of cremation has existed in Hungary from hoary antiquity. Secondly, Hungary was the ideal country for cattle and sheep breeding. But this is not supported by archaeology. Moreover in early Danubian culture there are traces of the worship of the Mother-Goddess, which is clearly not an Aryan characteristic at all.

**ENVIRONMENT OF IE**

The picture of the early environment of the IE as reflected in the language is more useful. Clearly the early IE were a nomadic people; otherwise no-body would speak of their movements or migrations. Early IE speech shows three influences (1) The influence of Mesopotamia is seen in aster Akkadian ishter and IE parasu goes back to Assyrian pilekku. IE guos derived so far from Sumerian gu-(d) is now said to be derived from Altaic kuos. This gives us the zone of the influences on IE Languages and people. Reduced to geographical names the zone is between Ural and Altaic Mountains to the North of the Caspian Sea i. e. the North Kirghis Steppes. The horse is peculiarly Altaic in origin, and the animal figures prominently in IE history. W. KOPPERS in his detailed study of the Horse sacrifice (Pferdeopfer und Pferdekult der Indogermanen in Die Indogermanen und Germanen frage, Wien 1936 pp 279 et seq) has discovered some proto-Turkish and Mongolian traces in this.

**FLORA AND FAUNA**

It would seem from the fore-going that the flora and fauna of the North Kirghis Steppes provides the proper IE
back-ground. The cow and the horse are germane there. The Zoologist AM SCHLER is inclined to hold the same view. A hilly tract is prominently indicated for the rearing of goats and sheep. The science of animal biology can throw some light on culture history. Early IE dialects show no words for the tiger, camel, leopard. So the deserts of Arabia and Sind could not have been the original home. Were there lime-trees in the "Ur-Heimat" to attract bees? Honey figures so prominently in early IE as medu but Dr DANDEKAR suggests that it may have been a kind of juice of berries rather than honey as we know it to-day. (I. H. Congress Proceedings 1947, p 36). HIRT'S beech-tree hypothesis meets with no better fate. It would seem that beech is a later addition to IE vocabulary for trees. There are no words in old IE for fruit trees. European flora was completely un-known to the IE speakers. The oldest speakers of IE were not agriculturists before they entered into Europe in the west or India in the East. The Proto-IE's main business was cattle-rearing, requiring them to be in the grassy regions, the Grasslands of central Eurasia. Specht is a great supporter of the Kirghiz Steppes as the home of the IE. His study of marriage customs, laws and religion is deep and penetrating. The plough of the IE times was also studied by him. His conclusions therefore cannot be easily refuted.

'Kurgans', graves, timber fences and red-ochre marks.

Archaeological research lends its support to this view. V. G. CHILDE (Antiquity of Nordic Culture) is of the opinion that the IE in the earliest days used to bury the dead in single graves. A mound of earth dug form the surrounding ditch used to be thrown over them. Timber frames surrounded the graves. (See Rg. Veda X. 18·4 and 18·13). Now the Kirghiz Steppes are dotted by such kurgans or mounds, going back to neolithic times (BOGDANOV). The mark of red ochre covering the mounds is found on many mounds.
POTTERY AND STONE-BATTLE-AXES

In the northern Kirghiz Steppes were also unearthed Pottery articles with the whipchord design. EICKSTEDT’S Anthropological researches also support the view that the Kirghese regions were the Ur-Heimat of the IE. On these sites stone battle-axes (earliest type) were also discovered.

TWO OTHER REGIONS—BALKH AND THE BALTIC

Words for damp and rain increase as the IE dialects of the marshy regions are scanned. These West IE dialects are found in the Baltic regions. S. E. MANN summarised the linguistic evidence in Man in 1943: We do not find words for the tropical flora and fauna in the WIE-dialects. The main business was still that of cattle rearing: sheep, pig, goat, and dog are known to the WIE speakers. They could now make carts with wheel, axle, rim and yoke complete. They now ploughed the land, sowed seeds and reaped the harvests. They now seem to be living on regions higher than the grasslands. This would point to the Baltic region to which one branch seems to have moved from the Steppes. (MANN)

This would seem to be the secondary Ur-Hemimat. Primitive IE has no words for sea, fish, salt. Thus the linguistic evidence points to the Pripet Marshy regions. At least the Western IE settled there for a considerable time, arriving along the Northern coast of the Caspian Sea through South Russia. The Volga-Dniepper region also has to be believed to have been the secondary Ur-Heimat for similar reasons.

BALKH SETTLEMENT PRIOR TO THE BALTIC

But the South Eastern major migration seems to be prior to the Western migration. Balkh was not different in geographical and climatic conditions from the Grasslands. There is linguistic, archeological and anthropological evidence in support of this view. Graves with circular timber fences
were found in Balkh. Proto-Aryans separated earlier than the Proto-Europeans from the common stock. The proto-Europeans went to regions radically different in climate and geographical environment form their motherland. In his *Archaeological Traces of the Vedic Aryans* R. von HEINE-GELDEN (JISOA 1936) argues as follows:—

The movement of the IE to IA regions must have taken place across Jaxartes and the Oxus. Balkh was the Ur-Heimat of the Proto-Aryans. There seem to have been two major and one minor movement of the PIE. There was a long period of living to-gether in the North Kirghis Steppes. From there, the Proto-IA moved to the southeast and settled in Balkh and the Proto-IE to the north-west and settled in the Priepet Regions and the Baltic. The third was a minor push of the Hittites in Asia Minor.

The dates of the various migrations in ancient times may be conveniently recalled here:—

The migration of the Proto-Hellenes to Greece 2200 B.C.
The migration of the Hittites to Asia Minor 2800 B.C.
The Proto-Aryan Separation from the Main-Stock 2600 B.C.
The period of Proto-IE Unity 3500 B.C.

**THE UNFORTUNATE TOKHARIANS**

The division of the IE dialects into *satem* and *kentum* is orthodox but not very valid (S. E. MANN: *The Cradle of IE-Speakers*, 1945). In actual fact Tokharian was a *satem* language. They seem to have been unable to decide-like Hamlet-whether to go east or to go west. Their language shows characteristics of both the IA and the IE groups.

**THE HITTITE PROBLEM**

The stages in the discovery of this Language and the people who spoke it are indicated by the names of the dis-
coverers themselves. KNUDTZEN and WINCKLER found out the documents. SOMMER, the Assyriologist of Munchen, deciphered them and the finishing touch was given to the discovery of that langugae by STURTEVANT whose grammar is now widely known. The material that is made available to us by this discovery is unusually abundant: We have more than ten thousand cuneiform tablets, being the state archives of the Chatti Empire; The Arzava letters at El-Amarna; Summero-Akkado-Proto-IA Dictionary.

Racially the Hittites were a mixed people of Mediterranean Armaneid plus Nomadic-Turkish origin. The archives give evidence of as many as 8 linguistic types. Here we shall give a brief account of the nature of the language.

The actual literature does not bear out the description of the Hittite language as a hybrid language. On the contrary, it has affinities with the IE, but to no special group either of the east or the west. It is not a Caucasian language, as some savants thought. It belongs to the centum group of the IE dialects. The plural number in Hittite is unsettled. Only traces of the dual are found. It has a peculiar H sound. The verb and case systems are simple. There are almost no moods and the number of tenses is small. Grammatical structure is that of the IE family. But the language is distinctly archaic or primitive in character (DANDEKAR).

It would seem that the Hittite speaking people separated from their Proto-IE speaking brethren about 2800-2600 B. C. There is no trace of the Hittites in the West. They must be believed to have settled in Asia Minor, coming across the Caucasus. (See map)

HISTORICAL FACTS CORROBORATE LINGUISTIC GUESS-WORK

It is a well known fact in history that the Hittites under Mursites I overthrew the dynasty of Hammurābi. Conquest of Babylon by the Hittites is dated 1760. But then there was
no feeling that they were foreigners in Asia Minor. Their entry there must have therefore been already a matter of ancient history. (2800–2600 B.C. is the date assigned to this). Their culture is clearly a mixed culture, showing Assyrian traces in it. Under Subbilulimus, the Hittites concluded a peace treaty with the Mitannis. The decline and fall of the Hittite empire begins from 1230 and after a few years they are heard no more. IE names occur in Hittite mythology. In religion they show parallels to the religion of the Minoan Greeks. In culture they are Babylonians.

THE KASSITES

About forty words are reconstructed by philologists from the Kassite’s language. They show IE character with some guttural sounds nearer to Vedic sounds. Kassite names can be recognised as IE, or rather, IA names: Suriyas (Sk Suryah), Marattas (Sk Marut) Suquamuna (Sk Sucamana), Abirattas (Abhirathah). Kass. bugas at the end of names, Sk. bhaga. Therefore the Kassite language is a member of the IE, but nearer to Sk. The date of the Kassite conquest of Babylon is known to be 1800 B.C. They introduced the use of the horse for drawing chariots into the ancient Near East.

FORRER discovered a treatise on horse breeding and numerals similar to the IE in the Hittite documents. The names of the Mitanni Kings in the recorded Treaty are obviously Aryan: Dusratta, Artasmara and Subandhu.

The older generation of scholars like JACOBI, WINTERNITZ and HILLEBRANDT believed that the Indian soil was the place of origin of the Vedic religion. They held that the tribes migrated from India to the West. In evidence they cited the migration of the Vedic tribe of the Druhyus. Pargiter’s faith in the antiquity of the Puranic dynasties seemed to strengthen this view. But now this view will have to be modified in the light of the new evidence that has been unearthed.
Mitanni (language) is prior to Vedic and Irānian. It is a saṭem language. In it ṛṭa becomes āṛta. The Mitannis called themselves Harris i.e. Aryans. Their warrior class was called Maryanni. They wore a pig-tail; the svastika was an auspicious sign with them. Their burial customs were those of the Proto IE. They used inverted triangles as mystic marks. All this proves their IE or Aryan origin.

Vedic and Irānian similarities of language and culture are now well established facts. The Balkh region mentioned above was the first region occupied by the IA in the South East. It was here that the Proto-Vedic mantras were composed. Among the Vedic mantras there are two layers: in one layer the language is a living dialect. This was the time of the colony of Balkh, 2400 B.C. The second layer ended with the Samhiti-karaṇa by a priestly guild. At this point in their history (1900 B.C.) the IA had left the Balkh regions and were entering into the Punjab to meet the people who had created the Harappa civilisation, under a leader who worshipped a God, whose nome was Purandara, ‘breaker of forts’. Before their coming into India the Aryans had evolved two types of Religious worship. The Indra cult was followed by the Aryans who came to India and the Varuṇa cult was followed by those who settled in Irān.

(For further details see Dr. R. N. Danekar’s excellent restatement of the subject in his presidential address in the Indian History Congress Proceedings, Allahabad, 1947.)
APPENDIX III

BRANDENSTEIN'S VIEW

A. B. KEITH has given a lucid resumé of BRANDENSTEIN's views on the Home-land of the Indo-Europeans which appeared in the Indian Historical Quarterly of Calcutta, XIII, I, March 1937. A summary of Keith's article is given for the benefit of our young readers.

BRANDENSTEIN divides the history of Indo-European progress into two periods. In the first period the IE speech was homogeneous; dialectal differences were not formed. Roots and words retained their original meaning, without undergoing any change or expansion. The second period is a period of expansion. Roots and words, over and above retaining their own meaning, begin to develope newer meanings. This is illustrated by the following comparisons:

Indo-Irāpian gwer, gerau 'stone'; Sk. आवन (grāvan, stone for pressing soma juice) grows into IE O. Eng. cweorn. M. Eng. quern = hand-mill for grinding corn. Sk. म्रज (mrj) M. Eng. milk. Primitive IE root sei to throw a missile, Sk. अस्यति (asyati, sāyaka an arrow), but outside Indo-Irāpian it also meant sow or scatter seed (Latin. se-men, German. saen, Eng. verb sow).

Similarly Primitive IE mel = to make weak (Sanskrit मल mal to grind); IE perkon. Sk. पल्ल: or paraśuk = rift in the ground, Eng. furrow, (O. Eng. furh; Germ. furche).

From evidence derived from linguistics, BRANDENSTEIN holds that originally the Primitive Indo-Europeans lived in some comparatively dry rocky tract where there were no real forests, but only clumps of trees; and among the trees were the following: the oak, the willow, the brich, a resinous tree
and an elastic tree. There were no fruit trees. They knew
the following animals generally: the ox, the camel and the ass.
The Celts who were pushed back by the second batch of
Indo-European settlers, the Teutonic races, have given only
a dozen words to the old English language, ass, bannock,
binn, brock, but not curd, cart, gown and pony.

The cow they obtained from the Sumerians who spelt it
gud and pronounced it gu dropping the final d, (2700 B. C),
from which the Primitive IE gwous Sk. गौ is derived. Also
they knew the sheep, the goat, the horse and the pig.

Subsequently they arrived in a low marshy country, rich
in flora and fauna, probably the Kirghiz Steppes, south and
east of the Ural Mountains. The older stratum is represented
by flat lands of Europe between Carpathian Mountains and the
Baltic. Both the lexical and semantic additions to IE corre-
spond with this new environment of the IE Urheimat.

There were borrowings in the earlier period from the
Sumero-Akkadian world of Mesopotamia, but not from
Western Asia, Egypt and Ægean Greece.

Professor Suniti Kumar CHATTERJI is inclined to call this
"a reasonable theory, as it is in consonance with the soundest
linguistic and archaeological methods available to-day. The
Eurasian plain, which was the habitat of the wild horse, would
appear to have been the Homeland of the Indo-Europeans.
For, the taming of the wild horse was the greatest single
contribution of the Primitive Indo-Europeans now called the
*Wiros (Skr. वीर: virah) to material civilization. Before the
second half of the third year thousand B. C. the Ox, the Camel
and the ass were the only means of locomotion. The swift
horse (ईतगवा, aitagava) revolutionized international relation-
ships. The swift horse was the gift of the Indo-European Wiros
to world-civilization." After taming the horse, they started
a movement for world domination and conquered the world
with their language and with their faith in final victory.
NOTE 1

The Greek Language (for Indian Students)

Indian students of Philology will find the following note on the nature of the Greek language and alphabet very useful. Sanskrit and Greek are dialects of IE and have much in common. A study of the brilliant little grammar, "A new Introduction to Greek" by Drs Chase and Phillips of the Harvard University is strongly recommended. They have framed the lessons with a view to making the study of the language easy for the beginner. It does for Greek what Dr. Bhandarkar’s books did for Sanskrit.

There are 24 letters in the Greek alphabet, and 22 vowel sounds (both short and long) and diph-thongs. They are given below in tabular form with a key to their pronunciation, at the end of this note. From the consonants, μ, β, φ, ι (ρ, b, ph, m) are labials; κ, γ, υ (κ, g, x or ks) are palatals; and τ, s, θ, σ, ν, λ, ρ (t, s, th, l, n, r) are linguals. Greek does not have the letter ‘h’ though there is an aspirate at the beginning of words which begin with a vowel. If the ‘h’ is to be pronounced, the mark ‘ is written over the opening vowel to mark its sound. The mark ‘ shows—that the vowel or the consonant over which it occurs does not have any ‘h’ sound. The mark ‘ is called the spiritus asper. e.g. (Gk. επτο = hepto; ε = he; ωρα = hora; αλς = hals—salt; ). Mark ‘ shows that the initial vowel is not aspirated, and is called lenis asper.

Accent in a Greek word could occur only on any one of the last three syllables. It was a pitch accent, originally, but now a stress value is also given to it. There were three types of accents. The acute accent was denoted thus:’; the grave accent thus:’; the circumflex accent stood only on long vowels.
and diph-thongs and was shown thus: \( \check{\text{a}} \). The last syllable in a word was called the ultima. Next to it came the penultima and next to the latter the ante-penult. Nouns had what is called a 'persistent accent' i.e. the accent of the nom. case persisted in all cases. Verbs had a recessive accent; i.e. going back from the ultima. Long vowels and diph-thongs made long syllables.

**Number**

Like Sanskrit, Greek had three numbers: singular, dual, plural.

**Gender**

There were three genders in Greek as in Sanskrit: masculine and neuter. \( \text{\check{a}} \) is seen to be uniformly employed to indicate feminine gender. (\( \text{\check{v}e\check{o}s} \text{ m. } \text{neos}, \text{ f. } \text{v\check{e}a}, \text{ ne\check{a}} \)). In Greek, names of trees are all in feminine gender. Grammatical gender seems to be crossed by natural sex in a number of cases. (Giles).

**Cases**

Sanskrit has eight cases, including the Vocative. In Greek there are 5 cases:—Nominative Genitive (showing possession, origin and separation)’ Dative (which was a combination of the objective, locative and instrumental relations), Accusative and Vocative.

**Voices**

The Greek verb had three voices: active passive and the impersonal construction as in Sanskrit, (and Marathi) in which the subject acts upon itself or in his own interests.

There were seven tenses in Greek. They were classified into primary and secondary tenses.

<table>
<thead>
<tr>
<th>Primary</th>
<th>Secondary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present</td>
<td>Future</td>
</tr>
<tr>
<td>Perfect</td>
<td>Future</td>
</tr>
<tr>
<td>Present</td>
<td>Imperfect</td>
</tr>
<tr>
<td></td>
<td>Aorist-(Preterite)</td>
</tr>
<tr>
<td></td>
<td>Plue-Perfect</td>
</tr>
</tbody>
</table>
NOTE I

There is reduplication in Greek tenses: *e.g.* Gk. *gegone* Sk. *jagāma*; Gk. *dedorka* Sk. *dadarsha* Gk. *bebhore* Sk. *babhāra*. Past tense and aorist were denoted by the augment *ε*, *α*, as in Sk. by *a*

Greek language was the only tie that bound together the different communities in ancient Greece. There were settlements of the Greek-knowing communities in the western part of Asia Minor and round the Black Sea as well as in the Balkan regions, and the Aegean Islands, including Crete and Cyprus, 2500 years ago. A common standard for writing and inscriptions was not arrived at until the 4th century B.C. This is known as ‘coine’ and it spread over nearly all Attic Greece and the Near and the Middle East. After Alexander, Greek was divided into two branches. It was in the Alexandrian Greek that the Jews translated the Old Testament. Greek began to die out by the fourth century A.D. and it is said that even St. Augustine could hardly read Plato in the original. As we already know, Greek was driven out of Constantinople by the Turks.

Greek is, like Sanskrit, a building language, not a borrowing one like English or Marathi. It has given a vast number of words to the English language. Science is the greatest absorber of Greek words and pre-fixes and suffixes. The Greek supplies words to biology, psychology, physiology bio-chemistry and above all philosophy. English has contracted many long Greek words: Eng *alms*–Gr *eleemosynery*, which we come across in *Tom Jones* is contracted into *alms*, to-day. American *pep* is short form of Eng. *pepper* Gr *peperi* Sk. *pippala*. *Photo*, *auto*, *Maths* are being used by millions to-day without knowing, perhaps, that the words are derived from the language of Socrates and Plato, Homer and Sophocles!

BODMER has calculated (*Loom of Language*, 1945) that an average verb in Greek has 507 forms; in Sanskrit it has 743
forms; Gothic has 94 forms while the English verb has usually only 4 or 5 forms! Most Greek words can be recognized by the sounds of *ph, ch-k, rh* and *ps* where only *s* is pronounced. Another indication is the *oe* and the *y* sound.

The similarity between the declensions of Greek and Sanskrit verbs can be easily seen in such common examples as the following:—

<table>
<thead>
<tr>
<th>Sanskrit</th>
<th>Greek</th>
<th>Eng.</th>
<th>Sanskrit</th>
<th>Greek</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>dadhmī</em></td>
<td><em>didomi</em></td>
<td>(I) <em>do</em></td>
<td><em>dadhe</em></td>
<td><em>didomai</em></td>
</tr>
<tr>
<td><em>dadhsī</em></td>
<td><em>didos</em></td>
<td>(you) <em>do</em></td>
<td><em>dhatse</em></td>
<td><em>didosai</em></td>
</tr>
<tr>
<td><em>dadhvīt</em></td>
<td><em>didosi</em> (n) (he)</td>
<td><em>does dhatte</em></td>
<td><em>didotai</em></td>
<td></td>
</tr>
<tr>
<td><em>bharhnti</em></td>
<td><em>pheronti</em></td>
<td><em>bhare</em></td>
<td><em>phere</em></td>
<td></td>
</tr>
</tbody>
</table>

The oldest form of the Greek language is found in Homer’s *Iliad* (900 B. C.). The language is more rich in vowel sounds than Sanskrit, but Sanskrit has a wealth of consonants not found in Greek. In its wealth of vowels Greek is said to be nearer to the original IE. (*UHLENBECK*). Both began with *pitch* or *tone* and gradually came to give it up for *stress* or *accent*.

Four stages are recognised in the history of Greek:—(1) Homeric or ancient Greek, (1000 B. C.). (2) Literary or Classical Greek, (3) Mediaeval Greek and (4) Modern Greek since 1450 A. D. There were many dialectal forms of the Greek language. Doric had broad vowels and consonants praised by Milton. Homer wrote in the Aeolic and Ionic whereas Attic became the medium of Classical Greek literature. Attic was the dialect of Socrates, Plato and Aristotle and the dramatists, Aeschylus, Sophocles and Euripides. It became the standard language of ancient Greece of the Classical period from 500 B. C. to 300 B. C. After the rise of Alexander the Great, Attic became the common dialect of Hellenistic Greece
with the new capital at Alexandria as its centre. The "New Testament" was written in this dialect which about 300 years A. D. came to be called Neo-Hellenic Greek.

Doric, Ionic and Cyprian preserved the IE broad vowel \( \tilde{a} \); as in \( \mu\tilde{a}τερ, \mu\tilde{a}τερ \). In Attic \( \tilde{a} \) is changed to \( \tilde{e} \) as in \( \mu\tilde{e}τηρ m\tilde{e}τερ \).

Modern Greek shows many vowel and consonant changes. It has adopted stress and given up pitch or tone. In consequence it has lost much of its sonority for which it was famous in ancient times.

Greek did make a bid for becoming the International language of antiquity. In fact Greek was understood as an international language on all the four sides of the Mediterranean. In the days of the Roman Empire, Latin was the language of the Law courts and the church. But, Greek was spoken by business men in Greece, Asia Minor, Syria and even in Egypt. It was spoken in the North Western border of India 250 years before Christ.

It was later replaced by Arabic and Turkish languages in Constantinople. (1450 A. D.).
A, α alpha, short and long a ἀ, ἄ Ε, ε xi = x as in axiom
B, β beta, = b. β Ο, ơ omicron = 0, ὀ or ὅ
Γ, γ gamma = g. γ Π, π pi = p.
Δ, δ delta = d (dental). δ Ρ, ρ rho = r as in rhyme or Rhine.
Ε, ε epsilon = e (thé). ε Σ, σ, s sigma = s. The form from s is used at the end of a word; σ elsewhere.
Z, ζ zeta = z. ζ T, τ tan = t.
H, η eta = e = a in care. η Υ, υ upsilon = u short and long (y).
O, θ theta = th (dental). θ Φ, φ phi = ph.
I, iota = i short and long ι χ, χ chi = kh as in chorus.
as in stadium and police.
K, κ kappa = k. κ Ψ, ψ psi = ps as in eclipse
Λ, λ lambda = l. λ Ω, ω omega = o as in ode or not
M, Σ mu = m. Μ N, ν nu = n. Ν

(1) The transcription of the typical Greek consonants is as follows:
\[ \chi = ch, kh; \xi = z; \phi = ph; \chi = x; \gamma = ng; \theta = th. \]
(2) Equivalents of simple vowels:
\[ \varepsilon = e; \eta = e \text{ or } a; \alpha = a; \iota = i; \omicron = o; \upsilon = y; \text{ final } \alpha = y \text{ in English,} \]
(3) χ (y) and ψ (f) are not found in Greek.
NOTE 2

Indo-Aryan, Germanic and English

Our knowledge of the growth and development of English depends, to a considerable extent, upon our understanding of the new line of development followed by the Germanic dialects in North-Eastern Europe. It is now a well established fact that Germanic is a branch of the great IE family of languages which must have been spoken by the Aryans in their early days. But Germanic exhibits a complete breaking up of the IE phonetic system. This must have been due to what Sylvan Levi calls the 'interference of the substratum' with the new language of the invader. In North Germany, this substratum was a highly civilized substratum consisting of a racially mixed population. Among them were the Nordic people with blue eyes and golden hair, and they had all the characteristics of the Vikings in them. They accepted the Germanic language but changed its articulation and grammar. The weather was partly responsible for the changes. There must also have been physiological reasons to account for them. The changes from IE to Germanic were mainly three:—

1. There was a change in the consonant system,
2. There was a change in the vowel system,
3. There was a change, replacing the pitch or tone by stress or accent.

The implications of these changes were enormous. It must be remembered that the West Germanic people were a vigorous and practical race without any linguistic traditions behind them like the Goths. Their own speech—the Germanic—was a rough-hewn instrument fit for everyday use and not a *coine* or a literary or artistic instrument of expression handled by
men of learning like Bishop Wulfila's Gothic. While learning the language of their IE invaders they showed the usual tendency to avoid the difficult, over-simplify the easy and to level and normalize the unfamiliar element in it. The Northern climate also played its part in changing the sounds of vowels & consonants.

The vowel and consonant changes can be studied in the following examples from IE and Germanic words:

<table>
<thead>
<tr>
<th>I</th>
<th>IE</th>
<th>1.5 was pronounced $f$ in Germanic.</th>
<th></th>
<th>V</th>
<th>IE</th>
<th>1.5 was pronounced in Ger and Eng $t$.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sk</td>
<td>$pas'u$</td>
<td>sihu</td>
<td>fee</td>
<td>IE</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td>Sk</td>
<td>$panj$</td>
<td>funf</td>
<td>OE</td>
<td>fif, five</td>
<td>Ger.</td>
</tr>
<tr>
<td></td>
<td>pri</td>
<td>frei</td>
<td>free</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>II</td>
<td>IE</td>
<td>$t$</td>
<td>th</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>tri</td>
<td></td>
<td>three</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>tanus</td>
<td>dunn</td>
<td>thin</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>varlate</td>
<td>werth</td>
<td>weorthan-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>III</td>
<td>IE</td>
<td>$k$</td>
<td>h, gh,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>krd-hrd</td>
<td>herza</td>
<td>heart</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>kaniyas = new</td>
<td>(be -) gin</td>
<td>or A. ghi = open</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IV</td>
<td>IE</td>
<td>$p$</td>
<td>&quot;&quot;</td>
<td>&quot;&quot;</td>
<td>&quot;&quot;</td>
<td>&quot;&quot;</td>
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<td>yugam</td>
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<td>chorn</td>
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<td>Ger. &amp; ENG</td>
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<td></td>
<td>bharāmi</td>
<td>beran</td>
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<td></td>
<td>bhlo</td>
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<td>VIII</td>
<td>IE</td>
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<td>dhe</td>
<td>do-deed</td>
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<td>vidhavā</td>
<td>witava</td>
<td>widow</td>
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<td></td>
<td>hansah</td>
<td>gans</td>
<td>goose</td>
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According to recent writers on the subject this sound-change, it would seem, came into being between 400 B.C. and 250 B.C. An explanation of all these changes will be found in Father's book in the exposition of Grimm's Law.

Corresponding to these consonant changes there was a reduction in the number of IE vowels taken over by Germanic; and a and o could be interchanged. Germanic retained the IE diphthongs however, many of which were lost by Sanskrit. Thus Germanic and English are on the whole richer in vowel harmony than classical Sanskrit and the modern Indian languages. We have the following vowels in Germanic:—(1) a, e, i, o, u; both long and short, and the diphthongs ai, au, an, am, ar, al and ei, eu, en, em, el etc.

A further change observed in Germanic is that the vowel loses its independence of the neighbouring consonants and assumes the quality of the consonants between which it is sandwiched in a word! But the most revolutionary change is the loss of tone or pitch and its displacement by stress or accent. This changed the entire structure of the words and their relations in a sentence. The Germanic substratum accepted the IE language, but while accepting transformed it almost out of recognition by introducing the Scandinavian accent! It stressed the initial parts of the words and consequently the remaining parts were slurred over: Thus Latin palatium became pfálz in Germanic and paláce in English; so Sk. bharet Ger bairdi Eng bear.

The creation of accent changed the entire system of grammar which IE seemed to obey. Vowel gradation and the importance of tone were almost entirely given up. Even the suffixes were distorted and case endings; like the acc.—n—were dropped. A prominence was given to the root and the idea it expressed; the inflections and terminations were slurred over or eclipsed. In IE the noun and the verb were separate
entities, clearly distinguished from each other as they wore badges of the classes to which they belonged. Now this distinction was levelled up and soon the noun could be used as a verb and *vice versa*. This was a discovery of the greatest importance; it made Germanic and, later on, English a much more "portable" language than any other language of the entire IE family.

So the inflexions fade out; the verb and noun are interchangeable; and tense expresses time in the new language called the Germanic? Moreover a new helping tool-almost like an omnibus spanner is forged in the rough and tumble of practical life in the form of a new combination of a participle plus the verb *to be* or *to have* (e.g. *quithan ist* = it is said.). This is the auxiliary verb formation not known to the IE.

Among other changes, we must also record the loss in Germanic of the dual and the reduction in the number of cases to four: Nom, Acc, Gen, and Dative. IE denoted the gender by adjectives; Germanic by a change in the form of the noun itself. IE denoted grammatical relations by the use of inflexions; Germanic shows them by the simple device of the order of the words in a sentence. In IE, words were grouped round their roots like iron filings round the poles of a magnet. Germanic words have a life of their own and are independent of their roots. "Love" can be used as a noun as well as a verb: e.g. Eng. *I love you*; My love for you; Germanic *Ich liebe dich*, Miene Liebe fur dich.

Germanic numerals go back to the IE numerals which are now called the "inter-national numerals." This is already explained in Father's book *q.v.* (IE *sem* has remained in Ger. and Eng. *simplex* and in Eng. *four-some*).

Germanic vocabulary was enriched by borrowings from a whole continent-ful of languages and more particularly from Baltic, Slavonic, Italic and Celtic. Thus the ground was prepared for the advent of English which is fundamentally an
IE language. It has however a simplified grammar. It is stream-lined for a world-wide commerce of ideas and culture. How English achieved it will now be explained in the remaining part of the article.

That the IE is poor in the vocabulary of technical actions or movements is easy to demonstrate. (IE *tasti* = makes cp. Eng. *textile*). The names of animals known to the IE speaking groups are easily recalled; *asva*, *equus*, *hippos*; *cuna*, *canis*, *hound*; *gauh*, *cow*; and *avih*. The names for the limbs and organs of the body are common to all the dialects. So are words denoting family ties and blood relationships. But the IE dialects do not have a common word for God. There are no common words for religious rites as well. But Sk. *śradhā* and Lat. *credo* and Sk. *brahman* and Lat. *flamen* probably indicate a common primitive IE source (PIE). So there is correspondence between Sk. *rātha* and Lat. *rota*; and between Sk. *nauḥ* Pers *nav* Gk. *naus* (from which Eng. *nautical*) Lat *navis* (Eng *navy*) and Icelandic *nor*.

There are common words for copper: Sk. *ayas*, Zend: *ayo* Goth *aiz*. Gold is found in Western IE dialects Goth *gulth*, O. H. G. *gold* Old Sav. *z'ato*. Silver in Sk. is *rajetam*. Zend *erezatum* Gk. *argentūm*. But the Eng. word *silver* is a borrowing from some unknown non-IE source, probably celtic.

I Pre-Historic British Civilization:

A very ancient civilization existed in Britain even in the Stone Age. They had been farmers and knew most of the cereals that were known to the Indo-Aryans. They worshipped gods and a Goddess and were not peculiarly patriarchal in their family system. The subordination of women was not known and seems to have come with the fear of foreign invasion. The custom of Sati seems to have been practiced by the ancient Britons. They had evolved indigenous political and social institutions. Anthropologists call them the Iberians.
(‘long-barrow people’) who must-have settled in Britain form North Africa *via* Sicily and Gibraltar.

II THE CELTS AND THE DRUIDS

These ancient Iberians, it seems, were defeated by a ‘round-barrow people’ who brought gold, lead, tin and amber with them. They were weavers and makers of pottery, and knew farming. They built the Stone-Henge and other religious relics and are commonly known as the Druids. The Celts were in possession of Britain before 600 B. C. They were pushed by the IE speaking Germanic races to the West and the North. The Romans found them with tattoo marks on their bodies and called them the Picti.

III THE TEUTONIC INVASION OF BRITAIN.

In historic times Britain is known to have been invaded by (1) the “English races” of North Western Germany i.e. by the Angles from Anglen, the Saxons of Saxony and the Jutes of Jutland all coming from the territory near the mouth of the Elbe. They came in waves of invasion and penetration lasting well over a century. The Germanic people, as they are called, were a “military aristocracy” with the king as the centre of their social and political life. His retainers served him in life and by death. They were ambitious of political expansion and followed their leaders to the end of the earth or the sea. This history of the Germanic races is reflected in the earliest “English poems” like *Beowulf*, *The Wanderer* and *The Sea-Farer*.

These invaders were known as the Angles, the Saxons and the Jutes, as has already been stated. The migration of the Angles to Britain seems to be a complete migration like that of the Parsis to India. They left no traces of themselves in Germany after that event. The first to land were the Danes who under their leaders Hengest and Horsa (for they were very fond of selecting their names form the animal-horse-) made a landing in Kent between 440 A. D. and 455 A. D. It
would be a mistake to suppose that the invaders were a barbarous horde looking for plunder and rapine. They could work in bronze and silver, were humane and worldly in their outlook and were very fond of horse-riding and writing. At any rate, this is the impression left on us by their sea-faring epic, *The Beowulf*. The Teutonic nations who invaded England pushed the Celts back to the west and the North. There must have been a good deal of word borrowing on either side during this period. The invaders settled down in England in four chief settlements and this gave rise to the creation of four chief dialects of the Old English language: (1) The Angles had settled in Northumbria and spoke the Northumbrian. The Jutes spoke the Kentish dialect and the Mercian; and the Saxons spoke the Saxon or Anglo-Saxon and Mercian.

St Augustine was sent out to England by Pope Gregory in the closing years of the 6th century. King Ethelbert of Kent granted him permission to preach the Gospel of Christ. Later the King himself became a Christian. In about a century the whole of Britain was converted to Christianity.

IV THE DANES

The Danish invasion of England by Scandinavian Vikings who were heathens begins from 787 A. D. and lasted for a century. The struggle for supremacy between Saxon and Dane was long and hard. At last, under Alfred the Great, the Saxons brought the Danes under their control and the latter settled in East Anglia and became Christians. The Danes came back again under Svein and the Saxon King after making vain attempts to buy the Dane with gold (whence Dane-geld) fled to Normandy for shelter. Cnut carried on the struggle with the Saxon king Edmund and the country was actually partitioned for a time. Edmund died soon after the partition and Cnut regained his supremacy over England south of the Humber. The Danish kings thus ruled over England upto 1042 A. D. Then came Edward the Confessor, son of Ethelred
and Aelf-gifu, who was half a Norman. The date of the Norman Conquest was 1066 which thus marks the termination of the Danish-German supremacy over England.

This historical sketch will make the philological development and growth of the English language easy to understand. It is now established that these Germanic races were the speakers of one branch of IE in its eastern European form, namely the Germanic, and that, as they laid the foundations of the history of England they also laid the foundations of the English-language as well. We must make one point very clear at the outset. In all our discussion on IE we have assumed that there is no reference to racialism. In fact Aryan is that Aryan does. The Germanic invaders of England spoke an Aryan language which had ‘spread like a belt round the Northern Sea’. It is now known that their language had, with certain exceptions, the same or similar vowel and consonant system. The possessive case was denoted by s, es, corresponding to Sk. as, sya. The second person singular of verbs was denoted in Teutonic by st, est—Sk stha. Verbal formations of the past tense are similar: Sk ana, Eng en e.g. beat, beaten; The number of words which can be proved to have a common origin is enormously large: The limbs of the human body can be mentioned by making use of words having a common IE origin. Words showing blood relationship are also common. There is a large number of words dealing with agricultural & rural life which are also common. The following list will prove useful:


2. O. E. swote adv. Eng. sweet Sk. suðdy, Gk ἅδυς L. suadere Eng persuade.

Eng. quick Sk fīva Gk bios OE cwicu. —Ed.
<table>
<thead>
<tr>
<th>IE or Aryan</th>
<th>English</th>
<th>IE or Aryan</th>
<th>English</th>
<th>IE or Aryan</th>
<th>English</th>
<th>IE or Aryan</th>
<th>English</th>
<th>IE or Aryan</th>
<th>English</th>
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<tr>
<td>(anu)-swara</td>
<td>answer</td>
<td>dehas-daeza</td>
<td>dough</td>
<td>kaniyas</td>
<td>be-gin</td>
<td>prswa</td>
<td>frost</td>
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<td>antar-</td>
<td>inter-</td>
<td>diś</td>
<td>teach-</td>
<td>lubh</td>
<td>luve-</td>
<td>pasu</td>
<td>pecu-fee</td>
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<td>bandh</td>
<td>OE bindan</td>
<td>bind</td>
<td>ðāgha</td>
<td>daeg-</td>
<td>lḥ</td>
<td>-love</td>
<td>pad</td>
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<td>budh</td>
<td>bear-</td>
<td>-barn</td>
<td>hansa</td>
<td>goose</td>
<td>madhu</td>
<td>meed</td>
<td>vid</td>
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<td>cycle-</td>
<td>idum</td>
<td>ō</td>
<td>mṛṣa</td>
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<td>dha-dhe</td>
<td>deed,</td>
<td>jirna</td>
<td>corn</td>
<td>napṛ</td>
<td>nephew</td>
<td>vābha</td>
<td>web</td>
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<td></td>
<td>do.</td>
<td>jwal</td>
<td>coal</td>
<td>pri</td>
<td>free</td>
<td>vartate</td>
<td>worth</td>
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<td>duhitṛ</td>
<td>daughter</td>
<td>kanyā</td>
<td>hen</td>
<td>poorna</td>
<td>full</td>
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| NOTE II |

1 (Most of the etymologies given above in this note will be borne out by glance at the brackets in the C. O. E. D.).

vāhana waggon, wain
vānčchā want
These are not mere resemblances chosen at random; the comparisons yield a law which the words have followed while their speakers moved from one continent to another. Thus the languages show a clear relationship with the IE group; in fact they are branches of the great IE family whose history has been traced at least to 5 thousand years B.C. Germanic or Tetonic is the link that joins English with IA family of Languages.

The Tetonic or Germanic people whose descendants invaded England as Angles, Saxons the Jutes and later the Danes were sun-worshippers. They also worshipped the Moon (Sk candramas) Thor (In-dara) and Woden (Budha). They were a great sea-faring race of real warriors. They loved horse-riding and adventurous life on the high seas as their epics show. They were white, tall, well-built. They had an open, free and noble nature, and regarded valour as the highest value. They called themselves wiros i.e. heroes. Freedom was the primary condition of their life, the very breath of their nostrils. To die while fighting on the battle field was regarded an honour; one who drank wine in a goblet or chalice made of the enemy’s skull was sure to go to heaven.

Space does not permit us to treat fully the influence of Latin on English which was tremendous. The most obvious quality of the Romans was their gravitas and this gave them a capacity to organise a state and a church. Words dealing with these institutions were acquired by English in its early contact with Latin. e. g. When St Augustine converted the English people they already knew the meanings of the words saint, (L. sanctus), chalice (L chalix Sk. kalaša) and ‘mas’ at the end of the word, ‘Xmas (L missal-I go).

The Norman Conquerors enriched the language by giving it the vocabulary of law and fashion. In English the names of the beasts are Anglo-Saxon; e. g. bull cow (IE gows) ox
IE *uxan*). But the names of the rich foodstuffs prepared from their meat are Norman-French: OE *bull*, NF *beef*; OE *deer* OF *venison* OE *swine* NF *pork*. The Anlo-Saxons remained farmers and labourers while the Normans shared the sweets of the soil which, for them alone, flew with milk and honey. The words *supper*, *dinner*, *banquet*, *feast*, *lunch* are Norman French in their origin while the A. S. contribution to the vocabulary of the dinner table was *break-fast*. The Normans brought about revolutionary changes in state-craft and administration and made French the language of their law-courts. The Anglo-Saxon word *theod* was replaced by *people* and *guth* by *war*. Law brought in many terms with a special meaning: *judge*, *jury*, *assize* (IE *sad-sidali*) and *marriage* for *wedding* (IE *vedhu*). The names of most of the flowers and fruits are Anglo-Norman or Latin in origin. Only *berry* and *goose-berry* are A. S. and of course *straw-berry*. Words for pleasure and delight are from Latin but *hope* is purely A. S.

In English vocabulary, words denoting human life on the material plane expressing thirst, hunger and the desires of the body are derived from Old English. Intense religious feeling and worship are expressed in English by means of words borrowed from the Hebrew language. Intellectual grace and mental culture require words derived from Greek. The place occupied by German and Scandinavian words in English is the same as the place occupied by *bread* and *egg* in English life. As Otto Jespersion has observed, an Englishman *thrives* in Scandinavian words; is *sick* in the same way; and when he *dies* it is in Scandinavian words that the event is recorded.

The most famous English grammarian of to-day is a Dane. He has pointed out the enormous debt that modern English owes to the Northern tribesmen. The Sanskrit words *vastra* & *karpata* do not only point out the different varieties of cloth but also the status of their wearers, in the bargain!
-Costume and drapery and clothing also do the same work for English social history. Chaucer, who was a courtier and a poet uses Norman French words for clothing. The language of artists and artisans is Norman-French: Art, colour, arch, beauty, pillar, palace cloister, caster. The minor crafts use A.S. words: baker, miller, tailor are N.F. but the cobler, fisherman and the shepherd are accustomed to using AS words only.

The Chinese language is regarded as a good example of what is called Analytical language. In it every word is independent, and the meaning is fixed by its place in the sentence and not by a net-work of inflexions as in Sanskrit or Anglo-Saxon. For example, in Chinese the word-order ‘n-go ta ni’ would mean ‘I beat you’, Sk tvām aham hanmi; but if the order is reversed the meaning would also change in the opposite direction: ni ta n-go ‘You beat me’; but in Sk the change in the word order hanmi tvām aham makes no change in the meaning! English in the A.S. period was a synthetic language like Sanskrit and used inflections and terminations. Grammar was more important than logic in English in those days. The tendency in Modern English is now definitely towards analysis. In this process, the speakers of English out-side the United Kingdom have naturally played a prominent part. As English had become a World Language, it had to be a portable language. Jesperson gives a very good and humorous illustration of this point. The Chinaman described an ocean liner for Jesperson in this way:—“thlee piece bamboo two piece puff puff, walk along inside, no can see”. While thanking an English woman for her gift of coins showered on him from the top storey of the Taj in Bombay a snake charmer was heard by the present writer to say “Achhya mem-sāhib, thank, snake put water?”. Here is language denuded of all grammatical superfluities. It is as near ‘the thing itself’ as the speaker can possibly go.
Now, this process of analysis had started when Germanic discarded pitch for stress, cut out the number of terminations and inflections, restricted the number of cases to four and discovered the use of auxiliary verb-formations whenever necessary. This was not the product of any artificial movement inaugurated by man; it happened in the natural course of things and historical events. And English is continuing the progress from synthesis to analysis, from tradition to utility, from grammar to logic. It is the aim here to suggest that all this happened in consonance with the genius of the IE, but without any conscious effort, and as a result of the fact that English became a world language in the last century. Among the modern Indian languages what is known as Bazaar-Hindustani seems to be developing along these lines.

Modern, scientific discoveries have made time and space shrink in size and duration. Will it not be advantageous for our working languages to adopt themselves to the everchanging environment and cut their coat according to the cloth that is available? This, it would seem is the way to survival; and English has made this discovery already.

Those who love to watch small children blowing bubbles by means of a glass tube filled with drops of a solution of water and soap know the two stages of the play! First the child dips one end of the pipe in the solution and without taking it out blows gently through the pipe so that the whole surface of the saucer or dish is filled with contiguous though circular bubbles of soap-suds. In the second stage, these static bubbles that go nowhere do not satisfy. So the tube is dipped and filled with a film of soap-suds and then slowly removed from the dish. Then the child blows gently to produce separate bubbles, each bubble being a tiny, light, translucent globe floating in the air. These bubble-globes move with a freedom and lightness, and have all the splendour of the rainbow epitomised
in their brief and brittle existence. The case with words is similar to this. A short word or a short sentence can go round the world on the shortwave without much difficulty. It seems to be stream-lined for success in the future.

NOTE 3

SOME ANCIENT AND RECENT MARĀTHI BORROWINGS

Marāthi came into contact with Hebrew in the year 70 A. D. when some Israelites landed at Colaba. Their persecution at home by the Christians may have been one of the causes of their arrival here. Though our contact with them is very old, there has been very little borrowing from the Hebrew language. The proper name of Sarah (Mar. Sārābāi) and the word sabatha for Sabbath may be cited as instances of the borrowing from Hebrew. It would seem that as Marāthi was already rich in words expressive of religious fervour and spiritual life, there was no need to borrow words from Hebrew, a language rich in words of this description. In fact the Hebrew language enriched Modern European Languages with a large stock of such words.

Marāthi however absorbed a number of Persian and Arabic words fairly early in its development. This was the natural consequence of the gradually growing political influence of the Arabs and the Persians. Nāmadeva uses the the Pers. adverb va. In the Bahāmani period the following words displaced the Sanskritic words synonymous with them:—

\[\text{Kaji, faisalla, insaf. Pītā was replaced by \textit{bin}, \textit{bhratār} by \textit{kom} in legal documents; Amālya gave place to hukumal-panha; and paik and naik became havildar and jamadar.}\]
Persian terminations *ana, vala, khora, dara, navisa, banda, manda* are still doing yeoman service to written and spoken language. *Patra* was dropped in favour of *kāgada* or *kāgaj*. Marāṭhi still uses a number of Persian prefixes and suffixes:—

1. गै-मैत्री *maitri*, तौड़ी *tondi*, दोस्ती *dosti*. 2. गी-की-aki-पोटगी *poragi*, निमकी *nimaki*, पाटिल्की *pātilki*, गांबकी *gāmkī*.


7. *dar-कंतरदार* kantrāta-dāra is Marāṭhi through Eng. and Persian.

8. खोर- *śāke-khor* खेक्खोर, शेक्खोर, *bundakhor* बंडखोर.

9. We have also prefixes as in *bedhaba, betula, be-akali* & *nāpik* (*barren*) nādara (*not paying fees etc*).

The outer ring of the Marathi speaking area came into contact with the Portuguese along the Western Coast and in Goa in the 15th Century. This was the first modern contact with the speakers of a modern European language. The “substratum” took words from Portuguese only to change their form to suit its speakers:—Port, *governer* became Mar. *govaran-dara*; *verandah* is Hindī *baramda* (NERHUR: Meri Kahānī in Hindi trans.). *Potato*, Mex. *patata* Mer. *batātā*; *alfonso* is *hāfūsa* (fruit); also *pao-roti, lonacē, feeta, ghamele, galabata*.

The French (*Franks*) were called *firangīs* in Marāṭhi. They gave many words denoting fashion and words useful in Military organisation: Among others we have *phānas* for lantern and *phānūs* for ordinary lamp which are more current in the Thana district than in Poona or Nagar. *Bāk* is Fr. *bench*. From the Dutch we have words like *spchope* M. *isapikh*, and *spade* M. *ispida*. 
The number of English loan words in Marāthi is the largest. The duration of our contact with English was longer than that with any other modern IE language. It covers 350 years; it was very close during the last 150 years. The number of borrowed words is not as large as might have been expected. There is however clear evidence of the fact that in borrowing English words, greater care was taken to approximate as nearly as possible to their original English pronunciation, owing to the spread of English education in the country during the last half of the period of British occupation. The ‘substratum’ however did add an element of humour unconsciously while treating the names of English fighters and politicians. Thus Elphinstone was pronounced Ala-piṣṭana, Hastings Iṣṭiṇa, Goddard Gājara. An exhaustive list of English words cannot be given here; but a handful of words will exhibit the treatment these “guest-words” received on arrival:—A North Indian bhayā who was my servant called the income-tax-officer, com-tikas-hapsar; station is pronounced thesan and even thecan; in Marāthi plat-form becomes falāta, and lantern lalten with or without the final a in Marathi. Mar. hadel-happī is the “order arms-hordel hupp” of the Jamādar; so thanda tea is not tea served from the refrigerator but a Marathification “of stand-at-ease”!

It is not to be wondered at that the German language could not be laid under contribution except in recent times. Most of the words are a post-war acquisition: blitz is fairly generally known; and Luft-waffe is a candidate for adoption yet. The Japanese riksa is quite familiar as jin-jana-riksā: harā-kiri was recently acquired. Our recent contact with China introduced names of various blends of tea: jukuja and pekoe-souchong. The number of Chinese words would seem to be greater on closer scrutiny, for our contact with China is age-old.
NOTE III

It would be interesting to trace the etymologies of some commonly used words in Mar. which show the presence of the austric element in the modern Indian languages:

Mar. mănjarā—a cat—is supposed to be derived from Sk. mārjāra which however in Vedic Aryan meant a peacock. Nor does the cat belong to the fauna of the Aryan ‘Urheimat’ of the scholars. The Pr. vanjār suggests Sk. vana-cara as a probable origin. But the Austric majjara seems to possess a greater claim to that title. Therefore Sk. mārjāra, Mar. mănjarā, was a Sanskritification of the Austric majjara when the Aryans saw the cat in Indian landscape. Similarly, Mar. mākada, Guj. mankada Skr. markata comes from Dravidian mar or mara = tree plus kat or kata = to jump. Brāh. pisā = a cut; cf. Mar. pis-pis or fis-fis as repetitive terms inviting a pussy-cat when not in her mood!

The word baxi in Mar. is a good example of the vicissitudes through which it has gone in its long history. It now means an officer in the army. It goes back to Chengiz Khan and his Tartars who called the Buddha Bikṣus, “baxis”. It then came to mean a scribe or clerk of the monasteries. In Baber’s regime, it acquired the meaning of ‘surgeon’ or śastra-vaidya. In Western Turkey it means a court poet, while the Kazzaks of the Kirghiz Steppes denote a mantra-vaidya or an enchanter by it. During the Moghul Empire the pay-masters of the army were called the baxis!

Language is said to be fossil poetry. This is illustrated by the Mar. word māru, Per. mah Ar. mas—moon and ru—face; māru—face-like-the-moon.

Sk putra-pota gives Pāli poto; Nepali pothi means a hen; Malayālam povo (young one of a) serpent. Cp. Gk. panros Lat parvus all going back to IA putraka. Sk latati gives Hindi lada-dha-rha-ka Mar leka, Malayālam has jhillaga, jhilla-young or small cf. Mar. chillim-pilliṃ Sk. kunda—
golaka—also means offspring with which compare IE kurno Sk kundan. Sk śīṣu IE kesi—swell. Do these etymologies help us in finding out the etymology of Mar. mulagā?

Mar. and Sk kavi have IE que Serb cuvalti Lith kavoli and Goth hausjan as their IE parallels. Mar., Hindi kirpaṇa IE qerp, Gk karp, Lith kerp Mid. Eng. carpe connected with modern English harvest.

Mar āttyā, father’s sister, has IE atta L. atta Goth atta Norw. Edda—great grand-mother.

I cite some more examples illustrating the phonetic laws. IE and Sk darbha remains a tadbhava word in Mar. but in Teutonic it is turf, Eng turf, Germanic turba. Mar dhāma Sk & IE dhe Anglo-Saxon don Eng dome. Mar. paka IE peq Lat coq Germ choh, koch Eng cook and cake. Mar and Sk panka IE penges Ger. fanne Eng fen. Eng token goes back to Teut teg- Gr deik—IE dec Sk and Mar ādesa. Eng ask Teut aistan IE ais aissk Sk and Mar iccha. Mar kamara = waist L cam, (camera), IE qem = bend, Cam = (bridge) because the Cam is a winding river!

Some Pre-Aryan and Pre-Dravidian borrowings in Marathi

The resemblances between some Marāṭhi and Austric words were pointed out some years back by Silvan Levi. The pioneer of Austric hypothesis—which is no longer a hypothesis but an established fact—is P. Schimdt who gives a closely scientific comparison between IA and Austric in his excellent Introduction to Pre-Aryan and Pre-Dravidian. The Austric group consists of (see India, language Map) Khmer, Annam, Khasi, Nicobarese, Munda, Santalese and includes the Polynesian and Indonesian among other Pacific languages of the south. The speakers of these languages would seem to have been pushed back or pushed out of the Peninsula by the IA invaders or their forerunners. There are many borrowings
from the Austric group both by the Middle and Modern Indo-Aryan.

Thanks to the researches of recent scholars, we are now in a position to state that there were three periods of Revival of Sanskrit in India:—I The period of the Sanskritization of Mahābhārata; II The Gupta Revival; III The age of Hemacandra Suri. The words from the southern or Austric languages must have crept in during one of these periods. The Marāthi borrowings are philologically the most instructive.

<table>
<thead>
<tr>
<th>Mar</th>
<th>MIA or Sk</th>
<th>Austric</th>
</tr>
</thead>
<tbody>
<tr>
<td>गुंस</td>
<td>iṣa</td>
<td>ikṣu-daṇḍa sau or bus</td>
</tr>
<tr>
<td>तांबोली</td>
<td>tāmboli</td>
<td>tāmbūla</td>
</tr>
<tr>
<td>बाण</td>
<td>bāṇa</td>
<td>boṇap</td>
</tr>
<tr>
<td>कार्पस, काप्त</td>
<td>कार्पस, काप्त</td>
<td>kar, pasa, soka, tonka</td>
</tr>
<tr>
<td>कापड़</td>
<td>कापड, कापान</td>
<td>kāpada, kāpasa</td>
</tr>
<tr>
<td>केले, केलम</td>
<td>keleṇi kełam</td>
<td>kadalī, kalai, glu, gelai</td>
</tr>
<tr>
<td>मालंग</td>
<td>mālāngā</td>
<td>mālāngā, tonga, tunga, danga, selūpata, slūpta,</td>
</tr>
<tr>
<td>सालपत</td>
<td>sālapata</td>
<td>mārara</td>
</tr>
<tr>
<td>मकर</td>
<td>makara</td>
<td>marara</td>
</tr>
<tr>
<td>मर</td>
<td>mar</td>
<td>marara</td>
</tr>
<tr>
<td>अभ्रक</td>
<td>abhraka</td>
<td>abharaka, bhraka,</td>
</tr>
</tbody>
</table>

Among the Pre-Dravidian words in Sk and Mar we have the following:—

Sk sphyai Mar phavade, Mar kālā-kutta Pre-Dr herekot. Mar us'ī Sk upāsari; Mar khichadī Sk kṛṣara (Pancavims'ati Brāhmaṇa); Mar das'ī Sk dasā (S'atapatha Brāhmaṇa).

Also Pre-Dr ohādi-wife, dos'ī-old-woman, kurūpasa-kurup. Mar rāmafa = custard-apple = rambai, rambatuna; and Mar hudakanem—hilke.
NOTE 4

A NOTE ON MUḌĀ

The influence of Muḍā (spoken on the southern slopes of the Himalayas and round Chota Nagpur), is seen in the complicated system of tenses in Bihārī. It would seem that the first person singular and plural pronoun अपना (āpana) is a gift from Muṇḍari not only to Hindī and Marāṭhī but also to Gujarāti e.g., \[\text{C. P. Hindī: } \text{āpana gaye the;} \text{ and, har gaye the} \]
\[\text{Gujrāti: } \text{ame gayā hatā;} \text{ and, āpana gayā hatā} \]
\[\text{Marathi: } \text{āpana gelom hotom} \]
Muṇḍā has abona and ale = Hindī ham. But abona = the hearer + the speaker. Gender is not grammatical in Muṇḍa: living beings are masculine — irrespective of sex — non-living things are feminine.

NOTE 5: A brief note on Tokharian

Tokharian: This language belongs to Turfan in Central Asia. It is now an established fact it is a branch of the IE, and belongs to the ‘centum’ group. It has pronouns and numerals as in IE. The language has a smaller number of consonants than IA. In vocabulary it is akin to Sanskrit. Ms. fragments in Tokharian of the 6th Century A. D. were found in Chinese Turkestan. It shows a great influence of Ural-Altaic.

<table>
<thead>
<tr>
<th>Sk.</th>
<th>Gk.</th>
<th>Tokharian</th>
</tr>
</thead>
<tbody>
<tr>
<td>पितृ</td>
<td>पतेर</td>
<td>पाचर</td>
</tr>
<tr>
<td>मातृ</td>
<td>मेटेर</td>
<td>माचर</td>
</tr>
</tbody>
</table>
NOTE VI

Sk. Gk. Tokharian
bhṛāṛ 

prātēr 
pracar cp. Mar. bhūcar
(bhūcar) = nephew.

viṃh kērōś IE viṃ vir

svan Lat ancis ku

(cp. Mar. KūKū!
calling a dog that is
missing to come
and eat his bread !)

NOTE 6

TOWARDS PORTABLE HINDI?

Dr. S. K. Chatterji, illustrating the advantages of a working
language over the comparatively encumbered literary language
gives the following examples. The Hindi sentence main-ne
bhāt khāyā when translated into English word for word means
‘me-by rice he-was-eaten’. Similarly Hindi ‘main-ne rōtī khāyī’
would mean me-by bread she-was-eaten. These examples
clearly show the difference between the two types of languages—
viz. isolating and inflectional types. In plain English three
words would suffice to convey the meaning clearly. I ate bread
or I ate rice! And in what is called Bazaar Hindi it is actually
expressed in three words as follows ham rōtī khāyā or ham
bhāt khāyā. Language thus becomes ‘portable’ by giving up
unreasonable grammatical traditions and putting logic before
orthodoxy or prejudice. Germanic did it; English did it.
Let us see what Hindi will do! Hindi comes after Chinese and
English as the third great language of the world. It is actually
the mother tongue of a larger number of men than is English
and therefore it has a great future before itself indeed!
Table I

<table>
<thead>
<tr>
<th>Pre-Vedic</th>
<th>Aryan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prākrit</td>
<td>Pratīcyā</td>
</tr>
<tr>
<td>Udīcya</td>
<td>Madhyadesiya</td>
</tr>
<tr>
<td>Khotan Pāśaci Apabhramśa</td>
<td>Sauraseni</td>
</tr>
<tr>
<td>Kekaya</td>
<td>Avahatta</td>
</tr>
<tr>
<td>Lahanda Naga Vṛā Uap (Takka)</td>
<td>Pascima</td>
</tr>
<tr>
<td>Ra Cad Naga Aara</td>
<td>Hindi</td>
</tr>
<tr>
<td>Sindhi</td>
<td>Rāstani Gujjāti</td>
</tr>
</tbody>
</table>

After Grierson's Linguistic Survey of India
The figures to the right are based on the Census Report of 1931.

Table II

<table>
<thead>
<tr>
<th>Language</th>
<th>Number of Speakers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hindi</td>
<td>12,12,54,898</td>
</tr>
<tr>
<td>Bengali</td>
<td>5,34,68,469</td>
</tr>
<tr>
<td>Marāthi</td>
<td>2,13,61,399</td>
</tr>
<tr>
<td>Panjābi</td>
<td>2,46,60,680</td>
</tr>
<tr>
<td>Tamil</td>
<td>2,04,11,652</td>
</tr>
<tr>
<td>Canarese</td>
<td>1,12,06,380</td>
</tr>
<tr>
<td>Telugu</td>
<td>2,63,73,514</td>
</tr>
<tr>
<td>Gujjāti</td>
<td>1,08,50,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Language</th>
<th>Number of Speakers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malayalam</td>
<td>91,37,615</td>
</tr>
<tr>
<td>Dardic (Belucistan &amp; }</td>
<td>37,88,967</td>
</tr>
<tr>
<td>{ Kaśmir</td>
<td></td>
</tr>
<tr>
<td>Tibetan &amp; }</td>
<td>1,29,89,606</td>
</tr>
<tr>
<td>{ Brāhmi</td>
<td></td>
</tr>
<tr>
<td>Mundā</td>
<td>46,05,071</td>
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<tr>
<td>Mon-Khmer (Burma &amp; }</td>
<td>7,33,006</td>
</tr>
<tr>
<td>{ Nicobar</td>
<td></td>
</tr>
</tbody>
</table>
GLOSSARY OF TECHNICAL TERMS

ABLAUT, change or permutation of vowels in strong verbs to indicate change of tense, etc: *sing, sang, sung, song*. Also called vowel-gradation by modern English linguists. Some scholars call it *apāsruti*. (Chatterji)

ACCENT. The element in a word which determines its value in a sentence. A prominence given to a syllable by (1) a higher musical pitch (as in Aryan, Greek, Latin and Scandinavian) or by (2) stress (as in English, German, but not French) Sk. *plāvas* a boat; Gk *plo-ós* = navigation. Pitch accent is also known as musical or chromatic accent.

Cp इन्द्र रात्रि: and इन्द्रानु:.

ACOUSTICS, pertaining to the sense of hearing. Just as phonetics is the science of voice as it is produced, acoustics is the science of sound as it is heard. In the production of sound change, both the speaker and the hearer are involved. The three stages in speech-sound are (a) the speaker's situation (b) actual production of speech sound and (c) the actual vibrations of the ear-drum of the hearer.

AFFRICATES, consist of a stop followed by the corresponding spirant in the same syllable. (e.g. Germ. *pferd, zahn* and *kx* in Swiss dialects).

AGGLUTINATIVE, (Gk *gluten*, lime) a language consisting of simple words combined into compounds without change of form or loss of meaning, like the Turkish, the Tibetan—Morophological Table given below will make this clear:

<table>
<thead>
<tr>
<th>Language</th>
<th>Isolating</th>
<th>Agglutinative</th>
<th>Inflexional</th>
<th>Incorporating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Old Chinese—Tibetan &amp; Burmese</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mod. English.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ALVEOLARS, sounds which are produced by the tongue touching the prominences caused by the roots of the teeth= Dental. \( t, th, d, dh \) and \( e_i \) among vowels.

ANAPTYXIS = (swarabhakti, स्वरभक्ति) i.e. insertion of a vowel between sounds difficult to pronounce, e.g. H. M. चन्द्र candara for Sk चन्द्र candra; Indara for Indra. Eng. elem for elm. Also dараsana दर्शन for dарsana दर्शन. Sometimes a consonant helps:— tumula tumbala तुमुल, तुम्बल.

ASPIRATES: are distinguished from stopped sounds by the breath which succeeds them before another sound is produced. (qh, kh, th, ph, bh, are aspirates.).

CEREBRALS, are produced sounds when the point of the tongue is turned back: \( t, th, d, dh \); l and r.

CIRCUMFLEX, Latin translation of Greek perispomenos = mark to indicate contraction, length or special quality of vowel. The Gr. grammarians had three words to denote this: mēsē, oksubāreia, perispŏmēnē.

CONSONANT, Sound of voice produced with the help of a vowel. In the case of consonants, friction is audible. Consonant = Stop. Some consonants in which friction is slight are called semivowels or syllabic–consonants (ɪ and ɾ) Sonant nasals are (m, n) eg. in calm, \( l \ m \) are as good as syllables.

Cuneiform writing, Writing on wedgeshaped background, or in the shape of wedges in ancient Persia and Assyria (O.E.D.) and Mohenjo Daro.

DIALECT, Form of speech peculiar to a district, class, or person, subordinate variety of a language with distinguishable vocabulary, pronunciation or idioms. (O. E. D.). Arcadian, Ionian, Doric, Aeolic, Cretan are dialects of Greek.

DIPHTHONGS: combinations of two sonants in the same syllable. ay, ae, ou,
EPENTHESIS, insertion of a syllable or letter within a word, or at the beginning of a word as in Avesta and Persian eg. Sk. भवति (bhavati). Av. bavaiti, Eng. school Pers i-school. Eng. smiles Pers. i-smiles.

FRICATIVE: consonant made by friction of breath in narrow opening, as $f$, $th$, Scotch $ch$.

HIEROGLYPH, (Gk gluphe = carving.) Figure of an object standing for a word, syllable or sound as used in ancient Egyptian writing. e.g. Figure of a vine creeper for an orchard or garden.

HAPLOGRAM: When one out of two similar syllables is dropped (Bloomfield) e.g. Lat. semi modius = semodius.

KUNSTSPRACHE: artistic speech used in prayers and songs as distinguished from the language of the masses, used by them for every day purposes, and dealing with the realities of life.

LABIALS, consonants, $p$, $ph$ $b$, $bh$, and $o$, $u$, which require lip service to stop friction. Labio-dentals are $f$ and $v$.

LIQUIDS, = $l$, $r$, and $l$.

DENTALS, consonants, $t$, $d$, (Skr. त, द) produced by the contact between the tip of the tongue and the ridge of the teeth. The contact takes place at a variety of points in the semicircle of the ridge. Hence the variation in dental consonants in all languages. त, द, ट, ठ, ड, ढ (t, d, t, th).

LAUT-VERSCHIEBUNG: Sound shifting of the Germanic language, or Grimm's law in operation.

MEDIAL, one of sonant-mute group ($g$, $d$, $b$). They come between (1) the surd or smooth group ($c$, $t$, $p$) and (2) $gh$, $dh$, $bh$, $kh$, $th$, $ph$, rough or aspirate group.

* METATHESIS, Phonetic change produced by transposition of sounds in a word. e.g. M. बनार्स Sk. वाराणसी vārāṇasi
(Benares) फाटक phātaka and फाकट phākata. See f. n. Pers. *maṣahīra* M. *mahāsīra*.

**MORPHOLOGY**: study of the forms of words; the science of the development of forms of word showing the part it plays in a sentence. Thus a word is made up of two elements, the stem or the root and the flections or terminations which link it up with other words in a sentence.

**PALATALS**: sounds produced by the tongue when approximated to the roof of the mouth. See palatal law, *k, kh, g, gh* and *ei*.

**PHONEMES**, are families of sounds occurring in a language as pronounced by a single individual. e.g. in the series *keep, cool, cot*, the three (*K*) sounds, belong to the same family of sounds *k*-phoneme. It is a distinct unit of speech-sound. Thus we have *alpha*-phoneme, *beta*-phoneme and so on. 'A phoneme has been defined as a family of related sounds of a given language which are so used in connected speech that no *one* of them ever occurs in positions which any other can occupy in that language'. *e.g.* Eng. *heal, call, king, queen; pin, bin thin, tin*.

**Dr. S. K. Chatterji** (Bengali Phonetic Reader p. 8)

'A speech-sound is a sound of definite acoustic quality produced by the organs of speech. A given speech sound is incapable of variation'. (*Ibid*, p. 7).

**PHONOLOGY**, science of speech sounds including the history and theory of sound changes in language. It associates meanings with sounds in a continuous speech event by comparative-methods.

**PHONETICS**, science of analysis and classification of the actual sound in pronunciation. This excludes the history and theory of sound change. Each language has its own phonetic individuality. Thus English has mixed vowels, no round
vowels as in French and is rich in hiss sounds. Arabic has back-throat gutturals like the inner (k). Harsh consonants are tolerated in English and Arabic; but Arabic excludes them from the beginning of a word (eschool for school). French gives equal stress to all the syllables; English has one strong stress. Russian has no quantitative distinction of vowels. Spanish sounds are very harsh and brutal owing to its short vowels and falling intonation, whereas rising tones give dignity and power to English. Swedish is heavy and harmonious.

Varied word "tones" give a peculiar animation to the Chinese language "which resembles the twittering of birds". N. B. Laboratory phonetics is a new Science which studies the phenomena of speech sounds by mechanical aids like the laryngoscope or X-ray Photography and other recording instruments. Such a record of speech-sound is made by means of a kymograph. But this does not enable us to study the meanings of sounds by itself. This is the province of Phonology.

ROMANCE languages, are languages derived mainly from the lingua Romana rustica, or Latin spoken by soldiers and country people. They are French, Spanish, Italian and Portugese. Thus the word fealty is derived from fides, faith. But chivalry is from low Latin caballus, a horse.

SONANT, voiced, not surd i.e. capable of being sounded continuously, accompanied by vocal vibration. (e.g. b, d, g, j, v, z).

SURD, Consonantal sounds uttered with the breath alone and not the voice (e.g. h, f, s, etc.). √ = noiseless.

SPIRANTS: rubbing sounds produced by expiration of breath through a narrowed passage. To every stop we have a corresponding spirant. (t and d, have th and dh)

SPIRITUS ASPER: Is an unvoiced spirant in the glottis itself which is denoted in Greek by ' See note on Greek.
STOPS: or mutes are sounds in producing which there is a brief interval of absolute silence, (e.g. k, g, kh, gh, q, qh, t, d, th, dh, and p, b, ph, bh, are stops, and a, o, u).

SYNCOPE: Word contraction by loss of vowel e.g. Sk. rājan-rādnyā (राजन् + आ - राजा). Eng. Symbolology for Symbolology. M म्हाताल्डी, वराल्डा, (varalda), पाल्डा (palda) for ओरड्ला (oradla), पाड़ला (padala).

TENUISS (pl. ez), Hard or surd mute (k, p, t; √ thin, Sk. tanu.)

VELAR; Sound in which the soft palate (velum) takes a prominent part is called velar, which is a very guttural sound (q, gh, g, gh, are velars).

Voiced stops = consonants described as kathora vyāńjanas by Indian grammarians: क त प or k, t, p,

un-voiced stops = soft consonants or mṛdu vyāñjana (मृदु व्यञ्जन) g, b, d, (ग ब ड) aspirates are consonants voiced with full breathing: (gh, bh, dh; kh, th, ph)

VERKEHER-SPRACHE: “Speech of work” i.e. working language. In the give-and-take of daily intercourse language is subjected to wear and tear. It thus loses its grammatical and cultural purity which is retained in Kuntsprache. It is speech shaped in the maelstrom of daily circumstance.

VOWEL, sound or tone produced by the unimpeded passage of the breath, modified by the glottis into voice; the position of the tongue and the lips determines the shape of the vowel; a e i o u represent vowels though there are 13 simple vowel sounds in English. Sk. Sawara = an independent unit of voice. “Free passage of air through the mouth without causing audible friction”. —Daniel JONES
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