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INDO-ARYAN
FROM THE VEDAS TO MODERN TIMES

English edition
Largely revised by the author and translated

BY
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When I was paying a visit to Professor Jules Bloch in the summer of 1946 at Sèvres, I suggested to him that an English translation of L'Indo-aryen was overdue and he asked me if I would be willing to do the work. I agreed and began it almost immediately. Sir Ralph Turner (then Professor Turner) generously undertook to read my draft and to advise me on any point that seemed to deserve comment before submission to Professor Bloch for final approval.

By the end of 1950, five-sixths of the translation was completed. My time at the School of Oriental and African Studies was then up and I joined the Indian Office Library as Assistant Keeper. The Library was only just recovering from the disorganization caused by the war and there was still much work to be done before any department could be restored to a satisfactory footing. I found myself unable to continue the translation. I left the India Office Library at the end of 1957 and then decided to write a thesis for the degree of Doctor of Philosophy, which I took in 1962. I then returned to the translation, which is now completed.

Professor Bloch had intended that the translation should, in principle, preserve the date of the original work, but, as time passed, it became clear that it was rapidly becoming a second edition. Seven printed pages of corrigenda contributed by eight well-known scholars had been first incorporated. The procedure then was to send the resulting translation in batches, first to Sir Ralph Turner, who returned them with his notes. These were then sent to Professor Bloch, who made notes accepting, rejecting or modifying the revised translation. Points of doubt were left to my discretion. In 1953 Professor Bloch died. The universal esteem and affection in which he was held, are illustrated by an extract from a letter to him from the late Professor F. W. Thomas, dated May 31, 1934. "Your l'Indo-Aryen, which I am gradually absorbing... is a perfect boon to me at present, when amid the rush of this climatic period in our University town I can read nothing else. Your sure touch and fine observation and your moderation and hold on reality give to the
details a satisfying character which renders the perusal even in small
snatches remunerative. One has a sense of acquisition, and a
feeling that the remaining pages contain many agreeable revelations.
When the term is over, I shall indulge my appetite with less restraint
and then I will write again to report my progress as your disciple
and to present any śāṅkās for your kind elucidation”.

The translation of the remaining 72 pages never passed beneath
the author’s eye. But this loss was partly remedied by Mme Bloch,
who put into my hands the author’s interleaved copy with copious
notes and Sir Ralph Turner continued to give me his generous and
valuable advice. The results, I hope, are such as Professor Bloch
would have wished.

I have followed the original make-up as closely as is consistent
with English practice. The “Indications bibliographiques” have
been rearranged in alphabetical order under the language headings
and the Table of Abbreviations has been enlarged. A short Index,
which I originally prepared for my own use, has been added.

A word must be said concerning orthographies. Sanskrit and
Prakrit words have the generally recognised transliteration but in
Apabhrāṃśa words the tilde “ is sometimes used for anusvāra; this,
if blurred, may be mistaken for a macron and lead to wrong
conclusions. It makes for an awkward type, when used with the
macron (or micron). The alternative ी is too solid for many
eyes, but has typographical advantages and is less misleading than
the tilde, when used to represent a class nasal. As for the vernaculars,
it is customary to use a broad phonetic transcription not very different
from the strict transliteration of the traditional script, but having the
disadvantage of representing prosodies not recognised in writing by
the general body of speakers of the particular language. The
comparative philologist has to choose between two systems, if he is
concerned about avoiding inconsistency. This is tantamount to
editing his sources, often a dangerous practice. Professor Bloch’s
“hold on reality” causes him to ignore such inconsistencies, so long
as they do not affect his demonstration. In some cases he is hesitant,
when he makes his own transliteration from an Indian script. Thus
on page 263 occur the spellings asata, tinhī, ōalmaiṭa, usalatā,
marte. Strictly transliterated they are asata, tinhī, ōalmaiṭa,
usalata, marate. In the former group a is represented by a, super-
script ə and zero. Tinhī, however, does not represent tinhī. I have
changed the spellings accordingly, and I am confident that Professor
Bloch would have given his approval.

For Sindhi he follows Grierson, who follows Trumpp in the use
of superscript letters as in corə, rāt₁, Accordingly, on p. 280, bottom
line I have corrected katab to katabu, although the spelling of the Nepali Dictionary katabu is preferable, as in the case also of coru, rāti. Further, the French text is inclined to use z for j before back vowels in modern Marathi. But this pronunciation may have existed also in old Marathi and its exclusive use for this dialect implies a judgement which is not in fact made. The transliteration has therefore been regularised.

It is fitting to mention here Professor Bloch's tribute to his old teacher Professor Meillet, who read a great part of the original proofs, which has been deleted from the last page of the text as being admittedly out of place.

My own thanks are due in full measure to the firm of Adrien-Maisonneuve, the publishers of the original edition, for their enterprise in publishing this translation also.

I have already mentioned the invaluable advice given by Sir Ralph Turner during the progress of the translation and, indeed, afterwards, for which I am in his lasting debt. I must not forget Madame Colette Caillat, who has cheerfully helped to clear up certain points connected with publication, which could best be settled in Paris.

Then lastly "j'offre mes hommages" to Madame Yvonne Bloch, who has shown a keen and unfailing interest in this last memorial of her husband's work.
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Finally, bearing on general questions:


It will be sufficient to cite one dictionary, comparative and of the first importance:


Journals:

BSOS Bulletin of the School of Oriental (now ‘and African’) Studies.
IF Indogermanische Forschungen.
IHQ Indian Historical Quarterly.
JASB Journal of the Asiatic Society of Bengal.
J.As. Journal Asiatique.
JRAS Journal of the Royal Asiatic Society.
KZ Zeitschrift für vergleichende Sprachforschung.
MSL Mémoires de la Société de Linguistique de Paris.
ABBREVIATIONS AND ORTHOGRAPHIES

(For abbreviations of names of Sanskrit, Pali and well-known Prakrit works see standard lexica and grammars)

Afghan = Pashto, Paš (χ)tu.
AMg. Amg. Ardhamāgadhī.
Apa. Apabhraṃśa.
Ar. Arabic.
Arm. Armenian.
As. Asokan, Aśoka.
Ashk. Ašk. Ashkun, Aškun (Kaf.).
Ass. Assamese, Aχaṃīyā.
Av. Avestan.
Aw. Awadhī (E. Hindi).
Bairāṭ (As.) = Bhābrū.
Bal. Balochi, Balochī.
Barābar (As.).
Bashgali = Katī.
Beng. Bangāli, Bānlā.
Bhabra Bhābrū = Bairāṭ.
Bhav. see Bibli. Notes, Jacobi.
Bhojpuri (Bih. d.).
Bih(ārī).
Br(aj Bhākhā).
Brokpā (Shi. d.).
Bundelī (Hin. d.).
Chat(tīṣgarī) (E. Hin.).
Chil(asī) Čīlāsī (Śīnā d.).
Chitr(ali) Čitrālī = Khowar. d. dialect.
Dam(ell) S. Chitr.
Dh., Dha. Dhaulī (As.).
Drav(idian).

Dutr., D. de Rhins see Bibli. Notes, Senart.
E. eastern.
Ep. Epic.
Eur(opean).
Garw. Gārwalī (Dard).
Gawb., GB Gawar bati (S. Chitr.).
Gir., G. Girnār (As.).
Gk. Greek.
Gu(jarātī) also G.
Hin., H. Hindī, Hindostānī.
IA Indo-aryan.
IE Indo-european.
Indo-ir(anian).
Iran(ian).
Jaunsārī (W. Pahāṛī).
K(ālsī) (As.).
Kaf. Kāfīrī.
Kal. Kalasha, Kalāśā (Kaf.) also for Kālsī.
Kan(naḍa).
Kan(aujī) (Hin.).
Kash., Kš. Kashmirī, Kāšmīrī (Dard).
Katī (Kaf.).
Khow(ar) Khowār = Čitrālī.
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<td>Kum(auni)</td>
<td>(Pahārī).</td>
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<td>Lahn., Lah.</td>
<td>(Lahnā Panj.).</td>
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<td>Lakhim(puri)</td>
<td>(Aw. d.).</td>
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<td>Lat(in).</td>
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<td>Lith(uanian).</td>
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<td>Mah(ārāśtrī).</td>
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<td>Maiyām</td>
<td>(Sh. d.).</td>
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<td>Maith(ili)</td>
<td>(Bih. d.).</td>
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<td>Malw., Mal.</td>
<td>Mālwi (Raj.).</td>
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<td>Mans.</td>
<td>Mānsehra (As.).</td>
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<td>Mar., M.</td>
<td>Marāthī.</td>
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<td>Marw., Mrw.</td>
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<td>Mew(āti)</td>
<td>(Raj.).</td>
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<td>Mg.</td>
<td>Māgadhī.</td>
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<td>M(iddle)</td>
<td>I(ndian).</td>
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<td>Mvu</td>
<td>Mahāvastu.</td>
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<td>ND</td>
<td>see Bibl. Notes, Turner.</td>
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<td>Nep(āli)</td>
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<td>Niya</td>
<td>see Bibl. Notes, T. Burrow.</td>
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<td>Nuri</td>
<td>(Rom. d.).</td>
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<td>O.</td>
<td>old.</td>
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<td>O.H.G.</td>
<td>Old High German.</td>
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<td>Or(iyā)</td>
<td>= Oriyā.</td>
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<td>OWR</td>
<td>Old Western Rājāstānī.</td>
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<td>Pa.</td>
<td>Pālī.</td>
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<td>Pash., Paš.</td>
<td>Pashai, Pašai</td>
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<td>Pāshì</td>
<td>(Kaf.).</td>
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<td>Pashtu = Afghānī.</td>
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<td>Pers(ian).</td>
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<td>Pkt. Prākṛta.</td>
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<td>Praš(un)</td>
<td>(Kaf.).</td>
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<td>Ptol(emy).</td>
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<td>Raj.</td>
<td>Rājāsthānī.</td>
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<td>Rāmagh (As.).</td>
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<td>Rom(any)</td>
<td>Romanī.</td>
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<td>Sadd(ānīti)</td>
<td>see Bibl. Notes, H. Smith.</td>
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<td>Saur.</td>
<td>Šaurasenī.</td>
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<td>Shah., Sh.</td>
<td>Shāhbadzarhī (As.).</td>
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<td>Shi., Sh.</td>
<td>Shina, Şīnā (Dard).</td>
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<td>Sid(dāpura)</td>
<td>(As.).</td>
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<td>Sind., Sdh.</td>
<td>Sindhī.</td>
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<td>Singh., Sgh.</td>
<td>Singhalese.</td>
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<td>Skt.</td>
<td>Samskrta.</td>
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<td>Slav(onic).</td>
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<td>Sop(ārā)</td>
<td>(As.).</td>
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<td>Tam(il)</td>
<td>Tamil.</td>
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<td>Tel(ugu), Te.</td>
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<td>Tir(āhī)</td>
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<td>Tor(wālī)</td>
<td>(Dard).</td>
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<td>Ved(ic).</td>
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<td>Waig(eli)</td>
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<td>Wakh.</td>
<td>Wakhi, Wakhī (Iran.).</td>
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INTRODUCTION

Indo-aryan, the development of which is summarised here, is one of two groups derived from a prehistoric Indo-European language known by the name of Indo-Iranian. Aryan after the name, which those who spoke it, gave themselves; Av. airya-, OP ariya-, Skt. ārya-. The characteristics of this language will be found described in Meillet's book, *Dialectes indo-européens*, ch. II; cf. Reichelt, *Awest. Elem.* § 8. The earliest Aryan texts show two languages already separated and their writers established in Iran and India respectively or, rather, in that part of India which borders on Iran.

There is earlier, but indirect evidence, which was discovered outside India. In the 14th century B.C. some princes of Mitanni (Upper Euphrates), connected with the Pharaohs by political and matrimonial alliances, bear names, which are apparently Aryan. One of these, in a treaty concluded with the Hittite king about 1380, calls his gods to witness, paired as follows: Mitra and Aruna, Indra and Nāsatya. Now Mitra and Varuṇa are regularly coupled in the Rgveda and the dual compound *Indra-Nāsalyā* is found once in a hymn to the Aśvin. But the god Varuṇa is unknown to Iran and in the Avesta Nāhraiōya and Indra are demons.

We have something better than divine names, which may have been borrowed. One, three, five, seven, and nine laps (of a race-track) are mentioned in a manual written in Hittite on horse-breeding and the terms used for them are Aryan. *Aika-vartanna* "a lap", particularly, possesses the suffix -ka with the numeral "one", a use not as yet known to exist in any early language except in Sanskrit.

Traces not only of Aryans, but even of the same tribes, which brought Sanskrit to India, are therefore found in Asia prior to the 14th century. It is, however, still impossible to make sure whether the invasion of India took place later or whether we have to do with tribes, which followed later or even had returned from
India. The entrance of words known to Sanskrit, but apparently missing in Iranian, into Finno-ugrian must perhaps be ascribed to these groups: as Vogul \textit{pänik} "soot", Skt. \textit{panka} "mud" (E. Lewy, \textit{Ungar. Jahrb.}, VI, 91).

Light is thrown on this indirect evidence by the most ancient texts, the Vedas, which emanated from the Aryans established in India. Although the language of these texts is still very close to the earliest Iranian, it is clearly distinguished from it by permanent features, which affect the phonetic system.

Indo-aryan is characterised by two innovations:—the creation of a new category, cerebrals and the loss of \( z \) and \( ž \), while the corresponding surds are preserved. But it is Iranian, which makes the most important innovations. Firstly, a very extensive development of the fricative system by the fricatisation of aspirated surds and also of surds in groups (e.g. \( ērā- \) Skt. \textit{prā} "before" Gk. \textit{pró}). Then the opening of \( s \) into \( h \), the deaspiration of the aspirated voiced consonants and the dentalisation of the palatals (Av. \textit{satam}, Pers. \textit{sad}, Skt. \textit{śatām}, a hundred; Av. \textit{zāla}, Pers. \textit{zād}, Skt. \textit{jāla} born), the loss of \( i \) evolved from IE interconsonantal \( ι \). The two languages also diverge in the treatment of the vowel \( r \).

On the contrary, the morphological systems agree almost without exception; the very rare divergencies do not affect any essential point. One of the most striking differences pertains to the remodelling of the gen. sg. Skt. \textit{māma} "of me" opposed to Av. \textit{mana} OP \textit{manā}, which is older. Not much use can be made of differences in vocabulary, because, among other reasons, early texts are rare and are all in a hieratic style.

This last statement also partly explains why the early texts of the two languages are so close to one another. They are purposely archaic. The \textit{Ṛgveda} is a collection of different epochs, certain elements of which date perhaps before the establishment of the Aryans in India. Unity of style and grammar is maintained, but the phraseology shows that this unity is to some extent artificial. The presence of phonetic colloquialisms and at the same time their rarity confirm the fact that there has been selection. As soon as the old hymns became difficult to understand, various schools preserved the meaning, studied grammatical peculiarities and interpreted phrases. The \textit{Aṭhaṛavveda} or \textit{Veda} of magic, which is perhaps as old as the \textit{Ṛgveda}, but more popular in purpose, presents in some respects a later stage of language.
Thus from the time of the earliest documents a fundamental difficulty arises, to reappear in every period. They only partially represent the language and do so in a stylistic and archaic fashion. *A fortiori*, they give a very imperfect idea of the manner in which Indo-aryan was at first propagated in India. One catches a glimpse of chiefs settled with their priests and bards in forts or fortified villages like those, which until recently still characterised the Panjāb as compared with the dispersed habitations of the Gangetic basin; and the fields irrigated by wells and channels are a proof of stable settlement and of adaptation to the soil. But we do not know what part was taken in agricultural work by the various layers of the population and what degree of intimacy is to be presumed from the contact of the Aryans with the indigenous races. At all events the chiefs bear names with barbarous sounds sufficiently often to make it possible to suppose racial admixture extending to the nobility.

When we pass from the Vedic hymns to the exegetical literature, we find the geographical horizon further to the East and specific linguistic novelties. Can these last be explained by the diffusion of the Aryan language among the local population? It is tempting to say 'Yes', if we may suppose that the cultivation of rice involves a dense and continuous population and a social organization more compact than that of dry crop cultivation. Jules Sion surmises that the Ganges districts are “the region of mixed races in which Indian civilisation became crystallised and the system of castes developed” (*Asie des Moussons*, II, ch. XIX). But it would be impossible to admit this, if it were not proved by the subsequent history of the language. The texts at our disposal give no information on this subject, as they are of a scholastic nature. The language described by Pāṇini, following his predecessors, in contrast to the mantra- and the chandas is the standard of the colleges of the Brahmans and not that of the people of Śalātura, where Pāṇini was born. And that described about 150 B.C. by his commentator Patañjali, a native of the Deccan, is represented as the standard of the educated Brahman of the Madhyadeśa. Sanskrit is the property of a class, a cultural language. So much so that at this very time Khāravela, king of Kaliṅga, celebrated his exploits in an already refined Middle Indian. The inscriptions in which Asoka addressed his subjects a century earlier are rendered in Middle Indian in several different dialects. Long before him, at the same time perhaps as the first recording of the old literature in written characters and certainly at the same time as the activities
of the Brahman schools, great religious and social reforms, such as Buddhism and Jainism were preached in the same vulgar tongue.

From this time forward Sanskrit does not die, but is used for fresh purposes. Foreign conquerors take possession of it for public documents. The inscription of 150 A.D., which we owe to the Iranian Rudradāman, is in Sanskrit, while his Sātakani rivals employ Middle Indian (S. Lévi, J. As., 1902, I, 109). Certain Buddhist schools compose their canon in Sanskrit and the Brahmans themselves make use of it for lay sciences such as medicine and artha and for epic poetry addressed to a larger audience. But it has to break with the old esotericism in order to appeal to new classes, if not peoples.

The grammar is simplified, as is right in a language, which is no longer a native tongue and must be learnt. For example, the instrumental and the nominative plural of thematic nouns each retain only one ending. Simplification is especially apparent in the verb, variant forms of which tend to disappear altogether and in which analogy causes normalisation. The vocabulary, in contrast to the morphology, is enriched enormously in spite of the elimination of archaisms, and this not only because the texts treat of new subjects, but because new words have been introduced from new Aryan dialects and indigenous tongues. Sanskrit remains, therefore, the language of the upper classes, but there is a gulf between this Sanskrit and Vedic.

It follows from what has been said above that this language too is not material, which can be utilised by the linguist directly. It has for him the convenience of demonstrating in a Sanskrit form the changes experienced by the old language, but one must consider it as Middle Indian transformed. It is no accident that a number of verses are found in the Mahābhārata, which correspond with strophes occurring in the Buddhist canon, more closely even than the Avesta with the Veda. They are two versions of one language, the evolution of which is masked in classical Sanskrit and its tendencies reflected more exactly by Middle Indian.

Further the Sanskrit of the Mahābhārata, the codes and so on is based upon a Middle Indian which it invests with nobility. The subsequent classical literature broke with the vulgar tongues completely. During this period Middle Indian supplied the needs of the more ordinary of the written languages—those of lyric poetry, the drama and didactic literature. Sanskrit again becomes an exclusively scholastic language, to which only a select class has access; the “language of the gods” is used for lay purposes,
but "it touches earth only at the mountain-tops." (S. Lévi). The privileged persons who handle it, play upon it at will. They apply the traditional grammar with the utmost strictness, even *ad absurdum*, as in the use of sandhi and in the inordinate extension of noun-compounds. As regards vocabulary, they restore their Vedic sense to certain words (śloka- glory), they extend their meanings by analogy with partial synonyms (yuddha- pair, after dvandva-; vaslra- sky after ambara-), they make arbitrary derivations from them. Wackernagel has shown how they distribute the meanings of doublets (pāraya resist, be able, pālaya protect, guard; rabh take, labh find, receive; śukra- Venus, semen, śukla-white).

In the living language there is no longer any restriction to these fancies; the linguist can make little of Sanskrit, if he attempts to find in it anything more than the history of style, and a forecast of the modern vocabulary.

To return to Middle Indian. It took shape, as we have seen, before the period, of which the Mahābhārata epic may be taken as the symbol. We possess a dated record of this language, the first dated document in Indian history, in the inscriptions of the Buddhist emperor Aśoka (c. 270 or 250 B.C.). Apart from their date and their comparative absence of artificiality, they have the merit, without parallel until Sir George Grierson published the Linguistic Survey, of supplying a synchronic view of several actual tongues.

They can be divided into four zones:—(i) Towards the North-west at the gates of India, the inscriptions in Kharoośthī script (or Kharoṣṭrī, derived from Aramaic cursive), in which survive the Sanskrit hush-sounds, the treatments of *r* and of the sibilant+ *v* are Iranian in appearance and the locative sing of masculine thematic nouns is in -e or -aspi; (ii) those of Gīrān, in which *dv*, *tv* become *dp*, *tp*, and the locative of nouns is in -e or -amhi; (iii) those of the Gangetic basin and the delta of the Mahanadi, characterised by the use of *l* instead of *r*, by the change of the *o* from Skt. final -aṅ to -e, by the present participle middle, by the locative singular of the noun in -a(s)si etc.; and finally (iv) those of the Deccan, which agrees with the preceding, except that *r* appears with *l* in a variable degree. To this group also belong the Bhabra inscriptions (intervocalic *l* and conjunct *r*)—but not the neighbouring fragment at Bairat—the Sanchi pillar, Rupnath and far to the South, the whole group in the Tungabhadra basin (Maski, Siddapur, Kopbal, Erraguḍi) and, finally, Sopara on the western coast.
This distribution has some connection with certain of the known literary dialects. The northwestern group has some points of agreement with the Dutreuil de Rhins manuscript; Gîrnâr is close to Buddhist Pali and the Ganges group to the Mâgadhî of the classical drama. Finally, the coexistence in the Deccan of the retained \( r \) and of the nominative singular in \(-e\) recalls the Ardhamāgadhī of the Jaina canon. But, if we take these approximations seriously, we miss the equivalent of the two principal classical Prakrits, although they have local names, Śaurasenī and Mahārāṣṭrī. Further, there exist a certain number of inscriptions approximately contemporary with Aśoka, the characteristics of which only partly coincide with those of his inscriptions. This is the case with those of Magadha, which have orthographical variants of the sibilants (\( \text{sasane at Sogauhra, sâlita- at Piprawa,} \) but \( \text{sultanuka at Ramgarh and Daśalatha, the name of the grandson of Aśoka at Barabar} \). There are points of connexion between the Kushān inscriptions and the dialect of Shahbazgarhi, but there are also contradictions, which the difference of period is not sufficient to explain. The Sopara fragment, written in Gangetic Aśokan, occurs in a province in which there are abundant inscriptions containing \( r \) and the nominative in \(-o\) (Nasik, Nanaghat, Karle, Kuda); this is equally the case in the central region at Bharhut, Bhilsa, Besnagar and even at Sanchi. On the east coast, at Udayagiri quite close to Dhauli, Khāravela’s panegyric, a century later than Aśoka, presents again the same characteristics.

Other factors besides locality have therefore to be considered. In fact, the Tungabhadra group, in the very middle of the Dravidian country, like the stūpa inscriptions of the lower Kistna, which have \( r \) and \( o \), should be sufficient to warn us of this need.

Early epigraphy, then, teaches us both that Middle Indian had subdivisions and that certain varieties of it must have radiated beyond their own spheres. But it is impossible to map the centres of radiation. The only clear point is the temporary expansion of Magadhan and thus one is justified in calling the Aśokan dialect, which is attested in the West as far as Delhi and beyond, eastern. The other records only give fresh proofs of subdivision and set new problems of localisation.

Thanks to the Buddhists, we have a series of documents written in languages, which, it seems, have not been normalised by the grammarians and at all events have not been brought into uniformity with the languages of Gangetic India. We have already mentioned the very numerous Kushān inscriptions on the West of the Jhelum—in the Shahbazgarhi region—which
extend South as far as Mohenjo Daro and East to Mathura. They are evidently related (as may be seen from the script and perhaps the script is in some way responsible for the relation) on the one hand with the Shahbazgarhi inscription and on the other with the Dutreuil de Rhins manuscript, a fragment of the Dhammapada imported from the Panjab to Khotan about the time of the Christian era, and, finally, in certain details, with the language of the documents of the same period found in Turkestan, at Niya and up to Lob-nor. But this last, being a language with a practical object unconnected with literature, was developed to a greater extent than the others.

However, there are manifest differences. Aśoka’s loc.sg. -aspi is not found in the other series; -a(m)mi of the Kushāns, -a(m)mi of Niya is also missing in the Dhammapada, which goes so far as to replace the long form of the locative by the genitive, hence asmi loki parasayi contrasted with Pali asmiṃ loke paramhi ca in this world and the other. The Dutr. ms. alone voices an accusative following a nasal and while the inscriptions of Aśoka have an absolutive in -li or -lu, that of the Kushāns is in -ta (karita) and the Dutr. ms preserves kiteva (Pa. kātvā), chitvana (Pa. chetvāna) and yet has nihai (Pa. nīdāya) in contrast with Kushān likhiya. The nom. sg. masc. of thematic stems in Aśoka ends in -o, in Dutr. in -o or -u, but in the inscriptions to the West of the Indus, except Wardak, in -e (khade kue a dug well). The ending of the nominative at Niya is colourless, but the type lade (tataly,) as in Aśoka and the new formation śrudemi “I have heard” show the same change from a previous -o.

Is this last change due to local influences? (v. Konow, Kharoshṭhi Inscriptions, p. cxii). If so, it must be distinguished from the apparently similar change in the Gangetic inscriptions of Aśoka (the parallelism of As. Takhasilāte, mukhale: lāto pachā with Niya khotamnade, tade: lāto pāca 722 B 8 should be noted) and from the change met with also in Ceylon. For Sinhalese epigraphy begins with short inscriptions in characters of the Asokan type: mahalene... sagasa (note the loss of aspiration already) dine great cave given to the Community.

But the stūpa inscriptions of India have not this final -e. They are very close to Pali, the language of the Sinhalese canon, without being identical. For example, Sanchi and Bharhut have ablatives in -ālo Pa. -ālo. The difference may be explained chronologically (v. p. 132), but the form bhichu (bhikṣu) contradicts Pa. bhikkhu; nhusā, nusā (snuṣā) contradict Pa. sunhā, husā (this second form is, however, uncertain). But where did Pāli itself, which was
imported into Ceylon come from? The Buddhists give it the name of Māgadhī, which does not agree with its linguistic features, but could be explained, if we accepted Przyluski's idea (La légende de l'empereur Asoka, p. 72, 89) that the canon was compiled at Kosambi, where, in fact, an Asokan inscription in the "eastern" dialect is to be found. It would be also necessary to suppose that the language of the Buddhist community came from elsewhere. Bharhut is more than 60 miles away, as the crow flies and, besides, it has been shown that the inscriptions there are not exactly in Pali. Search has been made further away at Ujjain and even at Takṣila without decisive results. Moreover, even if we could find the precise home of Pali and contemporary local documents of the period thereat, there would be no guarantee that this language would be identical with the Pali of our texts. For, according to tradition, the canon of the Theravāda was put into writing in Ceylon shortly before the Christian era. Then about the year 470 A.D. a commentary was made on it under the direction of Buddhaghoṣa, a Magadha Brahman, who not only knew Sanskrit, but had it in mind, when he edited his commentary and it may be suspected that his text has actually been revised in the light of Sanskrit.

p. 9 The earliest date to which the ms. tradition goes back is the 12th century, when the grammarians gave a systematic description of the standard language (H. Smith, Saddaniti, p. vi). Further, S. Lévi (J. A.S., 1912, II, p. 498) has found in certain irregularities of proper and technical nouns traces of a linguistically different precanonical language, which had already been used for sacred texts in Asoka's time (was this the real Buddhistic Māgadhī?). This then explains why the Jaina canon, which must be approximately contemporary with the Buddhist canon, was preserved in a language of a much later phase. Contrariwise to Buddhism, Jainism has, so to say, "taken the language at its lower level, half Māgadhī (ardhamāgadhī) and adopted it as its sacred language" (S. Lévi). A nobler language, close to Pali, is used for the royal panegyric of Khāravela. But these two languages are literary languages and not merely transcriptions of the vulgar tongue, as the common employment of certain stylised formulae indicate.

Buddhism has also employed another literary language besides Sanskrit. There is quite a store of Jaina, Buddhist and even Brahman inscriptions at Mathura, in a style very near to Sanskrit, but incorrect. It has ablatives in -ālo, gen. sg. in -āye, gen. masc. such as bhikṣo, bhikṣuno and bhikṣusya, and instr. dhitare. Nepal
also has produced Buddhist books in "mixed Sanskrit" dissimilar, but analogous to that of the Mathura inscriptions. The latter are not unsuccessful attempts to write Sanskrit, but rather ill-devised efforts to give a literary form to a local language. The incoherence of the dialect, not only in different texts, but in one and the same text, is sufficient proof that there can be no question of transcription pure and simple.

The problem becomes all the more complicated, if one considers the prakrits of classical literature. It is well-known that in the drama different characters speak different languages. Sanskrit is spoken by the king and the Brahman, Śāurasenī by women and persons of middle rank and Māgadhī in addition by comic characters. Not to mention Maharāṣṭrī reserved for sung verse and sub-dialects, which encumber the pages of the grammarians rather than the actual plays. There is no improbability in such a mixture of languages. It was not intended, indeed, to match the distribution of languages in the audience, but in a society so class-conscious and composed of such fleeting elements, the most diverse tongues (yet felt to be related) must have continually come into contact with each other. Even to-day one can see in the amusing description of S. K. Chatterji (Calcutta Hindustani, p. 12 in Indian Linguistics, I) what a tower of Babel the home of a rich Calcutta townsman may be. Unfortunately for the linguist, the Sanskrit drama does not, like our comedy of manners, devote itself to portraying society. It is essentially, as S. Lévi says, the transference of the epic and the story to the stage. It would then be fundamentally wrong to expect from it information about the languages, which the characters are supposed to make use of. Śāurasenī, which forms the basis of it, is not the speech of distinguished women and undistinguished men, but the language, certainly stylised by this time, of the touring companies based on Mathura, which popularised the drama in India. Dramatic Māgadhī is the product of stylisation, as is evident from the fact that -e for Skt. -aḥ is only used for the nom. sg. of nouns and not on other occasions, as in Asoka. This stylisation of dramatic prakrits has, however, passed through at least two stages, for the fragments of Aśvaghoṣa, the plays attributed to Bhāsa and the lyric fragments preserved in Bharata's treatise display stages of language prior to those of the classical drama. Even the conventions were different in this period, for the lyrical stanzas of Bharata are in Śāurasenī and not in Maharāṣṭrī (M. Ghosh, IHQ, VIII, 1932, p. 9, L. Nitti, Grammariens prakrits, p. 86 foll.) and Bharata admits Ardhamāgadhī in drama, which
is confirmed by Aśvaghoṣa (Lüders, *Bruchstücke buddh. Dramen*, p. 42). One would be glad to possess more specimens of this early group, which was no doubt less remote from ordinary speech than the classic series. It is remarkable that Bharata calls the dialects of the different characters "bhashā "speech, tongue" and not prākṛtam like later authors, with a technical meaning from which the primitive meaning of "vulgar" has disappeared (whether it is interpreted as the language of "subjects" as opposed to that of "kings" and "gods", or (preferably) as the basic opposed to the refined tongue, saṃskṛtam).

Mahārāṣṭrī, which occurs rarely in drama, is used in a learned form of epic poetry and also in a form of lyric poetry, which is popular at least as regards its subject, while it is extremely refined in style. Jaina prakrit resembles it closely. It is the typical Prakrit. Daṇḍin calls it prakṛṣṭa, because it is the most generally used (L. Nittī, *ibid.*, p. 2). The loss of intervocalic consonants, which still remain as voiced consonants in Śaurasenī, is complete and so maa can represent mala, mada, maya, mṛta and mṛga. It helped the singer by providing him with a maximum number of vowels and afforded the literate a maximum number of enigmas, but to the modern linguist it is valuable, because it represents an essential stage of the development of Indo-aryan and also because it allows us to gauge the utility of recourse to Sanskrit, which was even more necessary than Latin has been to French for avoiding ambiguities of meaning.

To complete the tale of prakrits we should include Pāśācī, which, according to a late writer, was used by a Buddhist school and in which the bourgeois epic of Guṇāḍhya was written. This work, the Brhatkathā is preserved only in minute fragments. The dominant characteristic of this prakrit was the unvoicing of voiced consonants—a pronunciation eminently demoniacal. It is perhaps wrong to attempt to assign to it any definite locality or, as according to the grammarians there are several varieties, localities.

Prakrit literature was, from the start, a relatively learned production and continued till a very late date, becoming more and more artificial. It is not yet dead, any more than Sanskrit. It is easy to imagine that its deviation from the tongues in general currency became more and more noticeable. Normally the forms of the words could be taken from the Sanskrit, source of all culture, but gradually words of ungrammatical meaning or appearance had, as in Sanskrit, slipped in among them. Lists of these roots and of provincial or desī words had to be drawn up, to the benefit of modern etymologists.
Finally Prakrit itself began to be superseded, not yet by a self-developed modern language, but by a modern language in Prakrit dress—Apabhramśa. The Jainas retain Prakrit for their holy books, but otherwise they prefer Apabhramśa.

The name Apabhramśa is not local. It is abstract like Prakrit and Sanskrit and is opposed to them. Its original sense is something "aberrant". Patañjali applies it to certain forms of old Middle Indian, in common use in the Sanskrit of this time, but, from his point of view, incorrect. When Middle Indian was developed and standardised, *apabhramśa*, like Bharata’s *vibhraśa*, must have been applied to forms more fully evolved and not yet recognised as normal literary forms. But a time came, when not only did some of these forms creep into Prakrit, but the language was admitted as a written form on a par with Prakrit. It is so classed in a treatise on rhetoric of the 6th century and during the same period Guhasena King of Valabhi was termed by his grandson a talented writer in the three languages, Sanskrit, Prakrit and Apabhramśa. Later, the grammarians discussed this language together with the prakrits, assimilating it to them. In fact the oldest documents of it, which we possess, date at the earliest from about the year 1000 and originate from the Jainas of Rajasthan and Gujarat. In them the influence of definite existing languages is felt through the prakritisation necessary for written work. Subsequently Apabhramśa detached itself from its native soil and extended over the whole of North India. Jainism alone does not account for this. Its forms are found in the Braj of the bardic epic poetry. And in very early times there was an eastern variety, attested by the later Buddhist hymns, which influenced the Vaishnavite hymns of Vidyāpati of Mithila and supplied the Prākritapiṅgala, a work on Prakrit prosody, with some of its examples. Commentators call it *avahati bāhāṣā*, a name which recalls both the original model and the local varieties.

The extension of Apabhramśa, like that of the literary languages, which preceded it, was naturally more easily effected in the areas in which the languages did not fundamentally differ from it and where the poets could, like the Rajput bards, consider the knowledge of several languages an adjunct of their profession. This is the explanation of the mixed languages, which are apt to be disconcerting to those who expect sifted, coherent forms of the vulgar tongues in the written texts. Apabhramśa is mixed with Prakrit in variable and sometimes extensive proportions. It contains, moreover, instructive dialecticisms and thus, although it has features suggesting a linguistic stage, does not represent a language.
It is, as we have seen, by no means exceptional therein. None of the written languages of India qualify as direct evidence. Accordingly it is not nationality or regionalism, which are of importance to writers and govern their choice of method of expression, but the literary *genres*, which are separated by rigid barriers, as men are by caste. We have already seen this to be true for classical Prakrit. Even in the Vedas differences of date consist in deliberately staggered archaisms. The liturgical texts, which appear to be later are the work of schools, whose language was doubtless as capricious as that of the earlier poets and of the Buddhist schools, which utilised either Sanskrit or one of different forms of stylised Middle Indian. As for inscriptions, those of Asoka constitute a happy exception. Yet it may be predicted that a closer analysis will bring to light formulas as in the case of quotations, which have already been discovered. At any rate certain Deccan inscriptions and Khāravela’s panegyric differ from the classic prose (gadya) in dialect only.

Highly variegated though it is Middle Indian is therefore of little help to the linguist. It is impossible to localise the languages; they can only be defined abstractly by their internal characteristics, so as to agree with their actual formation, which is generally arbitrary and regulated according to an external model—Sanskrit. Thus the best use to be made of them in conformity with our scheme, consists in seeing in them not documentary evidence, but symbols of successive stages of Indo-aryan considered as a whole. The details preserved in one language or the other will serve not so much to define them, as to enable the recognition of intermediary stages or the deduction of abortive processes.

Besides, authority is given to this scheme by the very unity of Indian civilisation. Like the literature whereby it is expressed, it is characterised at once by an extraordinary continuity over an immense area and by the powerful social moulding influence, which imposed the fiction of a hierarchy of castes, headed by the Brahman, the holder and dispenser of culture, upon an innumerable variety of social groups.

It is impossible to say how deeply the different forms of Indo-aryan penetrated into the various social classes or regions. Political history has nothing to tell us about the centres and the strength of linguistic expansion. But the unity of Indian civilisation is of remote date. The Greek travellers in the Ganges valley heard of the southern kingdoms and Sanskrit influence is conspicuous in the earliest Tamil poems. The limits of linguistic
unity are the same as those of Brahmanism and the only languages remaining outside them are those of the Northwest, which was for a long time Buddhist (although containing relics of the Vedas, such as the tribal name Baškar, which is no doubt the same as that of the school, which preserved the Rgveda) and Ceylon, which is Buddhist to this day. It all appears or, at least, is made to appear as if there were a common Middle Indian, the successor of a single Sanskrit.

Yet this is not quite true. For some isolated survivals prove that there were other forms of Aryan speech in India besides Sanskrit proper. It would be astonishing, indeed, if there had been no variants in the immense area covered by the old bhāṣā. Moreover, it is interesting to trace or to infer their limits in Indo-Aryan and in this way to get a more accurate idea of their status in literature and society.

The largest number of these traces has been collected from Pali. It is a language which depends less upon Sanskrit than does classical Prakrit. Moreover, its relatively archaic form makes observation more certain. Pali preserves Vedisms like klvant-, klva- how much (klvant- has been replaced in Sanskrit by kiyant-), kipiti buys (the first vowel of RV krīnāti, in spite of the spelling, is scanned short, in conformity with the etymology, like the stem of the optative huveyya (cf. Ved. bhuvat, Lat. fuit, H. Smith, Saddanītī, p. 454, n. 4). Further, it preserves Indian forms already changed in Vedic: idha here, pātu visible, and the suffix of sabbadhī everywhere, are less changed than ihā AV prādīh RV prādr and the suffix of Skt. uttarāhi in the North. Pali alīka- contrary, false, vammiqa- ant, have a more normal (and less popular?) form of suffix than AV ālīka- VS valmīka-. Av. snāvare tendon, muscle, helps to explain Pa. n(a)hāra as against Skt. snāyus, snāvan- VS asnāvirā- (v. Turner s.v. nahar). We find in Av. hāmo the same, the equivalent of Pa. sāmaṃ even; O. Pers. šaiy Av. še Gath. hōi the equivalent of Pkt. se of, to him, them. Similarly it is Iranian, which alone provides a parallel in cases in which Pkt. jh answers to Skt. kṣ (v.p. 52) and the initial group of cha six (which has survived. v. Turner s.v. cha). We find in Iranian the equivalent of the nom. sg. m. guṇavā, sīlavā, the stem of bhīyyo more, Skt. bhūyaḥ and of the fut. hehiti, aor. ahesi, cf. O. Pers. opt. 3rd sg. biyā let it be, Lat. fīō (Saddanītī, p. 461, n. 8). We may wonder whether the use of iyānī in the masculine made by Asoka at Kalsi is not the same archaism as in Old Persian (Benveniste, Studi ballici, III 127; it is true that we also find Pa.
AMg. *ayam* in the feminine). One must look even beyond Aryan for other correspondences. Thus the stem *du-* as opposed to Skt. *dvi-* two (Pa. *dutiya* second, *dujhva* with two tongues, cf. Lat. *duplex*, Umbrian *duti* anew, Lettish *duceles* carriage with two wheels); the Prakrit genitives *maha*, *tuha*, also, no doubt, in the plural and the gen. acc. *ahma*(m), *umha* (H. Smith, *MSL* XXII, p. 272. Khotanese *umā* would be secondary according to Konow, *Saka Studies*, p. 48).

One may therefore have to ransack sources of vocabulary parallel with Sanskrit, but outside it. Thus, Pa. *upādi* "substratum" is regularly opposed to *upāda*, like Vedic *nidhi* to *nidhā*—the equivalent Skt. *upādhi* is formed from another root. And in particular, one can expect to find forms, which are difficult to explain, because the intermediate forms are missing—as futures like *dakkhiti*, *ehiti*.

These then are the remote predecessors of the Prakrit *desī* words and are all the more interesting because they reveal the existence of languages, which would be unknown, were it not for them. The *desī* words supply only indications of style and fragments drawn from the vocabularies of languages, which are still open to observation to-day.

The period during which the modern languages emerged is unknown. It may be surmised that, if Apabhraṃśa could be written in the 6th century, it was because the stage of language to which it belongs, appeared in Gujarat to be sufficiently archaic to be put on a plane with Prakrit. According to Shahidullah the *caryās* of Kaṇṭha date about the year 700 but Bagchi and SK Chatterji relegate them to the 11th or 12th century. These songs are very archaic in appearance. Elsewhere the break with Middle Indian is accentuated in proportion to the lateness of the first of their texts. A few very short Marathi inscriptions belong to the 12th century together with some Bengali glosses (a short correspondence between Rajput princes formerly attributed to this period is now held to be spurious). But the Marathi *Jñāneśvarī* was completed in 1290; a Sanskrit grammar in Gujarati dates from 1394, a century later and the Sufi books of Gīsu Darāz, the earliest record of Urdū, are put about the year 1400. The first Gujarāti poets appear in the 15th century only with Vidyāpati in Bihar and in Kashmir, the Mahānaya prakāśa in a language, which is not properly Kaśmīrī. The Padumāvatī of Muhammad Jaisī written in Awadhī and the first Assamese texts date from the 16th century. The early parts of the Ādigranth of the Sikhs date at
the earliest from this period. It should be added that the tradition of these texts is not certain; we have not been able to include the Prithirāja rāsau, which would have been of value, because of its size, but is suspect and has at any rate been subject to interpolations. The Jñānēśvāri was revised in 1584. In a general way, the ms tradition is little better than oral tradition as regards the written texts and it must be confessed that as yet little effort has been made to deal with it critically. On the whole, the only good documents belong to the modern period. The best are naturally those, which were collected, classed and interpreted in the magnificent Linguistic Survey of Sir George Grierson. They have the incomparable advantage also of covering almost the entire field of Indo-aryan and often of overflowing it. In them we have the best criterion for using early documents, which were ill-preserved, already stylised and mixed according to the caprice of their writers.

What first strikes the eye about the map of Indo-aryan is the continuity of its field. This agrees with what one knows about the expansion of Brahman civilisation, which took place on the surface at the instance of the upper classes, before it went deeper. Even to-day you may see certain languages over-flowing into the towns adjacent and English also has spread through the universities and the various branches of administration. The princes' courts did yesterday, what the middle classes do to-day and thus the network of cognate languages was tightened without destroying local idioms. Indo-aryan allows within its area uncivilised patches and its missionaries reach distant spots (Sinhalese; Asiatic and European Romany). But its field does not suffer from the discontinuities of the Finno-Ugrian or the Romance families, the developments of which are to some extent analogous. India has absorbed its conquerors and, although Islam has contributed to the formation of Urdū, it has left no islands of Iranian or Turkī. The Rajputs, men of a foreign race, adopted and propagated it in the Himalayas without making any change in it.

It might be supposed and several persons have supposed that the various modern languages are based upon ancient languages, which are quite distinct from one other and reproduce their peculiarities. In reality, or, at least, so far as the linguist can tell, it is almost as if a uniform Middle Indian, the successor of a Sanskrit itself almost uniform, was the basis of the majority of modern Indo-aryan languages. The differences are clear only in the exported languages and the dialects of the north-west frontier zone, which themselves flourished on the periphery of the central
area. Even these differences do not completely mask the relationship, between these languages and those which may be termed for convenience Prakritic. The continuity of the latter has often been remarked and the linguist frequently has trouble in recognising their boundaries. Sometimes they are obscured by blending (what Grierson calls mechanical mixtures). More often it is a matter of gradual changes, whereby two languages mutually unintelligible are separated by a series of intermediate dialects differing from each other imperceptibly. There is accordingly no reason to be surprised, because the boundaries are debatable. Is Bhojpuri connected with the neighbouring languages of the East or of the West? Is the language of Kachh Sindhī or Gujarati? Where is the western limit of Panjabi in relation to Lahnda, which was not isolated and named until Grierson did so? In a country in which the vague shifting political frontiers have never corresponded to nationalities, you cannot expect to find true linguistic boundaries. No doubt, now that the principal groupings have been determined, it would be possible to show on a map, not linguistic zones, which would be more continuous or more definite than in actual fact (there are so many cases in which several languages are spoken simultaneously in one area or even by one individual), but isoglosses overriding provincial frontiers.

Fortunately a precise and complete apportionment of languages and dialects is not essential to the plan of the present work. It will be enough to give the characteristics of the principal groups.

Let us emphasize the most abnormal. The earliest Indo-aryan colony, if we exclude the colonisation in the interior, which diffused Aryan throughout India, conveyed Middle Indian by sea to the South of Ceylon. There it underwent strong Dravidian influence, while Pali supplied a standard analogous to that furnished by Sanskrit on the mainland. It has therefore diverged considerably. Its vowel-system implies interaction of the vowels of a word. There are no longer any aspirated stops or old palatals. Gender is changed in meaning, pronouns and verbs have special formations—but it is still Indo-aryan.

Romany or rather the Romany tongues have been less divergent, doubtless because they were detached later and also because they were preserved by their employment as a special or secret language. The Gipsies are not colonists, but intruders. They have to learn the language of their surroundings, in order to communicate with the residents and adopt the elements of their language, as necessity arises. In Armenia they took over the whole grammar, but more
generally they drew on the vocabulary and Miklosich has been able to trace their journey through Europe by the words which they have borrowed. The European group coheres, but the Asiatic branches do not entirely conform with it. Nuri alone fricatises \( th \) into \( s \) and turns intervocalic \( l \) into \( r \) not \( l \). Further, Skt. \( hasta \) hand, becomes in Nuri \( xa(s)l \), Eur. Rom. \( vast \), but Arm. Rom. \( hath \). Armenian Romany has \( l \) for \( l \) not only intervocally, but initially (\( l e l \) he gives, Nuri \( der \), Eur. Rom. \( dela \)). The voiced aspirated consonants are disaspirated in Nuri and unvoiced in Armenia and Europe:—\( thow \) wash, Nuri \( daw \). Finally European Romany alone displaces the aspiration of a medial consonant and thus the opposition of Nuri \( ban(d) \), Arm. Rom. \( banth \), Eur. Rom. \( \ast bhand > phand \), contrasted with Skt. \( bandh \) tie. These differences accentuate the uncertainty of the date (first half of the 5th century?) and of the exact origin of the Gipsies. From this point of view the most significant fact is the passage of a dental to \( l \) or \( r \), which in Indo-aryan is only met with again in Kalastra \( (l) \), in Khowar \( (r) \) and in Afghan, Minjani, Yidgah, eastern dialects of Iran. There is, moreover, confirmation from the topography of the region. The river Gomal (Skt. Gomati), for example. Woolner has rightly reminded us that the frontier of Indo-aryan must have reached more to the West in former times and that Afghan and Balochi are recently imported languages.

Even if Indo-aryan withdrew from the direction of Iran, it certainly ascended the slopes of the Himalayas in the North. History informs us of Rajput settlements in that region and the teaching of history is illustrated by a linguistic graph in *LSI I*, p. 184. The old Tibetan language Nevari and the Aryan Nepali still confront each other in Nepal. The problem is more difficult as regards the western region:—Kashmir, the valley of the Indus from the gates of India to Gilgit (Maiyā, Shina), Swat (Torwali), Chitral (Khovar), Kafiristan between Kunar and the Hindu Kush (Kalasha, the Kafiri group and Paśai) plus an island to the South of the Kabul river (Tirah). Quite a series of dialects is situated in this region, but Kašmīrî alone has the honour of possessing a literature. They differ sufficiently from the languages of India proper to have induced Grierson to form them into a special family. These peculiarities are sufficiently explained by their isolation, which is not of recent date. Further, it is possible that several of them were the result of relatively recent migrations, so much so that greater differences might have been expected among them. The labours of Morgenstierne clearly show that, after taking into account Iranian and Indian influences (the latter being
particularly strong in Kashmir, an important centre of Sanskrit

INTRODUCTION

culture), Dardic is certainly Indian. Only it has not passed

through the Prakrit stage. Consonantal groups and often inter-

vocalic consonants have persisted, there are fricatives and no

aspirated consonants and so forth. The only group which really

raises any doubts is Kafiri (Kati or Baṣgali, Prasun or Veron,

Aškun, Dameli), the Indo-European palatals of which have
developed somewhat as in Iranian (v. p. 52).

The interest created by the above modern languages greatly

transcends their numerical importance. But it is not desired to
give details here of languages, which have been frequently
described, although some of them rank with the greatest in the
world. Hindi in the broad sense of the word, ranks as the 6th,
Bengali as the 7th, before French, Bihari as the 13th, Marathi as
the 19th and Panjabi, Rajasthan, Oriya, as the 22nd, 25th and
28th respectively (according to L. Tesnière in Meillet, "Langues de
l'Europe nouvelle" 2, p. 483). In order to prepare the reader for
the use that will be made of them later, we will remind him only
that they are grouped in zones marked by particular characteristics
(without, as we saw, distinctive boundaries).

As we descend the Indus, we meet Lahnda and then Sindhi,
which in certain respects, are distinct from the other languages
of India proper and are reminiscent of Dardic. For example,
the use of pronominal suffixes and certain characteristics of
pronunciation and vocabulary, which might induce the belief that
their Indianisation, if one can use the term, is comparatively
recent.

The characteristics, which distinguish the remaining languages
are of a different order and result either from differences of
development or from the influence of non-Aryan languages.
The first case is that of the southwestern and Gangetic groups.
The relationship of Marathi and Gujarati is obvious; further old
Gujarati and old Rajasthan are the same language; then too,
you pass directly from Rajasthan to the Ganges basin, where
the languages are more closely allied, than anywhere else in spite
of the distance. It is that area therefore which has always
contained the centres of radiation stretching from the Sanskrit
Madhyadesa to Kanauj and Delhi. Hindustani probably emerged
from the absorption of the Panjabi dialects of soldiers by Braj;
Panjabi and northern Rajasthan were subject to the influence
of Hindustani. Not so long ago Urdu advanced to the East
via Lucknow, where it is a noble language and it has now reached
Calcutta, where it has assumed the role of a pidgin language.
Eastern Hindi has thrust as far as Benares and so on.
Contrariwise, the region assigned to Hindi by natives of the country ceases near Patna. Here you enter the eastern group—Behari, Bengali (with its colony Assamese) and Oriya. In these parts \( a \) becomes closed and borders on \( o \); the grammar in particular displays idiosyncrasies, one of the most striking being the future in \(-b-\) derived from the Sanskrit participle. The map thus gives the impression of a central group and an outer zone. Hypotheses have been built upon it, which cannot be verified historically and probably the application of isoglossal lines would disturb the neat arrangement of this grouping.

It is of greater importance to indicate the chronological break, which isolates the whole of Neo-indian. The latest form of Middle Indian, as we find it, for instance, in Apabhramśa, is, even so, only a disfigured Sanskrit. The grammatical categories and the syntax have not changed. But in the oldest forms of the modern vernaculars, declension tends to be confined to just, two cases, one of which is accompanied by postpositions; the old present, which is the only or almost the only representative of the verb-forms, has annexed forms from nouns and so on. Beginning from this period, there is no longer any limit to grammatical change. Sanskrit is too remote to have any effect except in supplementing technical vocabularies until the time came when they drew from Persian and then English. But while Sanskrit remains the language of culture, the modern languages have no share in that culture; indeed, simplified in the extreme under the influence of less civilised substrata, as in Bengal or to serve the needs of a soldiers’ language like Hindustani, they remain popular languages. They are used for lyric poetry particularly, but not for learned works. Now that education is becoming general, the adaptation of the vernaculars to its needs presents a difficult problem. The instrument is not yet fit for use and it will be seen below, how the syntax, even in the most developed languages has remained rigid. To revive once more the comparison so often made with the Romance languages, it is striking that the definite article and the verb “to have” are nowhere to be found.

But we are not here settling the future of the Indian languages. The object of this work is, as indicated in the beginning, to give an outline of the past. It would be a longer task to trace a complete picture and there would be little use in doing so, for the main features of this picture have already been drawn in detail by experts. I do not intend to remould or even to summarise,
what has already been so well done. Neither do I wish, even if
I could, to break the ground for the comparative manual of
Neo-indian, which Grierson, after beginning it and having prepared
so much material for it, had to abandon and which is now promised
us by Professor Turner. I should like to say, if it needs to be said,
that the scope of the present work has had the approval of
Prof. Turner himself. My purpose is more limited,—to display
side by side and explain, so far as can be explained by such
confrontation, the actual facts in the different periods, the
essentials being borrowed from more competent writers and to
insert in their proper places significant facts, which have been
noticed by myself or others and have not yet found a place in the
manuals.

As one, who was reared in the school of Sylvain Lévi and
A. Meillet, I should have preferred to bring the evolution of these
languages into close relationship with the histories of the peoples
who spoke them. But it is well enough known that for the earlier
periods no administrative, judicial or private archives (apart from
the innumerable charters of grants in classical Sanskrit) or
provincial laws, or memoirs or correspondence (except the
documents from Niya) or, of course, orations, or comedies of
manners, have been transmitted in writing. The greatest events
of political and religious history alone stand out without exact
localities or dates and their effects are rather a matter for inference
than positive statement. I have had, therefore, to limit myself
to a purely linguistic and even grammatical exposition.

In view of the plan which I have described, there was no reason
to extend myself on every point. I may be forgiven for
unevennesses of treatment. I am conscious of them, but they
appear to me not to have impaired the sense as a whole. Similarly
I have not provided a complete bibliography, but only a list of
the books and articles (I have unblushingly included certain of
my own), which I have had constantly close to hand, while
composing this work, and wish to be also within the reach of my
readers, so that they may control and complete my assertions.
I judged it useless to refer to it every minute. I have cited in the
text only those works, which do not figure in the list and which
I could only summarise imperfectly. I cite the majority of my
authors without referring to them and thus I may have contradicted
them (myself included) without proclaiming the fact. This is
neither inattention nor a disposition to slight my sources. Experts
will judge whether the opinions which I have expressed here are
the best.
Nor have I given the sources of my examples, the majority of which have been borrowed from the authors in question. I shall be satisfied, if I have not materially erred in my choice, interpretation or transcription.

The exposition owes much to my friends. First of all to Prof. Helmer Smith. Perhaps so exacting a researcher, so severe a critic of detail may not be satisfied with a work in which so many questions are only lightly touched on and so many solutions are only provisional. May I, however, say here that he has largely collaborated with me, not only by revising everything connected with Pali and Sinhalese, languages of which he possesses an unrivalled knowledge, with particular care, but also by constant information of an abundance and value, known to his correspondents alone. Had it not been for his generous and learned cooperation, much of what has been said here would have been said worse or not at all.

Messrs. Renou and Benveniste have characteristically allowed me to profit liberally from their counsels and criticisms. They have read my manuscripts, the former the whole of it (not without supplying valuable additions) and the latter in part. They know, as I know, what the manuscript has gained from this revision. I alone know what confidence I have gained from this revision. To Mlle Nitti I owe assistance, which is obviously valuable, but, as coming from her, is unique.

[added by the author after the completion of the revised translation of the introduction].

Finally, I have to thank Mr. Alfred Master, who has not only taken the initiative (flattering to me) of this translation, but whose observations have allowed me to eliminate a certain number of blemishes. I have also let my readers profit from suggestions due to the kindness of Prof. Turner.
I. THE OLD VOWELS

The vowel system of ancient Sanskrit is closely akin to the Indo-iranian system. It comprises short and long a, i, u, r (and in addition j in the single root klp, Av. kørəp-) and diphthongs in which e and o are included on the same footing as ai and au. There is perfect agreement with Iranian as regards a (from IE a, e, o and nasals functioning as vowels), i (IE ī) and u:

<table>
<thead>
<tr>
<th>Vowel</th>
<th>Sanskrit</th>
<th>Avestan</th>
<th>Latin</th>
<th>Greek</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>ajati</td>
<td>azaiti</td>
<td>agit</td>
<td>mātār-</td>
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<tr>
<td>e</td>
<td>asti</td>
<td>astiy</td>
<td>est</td>
<td>mādi</td>
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<td>a</td>
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<td>jātāḥ</td>
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<td>o</td>
<td>dāsa</td>
<td>dasa</td>
<td>déka</td>
<td>ḍs̄ṭh</td>
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<tr>
<td>i</td>
<td>ihi</td>
<td>indi</td>
<td>ithi</td>
<td>jīvā</td>
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<tr>
<td>u</td>
<td>upa</td>
<td>upa</td>
<td>hupō</td>
<td>bhrāḥ</td>
</tr>
</tbody>
</table>

Further, Skt. ā is substituted in certain conditions for IE short o, again an Indo-iranian idiom: Gk. ākkōna, OP asmānam, Skt. āsmānam.

In initial syllables Sanskrit i from IE ē corresponds exactly to Iranian:—Skt. pīṭā-, Av. pītar-, Lat. pāter; but only Sanskrit preserves it medially:—duhīlā, Gk. thugālēr; Ga. dūgādā dissyllabic, Av. dūgāa with assimilation by voicing of the contiguous consonants. Otherwise, it was a feeble phoneme and was not only lost before a vowel as in Indo-european: jān-ana- masc. creator, cf. jani-lār-, but also assimilated to and merged in a preceding y (krīlā-, cf. Gk. pria-slhai) or w (pūla- cf. Lat. pūrus). It is changed to a only before a following y by a kind of preventive dissimilation: dhā-yali he sucks, dhēnā- milch cow (Av. daēnu- "femina", she who gives suck).

Other kinds of Skt. i and u correspond to an Indo-european vowel of fluctuating timbre, which is variable in Indo-iranian. To start with, it is a matter of the vowel resonance of a semivowel situated between a consonant and vowel. The facts are clear,
especially in the case of *or: gurū- heavy, Av. gouru-, Gk. barús; giri- mountain, Av. gairi-. This resonance combined with IE ṣ gives a long vowel in Indian, which now fails to correspond to Iranian: dirghā- long, Av. dārṣṭa-, pārva- former, OP parva-, Av. paourva-. This divergence is all the more remarkable, because here Indian īr, ār closely recall the subsequent treatment of *r in Iranian.

This r, in fact, survives as a complex short vowel in Sanskrit, while in Iranian first the vowel element is distinguished and then the syllabic consonant: Av. ār(ṣ), OP r (to be read ọr) and ar-initially; prechāmi I ask, Av. pārṣā Pers. pursam, ṛṣi- lance, Av. arṣī, Pers. x-iṣ (where iṣ represents ṛṣ). Sanskrit, therefore, is here definitely more conservative than Iranian.

Moreover, from the differences of the pronunciation of a syllable there results a difference of “weight”, and this is of importance in languages with a precise prosody. Indian alone preserves the ancient quantity in this case.

There is no inherited long ī in Sanskrit. It exists only by reason of an innovation due to morphological analogy, as in gen. and acc. pl. pilīnām, pilīn; nīnām, nīn like devnām, girnām, vāsūnām, devān girīn vāsūn. The Veda still retains the old form in these nouns: narām like Av. dugṣṭr-qm and Lat. patr-um.

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From the practical point of view there is only one true vowel in this group, long or short a, which is either the centre of a syllable, or the vowel element of a diphthong. I and u, on the contrary, are eminently the vowel forms of y and v, just as r is of r: i-māh; y-ānti, sunu-māh: sunu-ānti like bibhrmaḥ: bibhr-ati; similarly dyū-bhīḥ: dyūḥ, syā-lā: sīv-yāti. It cannot be said, however, that i and u always play the same part as r.

Indeed, although, according to the grammarians, the first element of the diphthongs ai and au is at least as short as the second, they represent diphthongs with the first element long, as in Iranian: dat. kasmai to whom, but Av. kahmāi, cf. Gk. lōi. They are resolved into ā plus y or v (naūḥ: acc. nāvam) and correspond, therefore, not to ar, but to ār. The Indo-Iranian diphthongs ai, au are preserved in early Iranian, but in the very earliest Sanskrit they have already begun to coalesce.

| Av. aēsmō | cf. Gk. aithō | Skt. édha-vaëdā | oida | véda |
| aēšiti | eisi | éli |
| OP aitīy |

Their primitive character is seen from their quantities, which are
consistently long, and from the fact that they are resolved before a vowel: subj. āy-ali.

E and o are found also representing *az, which is preserved in Iranian; e medially and initially (nēdišt̩ha-, nearest, Av. nazdišt̩a-; edhi for *azdi, cf. Av. zd̩i), final o (RV I 26.7 priy̩ō no aśtu let him be friendly to us; and compounded: māno-java swift as thought, and before certain endings: dvēso-bhiḥ).

It goes without saying that so simple a picture of the phonemes does not give a complete idea of the variations of pronunciation. For example, even the grammarians have noted that a was more closed than ā and this is confirmed in several ways, particularly by the oppositions of timbre, which nowadays replace the ancient oppositions of quantity, e. g. Bengali ā, o opposed to a (written ā), or European Romany e opposed to a.

The early transcriptions of the Greek geographers vary. There are a certain number in which Gk. a is equivalent to short a: Gāggēs i.e. gaṅgēs, Tāxīla (Takṣaśīlā), Sandrākottos (Candra-gupta), Dākhinabādēs (Dakṣiṇāpātha). Arrian, on the other hand, has Kambīstholoi (Kāpiśhīhala), but this notation occurs particularly at the end of the first element of compounds, Erannobōas, in which, however, o also denotes ā under the influence of the adjoining v (Hiranyavāhā); Sandarophágos (Candrabhāgā); Taprobanē (Tāmrarapnī). It has also been remarked that Ptolemy employed it for eastern countries, thus recalling the Bengali of to-day (S. Lēvi, Ptolomée, le Niddesa..., Études Asiatiques EFEO, II, p. 22). Finally, Strabo has Dērdai (Ptol. Darādrai), Arrian Mēthora (Ptol. Modōura); and the Periplus has even Kalliena beside kalleanōs lithos ānd -nag̩ār.

A and i are found exchanged in proper names, especially when the Brahman tradition gives way to some other: ŚBr. Nāḍa Naiśidha, MBh. Nāḷa Naiṣadha; Skt. Mucilinda, Pa. Mucalinda; but Pali has i in Mīlinda for Gk. Mēnandros. There are also Kuśalava- and Kuśilava-, Kauṭalya- and Kauṭilya-, Sālavāhana- and Śālavāhana-, Pa. Tapusa- and the plant name tipusa-, Skt. Tripuṣa, a proper name, and trapuṣa- in both uses.

Middle Indian and the modern languages, which follow it, afford a number of cases in which i replaces an earlier a; Pa. tipu tin (AV trāpu), Pa. Pkt. mīṇjā marrow, cf. Sind. mīn (majjan-), Pa. īṁghāla- coal, etc. (āṅgāra-), Hin. khin, khan/kṣaṇa-, kin(ungūlī) little (finger) (cf. kanyā, kaniṣṭha-), gin- count (gan-), jhigṛā dispute, pīṇjar cage, beside jhagrā, pāṇjar; dērānā beside dārnā to fear (dara-), meṇḍak frog (maṇḍūka-); Beng. cib-
chew (caru-), chilkā bark (challi-), khejūr date-tree (kharjūra-), proved by the Santali form khijur. This is the more remarkable, as it occurs in a language in which a is pronounced ā or o, etc. We catch a glimpse of the influence of gutturals and particularly palatals. Similarly a is palatalised regularly by h in Hindi and Panjabi, whence rēh- written rāh- remain, Sind. kihāni story, opposed to Hin. kahāni (kälh-).

If, as it seems, a had a general tendency to become palatalised, it is tempting to connect with it the Dravidian forms of the type Tam. Kan. mig- great (mahā-). Some of the forms at any rate do definitely correspond—kan. tam. leppa- raft, Periplus trāppa(ga), guj. trāpo; kan. menasu, tam. miḻagu pepper, skt. marica-, cf. hin. mirc.

The alternation RV Śūludrī Ep. skt. Śatadrā is exceptional. As. udupāna-(uda-), ośudha-(ausadha-), u(c)cāvuc(c)a- (Pa. skt. uccāvaca-), Pa. pukkusa, nimujjali(majj-) are due to the labial context. This reminds one of the fact that in Middle Indian r normally ended up as a or i, especially as i at first, but only as u in the vicinity of labials. This is true also for the vowel resonances from semivowels in Sanskrit: tirāh, hiranya-, but purāh and opt. muriya from mriyale; girī- but gurū-. When a vowel, is inserted before h, it is most frequently i: MS malihā: TS malhā; sometimes it is a; Pa. arahā from arhant-, explained as “killer of enemies” ari-han-, but u is not found in this connexion.

The grammarians do not indicate any difference of pronunciation between short and long i and u. But besides nouns like Kīrādai, Sūrastreṇē of the Periplus, we find at an earlier date Sandrākoltos (-gupta-), Palibōthra (-putra-), Méthora (Mathuā), Erannobōas (Hiranya-) and in Ptolemy -gerei or -gērei (girī-). We find, on the other hand, Agathukreyasa “Agathocles”, on coins and Turamaya “Ptolemy”, in Asokan. There are, then, indications that short i and especially short u were more open then the corresponding long vowels. This fact, no doubt, accelerated the opening of the central vowel in pa. āyasmant- as opposed to āvuso (āyusman-), pana “on the contrary” (cf. mar. paṇ, Beng. puni) beside puna(r) “again”, which retains the form as well as the meaning of the Sanskrit. Nowadays it is rarely found except medially in weak position. Gujarati alone extends the principle e.g. maḷ- (mil-), lakh- (likh-), halo (mar. hotā).

There is nothing, moreover, to show that the pronunciation of e and o was uniform. According to the Prātiśākhya of the Atharveda I 34-36, it seems that e and o were almost as open as ā and more so than a. This, however, is apparently contradicted
The two pronunciations can be explained as arising from the old diphthong, the elements of which were either drawn together (as \( \ddot{a}u \)) or kept apart by differentiation (as \( \ddot{a} \)). In modern times Gujarati distinguishes the \( e \) and \( o \) derived from Pkt. \( e \) and \( o \) from the \( e \) and \( o \) which sprang from Pkt. \( ai \) and \( au \) in hiatus, by the extent of their opening, the latter being the more open (Turner, As. Mukherjee Jubilee volume, p. 337).

In any case, Skt. \( -o \) from \( -au \) and \( -o \) from *-as have not fared alike. Vedic sandhi opposes \( \text{mána-ri}^\ddot{\text{g}}\text{a-} \) to \( \text{gáv-í}^\ddot{\text{s}}\text{t}i\text{-} \) (from manas- and go-) : -o arising out of *az is sometimes resolved into -ay. It ends at last as -e in final position in eastern Middle Indian. In the non-western inscriptions of Asoka Skt. \( -\acute{a}h \) is always represented by -e: \( \text{devánampi}^\ddot{\text{y}}\text{e}(\text{-p}t\text{riy}^\ddot{\text{a}}\text{h}) \), \( \text{láj}^\ddot{\text{i}}\text{n}e\) (\( r\ddot{\text{a}}^\ddot{\text{j}}\text{n}^\ddot{\text{a}}\text{h} \)), etc. But a compound like \( \text{vay}^\ddot{\text{o}}\text{-má}^\ddot{\text{h}}\text{ál}^\ddot{\text{a}}\text{k}a\text{-} \) and a proclitic like \( \text{lal}^\ddot{\text{o}} \) retain the Sanskrit form like the \( o \) which has sprung from a plus \( u \) in no not, kho (cf. khalu). There is apparently the same relationship in the Niya documents (see. p. 8).

Variations of this type, having no grammatical importance, were not noticed or, at least, were not recorded. The vowel system of Sanskrit is therefore meagre. It is, however, less so than Indo-iranian, since by reducing the old diphthongs possessing a first short element, it brought into being a new \( e \) and \( o \), at least in their long form, which was missing in Indo-iranian.

But from the point of view of quantity, which is a basic element of the old phonetic system, the distribution of these phonemes is irregular. \( A, i \) and \( u \) alone are both short and long; \( r \) becomes long only in certain endings, on account of morphological analogies. Finally there are no short \( e \) or \( o \).

The methods of employing them are similarly ill-matched. \( A \) is merely a vowel, \( i, u \) and \( r \) are semivocalic; \( e \) and \( o \) are diphthongs resolvable into the elements \( ay, ao \), which should normally come from *ai, *au, but ai, au resolve into \( ây, âv \). In a general way the alternations, which play such a great part in the language, do not agree with the phonetic system. Compare, for example, the relationships of the phonemes in the morphologically equivalent groups of \( r/\acute{a}r, a \) (otherwise a pure vowel)/an, \( i/e, i \) (IE \( \varphi \))/\( ā \) etc., and one might easily add to these disparities. Further, the phonemes admit of a variety of alternations. Thus \( i \), a vowel interchangeable with \( a \), so far as it derives from IE *\( \varphi \), is also interchangeable with \( y \), not to speak of the possibility of its emerging from \( r \) in giri-. In such a complicated system which worked so irregularly, radical changes were only to be expected.
II. SUBSEQUENT EVOLUTION

1. Loss of phonemes

The want of balance in the application of the vowel system of Sanskrit explains why in spite of its simplicity and apparent stability (for in the whole of modern Indian hardly any new phonemes have made their appearance), it has been extensively remoulded.

Vocalisation of r:

The first change appears in the elimination of r. Here Indian in common with Iranian and the other Indo-european languages, has lost a complex phoneme, which comprised consonantal elements even in the vowel stage. The problem was solved in Iran and elsewhere by the development of a group consisting of a vowel plus r, but in India a different solution was found. Only in India was the quantity preserved at the expense of articulation, according to a method utilised only for the nasals in Iranian and Greek and, of course, for i and u, which caused no difficulties.

The fact that r was replaced in pronunciation by a pure vowel and not by a diphthong or a group forming a syllable, contributed to the prolonged preservation of its symbol in writing. In any case, and the point is important, the Veda already records u representing early r. It occurs in the endings of the gen. sg. pitūḥ father’s (*pitr-s) cf. Av. narāś (*nṛ-s), 3 pl. pf. cakrūḥ they made, cf. Gath. ānharə they were, čikōitarəs they were preoccupied (see Meillet, Mélanges d’indianisme..., S. Levi, p. 17). Normally a phoneme is affected first when in final position. But cases also occur in which the resulting vowel was recorded in medial position, where r was not protected by the operation of alternation and is traceable only by the etymologist: víkaṭa- monstrous (-kṛta-), ninyā- intimate cf. Gk. nérleros lower, infernal, múhuḥ suddenly (Av. māruṇa- short, see Donum natalicium Schrijnen, p. 369), cf. also gehā- beside grhā- house. Traces are also found of r plus a vowel, which again preserves the quantity of the syllable: krimi- beside kṛmi-worm, cf. Pers. kirm.

These usages are the same as those found in Middle Indian and Neo-indian, or, it would be better to say, these characteristic Indo-aryan usages are attested under favourable conditions by the Vedas and are subsequently generalised in the later stages of
linguistic notation. The Iranian type—vowel plus r—is found only in the unsettled pronunciation of Sanskrit words in modern times (Beng. amrīta beside amrita and amrata; similarly mrigā for Pers. mīrza); also in some doubtful readings of Asoka’s Shahbazgarhi inscriptions, in which one might read *mṛugo, etc. (Michelson, JAOS, XXX, p. 82, but see Bloch, BSOS, VIII, 420, where the text has mṛugo, cf. dhrama=dharmā-). But it must be admitted that this is the only instance. Khowar orč bear, which must be distinguished from Panj. ricch, Mar. rīs, etc. and also from Waig. ōč, Kati, Ashk. Ĭč, Pash. īč, āč, Shina īč, is too isolated to be taken into account here.

The use of r plus vowel, as shown in Ved. krimi-, is perhaps attested in Asokan (mruga-, mriga-) and in Pali when in contact with labials, e.g. brūheli develops (for the ū cf. paribbālha-, Skt. parivṛṭha- provided), brahanī- (for bruh- in imitation of brahaḷḥha-, Skt. barhiṣṭha-), rukkha- (and rakkha- found once); cf. also Dutr. prudhi against Pa. puthu (prthak). But Pa. pucchati, vicchika-, accha- (prchali, vṛṣčika-, rksa-) show that anyhow these are exceptions. Ri is met with initially in Prakrit in riddhi-, risi-, riccha-/rikka- etc.; but isi-, accha- also exist, cf. the Pali and Jaina compound mahesi-. And, although we find traces of it in modern Indian (cf. the names for “bear” cited above), this usage is exceptional and the substitution of a simple vowel for r remains the normal practice in Middle Indian and Neo-indian, not excluding the languages distant from the centre. This substitution already existed in Vedic and was extended in classical Sanskrit (kroṣṭṛ jackal, alternating with kroṣṭu, etc.). It is impossible to predict the colour of the vowel, except in the vicinity of a labial. Asokan (at Girnar) and Marathi later prefer a, which is unknown to Sindhi.  I is the most usual substitute.

Elimination of Diphthongs.

The break in the Indo-iranian system of diphthongs caused by the creation of the vowels e and o is the first stage in a development, which in its turn affected the ai, au of Middle Indian and at the same time destroyed the morphological value of the double gradation i, e, ai; u, o, au.

We have seen that the a, which was the first element of the Indo-iranian diphthongs, ā, āu had already lost its original quantity in Sanskrit. The resulting āi, āu were in their turn amalgamated with e, o in Middle Indian: As. kevala- (kaivarta-), the ending of the obl. fem. sg. -ye (-yai); potra- (pautra-); Pa. vera- (vaira-);
por a- (paura-), ubho (ubhau), rallo (rātrau). Similarly ai au resulting from aya aya avo avv behave like ai au with which they become identified, for Aśoka writes at Girnar thaira- (sthavira-) and traidasa (trayodasa), which are written in Pali thera, terasa. So also in cases of epenthesis: As. samacairam for Shah. (=Pali) samacariyam supplies the intermediate stage, which preceded the Pali type acchera- (āścarya-), ācera- (ācārya-) and the Pkt. adjectival formative -kera- (kārya-), which was to prove so popular in Old Gujarati, Romany, etc. as a suffix for adjectives of possession. Finally, a separated from i, u by a syllabic barrier combines with them, when this barrier is removed. We already find co(d)asa (caturdása) with dissimilation of the dentals in Asokan at Nigliva and the process is made clear by the Topra forms: catu(p)pade quadruped, cātamāsām four-monthly, and cānu(d)asa- fourteenth, with the consonant provisionally reduced to a transitory fricative. In the same way we have Pkt. -ai, modern -ai or -e for the 3rd sg. of verbs, Slt. -ali; Pkt. -ao, Braj -au and -o, Kash. -u for the nom. sg. of enlarged nouns, Skt. Pa. -ako; and from bhaiginī sister, Hin. bahin, Panj. bainh, Sind. bheṇu, Kash. bēṇē.

In the case of a vowel plus r, the r was assimilated before a consonant like every other consonant preceding another.

The case of nasals is more complicated. When they precede an occlusive, their articulation is adapted to it: RV impv. 2nd sg. yandhi from yam-; the same thing applies before dropped consonants, including even sibilants: aor. 2nd 3rd sg. āgan (*ganṭ and *ganṣ, no doubt through an intermediate form *ganṭs, cf. p. 88), gen. sg. dān of the house (*dams).

Before a continous nasal vibrations penetrate the adjoining elements; a y is shaded into ģ nasalised; and a vowel before h or a sibilant develops a final nasalised portion, which becomes a diphthong with the preceding portion. Thus the anusvāra in maṃsālē expresses aṃ in *maṃsāḷe from maṃ- to think. According to certain writers the vowel is also nasalised before an occlusive, but this is an isolated doctrine. The general rule opposes, for example, anta- arika- to aṃsa- aṃhas-, just as in Polish kęś, kpt are pronounced kęś, kont (Meillet-Grabowska, Gr. polon § 10). Before a double nasal in Asokan orthography, there seem to be traces of nasalisation similar to the southern French ōne for année: aṃna-, aṃñatra, pumña- (anya-, anyatra, punya-).

The vowel i, which is less tolerant of nasalisation than a, tends to become a single long vowel: Pa. sīha- (sīṃha-), As. -vihīṣā
(himśā), Skt. vrīhi, an isolated word of popular origin from Ind.-ir. *wṛinīhi, Pers. birinj (Études asiatiques... EFEO, I, p. 37); but Pa. vīsali may come directly from Indoeuropean: Av. vīsāiti, Lat. uīginti. It is Skt. vīması-ti which makes difficulties.

When final consonants are dropped in Middle Indian, the occlusion of nasals is lost and a resonance remains in the vowel; Pa. aggim from agnim, jīvaṃ from jīvan, bhavaṃ from bhavān, Pkt. AMg balavām from balavān.

At first these medial and final diphthongs are treated as such from the point of view of quantity; they are reckoned as long in early prosody. Afterwards they share the fate of the old long vowels, they are shortened when final in Buddhistic Sanskrit and in long words in late Middle Indian: Bhav. sīḥsaṇa- for sīḥsana-(sīṃhā-) , etc.

2. Alterations depending upon position in the word

With some few exceptions the timbre of vowels was from this time forward consistently maintained. An a, i, e, u or o in Sanskrit generally recur as such in, say, Marathi or Hindi. The rhythmic system, on the contrary, was modified.

In Sanskrit the quantity of vowels is always strictly regulated. There are short and long vowels and the latter are considered to be double the former. The “weight” of the syllable involves a different idea; a syllable with a short vowel may be heavy, if the vowel is followed by two consonants. The variations of quantity admitted in the old prosody apply particularly to morphologically distinct types. We may cite as examples the final vowels pertaining to certain endings (śrūdhī; ardā) or to certain first members of compounds (vīśā-mitra-) and to morphological elements treated as members of compounds (adjective stems followed by the superlative suffix: purātāma- and reduplications). This is due to a tradition of Indo-european, in which the alternation of “weight” in syllables plays an important part; halā mākhām: halā vṛtrām (ॐ-ॐ); vāvṛdhē: uavārdha; bhārīman- food, bharitram arm. The same tendency allows a short vowel to be dropped exceptionally in very favourable circumstances, as when labials are in contact: kṛṣmahe, manmahe for kṛṣnu-, manu-; or when the i in dissyllabic roots is suppressed as in jānaḥ opposed to janītā; whence jānmanā beside jānima. This tradition survives in Middle Indian in the lengthening of vowels at the ‘seam’ of compounds: Pa. jāḷmarāṇa-, diḷḷhīgala- and also the gen. satīmalo, and, indeed,
the nom. *satīmā (smṛtimān). But the converse shortening is also found: *laṅhagata- from laṅhā (ṛṣṇā), and paṇñāvā (ṛajñā-vān). There is, therefore, a real equivalence, which depends as much on the unsettled values of final vowels as on the rhythmic grouping of syllables.

The fact is that in Middle Indian vowel quantity is no longer maintained as rigidly as before by the grammatical sense or, in particular, by the operation of alternation. It depends in an increasing measure on the phonetic position of the vowels in a word which is controlled either by the manner of constituting the syllables or by the form and dimensions of the word.

A) The syllable

In the ancient system a syllable ending in a long vowel or one containing a short vowel followed by a consonant group are equally heavy: *tadā ~; tappa- like tāla ~. The situation does not change, when the consonants are assimilated: Pa. tatā- (tapta-) ~. A syllable containing a long vowel and a following group was too heavy and was restored to the normal weight in classical Middle Indian. The starting point of the movement is to be found in Asoka’s Girnar inscriptions: beside a(ṅ)ña- (anya-), yu(l)ta- (yukta-) are found rā(ṅ)ño (ṛajñā), mā(d)dwava- (mārdava-) with the same opposition of vowel quantity as before incompletely assimilated groups of consonants: cālpāro (cāvārāḥ) as against ātpa- (ātma-).

This stage lasted for a long time in the western zone. Sindhi gives evidence for it by opposing vāghu (vyāghro) to caku (cakram), rāth (rāthrī) to ratu (raklo), kāthu (kāsthām) to aṭhu (aṭlau); so too Panj. rāl (rālrī) and rālī (rakla-) and the Kash. kāḻth (kāṭha-), jāg (jāgr-), but rat (rakla-). Ordinarily in Middle Indian the syllable was restored to normal weight by encroaching on the vowel; ralti- like raltla-; kāṭha- like aṭlha-; aṅṅa (āṅṅa) like aṅña- (anya-). But exceptionally the same result was obtained by simplification of the double consonant, hence Pali dīgha- (dīrgha-), lākhā (lākṣā), sola- (śrotā-), apekhā (apekṣā), sekha- (śaikṣa-), Jaina Pkt. rālī (rālrī), etc., cf. p. 89.

E and o which were liable to be shortened in final position, were bound to be shortened also before a consonant group. The ordinary spelling of the type jēṭha- (jyeṭha-) is uninformative. Spellings such as aggihut ta- (agnihotra-), juṅhā- (jyotsnā) are clear, if the existence of ē and ō, drawn closer to i and u by similarity of timbre, be presumed, but are not in themselves
evidence. For, if pushed to it, we can suppose contamination with a participle from the same root, like huta-, or with a word of cognate meaning like juti- (dyuti-). Yet forms like nekkha- (niśka-), oṭha- (uṣṭra-), which cannot be explained etymologically, do presume the short vowels in question. And in this way we can explain not only the above instances, but also derived words from which every trace of vṛddhi has disappeared: sindhava- (saindhava-), issarīya- (aśvarīya-), uṣṣuka- (austukya-).

It is evident what confusion in the old system of alternation was caused by these equivalents, which were multiplied in classical Middle Indian. From the failure to preserve the guṇa, not only did the derivatives, but even the inflexions themselves change their appearance. New oppositions, indeed, were created in modern times, by their help: Hin. ek one: ikaḷṭhā alone—dekhnā to see, dīkhānā to make to see (an alternation of the root-vowel, which is curiously enough, the converse of the Sanskrit alternation): torṇā (troṭhayati) to break: tāṭnā (trāṭyate) be broken.

At this point, therefore, a new system comes into being, in which r no longer exists and the remaining vowels may be either short or long. The only difficulty from the practical point of view is that i can be, at one and the same time, the short form of ē and e, and u of ā and o, a confusion which is the more serious because ē and ē, o and ā are not homogeneous and are interchanged only exceptionally.

It will be seen later that the Middle Indian geminates were generally simplified in Neo-indian. When this was done, the preceding vowel, from whatever source it originated, was lengthened, except in the western languages, as mentioned above. In certain cases, perhaps, the change took place in the Middle Indian period, cf. in Asoka the futures in -i(s)ati of the Delhi pillars beside those in -i(s)sati. At any rate the change is regular in the languages of the Ganges and of the Deccan: Hin. āp (āṭman-, Pkt. appa-), rāṭ (rāṭri, Pa. rāṭti-) āṭ(adya, Pa. ajja), pāḷ (patra-, Pa. pāḷa-), māṭ (māṭra-, Pa. māṭṭa), pāḷ (pāṭra-, Pa. pāṭṭa-); Eur. Rom. drakh (drakṣā), maṭo (mālsyā-), both having the ā of gav (grāma-) and not the e of ker- (kar-), etc. Hence we get the Hindi doublets such as makkhan: mākhān butter (mṛkṣaṇa-), bāṭī and bāṭī wick (vartikā).

In Singhalese only short vowels and single consonants remain. The details of this development are unknown, but the distribution of vowels before a nasal plus an occlusive seems to point to a development on all fours with the one just mentioned, and the vowel shortening would then be of recent origin.
The group of nasal plus occlusive, indeed, cannot occur under the normal conditions of consonant groups. Then again, the nasalisation of vowels, which took place in early times before sibilants, fricatives or aspirates only (saṁsā-, vaṁśā-, saṁvādā-, sāṁhila-) is not established before occlusives till much later and then only partially. The optional spellings with anusvāra in Sanskrit and the vernaculars do not express real facts. In the western group in which the nasal persists as a consonant, the vowel may preserve its quantity, as before a group of occlusives: Panj. kānṇā, Sind. kāno (kāṇḍā-); Panj. rann, Sind. ranā (raṇḍā); but Panj. amb beside Sind. āmo (āmra-).

In other languages everything depends upon the voicing of the occlusive. In Marathi the vowel which is always long, except under learned influence, remains nasal and is followed by a nasal occlusive before a voiced consonant: cānd. Before a voiceless consonant it was nasalised and was followed immediately by the consonant: āt. In the end it has become denasalised, a fact not ordinarily recognised in spelling (for a recent experiment in this direction see, V. N. Sardesai, Some problems in the Nasalisation of Marathi, JRAS, July, 1930, p. 537). The formula is much the same in Gujarati. In the same way Singhalese opposes aṅdura darkness (andhakāra-), kuṅbu pot (kumbha-) to kaḷu thorn (kaṇṭaka-), set peace of mind (śānti-), kāp- to shake (kāmp-) and even mas (māmsa-). This is also the Marathi distribution, except that Singhalese shortens long vowels.

In Hindi the tendency of the vowel to absorb the nasal is predominant: jāgh (jaṅghā), pāc (paṅca) but in a longer word paṅcās =paṅcāsat, pūjī (puṇja-), kālha (kaṇṭha-), pīrī (pīṅḍikā), etc. In one favourable case, the occlusive itself is lost: cūm- (cumb-). The forms with a short vowel plus a nasal consonant are frequent, including, even those, no doubt, outside the influence of Sanskrit models, say, paṅc, pīṅḍī, etc. This is a development parallel to that of the doublets of the type bālī: baltī noticed above (p. 40).

B) The Word.

Final vowels.

In consequence of the loss of the consonants, all words in Middle Indian had vowels for their finals. Later, the instability characteristic of the terminations of words affected these vowel elements. The only final long vowels remaining in the modern languages are those evolved from recent diphthongs. Otherwise, words end in almost inaudible vowels or bare consonants.
Traces of this change appear in the earliest Middle Indian records. In a small group of Asokan pillar records -ā from -ā, -āh, -āl is written -a, the primitive length reappearing when the word supports an enclitic: siya, va but vāpi. The quantity, however, is not strictly maintained in other inscriptions.

In Pali the spelling is conservative as, indeed, is generally required by the morphology, which is of an early type: jāti is singular, jātī plural, etc. But in the aor. 3rd sg., where there is an alternation with a different vowel, we regularly find a short vowel: āsi (āsīh, āsīt), assosi, etc. and accordingly, conversely, acchidā. H. Jacobi suggests that the celebrated formula ye dhammā hetuppabhavā should be scanned with a short a in the second word.

The nasal vowels fare likewise. At Girnar the acc. fem. sg. -yālām (yārām) occurs, but -yālām is the form found elsewhere. Pali  has kāñṇaṃ and nādiṃ (kanyām, nadiṃ) uniformly in conformity with dhammaṃ and aggiṃ (dharmam, agnim); similarly As., Pa. dāni (idānīm). So also As., Pa. gen. pl. gurūṇaṃ, loc. sg. fem. parisāyaṃ; there is no question of any optional spelling of an element, which is long in any case because of its nasal quality, a fact normally taken into account in prosody. Indeed, the nasal quality is no longer indicated in expressions like ariyasaccāna dassanaṃ sight of the noble truths, gimhāna māse in the month of the hot weather, and even, without a governing link: Sn. 740 dīghaṃ addhāna saṃsāraṃ ever moving on the long road (of transmigration). From this point we find a number of endings in Prakrit of which the vowels nasalised or otherwise afford no certain clue to their etymology and also an option allowed in prosody of counting final nasals as either long or short (anusvāra or anunāsika).

So far as -e and -o are concerned, Early Middle Indian furnishes no conclusive evidence, and it seems indeed as though these phonemes had made a more effective resistance. This is confirmed by the optatives in -i or -e and the nominatives in -u and -o of the Dutreuil du Rhins Ms, in which these vowels count as long: Aⁿ 17 garahītu (Pa. garahilo), sadā, goyari (gocare) ratā; conversely Aⁿ 15 bahō jāgarā, 10 bahō bhāsali as against Cvⁿ 12 bahō jano (Pa. bahujjanā). Apparently the intention is to indicate that the timbre of the vowel is obscured like the nasalised vowel in dhamu utama (dhammaṃ uttamaṃ), sabaśu (Pa. sampassamaṇ, Skt. sampāṣyaṇ), ahu or aho (aham). It is therefore possible that although -e and -o are scanned short at will in the Mahāvastu and in Prakrit
poetry, the timbre of the vowel may have at first been altered here. The obscuring of -aṇī (-ā) in Middle Indian in transit to -u, thus recorded at the time of the Dutreuil du Rhins Ms, was generalised in Apabhraṃśa and the modern languages.

The extension of the Middle conjugation, in particular, largely depends upon the phonetic equivalence -ali, -anti: -ale, -ante. This is only a detail, but it may be said that basically there are none but short final vowels in the modern languages. These short vowels have in their turn suffered a deterioration due to their position. This may be quite an old development, to judge from the spelling Mahēśvaranāg on a seal of the end of the IVth C. (Gupta Insc., p. 283; see also, p. 125). It is even tempting to recognise traces in the legend in Greek characters on a coin of Nahapāna of the IInd c.: rannīō xaharatas nahapanas (Master, BSOS, IX, p. 709). Hardly a whisper remains of them in some languages, but it is an articulated whisper. Sindhi distinguishes dehu (desa) from deha (desāḥ) etc. Maithili keeps -i and -u; ānih(andra-), but ākhi (aksi), bahu (vadhuh), pāc (pañca), but tinī (triṇī). The vowel disappears completely in the most barbarous forms of speech only (e.g. Kāti bār (bhāra-), dās yesterday (doṣām), byūm (bhūmi-) and in the most civilised: Gujarati, Marathi (excluding Konkani), Bengali, Bihari (excluding Maithili) and, finally, Hindi and Panjabi. Further it must be noted that in the territory of the last two languages rustic speech is inclined to retain the final vowel, and, of course, in all metres the final consonant of a word is considered to carry an “a mute”.

In Oriya, a neutral vowel may be added to all words ending in a consonant, thus recalling the movable final u of the southern Dravidian languages. Oriya, has actually, as we shall see, a Dravidian idiom, the relative participle, in its grammar.

The principle, therefore, may be laid down that except, in conservative rustic speech, vowels at the end of a word are or represent long vowels resulting from contractions. Some old long vowels exist exceptionally in words of grammatical importance: Mar. jo (yak), āmhī (Pkt. amhe); yet it should be remarked that these long vowels are probably only graphic, cf. Beng. āmi, Hin. ham. A real final vowel is considered long in Hindi and Marathi; hence Hin. janvari, mai, julāi, names of months borrowed from English, sentrī (sentry), as opposed to sikarlar, sikตลาด which makes too long a word, as the initial vowel alone is accented (secretary) and so the final vowel is slurred. In Kashmiri the adjectives are of the form bodu masc., great, buḍī fem. (cf. Hin. bārā, bari), beside ēur thief (coro, corāḥ), rāth (raṭřī) and the loan words dunyā world, nādī river, or the ablative ēūra (MI *corāo).
Word rhythm.

The quantities of all vowels now existing cannot be wholly accounted for by etymology, even when syllabic structure is taken into consideration. Some vowels in the modern languages are, indeed, more substantial than others. Firstly, the vowel preceding a final consonant: Aw. pr. pt. dekhat seeing (-anto), inf., dekhab (-itawya-) and consequently the vowels of monosyllables are always comparatively long. Secondly, the final vowel resulting from a diphthong (direct case, masc. in -au, -o, -ā from Pkt. -ao; 3rd. sg. -āi, -e from Pkt. -āi, -ae), even though it may be subject to shortening: Kash. gurāu horse, gupi he hides, respectively. Similarly, the initial vowel is always preserved (except in the case of apocope: O. Mar. bais, Hin. bāth from upaviś-), but the quantity is unstable. Medial vowels, on the contrary, are usually feeble.

We find traces of hesitation in quantity as early as Middle Indian, but they can ordinarily be explained in other ways. Thus we have parallel formations in the case of pavāha- for pravāha-; or suffixes regarded as equivalent: thus Mar. talē implies Pa. *talaka-, which is the correct way to scan talāka- in the Apacak (H. Smith), while Hin. Guj. talāv agrees with Skt. taḍāga-; Sind. bilo, Hin. bīlī, presume *bīdala-, the other languages agreeing with Skt. vidāla-; Pkt. gahira- confirmed by Hin. gahra, etc., leads to the supposition that Skt. gabhira- has assumed the suffix of śhāvira-, śhitrā- etc.; but one could hardly call on kuṇjara-, īśvara- to explain Pkt. maṇjara- beside maṇjāra- (māṛjāra-), Pkt. kumara- beside Skt. Pkt. kumāra- confirmed by Guj. Hin. kūvar prince, against Guj. kāvāro, Hin. kūvārā unmarried. It has been remarked (Leumann, Festschrift Jacobi, p. 84 s.) that ānīa-, samānīa- are found in Hāla beside niśa- (nīla-) and uvanīda-; this is because āneī, samānīeī are treated as normal causatives in -ei. In another connexion initial groups, which are simplified from Early Middle Indian onwards, can, when the word to which they belong is the second member of a compound, either remain simple or be geminated, thus conferring 'position': Pa. nikhip- or nikkhip (nikśip-), whence by analogy paṭikula- or paṭikkula-.

In modern times the word-rhythm dominated the etymological quantity. That is why Hindi has apnā one's own, and putlī doll, as against āp oneself and pūt son. The short vowel in Hin. Beng. bij(u)lī lightning is not properly the Skt. short vowel in vidyut, but that of Pkt. bijjuliā, if not actually a more recently shortened long vowel. This is certainly the case with nicā from nicā. Accordingly an e cannot withstand the effect of a hiatus in Beng. siulī (sēphālikā) nor an i in Sindhi, siāro (śīlakāla-).
In Marathi kiḍā derived from kiḍ (kiḷa-) and purā complete (pūrīta-) are regular. Similarly Deccani Urdu has mīḥā for Hind. mīḥā. Hindi is indeed conservative; it has pāēt where Panjabi has puād (pādānta-) B. Das Jain, BSOS, III, p. 323. From this come the oppositions with morphological significance, Hind. dekhnā to see, dikhānā to show; bolnā to say, bulānā to call.

Medial vowels. Beng. ḥakran is the feminine of ḥakur, Hind. bahnē the plural of bahin sister; in Deccani Urdu bewāqān is the plural of bewā (Pers. bēva); another loan-word mulāqāt is pronounced mulāqāt. As against Hind. hamārā our, Maithili has hamārā, Beng. āmrā. The effect of -iā- is the same as that of -i-, at least in Hind. ādherā (*andhikāra- cf. Nep. ādhyār) and aheran anvil (adhikaranī), see H. Smith, BSL, XXXIV, p. 115, for above forms. Further, Bengali can even lose e in proper names: Gaṇsā (Gaṇeśa-), Barnā (Varendra-).

Instances of this kind are very numerous in the spoken even more than in the written word, and are difficult to classify. It is particularly difficult to distinguish cases of shortening and loss of characteristic timbre. There is evidently a struggle between rhythmic peaks with no clear principle governing predominance. It is instructive to compare Mar. kāsav and Sind. kachhū (kacchapo); Mar. kāpūs (for *kāpas) and Hind. Guj. kāpās (karpāsa-); or Guj. loḍhī E. Panj. lōḍhā W. Panj. līhānḍā (lohabhāṇḍa-). The point to be emphasized is that vowel quantity and syllabic weight depend upon the context.

We must also notice the appearance in a secondary form of supporting vowels, which often take the place of the former vowels, but are not derived from them: hence Beng. gelās glass, Hind. janam (janma-). Particularly interesting is the appearance of vowels intended to avoid groups of three consonants: Hind. samjha understood, samjhānā to explain; samajhānā to understand, Mar. ulla (Sind. ulīṭo) upside down: ullaṅi to upset; and so in Gujarati and Hindi; but the grouping is different for the Nep. infinitives ultānu, Or. ullaṅibā.

In these cases it is clear that the vowels are subordinated to consonantal word-skeleton. A stronger contradiction to the Vedic system could hardly be found.
III. VOWEL NASALITY

In the course of the history of the language nasal vowels have appeared, which do not owe their nasality to their being followed by nasal occlusives. They owe it to the fact that the nasal resonance innate in vowels asserts itself in favourable circumstances and particularly in connexion with long vowels and a (Cinquantenaire de l'École pratique des Hautes Études, p. 61).

Thus from the time of the Vedas, certain final vowels of which the duration is half as much again as or even double that of ordinary long vowels (Skt. *pluti-*) are nasalised. Similarly with certain cases of -a- in hiatus (not only long vowels or vowels capable of being lengthened: I 79.2 aminantārā ṭvāiḥ were hastily transformed, occurs at the end of a tristabha). This is no doubt the origin of the pious interjection om, originally a simple cry o. We have here more than one act of utterance, comparable to the nasal droning of Prakrit by Malabar actresses (Pisharoti, BSOS V, p. 309). Pāṇini himself authorises the nasalisation of a, i, u whether short or long, at the end of a sentence. This is carried on to the modern period: Mar. 2nd. pl. in -ā (-atha), tarī (tarhi), Sind. prī (priya)-. In the modern languages every long vowel, even when medial, tends to develop a nasal resonance: Mar. keś (keśa-), Hin. āṭ (uṣṭra-), sāp (sarpe-), ākh (aksi), ūcā (ucca-), O. Hin. ṭē (taila-). These forms are irregularly distributed: W. Bengali, which has pathī opposed to Hin. pōthī (pustaka-), writes sāp opposed to Hin. sap; but it is hardly possible to distinguish between the spelling and the pronunciation.

There are various indications that the equivalence of long vowel =nasalised vowel can be traced to Middle Indian, at least in the vicinity of a sibilant, r(l) or a palatal, that is to say, consonants not occlusive and so releasing the velum, which as the history of Indo-aryan shows, has only a weak tension. This, at least to some extent, is the explanation of the nasals in Pa. ghaṁśati, haṁśati (gharṣ-, harṣ-), suṁka- (śulka-), aṁsa-, aṁsi- (aṣrī-) and, conversely, the denasalised long vowels of Pa. śīha- (śimha-) and of Skt. vrīhi, p. 37. To be noted especially are the nasals of Pkt. aṁsu- (aṣru-), paṁkhi- (pakṣin-), cāṁch- (lakṣ-), daṁs- (darś-), etc., and modern forms derived from them (notice particularly Sind. haṁju, vaṁju, where the nasal before the sibilant has generated an occlusive see, p. 87).

This process is developed further in the modern languages and
is carried beyond the old phonetic limits. You find not only Hin. bāh (bāhu-), but Mar. pīmlī as opposed to Guj. pīpar, etc. (pippalī). Cases of analogy must naturally be segregated like Nep. ūbho (ūrdhva-) by analogy with ūco (ucca-), the nasal of which is found again elsewhere and Hin. angilīha furnace (agnišṭha-) after other words in ang-, primarily angār coal.

Lastly come the vowels, which are nasalised through the influence of adjacent nasal occlusives. (i) At the end of the word: we find in Prakrit noun-endings the gen. pl. -āṇā (-ānām) and -āṇā, the instr. sg. -eṇa and -eṇā, the nom. neut. pl. -āī normally (with absorption of the nasal occlusive of -ānī before ī, cf. Aw. barsāi, but obl. barsan years, Braj bālaī obl. bālan words). In Apabhramṣā the instrumental has also -ē: narē; and in the Bhavisattakaha the nasal is transferred to the feminine. In the same text every -ī, -u, -hi, or -hu following a nasal is nasalised: 3rd. sg. suṇāi he hears. (ii) At the beginning of the word: m or n can nasalise the following vowel. You find makkaṭa- (markaṭa-) in Pali, but also mamkuṇa- (malkuṇa-) whence Panj. māgnā but Hin. camokan. This is an isolated and even an astonishing example, inasmuch as later cases, even though they are only sporadic, occur when the following consonant is voiced: thus Pkt. manjāra-, Mar. mājara- (māṛjāra-, Pa. mājrāra-); Bih. Hin. māg Kash. mong, Sgh. muṅgu, muṇī, but Mar. māg, Guj. mag, Beng. mug. (mudga-). A certain number of other cases are met with: Kash. manz, Sdh. maṇjhu, Rom. manj, Sgh. mānda, Hin. mājh (madhya-) as against Aw. mājh, Mar. māji, Beng. māj; Sgh. māda; Sdh. muṇjh: Guj. mujh- (muhyati); Sdh. muṇdr, Mar. mūd, but Or. Ass. mud- (mudrayati, Pkt. muddei). And with initial n: Kash. nonu, Shin. nanu, Sdh., Eur. Rom. naṅgo, Hin. Panj. naṅgā, but Guj. nāgo, Mar. nāgwā, Or. nāgnā (nagna-) ; Hin. nīḍ, nīḍ, Guj. nīdar, nīdar, O. Beng. nīnd, Nep. Torw. nīn, Eur. Rom. lindr, but Mar. nīḍ, nīḍ-, Sgh. ninda and -nīdu. H. Smith calls attention to the opposition of diqu long: nādi qu or nādi ṭu short, in Singhalese. The nasality is extended, where there are only vowels: Sdh. nā́i (nadī), Aw. maī as against tui.

These exceptional facts are of interest as confirming the tendency of the velum to relax, resulting in nasalisation of long vowels and, in certain endings, even of short vowels, as the most important consequences.
IV. ACCENT

In Vedic as in Indo-european the vowels were distinguished not only by the timbre and quantity, but also by the presence or absence of a rise in the voice, which is known as *udātta*-. This had otherwise no connection with and did not affect the other characteristics of the vowel or the make-up of the word.

All words were not accented. Certain words were accented according to their position or the part played by the clause in the sentence. Thus the verb did not receive the tonic accent, except as part of a formal or implicit subordinate clause and the vocative only at the beginning of a section of a sentence (Meillet, *BSL*, XXXIV, p. 122).

Only one vowel in the word received this tone, which gave the syllable no particular value. The place of the tone was not determined by the form of the word, but by morphological rules which were partly the same as in other Indo-european languages. Thus the alternation *pāṭ, pādam: padāḥ* reproduces that of Gk. *pous, pōda, podōs* (but *śūnaḥ* has not the accent of Gk. *kunōs*); the vocative *pīlar* opposed to the nom. sg. *pītā* has, like Gk. *pāler* opposed to *pater*, the accent on the first syllable. The opposition of the noun of action *ēṣaḥ* haste, and the adjective *ēṣāḥ* hasting, *āpāḥ* action, and *apāḥ* active, correspond to the opposition of Gk. *tōmos* cutting (noun) and *tōmos* cutting (verbal adjective); *pseudōs* lie, and *pseudēs* liar, lying. The accent of the possessive compounds is on the first member in both languages: *rājaputra*-having a king for son, *ākūpteros* swift-winged; the groups *ni-hīta-, apōblēlos* correspond, etc.

This very archaic system, which, indeed, includes a few variants, entirely disappeared after Pāṇini. Although some grammarians refer to it, it is noted in no text. In this respect Indian is opposed to Greek, in which one vowel with a high pitch and long quantity has taken the place of the former tonic and the rules of metre take into account the alternation of accented and unaccented vowels. To sum up, if the notation of the tonic vowels in early Sanskrit had been lost, an important characteristic of its make-up would have been wanting (of importance also for the study of Indo-european), but the actual inner history of Indo-aryan would have not been affected.

The question has been asked, whether this evolution was not
dominated by a new accent, that of intensity or stress accent, as has been produced, for example, in Germanic and Czech, in which it falls on the initial vowel; or in Armenian, Polish and Iranian, in which it is governed by the ending of the word. Various observers have recorded an accent of intensity in certain modern languages with more or less precision. So far as definite formulas have been reached, they differ from language to language. They depend, generally speaking, on the quantity as well as on the position of the syllables in the word. There is no need to discuss them here. What is important is their divergency. Consequently, it is not surprising that Middle Indian does not furnish any decisive facts in favour of a regular stress accent in the vulgar tongue. The very idea was unknown (it is noteworthy that in Pali udaita- and u'āra- are not used in any technical sense and sara- (svara-) designates only a chant). The facts, which have been adduced to prove a stress accent—according to Pischel placed on the old tonic, and according to Jacobi on the first long vowel starting from the end of the word—are open to other explanations, especially rhythm. Metre remains either syllabic or quantitative; stress accent for the phrase rather than for the word, appears only independently in certain modern languages. It cannot, therefore, be taken into account to explain the evolution of Indo-aryan up to the present day.

Mention must be made of a quite exceptional case of intonation, which is all the more valuable, because we know its origin. In N. Panjab (and also in the East, as far as the region adjoining Delhi, according to a communication from B. D. Jain; in fact, the Bangarū dialect has some phonological characteristics in common with Panjabi v. LSI, IX 1, p. 253), the old voiced aspirated consonants have lost their aspiration and h disappears: but the adjacent accented vowels retain a trace of the aspiration in low vibrations. Hence the vowel assumes a tone, which has its deep element close to the position of the former aspirate: sūukar (sāduh-) banker, deorā (Pkt. divaadgha-) one and a half; cār- mount (Hin. caḍh-) diārā day, cf. Sdh. ḍihādo; kaḍā- causative of kād- (Pkt. kadγh-) throw back. This finally resulted in the unvoicing of the remaining initial voiced consonant: kār cf. Hin. ghar. This characteristic recalls the alternation in Sino-Tibetan, in which a very marked intonation accompanies a voiceless, and a weak intonation a voiced consonant (L’intonation en penjabi, Mélanges Vendryes, p. 57).

There is something of the same kind in Shina, in which the accented syllable carries a rising tone; the native speakers call
the vowel, which carries it, long and in fact there are some vowels of composite origin: dārī boys (dāraka-) has not this tone, but dārī gates (dvāra-) has; gāe song (gā-) does not have it, but gāi ewer (ghaṭikā; intervocalic r having fallen) has; dīh tiger, does not have it, but dīh daughter (duhitā) has; baṣ language (bhāṣā) does not have it, but baṣ lung (cf. Torw. bariś side) has; so kā pl. of kāvā bracelet, has the tone, which the normal plural kāvē has not.

Finally cases have been noticed in eastern Bengali (S. K. Chatterji, *Recursively*, p. 41; in *Indian Linguistics* I, 1) in which the stress accent is accompanied by a sharper intonation where an aspirated consonant has lost its aspiration (b'at rice, k'anda shoulder). It is the same phenomenon as in Panjabi.

It is evident that there is nothing in common between these recent phenomena and the morphological vowel-tones in Indo-European and Vedic Sanskrit.
Curiously enough, the consonant system of Indo-iranian has been preserved in India with greater completeness than in Iran.

(i) Indo-aryan alone of all Indo-european languages possesses four series of occlusives; voiceless, voiced, voiceless aspirated, voiced aspirated. The aspiration is so substantial, that when the aspirated consonants undergo change, it is the occlusion and not the aspiration, which is lost.

(ii) In the palatal series Sanskrit preserves in ś the palatalisation, which is lost in Av. s, OP ɵ; and Kafiri, apparently an Indian dialect, has preserved a phoneme still more archaic.

(iii) The Indo-european sibilant, which was reduced in Iran to an aspirate before a syllabic consonant or a vowel, was preserved almost universally in India till a late date.

(iv) Finally in India occlusives in groups, although they might change their point of articulation, preserved their occlusion, while in Iran they became fricatives. The only fricative in Sanskrit is v.

In its turn Sanskrit created an entirely new class of phonemes, the cerebrals.

I. OCCLUSIVES (INDO-EUROPEAN TYPE)

The labials and dentals and the occlusives and semi-occlusives derived from Indo-european labiovelars call for no remark:

<table>
<thead>
<tr>
<th>Voiceless Skt.</th>
<th>OP</th>
<th>Skt.</th>
<th>Av.</th>
</tr>
</thead>
<tbody>
<tr>
<td>upári</td>
<td>upariy</td>
<td>saphá-</td>
<td>safe</td>
</tr>
<tr>
<td>pitā</td>
<td>pilā</td>
<td>yāthā</td>
<td>yaṭā</td>
</tr>
<tr>
<td>kal</td>
<td>Av. kal</td>
<td>sakhā</td>
<td>haxa</td>
</tr>
<tr>
<td>cīl</td>
<td>-cīl</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voiced</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>barhiḥ</td>
<td>barzīš</td>
<td>bhārati</td>
<td>baraili</td>
</tr>
<tr>
<td>dabhnōli</td>
<td>dābhnaoili</td>
<td>dhenū-</td>
<td>daṇnu-</td>
</tr>
<tr>
<td>gaūḥ</td>
<td>gauś</td>
<td>gharmā-</td>
<td>OP garma-</td>
</tr>
<tr>
<td>jīva-</td>
<td>jīvā</td>
<td>hanti</td>
<td>Av. jainṭi</td>
</tr>
</tbody>
</table>
II. PALATALS

On the other hand the treatment of Indo-european prepalatals raises a nice point. Vedic differs from Iranian, which, again, is not consistent:

\[
\begin{align*}
\text{śarād-} & \quad \text{Av. sarəd-} & \quad \text{OP ərd-} \\
\text{jōša-, jošlār-} & \quad \text{zaoša-} & \quad \text{daušlar-} \\
\text{hāšla-} & \quad \text{zastla-} & \quad \text{dastla-}
\end{align*}
\]

The Vedic treatment governs the later evolution of all known Middle Indian and all the modern languages with the exception of a small group, the Kafiri, which has forms apparently more archaic than either Indian or Iranian. In Kafiri ē (ts) is found for the voiceless palatal (also ś, but no principle of distribution is as yet evident). This is, seemingly, the actual semi-occlusive, which should have preceded the Indian and Iranian sibilants:

- Kati duć ten (but Waig. dōś, Ashk. dus) Skt. dāśa, Av. dasa
- ēuč empty (Waig. ēōn, Ashk. ēun) śūnyā- cf. Av. a-sūna-.

The treatment of voiced consonants is reminiscent of Iranian:

\[
\begin{align*}
\text{IE } g' & \quad \text{Kati žotṛ friend} & \quad \text{Skt. jošlar- Av. zaoś-} \\
\text{g'h} & \quad \text{žira heart} & \quad \text{hrd- zərd-}
\end{align*}
\]

The labiovelars before IE e have a different treatment:

\[
\begin{align*}
\text{IE } g\text{w} & \quad \text{Kati žāmi sister's husband} & \quad \text{Skt. jāmi-} \\
\text{g\text{w}h} & \quad \text{žār' to kill} & \quad \text{han Av. ḣan}
\end{align*}
\]

There is, therefore, as in Iranian a distinction made between two series, which are combined in Sanskrit. The loss of aspiration may be recent, as it occurs with every consonant: Kati uti to stand (uttā-); acūl in three days (caturtha- fourth); bōmdāw wasp (bhramara-); drigēr' long (dīrgha-), dyūm smoke (dhūma-). It is met with elsewhere in the Indian portions of the surrounding region.

The question might, therefore, be raised, whether Kafiri is Indian or Iranian, but characteristics, which are definitely Indian are present in its phonology and grammar. It must then be an Indian group, which has had a comparatively independent existence and has preserved an archaism, which has been lost by other languages. It has been remarked above that Sanskrit ś is more archaic than the corresponding Iranian sound at least as regards articulation; and similarly j is, by reason of its semi-
occlusion, nearer to the original phoneme than Av. \(z\) and OP \(d\).

To return to Sanskrit it is important to note that its complete series of semi-occlusive palatals is the result of remodelling. The \(j\), which it includes, is etymologically not the voiced form of \(c\), but of \(s\), which is placed in the sibilant class, while the aspirated palatals have a different origin. The surd \(ch\) to which Iranan \(s\) corresponds is, in medial position, counted as a double consonant and is usually so written. It goes back, in fact, to a group IE \(s\) plus palatised guttural:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(ch)(\ddot{a})</td>
<td>(s\dot{\ddot{a}}\dot{\ddot{a}})</td>
<td>(sk\dot{\ddot{a}})</td>
</tr>
</tbody>
</table>

We have here, then, an assimilated group, the first evidence of a tendency characteristic of Middle Indian. It is thus that Skt. \(pa\ddot{\ddot{a}}\bar{c}\) (Av. \(pa\ddot{s}c\) OP \(pas\ddot{a}\)) gives Pali \(pac\ddot{c}\ddot{a}\) and that in the early language we already find Av. \(\ddot{r}\ddot{c}\ddot{h}\ddot{\ddot{a}}\ddot{r}\ddot{\ddot{a}}\) beside VS \(\ddot{r}\ddot{k}\ddot{s}\ddot{\ddot{a}}\ddot{l}\ddot{\ddot{a}}\) pastern. Here as in Middle Indian \(cch\) is the imperfectly occluded substitute for several groups containing a sibilant.

The voiced \(jh\) is similarly a double phoneme of late origin. The only word in the Ṛgveda which contains it, \(j\acute{a}j\ddot{j}h\ddot{a}h\ddot{\ddot{i}}\ddot{h}, \text{acc. fem. pl. referring to lightning-flashes, has been explained as a vulgarism equivalent to, } j\acute{a}k\ddot{s}\ddot{a}l\ddot{\ddot{i}}-\text{laughing, from } has-. \text{ This is then still another usage known to Middle Indian, which recalls Iranian, see p. 14.}

The aspirated palatals, which complete the picture of the palatals and thus of all the Sanskrit occlusives, have then no original link with the non-aspirated palatals. Moreover, the old voiced aspirated palatal has lost all its occlusion and has been separated from the series, becoming voiced \(h\) and taking its place at the end of the alphabet after the sibilants.

The pronunciation of the palatals varied. In Sanskrit the Prātiśākhyaśas agree in defining them as produced by the application of the middle of the tongue to the palate. There is never any question of pronouncing them as \(l\dot{s}\) etc. and so it is explained that the implosive takes the cerebral and not the dental form. Certain indications found in Middle Indian grammarians have given rise to the idea that the old pronunciation was restricted to the eastern region (Grierson, \(J\ddot{R}A\ddot{S}, 1913, \text{p. 390}); it remains a fact that Aśoka has \(c\ddot{k}\ddot{i}(c)s\ddot{a}\bar{c}\) at Kalsi and further to the East and \(c\ddot{k}\ddot{i}(c)\ddot{c}\ddot{h}\ddot{\ddot{a}}\) (\(c\ddot{k}\ddot{i}\ddot{t}\ddot{s}\ddot{a}\)) at Girnar in the West. In Singhalese \(c\) and \(j\) became \(s\) and \(d\) towards the 10th century, even between vowels (\(s\ddot{a}l\ddot{a}r\text{ four, } rad \text{ king}) which seems to imply the pronunciation \(l\ddot{s}, d\ddot{z}\). The palatals of Singhalese are recent and are derived from dentals or
cerebrals followed by \( y \). We have seen that on the N.W. border Kafiri has semi-occlusive dentals. Kashmiri has \( \text{c} \text{u} \text{r} \) thief \((\text{cora}-)\), \( \text{g} \text{a} \text{c} \text{h}- \text{go} \) \((\text{gacch}-)\) and \( z \text{e} \text{v} \) tongue \((\text{jihv\aa})\), \( z \ddot{a} \text{l} \) burn \((\text{ju\ddot{a}l})\); \( j \) appears only in Iranian and learned words. \( \text{Ch\ddot{a}t\ddot{h}r} \) umbrella \((\text{chat\ddot{h}r}-)\), \( \text{ch\ddot{o}d} \) hunger \((\text{k\ddot{s}u}l)\) may also be learned words; \( \text{chu-} \text{h} \) he is \((\text{Pkt.} \text{acch}-)\) could hardly be considered as one.

Shina has two series of palatals, one of which is the cerebral developed from groups containing \( r \) or \( s \): \( \text{c} \ddot{a} \text{r} \) four, \( \text{m} \ddot{a} \text{j\ddot{a}} \) middle, but \( \text{a} \ddot{c} \ddot{i} \) eye \((\text{ak\ddot{s}i}-)\), \( \text{\ddot{c}} \ddot{e} \ddot{c} \) field \((\text{ks\ddot{e}lra}-)\), \( \text{j} \ddot{a} \) brother \((\text{bhr\ddot{a}l\ddot{a}})\).

III. CEREBRALS

Besides the dentals properly so-called, which are articulated against the teeth or just above them, Indo-aryan possesses a complete class of occlusives similarly pronounced with the point of the tongue, which is, however, placed on the front part of the palate with more or less retroflexion. The two series exist also in the non-Aryan languages Dravidian and Munda.

The Indo-aryan innovation is best explained in terms of the use of the two classes in the indigenous languages. This is without doubt the most decisive fact in deciding the earliest Sanskrit texts to be purely Indian. The presence of cerebrals in Afghan probably points to an Indian substratum.

The Aryan development which made the formation of the new series possible, was the transformation of the old dentals in contact with \( \ddot{s} \), which was in its turn evolved from Indo-iranian \( s \) preceded by \( i \), \( u \), \( r \) and their diphthongs or by \( k \). So, for example, there is a group corresponding to the Iranian \( \text{i} \text{st} \), in which the final \( \text{t} \) is adapted to the hush-sound. Both these sounds are removed from the class of dentals and assume the indigenous form of cerebrals. Indo-iranian \( \dot{z} \) becomes \( r \) in India, while \( r \), old as well as new, functions as a cerebral, see below p. 55.

Another source of the Sanskrit cerebrals are the palatals. In the period immediately preceding that in which the semi-occlusive palatals took their Sanskrit form \( \ddot{s} \text{ j} \text{h} \), these phonemes must have been pronounced very nearly as \( \ddot{i} \text{s} \text{ d} \ddot{z} \text{ d} \ddot{z} \text{h} \), the first element of which tended to be assimilated to the second and then to assume the form of a cerebral. Now when the palatals became implosives, this element alone remained. Thus, for example, \( \text{s} \ddot{a} \ddot{l} \) Lat. \( \text{sex} \), Av. \( \text{x\ddot{s}va\ddot{s}} \), or the nom. sg. \( \text{vi} \ddot{f} \) apparently derived from \( *\text{vi} \ddot{\text{s}}-\text{s} \), but actually from \( *\text{v} \ddot{t} \ddot{s}(s) \), and the instr. pl. \( \text{vid\ddot{b}hya} \ddot{h} \) (Av. \( \text{v} \ddot{i} \ddot{\ddot{b}} \ddot{y} \ddot{\ddot{y}} \ddot{\ddot{o}} \)). The type \( \text{dik} \) is the result of special conditions (Meillet, \textit{IF}, XVIII, p. 417).
This also accounts for the cerebral treatment in Middle Indian and after of the group \( j \) which the articulation of the first implosive element (detachable in other forms in the learned words of the modern languages: Mar. \( d\)\( \ddot{n} \), Guj. \( g\)\( \ddot{n} \), Hin. Beng. \( g\)\( \ddot{u} \)) is predominant. For Skt. \( \ddot{a}j\ddot{n}\ddot{a}-\ddot{p}a\ddot{y}-\ddot{a}t\) Asokan has \( \ddot{a}(\ddot{n})\ddot{\dddot{a}}\ddot{p}a\ddot{y}-\ddot{a}m\ddot{i} \) at Girnar, but \( \ddot{a}\ddot{\dddot{a}}\ddot{p}a\ddot{y}-\ddot{a}m\ddot{i} \) i.e. \( \ddot{a}\ddot{h}\ddot{n}\ddot{n}- \) at Shahbazgarhi; Pali has \( \ddot{a}\ddot{h}\ddot{p}e\ddot{t}i \), Asokan \( \ddot{a}\ddot{\dddot{a}}\ddot{p}a\ddot{y}-\ddot{a}t \) at Brahmagiri, a form declared by Kātyāyana incorrect in Sanskrit (for the simplification of the geminate consonant after the long vowel, cf. p. 89). Pali has also \( \ddot{a}\ddot{n}\ddot{a}t\ddot{t}- \) order, \( \ddot{a}\ddot{n}\ddot{a}t\ddot{t}- \) Buddhist doctrine, but \( \ddot{h}\ddot{a}\ddot{p}e\ddot{t}i \) cause to know, \( \ddot{a}\ddot{h}\ddot{n}\ddot{a} \) (\( \ddot{a}j\ddot{n}\ddot{a} \)) perfect knowledge, \( \ddot{p}a\ddot{n}\ddot{\dddot{a}} \) wisdom; cf. Shah. \( r\ddot{a}(\ddot{n})\ddot{n}o \) (\( r\ddot{a}j\ddot{n}h\ddot{h} \)) like \( \ddot{n}\ddot{\dddot{a}}\ddot{l}\ddot{i}- \) (\( j\ddot{n}\ddot{\dddot{a}}\ddot{l}\ddot{i}- \) descendant.

The same treatment of Skt. \( \ddot{n}y \) and \( \ddot{y} \) is met with in Prakrit and later. It is difficult to say whether we have here Middle Indian \( \ddot{n} \) assimilating a following \( y \) (just as we find at Girnar \( h\ddot{i}\ddot{r}\ddot{a}\ddot{n}\ddot{\dddot{a}}\ddot{n} \), that is to say \( \ddot{h}\ddot{r}\ddot{a}\ddot{n}\ddot{n}- \) from \( h\ddot{r}\ddot{a}\ddot{n}\ddot{y}a-\ddot{a} \) and so \( -p\ddot{a}\ddot{n}\ddot{\dddot{a}}\ddot{n}- \) from Skt. \( p\ddot{u}\ddot{n}y-a-\ddot{a} \). It seems, however, more probable that the group was \( \ddot{n} \) to begin with. Indeed, \( \ddot{n} \) is generally wanting in the modern languages, cf. p. 71, but Sindhi, which has it, opposes \( \ddot{d}\ddot{h}\ddot{\dddot{a}}\ddot{n} \) (\( \ddot{d}\ddot{h}\ddot{\dddot{a}}\ddot{n}y-a-\ddot{a} \), \( \ddot{r}\ddot{i}\ddot{n} \) (\( \ddot{a}r\ddot{n}\ddot{y}a-\ddot{a} \)) to \( \ddot{a}\ddot{n}a \) submission (\( \ddot{a}j\ddot{n}\ddot{a} \); \( \ddot{d}\ddot{h}\ddot{n}u \), \( \ddot{r}\ddot{n} \), \( r\ddot{i}\ddot{n} \) \( \ddot{a}\ddot{n}a \) (ND).

It is proper to mention here in connexion with Skt. \( \ddot{n}c \) the Pali numerals \( \ddot{p}a\ddot{n}\ddot{\dddot{a}}\ddot{r}\ddot{a}\ddot{s}a \) fifteen, and \( \ddot{p}a\ddot{n}\ddot{\dddot{a}}\ddot{v}\ddot{i}\ddot{s}a\ddot{t}i \), \( \ddot{p}a\ddot{n}\ddot{\dddot{a}}\ddot{v}\ddot{i}\ddot{s}\ddot{a}m\ddot{t} \) twenty-five.

In Vedic the series of independent cerebrals is incomplete; there is in fact only one occlusive, the voiceless. The aspirated surd exists only when conjunct and in morphologically obvious cases: superlatives in \( -i\ddot{\dddot{a}}\ddot{h}a-\ddot{a} \), the derived substantative \( p\ddot{r}\ddot{\dddot{a}}\ddot{h}a-\ddot{a} \) (Av. \( p\ddot{a}\ddot{r}\ddot{\dddot{a}}\ddot{t}\ddot{a}-\ddot{a} \), the reduplicated \( t\ddot{i}\ddot{\dddot{a}}\ddot{h}a\ddot{t}i \); but \( j\ddot{a}\ddot{\dddot{a}}\ddot{h}a\ddot{r}a-\ddot{a} \) and \( k\ddot{a}\ddot{n}\ddot{\dddot{a}}\ddot{h}a-\ddot{a} \) (Av. \( s\ddot{a}\ddot{h}\ddot{a}k\ddot{a}\ddot{n}\ddot{\dddot{a}}\ddot{h}\ddot{i}\ddot{k}\ddot{a} \) have no good etymologies. If \( n\ddot{i}\ddot{g}\ddot{h}\ddot{\dddot{a}}\ddot{\dddot{u}}-\ddot{a} \) which is not Vedic, could be derived with certainty from \( n\ddot{g}\ddot{r}\ddot{a}\ddot{\dddot{h}}\ddot{\dddot{u}}\ddot{\dddot{t}}u-\ddot{a} \) the unexpected movement of the aspiration would furnish evidence of the awkwardness of \( *n\ddot{g}\ddot{a}\ddot{n}\ddot{\dddot{t}}h-\ddot{a} \). The simple voiced cerebral stop similarly exists only, when conjunct: \( v\ddot{i}\ddot{\dddot{a}}\ddot{b}\ddot{h}i\ddot{h} \); when intervocalic, it comes near to \( l \) (Sköld, Papers on \( P\ddot{a}\ddot{n}\ddot{i}\ddot{n}i \), p. 45) and in the \( \ddot{R}\ddot{g}\ddot{v}\ddot{e}\ddot{d}a \) is denoted by the symbol used later for the cerebral lateral \( l \); the same is true for the aspirated form: \( n\ddot{i}\ddot{f}\ddot{\dddot{a}}\ddot{k} \), \( v\ddot{o}\ddot{h}\ddot{u}\ddot{m} \). This symbol is carried on into Pali. Later \( -\ddot{d}- \), \( -\ddot{d}\ddot{h}- \) appear regularly, influenced mainly by the morphological system and by the needs of phonetic equilibrium: \( v\ddot{o}\ddot{h}\ddot{u}\ddot{m} \) like \( d\ddot{a}g\ddot{d}\ddot{h}u\ddot{m} \), \( s\ddot{o}\ddot{d}\ddot{h}\ddot{\dddot{a}} \) like \( d\ddot{v}\ddot{i}\ddot{d}\ddot{h}\ddot{a} \) etc., partly also no doubt, because the actual spoken languages had really occlusive \( \ddot{d} \), \( \ddot{d}\ddot{h} \) \( u\ddot{d}\ddot{d}\ddot{i}- \) etc. Further, some
of these cerebra ls, not recognised by the system, persist in classical Sanskrit in the form of l: ali- bee, but Pa. aḷa- crab’s nippers, Gk. árdis point (Lüders, Aufsätze E. Kuhn, p. 313: Renou, Gr. sanscrite, p. 59, Études de gr. sk., p. 130). Vedic also possesses a cerebral nasal, which results from the assimilation of the dental nasal to r r s immediately preceding it (váṣṇa-, táṣṇa-, krṣṇá-). In certain cases these phonemes had disappeared in the prehistoric period (pāni- cf. Gk. palámē; pūṇya- cf. pṛṇā-li; nīnya- cf. Gk. nērteros). This nasal which is more sensitive than the occlusives, feels the effect of r and s even at a distance, so long as it is single and intervocalic, that is, in the weakest possible position, and that an occlusive or a sibilant involving a movement of the point of the tongue does not intervene: krámaṇa-, kṛpāṇa-, kṣobhaṇa-, but vṛjāṇa-, rodhana-, dārśana-. Some traces of this rule, which is peculiar to Sanskrit, are still found in Middle Indian: As. Gir. prāpuṇāli, Pa. pāpuṇāli and even As. Gir. da(s)jaṇa-, but Pa. dāsana- from Skt. dārśana-; with double n: Pa. aparāṇa- vegetables, pubbaṇa- uncooked corn (first food). In Panjabi to-day the opposite procedure is applied: -n- becomes dental through the dissimilatory influence of r: dhōban washerwoman (Skt. suffix -inē), but kuḥuran leper-woman, guārṇī village-woman. The oldest cerebra ls are therefore the dental occlusives in contact with the hush-sounds and dental n affected by s or r.

Further, the Veda has already examples of occlusives cerebralised by an r which has disappeared: RV kāḷa- hole (once in Book I), beside kartā-; RV kāḷuka- bitter, cf. Lith. kartūs; vikaḷa- monstrous, cf. kṛḷa- (both occur only once in Book X). The relative novelty of the treatment of the consonant in these words is confirmed by the Middle Indian treatment of r. Later appear Br. puḷa-fold, cf. Ger. fall-; āḍhya- rich, cf. rdh- succeed; class. Skt. nāḷa-(nṛ-); hāḷaka- gold, cf. hiraṇya-; kuṭila- tortoise, and kaḷākṣa-side-look (cf. Gk. kurtós) and other isolated words protected by the obscurity of their etymology.

In Middle Indian the procedure, although lacking consistency, becomes normal. Thus Pali has sukaḷa- beside sukaḷa- (sukṛta-), visukaḷa- and visala- (visṛṭa-), haḷa- only for hṛṇa- (hala- is the participle of han-), but maḷa- always for mṛṇa- . It is true that the commentators recognise the participle signifying “dead” in maḷaja-, the name of a weapon (Iran. *mṛṇa-ja man-killer ?). From rd(h) come chaḍḍ- (charḍ-), vaddh- (vardh-) cf. As. vaddhī- (vṛddhi-). The variants are utilised for semantic purposes: vall- is used for the idea of turning, vall- for existence or custom; but
CEREBRALS

Cakkavati, a learned word, has the dental (Jaina Prakrit has cakkavatī), while cakkavatīka- means Persian wheel.

In Asoka’s inscriptions the dental seems more usual in the Southwest (Gir. -a(t)hāya-, Kal. -(t)hāye); this is also on the whole the tendency of Marathi and Gujarati. The words with the cerebral are generally all-Indian. The distribution of doublets in the various modern languages is fairly consistent: e.g. kaṭṭ- cut, kall- spin; but while ‘knife’ is in Ashkun and Waigeli kāṭā, Kati kḷā, it is kāḷ in Gujarati, Sgh. kāṭta, Rom. kat, etc. There are many contradictions. Two representatives of gardabha- and ardha- are found in one and the same language. There is no general rule; the dominant fact is the fresh extension of cerebrals.

After the Vedic period we find a few traces of the distant action of ś and r, not only upon n, but also upon occlusives. As. Gir. osūḍha- (auṣadha-) as against Kalsi osadha- is explained by the intermediate form osa(dha-) of the North-west. TĀr. and Epic paṭh- read, recite (and already TS prapāṭhaka- reading, chapter) comes from prath- extend, spread (if not from Drav. pāḍ- (old *paṭh-?) to sing.). Pali saṭhila-, Pkt. sīṭhila- opposed to Skt. śīṭhila- belong to the śrath- group; Pali paṭhama-, confirmed by Kharoṣṭhi epigraphy, by Pkt. paṭhama- (prathama-) and by Sgh. paḷamu, is opposed to Nāśik and Nāṇāghāṭ pathama-, Khaṛavela and Sanchi padhama-, to which all the modern forms correspond: Hin. pahīla, Shina pumuko etc. The representative of prati is regularly paṭi- in Asokan and pīṭi- in Singhalese; but in Pali and in epigraphic prakrit paṭi- generally occurs instead of paṭi-. In Prakrit and modern Marathi paī- is used instead of paḍi-, paḍ- when the word contains a cerebral, inclusive of r. Thus Pali paṭirūpa-, paṭimanteti which implies -mantrayati; paṭijñāti, Khaṛavela paṭi(t)hāpayati; Pkt. paṭijā from pratiṣṭā, influenced, no doubt, by a lost form *pāṭiṇā cf. Mar. paṭ and paiṇ: Nep. paṭiko ready (*pratikṛtya-) as opposed to parosi neighbour (pratīṣaṭ or pratīvaśin).

This tendency has been fully developed only in the case of prati, but it is interesting to find some additional evidence of it. We have seen that it may also be used to account for the action of r on a following t.

The cerebralisation of a preceding dental by r is, on the other hand, very rare in any period. The Ṛgveda affords no certain examples except with the voiced consonant supporting the nasal: āṇḍā- cf. Kalasha āṇḍrat egg (O. Slav. jēdro, and dāṇḍa- stick (Gk. déndron). Perhaps we should include here the-initial voiced
consonant of ŚB ḍīlara-, Pa. ḍeli and dayaṃ, if we consider Ved. ḍī- to have been contaminated by drā-; Ėp. and Pa. udṛḷī (Nīgh. ḍīyate is uncertain). The Indian name for "horse", Ap. Śr. ghola-corresponds to a Dravidian type *gḥutar-; Ėp. paṭṭa- can hardly come except from paṭtra-. As. Kal. hedisa- corresponds to ḍṛṣa-; Sarnath and Dhauli, on the contrary, have hedīsa-. Pkt. khudṛḍa- from Skt. kṣudra- proves less, for the ẓ may have acted as in As. osudha-. These facts, which are difficult to interpret and to classify, are the only ones found before the modern period, in which the only consistent cerebralisation is that of the dental plus r in Sindhi (ṭr ḍr in the North, ḍ ḍr in the South) and in Dardic, at least, when there is assimilation: Garw. pūṭ son, ḍhā three (but in Garw. ḍ seems to denote a voiceless ḍ).

Finally, the Ṛgveda has two cognate words in which an intervocalic dental nasal has become a cerebral without being acted upon by another phoneme: sthānū trunk, and sthāṇiṇī column, Av. stānā. No doubt we should add TS guṇā- thread cf. Av. gaona- animal hair (Przyluski, JRAS, 1932, p. 343). This is the first sign of a change which afterwards became regular, cf. p. 78.

The eastern dialects have to-day only the dental nasal. This was already the case, at least in writing, in eastern Asokan. Modern Singhalese, on the other hand, rhymes n with ṇ.

Every form of cerebralisation in force in the modern languages can, therefore, be traced to the beginnings of the literary tradition. The words containing cerebrals become more and more numerous, and local dialects must have supplied a certain number of them. There would be, perhaps, a larger body of fact for the early period, if the origin of all words with cerebrals were known with certainty.

The fact remains, however, that for no ascertainable reason, after the Veda, cerebrals are met with in words previously recorded as having dentals. The verb atati from the Indo-Iranian root, which furnished the name for 'guest' atithi- Av. astiś is aṭati in Epic poetry; paṭ- which at first means 'fly' (Av. to fly, hurl oneself), then in the Atharvaveda "to fall' is paḍ- in Middle Indian and in almost all Neo-Indian languages (but Kash. pṛ-). We may suspect here the influence of the Dravidian names for heel and foot on the one hand and of a Dravidian root signifying "to fall' or "to lie" on the other. But it is not clear how Pa. kaṭḥ-, Pkt. kadṛḥ- confirmed by Neo-Indian and corresponding to Skt. koṭh- to boil, are related to it. Finally, there is a long series of widely distributed words beginning with a cerebral occlusive: Nep. ḍiko mark, ḍhel- to push, ḍungur heap, ḍhak- to cover, ḍhāl shield, etc.
Here Dravidian, which has practically no initial cerebrals, cannot be concerned.

There is assimilation by anticipation in a few words and in some languages only: Skt. \( \text{ḍanda} \): Nep. \( \text{ḍåro} \), etc., as against Mar. \( \text{ḍàdà} \), Lah. \( \text{ḍandă} \), Shin. \( \text{dono} \), Kash. \( \text{dönu} \); Skt. \( \text{ḍršṭi} \)-: Nep. \( \text{ḍīth} \), etc., but Mar. \( \text{ḍīth} \), Sgh. \( \text{ḍītu} \), Guj. \( \text{ḍītho} \) seen. In the two families of words which have had the cerebral since Pali \( \text{ḍasati} \) (cf. \( \text{ḍamsa} \)-gadfly) and \( \text{ḍahati} \), H. Smith has raised the question, whether they cannot be explained by their participles, in which such an assimilation might have been produced: \( \text{ḍañtha} \)- and \( \text{ḍaḍdha} \)- at least are found in Prakrit.

Finally in Sindhi, every voiced dental now surviving and thus in strong position, has become a cerebral: \( \text{ḍakhinu} \) South, \( \text{ḍandu} \) tooth (\( \text{nd} \) is the only case in which dentals are found), \( \text{kodar} \) mattock, \( \text{sadu} \) cry. In modern times the parallelism of dentals and cerebrals is completed by the appearance of \( \ell \) and \( r \). The first is met with in Marathi, Gujarati, Rajasthani, Panjabi (with radiation to the East and West, especially no doubt in the rustic forms of speech, \( \text{LSI, IX, 1, p. 609} \) and \( \text{Grahame Bailey, JRAS, 1918, p. 611} \)), in the dialects round Simla, Garwhal and Kumaon and finally in Oriya. As regards \( r \) and \( rh \), they are recorded in Sindhi, Hindi and Panjabi, Nepali, Behari, Chattisgarhi, Bengali and Oriya; they exist in village Kashmiri, Shina, some Himalayan dialects and in Kafiri. There is no question here of independent phonemes, but of the intervocalic forms of \( l \) and \( d \). The notation, which is therefore unnecessary, is irregular and at times contradicted by the actual pronunciation (in the East). Sometimes on the contrary it is missing in writing, while apparent to the ear, e.g. in Marathi and Gujarati. The recognition of these two new variants in speech and writing (\( d \) with a diacritical mark is used for \( r \)) is a consequence of the important law, by which intervocalic occlusives are opposed to the same occlusives in stronger position. Thus \( l \) and \( r \) have the same origin as \( n \) in many cases. But these spellings are uneven in scope and their historic value variable. Nepali, Bihari and Hindi (eastern and generally speaking, even western) \( r \) and Singhalese \( l \) or \( l \) represent, like Sindhi and Panjabi \( r \), an old intervocalic \( d \), while Nepali, Hindi and Bihari \( r \) is equivalent to Singhalese \( d \) and the \( dd \) of Panjabi and Prakrit. Moreover, Romany \( r \) corresponds to old \( d \) and also to \( dd \) (\( \text{Turner, Festschrift Jacobi, p. 34} \)).

By the time that these new occlusives appear, the cerebral sibilant no longer exists as such, except in Shina, which possesses a new system of cerebrals.
Finally, the possibility that certain cerebrals may have been imposed upon foreign words, surprising as it may be, must be taken into account. We cannot venture to explain sšhänū- and sšhänū- or guña- in this way, but in later times kaiṭābha-, Pa. keṭubha- can reasonable be connected with the Semitic word, which entered later under the Arabic form of kitāb book (S. Lévi, Études... R. Linossier, p. 397); lanka-, modern tākā noun of measure and money, is the Tatar tanka, Arm. lanka, Pers. langa a small coin; ṭhakkura- i.e. ṭhākur a title of nobility, must be, according to S. Lévi, related to the proper noun Tekin, already transcribed in the Rāmāyaṇa under the form of ṭanċana- (which designates the people and later borax or tincal, Pers. tinkār). At the present day the equivalence of Beng. dingī river boat (English dinghy or dingy) and Nuri dengiz ship, may be noted, cf. O. Turk. dēniz sea. The cerebral of recently borrowed English words is destined to yield an actual pronunciation. Must we admit that such words are evidence also of a special way of pronouncing Turkish dentals?

III. ASPIRATED OCCLUSIVES

In Iranian the voiceless aspirated consonants have become fricatives and the voiced have lost their aspiration. In Sanskrit, on the contrary, and all Indo-aryan languages even to the present day, the aspirated occlusives are clearly distinguished from those which are not.

The aspiration of the two categories was not of the same nature; the presence or absence of glottal vibration constitutes in itself a vital difference. This is the reason, why occlusives, whether aspirated or not, invest preceding consonants with their voicelessness or voicedness (vēṭṭha, Gath. vōīstā ; cf. vēḍa ; and śagḍḥi from śak-, nāḍbhyaḥ from napt-), but not when consonants follow them.

Voiceless aspirated consonants remain unaltered and display the i element of dissyllabic roots, which seems actually to be the mark of their origin (Kuryłowicz, Symbolae gram. Rozwadowski, I, p. 95): pathibhiḥ (but in Iranian with assimilation, Gath. padēbhiś), śnathiḥi, śnāthitar, grathitā ; there is therefore no actual contact of consonants (AV. grīvalī from granth- is secondary and moreover corresponds to krṣṇālī in a parallel passage of RV).

The voiced consonants on the contrary have, from the Indo-Iranian period, apparently transferred their voicing and their
aspiration to following occlusives (Bartholomae’s Law), contradicting the ordinary formula of consonantal contacts.

The aspiration of the aspirated voiced consonants is to some extent independent of their occlusion. And so, in Sanskrit, as elsewhere in Indo-European, the aspiration of a consonant formerly aspirated, but dissimilated, may reappear secondarily, for example in the sigmatic aorist stems: bhuts- from budh- or ghukṣ from guh. Unlike a sibilant, which in Sanskrit, disappears between occlusives (abhakṣa from bhaj-), the aspiration passes to the last consonant of a group. Thus *labh-la produces *labtha and labdha—where the voiceless consonant caught between two voiced elements is voiced; similarly the genitive sg. of kṣāḥ, Indo-ir. *jḥmas, Av. zemō would not be *hmaḥ, but *j̐mhaḥ, which being impossible, lost the aspiration, so jmāḥ.

A sibilant cannot be voiced (or aspirated) in Sanskrit. Accordingly the desiderative of dabh- is *di-dbh-s-*didbs-* dipsati, compared to the Gath. infinitive diwžaidyāi; similarly siks- desid. from sah- (in which the long ḷ testifies to a voiced hush-sound, which has disappeared: si-šgh-s, si-žgh-s; cf. šiks- from śi($)kṣ-), 3rd pl. bapsati from the reduplicated stem of bhas-.

Although relatively inclined to shift, the aspiration of aspirated consonants is tenacious and we shall see that it is the occlusion and not the aspiration, which is the weak element of the voiced aspirated consonants in Sanskrit.

In the modern languages the aspiration disappears at the end of the word or before another consonant: Guj. samajvū opposed to Hin. samajhnā to understand, Mar. šiknē opposed to Hin. sikhnā, Guj. šikhwū to learn, whence by analogy the causatives samjāvwū, šikvinē. This fact, which has often been noted, is no doubt more general than the orthography of the various languages leads us to suppose.

Deaspiration is more or less advanced in Kafiri, Asiatic Romany, certain dialects of Bengal, Sind etc. So far as concerns voiced consonants, it is usual in Kashmiri and Shina (but there are aspirated voiceless consonants and a new h from old hush-sounds in Kashmiri: hech- learn, Shin. sić-; hat hundred, Shin. šal).

This deaspiration was not effected immediately. Traces of a former aspiration are to be found in a perceptible glottal movement in Gujarati (b’en written bhen or behen, Skt. bhāginya; k’aiā written kahyā, Skt. kathitam) and in eastern Bengali. These “recursives” are different in origin from those of Sindhi, which represent strong consonants. Sindhi normally preserves the aspiration of aspirated

In Panjabi it is the vowel which carries traces of the voiced vibrations of the vanished aspiration. As we saw on p. 49, it was given, by contact with the old aspirate, a portion of its lower tone: bada (*baddha-*), ho (*bhava-*), kará (*Pkt. kadha-*, Skt. *kvathit a-*). The presence of this low tone caused the unvoicing of initial consonants: kár house, Hin. ghar, cáru broom, Hin. jhár. Analogous instances are found in the dialects of the Simla region and also in the low and high valleys of the Kunar (Pashai and Khowar) and in Bashkarik in the neighbouring valley of the Panjkora (Palola which separates this dialect from the preceding, is a recent importation).

Elsewhere voiced aspirated consonants were unvoiced directly and their aspiration preserved. Such is the case with northern Kalasha thum smoke (*dhūma-*), chá daughter (*Pkt. dhāā*), but bhum land (*bhāmi-*), and especially in Romany. In Armenian Romany the aspirated occlusives seem to be unvoiced in any position: thov wash (*dhāv-*), luth milk (*dugdha-*) and similarly khar house, phal brother (*bhrātā*), but juj battle (*yuddha-*), manj middle, belt (*madhya-*). In European Romany initial letters only are unvoiced: kham sun gharma-, phal brother, thuv smoke, to which we must add recently aspirated consonants, which have taken their aspiration from Middle Indian medial aspirated consonants: thud (*dugdha-*), phiv (*vidhavā*), phand- (*bandh-*), č(h)ib (*jihvā*). The old surds do not attract this aspiration: (kar from *Pkt. kadh-*) and the voiced consonants do not attract the aspiration of the surds: dikh from *Pkt. dekkh-*; Welsh Rom. phuc- ask, is recent.

Syrian Romany unvoices intervocalic -dh-, or at any rate the fricative which represented it: gesū (*godhūma-*) 2nd pl. ending -s(-atha) (*J. Gipsy Lore Society*, VII, p. 111). The unvoicing of initial h may perhaps be compared: xaz- (*has-*), xri (*hrdaya-*) and of intervocalic h, reduced to a tenuous glottal stop: mu* (mukha-*), āme* (*Pkt. amhe*); the glottal stop may, however, have had another origin: su* (*sūci-*) reminds one more of the Shina development referred to above.

Singhalese is the only language, which has lost all the aspirated consonants, voiced as well as voiceless (*bim* from *bhāmi-*; dā from *dhālu-*, digu from *dirgha-*, lada from *labdha-*, paḷamu from *prathama-*, cf. p. 56 unu from *uṣṇa-*. Even h hardly appears except to mark a hiatus (*sohona* or *sona*, Skt. *smasāna-*; but *niya* Skt. *nakha-*) or as a late substitute for s. It should be kept in mind
that Tamil, the adjoining Dravidian language, has no aspirated consonants and old \( s \) has disappeared from it. The influence of this language in Ceylon is, perhaps of ancient date, cf. *Critical Pali Diel.* s. v. \( af \alpha \)-.

**Fricatives**

Whatever alterations may have been made to the aspirated consonants, the pronunciation as fricatives is almost unknown to the cultivated languages. Early traces of it are very rare. The aspirated labial is the only one, which tends to preserve a portion of the articulation as a fricative. Nothing is proved by Pali \(-\text{vho} \) against \(-\text{dhoam} \), for \( \text{vh} \) alternates with \( \text{bbh} \) in \textit{anabhiko}: \textit{anabhiko}: the articulation here must be at least as strong as in \textit{mayham} which has resulted in \textit{majjha(\( m \))} in Prakrit. The original of the proper noun \textit{Sarabhā\( u \)}, Skt. \textit{Sarāyu}-, cf. Dutr. \textit{salavhu} had doubtless a fricative; cf. Gk. \textit{Sarabos} Ptol. But what was the language? The Dutr. ms has \textit{pravhu abhivuyu} from the root \textit{bhā\( u \)}, but the dialect is peripheral. Perhaps the \( h \) in \textit{ho}- succeeded this unstable intermediate form \( \text{vh} \) earlier than was the case with the other consonants.

This almost total absence of fricatives derived from aspirated consonants agrees with the absence of fricatives by which Indo-Aryan is characterised. Sanskrit had none except \( \upsilon \) and the voiceless sibilants and is thus opposed to the languages of Iran, both ancient and modern, in which the aspirated surds particularly are replaced by fricatives and for example, \( kl \) has become \( x\lambda \) from the earliest stage (Meillet, \textit{IF}, XXXI, p. 120). In Middle Indian the voiced consonants which were intervocalic or had become so, lost occlusion and must have passed through an intermediate fricative stage. But this stage was quite transitory and was regularly recorded only for the lax nasalised \( \upsilon \) which replaced \(-m\)-; in other cases the time taken in the pronunciation of the former guttural or dental was occupied in a raising of the tongue in the direction of the palate without actual occlusion. This the Jainas denoted by a \( y \) called \textit{ya-śruti}, which has in fact left traces on the adjoining vowels in certain languages, e.g. Mar. \( \text{ṣe} \) from \textit{ṣatam} as against Hin. \textit{sau} (intermediately *\text{sayā} and *\text{saū} respectively) or Mar. \(-\text{ē} \), Guj. \(-\text{ā} \), the neut. sg. termination, Skt. \(-\text{akam} \); but Mar. \textit{ge-lā} Hin. \textit{gay-ā} gone, both go back to \textit{gaya} (\textit{gala}). This transitional phoneme, a very lax fricative may also be a \( \upsilon \), after \( u \) and \( o \) in Apabhrāṃśa (Bhav., p. 24) and between some vowels in Marathi; cf. \textit{nuvara} (\textit{nagara}) beside \textit{niya} (\textit{naka}) in Singhalese.
More rarely \( h \) is utilised to mark the hiatus, or more accurately the passage from one vowel to another. This tendency to insert \( y \) and \( v \) between adjacent vowels is reminiscent of the Dravidian languages in the South.

These ill-defined lax fricatives are the only ones in classical Middle Indian. In the inscriptions and texts in Kharoṣṭhī writing we find certain consonants with a diacritical mark resembling \( r \), but not possessing the same value; e.g. \( bhagra \) beside \( bhaga \) at Wardak. It is tempting to regard this as a fricative, especially if it is compared with \( ah \) from \( bh \). But the language of the Durt. ms in particular is related to modern Panjabi and Sindhi and there are no fricatives in these languages. The border languages alone have fricatives; \( z, \tilde{z} \) (and indeed, cerebral \( \tilde{z} \)); Shina \( az\tilde{u} \) cloud (\( ahbra\tilde{-} \)), \( z\tilde{o}n \) bow (\( d\tilde{r}ona\tilde{-} \)) and even \( \tilde{z}\tilde{a} \) brother (\( bhr\tilde{a}t\tilde{a} \)); also \( \theta \): Pašai \( \theta l\theta e \) 3 (\( t\tilde{r}a\tilde{y}a\tilde{h} \)) \( \theta l\tilde{u}c \) flea (\( plu\tilde{u}si\tilde{-} \)) (Morgenstienrere records this \( \theta l \) as \( \lambda \) (voiceless \( l \)), R. L. Turner); gutturals either single, Khowar \( m\tilde{u}x \) mouth \( n\tilde{o}y\tilde{o}r \) town or in groups: Kati \( vax\tilde{t}a \) taken (\( a\tilde{p}a\tilde{g}r\tilde{h}- \), \( f\tilde{l}a \) given (\( p\tilde{r}a\tilde{t}\tilde{t}a \); Pašai \( \theta l\tilde{a}m \) work (\( k\tilde{a}r\tilde{m}a\tilde{-} \), Baškarik \( l\tilde{a}m \) village (\( g\tilde{r}\tilde{a}\tilde{m}a\tilde{-} \)). Here we also find \( l \) or \( r \) from intervocalic -\( d\)- (or -\( t\)-): Khowar \( s\tilde{e}r \) (\( s\tilde{e}t\tilde{-} \), \( s\tilde{e}r \) (\( \tilde{s}\tilde{a}\tilde{l}\tilde{a}m \)); abl. -\( \tilde{r} \) (\( Pkt. -\tilde{a}\tilde{d}o \)); Shina \( \tilde{s}\tilde{a}l \) (\( \tilde{s}\tilde{a}\tilde{l}\tilde{a}m \)), \( s\tilde{i}g\tilde{a}l \) (\( s\tilde{i}\tilde{k}\tilde{a}\tilde{t}\tilde{a} \)), \( \tilde{e}l \) (\( \tilde{l}\tilde{o}\tilde{h}\tilde{t}\tilde{a} \)), \( j\tilde{i}\) (\( j\tilde{i}\tilde{v}\tilde{i}\tilde{t}a \)) (Kalaša gives clearer examples of \( l < t \). R.L.T.), but \( p\tilde{a} \) (\( p\tilde{a}\tilde{d}\tilde{a} \), sau (\( s\tilde{e}t\tilde{-} \), \( s\tilde{e}\) (\( \tilde{s}\tilde{v}\tilde{e}\tilde{t} \) etc., and also \( g\tilde{a} \) (\( g\tilde{a}\tilde{t}\tilde{h}a\tilde{-} \)) perhaps through a softening of intervocalic \( l \), of which there are examples in this area. Eur. Romany has \( p\tilde{h}\tilde{r}a\tilde{l} \) (\( bhr\tilde{a}t\tilde{a} \), juvel (\( yu\tilde{w}a\tilde{l}\tilde{i} \), \( p\tilde{i}\tilde{e}\tilde{l} \) (\( pibati \), Nuri \( ju\tilde{a}\tilde{r} \), \( p\tilde{i}\tilde{a}r \), \( g\tilde{i}r \) (\( ghr\tilde{t}a\tilde{-} \)), \( b\tilde{a}r \) (for \( *b\tilde{r}a\tilde{r} \) brother (but there are instances to the contrary: Nuri \( s\tilde{i} \) cold (\( s\tilde{i}\tilde{t}a\tilde{-} \), \( s\tilde{a}i \) 100, \( p\tilde{a}i \) husband (\( p\tilde{a}\tilde{l}\tilde{i} \), \( p\tilde{a}u \) foot (\( p\tilde{a}\tilde{d}\tilde{a} \), ro- weep (\( r\tilde{o}\tilde{d}\tilde{a}l \); further, -\( d\h \) has become \( s \), see above). These developments presume a -\( \tilde{d} \)- as is met with in the eastern Iranian dialects. There is even initial \( d > l \) in Prasun and in Armenian Romany, as in Afghan, Munjani and Yidgah.

In India proper foreign fricatives become acclimatised with difficulty: \( k\tilde{h}\tilde{u}\tilde{d}a \) is used for Pers. \( x\tilde{u}\tilde{d}\tilde{a} \) and \( j\tilde{a}\tilde{m}\tilde{i}\tilde{n}\tilde{d}\tilde{\tilde{a}} \) for \( z\tilde{a}\tilde{m}\tilde{i}\tilde{\tilde{d}}n\tilde{\tilde{a}} \) etc. Fricatives are, however, found here and there. A more or less weak labiodental interchangeable with \( ph \) has been noticed in village Panjabi, while \( k\tilde{h} \) for example is invariable. In Bengali \( ph \) and \( bh \) are ordinarily pronounced \( f \) and \( v \), both bilabial. The same thing occurs in the popular Urdu of the Deccan (\( s\tilde{i}\tilde{t}\tilde{a}\tilde{f}a\tilde{l} \) and also \( r\tilde{a}\tilde{x} \) but this may be a hyperarabism v. Qadri, \( H\tilde{i}n\tilde{d}. \ h\tilde{o}\tilde{n}\tilde{e}\tilde{k}\tilde{t}i\tilde{c}\tilde{s}, \ p. 31 \) and even in Marathi (attested by A. Master). Eur. Romany has \( p\tilde{f}\tilde{u}\tilde{u} \), \( t\tilde{x}\tilde{u}n \) beside \( p\tilde{h}\tilde{u}l \), \( \tilde{t}\tilde{h}a\tilde{n} \) and we have seen that the intervocalic \( s \) of Asiatic Romany is based also on a fricative.
IV. ASPIRATES

The Sanskrit phoneme $h$ is a voiced aspiration similar in nature to the aspirated voiced consonants, but not entirely identical with it. For in sandhi a final occlusive before $h$ gives something different from the corresponding aspirated occlusive: cid hi $>$ cid dhi, sadhrayåg hitå $>$ sadhryåg ghilå. The "attack" of the $h$ therefore is still perceptible in this position.

SANSKRIT $h$

According to its etymology $h$ is what remains of prehistoric aspirated voiced palatals:

<table>
<thead>
<tr>
<th>IE $g\acute{u}h$ before e:</th>
<th>Av. vazaiti</th>
<th>Lat. uehit</th>
</tr>
</thead>
<tbody>
<tr>
<td>váhati</td>
<td>cf. zyá nom. sg.</td>
<td>hiems</td>
</tr>
<tr>
<td>ahám</td>
<td>azem</td>
<td>ego</td>
</tr>
<tr>
<td>hṛd-</td>
<td>zërd-</td>
<td>cord-</td>
</tr>
</tbody>
</table>

IE $g\acute{u}h$ before e: hánli (ghánli) | Jainli |
| druh- (drugdhá) | drug-, druxta- |

This complete loss of occlusion is peculiar to India, but not universal. Kafir has retained the articulation; Kati žim snow, žira heart, see p. 51. Even in Sanskrit traces of it can be recognised in certain reduplicated forms, in which the dissimilation of the aspiration of consonants has laid the palatal bare, henceforward to remain stable: jáhåli, formerly *jhajhåli, Av. zazåmi: similarly the 2nd sg. impv. of han-: jahi, formerly *jhadhi, Av. jaidi. For the gen. jmåh see p. 60.

The occlusion is naturally lost at first in the voiced semi-occlusives. In the course of history all the surviving aspirated occlusives (old voiced consonants together with the surds which had become voiced) lost their occlusion between vowels. But the movement begins with the voiced aspirated occlusives and from the earliest times, so that just as in the early period *jh lost occlusion, while j persisted, the Rgveda in the same way records $h$ arising from *dh, in the endings -mahi, -mahe, cf. Gāth. -maidī, -maide, Gk. -mētha, in the imperative, notably after a long vowel, pāhi opposed to krdhi, Av. -di, Gk. -thi (MSL, XXIII, p. 175; similarly, remarks H. Smith, it is after a short vowel that -bhi sometimes persists late in Pali (pañḍītēhi, isibhi; sabbēhi, nālībhi), in compounded words (sahā- beside sadhā-; -hīla- from
p. 65 dhā-, at first when compounded) or in minor words (ihā cf. Pali idha, As. idha from *h-idha; kuhā Gath. kudā) and even in some words that might have maintained the occlusive (āha, āhuḥ, cf. 2nd sg. āltha, Av. āda; RV grhaṇētu, grhaṇē) beside grhaṇēti, grhaṇēte; TS upāṇēhau dual of upānāt: Ait. Br. nyagrah-o) (in a passage in which the vulgar form is opposed to the traditional and etymologically justified form), for AV. nyagrōdha-, Pa. nigrodha-.

From the time of the earliest Middle Indian the examples become more numerous. Aśoka and Pali have an initial h in holi, an unemphatic form (bhavati). Intervocally Aśoka has lahu (laḥu), lahevuh (bh), nigohe (dh); Pali has dahāli (cf. As. upadahevu) for Skt. daḥāli, which, in view of Skt. hita-, may have well been either reformed or maintained. Finally, a few words like ruhirā-, sāhu-. The alteration is generalised in later Middle Indian; and of all aspirated occlusives in weak position the voiced aspirate h alone remains.

The voiceless aspirate; Middle Indian h succeeding the sibilant.

There was, moreover, in Sanskrit a voiceless aspirate, but it is not considered an independent consonant, the more so because it replaces the final s of a word before a surd or a pause. It is noted in writing as the visarga. There is no longer any trace of it in Middle Indian, unless it is in the possibility of lengthening the preceding vowel (aggī or aggī<agniḥ) and, as far as -aḥ is concerned, in the fact that -a-, which is naturally closed and all the more so when final, has joined Skt. -o from *-as (*-az before an initial voiced consonant of a succeeding word).

In prakritic Middle Indian, s opens in a group of consonants and new aspirated occlusives are formed. When the group contains a voiceless occlusive, the group remains voiceless; when it contains a nasal, which persists, the aspirate becomes voiced: Pa. nhā-, nahā- (snā-), pañha- (praśna-), unha- (uṣna-), gimha- (grīśma-), līnha- (līkṣna-), etc.

In certain circumstances an intervocalic h of obscure origin soon becomes voiced. We find this happening in certain Middle Indian futures, which normally end in -(i)ssati from Sk. -iṣyati. Pali has kāhami against Aśoka Shah. kas(s)ati from kar; conversely Aśoka (Pillar Edicts) has dāhamti from dā, while Pali has dassati. There is a curious set of futures in -hili, Pa. ehili (As. ehatha, esatha), hoḥili, heḥili besides hessati (As. hohammi and hosammi), which may be of different origin p. 230. It is doubtful
whether the modern future in -h-, which is widely distributed, 
even outside the areas in which sibilants normally open (Marwari, 
Braj, Bundeli, Bhojpuri, Old Bengali, Kashmiri and Palestinian 
Romany) can be directly connected with these forms, which are 
as yet unexplained.

Later, in the important series of Prakrit numerals, authenticated 
by the numerals of the modern languages, Skt. daśa- is represented 
by daha- and dasa- (in compounds -raha and -rasa) and -saptati-
in compounds by -hattari. It may be that the forms of numerals 
previously current over the whole of India were those of the 
western zone (Guj. Sdh. Lah. Kash., cf. RV Suṣomā, eastern 
tributary of the Indus, Megasth. Sóanos or Sóamos, mod. Sohān), 
in which are found the opening of sibilants, the voicing of surds 
after nasals (but Khāravela has also pandarasa) and even inter-
vocalic -d- passing into -r-, more frequently than elsewhere. But 
-hangha- (sangha-) is met with at Nagarjunikonda on the Kistna, 
El XX, p. 17,20; and suvanamāha a weight of gold, at Bhāṭṭiprōlu, 
where, it is true, western influence is suspected. In any case, 
an h developed from a sibilant occurs in isolated words, v. Pischel 
p. 262 and even if di(v)aḥa- is Skt. Pa. divasa- contaminated by 
aḥa(n)-, as Helmer Smith ingeniously maintains, other cases 
occur, which up to the present have defied all explanation.

The noun endings (gen. sg. -aḥa, pl. -aḥaṇ, loc. sg. -aḥi, abl. 
-aḥo) and the verb endings (2 sg. -aḥi, 3 pl. -aḥiṇ) in Apabhraṃśa 
must be kept distinct. Here there has been morphological analogy. 
Otherwise, the derivation from s would be natural in areas, such 
as Gujarat, where the replacement of s by h is common, see p. 70.

Subsequent development of the aspirate

H generally remained stable at the beginning of the word, but 
it is weak between vowels. Hence for example, the modern 
Bengali oblique in -ā (from Apa. -aha) and the 2nd pl. in-ā or -ō 
from Apa. -aha, -ahu. Words have thus lost all traces of the 
old occlusive: Mar. śerā (śikhara-) mevuṇ (maithuna-) etc.

The weakness of intervocalic h explains the fact that it was 
used to mark simple hiatuses: Mar. pihū beside piyo (priya-), naḥī 
or naī (nadī), Beng. behulū (vipulū) etc. This happens frequently 
in Singhalese. But Pkt. vihatthī (vitasti, Pa. vidalṭī) has no 
doubt been contaminated by halṭha (hasla-) (H. Smith).

There are cases in which the aspiration was saved by attachment 
to a preceding consonant. In European Romany the anticipation 
...
consonant: cib (jihvā), thud (dugdha-) like kham (gharma-), thov (dhāvo-), etc.

When the word begins with a vowel, the aspiration tends to precede it: Pkt. hoṭṭha, Mar. hōṭ (oṣṭha-); Hin. ham, Suratī hame (O. Guj. Pkt. amhe), Guj. hūṇo (uṣṇa-) etc.

Expressive or emphatic h

Finally initial h not justified by the etymology is met with sporadically and is intended only to reinforce the expressiveness of certain words: Aśoka hida for *h-idha, hevaṇi, hevemva (e <vā> -meva), hedisa (Pa. edisa-, Skt. elōḍrśa-), haṇice (aṁ = yat; cf. Pa. yaṇce and Skt. yad... ca sooner than); Pa. halam hevaṇi haṇci helam etc., v. Saddanīti, p. 889 n. 8, 894 n. 13. In modern times Panj. hor, Raj. and Dakh. haur, vulgar Hin. har and, literary Hin. aur (aparam), dial, Panj. hekk one (eka-; note the gemination, v.p. 92); Mar. hā, he, Beng. hotha there, hethā here (Pkt. eltha), hākulī- to be frightened (ākula-); Sgh. hē that man, hō she, beside ē, ō, which is the more remarkable because Singhalese is in the course of losing its h- (H. Smith).

V. SIBILANTS

Indo-iranian possessed a dental sibilant, which was normally voiceless, but liable to be voiced in contact with voiced occlusives (Av. asti he is, zdī be; cf. Skt. āsti, edhī) and further regularly becoming a hush-sound after i, u, r and the gutturals (Av. loc. pl. drēgvāsū, cf. Skt. dyumāḷa; but Av. aspaēṣu, lutuśṣva, Skt. āśvesu, viḳṣu, nṛṣu; Av. gen. sg. naraṇ). Indian at first retained this system and more strictly than Iranian, which, like the adjoining Indo-european languages, opened s in initial and intervocalic position; Skt. sāṇī they are, Av. hanī; Skt. āṣī thou art, Av. ahi.

But, as we have seen, the hush-sound form of the sibilant became a cerebral and brought about the creation of a new category of occlusives under the name of cerebrals in Sanskrit. Now, the complete vocalisation of old r which had cerebralised the adjoining dentals, sibilants included, resulted in s following the vowel a in quite a large number of cases and ceasing to appear as an alternant of s; pāṣyā-, which is probably derived from a noun corresponding p. 68 to Germ. fels, Gk. pēlla = lithos stone; kaṣatī, cf. Lith. karšiu. This is an important novelty.
On the other hand Indian has eliminated the voiced sibilants, which Iranian has preserved. They lose their continuant quality before gutturals or labials: \textit{ádg} - Phl. \textit{azg}; \textit{viđbhih}, cf. Av. \textit{vižbyo}. They disappear before a dental, their vibration being transferred to the preceding vowel, which is thus lengthened and, in the case of short \textit{a}, changes \textit{timbre}: \textit{nédíshta} - , Av. \textit{nazdiśla}; perf. 3rd pl. \textit{sedire} from \textit{sad-} (so \textit{*sa-zd-}); 2nd pl. impv. \textit{ādhvam}, from \textit{*āsdhwam}; \textit{nīlā} - from \textit{*nižda-}, cf. Eng. \textit{nesl}; \textit{sīkṣant-} old \textit{*si-zgh-s-}, desiderative participle of \textit{sah-}. At the end of the word, of the two voiced sibilants evolved from \textit{-s}, \textit{-š} before a voiced consonant, the first \textit{-z} disappears closing the vowel: \textit{devo}, the other \textit{-ž} becomes \textit{r: agnir}.

Sanskrit, therefore, possesses two sibilants, both exclusively surds and relatively independent. There is in addition a third sibilant, also exclusively a surd, arising from the fact that the Indo-European prepalatals were divergently handled: \textit{*k}' became \textit{s}' in Sanskrit, while \textit{*g}' is represented by \textit{j} like \textit{g\textsuperscript{w}(e)}, and \textit{*g}' \textit{h} by \textit{h} like \textit{g\textsuperscript{w}h(e)}. Thus over almost the whole of the Indian area, the old voiceless occlusive appears as a third sibilant characterised by its palatal and exclusively voiceless pronunciation. Kafiri alone retained the old occlusion, p. 51. In Iranian, on the contrary, it remains linked with its voiced fellow: Av. \textit{s}, \textit{z}, O. Pers. \textit{θ d}. The link with the other sibilants is the more marked in Sanskrit because in certain positions the old guttural became a hush-sound and appears as the cerebral sibilant: \textit{aślā}, Av. \textit{aśla}, Lat. \textit{octō}, cf. \textit{aślī} ; \textit{vāśī}, Av. \textit{vaśī}, cf. \textit{vāśmī}, Av. \textit{vasmī}.

Sanskrit thus arrived at quite a new system of three sibilants, corresponding to the three categories of occlusives obtained by a movement of the forepart of the tongue. These sibilants are furthermore liable to be interchanged. We have already met with \textit{s} and \textit{š} depending on the preceding phoneme and \textit{š} and \textit{š} depending on the phoneme following. In other cases, \textit{s} becomes \textit{š} in contact with palatals (\textit{paśčā}, cf. Av. \textit{paśčā}, Lith. \textit{paskui}; \textit{sa-śc-}, reduplication of \textit{sa-}) or by assimilation (\textit{svásura-}, cf. Av. \textit{huaṣura-}; similarly in the western dialects of Middle Indian: As. \textit{anuśaśana}). It also becomes \textit{š} by assimilation: \textit{soľhā} from \textit{*saždhā}; and \textit{š} results from the dissimilation of \textit{s} and \textit{š}: \textit{sūška} from \textit{*šuśka-} which came by assimilation from \textit{*suśka-}, Av. \textit{huśka-}; As. \textit{suśruśa-} comes from \textit{šuśrūś-} etc.

These sibilants soon became more or less confused, and their preservation throughout the whole of Sanskrit literature is not true to the facts. On the inscriptions of Ašoka only those from the North-west frontier have retained the three sibilants; and
this is also true for the later inscriptions in Kharoṣṭhī and for the Dutreuil de Rhins ms (with irregularities in correspondence, e.g. śaṅga, Skt. saṅga- and sarga- Konow, Festschrift Windisch, p. 93), The other inscriptions of Aśoka (apart from a few incoherences, which seem purely graphic, especially in the last Kalsi edicts) and all Middle Indian inscriptions have only one sibilant, generally s and exceptionally ś; with the exception of the Bhāṭṭiprōlū reliquary, in which we find s in sā, pula(s)ja and a single symbol for ma(m)juśā and śārīra- (the crystal prism has also a hush-sound distinct from the dental, but only for the palatal; there is no example of cerebral). Accordingly, it has been suggested that this reliquary should be attributed to people from the North-west, although the stūpa of Bhāṭṭiprōlū belongs to the Kistna group (Amravati, Jagayyapeta, Nagarjunikoṇḍa). The Middle Indian literatures similarly have a single sibilant (in s; dramatic Māgadhī alone has ś); the only exception is that of the language (called Ḡhakki or Ṭakkī) of the gambler in the Mṛcchakaṭīkā, in which ś apparently persists, s and ś merging into s; but even for this isolated passage the text is ill-established and deductions are uncertain. The description of the scholiast shows only a Māgadhising tendency in the fact that l represents r, and a later style characterised by the -u termination for the Skt. -aḥ, -aṃ. It is a type of aberrant prakrit.

The confusion of sibilants is perhaps the sign of a relative weakness. In any case the surd opens before a pause from the very first. The defricativation of an occlusive at the end of a root in the middle of a word as in māḍbhīḥ from mās-, uṣāḍbhīḥ from uṣās-, AV. avāṭśīḥ from vas-, is exceptional and depends on morphological reasons.

One sometimes finds -ṣy- represented by -h- in Middle Indian, cf. p. 65. The sibilant regularly opens in contact with occlusives particularly, the resulting aspiration being placed at the end of the group, even if the sibilant had preceded the occlusive—a normal process in a language possessing aspirated occlusives: halṭha- (hasta-), thaṟu-, charu- (tsaru-); sukkha- (suṣka-), pakkha-(pakṣa-); and with a nasal, the sibilant preceding, amhe (asmē), unha- (uṣṇa-).

However it happened, the merging of the remaining sibilants has been completed almost everywhere on the continent and in Ceylon (where moreover c has united with s). The pronunciation of the sibilant is, however, variable. Just as Māgadhī Prakrit had only p. 70 ś, so s which is generally dental, is a weak hush-sound in Nepali
and a strong one in Bengali and Oriya. It opens still more and becomes \( x \) in Assamese and Bhili and even \( h \) in Eastern Bengali, vulgar Gujarati, Singhalese (except at the end of the word) and intervocally in Sindhi and Panjabi. The pronunciation of Sanskrit \( s \) as \( kh \) and their equivalence in the script of North India also imply a fricative, but where this practice originated and from what period is unknown.

In Marathi the dental sibilant is palatalised in contact with front vowels under the same conditions as the occlusives known as palatals.

The North-west languages still more or less distinguish the sibilants, as did the Middle Indian texts in Kharoṣṭhī script. Kaśmiri has: (i) sat 7 (sapla-) and Ṽ face (āsyā-); (ii) śēh 6 (śal), śurah 16 (soḍāṣa); but vēḥ poison (vīṣa-); (iii) hīr head (śiraḥ) and wuḥ 20 (vīṃśati), ruḥun onion (laṣṇa-). Similarly Shina: (i) sat 7, sē army (senā); (ii) soī 16 (iii) šā dog (Pa. sūna-), but aśu tear (aṣrū-), šaṣ mother-in-law (svāṣrū-), šā breath (svāṃsā-), where the sibilant originally formed part of a consonant-group. Elsewhere the distinction is made between a hiss-sound and a hush-sound; Kati vasul spring (vasanla-), šī cold (štī-), ušā medicine (auṣadha-); Torwali has- to laugh; daš 10, šēiš 16; tiš thirst. Similarly European Romany has \( s \) and \( ŝ < s \), s: Greek Rom. so- to sleep, sap snake, das Bulgarian, Slav; so 6, breš year, šel 100, deš 10, biš 20; while Asiatic Romany has \( s < s \), š and \( ŝ < s \). Armenian Romany goes with Prakrit.

We have seen that Indo-iranian possessed voiced forms of the hiss- and hush-sounds. Sanskrit eliminated them in different ways. This elimination was clear-cut in the prakritic languages; \( z \) in foreign words is consistently rendered by \( j \); jamIdiir for Pers. zamlndiir, riij[ for Pers. ri,?l etc. In Dardic and Kafiri we find \( z \) and \( ţ \) from two sources: (i) Kafiri \( z \) from IE \( g' \h \); \( ţ \) from IE \( g^w \h(e) \): Kati zūm snow, ţār- to kill.

(ii) \( z \) from intervocalic -s-, sporadically: Pašai of øzbin hanvanz-i we beat thee (the ending deriving from Skt. -āmasi is -aūs, cf. Pašai and Khovar -as), Tirahi spaz (svasā). It occurs more frequently in the Shina of Gures āzu (āsyā), haz- to laugh, diz (divasa-), cf. āi, hay at Gilgit beside dez-. Cf. also Prašun iži eye (akṣi), dzū compared with Kati voć (vimśati).

(iii) fricatisation of Middle Indian palatals: Sh. daž, Kš. daz-, (dahyale); Sh. cūž (chidyale), maža (madhya-), even biž (*bhiyy-), dīž-, obl. of dī (duhītā); Kš. zāl- (jvālaya-), wōpaz (ulpadyale, Pkt. uppajjai). In Shina and certain Kafiri dialects cerebral \( ĭ, ŭ \)
represent a group with \( r: \) *zigu* long (*drīgha from ḍīrgha*), \( ḍā \) (*bhrālā*); \( j \) is preserved in *jač* (*drākṣā*).

Traces of treatment (ii) are found in Middle Indian also in the North-west. The Manikyala inscription has *majhe* (*māse*) and the Niya texts *dasa* and *dajha* (*dāsa*). Now *jh* on coins denotes the initial of the king, Gk. *Zoilou* =*jhuilassa*; it may be therefore that the dialect of this document has *z* for intervocalic *s* (Rapson, *Khar. Inscr.*, III, p. 303, 312), but in Dutr. *praśajhadi*, *jh* must denote a true semi-occlusive, see p. 86.

Other methods of writing *z* in foreign names: *j*, *y*, *sy*, *sr* according to Konow, *Khar. Inscr.*, p. cviii; *ys* is equally of foreign origin and not really used in India although it was included in the classical alphabet of Buddhist mysticism, see S. Lévi, *Feestbundel kkl. Balaviaasch Gen.* 1929, II, p. 100.

VI. NASALS

Sanskrit received *n* and *m* from Indo-iranian. The Hindu grammarians, aware of the manner in which blocked *n* adjusted itself, were led to assign nasals to each class of consonants and distinguished *ṅ*, *ṅ* and *ṇ*. But only the cerebral constitutes an independent phoneme, which is able to exist between vowels, that is, after a vowel representing a prehistoric *r* or itself preceded by *r* or *s*. It is accordingly a new phoneme, but of restricted scope. It is not found initially and, in spite of the great expansion of the use of *ṇ* in Middle Indian (see p. 78), it occurs in initial position only in one series of texts and the modern languages do not have it at the beginning of a word.


The only independent phonemes are therefore *m*, *n* and *ṅ* in the regions where it is not confused with the dental.

VII. LIQUIDS

In early Iranian the IE liquids *l* and *r* are both represented by *r*. In the Persian inscriptions *l* is met with only in three foreign names. Those names of foreign origin which were naturalised have *r*; thus the name of Babylon is *Bābairuš*. In Middle Persian
appears as the result of the early group -rd-. However, Persian has a few words, the l of which is certainly Indo-European: lab lip, lištan, to lick, alūdan to soil (cf. Lat. lālum), kal bald (Av. kaurua-, Lat. calvus, Skt. ati-kulva-). Ossetic has similarly an early l. One can asert, therefore, that Indo-Iranian still had l and r.

This is just what Sanskrit shows, still more clearly: rām, Lat. rem; bhārati, Lat. fert; trāyāḥ, Lat. trēs; but lubh- Lat. lub-et; AV. álpa-, Lith. alpnas; palitā- cf. Gk. petīnōs; glā-, cf. Kucheans klāya to feel ill; pīhā cf. Gk. splēn etc.

But in the Rgveda, which is localised in North-west India by its subject-matter, r is almost as exclusively dominant as in Iranian. In Grassmann's lexicon the words with initial l occupy two columns only against the 58 taken up by the words with initial r; and these words, like nearly all those which contain l in any position, occur in the relatively recent portions of the collection. A certain number are more frequently represented with r in the Rgveda itself. It should be remarked that, generally speaking, prehistoric consonant or vowel l acted upon n and t like consonant and vowel r to produce cerebrals.

In classical Sanskrit r is still dominant but less exclusively than in the oldest portions of the Rgveda. This is due first of all to the reappearance of doublets with l coming from Indo-European. We find them already in the later portions of the Rgveda: plāvate, plavā- from the root, which is generally pru-(Gk. plē-ō); lebhirē, ālabdhā, lebhānā as against rabh- (Gk. eilēpha); 3rd pl. aor. alīpsala, pf. rīrīpūḥ (Gk. alēiphō); calācalā, avicācali which are reduplicated formations of car-, AV. cal- (Gk. pēlomai); pulu- (Gk. polū) and mīśla- in compounds for purū- and mīśrā- which the classical language alone retains. As against RV vamrā-, vamrakā-, VS gives valmīka- (with a popular suffix containing long ī) cf. p. 111; for RV raghū-, rap-, AV has taghū-, lālap-, for RV rih-, hvar- the Brāhmaṇas have līh-, hvat-; AV gir- is followed by Br. gig- etc. Classical Sanskrit has allotted different shades of meaning to some of these doublets, see p. 5.

The retention and the reappearance of numerous words with Indo-European l warrant the assumption that they survived in actual speech. Their extreme rarity in the Rgveda is a sign of style rather than of dialect; they were evidently in familiar use and their relative rarity even in classical Sanskrit is an indication of the strength of the Brahman tradition. This accounts for the adjustment of an anecdote in the Śat. Brāh. III, 2. I 23 made by grammatical tradition: the conquered Asuras deprived of articulate
speech cry out helávo heláv(o), or hailo, hail(o); Patañjali gives helayo helay(o), which would be a barbarism for he’rayaḥ. This also may partly explain the use made by the classical drama of Māgadhi Prakrit, which it reserves for low-class and ridiculous characters.

This Prakrit is, however, not altogether fictitious and there existed at least in one region and at one period a speech in which l not only existed, but contrary to the western and Iranian dialects absorbed r. The fact is attested by epigraphy; the inscription of Sutanukā at Ramgarh, and the Sohgaura (Gorakhpur) plate have l only. In particular, the inscriptions of Asoka found in the basin of the Ganges and on the coast of Orissa have l regularly (the only Bairat inscription, on the western border of this area, has initial and intervocalic l (lāja, cīla-, gālave, nihālatam) and also in a divided conjunct (alāhāmi Skt. arhāmi, paliyaiṇi), but r when the conjunct is preserved; sarve; priyadasi, abhiprelaṁ, prasāde (upalispasine (−prasāna) is a quotation like laghulovāda- and aliyaivasāni); the other Bairat inscription, which is a copy of a circular edict, has ālādhetavé but devānampiye. On the South border, Sanchi has cīla- (cira-) and sūriyike (derived from sūrya); Rupnath uses both characters, following no apparent principle.

Although it appears evident that the centre of the languages with l only must have been the area round Benares and Patna (and this is confirmed by the very name of Māgadhi prakrit), it is difficult to account for the actual extension and date of the phenomenon. The Ṛgveda supplies an example of klōśa- a cry, as against krōśati and the adjective krōśanā (Lith. kraukti), and two examples of lōman hair, in a late hymn, the ordinary form being rōman (cf. Irish ruaimne, ruamnae). These forms and others found in old texts, e.g. VS babhuśa, RV babhṛu (cf. Nep. bhuro (*bhrūraka) beside bhālu (bhallūka); AV likh-, RV rikh- (cf. riś-, Gk. ereitkō) set a difficult problem. Should it be supposed that in this as in so many other cases the characteristic change in Eastern Middle Indian is very old and contemporary with the earliest documents? Or should we recognise in it traces of a vacillation in Indo-european which has been frequently noticed and no doubt accounts for AV lumpālī, O. Slav. lupītī, Lat. rumpo; Skt. luṇcati Lat. runco and a fortiori for the alternation girālī: gilati IE gʷer and gʷel (see inter alios Meillet, Ann. Acad. Sc. Fennicae, XXVIII, p. 157)? None of the modern languages in fact unite r and l. Bengali clearly distinguishes old r and l; even in Bihari, which is the language spoken over the area of the old Magadha and
often also further to the West and East, initial \( r \) and \( l \) are distinct and \( r \) is the intervocalic form of \( l \) (Turner, *Festschrift Jacobi*, p. 36), a late form no doubt, for *Paiyalasa =P(a)ras* near Allahabad, in an inscription of 1135 (Sahni, *Arch. Surv.* 1923-4, p. 123). The same distribution is met with in Sindhi.

It may be asked whether the single \( l \) of the inscriptions denotes a single pronunciation. Grierson supposed that in certain cases at least it represents a dental \( r \). This really implies that normal \( r \) is definitely a cerebral, a definition which only dates from Pāṇini and perhaps arises as much from its cerebralising effect on a following \( n \) as from actual observation. The hypothesis of a single character denoting several phonemes is made probable by the wide use of \( s \) made by Asoka in the same inscriptions. The same problem is set by Prakrit \( n \). In any case this \( l \) is secondary, since the dentals cerebralised by contact with the liquid (type *vaff*- Skt. *vart-*) are precisely characteristic of the eastern inscriptions of Asoka.

The tendency in question, strong though it appears in certain written documents, has left few other traces. In Pali we find *callāḷisa*, continued into Prakrit, which adds one to the list of problems set by numerals. Early dissimilations may explain Pa. *ludda* (raudra), Pkt. *dalamāṇa- haladdā, dalidda-, daddula- (dādumāṇa-, haridrā, daridrā-, dardura-) and the last may have been influenced by a common suffix found in *ruila- (rucira-).* Pa. *antalikkha-* perhaps shows traces of dissimilation of two cerebral elements (*antarikṣa-*), and this may also be the case in Pa. *elanḍa-, talḍa- (eranḍa-, taruṇa-), Jaina *kalḍa* (karuṇa-). Jaina *calana-*, however, results from contamination of *caraṇa-* with *calai.* Finally *inḍa-* is more directly connected with the Indo-european word, Lith. *anglis*, Pers. *nīgāl*, Celt. *aingal* etc., than Skt. *aṅgāra-* Some of these new forms are authenticated by the practice of such conservative languages as Marathi.

Thus the modern languages as a whole form a variegated picture closely resembling that of classical Sanskrit.

p. 75 In Dardic a few cases of \( l \) from \( r \) conjunct are found: Pašai (ωζβιν), *lōmə*, Aškun (Majegal) *glām* village (*grāma-*); Pašai *lām*, Aškun *klām* work (*karma-*), Pašai (eastern) 3; this is only one of the quite recent changes which affect conjuncts in this area.
EVOLUTION OF CONSONANTS

I. FINAL CONSONANTS

In the script and according to the tradition of Sanskrit grammarians, there is no true final consonant except at the end of the sentence. Elsewhere it depends on the initial of the word following whether the final occlusives of the preceding word are voiceless or voiced, the nasals articulated or not and the sibilants represented by a voiceless aspirate or by r, or apparently entirely effaced.

The final consonant of a word in a sentence is not, however, treated as an internal consonant. An internal consonant is naturally voiced or voiceless and is only modified before another consonant. A surd persists before a syllabic consonant or a vowel: yatna like yatale. At the end of the word, on the contrary, it is the initial element of the following word, which determines the character of the consonant: thus abharat tatra but abharad asmai, abharan nah; and the end of the word has no fixed form. Custom decided on the unaspirated surd for the final consonant of the sentence, but the grammarians are not in agreement and Pāṇini makes no choice.

In a language in which the aspirates form an integral and significant part of the system, it is noteworthy that the final aspirated consonant of a word should lose its aspiration within the sentence as well as at the end of the sentence: RV X 86.17 kāprd viśvasmā, 101.12 kāṛṇ naraḥ as against the derived word kapṛthā; Bartholomae’s Law operates accordingly only within the word: adhāk 2nd 3rd aor. of da(q)h as against dagdhā-; X 14.16 triṣṭub gāyatri; and in compounds RV yutkārā- (yudh-) but MS nābhrāj-. This part of the aspiration following the occlusive at the end of the word may be compared with that of the second consonant of a group. The aspiration, in fact, normally stands firm and it will be seen later that the occlusion of intervocalic aspirated occlusives was affected, while the aspiration remained in speech and script.
Consonant groups, which are normal at the beginning and in the middle of words, are impossible finally. They are reduced to the first occlusive: anāk nom., cf. the thematic stem anaksā-; āyok or āyog, in accordance with the element following, for *āyokt cf. yuktā- as against Av. yaogā; 2nd. 3rd. sg. ākaḥ for *ākarṣ and *ākarl as against Av. cūrā; pārān for *parānkṣ as against Av. paraṣ, jīvān(n) for *jīvants as against Av. ṣuṣ. This is characteristic of Indian as compared with Iranian, and it is a striking fact that Persian inscriptions have a sign marking the separation of words, while Indian writing is continuous.

All these facts are signs of a weakness peculiar to final consonants, and indeed the early grammarians described final occlusives as "repressed" and "weakened", that is, implosives on the same level as occlusives in contact with following occlusives.

This evolution reaches finality at the time of the earliest Middle Indian in which even the implosion of the old occlusives (and a fortiori the aspiration which represented the old sibilants and the articulation of nasals) was entirely lost. All finals in Middle Indian are vowels and the new vowel finals have persisted up to the modern period. This has changed the aspect of the word and also that of the sentence, since the separation of words has again become the rule.

In modern times final consonants are stable. Traces, however, of unvoicing may be found in words ill-protected: Mar. jāb and jāp (Pers. jawāb), Chattisg. supet, sarāp (Pers. sufēd, šarāb).

II. INTERNAL CONSONANTS

In the middle of the word two types of change prevail: the weakening of intervocalic consonants and the adjustment of consonant-groups carried as far as complete assimilation. Both changes leave the division into syllables intact until a very recent period.

A) Intervocalic consonants.

The aspirated voiced consonants are the most feebly articulated of the occlusives, to the extent that *jḥ had already, before our records begin, lost its weak occlusion over the larger part of the Indian area. Kafiri alone presents an exception: Skt. han-, Kati žār-', Av. jan; Skt. hrđ-, Kati zira, Av. ṣurād-. The movement thus begun continued, when the aspirated voiced consonants
occurred in a naturally weak position, that is to say, between vowels. So from the Vedas onwards we find the endings -mahī etc. see p. 64. Simultaneously with the intervocalic surds, the aspirated consonants became voiced: Patañjali and Khārvedā testify to Madhurā in the 2nd century B.C.: the Periplus gives Gk. Dakhinabādēs (-patha-), and the Dutr. Ms gadha, yadha (gāthā, yathā). These new voiced consonants met with the fate of all aspirated voiced consonants and were reduced to -h- in classical Prakrit.

This evolution affects all the aspirated consonants except the cerebrals and is found in all languages except Palestine Romany, in which s for ð from -th- and -dh- (through redevoiced ḍh) is distinguished from -d-, which has become r or has dropped: 2nd pl. -s(-sha), gēśū (godhūma-), gus (gātha-), but piar (pibati), etc., see p. 64.

There are other indications of the weakness of intervocalic occlusion. In a Yajurvedic formula assigned to the sacrificer or his wife v disappears after labialising the neighbouring vowels: tōlo or tōle rāyāḥ (tō for tāva). This begins a development general in middle Indian: o for ava: Asokan bholi, holi (Gir. bhavati); ai, e for avi: Gir. thaira-, Pa. thera- (sthavira-) and similarly e for aya, ayi consistently (causatives in -e- etc.). The equivalence aya/e, ava/o perhaps explains the non-Vedic Sanskrit sandhi -e a-, -o a- > e', o'.

We have seen that the Rgvedic spelling l for intervocalic ɻ and lh for ḍh is confirmed by a few instances of Skt. l from ɻ in contact with r (cf. p. 55) and by l regularly in Pali; ɻ persists when it is implosive (dvidbhīḥ), preceded by a nasal (dandā-) or geminate (vividḍhiḥ). The weak form of ɻ(h) is still denoted in several modern languages by a special symbol, see p. 58.

The unaspirated occlusives have been affected in Middle Indian. The first stage was the voicing of surds: whence Gk. Palibōthra (Pāṭaliputra) in the first Greek geographies, Naggalogai (-loka-) in Ptolemy and Dakhinabādēs (Pa. Dakkhiṇāpatha-) in the Periplus; Kīrādai (Kīrāṭa-), cf. the simple voiced velar in Gk. Minnaqāra (nagara-). Pali confirms this phase only in a particle uda, udāhu (ulā, ulāho) and a few isolated words, such as sujā (sruc), mūga- (mūka-), koja- (kāwaca-), ladle, dumb, coat of mail. It has even passed beyond this phase in exceptional cases such as pivati (pibati), niya- (nija-) and suva- (suka-), but it is generally conservative. Asokan also provides some examples: Kalsi gives hida- (hita-); Delhi libi (lipi-); (hida) loga at Jaugada contradicts
all the other examples of loka- and may be an error. Sh. ediša-, Dh. hedisa-, Kal. hedisa- like Pa. edisa- suggest a haplology of voiced consonants: *e(dā)disa (etādrśa-) and Gir. etārisa (Saur. edārīsa-) a dissimilation. Dissimilation has produced the almost total loss of -l- in cavu(l)tha- (calurītha-), cāvu(d)dasa, cf. Pa. cuddasa (calurīdaśa). Shahbazgarhi, otherwise so conservative, gives y for j after a long vowel: Kāṃboya-, raya-, samaya-; the frequent exchange of the suffixes -iya- and -ika- in Pali implies a development of the same kind. Preliminary palatisation of the guttural is recorded at Kalsi: vadikyā (vāḷī-, vṛṭī-), hitikyā- and lokikyā-, but kaligya- might at a pinch be a derivative in -ya-, similarly devadāśikyā at Ramgarh.

The y treatment has been generalised later for the gutturals, palatals and dentals, to judge from the Jaina spelling and from modern results: Skt. śalam, Pkt. sa(y)am, Mar. śē, Hin. sai-kṝ centuries, and sau a hundred; Skt. rājā, Pkt. rā(y)ā, mod. rāi and ro; except, in the case fo the dentals, the dissimilation already mentioned (Pa. leraśa thirteen, etc.), and for the l treatment in European Romany and in Shina, r of Asiatic Romany and Khovar, v. p. 18. Just like the v from -p- and -b- and like v representing -m- (see above), all these treatments imply a more or less durable fricative stage.

The nasals, like the occlusives, are altered between vowels. So far as m is concerned, it becomes a fricative in the modern languages, except in Singhalese, the North-west and, in certain contexts, in Gujarati (R. L. Turner, The Indo-aryan nasals in Gujarati, JRAS, 1915, p. 21): O. Mar. gā̄nu, Hin. gāō, Skt. grāma-; there are a few cases in Middle Indian, but in association with nasals and are thus due to dissimilation: Pkt. nāṃvai from nam-, Jaina anavadagga- for Pa. anamalagga-.

The dental nasal is cerebralised. Vedic sthānū- has been noticed on p. 57; Pāṇini recognises dandaṃāṇava- pupil to be caned, from māṇava-man; and Patañjali writes bhan- and Śb. paṇāyya-praiseworthy, for RV bhan-, panya-. Examples are fairly numerous in Pali: nāṇa- (jñāna-) as against jānāli, pheṇa- foam, suṇa- and suṇa- dog, sanim for Skt. śanaś, dantapona- toothpick, beside pavana- sieve, jaṇuka- beside jaṇu- knee etc. In Prakrit the rule is that every intervocalic n becomes cerebral. Some texts extend the same symbol to every position of n, a practice confirmed by the grammarians. This generalisation, which is inexplicable, if it is only a question of pronunciation, can only be a provisional graphical device; n no doubt represents two pronunciations. As a matter of fact Aśoka’s inscription at Kopbal
is already applying the Prakrit rule and appears actually to confirm it by dissimilations (Turner, The Gavimath... inscr. of Aśoka, p. 11-12); but it is a question whether, in this single instance, there was not an inversion of the symbols.

The fact remains that the opposition of n and ŋ is that of strong and weak, corresponding to those of p or b and v, of l or d and ṭ or y and of m and ū. It is to be noted that Turner describes Gujarati ŋ as a nasalised fricative.

Now the opposition of initial or geminated n and intervocalic ŋ is normal in the Dutr. ms, in certain Prakrit inscriptions and in Jaina paper mss.; and it can be verified in a large group of modern languages, Marathi, Gujarati, Sindhi, Panjabi, Rajasthan, Kumaoni, popular Hindi, Dardic (where ŋ is a more or less nasal r).

On the whole, therefore, the intervocalic consonants constitute a class of weak consonants of more or less stability, which are opposed to the strong consonants provided by initial consonants and, as we shall see, by the old consonant groups.

B) Consonant groups.

The general trend of consonant groups in India is towards the assimilation of their elements, not only as regards sonority (the voicedness or voicelessness in Skt. perf. 1st sg. vēda: 2nd vēṭha; loc. sg. padi: pl. patsū; aor. 2nd sg. indic. śakāḥ: impv. śagdhi etc.), but also as regards articulation. The first tendency operates in Iranian; the second is characteristic of Indo-Aryan.

Thus Š cerebralis a following t: juṣṭā- (Av. zuṣṭa-) in which Š comes from old s; aṣṭā (Av. aṣṭa) in which Š comes from an old palatal, cf. aṣṭī; similarly a trace of a lost ź is seen in the cerebral of rēḍhi, leḍhi he licks, from lih-, as against edhi be, from aṣ-. The palatal occlusive operates on a preceding s: kāḍcil (Av. kasḍil); and on n, not only when it precedes (paṇca, Av. panḍa), but what is more significant, when it follows: yajña- (Av. yasna-, Pers. jaśn with two different treatments of the occlusive, but with the nasal intact in each case).

In sandhi a dental is merged with the following liquid when articulated at the same point: āṅgāl lōmnaḥ from the limb, of the hair.

The case of two occlusives is particularly characteristic. In India at first two occlusives in a group persist, but as the explosion of the first consonant lacks sharpness, it is also liable to fail in precision without diminution of intelligibility to the hearer and
in this way the articulation of the explosive has encroached upon the implosive. Indian is sharply opposed to Iranian in this process, for in Iranian the articulation of the first occlusive is safeguarded by fricatisation and consonant groups preserve their double articulation, e.g. Av. baxla-, Pers. baxl; Skt. bhaktá- as against Pkt. bhalla-, Hin. bhāl; Av. hapła, Pers. hafl, Skt. saptá: Pkt. salā, Hin. sāl.

Assimilation is characteristic of Middle Indian, but from the earliest times isolated words prove that it must have been much more wide-spread than the written tradition, influenced by etymology and morphology, allows to appear: uccā upwards from ul-, cf. Av. usčā; vrkkāu kidneys, cf. Av. vṛṣāka; májjati dive, for *madj cf. madgū. We have seen on p. 52 that Skt. ch and jh resulted from prehistoric assimilations of this type, long before the Greek tradition (c. 300 B.C.) which gives the name of the king Candragupta in the form Sandrákołlos.

In the case of two occlusives therefore the facts are of general application and of long standing, but when the consonant group includes only one occlusive, the other element being a sibilant or a continuant, things become complicated.

i. Sibilants. In Iranian s opens into h not only initially and intervocally, but also before a continuant (Av. ahmi, O. Pers. amiy: Skt. ásmi; Ov. hazānram, Pers. hazār: Skt. sahaśram); but it persists before an occlusive: O. Pers. asliy, Pers. ast (astī); Av. paskā, pas'ta (paścāl); as also the voiced sibilant Av. zdhi (edhi), mazgām, Pers. mayz (majjā), asnāl (from azn-, cf. nazdyō); and the hush-sounds: vahištā-, Pers. bihišt (vāsištā-), aśta, Pers. hašt (aštā); mīžda, Pers. mužd (mīlhā-).

In Sanskrit s is so strongly established that with the help of a feeling for morphology it can, exceptionally, become occlusive: AV avālsīh from vas-; mādhbhīh from mās-, uṣādbhīh from Ṛṣas-; see p. 69. In Middle Indian initial and intervocalic s are maintained and so generally in modern Indian. But the Middle Indian usage is not uniform, when s is in contact with occlusives.

In Pali and classical Prakrit the sibilant, as the weaker consonant in a group of two or as a continuant grouped with an occlusive, loses its proper articulation. There then remains only an aspirate, which, as is natural in a language possessing aspirated consonants, takes its place following the occlusive, even if the original sibilant preceded that occlusive: thus, sukkha- (śūṣka-) like pakkha-(pakṣa-); hathha- (hāṣṭa-), aṭṭha (aṣṭā), bappha- (bāṣpa-), like tharu- or charu- (tsāru-), accharā (apsarās-) and already, before the earliest records, the suffix -cha from IE *-ske-.
Asoka has pa(c)chā (paścāt) throughout, and, for example, pa(k)khi (pakśin) as in the pillar dialect. But the treatment of kṣ is nowhere uniform. Girnar and Shahbazgarhi have sām-khi(t)la (kṣip-) like Pali, but cham- (kṣam- Pa. kham-); Pali has also the noun chaṃā earth, usually in the oblique case) and chaṇ- (kṣaṇ- Pali khaṇ-); Girnar has chu(d)aka- (kṣudra-) but Shah. khudra- and Kalsi khu(d)da-. Finally Kalsi has chan-but kham-.

Shahbazgarhi and Girnar agree in the medial group st (and sth which naturally goes with it) giving asli; nāsti, hasli-, samstava- and G. vistala; Shah. vistrila- as against Kalsi a(l)ṭhi, na(l)ṭhi, ha(l)ṭhi-, saṃṭhula-, viṭhala-; and therefore Shah. graha(l)ṭha-, which goes with K. gaha(l)ṭha- against G. gharasta- (cf. Skt. gṛhasīha-), seems due to eastern influence. But this can hardly apply to G. thairā- (shavira-) or to i(l)ṭhi(stri), which is also the Kalsi word, while Shah. has ṛstrī and strīyaka. Moreover, gharasta, in which dissimilation of the second aspirated consonant by the first is hardly admissible, leads to the suspicion that the spelling st implies an aspiration; Shah. Man. astin- seems indeed to show dissimilation of the aspirate preserved in G. hasti-. This surmise is confirmed by a comparison of the groups with cerebrals, which Girnar records without aspirated consonants: sesṭa- (śreṣṭha-), tisṭamto tiṣṭeya (tiṣṭh-), adhisṭāna- (adhiṣṭhāna-), ṣṭila- (siḥlīla-), and actually usṭāna- (cf. Skt. uṭhā-) under the influence of the preceding forms (cf. Pkt. ṭhāi and all the modern forms with initial ṭh), opposed to Shah. sre(l)ṭha-, K. se(l)ṭha-, Shah. ti(l)ṭhe, ciraʿ(l)ṭhitika-, Dha. cila(l)ṭhitika-. It must be admitted in any case that the western dialects were more conservative than the others.

It is no accident that Asoka preserves the distinction of the old sibilants (even before y; gen. sg. -assa, but fut. -iśsali) in the Northwest, and even at Girnar the recent disappearance of ś explains the cerebral of anusāṣṭi (Michelson, JAOS, XXXI, 237) and of ʂ that of osudha-. The Northwest frontier dialects to-day still preserve the distinction between hiss-sounds and hush-sounds and have more or less clear traces of the conjunct sibilant. The representatives of Skt. suṣka- (Pa. Pkt. sukkha-, Hin. sūkhā, Sgh. siku) are Kš. hokhu, Sh. šāku, Rom. suko; but Aṣkun wāš belly, is probably Skt. vakṣāḥ. Before dental or cerebral there are Sh. ḡat, Kš. atha, but Rom. vāst, Kho. hōst, hāṣ (hasta-) and Kš. has(ī) (hasṭi-); Kš. ōḷh, but Kho. oṣt, Paš. aṣṭ, Sh. ḍṣ (ḍaṣṭau); Sh. piṭa, Kš. pelh, Kati pḷi, but Rom. piṣṭ, Aṣk. priṣṭī back, Kal. piślo behind (prasṭha-, prṣṭī-); the sibilant
p. 82 clearly dominates the labial in Sh. baś lung, Ashk. bas steam (bāšpa-); Kash. Bras- (Brhaspati), pōś, Kati piś flower (puspa-, but perhaps puṣya-). This treatment already appears in Dutr. puṣa cf. Poṣapuria inhabitant of Peshawar, in the Ara inscription. It is found even before a guttural: Kash. Bōṣi from Bhāskarī.

ii. **Continuants.** The problem raised by the contact of an occlusive with a continuant was capable of two solutions. Either a lurking vowel element able to form a new syllable disengaged itself from the vocalic vibrations of the continuant or else there was assimilation, as in the case of two occlusives, with retention or adaptation of the consonantal element e.g. \( dv > dd, \) \( bb; \) \( tm > tt, pp; \) \( rl > ll, ll. \)

The first process is not an innovation of Sanskrit. From Indo-European onwards a continuant following a consonant could be represented by a vowel element followed by the continuant in its consonantal form (Skt. purāḥ: Gk. páros; Skt. \( j(i)ya \): Gk. biōs; Skt. bhrūvāḥ: Gk. ophrōs (gen.). Variants with \( y \) and \( v \) are found in Indo-Iranian and are particularly numerous in Vedic, if the metre rather than the spelling is taken into account.

We have O. Pers. marliya-, Av. maśya-, a trisyllable, Skt. már(i)ya-, but O. Pers. hašiya- (in which the \( ŝ \) proves the ly combination), Av. haṣya-, Skt. salya-. Generally, under a rule which dates from Indo-European the adjustment depends on the 'weight' of the syllable preceding the consonant group, which, for example, determines which of the two forms of the ending -bh(i)yāḥ is used (Meillet, *Introduction*⁶, p. 244; Arnold, *Vedic Metre*, p. 85). Moreover, even in Vedic in which the freedom allowed seems the greatest, the use is limited. The ending of the gen. sg. -syā (except for one example), that of the absolutive in -tvā and, a fortiori the consonant groups of isolated words like āśva- (Av. aspa-), catavārah (Av. cahwārō), tyājah (Av. ibyejō a dissyllable), svapna- (Av. xvaśna-) are never separated. Middle Indian affords proof that a vowel is still permissible in suffixes: As. Dh. ka(t)vāya- as against Shah. ka(t)vāva-, cf. Pa. kāṭlabba- (Girnār has still the old group ka(t)vāya-). The suffix of the passive, type Pa. puchh-iyali, cf. Skt. prcyali, utilises this liberty to preserve the clarity of the formation, like the Vedic type stuvanti. In isolated words assimilation is the rule: As. and Pa. saccā- (salya-); Kals. ca(t)lāli four (but Gir. caṭpāro with assimilation of the voiced element, an intermediate \( *f \) having become an occlusive immediately without assimilation of articulation having taken place), Pa. caṭlāri. In the same way
CONTINUANTS IN GROUPS

initially Pa. cajali(tyaj-); and jiya, hiyyo are scanned like the corresponding Vedic words jyā, hyāḥ. This is also true for the modern words derived from them (e.g. Nep. jiuri, hijo) no doubt for the sake of clearness as much as from a genuine continuity.

In the case of the other continuants, Vedic metre and Middle Indian show that the insertion was much more common than the script reveals. The Veda has numerous instances with r: ind.ra, pil.roh and even p.rāk; dar.śatā- before a sibilant and yaj.nā- with a nasal. This explains why the counterpart of Gk. erulhros is AV rudhirā- bloody (if not derived from or influenced by *rudhi-, cf. Rudhikrá-), and why the quantity of the initial syllable is variable in RV pārūsa-, cf. Pa. purisa-, posa-, if the primitive form is *purṣa, Italic *parso (Benveniste) and not the more attractive *pumurṣa- (R.L.T.). The forms in -uru-, -uri- are on the same level and preserve the primitive ‘weight’ of the syllables like pil.roh compared with pitroḥ. This freedom in the distribution of the syllables has inversely allowed the tendency towards alternating rhythm (p. 38) to prevail in the formation of the stems jantū- and jānman- beside jānmana- or again of krṇmasi beside krṇwānti.

In classical Sanskrit examples with r are rather rare, if, at any rate, lexical forms like candira- moon, are not admitted, yet to AV rudhirā- we may add Br. dahara- (Ved. dahrā-) little, Epic manoratha wish (*mano-rtha), ajira- (ājra-). But the tendency existed at all times and can be seen operating to-day in loan-words.

Corresponding to tman- oneself, Pali has tumo, tumassa continued by Sgh. lumaha (Ep. Zeyl., I, p. 73) and Shi tomū own, while Rom. pes agrees with the regular phonology of ātman-: Pkt. appa-, Hin. āp etc. The representative of Skt. prāpṇoli is prapṇoli at Girnār, pāpṇāli in Pali and opt. pamuni (*pāmune) in Dutr., forms which are confirmed by Nep. etc., pāv-, Guj. pām-, Sgh. pāmīn-. There is nothing left of Pali pappoli.

The genitive of Skt. rājā is rājñāḥ, but rājino in Pali, r <ā>jine lājine in Aśoka, rāiño in Prakrit beside Pa. and As. Gir. Shah. rān(n)o, Pkt. rānño. All this disappears as the declension was thematised. The feminine rājñī alone persists in Nep. etc., rānī queen.

The assimilation of groups with continuants did not take place all at once; cf. Gk. Sandrakottos quoted above, in which the first consonant group lags behind the second, and the western graphies of Aśoka. But it was under preparation in very early times, at least if we may judge from the spelling RV jyotiṣ- from dyul-
to shine, and the consonant groups with \( r \) in which the oldest grammarians record the relative importance of the occlusion, p. 84 \( \text{puttra-} \) is the regular pronunciation warranted by the metre. Pāṇinī gives it as optional, but as not permissible in \( \text{putrādini} \) used as an insult. The first syllable is regularly short only in Buddhist Sanskrit, that is at a time when the consonant group can hardly have actually existed.

The general principle is that the occlusive is dominant in all positions: Pa. \( \text{sappa-} \) from \( \text{sarpa-} \), \( \text{udda-} \) from \( \text{udra-} \), \( \text{amba-} \) from \( \text{ām(b)ra-} \), \( \text{sukka-} \) from \( \text{śukla-} \) and \( \text{śukra-} \), \( \text{raḷha-} \) from \( \text{rāśtra-} \), \( \text{sakka-} \) from \( \text{śakya-} \), \( \text{vuccati} \) for \( \text{uçeñate} \), \( \text{addha-} \) from \( \text{adhvan-} \), \( \text{magg-} \) from \( \text{magna-} \) etc. But the articulation of this occlusive may be adapted to that of the continuant; thusdentals become palatals in Pa. \( \text{sačca-} \) (\( \text{satya-} \)), \( \text{majjha-} \) (\( \text{madhya-} \)).

These adaptations are not uniformly made.

The dental group plus \( v \) gives a dental or a labial, without regularity but not capriciously. The Girnār inscriptions have the absolutive in \( -\text{lpā(-lvā)} \), \( \text{catpāro (catvāraḥ)} \), \( \text{dbādasa (dvādasa)} \), Kalsī has \( \text{ca(t)lāli (catvārī)} \) and preserves \( \text{dvāḍasa} \). Pāli has \( \text{caṭlāro} \) and the acc. \( \text{taṃ (tvam)} \) but \( \text{bārasa} \) and on the contrary preserves \( d(u)ve \) and \( -\text{lvā} \) for the absolutive. It has also \( \text{dvāra-} \), while the name of the town \( \text{Dvārakā} \) in Skt. is Gk. \( \text{Barākē} \) in Ptolemy; but it has \( \text{dīpa-} \) (\( \text{dvīpa-} \)) in agreement with \( \text{Āsoka (Jambudīpa)} \), Ptolemy (\( \text{Iabadiou} \)) and Prakrit. No doubt the presence of a labial in this last word has influenced the choice of the phoneme, but other treatments are, for the time being at least, unpredictable. For example, for the Skt. \( \text{ürdhva-} \) Pāli has \( \text{uddha-} \) which classical Prakrit seems also to prefer, cf. Ass. \( \text{udha-} \) to raise, Jaina prakrit has \( \text{ubba-} \) (cf. Pa. \( \text{ubba-ṭhaka-} \) erect), confirmed by Mar. \( \text{ubhā} \), Sdh. \( \text{ubho} \), Panj. \( \text{ūbh} \) upright, Beng. \( \text{ubu} \); it has at the same time \( \text{udṛtha-} \) confirmed by Sgh. \( \text{udu} \) and perhaps, a long way from Ceylon, by Pašai \( \text{ure} \) above, Kś. \( \text{wōḍ} \) top of the head. Each word has its history, as yet not elucidated. The important point is that the variation reaches back to the beginning of Middle Indian.

For \( t \) plus \( m \) Pāli has only \( \text{atla-} \) (\( \text{ātman-} \)) and so \( \text{Āsoka East and North. But As. Mans., Dutr. and Niya documents have atva, and Girnār gives ātpa-} \), the first sign of the evolution leading to Pkt. \( \text{appa-} \), the form most current in Mahārāṣṭrī and in the drama alternating with the first form. \( \text{Appa} \) is principally a nominative, but Bengali has \( \text{āpan} \) formed from the oblique stem and \( \text{āp-} \) is
almost universal (except Sgh. at; the Northwest forms in lan-
are of Iranian origin; for Shi. lomā see p. 83, 203-4). It is remark-
able that the forms -ppa-, -ppana- (Hin. -pā, -pan) of the suffixes
-lva- -lvana- have no predecessors except at Girnār (mahalpā)
and that Prakrit like Pali has admitted only -lta- -ltana-. Here
a general borrowing may be suspected.

For the dental plus r group the distribution is on the contrary
sharply geographical. In Asokan ‘three’ is trayo at Shahbazgarhi,
and at Girnār trī, while ‘thirteen’ is at Mans. tṛḍāsa and Gir.
trāḍāsa. But elsewhere we find īṃni, tedasa; Pali agrees with
tayo, īni, terasa (but note aññātra, yātrā, utrāsa). We find also
Shah. avatrap-, nikram-; Gir. brahmaṇa-, Shah. bramana-
and bāṃbhana- elsewhere; Shah., Gir. parakram- (Gir. also parā(k)-
kam-) as against Kal., etc., pala(k)kam-, Shah, agra- but Gir.
a(ģ)ga-. Now the modern Northwestern dialects preserve to
some extent the groups with r: Kati grōm, Aśk. glām, from which
comes Maiyā lām (grāma-); Kati brā, Paś. lāi (bhrālā); Kati
pīr, Paś. pučle, Shi. pūč (putra-): Aśk. drāṣ, Kho. drog, Shi.
jač (drāksā); Kho. droxum (Gk. drakhmē) as against Hin. dām.
Romany has only the groups with the dental and labial: phral
brother, īrin (rat from rātrī is dissimilated from *raṭr), līndr (Hin.
nind Skt. nīdrā), drakh, but gav village, town. Sindhi has only
the groups with dentals, which it makes cerebral: fre three, puřa,
drākhā, nindrā, but caku (cakra-), aği (agra-), bhā, etc.

In the case of r plus dental, the result of assimilation is
sometimes a dental and sometimes a cerebral.

Of the Asokan inscriptions it seems that Girnār prefers the
dental: (a(l)lha-, anuwa(l)l-, ka(l)la(v)va, vo(d)dh-, k-i(l)li)
and the eastern inscriptions the cerebral (ki(l)lī, vo(d)dh-, diya(d)-
dha-); but Dhauli gives a(l)lha-, ka(l)laviya- and ka(l)laviya-;
Kalsi anuvāl- and anuvāl-; in the Northwest we find the notations
athra- vadhra-, but kiḷri- and finally Shah. anuvāl-.

Thus there is no uniformity either in dialect or in word. Simi-
larly Pali has cakkavaṭṭī and Jaina Prakrit cakkavaṭṭī. In Pali
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attha- is the most frequent, but affha- is a current form, especially
in compounds. The two forms are found together in a dialogue,
the second in a question and the first in the reply of the teacher.
On the contrary addha- is much rarer than addha-, perhaps because
it was driven out by the forms derived from Skt. addhā and adhvan-
. Pali has always kilī- (kīrti-), katlabba- (karlavāya-), both vaddha-
and vuddha- old, vaddhi-, vuddhi- and the rarer vuddhi- growth
(vṛddha-, vṛddhi); vaddhali to increase, vaddhaki- (vardhaka-)
carpenter, but vaddha- thong, Skt. vardhra-. The two treatments
are therefore ancient. The modern practice is complicated and depends on the vocabulary, except in Sindhi, where according to Turner r plus d alone give a cerebral, while r plus t, th and dh give a dental. There is not even any uniformity in the individual language for particular words. For gardabha- Marathi has gadhav and gadhada, and Singhalese gadumbu and gadubu.

In the western languages it frequently happens that r immediately preceding an occlusive or a nasal was transferred by anticipation to follow an initial occlusive: Kal. pron leaf (parṇa-), krom work; cf. Shi krom, Paś. ṭlāṃ; Guj. ṭrābū, Sdh. ṭrāmo, Kash. ṭrāṃ from Skt. tāmra-; Sdh. ḍrīgo, Kal. ḍrīga, Kati ḍrg (for the apparent doubling of the r, cf. Kati trūr (Skt. lantra-), Shi. zigu from Skt. dīgha-). Asokan had already given at Shabazgarhi grabha- (garbha-), krama- (karma-), prūva (pūrva) and also, by a converse movement, kiḷrī (kīrī-), vagra- (varga-).

There are similarly several treatments for an occlusive following a nasal. If the more prominent facts are considered, it seems that they are distributed on a geographical basis. The nasality, which is particularly strong in the dialect of Durt. (cf. pramūṇi, Pa. pāpuṇe, Skt. prāpnuvāt; namo, Pali nāvām; vadamado, Skt. vralavanatḥ, where v is nasalised, contrast the spelling puṣaviva, Skt. puṣpam iva) has in the first place provoked the voicing of the surd following a nasal: paga- (paṅka-), paja (pañca), sabana (sampanna), praṣajhadi (-saṃsanti), see below. This is confirmed by a proper noun, Gk. Lambagai Ptol. (Lampāka-). The nasality has further produced absorption of the voiced occlusion (except in gutturals): udumara (udumbara-), bandana (bandhana-), gamira (gambhīra-), pani(da) (panḍita-).

These two characteristics are found again to-day in Sindhi, in Lahnda and in Panjabi regularly and in Dardic and Romany sporadically:

i. Nasal plus surd: Sdh. paṅjāhā (paṅcāsat) as against Hin. pačās, Ks. panceh but panzaha made of 500 threads;

Sdh. kandā, kaṇḍo, Ks. koṇḍa, Eur. Rom. kanro, Nuri kand, Nep. kāro: an evolution followed up in Shi. koṇḍa (kaṇḍa-);


Sdh. saṅghaṇa, Panj. saṅgal Nep. sāglo and sānlo, Shi. śaṅālī; but Ks. hōkal, Guj. Mar. sākaḷ (śṛṅgkalā);
Sdh. vañjh Panj. vañjh (vamśa-), Sdh. hañj Panj. añjhū (aśru-); Sdh. kanj(h)o (kāṃsya-); Sdh. hañju Kṣ. ān, fem. anziñ (haṃsa-), cf. p. 88.

ii. Nasal plus voiced consonant:

Sdh. kāno, Panj. kānnā, Kṣ. kān, Shi. kōn (kāṇḍa-);
Sdh. Panj. Kṣ. cum- (cumb-): the occlusive tends to be effaced everywhere in this word except in Singhalese;
Panj. bannh, Kṣ. bōn, Shi. bōn, Nuri -bāni (bandh-); Kulu bān in which the sense of 'dam' taken from the Persian band shows that the tendency is still in operation.

However, one would be wrong in thinking that this tendency is exclusive to the western area. As. pañna- five, in '15' and '25' of the eastern inscriptions, may rest on pañṇa-, just as anña-represents añña- (anya-); unless the palatal of -daṣa, -viṃśali and -śaḥ has produced *panda- by dissimilation, which would moreover explain Khāravela's paṃdaraṇa (cf. Mar. pannās 50, Hin. pacās and patīs 35, etc.) We find to-day in Maithili caṇ (candra-), āṅh (andha-), senhiyā a man of Sindh; in Gujarati sāgal- to make into a chain, from sākal, āmar (udumbara-; mb > m is met with everywhere to some extent); in Bengali caṇ, rān (randh-) and the name of Bengal is pronounced Bānāl there. Maithili has even ājū āṇu beside asuwā (aśru). Finally, everywhere except in the border languages, Oriya, Marathi and Singhalese, the ending of the 3rd plural of verbs has lost the occlusive of Skt. -anti. And if Pkt. and O. Hin. -āhī are the result of a succession of analogies, Beng. -en at least appears to preserve traces of a former -nd (but medial -nl- in the infinitive-absolutive in -le was protected).

The sibilants have a weaker occlusion than the true occlusives, but can behave like occlusives in contact with other phonemes. Hence the parallelism of the treatments of the sibilant plus m or n with the treatment of dentals under the same conditions: As. Shah. spami (svāmin-), spasuna (svaśnām-), spagra- (svarga-), Dutr. viśpa- (viśva-) and in modern times Kho. īspusā (svasar-), Kati uśp, Shi. aśpo, Kṣ. hāś (aśva-) in which the hush-sound shows that we have not to do with Pers. asp. Further, we find Shah. loc. sg. -spi (smin-), Kho. ispa (asmal-), griśp (griśma-). This treatment is naturally exceptional; sv generally resulted in ss and as regards sm we have either the treatment of s before an occlusive, that is, mh (Gir. and Pkt. loc. sg. -mhi; Pa. gimha-), Sdh. ghimā, Mar. gīm, etc.) corresponding to nh of sn (Skt. snuṣ-a, Pa. sūnā from *suṣnā, whence Mar. sūn), or else assimilation as in sy, sr, thus Asokan loc. sg. -(s)si (except in the West); Pa.
SIBILANT PLUS NASAL

vissaradi (vismar-), whence Mar. visar- etc.; Pkt. rassi-, Hin. rassi etc. But we must not be misled by the distribution of the locatives in Asokan. It is the most western inscriptions, which contain the gen. pl. a(p)phāka (asmākam), acc. a(p)phe, tu(p)phe of the pronouns beside the locative in -si and Kalsi gives ta(p)phe (tasmāl). Thus Sgh. āp we, is explained together with Pra. Shi. (oblique) asē, Kṣ. asī, Panj. asī, Sdh. asī. And we are not surprised to find griš afternoon, beside ima we, in Kati. The three treatments are all old.

One old grammarian has noticed the beginning of the unvoicing of the nasal. According to him, an abhinidhāna develops after a voiceless fricative before a nasal as before an occlusive; thus griśpme, astnāli. This explains Mar. Vītho-bā beside Pkt. Veṇhu-from Viṣṇu- and perhaps, according to H. Smith Pa. DN Kaṭhaka- from Kṛṣṇa- and in any case modern Bengali Kriślo. That also facilitates the interpretation of certain facts connected with the nasal plus sibilant group, the inverse of the former group, in which the occlusion in the s also disengages a small consonant: hence the Sanskrit sandhi mahān-[-sāṇ. This, according to H. Smith, is why the future of gam- is gaṃsāmi in the Mahāvastu, but gaṅchāmi in Pali (-m s → n s → -ṇch-) like the aor. agaṅchī (*agām-s-ī); similarly 3rd sg. fut. haṅchīli from *han-[-sīli. And even over the territory where we find sv, sm → sp, the Dutr. ms gives praśajhadi, that is, praśaṅjhhandi formed from praśaṃsanti through the intermediate -saṃs-, -samś (cf. salsara from saṃsāra-), -saṅc-, -saṅch-, with the final voicing characteristic of the region. Panj. aṅjhā, Sdh. haṅju, Maith. anjhu from aṣru, Pkt. aṃsu; Panj. vaṅjh, Sdh. vaṅjhu from vaṃsa- etc. see p. 87 are also explained in this way.

This consonant must have existed also between sibilants. It explains AV avāsīḥ (avāśīḥ) and mātucchā in Prakrit arising from the juxtaposed *mālus-[-ssasā (the first term in the genitive) beside māussiā arising from the compound mālu-[-ssasā (H. Smith).

The conclusion to be drawn from these examples is that conjunct consonants gave varied results and that these results are not distributed rigidly either from the phonological or from the geographical point of view. The dominant fact is that the normal result is a geminate consonant.

The geminates still persist regularly in Lahnda and Panjabi (Panj. makkhan (mraksana-), kamm (karma-); but asim us (asme), Lah. assim). Sindhi poetry keeps the long scansion of aji (adya); in the Sindh of Kacch and in Gujarati, in spoken
Hindustani and generally in all country dialects of the basin of the Ganges, geminates often persist, but they can also be simplified and it is the simplified forms that the literary languages prefer to popularise: Hin. bhūkha hungry, khelō mē in the fields, hotā being, but in the local dialects bhūkkha (bubhukṣita-), khelō (kṣētra-), holtā (Pa. bhawanto). The simplified form is normal in Marathi. Finally in Sinhalese all the consonants are single, just as all the vowels are short (subject to secondary changes).

It may be said that geminates are simplified as early as middle Indian in favourable circumstances, to wit, after a long vowel and as a rule when the group comprises a sibilant or r. Hence Pa. pāti beside pātta- (pātra-), dīgha- (dīrgha-), pekh- (prekṣ-), veṭh- (veṣṭ-), cf. p. 39; Pkt. dīha-, peha-, veḍh-, gāya- (gātra-), goya- (gotra-), kheya- (kṣētra-), jāyā (yātrā), rāi (rārī), āghā, p. p. āhiya- (ākhya-, N. B. a compound verb) and even āya- (āman-). In modern times Bengali shows gā(y) body (gātra-), dā sickle (dātra-); Sinhalese has paya, pā bowl (pātra-) (with homonyms from pāda-, payas-), mā urine (mātra-), hā thread (śātra-). The group rṣ thus becomes s in Pa. sīsa- (śirṣan-), Pkt. pāsa- (pārṣva-), phāsa- (sparṣa-), exceptionally h in Pali: kahāpāna- (kārṣāpāna-) with secondary shortening of the first vowel and in kāhāmi future of kar-, v. p. 65. Cerebral stops are further modified in some languages, so while Marathi stops at veḍh-, Bengali has ber-, Nep. berh- etc.; similarly Nep. kor from kusṭha-, kharāu from kāśṭhapādūkā.

With these exceptions the geminates even when simplified remain strong consonants. We saw that final and intervocalic consonants were on the contrary doomed to destruction or at least were weakened. This determines the character of the Middle Indian word, which contains strong consonants only when initial or geminate and has none in final position and in which hiatuses occur very frequently. Later, the fall of vowel finals, the simplification of geminates and the reduction of hiatuses gave Indo-aryan a normal framework, in which, however, the grouping of consonants still presents difficulties.

The dominant character of the consonantal system of Middle Indian is then the constant opposition between the occlusives, whether initial, conjunct or geminate and the spirants which were preserved more or less between two vowels. Examples of dental surds are: tīla-, anta-, putta- (putra-), bhūtla- (bhukla-): Saur. -adi, Mah. -ai (Skt. -āti); thaṇa- (stāna-), manth-, nāththi (nāsti): mehuṇa (mailhuna-) and so forth.
The case of the Sindhi dentals (the strong representatives of which are accompanied by a glottal movement) is curious. Here the cerebral is the strong form of the dental: ḍāḥī (dadhi), saḍā (sabdā-) like ḍāmā Dom, ḍaḍā (Pkt. hadḍi-); ḍ exists only after a nasal: ṭāndā (lantu-). We saw that Ṉ is the weak form of ṇ; ḍ where it exists (Singhalese, Marathi, Gujarati, Rajasthanhi, Panjabi and Oriya) is the weak form of ḍ and many languages distinguish ḍ from ṃ in various ways (Turner, Fest. Jacobi, p. 34).

The system was extended to the continuants (for example, m which except in Dardic, Singhalese and Gujarati has a weak form ṇ) and this in both directions. Indeed -ṅ- the weak form of b is able to assume the form of b as its strong form. This is what has happened in the case of medial geminates from the Pali period: kaṭṭābba- (karlavya-), as against vāggā- (varga-); Sindhi is still in the same stage vāṅgu (vyṅghra-) tiger, but cāṅgu (carv-) to chew, kalabu (karlavya-). Almost all the Hindi group, the eastern group, a small part of the Dardic group (Khowar, Shina, Kalaša, Tirahi) and European Romany have also b initially; v no longer exists except intervocally (Singhalese, Marathi, Panjabi, Kaśmīri, Kaśiri and Asiatic Romany, which have kept v in every position, are exceptions).

Similarly y is the weak form of j. Sindhi, Kaśmīri and Singhalese still distinguish them initially, although generally strong y- is confused with j; Sdh. jo, Ks. ju- (Skt. ya- who), but Sdh. jibhā, Ks. žev, Sgh. diva (jihvā) like Sdh. ajā, Ks. az, Sgh. ada (Pkt. ajja, Skt. adya).

For the sibilants see p. 70.

III. GEMINATION

We have seen that Middle Indian and subsequently Modern Indian are full of geminates resulting from old groups or from some analogous situation: e.g. in Pali the initial consonant of the second member of a compound can be doubled: paṭi-kkūla-, Skt. prati-kūla-, contrary, like paṭi-ggaḥa- Skt. prati-graha- acceptance; in Hindi just as we have maṭṭī and māṭī earth, makkhan and mākhan butter, so we have mirī and mirrī, first place at play (Arab. amīr chief), addal lesson (Arab. ʿadal justice). The initial letter of enclitics is also doubled in Middle Indian, as otherwise it might have been modified like an ordinary intervocalic consonant: Pkt. ḍi (ṭi), ṁva (iva), ceeva (caiva) cf. O. Mar. -ci but Sdh. -j even, and similarly in accessory words like Skt. h(i)yāḥ yesterday,
FORMATION OF GEMINATES

a dissyllable, in which the disappearance of the continuant would have endangered the actual word; Pa. hiyyo, Deśi hijjo, Eur. Ṛom. ijj etc. (this word, by the way, is not found in all languages).

An analogous case, yet of great importance, is the gemination (even if it is only graphic) in learned words (Pkt. saveggam etc.). This device was necessitated by the deterioration of consonants and the consequent ambiguities of meaning: vea- was vega- or veda-, loha- represented lobha- and loha-, etc. Such cases must have occurred in writing and even in speech more often than the grammarians, preoccupied with defining the changes which took place, are prepared to admit.

But besides this and to an extent which cannot be realised from the written evidence, there were during every period geminations expressing emphasis or simply popular; and in spite of the strictness of orthographic tradition, the earliest Sanskrit provides instances and vouchers for the significance of those which are more recent.

Leaving aside the form of address amba, resting on amma, which is of Indo-European origin (see Meillet, BSL, XXXIV, p. 1), the earliest use of gemination is the strengthening of suffixes in demonstrative formations: RV īlḥā, īlḥām, thus, precisely, as against e.g. kathā, kathām how? In Pali īlhaṃ is found once more, but the other suffix has assumed a local signification (due to the influence of nouns in -ilha- arising from -stha-?) and becomes īlha in this world, and, by adjustment to the normal stem of the demonstrative, iltha here, now, aṇāltha elsewhere (aṇālahā otherwise), kaltha where? etc. This series has survived: Sgh. ela, Mar. etl, elt, Panj. iltē here Hin. il ut here and there etc.

p. 92 On this model Pali has created etto (īlah), ettato thence, ellitevātā so much.

In the magical hymn which ends the first book of the RV we find masc. iyaltakaḥ fem. iyallikā so small, quite small, derived from the neuter iyal of this dimension, cf. klyal kivat, with the suffix -aka -ikā, cf. Pa. yāvalaka- (-la- is found only in dvilā- etc.). It is the first representative of the Pali series ellaka-, tattaka-, yattaka-itàtaka- normalised in Prakrit (ellia-, jellia-, kellia-) and still alive to-day: Nep. eti, etro, Hin. iltā, iltā so much etc.; Eur. Rom. keti Nuri kītra, etc. how much?.

From the point of view of Middle Indian there is no longer any question of suffixes, but it is the first consonant which is doubled. Hence the formation of evvam thus, in Prakrit, and of ekka- one (Hin. etc., ek).

The emphatic force of gemination is vouched for by another emphasizing process used by Middle Indian in the same group
of words, the prefixing of an aspirate (the particle ha is, on the contrary, postposed). We may add to the examples given on p. 67 Guj. holh beside olh lip; Sdh. hik one etc.

Similarly forms like Hin. jab when, opposed to jo if, tab opposed to to then, represent a type *jawva *lava (yāvat lāvat). The Panj. postposition uppar, Hin. āpar, par, Eur. Rom. opre above, beside O. Mar. vari, Mar. var upon, goes back to *uppari. The same thing occurs in adverbs, Apa. Bhav. sanniū gently (šanaiḥ) Mar. muddām absolutely (Arab. mudām continually). As regards adjectives Pali already has ujju- beside uju- straight (rju-).

Like the Romance languages Bengali introduced gemination in the words for “all”, both the inherited and the learned: sabbai (sarve), sakkalai (sakala-). The list would no doubt be longer if actual pronunciation rather than script were taken into account: Mar. āḷā is now pronounced allā etc.

Gemination extends beyond pronominal stems and adverbs or adjectives which are readily made to express emphasis. A few isolated facts afford a glimpse of this tendency. Pali kaththāi Mbh. kaththale boasts, is evidently related to kathā story, kathayāi relates (the connexion with kathā, kathām is lost here). Some names of animals should be noticed (cf. Lat. uacca as against Skt. vaśā), Ved. kukkāṭā- cock (O. Slav. kokotā), lex. bukka- goat (cf. Av. bāzā). AV kurkurā- is prior to kukkanā dog, but Hin. kutā, Mar. kutrā have a geminate, which is wanting in Sogdian kul-, Īt. kulī, Bulgar. kūt (call to the kūče); similarly the word for “owl” (also “idiot”) Skt. uḷāka-, Hin. utḷā; no doubt that for “bear” bhaḷāka-, IE *bheru- cf. OHG bero as against Skt. babhru- and IE *bhrūro-, Hin. bhrā brown, and even the word for “peacock”, As. ma(j)jāla-, Shah. ma(j)jura- and Nep. mujur as opposed to Skt. maḷāra-, As. Gir. Pkt. mora-, Hin. mor.

Certain words for parts of the body are particularly affected. Pali has jaṅguka- knee; Mar. kullā and even kulā buttock, require -ḷ-, cf. Dešī kūḷām rear-guard, Lat. cūlus; Panj. cūl Ks. cōlh, Mar. Guj. Hin. cūṭ, etc. female pudenda, whatever be the origin of it (Dravidian? cf. Tam. cūḷu) all have a geminate (Dešī kōḷlo kullo neck, probably Dravidian, cf. Kan. koral kōḷa is, on the contrary, to be explained by old -rl-). Similarly Mar. seph tail, seph penis, Dešī chippa- as against Skt. śepa-; nakh nail is no doubt a learned form used to give body to the word (cf. Panj. nahū, Eur. Rom. nai). Mar. thān is also a learned word, but of unknown origin as opposed to Panj. thañ (stana-; stanyam “milk”). Finally Pkt. ṇakka-, which gives the modern words for “nose” is obscure.
But emphasis cannot explain everything: *ekka-* is understandable; but why Panj. *unniḥ* 19, opposed to Sdh. *unih* Mar. *ekuniṣ* and why Hin. Panj. *assi* and Sdh. *asī* 80 (*aṣītī-*) and Hin. Panj. *navve* Mar. *navad*, Beng. *nabbai* (*navati-*), unless perhaps there is an analogy with Pkt. *saṭhi* 60 and *sattari* 70? And why has Prakrit both *lakkuḍa-* and *lauḍa-* stick, *kīla-* and *kīla-* wooden peg? One can understand a Hin. verb *billāṇā* opposed to Mar. *vilāvīṇē* to lament (*vilapana-*) ; but why Pkt. *callai*, Mar. *cālīnē*? *Calyatī* is improbable. Similarly, Deśi has *kọṇo* corner, and *kọṇo* corner of house, side by side with each other (Marathi has *kọn* and *kon*), *talam* layer, *taḍai* and *taḍḍai* he stretches, *oggālo* and *oālo* brook.

No doubt a more general tendency may have intervened. In Panjabi a word of the type *calan* is pronounced normally almost as *callan* (according to Grierson). It seems that the spoken languages, if they appear to preserve the old geminates, do so perhaps because they like to double the first medial consonant: Hin. *loggō pe* on the people, *bāssan* pot. The question has not been studied.

Finally we have to notice the suffixes with geminates. Pali contributes *duṭṭhulla-* wicked, *affilla-* ox-bone used for massage, to which we may add *mahallaka-* from *mahad-la-*, cf. As. Delhi *mahālaka-*; these suffixes in -*ll-* have been very popular, particularly for enlarging past participles (see p. 165). The formations in -*kka-* are of great importance in derivation: Hin. *urāk* nesting on its first flight, *tarākā* disputant, Sdh. *piṇku* drinker, Ass. *thamak-* stop (*stambh-*), *banak-* decorate (*varnayati*) etc.

**CONCLUSION**

If we consider the Indo-aryan phonetic system as a whole, both in time and space, we are struck by the stability of its elements. Conservative though the orthography of the cultivated languages may be, we do not see those irreparable gaps between the written and spoken language, such impressive examples of which are provided by French and English. One may hear the Urdu word derived from the Persian *umed* hope, pronounced *u(m)mīd* and it will at once be known that the speaker is a Muslim, who prides himself on a good Islamic education, but the same man will never pronounce the *e* of a word of Indian origin as *ī*.

The reason why the phonetic system has remained stable through the course of history, is really because the principal changes were made or initiated at the beginning of that history. That is true
CONCLUSION

for the creation of cerebrals, the loss of the vowel \( r \) and the de-
occlusion of aspirated consonants. The only true innovation,
that is, the simplification of the recently introduced system of
the three sibilants, was not brought to completion in every instance
and even when it was, it was occasionally (in Marathi and Bengali)
converted into a pair consisting of a hiss-sound and a hush-sound,
the Indo-iranian formula, which seems more normal and more
stable than the tripartite grouping. Apart from these important
developments, any novelties are only partial and local, such as
the palatalisation of \( u \) in Kafir, the vowel harmony of Kaśmīri,
the dentalisation of palatals in Singhalese, Kaśmīri and (partially)
in Marathi and the appearance of recursives or of fricatives.

But even if the elements of the system remain the same, the
parts which they play have changed. \( E \) and \( o \) for a long time
past have ceased to function as diphthongs and modern \( ai \), \( au \)
are the results of hiatus and have no special morphological value.
Consonant groups no longer exist, except in recent unstable
formations. In particular the distribution of their component
parts depends on their position in the word. Vowels, which are
not in dominant position, can lose their natural quantity and
change their timbre, either by becoming closed \( (e > i) \) or neutralised
\( (i > a, \) zero) or, finally, by assimilation with the adjacent vowels
(Sinhalese, Kaśmīri). The distribution of consonants depends
less upon their etymology than upon their relative strength,
which was determined in Middle Indian by their context.

The seriousness of the morphological consequences of this new
equilibrium of the phonetic system is easily realised. The Sanskrit
system was, even if irregular, at least clear. Its vowels had a
definite timbre, a definite quantity, were capable of definite
combinations and independent of the adjacent consonants. The
consonants were more liable to variation, but their variations
were closely connected with the immediately adjoining phonemes
(except \( n \) cerebralised at a distance), the groupings of which
remain easy to analyse in spite of adjustments (except \( ch \), \( jh \),
which just because they are Prakritic are outside the Sanskrit
scheme). A phonetic system of this kind is well adapted to a
morphology the texture of which pervades the word:—its
alternations of the vowel elements of roots and suffixes and its
consonantal contacts between root and suffix, suffix and ending.
From the day on which these alternations disappeared and the
line of demarcation between the phonemes was blurred, the system
was bound to be transformed.
PART II

MORPHOLOGY
The words of Vedic Sanskrit like those of Indo-European, contain within themselves varied and complex symbols which denote on the one hand their relation to the central idea of the root and on the other their function in the sentence. The order of the words, on the contrary, has no grammatical significance. The symbols in question are the various phases of the elements composing the word and, in particular, the vowel alternations, the action of tone, which is often bound up with the latter; the presence or absence of more or less significant affixes (suffixes and nasal infixes) and finally the endings.

A certain number of alternations have only a phonological value. They are, for example, those relating to sibilants (as, ts; is, ks etc.); the cerebralisation of nasals (yana-; prayana-) and the grouping of occlusives (dadati, dalle, dehi; visah, vidbhish, vikṣu); and finally the two variants of the Indo-European labiovelars depending on the phoneme following. This last alternation has been partially eliminated in Sanskrit; e.g. opposed to Av. kō who, gen. cahyā, Sanskrit has kāḥ, gen. kasya. Kim is new as opposed to cil, Av. cil. The alternations of morphological significance affect the vowels.

The earliest known etymologist, Yāska, having to explain the word seva- (X 17), derives it from śisyate, appealing to the substitution of the noun-suffix -va- for -ṣ- on the one hand and to the guṇa or variant of the root-vowel on the other. He is therefore aware that se- and śi- are two phases of one and the same root. Elsewhere (II 1-2) he admits the regularity of the disappearance of the vowels in pra-l-lam given, from dā-; s-laḥ “the two are” from as-; ja-g-muḥ they went, from gam- and the disappearance of the syllabic consonants in ga-lam went, again from gam- and in rāja king, from rājan-. He perceives the connexion of prthuḥ wide, with prath-, of ālī- protection, with aw-. Even if he draws erroneous conclusions from these principles, and appeals to others still more inadmissible, the fact remains that he has taken into account some of the alternations, which affect roots in Sanskrit.
as in Indo-European. Later grammarians perfect his theory and recognise a long grade or *vṛddhi.

There is in fact in roots and in a certain number of morphemes a fixed consonantal skeleton with variable vowels or rather with one variable vowel, which in Indo-European took the forms of e, o, e, or zero. In Indo-Iranian, in consequence of the confusion of IE e and o with a, the phonetic system allowed only one quantitative variation, a, ā, and zero (bhar-, bhār-, bhr-).

A further complication arises from the nasals. The other syllabic consonants had r, i, u as their vowel phases, while in Indo-Iranian syllabic *ṇ and *ṇ had become a. This vowel then was the sign of the guṇa or full grade in roots with consonants and syllabic consonants, but of the zero grade in roots with nasals. The guṇa of roots with nasals was denoted by the simultaneous presence of the vowel and the nasal consonant and not by the vowel alone (ga-, gm-: gam-). As regards the other syllabic consonants, the guṇa works on different lines. E and o play the same part as ar, because they represent the old diphthongs *ay, *aw simplified and in the same way ai, au, representing *āy, āw, correspond to ār.

The combination of IE *ə with the vowel *e/o is the origin of an Indo-Iranian alternation of ā, i, zero (this last being the treatment of *ə before a vowel), e.g. plā-, pati-, pat-; mahā-m, māhi, mah-ē. This alternation was much more effectively preserved in India than in Iran, where the i in question disappeared between consonants, except in the initial syllable (pilā, but dug(ə) dā) and the long grade is generalised in the verbs: Av. stāla-, Skt. shtiṭa-, from sthā-.

When the medial phoneme in dissyllabic roots containing *ə was a syllabic consonant, contraction was produced with results which varied according to its nature: bhavī:- bhūta-; krayī:- krītā-; but pari:- pūrṇā-, dīrga-, compar. drāghīyaḥ; janī:- jātā- (jñātā-); śramī:- śrāṇī-.

The inconsistencies due to phonetic developments partly peculiar to Sanskrit, make Vedic morphology extremely complicated and consequently impair its resistance to the forces of destruction. The alternations can apply to all the elements of the word, and are balanced against each other: for example, the zero grade of one element is opposed to the more or less strong grade of the other: stāu-mi I praise, pl. stu-māḥ; acc. sān-u peak, abl. sn-ōḥ; dun(l)s, tooth, gen. dal-āḥ.

The process is disguised in nouns with the acc. sg. ending -am, for example, for -am is the substitute for syllabic *ṇ: hence dān-l-am opposed to dat-āḥ; or in a verb in which the strong root was preserved with weak forms; ād-mi, but ad-ānli.
These subsidiary complications contribute to the increase of confusion in the old system, and, as will be seen, all these alternations gradually became eliminated. To replace them a series of formations, which were already abundant in the prehistoric period, the so-called thematic formations, were used. These are those which contain a vowel, the IE o, Ind-ir. and Skt. -a-, attached to the radical (composed of the root followed by its suffixes), the vowel-system of which remains stable and the accent fixed.

The division into thematic and athematic is the key to the history of Indo-aryan and is as important in the verb as in the noun.
THE SANSKRIT NOUN

STEMS

The nouns which Vedic has at its command are largely Indo-iranian, and their formation follows the same principles and to a great extent is composed of the same elements as Iranian and Indo-european nouns.

Nouns can be simple or compound and compounds are formed by processes which date from Indo-iranian and from a still earlier date.

Vedic in fact preserves and develops all the forms of Indo-european compounds. One only, which contained a verb-form governing a noun occupying the position of second member of the compound, a construction sparingly used from the outset, disappeared after the Veda. This is the type dātivāra- giving favours, trasādasyu- frightening the enemy, and (this is Indo-iranian) kṣayādviṅa- governing men. The most important types are three in number.

Coordinative compounds (dvandva) join adjectives together; nīlalohitā- blue-black, AV dakṣiṇasayā- right and left; but especially substantives. Indo-iranian makes a kind of juxtaposition, the two terms of which are in the dual: dyāvā-prthivi, gen. mitrāyor-vārūṇayoh, cf. Av. dat. āhuraēbya mitraēbya; Sanskrit generally reduces the first term to a stem indrāyā, and then makes a plural of the whole under pressure from the meaning: aho-rātrāni day and night(s) or a collective neuter: iṣṭāpūrtām sacrifice and gifts, AV. kṛtākṛtām what is done and not done.

Determinative compounds (tatpuruṣa) express various dependent relations rather than those of apposition or qualification: vṛṣākapīman-monkey, pūrvā-hūṭi- morning invocation; viś-pāli- master of the house, gohan- killer of cows, Av. gaojān-. The second member often assumes special forms in compounds: havir-ūd-eating the oblation, vāsu-dhīti- possessor of property, loka-kīṭp. 106creator of space, cf. Av. nasu-kārōl- set over corpses. Absolutives
or participles properly so-called are not found in this position, but the verbal in -ta- is common: gōjāta- born from a cow, āharjāta-born in the day, cf. Av. haḍo-zāta- born with, near relative. The first member sometimes retains its ending: abhayaṁkarā- reason for security, cf. Av. vīrman-jan- man-killer; divikṣit- living in heaven. The first type, which provided a valuable rhythmic device, when several short syllables succeeded one another, was amply developed in Sanskrit.

The possessive compounds (bahuvrīhi), by the richness and great flexibility of their use, were a great and original feature of Sanskrit composition: rāja-putra-, having kings for sons, āśva-pṛśṭha-borne on horse-back; AV yamā-śreṣṭha- of whom Yama is the best, pālī-kāma- desiring a husband; cf. Av. hazaṁra-gaṇa- he who has a thousand ears; and with a governing preverb anu-kāmā- according to desire, āntar-patha- being on the way. Sanskrit creates a special type the first term of which is a verbal in -tā- which goes so far as to govern the following noun like a verb: prāyata-dakṣiṇa- he who supplied the pay; classical literature makes great use of this type, as an equivalent for relative clauses.

Bahuvrīhis readily accept suffixes, which have no special value (sāmaśānta); prātyardhi- he who receives half, suhāst-ya with fine hands, mahāhaslin- with great hands, saṃgav-á- time of the assembling of cows, trikadrā-ka- with three ewers; cf. Av. daunrā-maēši with black ewes, hu-raīṭya- with the fine chariot, urv-āpa- with salt waters. The three last types were extended more and more, and the last two in particular strengthen the general tendency towards thematisation. In fact, the use of the -a- suffix was indefinitely extended beyond the bahuvrīhi class and tended to be extended still more either by elision of a final consonant: ṣaḍahā- duration of six days, or, more often, by enlargement: urā-ṇasā- broad-nosed, pūrvoāhne in the morning. This allowed all kinds of complex relations to be expressed in a simple and normal manner.

The frequency and the dimensions of compounds in the Veda are almost the same as in Homer. They multiply enormously in the classical language, but that is a use which concerns style and not the actual history of the language. It is explained, no doubt, by the taste for loose logical relations and static pictorial grouping. So far as form is concerned, these long compounds make for reduction in the number of the complicated Sanskrit inflexions; but this last reason is true only so far as authors, who took pleasure in parading their grammatical knowledge, might have to humour audiences, to whom Middle Indian was by this
time archaic and relatively complicated. However that might be, Aśoka's Middle Indian, for example, and the modern languages show that the use of compounds was rather restricted.

From the point of view of the formations of stems, the second terms of compounds, which are in principle the only terms capable of being treated, are treated as simple.

Of the latter some root-nouns have preserved the old alternations: nom. pl. āpāḥ, gen. apām (Av. āpō, apqm); acc. sg. pādam, gen. padāḥ (Av. pādem, padō); nom. sg. bhrūḥ, gen. bhrwāḥ (Gk. ophrūs, ophrūos); nom. sg. kṣāḥ, gen. jmāḥ and by analogy kṣmāḥ (inversely Av. nom. zā with the consonant of zemō); gāuḥ, gām, gen. pl. gāvām (Av. gāus, gqm, gavqm); śvā, śvānam, gen. śuṇaḥ (Av. spā, spānām, sūnām); dāḥ, dat. -dé (cf. Av. pl. dāṁhō) etc. The alternation is lost in vāk, vācam, instr. sg. vācā as against Av. vāxs, vācā; in bhrāḥ (agent noun), instr. bhrājā (noun of action). It has been wanting since the Indo-Iranian period in viś- (Av. viś, O. Pers. viθ-), kṣap- (Av., O. Pers. xšap-) and from the Indo-European period in mās- (Av., O. Pers. māh-). These nouns are only rarely and incompletely attested. The nom. sg. in particular is rare: nāk is met only once as against acc. nāktam (adv.), dual nāktā; but for the gen. sg. āsāḥ (AV. ānḥō), the nominative is āsāya (Lat. ās). The instr. sg. rucā, dat. rucē, nom. acc. pl. rucāḥ are opposed to Lat. lūx; gen. sg. vanāḥ, vānas-(pāti-), pl. vanām have nom. sg. vānam wood; gen. sg. hṛdāḥ etc. are opposed to hṛdayam and hārdī; nom. acc. pl. udā to sg. udakām; and dṛśi dṛśe infinitives. Many exist only as the second terms of compounds: saṁvadhā-, pūrvajā, vrtrahān-, daksināvṛt- and infin. avṛte, parisād and infin. asādam āsāde, garlārūk and infin. ārūham etc. Finally, the scope of this class of word is limited by the systematic use of the -t- enlargement after verb roots in i u and r like jil-, vṛ-, bhṛt-, -stut- (Av. -bṛt-, -stūt-); similarly after other than verb stems: k preserves short r in ārūk (Lat. assēr), with -t- as a variant, when gutturals are present in yākt-, Av. yākara; sākt (but ūdhar, svār).

In fact, the greater part of the vocabulary is made up of nouns, where the root is furnished with suffixes, which may moreover be complex or be added to words already possessed of suffixes and bear more or less conspicuous special meanings, some for example denoting participles or comparatives and others being mere enlargements.

The radical (root with suffix) of derived nouns is often correlated with the suffixation. Secondary derivations in particular may
be accompanied by *vṛddhi* in the beginning of the word: *saumanásam* state of *sumánas* good will, cf. Av. *haomanañham*; *sāplam*, *sāpālām* group of seven (*saplá*); *pārthavá-, pārth(i)jyá* descendant of Prthu, Prthi, cf. O. Pers. *mārgava* inhabitant of Marguš, Margiana. This is an Indo-european and Indo-iranian process, disguised in the Avesta by secondary shortening, but developed very fully in Sanskrit, including that of the learned prose of modern languages.

The list of suffixes is to a large extent the same as that of Iranian as regards form and function.


Comparatives: *vās-yas-* better, Av. *vaṁh-yah-*; *svād-iyāms-* (nasal for strong stems is peculiar to India) *svād-īyas-*., cf. Gr. *hēdiōn*.

Possessive adjectives; one rare: *maghāvan-*, Av. *mayavan-*; *rāvan-*. Av. *aśavan* pious; the other common: *putrāvant-*, Av *putravant-*; *mādhumant-*, Av. *madhumant-*; with a somewhat different value: *tvāvant*, Av. *ṭwāvant* like thee, *tvant-tvāvant* as great. This type has been used to form a new participle in Sanskrit: *kṛtavant-* (Av. *vīvarṣadavant-* is the only Iranian example of this formation); *-in-*: *maṅśīn-* wise, cf. Av. *parṇīn-* winged.

Formations giving agent nouns, adjectives and action nouns, which are capable of forming infinitives or abstract nouns as, for example: *sṛvās-* Av. *sṛvah-*; *suśrāvas-, Av. *haosravah-*; *jñāti-* relative; *pīṭi-* drink, functioning as an infinitive *pīṭaye* to drink, cf. Av. *korośe* to do, *dāśim* to give.

*jāntū-* creature, man, Av. *zantu-* clan; *gātū-* road, Av. *gātu* place; this suffix has supplied dative infinitives in *-tave*, accusatives in *-tum*.


So much for the living suffixes. For just as a certain number of words, which can be explained by the same formation, cannot from the Sanskrit point of view be analysed: *āśman-* (Av. *asman-*, Gk. *ākmōn*); *uśás-* (Av. *uśah-*), so a certain number of suffixes appear only in established words and are non-productive.
This applies particularly to those in -i- and -u- (apart from -ti- and -tu-), except the derivatives of verb stems like jīgisū- wishing to conquer, pṛlanāyū- pṛlanyū- enemy Examples are: pāṭi master, Av. pālī-, Gk. pōsis; inf. -nāme bend, cf. Av. námōi, to fly; pāthi-, Av. pāthi- (alternant); sākhyē dat. friend, Av. haše alternating with sakhā, Av. haxā; purū- much, Av. paurū-, Gk. polūs; bāhū- arm, Av. bāzu-, Gr. pēkhūs; sūnū- son, Av. hunu-, Goth. sunus; complex forms: ārmī- wave, Av. varmī-; ghīnī- heat, cf. Av. saēnī- point; kṣipanū- dart, cf. Av. pāsanu- dust.

There are other old complex suffixes: parṇin- winged, Av. parṇin-; sarvālāl- (whence sārvatāli-) totality, Av. haurvalāl-. The majority are restricted to words or groups of words inherited from Indo-Iranian and are without vitality: prālar-ilvan- guest of the morning, cf. Av. ērō Paran- making succeed, ēyū- beside ēyu-, Av. ēyū, loc. ēyunī, cf. Gk. aīs and aién; manyū- anger, Av. mainyu- mind; mṛtyu- death, Av. mṛṇyu-.

The most widespread and earliest of the suffixes is the thematic vowel. The original meaning is still clear in certain cases: vāra- wish, choice, Av. vāra-, -vara- opposed to vṛṇīle he chooses, Av. vṛṇnē I choose; the meaning is sometimes distinguished by the accent, according to the Indo-European rule: vāra- choice, varā- claiming; śoka- flash, śokā- shining. But the connexion is obscured in dāsa ten, daśama- tenth (Av. dasma-, cf. Lat. decem, decimus) and there are particularly no traces of derivation in many inherited words such as āśva- (Av. aspa-) horse, vyka- wolf (Av. vyhrka-), deva- god (Av. daēva-); hastā- hand (Av. zasta-); pronouns: eṣā, etā-, Av. aēṣa-, aēla-, adjectives: dīrghā- long, Av. darēyā; anyā- other, Av. anya- etc.

In point of fact -a- is used as much as an enlargement as a suffix, if not more so. For example pāḍa- māsa- bhrājā appear so far back as the Rgveda coexisting with the corresponding athematic forms. Further, as we have already seen, -a- is optionally affixed to compounds, especially to possessive compounds (saḍaksā- with six eyes, urūnasā- snub-nosed) and collective nouns (samudrā- ocean).

This formation extends further and further to the detriment of athematic formations. The invariableness of the radical and the stability of the accent (except in the cases with an adverbial value: daksīṇa on the right, from daksīnā-) favour it and feminines in -ā or -ī can easily be formed. We should also note the numerous cases in which thematic -a- develops from the zero grade of an: viparva- memberless, deva-karmā- performing religious worship;
adhirājā- supreme king. This prepares for the transformation of these stems into thematic stems, cf. TS alomāka- without hair. Further from the very beginning the thematic vowel characterised a number of suffixes of Indo-iranian origin and was readily extended to the others.

The following thematic suffixes are ancient and significant: Athematic middle participles in -āna-: dādāna- (Av. daṭāna-) giving (without a middle meaning; Benveniste, BSL, XXXIV, p. 18), on which those of the thematic verbs in -māna-, Av. -mna-; icchāmāna- desiring, Av. isṃna- are modelled in Sanskrit.

Verbal adjectives expressing a state in -lā- (śrutā-, Av. sruta-, bhṛtlā-, Av. bṛṣṭa-) and -nā- (pūrṇā- Av. pṛṇa-); expressing possibility or obligation in -ya- (dārś(i)ya- visible Av. darsya-, mārt(i)ya- mortal man, Av. maṣya-) and -lōa- (vākt(u)va- to say, Av. vākṣāva-), -la- (yajalā- worthy of sacrifice, Av. yazala-): these two last formations have, however, disappeared in India, while the first attracted to itself the forms in -aniya- -ayya- -eyya- and alone survived.

Superlatives in -iśṭha- derived from the comparative suffix -yas with the suffix of position -tha- (saptātha- seventh, Av. haptaña-); vāsiśṭha- very good, Av. vahiśta-; superlatives in -lama- (sāttama- excellent, Av. hastama-) with a suffix expressing position in a multiple group (āntama- Lat. intimus, Av. antśma-). There are similarly specialised comparatives of adjectives expressing opposed pairs with the suffixes -aras (Lat. -erus), -taras (Gk. -teros): adharas (Lat. inferus) under, uttaras upper. These formations, vigorous in Sanskrit, are already being replaced by the positive in Middle Indian (Pesch. 414, v. p. 186).

Nouns of instrument or object: śrōtram ear, Av. sraoṃ; māṇtraḥ magic formula, Av. māṭrō; the formation of kṛṇṭātra-chip, on a present stem proves the vitality of the suffix in the ancient period; but it is no more than a survival in the classical language.

Nouns of action and abstract nouns in -na-: yajñāḥ sacrifice, Av. yasnas-cā; sthānam residence; O. Pers. stānam; samāraṇam battle, O. Pers. kamaranam. The neuter series, more and more productive, provided an equivalent of the infinitive in Sanskrit and the infinitive itself in some of the modern tongues: kāraṇam act, Hin. karnā to do. Abstract nouns in -lōa-: vasūtvā- excellence, Av. vanhuṭva-; and -lōa-na-: vasūtvana- cf. Av. nāriṭwana-status of married woman.

Among other suffixes serving principally to denote derivation; -ya- is very frequent and varies in use (salyā- true, hiran yāya-
golden, svarájya- autocracy; participles of obligation, see above). The most important of all is -ka-, not because it is found in old words (śūśka- dry, Av. huśka-; asmákm our, Av. ahmākm), nor even because of the ease with which it makes adjectives (ánlaka- finishing, derived from a noun, ekaká- alone, derived from éka- one), but because very soon it serves as a meaningless enlargement: sanaká- old, like sána-, vínaká- hero, like víná-, dūraké far, like dūré, muhuké suddenly, like múhu, and even yaké like yé those who, and as a consequence VS asakáu like asáu (Renou, Studia indo-iranica, p. 164) in which its function as a simple enlargement, unable to determine the inflexion, is well marked.

The importance of this enlargement, under the forms -aka-, -ika-, -uka- (in which, moreover, the stems in -n- -r- -in- are absorbed) merely increases in Middle Indian and one of the two great categories of modern stems proceeds from it.

It should be remarked that probably there must have been, beside these forms, popular forms with a long vowel, which are attested more clearly in Iranian; *paváka- is the required scansion of pāvaká- in the RV (it is true that according to Brugmann it was formed after the fem. pavá flame, and so differed from the Av. type maśyáka- man, but even in this case it seems that the change of rhythm may be explained by the dislike of a form with a popular appearance). Note also the names of animals maṅjaká- frog, úláká- owl, pṛdáku- snake, VS valmíka- beside RV vamráká-, vamrī- (note the popular t). Moreover, other Sanskrit suffixes have optionally a long penultimate vowel: -ula- -alu- -āru- -īna- etc. They must also have been affected by rhythmic influences.

The thematic vowel and this latter group of suffixes are frequently met with in compounds. Besides the tendency to morphological simplification which occurs in compound as in single words (goghná- killer of cows, as against gohan), they have also the faculty of marking the adjectival character of the whole: śalá-sárada- of a hundred autumnns, urú-nasá- snub-nosed, vi-manyuka- without anger.

An important category of suffixes is that which serves to make feminines. They derive from Indo-european -ā, -ī and in the vowel stems at least tend to form pairs with the masculines. As regards the guttural enlargement, it is noteworthy that the usual feminine of -aka- is -ikā. Varliká quail, as opposed to varlikā, stands out as a dialecticism, cf. Pa. vaḷḷakā (S. Lévi, J. As. 1912, II, p. 512).
The thematic nouns have, as we have seen, an invariable stem; the athematic nouns, on the contrary, which are still numerous in the early period, admit of complicated variations, either in choice of stem or in vowel grade or, finally, in accentuation.

I

The personal pronouns and certain demonstrative pronouns had regularly since the Indo-European period a special stem for the subjective case of an animate being; *ahām: mām, māma sā, sā: lād, lāsya, lē, etc.

An archaic group of substantives, especially neuter substantives, has similarly a nasal stem in the oblique cases which are opposed to or are an addition to the stem of the nom.-acc.-sg.

(i) Direct case in -r:

- *āhar: ahnāḥ, gen. pl. ahnām (Av. asṇam)
- *āśk: asnāḥ (Hitt. ešhar, ešnaš)

Similarly *ūdhar, *yākṛt (cf. Lat. iecur: iecin-), *sākṛt.

The word for “water” which must have belonged to this category has thematised its direct case: *udakām: udnāḥ (cf. Hitt. walar, weleṣnaš; Umbr. utur, abl. une).

(ii) Direct case in -i: *ākṣi, dual *ākṣi (Av. aṣi), cf. nom. anāk blind (the -s- enlargement is Indo-Iranian, cf. Lat. oc-ulus, Skt. āṅikam prāṅikam face, and the series of adjectives nīcā- low, etc.):

- gen. sg. *akṣnāḥ.

Similarly *āślhi (cf. Av. ast-vant-, Lat. oss-), sāktli, dāḍhi, hārdi (cf. Gk. kér).


Similarly TS *yāḥ (Lat. ius), Rv. yūṣnāḥ; *dōḥ (cf. dāoṣa-), AV dual dōṣāṇī.

Thematised nominative (cf. *udakām, ṣṭdayam, vānām opposed to gen. pl. vanām etc.): *āsyām (Lat. os): RV āsnāḥ more frequent than āsāh (Av. ānhō and ānhānō); while instr. āsnā is found once as against āsā which is quite frequent.

(iv) Enlargement by -n- of stems in -u (dāru: drūṇāḥ beside
draly): this is Indo-european and dominates the inflexions of these nouns in -u and -i, cf. Gk. dörú; dórělos; but Av. dáuru: draš.

The alternation masc. -n-: fem. -r- is met with in animate nouns, especially in certain adjectives (pívān: pívarī like Gk. piōn: pieira) and also the only forms corresponding to the Latin declension of sedēs: sedis in pānthā-, pāthi- (Av. pālā; gen. sg. pāthā, O. Pers. acc. fem. pāthim, cf. Meillet, in Indian Studies.... Lanman, p. 3).

We perceive in these groups very old remnants (which can be increased in number, if we have recourse to derivation and etymology) partly adapted in new ways.

II

Vowel alternations affect the element (of the root or suffix), which precedes the ending. There is even in the endings of certain stems an alternation complementary to the first; thus for two stems in -u-, gurōh, div-āh.

Indo-iranian having replaced the Indo-european alternation e:o by an alternation of quantity, distinguishes strong and weak cases in the declension. The strong cases are the direct cases (nom. acc.) of the singular and dual; the animate nominative is strong in the plural; the nominative-accusative of the neuter nouns can be strong or weak: nāmāni (Av. nāmqn) and nāmā in which from the Indian point of view there still remains a long vowel.

Sanskrit shows two more types of alternation in stems with the syllabic consonant:

In the genitive singular there are complementary alternations of the radical and the ending: vásoh (Gath. vañhōuś), but pāsv-āh (Av. pāsvō);

In the locative singular a short vowel precedes r and n: netārī, āhan and āhan-i; stems in -i- and -u- have a long vowel and zero ending: vasādū (Av. vāñhāu), girā (Av. gara).

Indo-iranian has ā: a: zero in several cases, in which Indo-european had the alternation o: e: zero. This made it possible to set up triple alternations in animate stems with a syllabic consonant:

vrtrahā (*-jhān) Av. vṛṭhrājaś (*-jhās)
vrtrahānām vṛṭhrājanēm
vrtraghānāh vṛṭhrayānō

The triple alternation dates from Indo-european in pilā (Av. pīla, Gk. palēr), acc. pilāram (Av. pītārem, Gk. palēra), dat. pitrē (Av.
fsdr̥î, pi̯r̥ē, Gk. patri; ukṣā, ukṣāṇam (Av. uṣ̄ṇaṃ) and ukṣāṇam, ukṣānā (Av. uṣ̄ṇā); but as against vṛṣā, vṛṣṇaḥ, vṛṣaṇam, Avestan has arṣa, arṣnō and the accusative with the long vowel arṣāṇām.

Occasionally the third grade appears only in the vocative: sākha (Av. haṣa), sākhaiyam (Av. -haṣāim); voc. sakhe: instr. sākhi(i)yā (Av. haṣa); pūmān voc. pumaḥ Class. puman, gen. pumṣāḥ, acc. pumānsam; cikitvān, cikitvāḥ, cikitūṣaḥ.

In the case of the nasal, the zero grade induces a vowel or a consonant according as the ending begins with a consonant or vowel; hence a triple alternation again in: śvā (Av. spā), acc. śvāṇam (Av. spāṇam), gen. śuṇ-ah (Av. sūnō), instr. pl. śvā-bhīḥ.

Finally with alternation of the suffix: pānthāḥ (Av. pantā), pāthāḥ (Av. paṭō), pāthibhīḥ (cf. O. Pers. acc. fem. sg. paṭīm).

Generally the tendency is towards a double alternation; one may have: Long grade: zero; e.g. -dhāḥ: -dh-e, -pā-h: -p-e (Gath. infin. pōī); tārah (Av. stārō); stībhīḥ (cf. Av. stōrōbyō); doḍraḥ: durāḥ (here Iranian has Av. dvārōm, which is ancient, cf. Lat. forēs); nāpālam (Av. napālam): nādbhyaḥ; hārdi: hṛḍāḥ (cf. Av. zorādā).

Long grade: a grade. This occurs in stems with a diphthong like gāuḥ, gām (AV. gāuṣ, gqm), gāvām, gōbhīḥ (Av. gaʊqam, gaobis); and in nouns in which the zero grade would be impossible; āpāḥ, acc. apāḥ, gen. apām (Av. āpō, apō, apām); āṅgirāḥ: gen. pl. āṅgirasām; dual nāsā (cf. O. Pers. acc. sg. nāham): nasōḥ.

A grade: zero. Found in participles not reuplicated: bhāvanālam: bhāvātalāḥ (but there is a nom. neut. pl. RV. sānti) and similarly bhānālam: bhāhātāḥ (Av. bārzantām, bārzalō); śrāyāḥ: trībyāḥ (Av. trāyō, trībyō); acc. nāram dat. nāre: nṛbhīḥ (Av. nārōm, nārōt, nṛṛbhyā-s-ca). Under the influence of the present of the verb, a nasal is introduced into the stem yuj-: the result is an alternation comparable rhythmically to that of a: an. So while RV has instr. yujā, gen. yujāḥ, nom. pl. yujāḥ, there are the strong forms: nom. dual yuṇaḥ beside yuṇā, acc. sg. yuṇajam once beside yuṇam fifteen times; VS nom. yuṇ (for *yuṇkṣ). This process is not unknown elsewhere. Beside Lat. coniui(n)x, we have Avestan gen. ahūmarōṇēdō from nom. ahumarmeṣš he who destroys life, cf. mṛaṁcaille.

In a general way alternations appear in the same morphological categories in Vedic and Avestan. There are even isolated remains which complete or correspond to one another. For example, opposed to the dat. pl. nādbhyaḥ from nāpāl, Avestan has gen. sg.
Alternations

**naptō, loc. pl. nafšu;** Vedic has nom. sg. vēh, Avestan yaoš. But the parallelism is not complete; thus the assignment of the -i morpheme to the direct sg. case of the neuters is an Indian novelty. Alternations are often destroyed, as in the acc. sg. and nom. pl. In the acc. pl. we find āpāh and the two stems ušas-, ušās-indifferently. Vāh regularly preserves its long vowel through each inflexion, while the Gāthās have nom. sg. vāxš, gen. vaĉō; sānu-is extended to the weak cases by the side of snu-; we have instr. kṣamā beside jmā; gen. nāraḥ is opposed to Av. nərṇā; gen. sūraḥ from svār-is like Av. hūrō, remodelled after the general type of the flexion, while Avestan alone preserves the alternation r: n in Gen. sg. xvōṅg. There is, therefore, something else in the Vedic complexities beside the mere continuance of former conditions.

III

In a large number of Vedic nouns, the tone remains in the same place throughout each inflexion (gāuh, gāṃ, gāvām); elsewhere it moves from the radical to the ending: āpāh, apām; pādam, padāh; masc. mahāh, neut. máhī, gen. mahāḥ; paśūḥ, paśvāḥ.

The principle of balance of accent goes back to Indo-European, although there was not always continuity of detail. Kuryłowicz has succeeded in discovering cases of agreement with Avestan, where the accent left traces in the *timbre* of the vowel:

<table>
<thead>
<tr>
<th>Case</th>
<th>Vedic Form</th>
<th>Avestan Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>gen.</td>
<td>vāsoḥ</td>
<td>Av. vaṁhōuṛś</td>
</tr>
<tr>
<td>dat.</td>
<td>vāsava, Av. vairavē</td>
<td>but mahē, Av. mazōi.</td>
</tr>
</tbody>
</table>

But here even when verification is possible, agreement between Indian and Iranian is not always complete. Moreover doublets like pāśu- and paśu-, máti- and māti- are sufficient to show that Vedic has lost certain prehistoric alternations.

From all points of view, therefore, Vedic presents a stage, which is archaic in appearance and preserves real archaisms. But the old system is not entirely reproduced in it and novelties are apparent. Only the later history makes it clear whether these remodellings are signs of vitality or decay.
INFLEXION

The forms and distribution of Sanskrit and Iranian endings are in the beginning almost identical (for use of forms see p. 150).

**SINGULAR**

**INANIMATE NOM. ACC.:** In the thematic nouns, the ending is -m: kṣatrām (Av. xśaṭrəm). In the athematic nouns, the ending is zero: mādhu (madu), svār (hvarə), mānaḥ (manō), mahāt (mazat). There is absolute agreement.

**ANIMATE NOMINATIVE:** Where the alternation is sufficient to distinguish the nominative from the accusative, the ending is zero, according to the Indo-European rule: pitā (pila), śvā (spā), sākhā (haxa), and by analogy hastī (there is no corresponding Iranian form). Everywhere else, the ending is -s: vṛkāh (vohrkō), girīḥ (gairiś), krātuḥ (xraluś), pānthāḥ (panlā); similarly in the monosyllables gāuḥ (gāuš), kṣāḥ (zā), rāh, gīḥ, bhṛāḥ, dhēḥ, vēḥ.

In the derivatives with the *-yā *-wā suffixes in their zero form, there is still śvāsrūḥ (Lat. socrūs); but Av. tānuḥ opposed to acc. tanum), and both types in napāḥ and devā. Even the Gāthās of the Avesta have borsaṭi (Skt. brhati) and dāhi (cf. Skt. jānitrī); O. Pers. has habarvatiš opposed to Av. vāstravitā.

The loss of elements other than the first in final consonant groups is the reason why Sanskrit has from the beginning many fewer cases of final -s than early Iranian. The nominative of consonant+sibilant stems has therefore no characteristic ending: vāk (Av. vāzš, Lat. vox); spāl (Av. spāš, Lat. -spex), vīl (Av. viś), (ṛl)jāyuk (Lat. (con)jux), pāl (Lat. pes), āpān (Av. aṇqš) for ṣānikš; present participles like sān (sānā before a vowel; in the Vedas the -s is used before a word with initial l; Av. haṣ); perfect participles like vidvān (Av. vidvā, Gk. eidos); adjectives in -vant as tvāvān (Av. ṭvāvās, cf. Gk. -Feis); comparatives like vāsyān (cf. Av. spanyā) are purely Indian remoulded forms.

**ANIMATE ACCUSATIVE:** -m for vowel stems: āsvam (Av. aspəm), krāltum (Av. xralām), kṣām (Av. zqm), gām (Av. gqm); -am as in Iranian (cf. Gk. pōda) in the others: pādam (Av. pādam), sōdām (Av. spānəm).

**VOCATIVE:** From the Indo-European period this is characterised by the absence of inflexion (abnormally, the final vowel is lengthened), and, when there is an accent, by the accent on the first

**INSTRUMENTAL**

Vedic, on the whole, reproduces the Indo-Iranian stage the ending being -ā. Consonant stems: vācā (Av. vaça), padā (Av. pāda), mānasā (Av. manaṅha), jmā, ksamā (zomā), vrtaṅghā (vṛṣṭṛbrahya).

Thematic stems: yajñā, cf. Av. zaslā, but this form is rare, particularly in the masculine; stems in -ā: suvāhā, jihvā (cf. Gath. daēnā); besides which Indo-Iranian is already using the type jihvāyā (cf. Av. daēnaya); stems in -i and -u: sākhyā (Av. haṣā), krātā (Av. xraśwa); Indo-Iranian already had the type cītī (Av. čišti), but the word corresponding to xralā is missing in the regular Indian declension.

In vowel stems Sanskrit has new creations, all attested by the Vedas and soon to replace the earlier forms in the classical period. The lengthening of the final vowel gave rise to much ambiguity, such as confusion with the dual, the neuter plural and even the nominative singular. Moreover, Sanskrit has tended to give body to the endings of vowel stems, because of the relative weakness of final sounds or for other reasons.

Its new instrumentals were formed by means of -n- and from the time of the Rgveda -ena is much commoner than -ā in the thematic stems. It is the only ending in the Brāhmaṇas. Only the endings -yā and -ā are by the feminines of the -i and -u class and so take a place beside -ayā. Both endings are permissible for the masculine and neuter, but the one containing the nasal is preferred.

**DATIVE**

The characteristic ending in Indo-Iranian is *-ai*; so we find in the consonantal nouns bhālē (Av. boroṣaile), pitre (Av. piṭre) vāsāve (Av. vaṅhave). In the thematic stems Sanskrit has the contracted diphthong of Av. ahūrāi only in the pronouns (asmāi, Av. ahmāi); the normal form is āsurāya, which is not definitely an Indian innovation, cf. Gath. ahūrāi ā and even in one word yālāyā to the goal, but its generalisation is peculiar to Sanskrit.

In the feminine, Skt. devyāi and Av. vaṅhuyāi agree; also Skt. sūryāyai and Av. daēnayāi, where the difference in quantity of the medial a is merely graphic or results from a subsequent readjustment. At all events Sanskrit agrees with Iranian in employing the element -āy- in all the indirect cases of the singular except the instrumental.
Genitive: In the consonant stems, both in Vedic and Iranian we find *-as on the one hand: apāh (Av. apō), vācāh (vačo), krātvāh (xraṭwō); and on the other hand *-s after a gunated vowel: girēh (garōiš) dyōh (dyaoš) (pālīr) dān (cf. Av. dōṅg pailiš). The root is in the zero grade in nouns in -ar; pītūh (cf. Av. nārōš, but Skt. nāraḥ has been re-formed). The same ending occurs in nouns with a final long vowel: bhātlyāh Av. bherzāyā; jihvāyāh, cf. Av. daēnayā. The correspondences are not carried out in every detail. So paśvāh answers to Av. paśūš. In thematic stems: āsurasya (Av. ahurahyā).

Ablative: Indistinguishable from genitive except in thematic stems. Sanskrit has here been more conservative than Avestan, which in its later stage has extended the final dental to other stems.

Locative: In consonant stems the ending is -i: mānasi (manahi), nāri (nairi), viśi (viši, visya), lanvi (lanvi). This -i combined with thematic -a-, gives -e: dūre (duirē; dūraēča), hāste (zaslay-a).

This -i was originally a suffixed particle and the uninflected locative still exists extensively in Indo-iranian. The latter is found with the former in n stems: āhan (cf. Av. ayn), ājman (cf. barsman); in i and ā stems: nādi, lanā (one example; Av. lanvi only =RV lanvi 7 exx.); in isolated adverbs like parut (cf. Gk. pērusi) and with yet another vowel grade in the i and u stems.

In u stems, although one would expect -o as in Av. pārdā at the entrance, gādhav-a, Sanskrit has only -au, Indo-ir. -āu (except perhaps for the solitary sāno preserved in a formula): vāsau like Gath. vārīhāu, beside which occurs Av. vaṇuh, while, conversely, Sanskrit has dāsyavi opposed to Av. dainhō, daiṁhava.

In i stems the expected *-āi is missing. There is only the phonetic doublet -ā; agnu, srutā, cf. Av. gāra, aibī-darślā. This -ā is supposed to have been also a doublet of *āu in u- stems, which gave rise to Skt. -au (-āv before a vowel) in agnāu, girāu, iślāu; cf. also Av. garō in Iranian.

In feminines with long vowels Indian has also an ending -ām: sārasval(i)yām (O. Pers. harahuvaliyā, ūvaṣru(v)ām, usrām, grīvāyām (Av. grīvaya). Only the vowel is Indo-iranian; a nasal is affixed in Sanskrit as in the dual -bhyām opposed to Av. -byā.

Dual

Nom. Acc.: Indian is in complete agreement with Iranian.

For inanimate nouns the ending is -i: aksiš (aši); satē (saite); so for the feminines in -ā (formerly collective nouns) yame, cf. Av.
urvaire; ubhé (Gath. ubē). Animate nouns with a short vowel lengthen it: putrā (putrā), bāhā (cf. mainyā; but also bāhāvā, Av. bāzava), pālī (cf. Av. gairī); so for stems in -ī like devī (cf. Av. aizī). Animate consonantal nouns and those in -au as endings, according to what follows in the sentence; ā is dominant: nāsā (nānha), nārā (nara), śvānā (spāna), pādā and pādau (pāda and pādo), pīlārā and pīlārav (pīlara), bṛhāntā (bṛrsvanla). In the same way thematic nouns have -au beside -ā: hāstau and hāstā (zasto and zasla, although the former does not correspond to hāstau).

Instr. Dat. Abl.: The normal Iranian ending is O. Pers. -biyā, Av. -byā, in place of which Sanskrit has -bhyām; pūrbhyyām (cf. Av. nārbyā). The nasal is twice attested in the Avesta in the same word (brvālbyqm). It is doubtless of Indo-european origin; so that in the process of separation from Iranian, Sanskrit has simply developed an Indo-iranian ending. Thematic nouns have a long vowel preceding this ending. Iranian has ordinarily a diphthong: hāslabhyyām, Av. zaslāibyya, O. Pers. daslāibyya. Iranian has the type dōibrābya only in the neuter. Here it is a question of independent systematisation.

Gen. Loc.: The Sanskrit ending -ōḥ seems to combine the endings of the Indo-ir. loc. *-au, Av. -ō and of the gen. -ās, Av. -ās, -ā (Benveniste, BSL, XXXIV, p. 25).

Plural

Nom. Acc. Inanimate: Vedic and Iranian here diverge. Avestan has only a few instances of the ending -ī (Gath. sāxvānī, cf. saxvārā), which is normal in Sanskrit: calvāri, mānāmsi (Gath. manā). Conversely, the zero ending common in Avestan, has left only rare and doubtful traces in India. The two languages agree only in the vowel stems, in the sense that Vedic preserves a certain number of long vowel endings, like Iranian: kṣatrā (xšabrah), trī (tri), purā (pourā), similarly in the nasal stems: nāmā(nqma).

But an innovation found in these nasal stems discloses a very important principle. At the outset Indian had nāmā, nāma and nāmāni like Iranian (nqma, nāmqn and perhaps nāmōni). These forms have resulted in the types kṣatrā and kṣatrāni, the latter of which is almost as common as the former by the time of the Rgveda and is often associated with it by a deliberate trick of style. The AV proclaims the triumph of the new form and the type is extended to trṇī and purāṇī.

Further, Sanskrit has from the first extended the medial nasal
of the śánti, ghṛṭavānti type to the stems in -s: mánāṃsi (cf. Gath. manā), havāṃsi. The result is that the nasal consonant or infix subsequently served as a characteristic of the direct case of the neut. pl. while the long grade of the penultimate syllable, the inherited form, drops out of use: hence AV brānti; Br. -vṛnti; -aṇci, -yuṇi).

**Animate Nom.:** Here Vedic is very conservative: -aḥ after consonant stems and stems in the *e* grade: āpāḥ (āpō), girāyāḥ (garāyō), dhīvalaḥ, cf. Av. drēgauni; -āḥ in themetics and feminines in -ā: ásvāḥ (aspa), sēnāḥ (haēna, cf. urvarā); and similarly brāhat (bṛṣatilīś); masculines in -a- have, in addition, an archaic enlargement: ásvāṣaḥ (aspānhō), which Vedic has extended to certain feminine adjectives: durmitrāṣaḥ.

**Animate Acc.:** Athematic stems: -aḥ = Av. -ō, as a rule after weak stems: apāḥ (āpō), dhīvalaḥ (cf. drēgauni); śūnāḥ (but spānō). The vowel stems perhaps go back to a single Indo-iranian form, but diverge to some extent: már(i)yān (Gath. maśyōṅg; Av. maśyaś-ca, Skt. -aṃś ca); sēnāḥ (cf. urvarā) and similarly vāsvīḥ (vānuhīś); but girīn, krātūn again gairīś, xratūś.

**Instrumental:** Skt. -bhīḥ = Av. -biś. In thematic stems, -ebhīḥ and -aḥḥ compete with one another: már(i)yāḥ, már(i)yebhīḥ, Av. maśyaiś, O. Pers. marṭiyaiividḥ (this is the only ending in Persian; it is almost entirely absent in Avestan).

**Ablative:** Skt. -bhyāḥ = Av. -byō.

**Genitive:** Here again Vedic reproduces the Indo-iranian stage. Consonant stems: -ām = Av. -qm, which is often disyllabic: apāṁ (apqm), bṛhatām (bṛzatām). Vowel stems: -nām = O. Pers. -nām, Av. -nām: márlyānām (maśyāṇqm, cf. O.Pers. bagānām), urvārānām (cf. zaorāranqm), girīnām (gairinqm), puruṇām (pouroṇqm, O. Pers. paruṇām), and gōnām (in Indian only) beside gāvām (gavqm). These alternative forms occur especially in r stems: nṛṇām beside narām (narqm), pīṭnām (cf. duṇḍqm). In the thematic stems some examples of -ām are preserved by the Vedas and the Avesta (devām in a formula; vārāṣqm etc.).

**Locative:** This is similar in the two languages: Skt. -su (-ṣu) = Av. O. Pers. -ṣu, -ṣu, -hu (to which the postposition -a, which has already been met with in other forms, is frequently added).
GENERAL REMARKS

The earliest scheme of Sanskrit declension is, therefore, on the whole archaic and close to Indo-iranian. There is even found in it an adverbial case, which falls outside the declension and has disappeared everywhere, except in Indo-iranian and Italo-celtic: TS *mithunī-krī- to unite, *vaśī-krī- to dominate, *grāmī-bhū- to belong to the village, cf. Av. *vāśaṭī-buye to wax great, Lat. *lucē-facere to gain. But at the same time it exhibits innovations, which are not all simple readjustments and sharply separate Sanskrit from Iranian. Such are the generalisation of the dat. sg. m. and n. in āya, the locatives in -au, the duals in -au, the oblique endings of the dual, the part played by final -m and above all the use of -n- in the different forms of the instr. sg. and the nom. acc. pl.

There is no doubt that the oldest forms of the Vedas do not p. 122 exactly reproduce those of the contemporary stage of the language. Besides the archaisms taken for granted in a text of this nature, there occur variants performing one and the same function. Now according to a procedure perpetuated in Middle Indian, many old forms are employed for literary effect in company with recent forms; hence viśā jātāni, viśā vāsūni, viśā dvēśāṃsi and conversely viśvāṃsi durgā; similarly trī pūṃṣa. . . padāni opposed to trīṇi padā; purū vāsūni and purāṇī vāsu. The ambiguous archaic form is explained by the other. So anomalies like udhar divyāṇi I. 64.5, vrātā... dirghāṣṭrī VIII 25.17. are possible. This procedure has its conveniences for metre; compare the nom. pls.:

bhād vādema vīḍāthe suvīrāḥ II. 1.16
and suvīrāsa vīḍāthaṁ ā vādema II. 12.15
or the instr. pls.
yālām āśvebhīr Aśvinī VIII. 5.7
and ādityaṁ yālam Aśvinī VIII. 35.13
or again āṅgirobhīr ā gahi yajñīyebhīr RV X. 14.5
and āṅgirobhīr yajñīyair ā gahiḥā AV. XVIII. 1.59.

The archaic forms are, as a matter of fact, usually not the most numerous; a fortiori, the Atharvaveda, which is basically archaic but employed for a different social purpose than the Rgveda, has a marked orientation towards the language of the classical stage. It would, therefore, be wrong to appraise the linguistic stage of the Rgveda by a table of forms. A comparative check
of these and an enquiry into their literary use will show that they are largely survivals.

Moreover, the Rgveda itself provides evidence for a number of special formations; thus the gen. pl. gónām beside gávām, the abl. sg. cākṣoḥ beside cākṣuṣaḥ; or again the instr. sgs. of the mahinā, bhūnā type. It is a curious thing that Classical Sanskrit, which tends to reduce anomalies, should have decided more than once in favour of the traditional forms. For instance, gavām, which is in appearance more regular than gonām, is retained, although Middle Indian (Pa. gonaṇi, gunnaṇi) is a witness of the vitality of the rejected form. The fact that only -aḥ is kept in the thematic instr. pl., when all analogy would seem to assure the triumph of -ebhiḥ (confirmed by Middle Indian), perhaps indicates that the latter was a recent and specifically Indian innovation, parallel, but not to be identified with the Old Persian usage.

Indeed, Classical Sanskrit is characterized by impoverishment of grammar, contrasting with the abundance and constant renewal of its vocabulary. Though a language of culture, it has had to follow willy-nilly the evolution of the vulgar tongues. Now the latter, like those of other Indo-European languages, have tended to normalise and simplify the copious prehistoric inflexions.

This is the reason why Sanskrit, as we have seen, eliminates the ambiguous endings in -ā in favour of -ena, -au, -āni and rejects the type aryaḥ, krātvah in the i and u stems; why the uninflected locative of stems in -an disappears except as an intentional archaism, while the stem assumes for preference the vocalism of the other oblique cases (mūrdhni rājñi nāmi); and why the vocative in -vaḥ of adjectives in -vant- has been replaced by -van since the time of the Atharvaveda. Neuters in -i and -u occur only with the -n stem preceding endings beginning with a vowel and the nasal of -anli, -āmi is extended to -uṇji etc. In participles the vowel quantity is assimilated to the masculine: sanli like santāḥ. But it is not just isolated forms, which are modified; large groups are formed or brought closer to each other. Root stems in vowels are assimilated to derived stems and as early as the Rgveda the masculine gopāḥ and gopā- (acc. pl. gopān) exist side by side and the fem. praṇa ranks with m. f. dīvijāḥ, of which the later forms alone occur in classical Sanskrit. The paradigms of vrktḥ and devṭ are merged into a single paradigm in which the parallelism with the declension of feminines in -ā is stressed.

On the other hand nouns whose roots end in a long vowel tend to join those in which this vowel is short, a process aided by morpho-
logical factors. For instance, final long vowels are shortened in compounds, as in senajit- and prthivis\textit{h}i\textit{d}a- on the one hand and in gopâ- on the other. The weakness of final vowels, which is a marked feature of literary Middle Indian, has, no doubt, also contributed to this process.

The reduction of alternative forms continued; hence the accusatives such as râjânah, the nom. pl. of the pres. part. in -\textit{a}lah and also a genuine hesitation between the feminines of participles in -\textit{an}lî and -\textit{al}î, in spite of the edicts of the grammarians.

The general result is more systematisation and greater clearness. Thematic and athematic stems are more clearly opposed than before: instr. sg. -\textit{ena}: -\textit{a}; gen. pl. -\textit{\=a}nâm: -\textit{\=a}m; instr. pl. -\textit{\=aih}: -\textit{\=bhîh}. The generalisation of the devî type and even the interchange of the -\textit{i}-, -\textit{\=u} with the -\textit{i}-, -\textit{\=u} inflexions arise from a tendency to establish a single feminine stem, capable of being grouped with the type ji\textit{hv}â, which also absorbs candramâ (an old -s stem) and even duhîlâ (an -r- stem). The masc. neut. group is contracted like the feminine group; RV -\textit{\=an}lî (sânti, ghrî\textit{v}ânti) becomes -\textit{\=an}lî where there is a masc. -\textit{\=an}lah (Padapâ\textit{\=tha} sânti, AV brhânti; but mahânti: mahântâlah persists); at the same time it becomes more and more sharply opposed to the feminine group, as the use of the thematic formation becomes extended.

Now this formation gains ground from the first. One point of departure of this extension may be found in ambiguous inflexions: pâdam pâdau, for example, may be grouped equally well with pâd or pâda- and padâ with pâd- or padâ-. Another is to be found in derived stems like -d\textit{\=s}a-, -d\textit{\=u}gha-, which are doublets of the athematic -\textit{d}r\textit{\=s}, -\textit{\=du}h-. And finally there are the Indo-european groups, such as dâma- and dâm-.

The first use, which the Vedic language made of the thematic formations, was, no doubt, the elimination of monosyllables in the direct cases; vâri replacing vâh water and pûmân serving as nominative to pûms- are special solutions of the same problem. Yet we already find in Indo-iranian the neuter h\textit{\=d}ayam, Av. zar\textit{\=s}\textit{\=da}em and in Vedic udakâm (the stem of which was extended to the other cases), âsyâm and the feminines p\textit{\=f}tanâ (and consequently p\textit{\=f}tanåsu opposed to prtsù), n\textit{\=a}sikâ, nom. dual nâse, the masc. pâdâlah a quarter, if it can be considered to be derived from pâd-foot (of a quadruped; this method of division is still current in India) and m\textit{\=a}sa the equivalent of m\textit{\=a}s-, which means “moon” as well as “moon”. There are also d\textit{\=an}la- doublet of d\textit{\=an}, instr. pl. dadbhi\textit{\=h} and finally n\textit{\=a}ra- (first attested in compounds) furnishes loc. nâri etc. with a nom. sg.
The enlargement extends to the whole paradigm: RV udākāl, āsyēna beside āsā, and a solitary loc. āsyē; AV māsāya, māsānām. Then new words appear: Br. dvāram, Up. naklam. Further, the thematisation is by no means reserved for monosyllables.

In the polysyllables, nasal alternation is responsible for darmā-beside darmān; from āhā(ni) comes the gen. pl. āhānām beside āhnām; the dual sīrśē and later AV sīrśām come from sīrśā(ni), abl. sg. sīrśatāh. We still find TS nom. yūḥ juice, but yūṣēna in the instrumental (VS yūṣpā). The coexistence of stems in -as- and -a- like jānas- and jāna- race, leads to ān-āga- beside ān-āgas- without sin, etc. But enlargements are multiplied without any particular reason: devara- is soon separated from the nouns of relationship in -tar-; RV viśṭāpa- neut., which supplies the direct case for the fem. viśṭāp- is extended to the oblique cases (SV viśṭāpe =RV viśṭāpi) and afterwards AV kākuda-, Ep. āmīṣa-, suḥrīda-, the comparatives āṣreṣa- etc. appear.

Similarly -ā is used to characterize feminines: RV kṣapābhiḥ nights, AV apsarā, kāse voc. cough, beside the abl. kāsāḥ, RV uṣāṁ and VS uṣā, YV diṣā, Pāṇ. niṣā. The masculine stems in -ā are, on the contrary, eliminated. Pathēṣṭhā- is produced by analogy with ratheṣṭhā-, RV vipathi- is succeeded by AV vipathā- and patha- appears later. The acc. mahāṁ is still found beside mahāntam, but only mahān and mahāḥ (fem. mahī) remain in the nom. sg. The thematic vowel is established in compounds: ralnadhebhiḥ, ratheṣṭhēna, acc. gopāṁ beside gopām and thus a paradigm is formed in opposition to prajā etc.

Innovations in Sanskrit tend, therefore, to a regrouping within the system, the archaism and fragility of which became more and more perceptible as the evolution of the spoken language progressed. And indeed these partial reforms conceal a more thorough change brought about primarily by Middle Indian.

PRONOUNS

There are two kinds of pronouns: personal pronouns, which have inflexions of their own and pronouns, which may be called adjectives. These latter are capable of gender and possess inflexions having points in common with the declensions of nouns. Sanskrit makes important innovations in both kinds.
PERSONAL PRONOUNS

Singular

Direct cases. Nom. ahám (Av. azəm, O. Pers. adam); t(u)vám (Gath. tvəm, O. Pers. twəm; Gath. tū heading the sentence is missing in Sanskrit). Acc. mám (Av. məm, O. Pers. məm), enclitic mā (Av. mā); t(u)vəm (Av. θwqm, O. Pers. θuwəm, monosyllables), enclitic tvə (Av. θwə).

Instr. T(u)vā (Av. θwā) is exceptional in the Rgveda and gives way to the Indian formation t(u)vāyə. In the first person māyə only is encountered.

Dat. From the beginning we find māhyam, tūbhyam with the nasal peculiar to India. Of the previous forms RV tūbhya is read in certain contexts and the metre is often responsible for the restoration of māhyə. The former is an Indian adaptation of the root, cf. Gath. taibyā, but the latter is more archaic than Av. maibyā, cf. Lat. mihī opposed to tībī.

Abl. Besides the inherited forms māt, twāt (Av. maṭ, θwəṭ) which are too short and resemble the forms used in compounds, RV māmat (after the gen. māma) and AV māltāḥ were created, the latter prevailing from the Epic period.

Gen. Tāva (Av. lāva) is Indo-iranian: māma is peculiar to Indian (Av. mana, O. Pers. manā) and is probably the result of an assimilation in Sanskrit. The enclitic forms me, te (Gath. mōi, tōi, O. Pers. maïy, taïy) are in use for the genitive and dative, as in Greek. Some instances of the accusative me are found in the Vedas and later in Middle Indian, in pursuance of a tendency, which appeared similarly in the later Avesta and in late Lithuanian.

Loc. There is no special form in Iranian. RV has māyi, but t(u)vē quickly disappeared in favour of AV tvāyi.

Dual

The paradigm is established in Sanskrit itself. In the nominative Indo-european must have had *we: RV once only və encl., Av. once only the acc. və and with the nasal RV once only the nom. vəm and the acc. dat. gen. encl. vəm; and also *yā, cf. Lith. jų-du you two, recognisable in yuväm, acc. yuvām, gen. RV yuvākū- (taken from *yuv-au according to Renou, Studia indo-iranica, p. 165), cf. Av. yavākəm. The Gath. acc. əəvā expresses the Brāhmaṇa type, nom. acc. āvām. The paradigms are constructed with difficulty from āv- and yuv-; āvābhyyām,
yuva bhyiim and yuvābhyām which prevails; yuvōḥ which is soon replaced by the TS yuvāyōḥ (cf. RV enōḥ, AV enayōḥ), āvāyōḥ; abl. yuvāt, TS āvāt.

Enclitics: nau has assumed the favourite dual ending of Indian (Gath. nā gen. and Gk. nó nom. acc.); vā (Gath. vā found once) is found once in RV, probably in a genitive sense; the usual form is vām.

Plural

The genitive is Indo-iranian: asmākam yuṣmākam, Av. ahmākəm yūṣmākəm; and similarly the enclitics naḥ vaḥ, Av. nō vō; the ablative (asmāt, yuṣmāt, Av. ahmāt, yūṣmāt) is also Indo-iranian, together with the dative (asmābhyām, Av. ahmaibhyā) except for the nasal. But the nominative yāyām (cf. Gath. yūṣmām enlarged from yāṣ) is the result of assimilation to vāyām (Av. vaėm, O. Pers. vayam). The remaining forms have noun endings: asmān, cf. Gath. śhmā, Av. ahma; yuṣmān; fem. once only yuṣmāḥ; the instrumental and the locative (asmābhiḥ, asmāsu) have entirely new formations (cf. Av. xšmā instr.). The mantras also make use of the obliques asmē yuṣmē, independent formations based on me te, which finally disappear on the advent of the Brāhmaṇas.

Adjective-pronouns

These pronouns vary in gender, but their inflexions only partly correspond with those of substantives and adjectives. Most of them come down from Indo-iranian or are composed of Indo-iranian elements.

1) The relative ya-, Av. ya-. Iranian did not preserve it and Old Persian replaced it with the demonstrative hya-, tya- (Skt. syā, tyā-). Indo-aryan alone of Indo-european languages has preserved it to the present day and has made it (together with the adjectives and adverbs derived from it) part of the framework of its complex sentence.

2) The interrogatives ka-, ki- (and ku- in the adverbs). The phonetic alternation of the guttural (the Indo-european labiovelar) has disappeared in Sanskrit: beside kāḥ, kāt (Av. kā, kāṭ) there is no form corresponding to Av. ēhyāḥ, Gk. (Homeric) lēō, or to čiš, čim, Gk. tīs, but kāśya, kīḥ (once only except in the compounds mākiḥ, "ne quis", nākiḥ "nullus"), kīm, RV kīm; cīl (Av. čiḷ) exists only as a particle.
The indefinite is expressed as in Iranian by the interrogative doubled or by the interrogative (alone or preceded by the relative) followed by ca, but principally by cū and later by apī.

3) Various anaphoretic or demonstrative pronouns, the chief characteristic of which, inherited from Indo-european, is the union of several stems, one of them being peculiar to the animate nominative singular.

p. 128 The anaphoretic sā(h), sā: tā- is Indo-european, Gk. ho, hōs, hē: tō. It remained in frequent use. It may have an emphatic sense or can be so attenuated as to serve as a particle; it might also often be regarded simply as an article if there was such a thing in Indo-aryan, cf. p. 310, 187. There is a derived form syā; tyā- more or less appropriated to the direct cases in the RV, which has not survived (with the exception of a few traces in Pali). The corresponding pronoun in Old Persian serves as a relative; and a lengthened form, also Indo-iranian, esā, etā-, Av. aēśa, aēla- is very common.

The near demonstrative is composed of two stems i- and a- dating from Indo-iranian: masc. sg. nom. ayām, acc. imām, dat. asmāi, instr. anā, whence the new formation anēna etc., cf. Av. aēm, imēm, ahmāi, instr. sg. Gath. anā, pl. Gath. āiś, Av. anāiś etc. Attention is called to the Indo-iranian particle -am, which occurs both in the personal pronouns and also in the indeclinable svayām (Av. xvaē-). The neut. nom. acc. idām is apparently isolated; Av. ī is always a particle like the Skt. ī, but idām may be Indo-european cf. Lat id-em "the same". Sanskrit also possesses a stem ena-, used much in the same way as a- and this leads one to suppose that it is a- preceded by a particle, which is perhaps Indo-iranian, if the meanings of Pahlavi ēn, Persian īn, which is also used for the subject case, can be regarded as merely secondary.

Only the direct case of the remote demonstrative is Indo-iranian or at least composed of Indo-iranian elements: asāu cf. Av. hāu, O. Pers, hauv; ava- with which the Iranian paradigm is completed, appears only in the solitary gen. loc. dual avōh. But the nom. acc. neut. adāh has no known connexions; and even if remote parallels for amu- and amī- could be detected (Saka mī nom. sg. and pl. Kuchean om?), their form and relationship are obscure. A similar stem occurs in some ritual formulas (Av āmo'haṁ opposed to sā tvām), but the sense is different.

The oldest Sanskrit still retains a certain amount of archaic detritus, which has no importance for the later history.

The inflexion of these pronouns is characterized in Sanskrit as
in Indo-European by special endings (neut. sg. tāt, Av. ta,t, Lat. is-lūd, Gk. lō; masc. nom. pl. tē, Av. tōi te, Lat. is-li, Gr. loi) and by the internal oblique case morphemes: in the singular, masc. neut. -sm(a) - (dat. asmāi, Av. ahmāi, Umbrian esmei; extended in Indo-Iranian to other oblique cases: loc. asmīn, Av. ahmi; abl. asmāl, Av. ahmāl beside the particle āt, Gath. āt then), fem. -sy- (sg. asyāi, Av. āināhāi, cf. Old Prussian slessiei etc.); -s- in the genitive plural: masc. eśām, Av. aēśām, O. Pruss. steison; fem. āsām, Gath. ānḫām, cf. Lat. eārum.

According to a tradition which goes back to Indo-European, certain adjectives are inflected more or less completely with pronominal endings; anyā- other, has the complete series, like Av. anya-; so with viśva- all, and Av. viśpa-, except that the direct case of the neut. sg. is viśvam, Av. viśpam, and, from the time of the Vedas, noun endings appear (also in the Gāthās). The synonym sārva- (cf. Av. hārva-) takes only the pronominal inflexion; Skt. svā- one’s own has only the remains of this inflexion, while Avestan xva- has it in full. Accordingly there are irregularities; but Sanskrit tends to encourage the pronominal inflexion: kalamāt, AV kalarāt against Av. kalārām, Gk. pōteron.; nom. pl. masc. uṭtare, uṭtamē, pāre, pārve etc. The classical language extends it still further, apart from some restrictions, and early Middle Indian preserves a large measure of it (As. ubhayesaṁ of the two, etc.) and even extends the loc. and abl. sg. endings to the inflexion of nouns.
THE NOUN IN MIDDLE INDIAN

EARLY MIDDLE INDIAN

The movement towards normalisation, which is already evident in Sanskrit, was accelerated in the spoken language by phonetic conditions. The assimilation or dislocation of consonant groups have resulted in the loss of clearness of alternative forms. As rājā, lājā (king) have their genitives rāṇ(ī)o, lājine where i phonetically inserted differs from inherited a of at(ī)anā, kaṇiṃana. In r stems, in Girnar the instrumental of pīlar is pīl(ī)ā with the r missing (from which Pa. pīlarā has been re-formed with no alternative form), while in other versions there are pīlunā, pīlinā, with vowels, but different ones, replacing r.

The suppression of diphthongs must have hastened the disappearance of the dual, when the characteristic au was confused with the gen. -oḥ and, what was more serious, with the nom. sg. -o. This event must also have had some influence on the survival or restoration of the instr. pl. -ehi, when -aiḥ finished its career as -e (some dubious instances of this have been adduced), which was not only a sign of the loc. sg., but actually employed as an acc. pl. Finally au of the loc. sg. of nouns in -i- and -u- by becoming -o was confused with the gen. sg. -oḥ and was preserved only in adverbial forms (Pa. rallo by night, ādo at the beginning), a pronominal ending being used for the locative of nouns, while the gen. sg. -oḥ was discarded in favour of a form modelled on the instrumental -uno; and -ino for -eḥ.

Finally, the general changes in the finals of words caused much trouble; the shortening of long vowels, beginning with those with nasals, and thence the identification of -aṁ, the masc. neut. acc. sg. with the fem. -aṁ, -ām and of this singular with the corresponding plural -ān; and again the identification of the masc. nom. in -vān and -aṅ of the participles with the neuter. Indeed ojasvat is compelled by the loss of final -l to take the form ojavān. The same loss of final -l causes the abl. sg. -āl to be
confused not only with the archaic inst. sg. and neut. pl. in ā, but also with feminine nominatives. By the loss of -ḥ, lōḍīk is put among the -i stems (lōḍi) and, by the addition of -n, among the -in stems: Pa. lōḍin; similarly marul, pariṣat pass over to the vowel stems: Pa. maru, pariṣā. Final s, feeblest of final consonants and already reduced to a voiceless aspirate in Sanskrit, had come to characterize the nom. sg. of animate nouns in -i-, -u-. The result is the total loss of the distinction between animates and neuters, first in the nominative (aggi, akkhi from which acc. akkhim was formed) and then partially, in the other cases (agga, akkhi beside aggaya, akkhini). As regards -o arising from -aḥ (in mano etc.), its apparently masculine form has similarly caused deviations in the paradigms. It is thus easy to foresee that the evolution of forms in Classical Sanskrit is not likely to give more than an approximate idea of the disturbances found in Middle Indian.

-A- stems

This is the most important group, firstly, because it has absorbed a large number of consonantal stems and, secondly, because it has affected the stems in short and long -i- and -u-.

Singular

Nom. acc. :

In the masculine, Skt. -o, the form of -aḥ before a voiced consonant, was associated with the form before a voiceless consonant, consisting of a naturally blocked -a, which was, no doubt, lengthened, when the -ḥ ceased to be heard. Hence Pa. dhammo whence (B S O S, VI, 291 foll.) in the eastern dialects As. Delhi dhamme. The accusative is dhammaṃ.

Nom. acc. neut : Pa. rūpam. Aśoka at Delhi has nom. maṅgale, acc. maṅgalan. This innovation due to analogy is not a sign of the loss of the neuter, which persists in the plural. The same is true for the pronouns.

Instr. :

The old Pali texts preserve traces of Vedic -ā, which is hardly distinguishable from the ablative. The commentators explain it by the more usual form -ena. Aśoka is aware only of the type dhaṃmena, vacanena.
DAT. GEN.:

The dative disappears (p. 157). It persists clearly in the thematic declension only and that to denote purpose (type saqgāya with a view to heaven), particularly in verb nouns ad dassanāya in order to see. Aśoka at Girnar is in agreement with Pali. In the eastern inscriptions forms in -āye appear, resembling the dative and genitive singular of the feminine, and indeed they must have been modelled on the feminine abstract nouns. In Sanskrit there are parallel formations in -nam and -nā, and -tvam, -tam, -lā. Consequently Pali adds formations in -laye, -lāye, -luye to the old infinitives in -tave, thus combining the stems -tu, -ti and -lā. A form is then made from the dative fem. and isolated from the regular declension to indicate purpose: As. jīvītāye with a view to (save) life; hidā(1)līkāye with a view to the world below. Hence a(1)jīhāye (a(1)hā(1)sa exists, but as a genitive) and mo(k)kāhāye opposed to the genitives, such as jana(s)sa, which are, on occasion, equivalent to datives.

ABL.:

This case was expressed by a special form only in the thematic stems. Then, in consequence of the loss of the final consonant, it was merged in the instrumental: Pa. sokā =Skt. śokā and *śokā. These two cases already had in Sanskrit points of contact through their meanings. So in the sixth rock edict Gir. nāśi hi kaṃmataraṃ sarvalokahitalpā is equivalent to Kal. na(1)thi hi kaṃmatalā sa(v)valokahilena There is nothing more important than the well-being of the whole world.

Yet the creation of an instrumental-ablatival, the converse of the Latin ablative-instrumental, does not exhaust the semantic possibilities of the ablative. That is why Middle Indian preserves traces of an ancient adverbial suffix expressing direction (not origin): Skt. uttarāhi from the direction of the North (constructed with vasati dwells, according to the commentators on Pāṇini); hence Pa. kāmāhi by desire, Pkt. chellāhi from the field. Above all, it extends the use of -taḥ (Lat. -tus) expressing origin, whence mukhālo from the mouth, and consequently aggīlo etc. This suffix, combined with the old ending, gives rise to the type cāpāto by the bow, which is rare in Pali, but popular in Prakrit. Finally, as in the locative and, no doubt, in imitation of it, an ending is created in Pali of a pronominal type: Sn. gharamhā beside gharā.

Loc.:

The old form is retained: Pa. dhamme, As. Gir. vijile. But an

Plural

Nom.:  

In animate nouns the form is as expected: Pa., As. devā. In inanimates the rūpā type often persists beside the rūpāni type (as apparently in Asoka E. where participles in -ā occur as predicates of substantives in -āni; see Rock II sections B and C, but not D, where both end in -āni). In Pali the poetical form dhammāse is reminiscent of Vedic -āsaḥ, but the final vowel has not yet been accounted for.

Acc. masc.:  

The old form devān became *devām like the fem. sg. (there are examples of this in Buddhist Sanskrit), and then *devaṁ a plural indistinguishable from the singular and not viable. Here perhaps is the starting-point of -āni regarded as -ān plus a particle, as apparently in the case of the nom. -ās-e. This -āni is met with in Asoka, Pali and Jaina prakrit (Lüders, Sitzb. Berlin, 1913, p. 994).

The normal ending in Pali and at Girnar is -e, due to analogy: just as kaññāhi, jāthi, aggīhi correspond to the acc. pl. kañṇā, jāṭi (nom. jāṭiya), aggī (nom. aggayo), so purisehi requires an acc. purise (nom. purisā). It should be noticed, moreover, that among the pronouns, ye, te, ime express the accusative as well as the nominative: the opposition of tehi tesu in contrast with tāhi tāsu has led to the establishment of te in the same function as tā; this accusative te may have consolidated the new form of the nominal accusative.

Instr.:  

The ending -aiḥ must have passed into -e, which did not survive and Skt. -ebhiḥ was the form preserved; or else -e was enlarged like the abl. -ā by -hi, as has been said above. Hence Pa., As. devehi and in a temporal sense bahūhi va(s)sasatehi for several centuries.

Dat. and Abl.:  

Skt. *ebhyāḥ would have given *-ebbho with the only double
consonant in the inflexion although *ēhiyo was just possible. But we have seen that generally speaking the dative disappeared in favour of the genitive and the ablative and the instrumental singular were confused. This is why the ordinary form used for the dative is the genitive and also why we find in Aśoka ājivikehi (cave given) to the Ājīvikas, and Gir. lehi va(l)lavām it is necessary to tell them, opposed to Shah. leṣaṃ va(l)la(v)vo.

Examples of the ablative are rare: Pa. vīlāgēhi pakkāmuṇ avoided those who were freed from passion.

**Gen. and Loc.:**

We find the forms expected: devānaṇī, devesu.

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**-I- (-in-) and -U- stems**

**Singular**

**Nom. and Acc.:**

The animate nouns raise no question: aggi, aggiṃ: bhikkhu, bhikkhunī. The analogy of mūlāṃ served to differentiate the inanimates: akkhiṃ (akṣi), assum (aśru).

**Indirect cases.**

The endings of agneh, mṛdoh raised problems, which were evaded by the extension of the type agnīṇā, akṣīṇī. This was easily done, for owing to the fact that the declension in -in- was modelled on the declension in -an- (hence the alternation -i; -in-), it was merged in the -i- declension and Epic Sanskrit in fact shows traces of the mixing. The ground was thus prepared for the creation of the gen. sg. aggino, bhikkhuno and in another connexion, the acc. sg. hathīṇī, nom. acc. pl. hathi (Skt. hastinaṃ, hastināḥ).

In another direction a genitive like As. Kal. piyada(s)si(s)sā, Shah. priadra(ś)si(s)sā opposed to Gir. priyada(s)sino(-darśīn-), bears witness to the antiquity of the movement towards the thematic type: hence aggissa, Buddh. Skt. and epigraphic bhikṣūṣya.

The locative in -au (agnau, mṛdau) could no longer be retained in that form (p. 130) (except in formulas of an adverbial type: Pa. divā ca rallo ca). Just as Pa. dhhammasmiṃ was founded on lasmiṃ, imasmiṃ, so was Pa. aggismiṃ, aggīṃhi founded on amusmiṃ. The ablative in -smā is also met with, but it has to compete with the old instrumental: kasmā hetunā by what (abl.) reason (instr.), not to mention the adverbial form, Pa. cakkhulo
(cakṣu(ṣ)-), As. Suvaṃṇagirīle with long i corresponding with the -ālō of the thematic stems.

The locatives As. E. punāvasune at the time of Punarvasu, bahune jana(s)si about many people, have assumed the ending of thematic stems. Pāli in particular employs the pronominal ending and also preserves some old forms; but nom. acc. pabhangun, loc. pabhaṅgunē from pabhaṅgu perishable, are evidence of thematisation (Sadd. p. 235, n. 2).

**Plural**

The thematic stems exercised influence from a very early date: from Indo-iranian times on the genitive (-īnām Av. -inaṁ), from the beginnings of Sanskrit on the animate accusative (-īn after -ān against Av. -īś) and on the neuter direct case (-īnī, Av. -ī). The new nominative, Pa. aggī, bhikkhū, is due to the same tendency. It is difficult to decide whether the neuter akkhi is carried on from the Vedic dual or is formed from akkhīni after mūlā(ni). It may be noted that Aśoka has the animate acc. ha(t)thlni like pulisāni.

As for the animate acc. aggī, the ordinary opposition of masc. neut. and fem. paradigms prevents us from considering it analogical with jāṭī. For jāṭī is valid for the nom. and acc. like kañṇā (kanyāḥ), but the thematic masculines have two distinct forms, devā and deve. Are we then to recognise in aggī a continuation from Indo-iranian cf. Av. -īś? This hypothesis, tempting though it is, is unnecessary. In any case -īn like -ān could not survive in Middle Indian, and the tendency to identify the two direct cases in the plural is confirmed by epic Sanskrit in which accusatives in -ayaḥ are frequent. Pāli preserves some old forms in the oblique cases: nāṭībhī, bhikkhusu; but as a general rule it lengthens the vowel of the stem (there are a few instances in Vedic) with the effect of reproducing the rhythm of -ehī, -esu and, of course, -īnām; hence nāṭīhi, bhikkhūhi, As. E. nālīsu, bahūhi, bahūsu.

**Feminine vowel stems**

In the same way as the masculine nouns were subject to the influence of the thematic declension, the feminines tended to be grouped in contrast with them. But in their case the -ā stems are not dominant and action is reciprocal. This agrees with the opposition of the masc. neut. -aka- to the fem. -ikā, which exists from the time of Sanskrit until the modern languages. The -u-stems were modelled on the -i- stems.
The accusative singular is the same in short and long vowel stems: Pa. \(kānām\), \(jāṭim\), \(nadiṃ\). Pali graphy distinguishes nom. \(jāṭi\) from \(nadi\) still, but even at Girnar Aśoka gives \(vadhī\), \(nijha(t)ī\), \(-pralipa(t)ī\), \(anusāṣṭī\), \(lipī\) beside \(apacīti\), \(rati\). The short vowels which are found elsewhere are therefore graphic or phonetic, not morphological. As was foreshadowed by the confusion displayed by the masc. type \(aggi\)- and owing to the parallelism with the feminines in \(-ā\), which have no corresponding short vowel, it is the type with the long vowel, which is generalised.

The acc. pl. is \(raltīyo\), \(jāṭīyo\) and from them Pa. \(dhenuyo\) (the \(y\) of which betrays its origin). Under the influence of the \(kānā\) type the accusative is found to resemble the nominative: Pa. \(raltī\), As. Dhau. (perhaps) \(i(t)thī\), Shah. \(aṭavi\) beside Gir. \(aṭaviyo\). According to H. Smith (Saddanā, p. 448, n. c) certain Pali verses record a type in \(-īyo\) (read \(-\sim\) or \(-\sim\)).

But \(kānā\), the plural like a singular, tends in its turn to be differentiated. Hence the type \(kānāyo\) (once attested in the animate noun \(mahīḍāyo\) at Girnar).

The oblique cases are very sparingly inflected. This is due to phonetic reasons. The gen. abl. in Pali is combined with the instr., \(jāṭīyāḥ\) with \(jāṭīyā\). The single type As. \(pūjāyā\) (with the final vowel uniformly short in Pali) is formed on this model and has the advantage of cutting out the instrumental \(*kānāyā\) which is discordant with the rest of the declension. There remains only a grammatical oblique case. As regards cases denoting locality, Aśoka clearly distinguishes the ablative of origin \(Tā(k)khasīlāte\), \(U(j)jenīte\), from \(tūlanāya\) in haste (and \(va(d)-dhiyā\)). For the locative \(kānāya\), \(jāṭīyā\) tend to absorb the old form, under the influence of the locative and temporal uses of the instrumental (Aśoka retains \(Tosāliyān\), \(Samāpāyān\)). It is a question, however, whether the Pali locative is not simply a continuation of the Indo-iranian locative, in which the nasal, consistent in Sanskrit, had not become established: compare Pa. \(Pabhāvaliyā\) \(gaṭāya\) after the departure of Pabhāvatī, and O. Pers. \(būmiyā\) \(vazrāyā\) on the great earth.

These are not the forms which have survived. Beside them, attested by the non-western inscriptions of Aśoka, exists a series of obliques in \(-e\), which have come from the old form of the dative: \(kanyāyai\), \(deviyai\), \(bhṛtyai\) (the last from a short \(i\) stem). The prose of the Brāhmaṇas and of the older Upaniṣads uses these forms to denote the genitive. This use was discontinued in Classical Sanskrit, but it has been preserved or restored by Middle Indian, as was done in the case of the masc. instr. pl. in \(-ebhiḥ\).
Hence As, *dutiya deviye* (gift) of the second queen, like *vihiṃsaīye* for harm (we have seen, p. 132, that this form was extended to the masculine to express a special meaning). But Asokan still distinguishes the instr.-abl. *va(ṛ)ṭiśiye* through progress, from the gen.-dat. *va(ṛ)ṭiśiye* to which is now added the locative: *cāllummāsiye* at the first moon of the four month period, *palisāye* in the assembly.

**Consonant stems**

We have seen how since very early Middle Indian the consonantal declension crumbled away for phonetic reasons. Developments of a morphological kind had a similar effect and the more readily because of the general tendency towards grammatical levelling. A clear instance is that of the *s* stems. In the masculine Pali has *candimā* only, which persists owing to its resemblance to a nom. fem. and is afterwards regarded as feminine in Prakrit. Asokan has some neuter nominatives: *yaso*, the comparatives *bhuye, davīye*; perhaps the gen. *dīghavuse*. Pali has little more, but the instr. sing. was sufficiently resistant to encroach upon the thematic stems: *balasī, damasā* beside *damena* (nom. *balaṇ, damo*). As a general rule the *s* stems passed over to the thematic declension through reduction or enlargement: *dummano, avyāpannacatūso*; neut. pl. *sotāni (srotānsi)*; the comparatives; *seyyo, fem. seyyā*, neut. *seyyan* and *seyyas* (but the ordinary comparative is by preference formed with the suffix *-tara*).

Of the old consonant stems, these stems alone preserve the fragments of a declension with alternations. The assimilation to vowel stems had already been carried very far in Asokan and in Pali. The Pali instr. sg. *sathhārā, pilarā* dates from a period in which the Skt. grouped consonants had to be assimilated or dissociated. Assimilation as in As. Gir. *pi(t)lā, bhā(t)tā* beside *bhātrā* produced a form ill adapted to the remainder of the paradigm. Pa. *sathhārā, pilarā* were a better match for the loc. *sathhari, bhālari*, As. *pilar* because of the insertion of the vowel. Finally the lengthening of the vowel on the model of the direct cases put the acc. *sathhāraṇa* and the instr.-abl. *sathhārā* on the same footing as *kammāraṇa* and *kammarā* and led to the constitution of a new paradigm, which was extended to the plural: *satthārehi, satthāraṇaṇa*.
But the new system was not completed. It did not succeed in including either the nom. acc. pl. satthāro which had assumed the form of the singular or the characteristic genitive singular satthu, pitu.

Here again it is the instrumental and locative plural, supported by the precedent of compounds, which are the source of successful analogies. In them r in direct contact with an ending changed to i or u; i for preference in the East; -u- in the West and in Pali. The result was assimilation with the -i- and -u- stems. The forms *satthubhi etc. disappeared, but Pa. satthāhi, satthānam, satthāsu, pitānam (beside pitunnum which is difficult to explain), As. E. bhātinam, nātinam, Shah. spasunam have carried with them the Pa. instr. sg. pitunā, As. E. pitinā, Shah. pituna and in the genitive the enlargement of satthu, pitu, As. mātu (which came directly from Sanskrit) into Pa. satthunā, pitunā and then satthussa, pitussa, mātuyā. The eastern forms of Asokan are of importance because they show that the innovations did not originate from the genitive singular. Moreover, Pali has the ablatives pitīlo, mālīlo and derivatives like bhāti-ka- beside bhātu-ka-.

The nouns of relationship, however, were particularly obstinate. In the same way that Vedic had created pātyuḥ and jānyuḥ, Pali has sakhāram for the acc. sg. of sakhi- and sakhāro for its nom. pl. (the ordinary form, however, is sahāyaka-). Similarly the Mahāvastu has bhāryaram for bhāryām and Jaina Prakrit bhawan-tāro (bhayantāro) Aupap. 142. The Skt. nominative feminine duhitā, which is scanned once as a disyllable in the Rgveda, assumed the form dhītā, declined like the Pali kaññā, under the influence of dhāyati sucks. Pali has beside the acc. sg. dhītaram, pl. dhītaro, the gen. dhītāya with dhītu and dhītuyā; and dhītānam beside dhītānam. Similarly the gen. sg. mālāya beside As., Pa. mātu and Pa. mātuyā (like dhenuyā). As to sasā from svasr- it has been replaced by Skt. Pa. bhaginī.

Thus in different ways the nouns in -r- are in process of joining the thematic stems and the normal feminines. Certain Skt. words are also explained in this way: ŚB nāpitā- (from *snāpītṛ-), bhavā-(bhātr).
EARLY MIDDLE INDIAN NASAL STEMS

In other words the \(-n\)-stems join the \(-r\)-stems and the comparison of As. E. instr. \(\text{lājīhi}\) with \(\text{pitīsu}\), opposed to Pa. \(\text{rājūhi}\) compared with \(\text{pitūhi}\) is significant in this connexion. Even in the nouns in which Sanskrit has \(-a\)-, this vowel adapts itself to the new paradigm in favourable cases: Pa. \(\text{brahmuno}\), As. E. \(\text{at(1)unā}\) and even Pa. \(\text{kammunā}\).

Finally even the \(a\) representing the zero grade of \(-an\)- was the starting point of a direct adaptation to the thematic declension: gen. \(\text{rājassa}\), acc. \(\text{brahman}\); neut. \(\text{kamman}\), instr. \(\text{kammena}\); gen. pl. \(\text{atlānān}\), loc. \(\text{kammesu}\); Asokan has nom. \(\text{kaṇma}\), acc. \(\text{kaṇma}\), gen. \(\text{kaṇma(s)sa}\) beside \(\text{kammane}\).

In Sanskrit also the nominative was the starting-point of new formations (cf. \(\text{duhitā}\) above). AV \(\text{majjā}\) m. marrow, is succeeded by SB \(\text{majja}\) fem. and, indirectly, Pa. \(\text{miṇjā}\). Epic poetry has \(\text{sīmā}\) fem. from AV. \(\text{sīmān}\)- masc.; the lexicons give \(\text{plīhā}\) fem. from \(\text{plīhān}\) masc.; and if the Pkt. fem. \(\text{vaḍḍā}\) (from which ĀpGS. \(\text{varman}-\) fem. must have been formed) represents the neut. \(\text{vārāla}\) road, it came, no doubt, through an intermediate form *\(\text{vārāla}\) masc. (\text{Studia indo-iranica}, p. 17).

The adjective must have been one of the points of least resistance to the tendency towards thematisation. It is noticeable in a form like As. pl. \(\text{mahālpā}\) equivalent to \(\text{uḍāra}\); instr. sg. \(\text{mahālipena}\) opposed to \(\text{khu(d)akena}\). In the \(-n\)-stems Asokan has still the present participle nom. pl. \(\text{lišanta}\), instr. sg. \(\text{helawalā, bhagavalā}\). The nom. sg. masc. presents a difficulty: As. E. \(\text{bhagavaṇṭ}\), but Kal. Shah. \(\text{pajāva}\) corresponding to Pa. \(\text{gunavā (kiyā)}\) As. Pillar II has no connexion with \(\text{kiyān-}\): it is equivalent to \(\text{kim iyam; māhā apāye great misfortune, of the first separate Dhauli edict must be a compound, as the corresponding Jaugada form shows). In Edict XIV Dhauli and Jaugada have a thematic form masc. sg. \(\text{mahaṭṭa}\), which the other versions avoid in favour of \(\text{maha(l)aṭṭa}\). From \(\text{yāvant-}\) Asoka uses only the neuter \(\text{yāva}\) as a preposition, the adjective is the derivative \(\text{yāva(l)aṭṭa}\). Also the Gir. participle \(\text{karoṇṭo (karāto in the same inscription must be due to a clerical error); elsewhere the older form is restored in an enlargement: gen. sg. \(\text{asa(n)la(s)sā}\) =Skt. \(\text{aśnalaḥ}\), while \(\text{kalanṭṭam, karanṭṭam}\) function as absolutes. Present participles in Asokan are in the Middle for preference and consequently regularly thematic. Pali, which has e.g. \(\text{samāno}\) being, freely employs \(\text{passaṃ, kubbaṃ, bhavaṃ (gen. karoto, bhoto), but also at a very early stage nom. sg. masc. \(\text{passanlo, gen. passanlassa; jāno, passo occur only once, in poetry. The nominative of stems in \(-vant-\) has \(-vā: gunavā,}\)
satimā, bhagavā; which are oddly reminiscent of Av. drṣyavā with its ending resting on *-vās, but in Pali also bhavāṃ Golomo, and similarly arahāṃ in the old formulas and arahā treated as an independent word, Saddanīti, p. 173. The new forms seem to have been connected with the -n- stems (there are traces of this in Sanskrit) and there is an ambiguous form satimāṃ, which is actually found employed as an acc. sg. Ojāvam replaces the neut. ojavat, but satimā itself must have been taken to be a nom. pl. or a fem. and used as such (nom. pl. masc. matimā, nom. sg. fem. killimā). But for the stems in -vant- as for the present participles, the form adopted for general use was the enlargement of the silavantō type.

PRĀKRIT

The forms of classical Prakrit differ from those of Early Middle Indian chiefly by reason of their greater phonetic wear and tear. The grammatical system is the same. There is simply a marked predominance of new forms and an increase of simplification. There is no longer any notable difference between the several prakrits and, indeed, they are not independent dialects. They have one and the same grammatical norm and with more or less rare exceptions, variations from it are entirely determined by the degree of phonetic or morphological archaism of the forms. The choice between them does not necessarily obey any rule. Thus in the same authors we meet with nom. sg. juvā and juvānō (Skt. yuvā); sāsam and sāsantō (Skt. sāsan); nevertheless the participle in -anto is manifestly dominant.

It must also be pointed out that even those forms, which appear to be the most recent, are often artificial formations from Sanskrit. This fact may be illustrated by an isolated word such as śvā: Pali has, beside the nom. sg. sā, pl. sāno, suvāna- and suṇa- with cerebral ŋ as a proof of authenticity, and also sunakha- which is almost certainly a punning derivation: su-nakha with good nails; Pkt. sāno, which in appearance carries on a Pali form, is in all probability a remodelled word. It is no accident that all the modern names of ‘dog’ are different. Similarly panthō road, and a fortiori paho (-paho, -vaho are particularly frequent in compounds) are suspect, since the word which is now replaced by a derivative of the fem. vaṭṭā, is no longer in common use, except in certain peripheral languages. A still better example is addhā (adhan- Pa. addhāṇa-) which seems to survive only in Sgh. adan-maṅga engthy way.
The abl. sing. masc.-neut. in -ā is not rare and in Mahārāṣṭrī -āhi commonly occurs; the pronominal form in -amhā is missing. The normal form is the derivative of the adverbial suffix, but, except in Jaina prakrit, consistently with -ā, Saur. puttādo, Mah. puttāo.

The typical locative is Amg. logammi, Mah. loammi, sometimes logammi, Mg. kulāhim; -msi is derived from -smi(m), -mni from -mhi, both known to Pali. Mg. -āhiṃ is either a continuation of the Skt. type daksināhi (see p. 132) or due to the opening of the sibilant of -āssin(-asmin) cf. As. E. -a(s)i, just as the Mg. gen. kāmāha may come from -aśa.

Phonetic wear and tear explains the fact that the final nasal of the genitive plural has become optional: puttaIJa; conversely Mah. instr. sg. puttenam, loc. pl. puttesum, instr. pl. puttehim (used also as loc., Ghatage, IHQ, XIII, 152) are often written with a nasal. The direct case of the neuter plural phalāni beside phalāni is explained in the same way.

Beside the acc. pl. masc. putte, which is normal, we often find puttā, which is not derived from Sanskrit or Pali, but must be due to analogy with the types aggi, riā (cf. Skt. ripūn), vahā, and even mālā.

The practice in Prakrit as in Pali is to use the instrumental for the ablative in the plural as opposed to the abl. sg. in ā(d)Jo. But attempts were made to set up a special form. The one most wide-spread was obtained by attaching the adverbial suffix -to to the instrumental: puttehimto. The grammarians further note (from texts?) puttāhipto, puttesumto, and the hybrid puttāsumto, which are formed on the same principle. They admit the singular forms also. These attempts, first made at an early date (RV patsutākh), were of no importance in the history of the language.

The same ablative suffixes are attached to the feminine: Saur. mālādo, vahādo, Mah. mālāo, vahāo; and in the plural: mālāhimto, etc.

In the other oblique cases of the feminine, the ending -āa persists. It is rare in texts and is forbidden by Vararuci. The regular form is -āe. Here Prakrit contradicts Pali as a whole (but punnamāye in verse, v. Saddaniti, p. 675; sabhāye, Vin. III, 200) and agrees with the eastern dialects of Asokan: thus mālāe and similarly devīe, vahāe with long vowels. Similarly the nom.-acc. pl. mālāo, which corresponds to Pa. mālāyo, inspires the lengthening of the vowel in devīo, vahāo.

What is more remarkable is the reaction of the feminine on the masculine and the verses in the Jaina canon have forms like mānavāo in the nominative plural beside the devā type. Rare
though they are, they must, at least, mirror an actual fact. This heavy ending balances the accusative form of the gaḷīṃ (gaḷān) type, which was handed down to Prakrit from the Asokan era. A few instances of isīo (ṛṣayāḥ), girīo are found also in the classical literature.

The two dominant inflexions absorbed the others or served as a model to them. The formation of the masc. mano and neut. manam types, the former Māhārāṣṭri and Jaina, the latter especially in Śauraseni and Māgadhī, have already been mentioned. Similarly kamma (rare) and kammaṃ (normal). The -ā nominative of the masculine in -an was the cause of a few of them being made feminine: addhā (and vaṭṭā) and umhā may be added to candimā, which is still masculine in Pali.

The -n- stems continue to be assimilated to nouns in -i-: rāa (rājā) has its instr. pl. rāihim, gen. rāiṇaṃ with the result that all the parallel endings have the same rhythm.

**APABHRAṂŚA**

To the Prakrit forms Apabhraṃśa adds forms, which are their doublets deteriorated phonetically and also new endings, in proportions varying with different texts. The former are caused by the shortening of the final vowels and indistinctness of their limbre: Pkt. nom. pl. puttā becomes puttā; the nom. sg. putto is also shown as puttu; in another direction the nasal vowel of the acc. sg. puttam closes and produces puttu; and the final vowel of this puttu, which is both nominative and accusative, may become so indistinct as to be confused in certain late texts with putla arising from nom. pl. puttā.

The other characteristics of the system are the frequency of -h- in the endings and the nasal vowels in the oblique cases of the plural.

The characteristic endings are as follows:

**MASCULINE AND NEUTER THEMATIC STEMS**

**Singular**

The nom. acc. puttu (which may become putla), phalu has been explained.

The whole ending of the instrumental putṭeṇa(m), pullē, pullim
can be shortened, contrary to the rules of Prakrit. Moreover, the nasal loses its occlusion, as in the Pkt. neut. pl. -āim.

The locative has two forms: pullī, a variety of Pkt. putte and pullahīṃ which recalls Mg pullāhiṃ and also the older Middle Indian adverbs taḥīṃ there, Pa. saṃīṃ (sanaḥ), Pkt. bāḥīṃ etc.

The ablative pullahē (cf. Pa. bhayāhi, Pkt. mūlāhi) is connected with this second series of forms. There is another form of ablative pullahō which, most probably, is Pkt. pullāo adapted to the forms just mentioned (or possibly it is taken from the form with the short vowel, Pa. pullato).

There are several genitive forms: pullaha is pronominal in origin (Pkt. maha, whence tuha); also perhaps pullaho, for besides maha Apabhraṃśa has mahu, which is composed of maha and majjhu (mahyam) and tāu (*tāo from tava?). It should be mentioned that pullaho is also an ablative. This together with the fact that both cases are represented in the same way in the feminine singular and plural, perhaps explains the use of the genitive as ablative in nisariyāī mandirāṣu, sariyāī mandirāṣu they go out from the temple, Bhav. 342 and p. 34.14

As for pullasu, pullāsu, their final vowel is analogous with pullaha, pullahu. Perhaps also it is just the graphic representation of a final a more closed than the a developed from a long ā in the nominative plural pullā.

Plural

Nom. acc. pulla, phalaī answer to Pkt. pullā, phalāim. It will be noticed that a single direct case has been established in the singular and plural

Instr. pullēhi, pullahī; loc. pullahī. The traditional ending of the instrumental, which would normally result in *pullēhi, *pullisu was confused with that of the nouns in -i such as aggihi; hence the reappearance of the thematic vowel, which extends henceforth over the whole paradigm. But the pullasu so obtained cannot be used, as it is already a genitive singular and accordingly an important case. It was preferred to combine the locative and the instrumental, at the risk of having a form common to the singular and plural. This little fact is one of those which enables us to obtain a glimpse of the artificial nature of the language. Such ambiguity would have, no doubt, been found awkward in an actual spoken language, which retained the distinction of number, but it is legitimate to suppose that at the time when Apabhraṃśa was written, the expression of cases and particularly the locative
by groups of words or compounds signifying "inside, above, near" was already prevalent. It will be seen that the instrumental closely resembled the locative singular, both when the forms were *pultēm and *pultē and later when the loc. *pultahā has in turn become *pultē (for plural, cf. p. 141).

Genitive *pultāhā (already Prakrit according to certain grammarians, see Nitti-Dolci, *Les grammairiens prakrits*, p. 202). Granting that *putteṇa gave *pultē (like phalāṇi, phalāṃ of Prakrit), one would expect here either *pultēm or *pultāā. These inconvenient forms were replaced by a double genitive: *pultaha plus ā from -āṇam. Perhaps there are equal grounds for assuming an effect of the instrumental in -ehiṃ; the formal link between genitive and instrumental appears in the gen. pl. of pronouns in Jain Prakrit: *lesiṃ for *lesaṃ after lehiṃ. The result is a dissyllabic ending like all the endings of oblique cases, singular and plural. Simultaneously an opposition of the plural to the singular was set up by the mere presence of nasal vowels: *pultaha: *pultahā. This perhaps explains the new ablative form *pultahā opposed to the sg. *pultaho.

The nasal of *pultāṇam had already in Prakrit overflowed to the instr. *pultēhiṃ and the locative *pultesuṃ.

**Feminines**

**Singular:** Nom. and acc. (without nasal) *māla*, sole form as in the masculine. In the oblique cases we look for *mālaē and this is, in fact, the form for the instrumental; but the characteristic h of the oblique cases of the masculine determined the notation *mālahe, hi*. The loc. *mālāś which is also met with (Bhav. p. 35*) shows that the masculine actually served as the model.

**Plural:** Nom. acc. *māla, instr. loc. mālahā. Gen. *mālahā with which *mālahu is also found. But the latter form is ill attested and looks like an ablative. In that case it would prove the survival of the Prakrit *mālāo type even after the creation of the singular *mālahe.*

**Other stems**

The -i and -u declensions have no firmly established paradigms and present no important problems. We must note the disappearance of the gen. sg. type *aggissa*. Opposed to *pultaha* we have *aggihē, aggihī and guruhē, and indeed guruhu; aggihu or aggihā in the plural and *devihu* fem. pl. beside *sauṇihā (śakuni-nām), but *muṇihī, sahihī in the Sanatkumāraracita.*
PRONOUNS

The tendency to systematisation, which reduced the number of noun declensions, had quite the opposite effect on pronouns. There were many new departures which had their origin in analogy and there was no guiding norm. Thus there resulted a multiplication of forms, sometimes obscure in origin, but rarely open to suspicion as regards their genuineness. They give evidence of a period of divergent and often provisional experiments which precede a more stable redistribution of forms in the modern languages.

PERSONAL PRONOUNS

Singular

Direct Cases. The opposition of the Vedic dissyllabic nominative \( t(u)vam \) with the monosyllabic acc. \( tv\dot{a}m \) is continued in Pa., Pkt. \( tvam\) (beside Pa. \( tvam\) ) against Pa., Pkt. \( t\), but in Prakrit \( t\) is valid for both cases. So in the first person we have Pa. As. Gir. \( a\), Pa. acc. \( ma\). There is a derived form Pa. \( ahaka\) (Sadd., p. 289), Pk (Mg) \( ahaka\) (Hāla), \( ahaya\), which appears as a dissyllable through the loss of the initial vowel: As. E. \( haka\), Mg. \( hage\), \( hage\), whence Apa. \( hai\), which has engendered \( tuh\), like it exclusively nominative; \( (a)h\) was preserved by agglutination with certain verb forms, see p. 234.

It is useless to collect all the indirect case forms here. A few examples will suffice to explain the facts. For the first person genitive Middle Indian preserved \( m\). But the genitive and dative being syntactically equivalent, the otherwise unstable nasal of \( may\) was given to \( ma\), which in this way unites with the acc. \( ma\). As. Shah. \( m\) is a development in another direction, and goes back to IE \( *mge\) cf. \( *tebe\), O. Slav. \( tebe\) and perhaps Pkt. \( sa\), corresponding to O. Slav. \( sebe\) and, in meaning, to Skt. \( svayam\). Fortunately, as there is no corresponding form in Pali, it guarantees the antiquity of Pkt. \( m\). This word \( m\) has in its turn assumed the nasal of Skt. \( mah\), whence \( mah\) and the second person \( tuh\), \( tuh\) have been evolved by parallelism v. p. 15.

The ablative \( mat\) which is too short and inconvenient, has assumed the normal Prakrit suffix and becomes \( m\), which
serves as a model to the forms known to the grammarians and constructed from the genitive: *mamallo, majhallo*.

The instrumental also takes the genitive as a base: As. E. *mamayā*, once *mamiyā*, not to speak of *mamiyāye* in the separate edicts in which we find traces of the instrumental *maye* known to us later through the Mahāvastu. Bhabra, on the other hand, forms *hamā, hamīyāye* on the nominative, with, however, ill defined functions. Possibly the Mvu. form *maye* combines the instrumental *mayā* and the old enclitic *me*, which is an optional equivalent or it may be a matter of a noun ending. However this may be, the form lasts as long as the classical Prakrit: *mae, mai* and similarly in the second person *tae, tai* (replacing Pa. instr.-abl. *tayā*).

The genitive serves as a stem even for the direct object *mamamā* beside *mamā*. This is possibly traceable to Indo-european. If not, the transfer may have been aided by the two values of the enclitics *me, le*.

All these formations are the more interesting because they are doomed to a more or less speedy disappearance (e.g. the Asokan instrumentals are attested only in the Asokan inscriptions), in favour of the old dative, which the pronouns preserve, while it disappears in the nouns. Pa. *mayhamā* (whence Pkt. *majjha(m)*, Apa. *majju*) leads to the formation of *tujhamā* (Pkt. *tujha*; in addition to *tujhu* Apa. has *yudhra*, Bhav. *tuddhu* deformations of it which have not been explained). This form *tujhamā* allows the divergent form *tubbha(m)* (Skt. *tubhyam*) attested only in classical Prakrit and accordingly suspect, to be side-tracked.

The stem *tu*- of the 2nd sg. is extended to the other forms. We have noticed gen. *tuha*; Niya adds gen. *tusya* (nom. *tuo*). The instr. *tue, tui* are taken into Prakrit from *tac, tais* mentioned above and they are combined again with *tumamā* and give *tume* and *tumae*, which in its turn assumes the long vowel of the ablatives *tumāho, tumāhi* and becomes *tumāe*. All these forms are found together in the same texts: Gauḍavahō *tac, tais, tumāe, tumāi*; Hāla *tue, tui, tumae, tumāi*; Jaina *tac, tume, tumae*. It is difficult to estimate what proportion of these words are authentic. Apabhraṃśa continues the oldest of them giving it the nasal of the noun instrumental, *tai* (*paī* appears to be its doublet remodelled on the Sanskrit, which in any case has left no trace of it; *p*- in pronouns was too reminiscent of the ālman- series, Pkt. *appā*. p. 147
Plural

The initial sound of *vayam, nominative of the 1st person, which was too reminiscent of the 2nd person enclitics Skt. *vañ, Pa. *vo was assimilated to the singular form: hence Pa. *mayañ, As. E. *maye and later Dutr. and Mvu. *mo for *no, Skt. *nañ. And that is not all. In Asokan the accusative of *maye is *a(p)phe, *a(p)pheni (cf. p. 151), which immediately recalls Ved. *asmé, a form of the oblique, admitted as a direct case by Yāska alone. *Apphe is based on *apphañ, a direct descendant of Skt. *asmán, unless indeed *apphañi, Pa. gen. *amhañ is derived with the Skt. *asmán but independent of it, from a representative of IE *nsme, Lesbian Gk. *amme, which is preserved in Hāla as the acc. gen. *amha, cf. p. 15. The objective use is only a passing phase. Pkt. *amhe is nom. acc. and the final vowel of As. *maye seems to be taken from it; Pa. *tumhe, As. E. *tu(p)phe are valid for both cases. This *tumhe is a recasting from the singular stem of *yuñmé, which has replaced *yúyam, a Sanskrit creation, which is inconvenient in Middle Indian; and *túyam would have been too close to the singular. For Pkt. *umha- see p. 15. In the end there is only one stem for each pronoun in the direct and oblique cases. No comment on them is needed.

Adjective-pronouns

The pronominal stems in Sanskrit had been reduced in number and those preserved grouped together. In Middle Indian the simplification of stems and paradigms was continued.

The stem *amu- from which Ved. *amúlañ, *amútra are derived, is most truly representative of the group of which *asau is the nom. sg. masc. This is why the masc. plur. *amī in Pali is replaced by *amū, which is at first a fem. pl. and in the singular the nom. masc. *amu takes its place beside masc. fem. *asu, which has assumed the characteristic vowel, an essential step to avoid separation by phonetic action from its companion forms, since *asau > *aso was naturally grouped with *so, eso (*sa, *eñ). The same vowel is transferred to the neuter: *adum for *ado, Skt. *adah. The unifying process is continued in Prakrit: Masc. fem. sg. *amū, neut. *amuñ, whence gen. *amuno modelled on the -u nouns, as well as *amussa (amūṣya). Indeed, the forms of this pronoun are rare in Prakrit and there are none in Asokan. It will be seen, however, that perhaps some traces of it remain in Kashmiri.
The a-stem is no longer represented in the near demonstratives, except in certain enclitics and this only by implication: Pkt. gen. sg. *assa, ssa*, pl. *sam*. The masc. sg. subject form *a*yaṁ is used in Asokan as a feminine at Girnar and in Pali and Arda Māgamī. *Iyaṁ*, on the contrary, is used (as in Old Persian) for the masculine in the eastern inscriptions of Aśoka. The nom. acc. neuter *idaṁ* has to meet the competition of *imaṁ* (cf. Av. imaṭ), which, as would happen to an ordinary adjective, merges with the masc. fem. acc. (*imaṁ, imāṁ*). This is the starting-point of the generalisation of the thematic type: gen. sg. masc. neut. *imassa*, fem. *imāya*, As. E. *imāye*; masc. pl. *imesam*, instr. *imehi* etc., whence finally Pkt. nom. sg. masc. *imo*, fem. *imā, imiā*.

The direct case of the Sanskrit neuter interrogative *kim* is sharply opposed to *ka-* and this is proved by the eastern Asokan formation *kiṁchī* based on *kaścit>*‘kacchī', cf. As. Kal. masc. *kecha* (*kaśca*). The stem was extended to the oblique cases: Pa. gen. *kissa* beside *kassa*, loc. *kismīm* opposed to the ablative used as an adverb *kasmā* why? As. *kina(s)su* equivalent to Pa. *kenassu* and Pkt. *kina(vi)(kenāpi)* must be explained in this way and not by reference to Indo-iranian, cf. Gath. činā. There has been an obvious attempt to frame a pronominal substantive “what?”, distinct from the full declension with genders. Thus we find later Hin. kyā, Guj. kyā obtained from an enlargement of *ki-* , opposed to Hin. kaun, Mar. Guj. kon obtained from an enlarged *ka-* , As. *kava(na)* (see p. 202).

Prakrit, indeed, uses *kiśa* in all dialects in the sense of “why” and even “what” taken from expressions such as Pa. *kissa helu*, Mg. *kiśa kālaṇādo* because of what?.

The characteristic vowel tends to pass on into the demonstrative pronouns As. *eli(s)sā* beside *ela(s)sā* of that, *elina* beside *elena* because of that, and consequently *eliya a(l)hāya* for this purpose, *iminā* beside *imenā* by this means, (more) than that. Thence to Mysore *iminā kālēna* and Pa. *iminā* in the masculine, supported by amunā; cf. Mvu. *ekinā* masc. and fem. At Shahbazgarhi we find *imisa (imissa)* not only with masc. *alhrasa*, but also with the fem. *dhrammanuṣastiye* (therefore to be read here *imissā*). Pali also utilises -iss- for the feminines: gen. sg. (e)lissā, *imissā* and likewise ekissā, aṅnissā, loc. lissam, imissam etc. (*yassa* alone survives because of the inconvenience of *‘yi*-). Herein we find the starting-point of the new feminine oblique stems *ki-, ji-, ti-* in Prakrit.

In conclusion, the *ka-* stem, like *ima-,* the relative *ya-,* Pkt. *ja-*, and the demonstratives or anaphoretics *la-, ela-, Pkt. *ea-, tya-
p. 149 (rare) and lastly na- (an enclitic derived from ena- in accordance with the formula la-: ela-) all tend to have their inflexions regularised on the model of the nouns, but without affecting the unity of the forms in the direct cases (te, ime, amū etc., see p. 133). So we have the nom. acc. neuter yañi, elañi (yad, elad), As. dat. masc. elāya, fem. elāye, Pa. loc. fem. tāyanī beside lassānī (lasyam), Pa., As. yesañ, but As. E. elānano beside Shah. etesam. In Pali a less successful compromise has been attempted: etesānāṇi, yesānāṇi. Prakrit makes a general oblique of the feminines tāe, tīe on the analogy of mālāe, devīe. On Jaina prakrit gen. pl. masc. tesiṁ, fem. lāsim, see p. 144.

It is obvious that the very abundance of forms arises from attempts at normalisation; and in spite of the freedom of formation which is natural in pronouns, their number does not increase. Apabhramśa alone introduces new forms, which are, however, obscure: āa-, ehu, nom. pl. oī (harking back to adu-, amu-, or to Indo-iranian ava-.
THE NOUN IN NEO-INDIAN

THE CATEGORIES OF GENDER, NUMBER AND CASE

So far then as forms were concerned, the old declensions pursued a course of reduction and regularisation; but the way in which these forms were used remained almost entirely the same and fundamentally there is only one system of declension, inherited from Indo-iranian, from the earliest Sanskrit until the Middle Indian period. When the collapse of the formal system, initiated by phonetic evolution, made its further operation impracticable, then and only did a new system, now characteristic of the modern languages, make its appearance.

GENDER

The distinction of three genders persists throughout Sanskrit and Middle Indian in nouns and non-personal pronouns (a solitary example is the feminine personal pronoun in the VS युष्माह and in Neo-indian the Singhalese fem. लिठ thine, with a masc. टाद). The majority of modern languages have only two genders. The neuter persists only in the group, which includes Marathi and Gujarati and in another quarter the Himalayan Bhadrawahi (S. Varma, Indian Linguistics, III 2 ff.). In Ceylon there has been a fresh grouping based upon the distinction between the animate and inanimate. And finally the eastern group, Bengali, Assamese and Oriya have discarded all distinctions of gender from the very earliest texts.

The primitive distinction between animate and inanimate in Indo-european is no longer of importance in Sanskrit. There is, on the contrary, a constant morphological opposition of the masculines and neuters to the feminines, except in the direct cases. This is particularly evident in the nouns with vowel
stems, that is, those actual stems, which have survived in Middle Indian. Certain old suffixes, e.g. -a-, -tra- were capable of taking two genders, according to whether the noun denoted an animate being or an inanimate thing. In this, no doubt, consists the principle of hesitation between masculine and neuter found in a great number of Sanskrit thematic stems; thus nīḍāh and nīḍam; ākāśāh, ākāśam; pustakāh, pustakam; māstakāh, māstakam. The general trend is towards the neuter: Ved. gṛhāḥ, Classical gṛham and the Divyāvadāna has mārga-, drava-, krodha- neuter (it is true that trāṇa- is there masculine). To judge by the large number of neuter formations in Tamil and Telugu loanwords (though we must admit that their dates are uncertain), the feeling that the neuter was the gender of things inanimate must have been more widely spread than the classical texts disclose. Thus Tamil has sayamaram (svaṇmvarah), sudēsam (svadesah), suruvaṁ (sraṇah) and sruva, sandanam (syandanaḥ) and even mārcam, maccam (matsyāḥ) fish; and from Prakrit puyam (bhujāḥ) arm, and indeed kāyaṁ (gaḷaḥ) elephant (the examples are borrowed from Anavaratavinayakam Pillai, Sanskritic elements..., Dravidic Studies III, Madras, 1919).

So far as the direct cases are concerned, hesitation is found between forms of the plural at a very early date. In one direction, the archaic neuter ending in -ā, similar to the masculine ending, persists in Pali and so can be occasionally used in apposition with the masculine (with pronouns: ye keci rūpā, sabbe rūpā). But otherwise Middle Indian preserves the neuter.

In the eastern inscriptions of Asoka, the nom. sg. of the masc. neut. ends in -e. But there is a neuter, for the nom. pl. of ka(y)yāne is ka(y)yānāni (Skt. kalyāṇam). It is true that in Asokan the endings in -āni, -īni are frequently used for the accusative masculine, as Lüders has recognised (Sitz. Berlin, 1913, p. 993; F. W. Thomas, JRAS, 1925, p. 104; cf. appheni us, p. 147). This fluctuation must have continued for a long time. Or, more precisely, the ending -āni or its derivatives must have survived long enough to enable it to be used, at last, as a sign of the feminine plural. As for the singular of the direct case, it has been, as we have seen, reduced to one level by the phonetic processes of Middle Indian.

The only remains of the old neuter forms are some numerals. Pali generalises duve, which still persists in many places. Prakrit generalises donṇi, tiṇṇi (the former is formed on the latter, which has emerged indirectly from the word for “four”, see Bartholomae, Sitzb. Heidelberg, 1916, p. 6) cāṭārī, Apa. cārī, whence come...
cār almost everywhere, tīn except in Gujarati, Sindhi, Lahnda and Dardic and don only in Marathi and Konkani.


The neuter has, therefore, disappeared almost everywhere as a true grammatical gender, but we find several traces of a tendency to distinguish animate nouns from inanimate. To begin with syntax: the use of the oblique case for the direct object in animate nouns in Romany, the use of a postposition with the same function in many languages (Hin. ko, Beng. ke, Mar. lā etc (see p. 188), the choice of postpositions in Kashmiri according to whether the noun is animate, personal or inanimate; and the general use of a postposition, comparable to Spanish a, as a substitute for the direct object in animate nouns.

In morphology too, we may first point to Singhalese, for which a new system of declension has been constructed: the masculines and feminines have a direct case with two numbers and an oblique to which postpositions are affixed, while the inanimate nouns have in addition an instrumental and a locative, but only in the singular. Here we catch a glimpse of the effect of some non-Aryan substratum, which it is impossible to specify.

In Nepali there has also been a disappearance of grammatical gender. There remain only feminine forms denoting females, as nāri; a development which, in the main, belongs to etymology and vocabulary, not to grammar. We see here too traces of an indigenous language, which has been unlearnt quite recently. No doubt this too is due to the effect of some substratum, which is at the bottom of the total loss of genders in the eastern group. For there is no longer any trace of them except in certain learned formations and the occasional use of them in old Bengali texts is too rare to be significant. For the reduction of the feminine in pronouns, see below.

The system being thus established, it only remains to point out that the gender of individual words was not always transmitted without alteration. In Pali we find kucchi lap, sāli rice, dhātu element, relic, originally masculine, but capable of taking feminine endings. And indeed the long and short -i- and -u- stems were drawn closer to each other. And so we get agniḥ masc.: Mar. Guj. Hin. āg, Sind. āgī, Rom. yag, Panj. Lahn. agg feminine.

vāyuḥ masc. Hin. vāo, Sind. vāu, Panj. Hin. vā feminine; Mar. vāv, Guj. vāv masc. may come from vāla-.

śvaḥ masc. Hin. ākh, īkh feminine; but Mar. ās, Panj. īkh


akṣi neut. Guj. Hind. ākh, Panj. akkh, Sind. akhī feminine. with enlargement:


vastu neut. Sind. valhu and even the tatsama Hin. Guj. vastu feminine.

In the same way varṣma neut. which became vaḷā in Prakrit is represented everywhere by a feminine, cf. p. 139.

Other variations exist especially in learned words. There is no general rule: e.g. there was a feminine enlargement: Sind. dehī from the Hin. Panj. feminine deh (masc. in Marathi). In Hindi soh (śapatḥa-) is feminine (influenced by bāṭ, Skt. vārā word ?); but lārā, deolā may be masculine and byaktī is so regularly.

There is no need to discuss here forms of feminine derivation. It will be sufficient to indicate the part played by suffixes derived from Sanskrit -iṇī and in particular -iṅā, which is normally used as the feminine of -ako.

A remarkable use of gender in derived nouns deserves mention. In Hindi we have opposite to Skt. bhāṇḍam both hanḍā masc. and hanḍī fem.; the former denotes a large saucepan, the latter a small one. Against Skt. raśmiḥ masc. Hin. rassā means “cable”, rassī string. From the formal point of view the opposition is the same as that of ghorā horse, ghorī mare; but the masculine derivative denotes what is large or coarse and the feminine what is small or fine. The same distinction is found in other languages: Guj. tekro masc. hill, tekri eminence; gāḍā cart, gāḍī carriage; Sind. kātu masc. large knife, kātī fem. small knife; māṭo masc. jar, māṭī fem. little pot. The exact extension of this idiom and, in particular, its history, although of interest from the point of view of general linguistics, are unknown. Inversely, note sarasi f. augmented from saras, n. lake in the Deccan acc. to Patanjali, I, p. 73, l. 5.

Number

Sanskrit, like Indo-iranian and Indo-european, distinguished three numbers; singular, dual and plural. As in the other Indo-
European languages, the dual has entirely disappeared, the disappearance dating from Middle Indian. In Vedic, and the use is more wide-spread than in Indo-European, the dual is the normal means of expressing the idea of a couple, whether natural or conventional (akṣi the eyes, Gk. ὁσσε; and also bhṛwau the eyebrows, cf. Gk. ὀφρυες; double objects like dvārau beside dvāraḥ, Gk. thūrai) or a couple already known from the context or associated by tradition (hārī the two horses of Indra). The idea of 'pair' overrides the idea of 'number' and this is shown in one way by the existence of archaic formulas in which the name of a being in the dual implies the name of another being, who is the constant companion of the former (mitrā Mitra and Varuṇa, dhanī day and night, Class. Skt. pitarau parents, bhṛarau brother and sister) and in another by the addition of dvau when there is a question of specifying the number in connexion with some other, whether it is actually expressed or not (ubhau both, implies the notion of "together").

We catch a glimpse of fluctuations in the less archaic parts of the Rgveda (Meillet, BSL. XXI, p. 59). If the examples proved anything, they would signify the beginning of decadence, and in that case the oldest classical Sanskrit would be completely masking the actual evolution, for in it, whenever there is a question of two things, the dual is always used, whether dvau is added or not: RV Book X gharma two saucepans, MBh angulau two fingers. Occasionally, indeed, Buddhistic Sanskrit, especially in the pronouns, uses plural for dual. This is a clear indication of what is to follow and in fact there are only very rare traces of the dual in the earliest stage of Middle Indian (according to H. Smith: Jāt. V. 375 vam you two; some dvandvas of proper nouns, see Saddaniti, p. 634 n. 19, and a Prakrit example in Bhāṣa according to Garbe, Festschrift Jacobi, p. 128). The words for "two, both", Pa. duve, ubho Pkt. do, be continue old forms, but do not represent a dual any more than Lat. duō, or Eng. two. Pkt. donni; and already in Pali, the oblique forms duvinam etc., modelled on the forms for "four" and "three" are plural.

The modern languages have only the singular and plural. Furthermore Middle Indian phonetics are often the cause of the direct case of the plural becoming indistinguishable from the singular, that is, in non-thematic nouns ending in a vowel. This deficiency was remedied in certain languages like Romany by the application of the ending of the enlarged nouns to the plural of the unenlarged nouns. In other languages another word is added,
either in apposition or as a determinant, giving the idea of a group such as “all, people, collection”, etc. This device is especially applicable to animate nouns being perhaps an extension of a “primitive” idea of considering the inanimate as one whole and not split up into identical units. Caldwell³, p. 232, remarks that in Dravidian the plural suffixes are applied only to nouns denoting rational beings, and in Santali according to Boding, Materials..., II, p. 40, the signs of number are essentially determinants. Tibetan, on the contrary has no morpheme for the plural, but employs “many” and similar words.

There can be seen also a morphological reason for this distinction. So long as the neuter persisted, there was a separate form for the plural, while the singular had none. This is still the case in Marathi: masc. sg. and pl. cor thief, thieves, but neut. sūl thread, sulē threads (sūtrāṇi). But this can only have been a contributory factor, for the movement is of much earlier date: Patañjali kumbhakāra-kula- the potters, rather than, the corporation of potters; MBh. bandhu-jana- the relatives, Pa. mātu-gāma the women.

Hindi says ham log we (plural of ham we, equivalent to, I) sāhib log the gentlemen; log (Skt. loka-) is plural. In Awadhi, kahār logan ma among the Kahar, hame pane we people. Bengali had recourse to many different devices: Old Bengali loa, jana, saela (sakala); Middle Beng. sabh all; gāna, kula becoming gulā, ādi, ādika becoming di, dig in the XVth cent., sakala all, jata how many, originally exclamatory; lastly, an adjectival suffix made from -kara- or -kera- and at first accompanied by sab: āmrā sab all of us, bāmunerā sab all the Brahmans; later the word sab has been omitted and the mere suffix serves as the sign of the plural. This occurs from the XIVth century in pronouns and a century later in nouns: chelerā children, kāmārerā blacksmiths. It is now the most usual form. In certain dialects we meet with adjectives in -igā. In Eastern Bengali, mīna, mān correspond to Chattisgarhi manā, Oriya māna (XVth cent. māna), which are forms of Skt. mānava- man. Assamese has bora (bahutara?). Yet other forms, obscure in origin, might be cited from the eastern dialects.

In the North-west we find Kati kile (obl. kilō; obviously a plural), Waig. kele, Prasun kili, Pashai kuli; Gaw. gila. These are borrowings from Iranian-Afghan kölai village. Gawarbati has also nam name, cf. Lat. nomen.

Singhalese, on the contrary, has a suffix for inanimate nouns: nuwarawal towns, declined as a singular. The origin of the word val is obscure. There are also, added to certain nouns of relation-
The few confusions of gender which have been noticed and even the loss of the dual have not made a great transformation in the use of the grammatical categories of gender and number. The alterations effected in inflexion have had a wider range. For concurrently with the changes and remodellings which have already been described, the very utilisation of these forms underwent changes which resulted in a declension descended directly from the old declension, but very different in appearance from it.

Sanskrit preserves the distinction of the eight cases inherited from Indo-Iranian and Indo-European. The distribution of forms was not symmetrical, for instance, there were forms in the plural and especially in the dual of nouns and pronouns, which were common to several cases. But these confusions, any more than those produced in Middle Indian by phonetic changes, did not in themselves endanger the system. The principle of the system was, indeed, maintained by the whole group of forms associated in identical constructions, and the language was always ready to replace casualties, when only the form of words was affected. Thus Sanskrit and Middle Indian extended the use of the adverbial suffix –taḥ so as to procure a progressively single exponent of the ablative. In the same way in Avestan, while the final –t of the masc. neut. thematic stems still existed, it became extended to –ā stems and non-thematic stems in order to make a clear distinction between the ablative and genitive.

The fundamental difficulty of the Sanskrit system is caused by the multiplicity of syntactical equivalents. Thus the person to whom something is given can be expressed by the genitive, dative
or locative; the person spoken to, by the accusative, dative, locative or genitive; the object, by the accusative, dative or locative; the place, by the instrumental or the locative; and similarly circumatance and time, by the same cases and also by the accusative. The instrumental and the ablative express at once cause, separation and comparison and the genitive and instrumental are equivalent to one another when used with gerundives, words expressing resemblance, verbs meaning “to fill”, etc. These confusions are multiplied in the texts of which the language was inadequately controlled, and are both the indication and the cause of the disorganisation of the system. In the same way in the verb, when forms originally distinct in meaning were used for the same purpose e.g. to express the past, they all disappeared.

The old system of cases was apparently preserved in Sanskrit. But traces of a tendency towards standardisation are to be seen in it. Thus the accusative tends to become generalised in complements of the verb and the instrumental is established as complementary to the passive, in adverbial expressions or for technical uses.

A fact no less important is the disappearance of the dative. Destination and possession or attribution are, in fact, allied ideas and were expressed in a similar way in the enclitic pronouns since the prehistoric period: Skt. me, te like O. Pers. maiy, laiy. From the time of the Rgveda, the genitive can be equivalent to other cases and particularly to the dative. In the Brāhmaṇas the two cases are found applied side by side to complements of nouns or accompanying the verb “to give” (Ait. Br. ṭasya ha śatam daltvā giving a hundred to him). Subsequently this latter use becomes regular. Conversely, in the same texts, the dative singular of the feminines in -ā and -ī replaces the genitive (the same thing occurs in the Avesta). This use disappears in Sanskrit, but is continued in Middle Indian, where, moreover, the form is put on the same level as the other genitives.

The decay of the dative was almost complete, when Middle Indian came into being. For the dative plural the inscriptions of Asoka have an ending -ehī, which, when used with the verb “to give” was particularly ambiguous (see S. Majumdar, Asulosh Memorial, p. 31), since it also had the force of an instrumental or ablative. Pali, indeed, supplies us with no instances of the dative, except in the singular of thematic stems and even then exclusively in the sense of destination (saggāya gacchāti he goes to heaven)
and, above all, intention. It has a force, which is often close to that of the Pa., As. infinitive dative in -iave: apunabbhavāya not to be reborn, dassanāya in order to see (the Prakrit infinitives in -tāe perhaps carry on this dative with the old infinitive in -iave).

Another case, the locative, has inherited a large share of the functions of the dative. The name is, in fact, a misnomer, for the case expresses various and often vague relations, which may be lumped under the head of “participation” in the sense given to this word by the sociologists. Pāṇini uses the term adhikaraṇam ‘reference’ or ‘relation’. The locative is not, as in Latin for example, opposed to the rest of the declension by its peculiarly concrete character. This want of precision in the relation expressed by the locative has made it particularly suitable for use in absolute constructions, for which the genitive is rarely used in Sanskrit and other cases almost never. Position or attribution, direction (for in Sanskrit the locative answers the question quo? whither? as well as the question ubi? where?) and destination are allied ideas. Thus Classical Sanskrit can express destination and attribution by the locative. In Buddhistic Sanskrit the complement of the verb ‘to say’ is freely put in the locative. In Pali the locative can replace the instrumental, ablative and even the accusative. V. Henry calls it ‘the case of all work’ of the Pali declension.

Even when it was reduced by one case, the inflexional system of Middle Indian still contained a large number of equivalent forms. The language made use of a number of postpositions to determine shades of meaning, which could not be adequately expressed by the form of the word. The first were derived from the old preverbs. These are short adverbs like ānu, ābhi, ā, which were independent words in Primitive Indian as they were in Indo-iranian and Indo-european. At a very early date there was a tendency to place the preverb immediately before verbs and before or after nouns: RV pathyā ānu along the roads, ānu dyān every day. The order takes time to establish. We find bhrāṛṛbhīḥ saja and saja bhrāṛṛbhīḥ in the Mahābhārata, but in the Brāhmaṇas there are already two postpositions to one preposition, and the tendency to use postpositions is generalised in Classical Sanskrit, in such a way that the order of the phrase conforms with the normal order followed by stems and their inflexions, and by the members of compound words or in the grouping of verb and complement.

However, it cannot be said that a system of postpositions with regular government was set up in Sanskrit or even in Middle
Indian. On the whole, it is the case of the noun, which continues solely to determine its connexion with the verb, and the particles, which are included in the phrase without affecting it, accompany the most various cases. In the Ṛgveda anu according to, goes most frequently with the accusative, but it may accompany a genitive, ablative or instrumental. The Classical grammarians still authorise the three first of these constructions. Even in Pali, where it is, moreover, very rare, anu tends to accompany locatives. Skt. vinā 'without', which appears only in the Śat. Br. with the accusative, is in Pāñini accompanied by the ablative, an obvious use, and also by the instrumental because of the implicit idea of association. So also in Pali: mātāpituki vinā without parents, vinā māṃsena without meat. It is noticeable that a new 'preposition' with a definitely single meaning should remain in unsettled relationship with a single case.

The truth is that the whole system is in a decline and later history shows that the old preverbs have only persisted to a certain extent when associated with verbs. Preverbs are shown by etymology to exist at the beginning of many modern verbs commencing with o- or u- (apa-, ava-, ud-), or by p- (pra-, prati-), v-/b-(vi-), saṃ-. However, if the grouping together of certain verbs of similar meaning, whether supplied or not with these preverbs, makes their relationship clearer, the preverb no longer functions as such. In nouns there is a still smaller residue. The failure to standardise the use of the old preverbs in the written languages is an indication of the abandonment of them in current usage.

In fact, a method had to be evolved for endowing the nouns in a sentence with a substitute for case and this was very soon done by grouping with them substantives which were themselves inflected. From the time of the Ṛgveda, beside antāḥ between (Av. antara, Lat. inter), we find anlārā, which is the instrumental of antara- (Av. antaro) and has therefore originally the force of "in the inner part". But anlārā goes with the accusative like antār (which also admits the locative) and accordingly cannot be said to govern the substantive. But in RV III 8, 2 sāmiddhasya śrāyamāṇaḥ purāstād installed in front of the lighted (fire), purāstād no longer accompanies an ablative or an accusative like purāh (in the Brāhmaṇas upāristād accompanies the accusative like upāri), it is a noun which governs a noun. Beside mādhye samuḍrē, cf. Pa. majjhe samuḍde in the ocean in the middle, we read for example mādhye ārṇasaḥ in the middle of the surge. We find
later ŚBr ātmana upari upon oneself. The Iranian and Vedic construction of upari is with the accusative and instrumental, the new construction is that of a normal locative. This process is widely extended in Sanskrit and Middle Indian. Thus for example antike, samīpe, prṣihe, arthe, arthāya (Pa. athāya, athēm), heloḥ (Pa. helu), nimitlam, nimillena, vaśād, vaśena etc., are formed. It is this extension of noun groups, which explains the absence of the prepositional system.

To these forms must be added certain participles used in compounds, such as -sahīta- accompanied, provided with, replacing saha with, āśrīta- (supported) on, which are sometimes capable of becoming substantives in the same way as madhye and of being used in compounds or constructed with a genitive. Thus we pass from gavākṣagatā tiṣṭhati she went, she is at the window, gurugalām vidyām knowledge gone to the master, of the master, to galām about, gate in consideration of.

The most interesting of these adjectives with worn-out meanings is kṛta- made. In Pali we find aṭṭhīnam kalaṁ nagaraṁ city made of bones, in which the expected instrumental is significantly wanting. This is because the construction reflects the use of kṛta- expressing simple dependence, the starting-point of which is in Skt. MBh. mama kṛte, matkṛte, Pa. mamkate for me, mamsassa kate for the meat; Skt. arthakṛte for gain, amīṣām prāṇānāṁ kṛte for these beings. The gerundive (adjective of obligation) of the same verb provided Prakrit with keraa- (*keraka-): Mg. in Śak. lava kelake mama yīvide my life belongs to thee, Mṛch. Cāludallāha kelake, Saur. ajjassa kerao beside dāraa-keriāe mark the entry of this vulgarism into literature.

The present participle of the verb “to be” provided an adjective which was similarly employed. In amhasa(n)taka our, pilusa(n), taka the father’s, in the Nasik inscriptions we still have to do with stems and not with declined forms. But the Divyāvadāna, beside vihārasvāmi-santakaṁ śraddhādeyam (p. 464), also gives (p. 529) devasya santakaṁ bhaktam and (p. 174) bhagīnyāḥ santikā presya-dārikā.

Finally a few much used absolutes (gerondifs), following accusatives, become tantamount to postpositions. This use, which appears late in Sanskrit is common in Pali. Ādāya with the accusative originally means ‘taking’ but is simply equivalent to ‘with’. In the same way gaheleṭā having taken; Skt. uddiṣya and Pali nissāya supply the loss of prali; Pa. upādāya is equivalent to “according to”, āγamma relatively to, thanks to; ḫapedeṭā except. The process has continued, see below, p. 181, 256. New formations
of analogous groups are made at the present day, but Anglicisms may be suspected. They are expressions copied from regarding, concerning, etc., and not elements of a grammatical system.

The process most highly developed in Prakrit is one which concerns only nouns. Beside the construction with the genitive, compounds are frequently used, but do not predominate. We find for example in Erzählungen in Mah.: 1.4 bhikkh'āṭṭhā and 1.21 vah'āṭṭhayā beside 34.4 jass'āṭṭhāe, 63.12 mam'āṭṭhāe where compounds had become out of the question; 10.37 Bambhadatt-antiyāṁ, but 33.3 mahāvīrassa antie, 8.25 niya-bhaginīnaṁ antie. Compounds including words voided of their meaning like kae(kṛte) or kajje (kārye) because of, for, are no longer possible: 29.35 bhogāna kajje, 50.34 tassa ya kajje, 78.8 tumhāna kajjena; 6.34 mukkha-baḍuyassa kae. We find paurā-majjhi once in the XIth century Bhavisattakaha. The ordinary formula is the genitive: dujjanahā majjhi, sajjanahā majjhi, nāyarahā majjhi. Therein lies the process which explains the modern usages.

FORMATION OF NOUNS

If you except the learned words, especially those taken from Sanskrit and the Islamic languages (with frequent changes of meaning, which deserve investigation), the great bulk of modern words, which can be etymologically identified, are continuations of Sanskrit words. But from the time that the medial consonants became softened or assimilated, it was no longer possible to detect their formation. Since Prakrit there is no longer anything left of the suffix -tra- in Hin. pāl leaf (patram) nor of the suffix -snā in Nep. jum moon (jyotsna); all recollection of the suffixal value of the final consonants in Hin. cūn powder (cūrṇa-) or cauk square (cauṣṭka-) is lost and in Bengali, which has lost its genders, there is nothing to remind one that bel goes back sometimes to bilva- and sometimes to vallī.

Accordingly in so far as the modern languages have recourse to the same processes of formation as Sanskrit, the methods of dealing with the material for the most part differ, and when they do coincide, the values are no longer the same.

For the same reason many of the old compounds are not identifiable: Hin. mausī, māśī, Pkt. māussiā are *māṛśvasyka only to the etymologist. Even recent formations like -āni in Nep. cauli rice water or -el in phulel essence of flowers, only rhyme with pāṇī water, tel oil (pāṇīyam, tailam), which entered into the
FORMATION OF NOUNS

compounding of their models. Who would recognise to-day in the final consonant of Hin. Mar. divāl torch (*dīpavarṭi-) anything but a suffix, or pāniyam in Mar. vāloṇi urine, wayside water (*varṭmapāṇīyam)?

The making of compounds with two members, however, has remained an ordinary practice, so that it is hardly possible to determine, whether for example Hin. caukonā quadrangular, caumās earth cultivated during the rains, pachlāo remorse, are modern formations or descendants of Skt. cauṣkona-, cauṭmā-s(y)a-, paścāllāpa-. It is not always possible to analyse the members of a compound in the non-literary languages, but it is easy to recognise at least some of them; Kati indron rainbow (indra-dhanus-), Ashk. Imṛā name of a god (yama-rājā) must be quite old; but Ashkun also shows apala-gōn *bad smell, smelly, aṇala-wal fire-stone, gāṇi-anur counting finger, thumb, etc. In Shina šudār boy, šuṇmamuyo mouse, the formation is confirmed by comparison with the pl. dāṛj boys, and the Skt. mūṣa-. In a language like Marathi the grammarians find no difficulty in recovering the principal Sanskrit formations (by mixing together, significantly, Sanskrit with modern words). Tatpuruṣa: rāj-vāḍā royal palace, pol-pāl pastry-board, tonḍ-pāḷh (ready) to recite with the mouth, learnt by heart; lāmbad-mālī, copper earth, ochre, corgālḥ secret knot. Bahuvrīhi: apparently less numerous (they are enlarged, as from Skt. -ka-): ti-majlā at three stories, vākaḍnākyā, -sīṅgī with a crooked nose, with bent horn. Coordinative: Mar. ālbāp, cf. Hin. mābāp parents.

A type of formation of which there only exist traces in Sanskrit is the reduplication of words, the reduplicated form, moreover, being liable to arbitrary alteration. Sanskrit expresses renewal or distribution by repetition: substantives: divēdive every day (note the single accent) sādah sādah each on a seat, cf. Pa. pabhaut pabhauṁ knot by knot, Pkt. kesākesi hair by hair. But in Neo-Indian we have something more, that is to say, an emphatic form which has no historic link with the Indo-European and Sanskrit intensives, and is capable of producing nouns and verbs. It is foreshadowed in Classical Sanskrit and Middle Indian by a few words expressing noises: Skt. Patañjali jhalajjhala dripping, Pa. ghurughuru grumbling, ghurughurāyali grumbles. Examples are numerous in even the most cultivated modern languages: Beng. kālakāla shooting pain, ḫakt̥khaṅka noise of impact, sapsaṅa feeling of uncomfortable wetness, pākopāko (quite ripe) nearly ripe; Mar. kadākdi stiffness, cracklings, and the adverb uṭhaṅṭhi (rising immediately) at once.
Like the Hin. type पानिवानि water, is the Panj. type पानिबानि; पानिवानि. But there is a further development. A variation is sought by the use of synonyms: Dogri (a Panjabi dialect) रुख्का-सुखा dry, लाल-सुरख red, अखना-बेखना sayings, कचो-कोले near (according to Gauri Shankar, Indian Linguistics I, II-IV, p. 81). But in this particular case one of the elements is liable to distortion: the second term in Greek Romany सास्तो-वेस्टो unlike the French sain et sauf, and the English safe and sound, to which it is equivalent, is difficult to explain. But indeed rhythm is at bottom the main feature of these groups and it is sufficient that one element only should be clear: the first in Mar. उधालमाध्याल prodigality, अलालोला comprehension; the second in Mar. अरपार from end to end, अदोसी पादोसी neighbourhood, इदापिदा troubles. It may be that Hin. उपास-ान्स fast consists perhaps of Skt. उपवासा-joined to अनासा--; and Hin. अच्छा all round, of Skt. अच्छा edge, and पार्श्व- side, but it is difficult to make sure whether these groups have served as a model to those previously mentioned or whether they are derived from them, the coincidences in etymology being due to chance. Analogous formations are found in Armenian, Turkish, Persian and elsewhere. In India they are present also in the non-Indo-aryan languages.

It is not easy to come to conclusions about derivation in the languages which have no literature and, in those which have, no research has been made into their history, so that one is in danger of failing to disentangle the borrowings of one language from another. Hindi, in particular, has probably been a fertile source of loan-words to its neighbours.

The stock of suffixes, which have come from Sanskrit, is meagre. We may notice the following. The most popular infinitive comes from the Sanskrit nouns of action in -नाम: Singh. -ना, Kash. -न, Sind. -न, Lahn. -न, Bund. -न and with an enlargement Hin. -ना, Raj. -ना, Braj -नाल, Panj. -ना, Mar. -ना. From the causative type the Bengali causative nouns cālāna despatch, sonāna causing to hear, are derived, and also participles (in a passive sense): dekhāna shown. Guj. -णा, Raj. -bo like Beng. -be are based on -तव्यता, the participle of necessity, which retains its meaning in Mar. अवā and in certain uses of the Gujarati infinitive. It provides a future for Bengali.

The present and past participles come regularly from Pkt. -न्ता- and -ि(ि)ा-, the latter being always enlarged.

Ordinals: Mar. Hin. पावावा (पावेकामा-) etc.; similarly Sindhi -ो; Torw. कोळम 4th, by analogy with पावेकहम etc. The Sanskrit
-ma is used without alteration in Gujarati and Bengali. In Singahalese, Shina and Romany there are new formations.

The formation of the feminine. The most popular suffix comes from -ikā (see below, p. 164); -ini is common: Hin. dhobin, Panj. dhobāṇī washer-woman, Mar. vāghīnā tigress, O. Beng. curāṇī woman thief, Eur. Rom. khabīnī (garbhiṇī) pregnant, manuṣīni woman.

Abstract nouns: Skt. -tvam, -tvamā; Hin. Panj. būṛhāpā, Hin. būṛhāpan, Sind. būṛhāpanu, būṛhāpo Guj. būṛhāpo old age, Panj. lārakpuṇā childhood, Mar. cāglepan, cāgulepan goodness, Kash. bēnūṇāpōṇu or -lōṇu sisterly attitude, Rom. manusīpe humanity, corīpen theft, Welsh Romany bignipen beginning, from Eng. begin; and derivative adjectives in Bengali cādpāṇā lunary, lālāpāṇā reddish.

A certain number of suffixes are really substantives used at first as the second terms of compounds: -rāpa-, -(d)hara-, -kāra-, -kāra-, -pāla-; and from the lexicon of Islam, -gar etc.

The most interesting elements are suffixes, which have no special meaning. They take an important place in the formation of modern nouns. The suffix, which is without doubt the most important for modern etymology, is the least significant of all, Skt. -ka-, Pkt. -(y)a preceded by -ā-, -ī-, -ū- see page 111; and it was just this lack of meaning which led to its extended use as an enlargement. It has conduced to the preservation of the characteristic vowel of a large number of words, which otherwise must have been shed: for example Skt. aśru, Pkt. aṃsu remain in Pashai ōostr, but appear everywhere else in the derived form: Hin. āśu, Panj. añjhā, Nep. āsu (Sgh. āsa is formed on another principle); aksī, a neuter changed to feminine because of its final vowel, remains ākh in Hindi, but terminates in a long vowel in Shina aṣṭhī; Skt. mālin-, in the form mālika-, Hin. māli keeps the suffix, which distinguishes it from mālā, Hin. māl (and is conveniently classified with the Islamic suffix of cīnī Chinese, imported sugar). The chief concern of this enlargement is to allow mutually opposed classes of genders to be established for adjectives and nouns. The feminine in this case is not -akā or -akī, but -ikā; hence for example Maith. bār: bārī great. But generally the masculine is also enlarged: Hin. bārā, bārī: ghorā, ghorī horse, mare, Shin. śēu, śēi (śvē-) white, mālū, māli (mahallaka-) father, mother: Ashk. gādawā, -wī sheep, ram, ewe; kāra, kāri blind; Nuri cona, coni boy, girl; kuślota, -lī little.

Moreover, the enlargement can be itself enlarged: Beng. kāliā
black (type *kālakako), Maith. gharaiyā domestic, Hin. rakhvaiyā watchman; but this is recent. The Beng. māṭī presupposes māṭī (mṛtlikā) just as Chatt. machariyā fish, presupposes machrī. In Maithili there is thus quite a series of forms: ghor, ghorā both meaning “horse”, ghoravā definite “the horse” and ghorawā the vulgar form. This shows that the system remains alive and that perhaps the use of enlarged forms is of recent date.

As regards adjectives the scheme differs in one respect: chōt little, choṭā, choṭakkā, choṭkawā. There is actually in Prakrit a suffix with geminated k: rākka- (rājakīya-); goṅikka-, mahisikka- herd of oxen, of buffaloes (but in the Middle Indian inscriptions, As. E. -ikya-, Barabar devadāśikyī are the sign rather of palatalised gutturals). At first it is an emphatic form: Mar. thoḍkā beside thoḍā little, phusārkī beside phusārī swelling, boasting. It occurs in the names of animals: Kal. gardo-lc ass, pachiek bird. In Bengali it has become a common suffix: ear-ak (pkt. caḍh-) hanging in the air (of a penitent), phāl-ak gap, gate, baifhak seat. Sanskrit suffixes are naturally mixed up with it: Hin. pairāk (-āku-) swimmer. The participles and infinitives in -k belonging to the Prasun, Kalasha, Khovar and Shina group are probably Iranianisms, cf. p. 283.

Sanskrit makes little use of the suffix -la-(-ra-) in the early period: sthīra- firm, anīla- wind, bahula- thick. This suffix becomes a mere enlargement as well as forming a diminutive (there are forms with long vowels as in the case of -ka-: karmāra-blacksmith, vācāla- talkative, śītālu- chilly). The use is extended in Middle Indian and is accompanied by gemination: Pa. duṣṭhulla- (duṣṭa- and duṣṭhu- unbecoming) wicked, aṭṭhilla- ox-bone for massage (asthi), mahalla(ka)- old man (cf. As. mahālaka-). There are numerous examples in Prakrit, which have no particular meaning. The modern languages use them for making adjectives: Hin. āglā, Mar. āglā (where the cerebral presupposes a single -l-), Nep. aghillo at the head of (-agra-): Hin. pahīlā (of Skt. prathama-; Pkt. pahillai puts at the head of); Beng. pākila ripe (pakva-). Marathi has also āglā and māglā behind (without the cerebral doublet). Cf. Gujarati āglo, āglo and pāchlo behind. The cerebrals are then, secondary. Marathi, Gujarati (recently), Bengali, Bihari and a few of the Hindukush languages also enlarge their past participles in this way; Mar. gelā (gala-), pāllā (prāpla-), Beng. bhāṅgīla broken, sūtila asleep, and from them the absolutive in the oblique case: calīle having set out.

Another very frequent enlargement in the modern languages is the cerebral ā or ī. VS kukkuḷa- cock, formed from an
onomatopoeia bears witness to the antiquity of the process in the popular language. Pāṇini gives vācāla- talkative, but examples are seldom met with until Apabhramśa and Desī. It has some etymological force in Beng. khāgrā plant with a sharp leaf (khadga-), pālī leaves and stalks (pāl leaf), sāsurī equivalent to sās (śvaśrū-), cāmrā leather (carma-) etc. It is a diminutive in Sind. pandhro little voyage, bholiro little monkey, Guj. gāmdā hamlet, ghāḍā little bell, Hin. ankrī fish-hook, anḍrā little or bad egg.

The voiceless form which presupposes Skt. *-ṭa- is represented in the adjectives derived from verb roots in Marathi and Sindhi: Sind. gharaṭu surrounding, Mar. cepaṭ flat; in the same way regularly in Bengali ghasṭā rubbing or rubbed, and on the noun stems: pāṣūṭā greyish, rogāṭe ailing. It is apparently the same suffix, which terminates Gawar. saufṭa head (cf. Skt. śirāṭa). Bengali makes a particular use of it; affixed to nouns it gives them a definite value, becoming a substitute for the definite article gāchṭā this, the (tall) tree, gāchṭā this, the small, this pretty tree.

The forms -vaṭ (Hin. banaṭa fabrication) and -haṭ (Hin. bulāhaṭ call) are obscure. The root ghaṭ- to fashion, cf. Skt. danlaghāṭa- ivory-worker, calls to mind only one of the two forms and does not explain its use to denote an action noun.

The Sanskrit prefixes have left traces. For example, many words begin with pa-(pra-), and with o- and -u representing apa-, ava-, upa-, ul- indifferently and accordingly without clear signification. Certain Sanskrit prefixes are employed quite freely, but with words which are themselves Sanskrit. They are sa-, su-, which are capable, moreover, of incorporating sva- (subhāv = svabhāv); a- negative is quite frequent under the form an-, even before a consonant, as in Middle Indian. There are naturally Islamic prefixes: Hin. be, Rom. bī- without, which correspond with Persian be, bī and not with Sanskrit vi-; bad- ill-, mis-; nā- un-, not, which may be connected in Bengali with indigenous words and supported by Skt. na. But all this does not really affect the formation of words in the current vocabulary.

INFLEXION

In the course of the development of Middle Indian, the assimilation of the nominative and accusative, which, to start with, was normal only for neutrals, is brought about by phonetic processes
and morphological analogies. This takes place fairly soon in the masculine and feminine nouns in -i- and -u-, but the masculine thematic stems have resisted assimilation much longer. Prakrit, however, already admits the acc. putlā beside putle. Ultimately, from the day on which, as in Apabhraṃśa, putlo and putlam are united in putlu, we find an inflexion of nouns comprising a direct case in opposition to the indirect cases.

The latter may be divided into two groups:

On the one hand there is the substitute of the old genitive-dative, the general function of which is to carry postpositions (prepositions are quite exceptional: Ashkūn pa, Prasun nu in), which define more accurately the connexion of the substantive with the sentence. It happens, however, that this ‘oblique’ may be completely missing in nouns, while existing in pronouns (e.g. Maith. Beng. se: lā; Pashai āse: ātis; in Chattisgarhi only in the singular of personal pronouns and the interrogative). In this case postpositions can be more easily welded to the noun and a new inflexion is established.

On the other hand we find the specialised cases: instrumental, locative and ablative, which have to a great extent survived, but become separated in due course from the declension properly so called. They persist only where there is no longer any other inflexion and are eliminated where there is regular inflexion. In fine they assume the force of an adverb.

**The direct case**

There are two forms—one terminated by an attenuated vowel or a consonant, the other by a long vowel. The former is the root form; in the consonant type genders and numbers are indistinguishable. They do occur, on the contrary, in the latter category and this fact is, no doubt, the reason for their general use in adjectives, or nouns which do not express sex in their root-forms.

**Root nouns**

<table>
<thead>
<tr>
<th>Singular</th>
<th>masculine</th>
<th>feminine</th>
</tr>
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<tbody>
<tr>
<td>OWR</td>
<td>pāu (pādaḥ)</td>
<td>vāla (Pkt. vaḷā)</td>
</tr>
<tr>
<td></td>
<td>āgi (agnih)</td>
<td></td>
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<tr>
<td>Sind.</td>
<td>dehu (deśaḥ)</td>
<td>sadhā (śraddhā)</td>
</tr>
<tr>
<td></td>
<td>piū (pīlā)</td>
<td>rāti (rātrī)</td>
</tr>
</tbody>
</table>
kehari (keśarī)  vij′u (vidyut)
mos (māṁsam)   jīp (jīhvā)
grēn (grhiṇī)
sa$ (svaśrūḥ)
Kash.   ĉūr (coraḥ)
   zev (jīhvā)
rālh (rārī)
Eur, Rom.  ĉor  ĉib, ral
Hin.  cor  jībh, rāṭ, sās
Chat.  phar (phalam)  go̱th (gosṭhī)

Similarly for the neuters: Mar. sūl (sūtram).

The reduced vowel comes or used to come from the vowel endings: Pkt. coro, coram; jibbhā, jibbham; rattī, rattim; aggi, aggiṃ; sassa, sassum. Modern uniformity may conceal a variety of developments. We find in Old Bengali kum bhrē, the crocodile, kāhni (vocative kṛṣṇa), in dialectical Bengali puli beside pul′a, nei (sneha-). It is often thought that these are the remains of the characteristic -e of Māgadhī Prakrit; the enlarged form is -e: loke bole people say, cala sabe come all of you. The coincidence is disturbing, and it is remarkable that Old Singhalese possesses a masc. neut. nom. in -e (pulle, lene) which is opposed to the masc. pl. -ahu, as AMg. -e is to -āso. But the very opposition of -e: -āso in this later dialect indicates that it is a question of a morphological, not of a phonetic fact. In Bengali itself as in Singhalese the normal enlargement is in -ā, which cannot come from -ae, as lok-e would do according to the hypothesis. If this latter form were phonetic, the whole -ā group would have to be considered as a modern borrowing from Hindi. Consequently some writers have fallen back on the instrumental. This raises a question of syntax and presupposes the previous graphic equivalence of -e and -aḥi or -e. The question remains obscure.

Even where they exist (the enlargement has been generalised in modern Singhalese), short stems do not appear all at the same time in every language. The -u- stems are generally enlarged and similarly, but less often, the feminine stems in -ī: thus Garwi has pull son, but sase sister; and even in an adjective Maithili opposes feminine bārī to masculine bār great.

Plural.

Masculines

The plural of masculine stems, which were formerly thematic, Pkt. -ā, does not appear in consonantal stems: Hin. Rom. ĉor Kash. ĉūr. In words, in which an attenuated vowel remains, it
is opposed to the attenuated vowel of the singular (Apa. -u from Pkt. -o and -am):

<table>
<thead>
<tr>
<th>Language</th>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sind.</td>
<td>ōhū</td>
<td>ōha</td>
</tr>
<tr>
<td>Lakhimpuri</td>
<td>ēhu</td>
<td>ēha</td>
</tr>
<tr>
<td>Early Konkani</td>
<td>ānu</td>
<td>āna</td>
</tr>
</tbody>
</table>

There remains a trace of this opposition in the vowel alternation of polysyllables in two neighboring languages:

<table>
<thead>
<tr>
<th>Language</th>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kash.</td>
<td>wādur</td>
<td>wādar  (but ēār)</td>
</tr>
<tr>
<td>Lahn.</td>
<td>kükkur</td>
<td>kükkar (but ĝhar)</td>
</tr>
</tbody>
</table>

The need for clearness was, no doubt, one of the causes of the extension of the enlargement in the plural of nouns with root stems.


In the nouns in -i, Sindhi has *kehari* in the plural as in the singular.

**Neuters**

Pkt. *-āim* was contracted in different ways according to locality: Mar. *sulē* threads (*sūṭrāṇi*), Gujar. *ghāra* houses (standard *gharo*; -ā is used for enlarged nouns: *chokrā*, pl. of *chokrū* child), Konkani *barsā* years (*varsāṇi*).

**Feminines**


But in another direction we have endings taken from the neuter in the languages, which have only two genders: Braj *bālaī* words, Hin. *bālē*; Lakh. *kiḷābāi* books, *barsai* years, which carry on the inanimate words in -ā of Tulsidās. Sindhi has *sadhā* and *sadhū* wishes, cognate to Gujarati, which has a plural neuter in -ā, Lahnda has *zabānā* tongues and finally Marwari *bāṭā*. In these two latter languages the direct case thus resembles the oblique.

The history of this substitution is unknown. We expect to find an -ā answering to Pkt. -īo in the successors of the Middle
Indian nouns ending in -i and we do, in fact, find it: Mar. bhint wall, pl. bhinlī; Konk. kūḍ body, pl. kūḍī; Bhadraw. baihnī sister, pl. baihnī; Kash. rālh night pl. rōčā. Whether -i, like -ā seemed awkward because it was reminiscent of the masculine singular, or the feminine singulars borrowed from Sanskrit (nadī, ājñā) or for some other reason, we generally find the endings enlarged: Eur. Rom. phen sister, pl. phenīā, ěrī, ěrīā; Torwali dhū daughter, pl. dhī (cf. ašī fem. sg. and pl.; masc. sg. aśā was). The enlarged ending in Sindhi is in a neuter form: rūlīā. In Lahnda it is simply adapted to the neuter: akkẖē eyes (Skt. aksīṇī a neuter which has become feminine with other -ī stems: a possible source of the neuter inflexion of the fem. pl.; chohrī, pl. of chohīr sister; rannā women, from rann (raṇḍī). There is the same transfer to the -ā declension in Hin. bahnē sisters etc.

The -ā nouns are modelled on the other declensions and particularly on those in -ā, either by analogy, Lahn. haṅā tears, like bhaṅā, zabānā; or by complete assimilation, Mar. vījā (Sind. vījūm).

**Plural of nouns of relationship**

The nouns of relationship in -r- continued for a long time to form a separate group and there are still traces of it to-day. Moreover, other nouns with cognate meanings were incorporated. For details of treatment in Middle Indian see p. 138 last para. carrying over to p. 139.

Now in Sindhi the nouns of relationship have preserved the characteristic r in the plural:

sg. piṛ̕, pl. piurā māर̕, māīr̕, bhāṛ, bhāurā

Similarly by analogy bhen̕, dhi̕, nuh̕.

Hindki dhūṛī daughters, nohrī beside nūḥā daughters-in-law, are, no doubt, relics of this declension, LSI, VIII, i, p. 337.

In Shina there is a group of relationship direct or by marriage, which has its plural in -āṛ̕: di daughter: diẓāṛ̕, ma mother; māẓāṛ̕, sa sister: sayāṛ̕, ūs mother-in-law: sasāṛ̕, grēn wife: gremāṛ̕, mçō son-in-law: ūmčāṛ̕, sairī brother-in-law: sainyāṛ̕ etc.

**Enlarged nouns**

The history of the direct cases of these nouns depends principally upon the formulas for contraction in each language. It will be at once remarked that in the nouns in -i, the Pkt. sg. -io and
pl. -iā result in the same ending; so Hin., Sind. mālī, Mar. mālī gardiner(s), are at once singular and plural. We need, therefore, make the masculines in -ao alone our basic consideration, to be followed by the neuters in -a(y)am and the feminines.

Masculines

In the singular Braj preserves the diphthong in the participles (gayau gone) and the infinitives (mārnau to strike); but ghōrā horse (see p. 184). In Sindhi, Rajasthan, Nepali and Bundelkhand the result is ghōra, Guj. ghōdo, Konk. mahālo barber; to these add Kash. gur, Shin. mālu (mahallaka- father), Torw. śu having become, Eur. Rom. khorō(ghala-) pot.

In Marathi, Hindi, Braj, Panjabi and Bengali: ghōdā, ghōrā; Pašai, Gawar. gora, Waig. lata father, Aṅk. kāra blind.

Syrian Romany has the two forms: bakra sheep, dīrqi long is the type for adjectives; the type janthī son-in-law (jāmālar), zarō boy, is exceptional, but is preserved in the preterite with the pronominal suffix: nandō-m, -r I have, thou hast brought. Marathi has also verb forms constructed on participles apparently in -lo and -to besides -lā, lā (cf. Doderet, BSOS, IV, p. 567). As regards Braj see above. For Bengali loke see p. 168 and 175.

In the plural the results differ, according as they developed from *-aya or *-aa (Skt. -akāh): Guj. ghōdā but Mar. ghōde, Bund. Hin. Panj. Sind. ghore, Kash. guri: Shin. māle, Waig. lāle fathers, Eur. Rom. khore pots; Nuri bakre sheep (extended to root nouns: manuse men, age fires).

Neuters

Mar. kaḍī plural of kaḍē bracelet; Guj. chokrā, plural of chokrū child.

The rules of contraction for the masculine and neuter are independent. Konkani, which has masc. ghōdo like Gujarati, has burgē child, in the neuter according to the Marathi rule, pl. ghode, burgim.

Feminines

Guj. ghōdī and, in all probability, Kash. gurē must be connected with Pkt. ghodīo. But there was besides a form -iō, -iāo, whence Guj. ghōḍīo, Konk. ghōḍyo, Mar. ghōḍyā, Eur. Rom. ranī ladies (Hin. rāṇī, Skt. rājñī); Hin. Panj. Raj. ghōriyā and perhaps Nuri conie, jūre from coni girl, jūri woman, have a neuter ending; cf. the neuter pāni-e waters; thus meeting masc. bakre, see above.
The same question arises for Shin. mulāyē beside mulāyo, plural of mulāī daughter, cf. achiye fem. eyes (formerly neut.), seve plural of saū bridge (selu-), and masc. mālē fathers.

The indirect cases

Opposed to the single direct case there is normally an oblique case with various functions, based on the old genitive and supported by postpositions. In addition we find to some extent everywhere the remains of three old cases, the instrumental, ablative and locative.

Instrumental

One would have thought that this case at least would leave considerable traces, as it had to be used with the past forms of the verb, which, as will be seen, are constructed as passives. This is not so; there survives little more than singular thematic forms, generally adverbial in function.

Old Marathi makes abundant use of it: sg. gādhavē (gardabhena); in senavaie the ending is applied to a stem in -i-(senāpalinā); masc. neut. pl. pandilī, cinhī (from Pkt. -ehim). As for the fem. sg. deviā, as distinct from the oblique devīe, are we to compare Pkt. -āe or is it a Sanskritism? In any case there is no plural: pājā by offerings, is an oblique, like the neuter adjective in aisā cinhī by such signs. There survive to-day only singular thematic forms in words serving as postpositions like mūlē because of, saṅgē in company of, or in groups of the type of āplyā kṛp-ē karūn by your favour.

In the enlarged adjective, masc. bodu, fem. būdā great, Kashmiri distinguishes the dat. sg. masc. baḍis, fem. baje from the agent masc. baḍi, fem. baji the endings of which go back probably through O. Kash. -e, -i to Pkt. -(a)ena, -īe.

In the plural the ending is confused with that of the ablative; and in the singular of root nouns masc. ṭūran seems to have been formed from the abl. ṭora. In any case it differs from it; cf. sūlin with, fromi *sahilena like Mar. śē, śī?

In Singhalese inanimate nouns, which correspond to the neuter root nouns, have an instrumental singular ending aṭen, alin (hastena) from atā (enlarged direct case) hand. The modern plural of these nouns being formed by a compound, the second
term of which behaves as a singular, the form of the instrumental is here the same: *alvalin* with the hands.

OWR -i apparently succeeds Skt. -ena, Apa. -ē: sūkhi, dehaī; and similarly pānī; O. Guj. ghodāī, hāthī. For the feminine srtī, mālāī. In the plural hāthe, nayāne, pānīe, fem. jvālāē, nārē, -e corresponds to Apa. -ahī, which replaces Pkt. -ehī. There survive only the forms in Guj. hāthe, Raj. ghoreī, Guj. ghode, ghodāe (direct ghodo, oblique ghodā).

In Old Bengali there is complete unification: begē (vegen a), -jāle, fem. tīlē, bhāntiyē (tīlayā, bhrāntyā) and in the plural: tīniē paṭē with (or in) three beings; there remains hāthe with the hand. Similarly in Maithili phalē, nenē beside nenā sā by the boy (direct nenā) and similarly pānīē and in the feminine kathē beliē. The ending -ē has become a suffix.

It is met again in the Northwest, but the extent of its occurrence is not ascertainable: Waig. avolē (Aškun awolā), Khowar chûi-en by hunger, Waig. sudē far (sudu distant), Khowar pacen for (probably pakteṇa).

**Ablative**

Here the fragments are rarer still and they also are connected with the originally adverbial singular ending, Pkt. -āo. A regular formation in Sind. -āu and included in Mar. -au-ni, -ū-n, it supplies to OWR the type hāthohāthai from hand to hand, disodisi everywhere, cf. Pa. disodisam. In the Northwest group we find Khow. an-ār from the mountain (gen. ano), ačar after, cf. ače behind; Torw. śira from the house, cf. instr. loc. širē, obl. šir; perhaps Gawarb. bābo from the father, cf. obl. bāba; O. Kash. ōsā from the mouth, Kash. cūra from the thief, pešha from above, andra from within. In European Romany the adverbs made with the corresponding ending have a locative sense: talal below, aṅgal, (agrata/:t, *aggato) before, and consequently muš-al opposite.

We also find a form with a nasal, which seems due to the analogy of the instrumental: Braj bhukhō from hunger, sō from, cf. Hin. se, Mar. sē with; OWR kopā from anger, is rare; Panj. gharō, Sind. gharā and consequently fem. zabānā from the tongue, norīā from the cord, plur. gharaniā from the houses; -aū, ī, ā are also found, particularly in the postpositions khā, khaū, khō from. We should probably further compare Ašk. awolā from hunger. And, in spite of the meaning, the old Marathi locatives gaḷā in the throat, iyā pāṭaṇē in this town of P., Kon. ṭelā, garā in the field, in the house, are no doubt of the same origin.
Locative; eastern oblique

Here again, the only old ending, which is clearly preserved, is that of the singular of thematic nouns. Skt. -e sometimes persists as -i; Kash. वारी in the field, O. Guj. हाथी (haste), cf. OWR ghari, kāi. Generally this vowel was dropped, Hīn. Rom. etc., dār far, La. घर at home, Beng. dōr dōr from door to door; leaving in exceptional cases a trace of itself in the preceding vowel, as Guj. घर, Kon. गर (from घरी), Lahnda जंगल (from जंगल, obl. जंगल). This form is preserved in a certain number of postpositions; Kash. मान्ज in the middle of, in (मध्ये), Hīn. pās near (पासे).

In enlarged nouns -ake becomes a vowel -e or -i: Rom. कहे, O. Kash. गरे, Guj. Panj. La. Raj. Braj, O. Beng. ग्हरे; O. Kash. अल्ले in the hand (हाले), dārī, antī, gāgāni; Kalasha khure near, Rom. अग्रे at the end, अन्द्रे inside. We still find in Marwari अगाई before, pachai behind, mai inside.

This ending was sometimes extended to other stems: Panj. चावे from चाह (u) shade (चाया); O. Kash. वटे on the way, dāre on the river (धारा), mod. dārī dārī with waves; O. Beng. साज्हे in the evening. There is no reason to believe that we have here the old oblique in -āe used as a locative; moreover, in OWR rātrai, bāhi (from बाहु) and particularly in vidyāī, शिकाई, -i is really a postposition.

A more serious difficulty is presented by the coexistence of two endings in Apabhramśa, -e, -i and -ahī (see p. 143). The latter is confirmed by O. Hīn. देशाई in the country, sevakahi nidrā lāgai sleep affects the servant; hīahi in the heart, beside दिवसाई; by Kash. antīhi beside antī; O. Sgh. veherahi beside veherā, and to-day there is still Lakhimpuri ग्हराई, गावई, बाजाराई (to go) to the house, village or bazaar, beside दुअरे (to be) at the door, outside, samahe before. In the feminine Lahnda akkhī, zabānī (Panj. pl. ग्हरी, हाथी are probably adaptations of this). In many cases it is impossible to detect on which of the endings -ai and -e rest. Moreover, confusions with the instrumental are to be expected: and ghode, in Gujarati and Marwari have actually these two values.

In Gujarati this ending functions as a suffix, when it follows the oblique; ghodāe, similarly fem. ghodāe, pl. ghodāe, ghodāoe, ghodīoe; similarly in Singhalese the locative plural is exceptionally formed by the combination of the oblique with -hi: लामबरान्हि in the lotuses.
Either simply because the locative is in general a case of all work, cf. p. 158; or in consequence of confusion with the enlarged masc. sg. oblique -ai from -ahi; or because a Pkt. pronominal oblique -ahi coming from Indo-european persisted or for any other reason, there is always in the eastern group an oblique, which coincides with the locative.

O. Awadhi-Tulsidas: sanche pahi to sum up, gunahi in virtue, are no longer locatives, any more than in the plural pāyana on the feet, pādhana on seats; and, in fact, we shall find not only corahī rāli na bhāvā the night is unpleasing to the thief, but also molihī jo glitter of pearl, Rāmāhī ṭīkā crowning of Rama, and purohitahī dekha rājā the king sees the chaplain, ultimately open to dispute.

O. Maithili haradahī in the pond, khelahī in the country, and also balahī by force (which might contain the remains of Pkt. -āhi) and especially satrahī ān he brings an enemy (another ending -hu; the remains of Apa. -ahu Pkt. -āo of the ablative?). Similarly O. Beng. kulē kula from bank to bank, but also sahaje kahei describes the sahajya (Cārya).

There was therefore a real oblique in this group based on the locative. It has now disappeared. In Maithili there is also another oblique in -ā; and in Bengali there is no longer a special form for the oblique. Perhaps -e has become an enlargement for direct cases, see above p. 168, 172.

**Oblique proper**

Excluding the above-mentioned survivals, inflexion, when there is any, always connotes, in contrast with the direct case, a case, which is capable of several oblique values and is generally supported by a postposition.

**Plural**

Almost everywhere the oblique appears clearly in the plural. It is characterized by the final nasal consonant or nasalised vowel.

O. Sgh. pilimalna wrestlers (pratimallānām); danan (janānām), mahaṇun (cf. AMg māhaṇānām); vedun doctors (vaidyaṇānām). In mod. Sgh. only animate nouns have an oblique plural.

Eur. Rom. mānuśen men, ēwan boys; fem. ēben tongues, phenien sisters; Nuri mānsān, ēnonan, fem. lačien girls.

Kati mančā men, from manči. Ašk. gōrā horses, brā brothers, susā sisters, nokaran servants. Waig. gorā horses, jārā friends (Pers. yār); with the plural suffix -kele: tātekeliyā fathers; Pras.
yākiliō fathers, luštkiliō girls. Pash. ādmeynos men; weyan wayā girls, from weya. Khow. dagan boys, annan mountains.

Kash. čūran thieves, dative of čūr; gurēn horses from gur"; fem. mālan garlands, from māl; rōēn nights, from rālh, garen mares, from gur"; Tiraḥi wranin sheep, adaman men; dun daughters, from dī.

Nasality is absent in Shin. -o, Torw. -a (cf. instr. -e).

Sind. āheani country, piunā, piuranā fathers, keharini lions; fem. sadhunā, vijunā lightning flashes, from vij"; rukhanā, rukhē, rukhā dry, from masc. rukho, rukhinā, rukhiē, rukhiā dry, from fem. rukhī; Braj. gharan(i), gharanu, gharaū; fem. bātan(i), bālaū.

Panj. Lah. Raj. gharā, Guj. gharo; Hin. gharō houses, ghoro horses, ghoriō mares; Mar. gharā, sultā threads (sūtra-), fem. ḳē bricks (istā-); ṛāli nights.

Awadhi (Lakhim) coran from cor, diyan from diyā lamp; admin, hindun, fem. lāḥhin sticks.

In the eastern group there are no proper obliques. But there are a few forms of it which serve particularly as plural suffixes: Maith. lokani, Mid. Beng. sabhān, Beng. -gulīn, -gulan beside -guli, -gula.

The coexistence of forms with nasal consonants and nasalised vowels in Sindhi and Braj agrees with the double ending of the old Hindi poets: Tulsidas surana, nāuna on the one hand and loganha, muninha, badhunha, dāsinha, nayanani on the other. These latter endings (and consequently the other endings in -n) arise from the addition of the Apabhraṃśa ending -(a)ha to the old ending (cf. conversely, p. 144, H. Smith, BSL, XXXIII, p. 171, n. indicates some parallels, and in particular the triple Hindi pronominal genitive in-h-ō these). The need for these reinforcements arose, no doubt, from the phonetic conflict between the direct neuter (then in course of time the feminine) proceeding from Skt. -āni and the genitive proceeding from -ānām.

Singular

In the masculine, the Pkt. ending -assa is recognisable in a part of the N-W group: Eur. Rom. cores (which, according to Turner, JRAS, 1927, p. 233; BSOS, V, p. 50, presumes an intermediate form *-asa; the accented pronoun kas would preserve a trace of -ss-), Nuri mansas (ending extended to the enlarged nouns: Eur. Rom. caves from cavō, Nuri cōnas from cōna) have the function of accusatives; Kash. čūras, guris (ghoṭakasya), Kal. moc-es of
the man, and consequently ēhūlas of the girl: Pash. lonis of salt, and weyas or wayes of the girl. In India proper only traces of it remain in the pronouns, where naturally the forms for the two genders correspond (asya, asyāḥ); Hin. is, āpas mē in it, mutually, Braj is beside yāhi, Panj. jis beside jih, Lah. ke nā-us what is his name? kass-is his fever, he has fever; jāle os fact known to him,—but in this last language, as also in Kashmiri, one might, if need be, regard it as a locative singular, comparing assi we, for the phonology.

Elsewhere, so far as root nouns are concerned, the locative type is exceptional, p. 175. As a general rule there is the well attested *-ā Apa. -aha: Mar. devā (unless this is an old dative, cf. LM, p. 184) from dev, Sind. devā from dev, Lah. kukkar from kukkur cock, Lakhim. ghara; Maith. anhāra blind, and infinitives dekābā from p. 178 under certain conditions; Beng. dekhībā(r) to see; Torw. pandā road, Gaw. bāb-a father, Ashk. māt-a man (in the three last languages -a in the feminine also), Kho. dag-o boy, an-o mountain, Waig. gūro from gur horse, and tato from tata father.

In Gujarati, Hindi etc. we find “zero endings” (see p. 179 end).

In enlarged nouns a trace of the old guttural often appears in the palatalisation of the vowel, the *ghorayā type: Raj. ghorā from ghorō, but Mar. ghodyā, Sind. Lah. Hin. ghere, Braj ghorai from ghorā (O. Brāj. ghodau); in Lakhimpuri ghorā does not vary, but in the radical nouns the oblique of ṭhand cold, is ēhande. In the feminine Marathi distinguishes māle, Pkt. mālāē from rāli, Pkt. rattle; similarly Eur. Rom. čiba from čib tongue, and phenē from phen sister (jihā, bhaqinī). Kashmiri makes māli uniform with rōēa. In Nuri, Sindhi, Hindi and a fortiori further East, and in Gujarati there is no special form.

In enlarged nouns, Pkt. -iāē: Mar. Guj. ghoḍē, Raj. Panj. Hin. Lakh. ghorī, cf. Torw. śī oblique of śū sister; but OWR devīa, rānīa, Rom. rānīā from rānī lady, Nuri côni-a girl (which seems to have carried with them the masculines in -i: bèlia friend); Sind. goli-a slave, probably Kash. gurē mare, Sgh. kikiliya from kikili hen.

European Romany still preserves the old value of the oblique: na delas ē Jakes či le xål did not give Jack anything to eat, sas me dades was my father's, sī les, len is his, theirs; with a more flexible use in the adverbs; tačanes in truth, akedives to-day. Elsewhere, even in languages, which have preserved other old oblique cases, the oblique expresses a greater variety of relations.
Kash. *retas kharaj* the expense of a month; *phakīras osu* was the fakir's; *niyē khabar rājēs* the news was brought to the king; *mast kāsani amīs tālēnākās* to cut this lapidary's hair, and *kēnchāh kartā amīs tālēnākās* do something in connexion with this lapidary; *dop*.... *pananis mōlis* (she) said to her father; *wūchās grīstiyyaras* I arrived at the house of a peasant, beside *garan* in the houses, *wōlu gara* (direct) he arrived at the house, and *gari* (abl.) *bēhun* to remain at home; *jenatas kina dōzhakas* in heaven or hell; *suābhas* in the morning. Ashk. *gōrā* (put the saddle) on the horse, opposed to the direct *gorā* (I give) a horse.

Inscr. O. Mar. *madhā dīnhalā* given to the temple; Jñānēśvarī p. 179 *vasayā bhedē* by the difference of age; *le samastā kriyā nānu* it is the name of all activities; but also *māsiyā kope* is annoyed at the flies, *gaganā bhefē* he touches the sky, *svabhāvē vilayā jālī* from their nature go to destruction (there is a locative: *sāgarī* in the ocean).

Similarly Sind. *pānawā-yā pabbūhā* (seduced) by the smile of the hero.

This construction of the oblique is exceptional; it serves normally, according to the grammarians, as base to a composite word, the second part of which is a "postposition", which is, in fact, a declined word governing the genitive. The construction is therefore the same as the French *à côté de* beside, *dans la direction de* in the direction of, *à l'égard de* with regard to, etc.

This is old. O. Mar. *aisayā kājā lāgī* for such acts, *kṛṣṇā te mhaṇe* he says to Kṛṣṇa.

O. Awa. (Tulsī Dās) *barahi lāgi* for the bridegroom, *milehī mājha* in obtaining.

O. Beng. (Saraḥa) *svapanē mai* in sleep.

O. Kash. (Lāl Ded) *pānās manz* in myself, *kaṇē pēthay* on the stone.

Kashmiri presents a complication: besides the old genitive (called dative) *cūras* there remains an ablative *cūra*. Now, while postpositions like *andar* inside, in, *manz* in the midst of, in, *kyut* for, etc., go with the dative, the postpositions with the meaning and in the form of the ablative go with the noun in the ablative: *aṭa pētha* from the market, similarly *andarā* from among, *kīn* because of etc. This construction cannot be old. Sanskrit uses *samāpāl* like *samīpe*, with the genitive. Still it must be observed that in O. Marathi the words meaning "with" are instrumentals accompanying nouns in the instrumental: *jivilē sī* with life, *ihī nānābhālē sahilē* with these diverse creatures. We have here, therefore, either reduplication of expression or attraction of form
dating from the early period of the modern languages; and not a survival of the Sanskrit type *madhya samudra* see p. 159.

Zero endings.

We have seen that in Gujarati and in the Hindi group the radial nouns have no oblique singular. This is an old idiom. Tulsi Das has *rāghubāṃsinha maha* among the Raghu family, *tarubāranha madhya* in the fine trees; but *chana mahā* in a moment, *jaga mājā* in the world, *saciva saṅga* with the minister, *Sambhu pahā* near Sambhu, *bīrīcha tare* at the foot of the tree, *bhagatana* (obl. pl. acting as a genitive) *hīla lāgī* for the good of devotees, *Dacchakumārī saṅga* with the daughters of Daṅga.

In O. Gujarati we find the zero radical oblique and the enlarged oblique in the same sentence: *vargā taṅā pahilā akṣara parai* after the first letter belonging to a varga (direct *taṅau, pahilau*). In OWR Tessitori notes that *-ha* "has a very strong tendency to vanish without leaving any trace"; *vanaha mahi* in the forest, but *Jina sāthi* with the Jina, and even, but more rarely, with a plural: *kumāra sī* with the princes.

The fact that the oblique appears in the other forms leads one to suppose that here there has actually been a quick reduction of the ending. However, we find in O. Marathi *nityayāga sahilé* with the periodic sacrifices, in O. Kashmiri (Lāl Ded) *bara pēlha* on the door, against *cāyēs bāgābaras* I will enter (by) the garden gate.

It seems therefore that here there may have been a convergence of dependent and compound constructions, reproducing the early doublets: Skt. *lasya samīpāl* and *latsamīpāl*, *upari ghanānām* and *Cāṅakyopārali*, Pa. *Golamassa sanīlike* and *nibbānasānīlike*, *vānarassa pitēhe* and *sihipiṭhe*. The poets, no doubt, at a very early date took the liberty of recording the evolved form of the oblique which by a lucky coincidence was identical with a cherished traditional form. This is why Cand records the oblique of the possessive adjective of the pronoun: *tā* (Apa. *lahu*), but not that of the noun in: *tā ke kula le uppanau* born of his race, and without a postposition: *saba jana soca uppanau* to all the world the anxiety is born.

This is perhaps just the effect of a style in which grammatical relations are effaced, so as to recall the long compounds of the fine Sanskrit style. It must be said, however, that this effect would not be so marked, if the spelling preserved (as the pronunciation of the poet at least probably did) the feebly articulated but still perceptible vowels, as it still does in Sindhi and Lakhimpuri. Perhaps there were here at first *sabī jant socu*. 
In one case the form preceding the postposition is the direct case. This is when the postposition is originally not a noun, but a verb with a direct object (cf. p. 160). So in Shina *mažā* in, *sāli* with, go with the oblique, but *gi* (*gṛhilvā*) with (made) of, is used with the direct case: *cilim rilgi* copper pipe; but the oblique is admitted by analogy: *cilim rilai gi*. In O. Mar. *vācini* except, properly "leaving", is still constructed with the direct case. In Bengali they say *Mathurāpurī mājhe* in the town of M., and *ban mājhe* in the wood, but only *hāth diā dekha* examine with (placing) the hand; *mor ṭhāyi* in my place, mine, but *āmā chāṛā* without me, besides me.

*The postpositions. The possessive adjective*

The part played by the postpositions having been thus defined, it would seem that it only remains to classify them etymologically. This would be correct, if the words used as postpositions had all retained an independent existence and a clarity comparable to that of the French prepositions *de*, *depuis*, *parmi*, *saut*, etc. But this is not the case; a large number of Indian words exist only as grammatical implements. Cf. the English prefix *a-* in *a-broad*, *a-sleep*. They have on this account suffered a phonetic deterioration, which is brought out in certain doublets: Sind. *mājhā* and *mā* in, Hin. *ūpar* and *par* (this is not a question of Skt. *apari* but of a word constructed as a locative, Pkt. *uppari*, Panj. *uppar*; locatives in form are Rom. *opre*, cf. *oprāl* abl., Mar. *varī*); Shin. *golēž āže* on the house, contain the same word twice. The effect of this deterioration is that the etymological interpretation of these postpositions is often difficult or impossible.

The distinction between words of clear origin and atrophied words reduced to the condition of grammatical implements has led the writers of grammars to make a distinction between case-affixes and postpositions. This distinction, although invalid theoretically, has, however, a real basis to this extent that speakers can recognise certain words as having an independent existence, like Kash. *manz* which signifies "the middle" as well as "in"; while others have no connexions, as Mar. Sind. -lā, Hin. *ko* to, Braj. *sō*, Hin. *se* with, from; Guj. -ne to, Hin. *ne* by. Both classes appear in varying forms in the same or in different languages: Kash. *peṭhī* loc. *peṭha* abl. (*prśha-*), Mar. *pāśē* loc. like Hin. *pāś*, but *pāsūn* abl. (*pāṛśva-*); Sind. *sē*, Hin. *se*, Braj *sō* by; Beng. *ke*, Hin. *ko* to.
Further it may happen that a postposition is no longer a substantive or an absolutive (see p. 159-60), but an adjective signifying something like “relating to” and agreeing with the noun to which the oblique to which it is attached, is complementary. This is what current grammars call the genitive.

The use of the possessive adjective dates from the middle ages. O. Mar. (Jñan.) jayā ceyā indriyā ceyā gharā in the house of the organs of whom (the English order is the inverse of the Marathi), layāciye diḥi in his sight, khapaneyā cā gāvē in the village of beggars.

Tulsi Das: santanha kara sātha the company of saints, jā kari lai āsī of whom thou art the slave.

Lal Ded: gōra sondu wanun the word of the master, dayē sanzē prahē with the love of God (for santaka see p. 160).

Modern examples:

Sind. ghara jo dhanī the master of the house
gharāni jo dhanī the master of houses
mursa jī jōe the wife of the man
mursāni jā joyū the wives of the men
priyā sande pārā in the direction of friends

Hin. kutte kā sir the head of the dog
kutte ke sir par on the head of the dog (where the part played by sir as an oblique is exactly marked by the post-position ke agreeing with it).

Lakh. Gopāl ke larikā the son of G.
Gopāl ke larikā the sons of G.
Gopāl ki laūriyā the daughter of G.
Gopāl kē larika ke to the son of G.

Similarly for Mar. cā (cī, cē), Guj. no (nī, nū), Raj. ro, Panj. dā, Sind. jo, Eur. Rom. ko, kero, Kash. hondu with all the feminine singulars and plurals (Sindhi uses sando <santaka-, not hūndo <bhavantaka-), Kash. ukʷ, unʷ reserved for masc. sg.; finally kyun noting more particularly destination, cf. Skt. krtya-. In Bengali the normally indeclinable adjective explains the ending of the genitive -er, Oriya -ār.

The use of this adjective permits the formation of compound postpositions; just as English has at the top of beside over, so Hindi employs ke āpar, the second term of which is a noun, beside par; similarly Sind. je āge in front of, before, Beng. -er bāhire outside, -er bhilāre inside. This well-developed system of periphrases absorbs a variety of substantives in Hindi, mainly Perso-arabic.
The postposition expressing appurtenance is then an adjective. Now this adjective may have originally been compoundable with the noun complement, which we most often meet with in the oblique.

We still find exceptionally the two constructions in Marathi: *ghar cā* belonging to the household, and *gharā cā* of the house, and in O. W. Rajasthani: *deva tañai prāsādi* in the temple of God; *devatānā kusuma tañi vṛṣṭi* rain of flowers of the gods, and, on the other hand, *caritra suṇyā lasu tañā* his (3-4) exploits (1) were heard of.

In modern times, the possessive adjective may be attached not only to the oblique, but to phrases already containing a post-position, on the model of the complex postpositions: as you can say in Gujarati *nisāl-mā-thā* from inside the school, so you can say *ghar-mā-nī chokrī* the girl in the house, *ā deś-mā-nā loko* the people of (in) this country; and in Marathi *gharī-cā* of (in) the house, *tyā divaśī-cā* of that day. This is a valuable construction, because it partly compensates for the absence of subordination, about which we shall speak later.

Thus modern inflexion tends to be distributed into two cases, viz: direct and oblique; but it has not reached this point in every case; and, moreover, as the words requiring the oblique are according to the usual rule, suffixed to it, the new inflexion tends to assume once more the appearance of a declension with terminations. One might imagine therefore an evolution in progress, which would end in an old style inflexion added to oblique bases transformed to stems of roots. But the difficulty of this lies in the fact that the possessive adjective is declinable and thus set apart from other suffixes. Now government of the noun expressing itself solely by indeclinable suffixes is very rare: Sgh. *gē (grhe)*; Ashk. *wa*; Waig. *bā (bhāvā?)*; Torw. *se, si*; in a central language, Marw. *rai*, cf. OWR *vraḷa raha pīḍā (vraḷānām pīḍā)*. The system therefore is not yet approaching a stable equilibrium.

**ADJECTIVES**

Adjectives have no particular formation. They can, like the nouns, have either radical or enlarged forms (adjectives borrowed from Sanskrit and the Muslim languages belong to the first category): Mar. *āc*; Hin. *āṇcā*, fem. *āṇcī* high.
In Braj exceptionally the enlarged form of adjective differs in the masc. sg. from that of nouns: at Aligarh chōtau beḷā, at Agra lauhrau chaurā younger son. One is at first tempted to see in this the result of grouping: it is in this way that we find in Nuri the substantive kajja a non-Gipsy, on the one hand, and also the participle isolated in its verbal function nanda he brought, and, on the other hand, the participle enclosed in a group nando-m I brought. At any rate the formula does not apply to Braj, where the participle functioning as a finite verb has at the end of the group the same form as the adjective: chōtau beḷā calyau gayau the younger son went away. There are here two mixed types of declension; that of the nouns must have been borrowed comparatively recently from another form of speech of the Hindi-Panjabi type.

**Concord**

In the languages admitting grammatical gender concord in gender occurs in the enlarged forms and also in root forms where the final vowel is preserved: Sind. umir1 causāl (masc. causāl*) age of four years; similarly Tulsi Das dāhini ākhī right eye, and sapatha bari great curse, where the adjective alone marks the gender. Lakhimpuri has preserved this use: pālar, pālar1 (cf. pālalo; derived from patrā leaf) thin; nik, nik1 good m. f. (Persian); but the vowel is long in the enlarged adjectives: thorā, thorī little m. f. Also Kati ev ēger ari a bad boy, ev ēgeri juk a bad girl.

In Bengali refined speech tends to use Sanskrit terminations to suit the meaning: sundar bālak pretty boy, sundari bālikā pretty girl; parama mitra incomparable friend, paramā śānti supreme peace. In general it seems that the extended use of long forms is modern; Hindi appears to employ radicals by preference in the masculine, where a change of construction permits a doubt; adhcandar half moon, a Sanskrit compound, but ādhā cānd with the tadbhava; yē bāl sac hai this story is true, but sacci bāl. A word like sab all, is removed from the category of adjectives to join that of numerals. We catch a glimpse of a search for clearness and distinctness in dār far, but dūr kā, hī distant m. f.; kāl time, famine, kāḷā black (exceptionally kāḷjuārī inveterate gambler.

As the adjective is formed like the substantive, it might have been expected that its inflexion should be parallel with that of the substantive and that concord can take place between radical and enlarged forms: Hin. miḷhe bacan se with a sweet voice; kāle ghore ko, Mar. kālyā ghodīyā-s to the black horse; thand pānyā nē
with cold water. Actually the complete concord, which is the norm in Sanskrit, is only met with in certain languages: Kashmiri (badis aṅgālis manz in great darkness, fem. bajē garībiye manz in great poverty, bājhau mālau by great garlands); Sindhi (cōthē ḍīhā on the fourth day, ketirā umīrī jo (masc.) of what age, thoran ḍīhanī khā po after several days); Panjabi and Gujarati (omitting the suffix -o of the plural of the noun). Lakhimpuri offers the exceptional case of noun inflexion atrophied in the presence of normally declined adjectives.

But even in Sindhi we see the oblique singular replacing the plural: kūre (or kurānī) nabianī khe to the false prophets. It is also the Hindi usage: kāle ghorē ko, kāle ghorō ko to the black horse, to the black horses; kālī billī, billiyō ko to the black cat(s). At the bottom of this simplification we catch a glimpse of a phonetic dissimilation, which took place before the period in which the final *ā of the oblique plural was dulled: *kālayā ghorayā > *kālaya ghorayā > kāle ghora(y)ā (Braj ghoraū). That it is actually an alteration due to the grouping, is shown by the fact that it is produced not only in the type pile phulō-wālā gandā jasmine with yellow flowers, but with substantives: ham bacce logā ko to us children, lārke aur larkiyō ke liye for boys and girls, and particularly with a feminine noun bāle bātō mē while speaking, in the words (apparently bāle for bātē dir. pl.). This last example helps us to understand how the oblique singular may have been conceived as a direct plural in the masculine, ghorē having these two values. We must also take into account its grouping with pronouns: in logō ne by these people, against inhō ne by them; and ham which may be direct or oblique; ham logō ne by us. Kālī billiyō can then be explained equally well by reference to kālī billī obl. sg. resembling the direct case or to kālī billiyā dir. pl., the latter, moreover, having been formed in accordance with the principle of dissimilation of words in groups.

Elsewhere the reduction of the inflexion of the adjective has operated in another way. European Romany has like Hindi kale manūšes, kale manušen black man, men, but the masculine form has encroached further on the feminine plural. In Marathi the same thing has happened, but the feminine singular also has the masculine form.

In Shina and Gawarbati the adjective agrees in gender but has no oblique form.

Thus the inflexion of the adjective tends to be reduced in various ways and the history of this movement is still incomplete.
Comparison of adjectives

In the short list of suffixes given above there was no mention of comparative or superlative suffixes. Sanskrit possessed two sets inherited from Indo-European; the one -īyāṁs- and -iṣṭha- added directly to the root, and the other -tara- and -tama- of adjectival origin. The latter set, which is more clear-cut, was the more usual in classical Sanskrit and apparently persists in Prakrit. But it is instructive to find that -tara- alone is productive in Pali and Asokan (the enlarged adjectives in -stā in Ashkun and Waigeli do not therefore contain the superlative suffix, but as Morgenstierne has seen, must be juxtaposed forms comprising a suffix related to the root shā-).

But the comparative in suffix form was itself in danger of extinction. Already in relatively late layers of Pali we find a new formula, namely a positive adjective with the object of comparison in the ablative: santi te nālīlo · bāhū they are (more) numerous than (from) the relatives (Mahāvarṣa, a relatively late text). This formula coincides with the Dravidian idiom and is found again in Munda, where perhaps it is due to Indo-aryan influence; for it is not found in Sora and moreover Munda uses an intensive infix.

The expression signifying "from" naturally varies according to the particular language: Hin. se, Guj. thi, Panj. tho, Chat. le, Beng. hoite, thākiyā, Shin. ō, Torw. kejā, Ashk. tai, Sgh. ța, etc. There are other expressions: Kash. niše near, khola a casual form of the participle of khas- to mount (of Iranian origin, see Horn s.v. xās-); Beh. and O. Awa. cāhi, Beng. cāhiyā looking at, Nep. bhāndā speaking of.

The old suffix of the comparative seems only to survive in Lahnda cang-erā better, rather good (one can hardly count the Guj. anero other, Skt. anyatara-). European Romany has borrowed the corresponding suffix of Iranian and combined it with the negative: šan tu bavaleder na mē art thou richer than I? and even with the ablative like Indian: bārēder na tule greater not from-thee.

The relative superlative is similarly expressed by the positive, but is accompanied by words signifying "more than all" or p. 187 "amongst all", cf. already Pa. ētesu kataram nu kho mahāntam among them (all) which is then the great(est)? Hin. yē ghar sab se ūncā hai this house is high from all, in perō mē bārā yehi hai amongst these trees it is the high(est).

As for the absolute superlative the popular formula is reduplication, Hin. garam garam dūdh very hot milk, Beng. bhāla
bhâla kâpar very fine clothes. An adverb meaning much can also be used: O. Mar. thor, Hin. bahut, nihâyat, Kash. sêljhâ, Sgh. iltâ; rarely an adjective with the meaning of great can be prefixed: Hin. barâ tucâ (great) very high, Mar. moûlit lämb kâlhî great-long stick, very long, cf. the complex adjective cãnglâ šahâñâ well-advised, very wise. Details are immaterial; the important point is that there is only one form of adjective.

The article

In Sanskrit there is no article, cf. p. 128. However the anaphoretic force of the pronoun sah tended to disappear quite early and in Epic and particularly in the Buddhist texts, it often functions as a true article. This position midway between article and demonstrative is still met with to-day in more than one language, but European Romany alone of all the Indo-aryan languages has a true article evidently due to Greek influence. The Indo-aryan noun is therefore as a rule apathetic about determination.

On the other hand, there is a tendency to denote non-determination by the representative of eka- one; this usage goes a long way back: from the time of the AV the plural eke signifies “some, certain”; the epic and pre-eminently the Jatakas furnish a number of instances of eka- with an indefinite force. Nowadays “one” must be expressed and it is suffixed in Singhalese (minihek a man, gamak a village; it carries the inflexion of the group) and in Nuri (jûri-k a woman, jûri the woman, distinct from ë-jûri that woman); in this case, of course, the substantive without the suffix has a definite force. In Kashmiri in which -ah suffixed to the indefinite nom. sg. is not compulsory, the bare substantive is not ipso facto made determinate.

There exist, however, indirect methods of determination. In Hindi, Lahnda, Sindhi, Bengali and Tirahi (LSI, I, 1 p. 271) the definite object is placed, not in the direct case, but in the oblique followed by the postposition, signifying “to”: Hin. pânî mez par rakhâ put water on the table, pânî ko thândâ karo cool the water; koî naukar lâo bring a servant, naukar ko sâlh lâo bring the servant with you; Sdh kañik khe bhâñâ mè mere rakhô collect the grain and bring it into the barn. The rule only applies in Bengali to animate nouns and consequently to the names of persons: goru carây he pastures cattle: gorutâ ke bândho tie up the cow (lâ has already a determinative force, see below); O. Beng. Radhâ ka dekhîm seeing Râdhâ, barâyi ka chârî leaving the old woman; similarly
in Gujarati: hū Gopāl-ne kārkūn ṭhervā chā I appoint Gopal clerk, rai-rāk-ne samān dṛṣṭie jolo he would look on rich and poor with impartial eye, bhūdo-ne cārvā sāru for feeding the pigs; in Marathi mī lūlā ek rājā dākhilō I am going to show you a king, but āpan rājā-lā jāān pāhūṇi let us go and see the king; in Awadhi (Lakhimpuri) mardon kə ta māḍḍāreu you have already massacred the men.

In Kashmiri and in Eur. Romany the oblique alone has the force of a dative; it also serves in Kashmiri as a direct object in the case of persons: wāzas mārān beating the cook, in Romany for persons and less strictly for animals: and pānī bring water, kūr i jukles strike the dog, and dui gren bring two horses (indeterminate); and on the other hand ċā mo grai lead my horse; khārdas ī mūršes are he called the man inside. In Nuri the inanimate direct object has no ending, while the animate object is in the oblique. The same is the case in Singhalese.

Thus we see the ideas of definite and animate meet; historical details are not available. It is possible that the result has come about from the absence of a direct object in the personal pronouns.

In Maithili the enlarged form which is as a rule emphatic, can assume a force equivalent to the article: nenʷwā the boy, is familiar or contemptuous; but ghorʷwā simply means the horse in question.

In Chattisgarhi har(apara-) other, suffixed to a noun, means “others”, etc.: but this meaning is expugned in omānke ek har one of them; there are also ċōhar he, inhar they; and it ends by being used as an article in ceriyā har the maid, sūā har the parrot, gar har the neck (Hiralal, p. 37, 41).

To the extent that it is a question of the particular use of simply emphatic processes, numeral nouns can be considered as determined in much the same way: Hin. donō the two, tīnō the three, cf. saikrō hundreds (forms of obliques), cf. Chat. duno, tinno, saio and sabo all, Maith. dunʷ, Aw. dou, căriu, cf. ekau one also, ghar or gharau se from the very house, OWR bihu, trihū, cihū and with emphatic -i aḍhārai lipi the 18 alphabets, Aw. kullait he dog. Mar. doghe, tighe, caughe (declinable), Bhoj. dogo, tingo are obscure, but are formed on the same principle.

Bengali has a very peculiar idiom, the suffixing of determinative particles to the noun. Ṭā denotes large or coarse objects, ṭi small, delicate, pleasant things: mānuṣ man, ek or ekā or ek̐i mānuṣ a man; mānuṣṭā or -ṭi the man. Similarly for flat and elongated objects: (from P. khāna) bal khāna the book, kāparkhānī the (pretty) piece of material, and for objects resembling a stick (gāch tree) lāṭhi-gāch the stick, chari-gāchi the walking-stick,
PERSONAL PRONOUNS

While the nominative and accusative of nouns merged into a direct case, the nominative and accusative of pronouns had originally different stems. But influenced by noun stems and also by other pronominal stems, notably the relatives, which were regularly in opposition to them, the demonstratives often took the nominal type of inflexion. The 1st and 2nd personal pronouns, as they did not relate to things, felt this process less and the subject case continued to be in opposition to the others. Then the direct object was in danger of becoming merged with the indirect cases. This is what happened, for example, in Ashkun: *ima tō lānumiś* we shall beat thee, like *ai tō pāla pṛēm* I give thee an apple, or *tō-a bra* thy (of thee) brothers. The beginning of this evolution goes back, no doubt, to the Vedic use of the enclitics *nāḥ, vah* and to the use of *me, te* with an accusative as well as a genitive and dative force, which is restricted in Sanskrit, but well attested in Middle Indian. We have already seen that an accusative *māmam* beside *mam* was created in Early Middle Indian on the lines of the genitive *mama*. Prakrit added *mahāṃ* after *maha* and finally Apabhraṃśa has *maiṃ* (Hin. *maĩ*) which is an instrumental.

This confusion of the accusative with the obliques became in its turn troublesome to the languages in which the accusative of nouns was identical with the nominative. This was perhaps one of the determining factors of the extension of the attributive postpositions signifying "to, for" to the personal pronouns of the direct object, when the use of postpositions became widely spread. This use must have, in its turn, strengthened the tendency of syntax to make a general distinction between animate and inanimate nouns (see above, p. 188).
On the other hand, dominant forms tend to absorb nominatives. Hence in Pali there are already amhe, lumhe (Asokan maye from Pa. mayam and lu(p)phe) which gave greater regularity to the plural in the Prakritic languages. In the modern languages Mar. mī, Hin. mai etc., the usual instrumentals with verbs in past tenses, have become direct cases (see below).

**Singular**

**1st person**

The representative of Skt. ahām or rather of Middle Indian ahakam still survives in a certain number of languages: Braj haū, O. Guj. hāu becoming hām, Malw. Marw. hūm, Kon. hām, O. Panj haū replaced by mai, Sdh. āū, ām; Pashai, Gawb, Tor., Kal, Tir, ao, Kho. āwa (Do Kati uz, ūc, Pras. unzū represent *afham as has been supposed?) Ashk. ai, Waig. ye are perhaps demonstratives; Kash. bōh is obscure.

Panj. mai (and Lahnda mām) is originally an instrumental (already recorded in Apabhraṃśa as an accusative). The same form is found in Braj, Jaipuri, Mewati and Awadhi; old Maithili, Bhojpuri (when speaking to inferiors) have mē. And no doubt Mar. mī, Nep. ma (nasalised in pronunciation) go back to this form. The eastern group has an analogous form based on the oblique mo-: O. Beng. moe, Beng. mui, Ass. mai, Or. mū. Eur. Rom. me, Nuri ama opposed to the common plural ame, Shi. ma are far from clear. In any case they also come from an oblique form. Panjabi distinguishes agential and nominative mai from the oblique mai, me. Gujarati has also agential mē opposed to the oblique ma-, maj-, muj.

Several forms originate from obliques.

Nuri -m (beside ama which resembles the nominative), Lah. -m, Sdh. -m1, Kash. mē -m, Pash. me, -m, Tir, Tor. me, Pras. -m may represent Skt, Pkt me. The forms with a long or a retained vowel would be archaisms explicable in pronouns. But Torwali has acc. mā beside nom. ā, ai, obl. me, which may perhaps be the old genitive maha preserved as an oblique in O. Mar. mā-, Guj, Mal, Jai. ma-, Sdh. dial. māhi, Konk. mā- beside moj-, Kho. ma, Tir. ma beside me; cf. Ashk. ima genitive (but what does obl. yūm represent?). Besides maha Apabhraṃśa had mahu, which is recognisable in Sdh. mūm, Jai. Mew. mūm, Braj, Bund., east Hin, Bih., Beng, etc. mo- (Braj, Bagheli, Maith., Bhoj mohi have the
nominal oblique suffix -hi). The other genitive Pkt. majjha is retained in mājh-, Guj. maj, Kon. moj-, Mew. muj, Braj and Hin. mujh (vowel influenced by tuj). In the North-west Waig. im confronting nom. ye, Kati ìm and even Ashkun yûm, gen. ima remind one rather of ayam than of aham. The confusion is not unknown in literary Middle Indian. At all events the acc. -ê, -î, -a my m. f., in Kati cannot be pronouns. The pronouns have enclitic forms. The oblique forms have been cited and besides these we find Sdh. -s*, Kash. -s which should represent asmi.

Singhalese has the subjective mama, which curiously recalls the Sanskrit genitive, beside the oblique mā. Pashai mam agential beside oblique me is this same form or is derived from it.

2ND PERSON

Mar. Kon. Sdh. Lah. Panj. tūm, Guj. tū, Aw. tū, Eur. Rom. tu, Nuri atu present no difficulty. But, while noting that Sgh. tō may rest on tava, we would shrink from a decision on the original of Kati tyū, Kho., Gaw, Kal. tu, Pash. to, Tor. tu (beside ta, tai formed on a, ai), Tir. tu, to, Shi. tu, Kash. cah.

In India proper the most frequent types of oblique are tujḥ- and to- resting on Pkt. tujjha and Skt. tava. Pash. -e (dand-e thy teeth), Nuri -r, Sdh. -e, Lah. -î appear to go back to Skt. Pkt. le; but there is also Pkt. lāe which is recalled by O. Kash. tōyē, mod. ce (but enclitic -th, -y). Similarly Kal. tai, Panj lai, p. 192 Lah tā. We can come to no decision about Tir. le (nom. as well as agent), Tor. le distinct from gen. ē (cf. Kati plā-ś given to thee, opposed to tot-ēḷ thy father) and of acc. lā. Opposed to unzū I, Prasun has iyū, obl. ī- thou, which resembles a demonstrative pronoun, like, conversely, Kati īm I, opposed to tu.

The enclitic forms with subjective force, Kash. -kh, Lah. ē, ī, Sdh. -e, fem. ā are obscure. The Singhalese oblique has a unique peculiarity in its ability to express the gender of the person addressed: masc. tā, fem. lī (lī gē ala thy hand (of a female), tā gē ala thy hand, male or common).

Plural

In the 1st person Skt. vayam persists in Shin. bē and in some other languages in the same area according to Morgenstierne, Ind. Ling. V (1935), 360. The other forms are classed generally according to the phonetic development of the Sanskrit group, sibilant followed by nasal, in asmal, yuṣmal, etc.
The Prakritic group has *mh (hm) in all cases: Mar. āmhī, obl. āmhā; tumhī obl. tumhā; Guj. ame, am; lame, lam; Raj. mhe, mhā; the, thā; Braj ham, hama; tum, tumha; Beng. āmi, āmā; tumī, tomā; Nuri ame, menatme (the oblique atran, -ran is formed from the oblique singular); single forms: Hin. ham, tum(h); Nep. hamī, tīmī; Maith. ham, thō; Rom. amen, tumen.

In the western languages *m after sibilant gives *v; whence *asve, while *tuṣv- results in *tuḥv-: Kash. asi, obl. ase; tōhī obl. tōhē; Sdh. asēm, obl. asām, tawhīm obl. (1)a(v)hām; Shi. as oblique of be, čho.

In Panjabi and in Lahnda, whether the two groups have been treated the same or the second person has been assimilated to the first, we have Lah. assīm, tussīm, Panj. asīm, tusīm, obl. asām, tusām.

Singhalese has āpi, obl. apa we; tepi, obl. topa you (type *apphe already found in Asokan, see p. 147).

A treatment *tuḥv- distinct from ahm- perhaps explains Tir. mēn obl. myā; tā Tor. mo: tho, to Garwi gen. mō: gen. thā.

The difference between hiss-sounds and hush-sounds no doubt explains Kati ema we, śā you (a form Iranian in appearance, but not found in the neighbouring Iranian languages).

But in the North-West we meet with obscurities: Kho. ispa (asmal?), pisa, old bisa (vah+-smal?); Kal. ābi we, you, obl. homa (we), mēmi (you). This last group recalls Garwi (1st pers.) ama (2nd pers.) ama (2nd pers.) Pash. (1st) hama, (2nd) (h)ēmā. We have a glimpse of intruding demonstratives: Waig. yema, yuma we, plural of ye, obl. ām are reminiscent of Skt. ime, while the plural of tu, which is vi, vima might well carry on yūam (or vah which might have, on the other hand, driven out vayam?). Conversely, in Prasun opposed to wē obl. yam (yūam, yushman) we find true pronouns in the 1st person: sg. unzū, obl. um, pl. asē, obl. as.

In the languages in which the complement of the noun is denoted by an adjective of possession consisting of a noun with a suffix, the relation of genitive in pronouns tends to be expressed by a derived adjective. Marathi makes mājhā, tujhā my, thy, in the singular from the oblique stems māj-, tujh-; but in the plural it has ām cā, tum cā like the nouns.

The most usual type of adjective rests upon a derivative of the genitive, which is not Skt. mamaka-, but on an analogous principle *mamakara- or *mahakara- (Apa. mahāra) crossed in the course of time with the oblique; Jai. Mal. Mar m(h)āro, Guj. māro; Braj meryau, merau, Mew., Kanauji Nep. mero, Panj. Hin. merā, Eur. Rom. mīro (Nuri uses the true genitive); eastern Hin. Maith, Beng. mor.
HONORIFICS

Sindhi treats all pronouns like nouns. Kashmiri does the same and uses sometimes the suffix of masc. proper nouns: myón“, són“, chyón“ like Rāmun“ and sometimes the ordinary adjective of possession: tuhondu like cūrasond“, mālihond“. The personal pronouns reveal more clearly than any other section of grammar that the literary languages of Middle Indian represent only one part of the Indian linguistic group. The starting point is the same for the whole group, but the phonology, among other things, has subsequently isolated Singhalese on the one hand and the Hindu-kush dialects on the other.

RESPECTFUL FORMS

The personal pronouns have not in practice everywhere preserved their etymological values. In India social relations, within or without the family, impose lights and shades, which at once have an effect on vocabulary and grammar. Thus the use of “thou” is naturally forbidden to one addressing a single respectable person. “You” (sg.) is expressed in certain cases and was already expressed in Middle Indian by the pronoun in the 2nd plural, in other cases by a noun such as maharāj, huzūr, sāheb etc. (cf. Skt. bhavanl-) constructed with the 3rd person, generally in the plural and finally by the representative of Skt. ālman- signifying originally “soul, person” and otherwise used as a reflexive pronoun in the three persons, meaning “ourselves, yourself, himself” as the case may be and constructed in different ways according to the language.

In Singhalese tō is haughty and discourteous: uṇba or nuba is used by equal to equal (with the 3rd person); lamā (ālman-), lamusē are respectful. They can be strengthened by vahan sē (shadow of the sandals).

In Marathi āmhi is to mi as English we to I. Similarly tumhi you, is employed, when speaking to someone, who does not belong to the family or is not an inferior. But in addressing a superior you is expressed by āpan with the verb in the 2nd pers. plural. Similarly in Gujarati adults are addressed as tā only among rustics; tame is the ordinary form. Āp and the 2nd pers. plural are used to express respect.

Hindi observes the same niceties, but constructs āp with the 3rd pers. plural. It is inclined to use ham (with the verb in the 1st plural) to indicate a single individual with no shade of ostentation. Similarly in Lakhimpuri ham kahen is commoner than mai kaheiū. Tui is used to little children and young servants,
but tum to a son or an elder daughter. Āpu is rare and felt to be a foreign form; it is constructed with the 2nd pers. plural.

Chattisgarhi ignores ātman-, but makes a curious use of tūh, tūṁ as a term of respect in place of taī, particularly in intercourse between related families; the plural “you” is tum. Here the influence of the neighbouring Bihari can be felt. There a new system has been elaborated. In Maithili the old pronouns mere, tū have disappeared in favour of ham, lōh, for which a new plural has had to be made by adding the word sabh all, which is used to form all the plurals in the language, even those of the demonstrative (i this one, ehi to this one; i sabh these (pl.), ehi sabh to the former (pl.); ekar his, ehi sabhak their); then hamsabh, lōh sabh, without prejudice to the honorific pronouns ahāṃ, apane, etc.

In Bhoj puri the old pronouns have not disappeared. The result is a complex system: moi “I” (inf.) me (sup.) ham; “thou” (inf. and sup.) tū, lē; “we” (inf.) hamākā (sup.) hamram; “you” (inf.) tohnikā (sup.) tohran; to which are added apne, plur. apnan and rauwān or raurā (rajarāja), plur. rawan or rauran.

In Bengali, where mui has become vulgar and tui impolite (but permissible for inferiors in age or condition), the ordinary form is now āmi or lumi. A new plural āmrā, tomrā has had to be made, to be reinforced in course of time in āmrā-sab, āmrā-sakale, etc. Moreover, there is a polite form āpnī (which has taken the pronominal ending), for which a plural āpnārā has been constructed. Similarly in the third person se, pl. lā(hā)rā has a polite form tini sg., tini sg., lām(hā)rā pl. When persons are concerned, the near demonstrative is e in the singular, ini respectful, with a common plural ihārā, and enārā respectful. The remote demonstrative is o, and unī respectful, with common plural ūhārā and onārā respectful. Oriya has an analogous system.

In Nepali āmpi serves for the honorific singular as well as for the plural, hence the formation of a new plural hāmi-haru we, equivalent to hāmi. In the 2nd person tā is familiar, timi (with the verb in the plural) less so. The respectful form is made by adding *āp- to the singular form, hence lapā which would seem to mean “thyself”, but is, in fact, “you, your honour”. A plural lapāharu has been made of it.

Finally we may notice the attempts made to distinguish “we” including the person addressed from “we” exclusive. This shade of meaning is rendered by a word derived from Skt. ātman- self, regarded as an honorific of the 2nd person: Mar. āpan, Guj. āpane “we” including “you” are opposed to Mar. āmhi, Guj. ame “we”
DEMONSTRATIVES

excluding “you”. Apanā is used similarly in Awadhi. In Marwari āpāṁ is opposed to m(h)e and the derived adjectives āpno, -nū, āpāṁro (opposed to m(h)āṁro) are also inclusive. In Lakhimpuri āpnā, in Sindhi pāḥājo our (ours belonging to you and us) and in Marathi āplā belonging to you and us, opposed to āmcā ours alone, have the same force.

DEMONSTRATIVES AND ANAPHORETICS

The formation and inflexion of pronominal adjectives lack unity. We can recognise the old stems which served Sanskrit and Middle Indian, and some of these stems preserve the opposition of the nominative stem to the other inflexions. But we also find stems unknown to Sanskrit and of obscure origin. On the other hand the old inflexions are often assimilated to the inflexion of the noun, no doubt under the influence of the interrogatives and, especially, the relatives which are normally opposed to them.

The Pkt. stem so: lassa (encl. se) is continued to the present day in various languages: Gawar. se: lasa (agent. ten); pl. thēmī; lasu (le-ime, lassa+lesām?) Waig. se: lašo(seo); pl. te: lēsa Pash. u-sa: u-lī(s); pl. ūlā: ūle(nā) Kal. se, fem. sa: lāse, lāa; pl. leh, šelē: lāse, šelāše Kho. “that” ha-sa: ha-loyo; pl. hate-l: hate-lan.

Brokpa of Dah so, fem. sā: les; pl. te: ten.

Kash. suh, fem. sōh, sa: las (and lami(s)); pl. lim, fem. lima: liman; inanimate tih: lamī, talh (tatra?).

Braj so: lasu, tīs, tā; pl. te (and so): tin.

Nep. so: las; Pl. ti and tini, both direct and oblique.

Kumaoni (persons) so and lau (things) te: tai, te; Pl. te (and so, lau): tan.

Awadhi se (and laun): le; pl. te: ten(h).

(Tulsi Das so: tā, tāsu, táhi, lehi; pl. te and linh: linh-: mixtures of Braj forms).

The beginnings of unification are seen already in some of these languages. The nominative plural is assimilated to the singular in Panj. so: lis pl. se: linh-, Sdh. so (f. sā): lāh pl. se: lan-, Torw. se: les pl. se.

Elsewhere it is the oblique stem which invades the nominative singular and the result is assimilation to the nouns. Torw. te is less frequent than se, pl. liyā: Mar. to (in which the final vowel is archaic), Guj. te, pl. leo, te obl. tem-; Marw. tiko beside so. Finally Eng. Rom. la, li, pl. te from les (tasya).

In the above paradigms Gawarbati and Kashmiri show intrusion
of the *ima-* stem. The first of these languages has even a
demonstrative in which the grouping of stems closely recalls that
of Sanskrit: sg. (*woi*): *asa*, agent. *en*; pl. *eme*: *asu* which is almost
an exact reproduction of *ayam*: *asya*, *ena*; pl. *ime*: *ešām* (*a-* taken
from the singular). The stem *im-* which remained alive in Middle
Indian to the extent of forming derivatives like Pkt. *imeyariwe*

(p. 197) (*-rūpa-*) Apa. *imerisa* (*after erisa*) such, appears also in Sgh.
me- (*from *iman* *elaṇi*, H. Smith) and in Kash. *yim*, fem. *yima*
animate plural (inan. *yih*) of *yih*, and sg. obl. *yimis*, agent. *yimi*
(Pkt. *imassa*, *imenā*). In Kashmiri again it enters into combination
with other stems in the plural *tim*, fem. *tima* mentioned above
and in the relative *yim*, fem. *yima*.

A combination of the same kind probably occurs in Prasun
su: *su-miś*; pl. *mā* (*amukāh*): *miśin*. The stem *amu-* suggested
here is also recognisable in the Kashmiri defective pronoun *amis*
*amī*. Only Prakrit has attempted a nominative singular built
on the same stem, but it is very rare. Further comparison may
obl. pl. *amī* attached to sg. *ī*; Tor. *me* pl.; and finally perhaps Kati
*amnā*: *amīni* plural of *inā*: *inī*.

The most frequent non-alternating stems are on the one hand *e-
and *i-*, and on the other *o- and *u*, the first preferably expressing
nearness, the second remoteness (in Kashmiri there is a triple
scale: *yih* this one, *huh* that one, *suh* that one over there).

(i) The first group comes from Skt. *eta-*, Pkt. *ea-*, the oblique
of which has probably come under the indirect influence of the
stem *ki-* cf. also the relatives (the *i-* stem had no genitive: Skt.
*ayam*, *idam*: *asya*). The stem has been entirely normalised in
Guj. e, pl. e-o, the *o* having been borrowed from the noun (see,
p. 169); in Beng. sg. and pl. e; obl. sg. *iḥa*, pl. *iḥām*. It is declined
in Tor. *he*: *es-, is-* pl. *iya*: *iyā*; Lah. *e*(h), *i*: *is, ih, îni* pl. *e(h)i(h):
*inh*--; Panj. *eh, ih*: *es, is, ih* pl. *eh, ih*: *inh, eh*; Braj *yah*: *yā*, is pl. *ye:
*in(h)* Sdh. *he, h-i*: *hin*a *hi*a; *hi*a pl. *he, hī*, *hin(an)j*.

The same stem is probably found once more in forms other than
Nep. *yo*: *yes, yas*; pl. (in): *in*, the direct case of the singular appears
to be an enlargement, cf. Pashai *yo* (obl. *mi-*)

Declined as nouns are Sgh. *ē*: pl. *evhu*: *evun*. Waig. *ī* is
indeclinable.
p. 198 (ii) Sgh. à: uhu  
Lah. o, ā(h): us, uh, āṃ  
Panj. oh, uh: as, us, ā  
Braj wo, wuh, wah: wā, wāhi, wis  
Sdh. hō, hu, huā: hun²  
Nep. u: us  
Beng. o, ui, ohā  
pl. ovhu: ov

pl. oh, uh: unh  
pl. wai, wa: win-, un(h)-  
pl. hō, hū, hoe: huna(an)į  
pl. un-: un-  
O. Mag. uhā, uni: ō.

We find as well Pras. uū this; Kash. masc. sg. hūh, pl. hum, obl. humis, pl. human; Garw. woi (cf. the emphatic Beng. o-i?), and particularly Eur. Rom. ov fem. oī, pl. o-le. It is doubtful whether Apa. nom. acc. pl. oi and Nuri uhu, fem. ihi belong here.

The parallelism of the two lists will be noticed (similarly in Rajasthani, see lSl, IX, ii, p. 9); it suggests the probability of various re-formations and explains how there is no clue to the second list. It is tempting to suppose that the Indo-iranian stem ava-, a trace only of which remains in Vedic, has survived (would it have been driven out by ilvam in this dialect?). It may, moreover, have blended with amu- in which the intervocalic -m- opened and vanished (see above, p. 197, regarding the persistency of the amu- stem). It is equally possible that all these forms come from Iranian, v. p. 149 and Av. ava-, Pers. ō he, that one.

The a- stem which is implicit in gen. asā and the Pkt. instrumentals ena, ehi was established in the nominative, but was altered in appearance in the process. It is either indeclinable as in Guj. ā, nearly so in Panj. āh and certainly in Tor. ā, nom. sg. and pl. only (note the lengthening due no doubt to analogy with a(ava) balancing with e(eta) and confirmed by Apa. aa-); or it is enlarged and produces a pronoun declined like a noun: Mar. hā, hē, hē, obl. mas. sg. yā, hyā, pl. yām, hyām; perhaps Gk. Rom. -aw, fem. -ai; pl. -al.

Not only the form but the meaning of this stem is ill-determined; in Gujarati, Panjabi and Romany it designates the near object. In Shina on the contrary o, fem. e means "that one", "this one" being anu.

Does this last stem preserve another earlier one? In actual fact the ana- stem is rare in Indo-iranian and in India it gives hardly more than the Pkt. instr. anēṇa. The ena- stem, which seems specifically Indian, is never subject in Sanskrit. It is enclitic in Middle Indian and is found generally without initial vowel, its acc. pl. being ne. In cases other than the nominative Prakrit has the -na- stem, possibly recognisable in Kati ine this
one (according to Morgenstierne nyi), in village Kashmiri fem. nōh (masc. yih) this one, obl. nomi(s), pl. nom, nomi, obl. noman and in Shina (a)nu this one, fem. (a)ne, pl. ani(h). This would be another archaism.

Finally there is a stem in -l-, which we might consider as Indo-european, although the Latin group ille, ollus, Irish all remained alive only in Italo-celtic (Brugmann, *Grundriss*, III, p. 340): Waig. ali, Tir. lē, lā, Pash. el², Pras. esle (without prejudice to the l treatment of intervocalic -l-). Is is the same as that found with the long grade of the Lat. ōlim in Skt. ārāl, āre, whence Pali ārā ārakā at a distance, and Sgh. ara “ille”? In any case it would be unwise to associate with it Shina ro, fem. ri, which must be an abbreviation of the dialectical form pero, cf. also Palola āro.

One noteworthy point is the presence of a non-etymological aspirated consonant in many of the above-mentioned pronouns and in some others. Thus Mar. hā, Brokpa hāho; Kho. ha-iya, acc. hamu, pl. hamit; hasa, acc. hate, halōyo pl. halēt; Nuri aha, uhu (proclitic), ahak that one (indeclinable), the particle ha indicating the near demonstrative; Sgh. hē or ē he.

One grammarian notices a nom. sg. masc. aho in Apabhraṃśa. So far as this form exists, it may derive from the indeclinable Pkt. aha, in which Pischel saw the representative of Skt. atha. This interpretation would well account for the part played, at least, by initial h- and for the nominatives like Kash. suh. The case of Panj. eh, etc. is more embarrassing: the simplest thing is to identify it with Sdh. he, O. Guj. eha. There is also Apabhraṃśa eho considered as equivalent to Pkt. eso, Skt. esa: this raises once more the question of the irregular treatment of intervocalic -s-. One might imagine that a combination like (a)ha e- resulted in eh- as well as in he-. The clue to all these forms lies, no doubt, in the existence of an expressive h-: cf. Chat. h-ar other, etc., see p. 67.

It is common knowledge that pronouns are able to attract particles. In India this is ordinarily a particle signifying “even”, cf. Hin. hī, Beng. -i, Mar. -c, Sdh. -j. Ashk. yāk combines the stem i- with k- or the pronoun kī; cf. sə or sə kə (Waig. skə, Kati aska that one). Singhalese has an enlargement -ka-, which must be of the same nature (it is hard to see how eka one, could apply here, especially as there is a plural).

An accumulation of pronominal stems is fairly common. In Khowar hasa has plural halēt which seems to contain te twice; p. 200 and the plural hamī-l from haiya must therefore contain three
stems or, at least, two preceded by a particle. So too Pashai ā-sā, Kash. lima, Garwi leme, Pras. sumi, etc.

Returning to undisputed forms we may note that the opposition of subjective and oblique stems (old genitive) has been shifted to all kinds of pronoun: Eur. Rom. masc. sg. you; les; Nuri panji: -s, -alus; Pras. su: miš; Kash. yih: yimis; Kho. haiya: hamu; Pash. yo: mi; Waig. ī, obl. pl. amī.

Finally, we must note the persistence of enclitic obliques in the western group: Kash. -s (ag. -n), pl. -kh (ešām? cf. sg. khāh, pl. khokā: khašō, khasāh); Lah. -s, pl. -ne; Sdh. -s (agent. -ī), pl. -nī (agent. -ā); Garwi sg. -s Ashk. -(a)s, pl. -son; Nuri -s, pl. -san.

**Relative Pronouns**

India is the only area in the Indo-european domain, in which the old relative, Skt. ya- is still preserved. In Iranian there remains just a trace of it in the izāfāl, which plays quite a different part. The fact is all the more striking, because the languages of India other than Aryan are unaware of the relative. This pronoun has no doubt held firm, because it was embodied in a rigid framework of relative, correlative, interrogative (and indefinite) adjectival pronouns and pronominal adverbs: e.g. Hindi.

- jo, so, *ko cf. koi (cf. Braj jaun: kaun) who, that one, who (someone)
- jaisā, laisā, kaisā “qualis (rel.), talis, qualis (interr.).”
- jilnā, ilnā, kilnā as great, as many as; so much, many; how great, many?
- jab, lab, kab (kabhī) when, then, when?

The peripheral languages alone have lost the relative. The North-western group, except Kashmir, replace it by the interrogative (it seems that there is a new differentiation in Prasun: kes who; les who? and in Gawarbatī: kenze who; kara who?, anyone) or by the Persian ki, which becomes a real conjunction, or, finally, is contented with simple juxtaposition of sentences.

In Pashai (LSI, VIII, II, p. 94; but Grierson has another interpretation) use is made of the demonstrative: sa, cf. ā-sā he, it (but Siraji and Rambani zo, Poguli yō). European Romany employs a calque of Gk. hopoû, that of Palestine a Semitic word and construction.

In Singhalese the substitute for the relative clause is the affixed
participle, a construction lost long ago in continental India. There remains, however, a relative particle yam, which is always completed by an interrogative particle da (origin?) or a conditional particle nam (Skt. nāma).

The inflexion of relatives, which is on all fours with that of correlative, Hin. so, Raj. yo etc., raises embarrassing problems. It is complete in Marathi only, and, moreover, assimilated to the inflexion of the noun. Here and also in Sindhi, Panjabi and Hindi the nominative forms, sg. jo, pl. je are archaic in appearance; but while they derive from the purely masculine Skt. yo, ye, they do not vary in gender, except in Marathi, Sindhi, Jaipuri alone in Rajasthan (m. jo, f. jā), and finally, perhaps in the composite Kashmiri, yus“, f. yōssa (cf. suh, f. sa). In Marwari the enlarged form jiko, f. jikā varies, but jo, jyo remain invariable. This variation takes place only in the singular; in the plural there are therefore no inflected forms, such as there are in Marathi.

Aw. (but Tulsi Das and Jaisi have jo), Beng. Or. and particularly Guj. je (variable in the plural by suffixes in Gujarati and Oriya) are less explicable; je in Nepal and Kumaon is applied to inanimate objects, while jo m. f. is animate. Have we here to do with the generalisation of the neuter, which Marathi alone preserves as such: jē? Or is there a suffixed particle after the manner of Hin. hi even?

Note the use of the relative as demonstrative in Rajasthan, especially in the derived adverbs: Marw. jiko that, jin sā with them; jari like tari then (cf. Mar. jarī if), Jai. jīltāi until then, jad, jānā then; cf. Hin. jabhī in consequence. Perhaps a return to the double sentence with pure asyndeton.

**INTERROGATIVES**

There is a great variety of forms, which almost all go back to the traditional stems ka-, ki-, who, and what, respectively.

"Who"—The simple form is somewhat rare: Sdh. ko, f. kā, O. Guj. ko; Shi. Nep. ko; Kati kā; Kash. ku-su, kō-zana who knows?; Braj kau beside ko shows that it is a matter rather of enlarged forms than of the Skt. Pkt. ko; cf. probably Sgh. kawda. From Skt. kidrśa- come, Sdh. kha-ra, Bal. keho, Guj. kāṣo any, so <old kisiu and perhaps Eur. Rom. so (Sdh. kehar, Panj. kehrā which? probably correspond to Pkt. kerisa-); and from *kādṛśa- O. Mar. kāisā. There is a group corresponding to Apa. kavaṇu, (which is explained by Pa. kopana, kiṃ pana): Raj. Panj. kaun,
INTERROGATIVES

INTERROGATIVES INDEFINITE PRONOUNS


Hin. *kyā*, Beng. *ki*, etc., at the beginning of a sentence show it to be interrogative. It would otherwise would be, apart from the intonation, indistinguishable from a positive sentence. They fulfil the function of the French "*est-ce que*". Nepali has *ki* at the end of the sentence. (Marathi and Gujarati use *kāy* and *śā* respectively either at the beginning or the end. Guj. *ke* only at the end. Used at the beginning these words are in the nature of interjections. A. M.) For the Bengali type *ki nā* Hin. *ki nāhīm* or not, see p. 308.

INDEFINITE PRONOUNS


PRONOMINAL ADJECTIVES

The majority of the Sanskrit pronominal adjectives, which go back to Indo-iranian, have disappeared. Their rare remaining
representatives have no particular characteristics; they are declined as adjectives: Hin. sab, jaisā.

The derived groups of pronouns have the relative, demonstrative and interrogative forms: Hin. jaisā, taisā, kaisā.

The form best represented is that which expresses quantity, coming from Skt. kiyant- "quantus", Pa. kiitaka-, Pkt. kettia-(the e of which must come from the parallel demonstrative e, cf. Pa. e-disa-, ettaka-). In Kati kett means "who, who?"; but Waigeli has ketti with the old meaning. Tirahi has katesi how much, cf. le-lik so many, katisi how many; Ashkun ēlī, Gawarb. kata. With various suffixes we find Torw. kadak, Pras. kereg, Shin. kačāk, kalak, Maiyā katuk, Kash. kāti, fem. kicī, Eur. Rom. keli, Nuri kitrā, Sdh. ketiro, O. Guj. ketalau, Guj. keło (!), keto (dialect), O. Mar. kelī, mod. kiti, Panj. Hin. kiţnā, Beng. kata (influenced by Skt. kati? But certainly not Pkt. ladlaka-), Or. kele.

Mar. kevīhā seems to rest on a type *kiyad-vpddha- how great, or rather on a Prakrit type *ke-vaiddhaa- parallel to ke-mahālaya-which is attested. Sgh. kī enlarged to kiya-da seems to rest on kāti-; keccara how, is obscure; kopamāṇa is a learned composite form.

In order to signify "of what kind" the groups Hin. kaisā, Mar. kasā, O. Mar. kāisā go back to a type *kādsṛsa-; cf. Ved. unique yādsṛ- Br. tādrś-. For the derivatives of kīdsṛsa- see above p. 202. O. Beng. ke-mant, Beng. ke-mat, ke-man are late formations. There are others not so clear.

**Reflexives**

Although at bottom the question is one of vocabulary only, the survival of Skt. ālman- is worth noting. In the Ṛgveda it coexists with the Indo-iranian tanā, which it ousts immediately afterwards, leaving svā- and svāyam quite out of the picture.

The derivatives of ālman- in Middle Indian are of two kinds (see p. 84): appā, aitā. From the former come Hin. Panj. āp (obl. āpas), Or. āpe, O. Beng. āpā, Beng. āpaser madhye amongst.... selves, Nep. āphu, Rom. obl. pes and the derived Guj. pole, Torw. pāe, Ashk. poī, Waig, pei, Garw. phukā, Brokpa pho and pero. The oblique stem has provided Beng. āpni, Sdh. pāna, Kash. pāna, Pras. pane, Nuri panjī and the adjectives Hin. āpṇā, Panj. āpṇā, Guj. āpño (inclusive "our"), Nep. āphnu.

From the lman- stem come Sgh. tamā, Torw. tam and the Shina adjective tōmu own; Khowar tan self, Garw., Waig. Ashk. tanu, Pash. tānuk own, derive from Vedic tanā.

For the use of these words as honorifics see p. 194.
Pronouns form a grammatical group peculiarly liable to semantic wear and tear and to use as expressives; and consequently to renewal. The multiplicity of forms is thus explained. But all go back etymologically to Sanskrit originals, and although there are adaptations, there are no creations, as, for example, are seen in Romance languages. The characteristic initial consonants: the demonstrative s- or t-, the relative j-, the interrogative k- are constants, and words grouped by meaning remain grouped also by form on a clear system; which makes for sharpness as well as rigidity in complex sentences, as we shall see.

The inflexion preserves archaic characteristics: the oblique in -s in the Hindi-Panjabi-Lahnda-Nepali group; and especially the nominative of the jo type, which is for example opposed in Hindi to the two substantive types bāp and ghorā. The most important novelty is the general absence of gender, which comes, perhaps, from their being put on the same level with the personal pronouns.
THE VERB
PERSONAL FORMS

The Indo-European verb comprises, on the one hand, forms provided with endings expressing the person, but not the gender, and, on the other hand, nominal forms expressing the gender as well as the number, but not the person and characterized by their close connexion with the strictly verbal stems and by the fact that they can be used in the same categories and with the same constructions as the personal forms. Here personal forms are alone in question.

VEDIC

The Vedic verb is closely allied to the Avestan verb. The stems are formed in the same way (though the use of -p- for the causative is peculiarly Indian); the reduplicating formations are the same and involve common processes (the vowel u in the present: Av. susuruś-, Skt. suśruś-; u and i in the perfect: Av. -urūrādoṇa, Skt. rurodha; Av., ēkōtūroś, Skt. cikituḥ); the augment acts in the same way, but it is neither rare as in the Avesta nor consistent. Finally there are common peculiarities in the endings (impv. 3rd sg. mid. -ām and -lām, 2nd sg. mid. -sva; 1st sg. aor. mid. with thematic -i, use of -dhv- for the 2nd pl. in the primary middle forms: trāyadhve, Av. ērabwe; similarly beside the secondary 1st pl. mid. -mahi, Av. maiḍi, the Sanskrit primary form -mahe, Av. -maide). The differences are not serious and rest upon conservatism: 1st dual -vah opposed to Av. -vahī is the result of a simple distribution; distribution also accounts for the restriction of the 1st sg. -ā to the subjunctive (brāvā like Av. aīha; but there is only the Indian indicative prcchāmī opposed to the Av. persā), the prelude to its total loss (there are at this stage no more than half a score of examples). The peculiarly Indian particle of the 2nd sg. impv. grhāṇa, badhāṇa and the Vedic endings -la-na, -tha-na probably goes back to Indo-European
(Hittite 1st pl. -wēni, 2nd pl. -lieni). In any case the type *taṣṭhāu*, *paprāu*, 1st-3rd sg. of the perfects with long vowel roots comes from Indo-European (Meillet, *Revue des ét. arméniennes*, 1930, p. 183) and Iranian, by eliminating it, has made an innovation. The ending of the second plural of the perfects in -a (*vidā, cakrā*), which is replaced in Iranian by a primary ending, is certainly an archaism; similarly the imperative *villāt* know, let him know, is supported by Latin and Greek; the 2nd sg. mid. *ādīthāḥ*, opt. *jāṇīthāḥ* has corresponding forms in Celtic. Side by side with this the creation of the precative, the rearrangement of dual forms of endings in r (*AV pres. sēre* like Av. sōtre, saēre; *pf. cakrire* like cāxrare, but jaṅṛbhrirē: āsasgraṃ like vaozirom, but acaķrīran, aor. ṣdṛsran, impf. aḷērāla, plup. āvaṣhranta; impv. duḥrām) and the extension of the imperative to the perfect are innovations, which are of no importance subsequently.

Finally, let us add that, so far as the use of endings is concerned, a subject in the neuter plural is found with a singular verb both in the Vedas and the Avestan gāthās. But this use, although regular in the gāthās, has already become exceptional in the Rgveda.

**Stems**

Stems are very varied. Abstracting them from the derived forms the native grammarians recognise 10 classes of presents. Besides this there are radical and sigmatic aorists, each species comprising several forms; the future and the perfect. Special shades of meaning are expressed by modal suffixes: indicative and imperative (zero), subjunctive (the radical guṇa and the -a-morpheme), optative (the -yā-, -ī- suffix; -e- in thematic stems). Finally, there are two voices: active and middle.

**Present Stems**

There are numerous types; a few (three) are identical with those of the aorist, but the majority are derived formations peculiar to the present. It goes without saying that all possible stems are not used in any given verb and nearly four-fifths of the roots in the Rgveda have only one present.

*Sems with zero suffix, common to present and aorist.*

**Athematic type:**

This formation is characterized not only by the absence of suffix,
but also by vowel alternation in the root and by displacements of accent, at least in the present: é-ti: y-ánti, Av. aëiti: yeinli. The alternations are less precise than in the aorists, for phonetic and other reasons, for example sg. 1 ágam, 2-3 ágan, pl. aganma, 3 agman; sg. 1 abhūvam, 3 abhū, pl. 3 abhāvan. This category is represented more fully in the Vedas than anywhere else in Indo-European. We find there about 110 presents, 100 aorists (80 in the Rgveda), the two groups together comparing with barely more than 80 roots in the Avesta.

In India some of the stems are dissyllabic, for example in the present: brávī-ti: bruv-ānti. These forms are rare (ānili, tavītī, ṣvasītī, avamītī, impv. stanīhītī), but the type is resistant and one even finds AV rodīti, which is surprising in view of Lat. rudo, rudere. As for svapītī, cf. AV fut. svapiṣyāti opposed to svāpna-, RV. 2nd sg. impv. svapa, this, according to Meillet, BSL, XXXII, p. 198, would be a survival of the type of Lat. capio, capīt I take, he takes.

In the aorist agrabhām: agrabhīt is constructed like abravam: abravīt; but the forms were separated, agrabhīt joining the aorist in -iṣ- (Meillet, BSL, XXXIV, 128).

**Simple thematic type**, without oscillation of accent.

This is commonest in the present; the ordinary form has the guṇa: bōdhatī. The aorist root is in the zero grade: budhānta. The existence of two opposed stems of the same root, which is normal in Greek, is rare in Sanskrit (and Avestan): for example we find rōhati: āruhāt; sōcatu: āsucat; vārdhati: āvrdhat; krandaṭi: 2nd sg. kradaṭ; but alanat is opposed to tanotī, avidal to vindalī and similarly amucat to muṇcāṭī up to the time, when the present, the 3rd plural of which is mučānti, is created. At this point imperfects and aorists mingle, producing a number of new forms in the Atharvaveda.

In all Indo-European languages, the thematic conjugations, which abound in the earliest records, have encroached on athematic forms. The alternations thereby produced created serious complications not only through the interplay of the vowels, but also through the phonetic consequences of the contact of consonants, cf. lāṣṭī: alaksma, 3rd sg. aqhāḥ etc.

In Sanskrit the most important new class is the tudāti type, which rests upon aorist subjunctives and optatives. Their origin accounts for their punctual aspect, whether the verb in itself denotes a momentary action (rujāti he breaks, srjāti, Av.
horzaili he looses), or is opposed to a durative formation (lárali he passes: tirali he reaches by crossing). This category is found in some abundance in early times—about 85 verbs in the Vedas and twoscore and a half in the Avesta.

Reduplicated stems, aorists and presents

Thematic:

Aorists were normally supplied from the i and u reduplicating types (abūbudhat, siṣvapal) and were attached to the causatives (bodhayali, svāpayali; cf. Av. zižan- to procreate, and the Greek type pephein). This opposition is shown differently in the athematics: ájigar he awoke (tr.): jāgrate he wakes up (intr.). In the present, on the contrary, by contrast with the tiklo and the mimno group in Greek, Iranian has hardly a dozen reduplicated thematic stems, and Sanskrit, only exceptional forms like jighnate, cf. Av. jaynante or forms, which even if they are old, are obscure: pibati, cf. O. Irish, ibid; tishthali, differently constructed from Av. hištāili and Lat. sisto, see below. All the remaining formations are confined either to the present or to the aorist.

Presents athematic:

This series, from which the preceding series seems to have issued, is well established in Indoiranian, although not very numerous. There are rather less than 50 roots in the Vedas and a score in the Avesta. They have a fairly definite meaning. The forms reduplicated with i are preeminently causative (iyarti he causes to go, sisarti he makes flow) or transitive (siṣakti with the acc., accompanies, favours, opposed to sacate follows, joins, with the instr.). Those reduplicated with a appear to be preeminently intensive (babhasli chews, vavartī turns); but dadāti gives, dādāli places, are transitive and bibhāri bears, is opposed to bhārali brings, which furthermore readily takes preverbs; jighnate kills, corresponds to Av. jaynante, cf. Gk. épephnon, and there are signs that beside dadāti there existed *didali. Thus the value of these forms is not very definite in the Vedas; their principal use is to supply presents to aorist roots, cf. ādhat, ādāt.

Some have arisen later from perfects: bibheli (RV bhayate: bibhāya), jāgarti (jāgāra).

Intensives:

A reduplicating series is again in question, but the reduplication repeats the continuant of the root, if there is one, and lengthens
its vowel, if there is not: várvarlti, pl. várvarlti, jāṅghanitī, carkarmi, tarlatli, cākaśti, pāpalti. This is an Indo-European category; but only Indo-Iranian attests it plainly; and the Vedas alone make a developed use of it (90 roots against 13 in the Avesta). The creation of new forms is recognisable in the originally rhythmic extension of the dissyllabic type like nāmnālti compared with the middle nāmnālti, varvartī beside vārvarlti. It has, moreover, supplied a few thematic passives like māmrjyāte, rerihyāte since the time of the Vedas.

**Stems with nasal infix**

Another important category preserved clearly in Iranian only and, in any quantity, in Vedic only, with several types:

- from a root rīc-, 3rd sg. rīnālti (Av. irinaxlti), pl. rīnc-āntī;
- from a dissyllabic root I.E. *grebh-o*: grbhālti (Av. gōrōwnālti), pl. grbhān-āntī;

But the type soon loses clearness. The first category is rather rare (less than 30 in the Vedas and 8 in the Avesta). The two last, in which -na/-ni, -no/-nu had the appearance of suffixes, were developed in Sanskrit: hence jāṅāltī (already Indo-Iranian), badhnāltī, which is rare in the RV, is subsequently developed, minālti beside minōlti, asnōlti, AV šaknōlti. In roots with nasals the suffix appears as o/u: sanōlti wins, opposed to the aor. asanat, vanōlti beside vanati, manule beside manyate, whence even karolī extracted from kṛṇōlti combined with the aorist subjunctive. Thanks to these extensions, these two categories are attested for a score and a half and twoscore verbs in the Vedas (25 for each in Avestan). The aspect of these verbs, so far as one can be precise, is definite and this agrees fairly well with the practice in other languages. This is why they were used from Indo-European times as presents to aorists with the same meaning, when the latter have a temporal force: chināltī: chedma 1st pl.; prṛnāltī: áprālt; jāṅāltī, cf. jñeṣyāk; kṛṇōmtī: ákār, stṛṇōlti; āstār.

This is the preferred type for presents, which have no thematic forms.

The verbs with nasals have, since the Indo-Iranian period, included a few thematic stems with n prefixed, like siṅcāltī (Av. hināltī); vindāltī (Av. impf. vindālt beside pres. vindāltī). There are some ten in all in the RV, six in the Avesta; the AV has in its own right limp- and kṛṇl-. Further, with a suffix -na-, which
has come from -nā- we find: RV pṛṇāti beside pṛṇāti, mṛṇasi opposed to mṛṇīhi; AV gṛṇāta for RV gṛṇāta and AV śṛṇa for RV śṛṇīhi. This is still only a beginning. But when we consider that from the very first all the derived presents now about to be mentioned were grouped with the bodhāti type, it is apparent that thematization has still a long way to go.

**Derived stems**

The ya suffix:

This suffix is widely extended in Sanskrit as in all Indo-european languages. It forms primary verbs, passives and derivatives from nouns and verbs.

Those which are primary from the Sanskrit (and Indo-iranian) point of view are of various origins thus pātyate, pāṣyati (Gath. spasyā), nāṣyati (Av. nasyeiti) are from nouns, cf. Lat. pol- (Skt. fem. pāṭni), -spex (Skt. spā), nex. Mānaye, hāryati, kupyati form part of the series O. Slav. mīnilu, Umbrian heriesl he wants, Lat. cupīt, the only one in which the suffix had originally a special meaning. The passives are connected with this series and denote a mental or physical condition.

But there are in Sanskrit active verbs (iṣṭati throws) as well as intransitives (pāyati stinks, sūṣyati dries up). As a matter of fact, a certain number of them have no other reason for existence than to supply aorists with a present: druhyati: druhat, āgrdhāti etc. and differ from them only in the position of the accent peculiar to Sanskrit. Nevertheless muciṭate is found beside the ordinary form muciṭate.

The vowel of the root is normally of the zero grade. Here Sanskrit is more consistent than Avestan, which admits xraosyeiti shouts (cf. Skt. krosati). When the radical vowel is a, it is maintained so as to preserve the significance of the root (pāṣyati, āṣyati, dāhyati, hāryati, but mriyāte). We should also take into account verbs with a long vowel like vāyati and the grbhāyāti type constructed from an extinct form of aorist (a score and a half in all). The meaning of these verbs therefore is imperfectly fixed and the suffix acts quite mechanically, thereby showing its vitality. From the beginning it comprises some five-score verbs, not to mention 80 passives (in the Avesta there are a hundred in all).

To this must be added five score denominative verbs formed apparently within Sanskrit itself with the yā suffix (the accent is sometimes on the radical vowel as in the causatives): bhiṣaj-yāti.
(Av. baēṣazyati) heals, cf. the athematic bhiṣākti, Av. subj. bīṣazāṇi and RV abhiṣāṇak; apasyāti is active, vṛṣanyāti and vṛṣāyāti acts like a bull, kauṭyāti is wise, janiyāti seeks a wife, pṛtanāyāti fights. When the noun is thematic, the vowel is often lengthened: amitrāyāti, behaves like an enemy, devayāti serves the gods, mṛgāyāte hunts, rīgāyāti acts according to order, but rīgāyāti, AV. amitrāyāti, yajñāyāti sacrifices. One wonders if this lengthening was not originally for reasons of rhythm (the preceding syllable is nearly always short in the RV). In any case a variety of groups show the vitality of this series in admitting analogical extensions: adhvāriyāti, putrīyāti from adhvārā-, putrā-, makhāsyāti from makhā-, mānavasyāti from mānavā-, rathāryāti from ratha-. In fact, the development of the denominatives is characteristic of Sanskrit (five score against a score in the Avesta); they are very frequently employed in the Vedas, the number of those only appearing once signalising a continued freedom of creation.

The āya suffix.

Very close in form to the above stems are the causatives and iteratives formed with the I.E. suffix *-eye- (Gk. phobēō, phorēō, Lat. moneō, sōpiō). As a rule the first have a long grade vowel and the second a vowel of the zero grade: dyotayat, rocayat he lit, dyutayanta, rucayanta they shone; and through an equivalent alternation: pātayati he causes to steal, patayati he steals. The coincidence of svāpāyati with Lat. sōpiō may also be noted. The Rgveda has five score causatives and about fifty iteratives already (in the Avesta there are about 80 altogether). Mention should be made of the p enlargement mainly of roots in long ā, an exclusively Sanskrit idiom: sthāpayati establishes, snāpāyati washes (snāti takes a bath). This formation of an unknown origin (cf. Vendryes, Indian Linguistics, II, p. 24; B. Ghosh, Les formations en p du sanskrit, p. 67, BSL, 35, p. 40*) was very popular.

Desideratives and futures:

These two are again thematic formations, linked together by their Indo-european origin, but playing different and unequal parts in the history of Sanskrit. The desiderative force of the I.E. *-se/-so- still shows through a few words, apsanta they sought to reach, against āṇnōti he obtains, cf. īpsāti he desires, śrosa-māṇaḥ listening to, cf. śrōnti hears; note the middle use of hāṣate runs in a race, cf. jāhāti looses, Br. mokṣate seeks to be freed, cf. mucālī and muṣīḍālī releases. The suffix has kept its true value only in the reduplicated forms, which came to the Vedas from
Indo-iranian: \textit{jigīsati} (and \textit{jijyāsati}), Av. subj. \textit{jiṣīsati}: part. \textit{sūṣruṣamānāḥ}, Av. susruṣomnō: \textit{sikṣati} from \textit{ṣak}- to be able, cf. Av. \textit{asiṣā} who does not learn. About sixty of these are found in the Vedas (a dozen in the Avesta) and in addition analogical formations as already in RV \textit{didhiṣāmi} beside \textit{dhītsate}, \textit{pipīṣant} beside \textit{pipāsati}, and the creation of AV \textit{pipatiṣati} (*pilṣ- was no further from \textit{pa]-} than \textit{dips}-, Av. \textit{diwē} from \textit{dabh-}) show the vitality of this form.

The most widely spread form of the desiderative suffix in Indo-iranian is \textit{syā} which served to make the future. It plays the same part as *\textit{se} in Greek and Italo-celtic, and of *\textit{sye} in Lithuanian. But the Indo-iranian development is an independent one, while Italo-celtic retains traces of the subjunctives used as intermediate forms, Celtic employing a reduplicating formation exactly like the present Sanskrit desiderative; and, finally, the details differ in Lithuanian.

One of the facts, which show most clearly how close the Vedic language is to Indo-iranian, is the poverty of this formation in the \textit{Ṛgveda}. Only 15 future stems are found in the \textit{Ṛgveda}; the Atharva has more than 20 new stems of this kind. This is very little, even if we take into account the fact that the contents of the hymns are rarely concerned with the future. As regards old Iranian, there are two in the Gāthās and seven in the later Avesta. Progress then becomes more rapid. Already a subjunctive \textit{kariṣyā(h)} is found in the \textit{Ṛgveda} and an example of the preterite, which afterwards forms the classical conditional: \textit{ābharisyat} he was going to remove.

\textit{Sigmatic Aorists}

In the above formations the aorist is distinguished from the present by its endings and not by its stem. Indo-european, however, utilised the enlargements \textit{s} and \textit{iṣ} in the aorists, but the number of coincident forms in the different languages is very small. As for the aorist in \textit{s}, Skt. \textit{ādikṣi}, \textit{āsiṣṭa} correspond to Av. \textit{dāiś} mayst thou show, Gk. \textit{édeixa}, Lat. \textit{díxi}: Skt. 2nd sg. \textit{āvāl}, Subj. \textit{vākṣal(i)}, to Av. -\textit{vaṭal}, Lat. \textit{uexi}. Therefore only if Skt. \textit{āṣṭhiṣi} and Av. subj. \textit{stāṅhaṭ} are formed on the same principle, can one be sure that the form is Indo-iranian. Similarly the use of \textit{iṣ} in the subjunctive and before certain endings has many analogies in Sanskrit, Latin and Hittite (Meillet, \textit{BSL}, XXXIV, p. 127; Renou, \textit{ibid.}, XXXV, 1); but the forms do not overlap.
The coincident use of these enlargements in the various languages is very striking, but the recent character of the formations in each has been proved in various ways. Their frequency in Sanskrit from the time of the Rgveda is only the more significant. There are at least as many of them as of radical aorists (aorists in s for 60 and in iṣ for 70 roots; athematic radical aorists for 88, thematic for 38 roots). The Avesta offers only two score aorists in s and but three in iṣ. The Rgveda has also two forms in siṣ: ayāsiṣam, gāsiṣaṭi and eight aorists in sa.

**Perfects**

The perfect forms a system apart, characterized by special endings which, as we have seen, are archaic in the only early form, the so-called active: 1st and 3rd sg. -a (IE -a and -e respectively, Gk. oída and oide), 2nd pl. -a unknown elsewhere. This coincidence of vowels gives the alternations all their importance: 2 pl. cakra, sg. 1 cakara, 3 cakra (the alternation is of Indo-european origin, Kuryłowicz, *Symb. Gram. Rozwadowski*, p. 103; it fails only in roots with diphthongs in i or u followed by a consonant: sg. 1 and 3 viveśa, dudroha. From the Upaniṣads onwards the long vowel is admitted in the 1st person).

Compared with paprā (and probably jahā), the final vowel of which results from a contraction, the paprāu type of the 3rd singular of the roots in -a-, which goes back, as we have seen, to Indo-european, had the advantage of characterizing the form (there are no examples of these roots in the first person in the Vedas). A further characteristic of the perfect is the 3rd plural ending -uḥ, deriving from the old *r*: āsuḥ, Av. ānharō.

The system is completed by middle formations and by moods: novelties still rare in old Iranian (in particular there is no imperative), in which, generally speaking, the perfect seems less wide-spread than in Vedic: about 50 verbs against 240 in the Rgveda or two-thirds of the roots employed. This development of forms accompanies a weakening of meaning. In short, there is constituted a new preterite, which tends to be integrated into a conjugation.

**Moods**

All categories of the above-mentioned stems have been shown functioning as indicative forms, so-called, expressing affirmation. To them may be added the imperative, which expresses a positive
command and has no special stem characteristic. In contrast, eventuality and possibility (for the meaning of these words see below) are expressed by two categories of special suffixes which come from Indo-iranian: -a- in the subjunctive (1 sg. bhārāṇī more frequent than bhārā has an Indo-iranian particle suffixed: Gāth. xśāyā: uṣṭānī, but it is much more frequently used in Sanskrit); -yā in the optative: -ī- in athematic verbs and -e- in the others, uniformly replacing the thematic vowel: āyaṭ(i): iyāṭ; pālāṭi: pāyet (1st sg. bhareyam opposed to Av. barayam may be an early form: cf. the Greek optatives in -oī in which i represents a geminated consonant).

The subjunctive is three or four times more frequent in the Vedas than the optative. But it may be noted as a sign of internal weakness that its secondary forms often duplicate injunctives with a modal force and that these secondary forms are less easily distinguished than those of the optative from the indicative. The optative on the other hand is already giving a proof of vitality by begetting the so-called precative forms, the sigmatic aorist middle (2nd, 3rd sg.) and then the root-aorist active (see MSL, XXIII, p. 120).

Use of forms

Voices

As in Indo-European the middle endings show the part taken by the subject in the result of the action. This is the reason for the existence of verbs in the middle voice only, such as āste, Gk. p. 217 hēstai; 2nd sg. sēṣe, cf. Gk. kheītai; mārale. Lat. moritur; and in the verbs, which have an active for the peculiar force of the corresponding middle: sīśīte vājram he sharpens his weapon, úpo nayasaṁa vṛṣanā bring thy two stallions. Varying shades of meaning result from it: dogdhī means “he milks the cow” (mā māṁ... vi dogdhām let those two not exhaust me), duhē the female gives her milk. The opposition of the middle to the active is found again in other cases, in which the active appears as the factitive of the middle: vārdhati or vardhāyati he makes to grow, vārdhate he grows. Hence the frequent use in the early period of root-verbs as passives: slāvase thou art praised. But the Rgveda already uses the middles of derived stems in -ya- in fairly large numbers to express the passive: hanyāte for example is sharply opposed to hānti, sṛjyāte to sṛjāti, duhyləte to duhē.

It is not to be concluded from these oppositions that there
was a middle conjugation in the Vedas, where for a given stem groups of middle endings would be opposed to groups of active endings: an active aorist, future or perfect can correspond to a middle present: *jighnate* serves as the middle of *hánti*, *bhrájate*: *ábhrāṭ; mriyate*: *marisṛati, mamāra*. For one and the same verb the forms complete rather than correspond to one another. Similarly as regards the endings: in the imperative *tapasva* is opposed to *tapatu*, which is active like *tapati*: *bhajasva* means "give a part" like *bhajati*, not "share in" like *bhájate*. In a general way in the secondary series middle endings are preferred: *sócati*: *sócanā, súcucīta, sósucanta, ásoci*; *marjayanā*: *marjayanā*; opposed to *jáyate* he is procreated, *jánisṭha* may signify "he procreated". In the perfect the 3rd pl. *várvdhūḥ* is constructed like the 3rd sg. *vārvdhē*. Conversely there is the secondary *ásayat* beside *śēte* which is old.

Let us point out at once that the participle has a middle tendency: *dādāna*, Av. *dabhāna*- is the participle of *dādāli*; *yajamaṇa*- denotes the officiator of the rite as well as the beneficiary.

In all these usages Vedic agrees with Indo-european and Indo-Iranian. It is none the less true that the middle tends to extend in opposition to the active. The clearest proof of this is the creation of the different endings of the perfect and pluperfect.

**Primary and secondary endings**

In the verbs with two stems excluding the perfect, the opposition of present and aorist is expressed as a rule by the use of endings. In the indicative the present alone has both primary and secondary endings. To this distribution of form there is a corresponding distribution of meaning: the present describes an existing process or one outside time; its preterite, the imperfect describes or is lodged in the past; the aorist is not a tense of description, but of establishment of fact and, as regards the past, notes only the recent past of interest to the speaker.

Accordingly forms with secondary endings come under the imperfect or the aorist according as they are or are not opposed to a primary form: *áyajat* beside *yajati* is an imperfect; *ágrabham* and *agrbham* made from stems other than *grbhṇāmi*, *agṛbhṇāt* are aorists; *gamanti* is the aorist subjunctive of which *gacchān* is the present. As all possible forms are never brought into being, groups are formed by custom; for instance root-aorists opposed to derived presents: *āceti*: *cinoṭi*, *āgan*: *gacchati*, *ásarat*: *sisarti*; thematic aorists opposed to gunated presents: *árbdhat*: *vārdhate*, *aruhat* (and *arukṣat*): *róhati*. 

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But this general rule only expressed a statistical fact. The usage shows that *dabhanli* (cf. Av. *dava-*) really belongs to the present, in spite of *dabhuwanli* (cf. Av. *dabonolâ*); the present *bhârti* beside *bibharti* and *bhârali* is a prehistoric heirloom: cf. *fero, fert*, see Meillet, *BSL*, XXXII, p. 197. Similarly *dârt RV, VI, 27,5*, is rather an imperfect than an aorist in spite of *dârdarâli* (supported by Av. *dardairâli*).

Moreover, even in the present system, the form with secondary endings has not always a preterite sense, when it wants the augment: in RV, VII, 32,21, for example the present and secondary form are found side by side in the same use:

\[
\text{nå dušlûti mártyo vindate vásu}
\]

\[
\text{nå srêdhamtam rayir našat}
\]

« A man, by ill-praise, obtains no goods; to him who errs no riches come ».

The name of injunctive is given to these secondary presents or to the root-aorists, which besides their preterite force have the force of a present indicative (one-third of the cases, about 800 examples occur in the RV). The particle *hi* and the negative *nå* can be appended to them; they can have the force of an eventual (contingent) mood and, if the case so demands, of an imperative (the prohibitive negative is *mâ*, the only use of the form preserved by classical Sanskrit); generally speaking, the meaning depends on the context. These facts, which are confirmed by the Avesta, are survivals of an early stage, in which distinctions of meaning and form were not yet reduced to rule.

On the other hand, the subjunctive, mood of subordination and deliberation, admits of primary and secondary endings, contrary to the optative, which has only secondary endings. This is also the case in the Avesta. It seems that in the Avesta the primary endings correspond to a plain future force in the active (or a present in relative clauses depending on sentences in the present), and the secondary endings to the meaning of contingency or desire. In Sanskrit we see glimpses of the same tendency, but the meaning is less predominant. In the thematic presents and aorists *-li* is the most frequent (just as *-masi* is in relation to *-maîh* and *-ăni* subj. in relation to *-ă* and is making headway generally. Consequently, it is just as if the subjunctive were an injunctive—and thus a present of slight actuality and with contingent force—able to use the two types of endings, active and middle with a fixed radical vocalism characterized solely by the suffix *-a*-. It is confused thereby with the thematic presents and has, in fact, been the origin of many of them (the
karati, agamat type), if not of the entire class. It is a striking fact that the primary thematic present and the subjunctive are equally wanting in Hittite and that in Slavonic and Germanic the present (in Slavonic the perfective) expresses the future for want of the old subjunctive which performed that function in Latin and Greek: Lat. erit, feret or Gk. édomai (Meillet, R. ét. slaves, XII, p. 157).

In two ways, therefore, we catch glimpses of an undifferentiated present with a basically contingent force in the oldest texts. This force survived through the classical language and remains in the end that of the modern present.

The Perfect

The perfect is, as a rule, opposed to the present (with its preterite the imperfect and with the future in so far as it exists) and to the aorist. It is opposed to them both in the independent formation of the stem (āsti: āsa, āsyati: āsa, kṛṇoti: cakāra, bhīnatli: bhīheda, gacchali: jagāma; āha and śāsaduḥ being isolated forms), by its special endings (as a rule not admitting change of voice: bhayale, jusādham: bīhāya, jujōṣa) and in the manner of its use: for the perfect expresses at first an established position or an actual result, but does not describe or make a finding of facts.

To tell the truth this definition is based on archaic practices, which became exceptional and their antiquity is only revealed by comparison with other languages. In that it expressed a result the perfect recorded even previous events. As a result the normal use of the perfect in the RV is that of a preterite, which is even at this date rare in the 1st person, since personal experience is pre-eminently expressed by the aorist. It is, indeed, distinguished from the imperfect only by an air of greater gravity.

From this time forward the perfect tends to develop in opposition to the present in several ways. It begins with its own present sense; imperfects and reduplicated aorists appear as preterites of the perfect; the few modal forms take to themselves modal forms from reduplicated presents or intensives (yuyavat). Conversely abibhet (and the participle bibhyat) is constructed from bīhāya, to produce ultimately the present bībhēti. From vēda is formed avedam; from cākana the 2-3 sg. cākān; from jāgāra, the 2 sg. ajāgar thou wert watching (and the participle jāgrat) whence later jāgarli, jāgrati.

But these new formations deprive the perfect of its original characteristic, just as do in other respects the formation of pre-
terites and the adoption of middle endings, which from the beginning was of frequent occurrence. It appears, in fact, in Sanskrit only as a dignified form, thus preserving part of its special force in Vedic, and, from the very early Middle Indian period, it is just a dead system, of which only one or two fragments remain.

The Vedic verb, therefore, contains elements of different ages. Moreover, the forms are not ranged in series. It is the root alone and not the inflexion, which gives unity to a given verb; and on the meaning of the root depends in large part the choice of morphemes, according as, for example, the root in itself connotes a continuous action or a point of time. In one sense one might say that the Vedic verb is as much a matter of the lexicon as of grammar.

The later history of the verb is marked by the impoverishment of or rather the scrapping of forms, and by a tendency to parallelism and so to the establishment of a conjugation.
The situation is already changing in the Atharvaveda. The ending of the 1st sg. subj -ā is definitely discarded in favour of -āni; that of the 1st pl. indic. -masi gives way to -mah, over which it greatly preponderated in the Ṛgveda. Conversely, the subjunctive middle becomes complete: -laī of which there is only one example in the RV and -saī, which is altogether wanting, now become common. On the other hand, there is an extension of the future.

Nine out of ten of the injunctive forms have a modal force, compared with hardly half of these forms in the Ṛgveda. The negative mā is used with four-fifths of these instead of one-third. When one considers that the Atharvaveda reproduces many passages from the Ṛgveda, this is as good as saying that the non-modal injunctive has disappeared.

The perfect is rare and is entirely missing in the prose hymns. The aorist is weakened and the sigmatic aorist admits imperfect endings (2nd sg. arātsīh from rādh-, avātsīh from vas-, bhaisīh from bhī, 3rd anaiksīl from nij-). It is, in fact, the imperfect becoming more and more like a past tense, even in the mystic hymns. On the other hand, the extension of the noun style favours the verbal in -la.

Finally new forms appear like karoti (v. p. 211) which combines the old injunctive karati with kṛṇoti; and a new category, the periphrastic perfect of the causative: gamayām cakāra.

In the Brāhmaṇas the movement towards simplification of the inflexions is accentuated. In the Aitareya the present indicative supplies more than half of the personal forms; the future continues to extend and is reinforced by a periphrastic form used side by side with tense determinants: ŚBr. śvō'har bhavitā to-morrow daylight will come.

The only productive present stem is that in -ya-. The desideratives are also on the increase from the time of the Atharvaveda. The intensives, however, are decreasing and are preferably
restricted to the middle. There is a noteworthy difference between
the expressive form and the form whose force is reduced to a
quasi-grammatical function. The imperfect definitely takes the
lead of the past tenses; the aorist is limited to direct speech and
the perfect, which the earliest Brāhmaṇas make little use of, is found
again in abundance in the second part of the Aitareya and in the
Śatapatha and so remains in subsequent literature. But the
evidence of the oldest texts and its poverty of meaning (it is not
distinguish semantically from the imperfect) show that it is no
longer anything but a literary survival.

Besides the present is capable in itself of expressing the past,
so long as it is accompanied by certain particles, which have
themselves no temporal meaning, viz: ha, sma. In addition the
Vedas employed sma purā to denote the habitual past.

The aorist is almost and the perfect is quite wanting in modal
expression. The subjunctive is becoming rare in the present,
but the optative is clearly gaining ground. It appears, for example,
in sentences introduced by yādi, yātra, yadā and yarhi (which
is wanting in the Vedas). The conditional with a past meaning
is in course of development.

The middle is completing the normalisation of its use. Hence­
forth it exclusively expresses the action in which the subject is
interested. The result is a distribution of meaning: bhajali he
allots, bhajale participates in; bhunakti is useful to, bhunkte enjoys;
srjali throws, srjate creates; huā- to call, which is used normally
in the middle by the Vedas, appears no longer in this voice except
to make it evident that the call is for and to the subject. Pāṇini
records the distinction between yajali, which expresses the
sacrificial act and yajale which applies to him, who causes the
sacrifice to be made. The middle even takes for preference a
reflexive force, the first examples of this occurring in the Atharveda.

As the verbal class becomes impoverished and normalised, it
appears also to become more independent of nouns and the
denominatives diminish in number. There is a very great extension
of them later, but at a time when Sanskrit has become a dead
language and the creation of verbal forms from roots has become
impossible.

From the epic period the verb deteriorates still further, both
through the actual reduction of forms and by the vagueness of
their use. In the middle thematic forms are by far the most
prominent and the middle endings of the future are no longer
preferred to the active. Further, new verbs are most usually
put into the active.
In a general way the middle is chiefly encountered in verse. It is a refined form: the imperative in -śva is redundant and polite by preference, considerations of metre are brought into play: MBh. 1.76.14: rakṣate dānauṁs latra, na sa rakṣaṭy adānuvaṁ; but of course a preponderating regard for metre indicates weakness in the grammar.

The subjunctive, which was already rare in the Sūtras, is dead in the Epic. Only the from of the 1st sg. in -āni remains, incorporated in the imperative, together with some sporadic imperative forms like 3rd sg. nudālu and gacchāsi in the Mahāvastu. In Middle Indian the Asokan huvāti (Sarnāth), if it is a subjunctive, is no doubt the last that can be cited.

The only mood to survive, apart from the imperative, is the optative. The precative, which is derived from it, has been normalised in the form of an athematic aorist optative (bhūyāt, bhūyāsam opposed to bhavet; bhriyāt opposed to bibhṛyāt; paksīṭa opposed to pacentā). It has lost the special sense of prayer and is equivalent to an ordinary optative; further it is preserved only in refined literature. The optative on the contrary remains alive and disappears only in the later familiar prose (Vētāla). It appropriates various meanings and expresses an hypothesis, wish or order and also probability, making it possible for it even to change place with theindicative. But in keeping its importance, it loses variety and it is found only in the present. The conditional is rare after the Mahābhārata.

The tenses are reduced in the same way, although classical Sanskrit still recognises the aorist and perfect systems beside the present (with the imperfect and the future). The perfect has lost all special force and has the value of an ordinary preterite, except that it is excluded from dialogue by the stylists under the grammatical rule reserving facts of personal experience for the aorist. It is still a dignified form, which is only preserved by tradition. It exists no longer in any voice but the active; and so far as it does exist, its impoverishment may be inferred from the increase in periphrastic forms in -āṁ cakāra, later (Pāṇini is still unaware of it) āśa and finally (from the Epic period) babhūva, words of less and less significant value.

Similarly the old force of the aorist persists only in certain writers; the prose of the Brāhmaṇas, indeed, exaggerates the shade of meaning of the near past in it; Kāvya restricts it to the dialogue. But these uses are artificial and as a rule the aorist expresses an unspecified past. In this capacity it forms a fairly rich category, so far, at least, as the sigmatic forms are concerned (-s- more than
-iṣ-; -siṣ- is little used). These forms are on the increase in the Śūtras and the Epics, replacing the radical aorists, which are inconvenient or liable to be confused with the presents; their increasing number is the sign of a tendency to establish a consistent opposition of the aorist to the present. The grammarians consider the aorist in -s- as the normal form.

Otherwise, the imperfect serves as a preterite, which is current until and including the Epic, in spite of the grammarians’ rules. It then becomes scarce, as a form, no doubt, less characteristic from the phonetic point of view than the aorist and from the stylistic point of view than the perfect.

The future, which is under development, is in form a present; and, what is more, the present competes with it, at first as a near future and later in other uses.

The verb is dominated by the present system, by reason both of the abundance of its forms and of its uses. The present alone admits of moods: the imperative and the optative. Further, derived formations are presents. The future, as we have seen, is part of the system, as is the passive, which is particularly noticeable as a specialised derived form of wide scope. It came into being in the face of all the transitive active forms and even outside these forms ( impersonals of the type of āsyale; gamyale and in the imperative gamyātām). The verb is regarded in a general way from the point of view of the present: at the beginning of grammatical studies, before the era of analysis by roots, the verb was designated by the 3rd sing. of the present. Yāska writes krudhyati-karmāṇā “with the meaning to be irritated”, savatīr gati-karmā... bhāṣyate “the verb śav- is used with the meaning of walk”, hrasvo hrasaleḥ “the word hrasva comes from the verb hras-”.

From the time of the Epic the present acquires new uses, on the one hand expressing recent events or even the past (in narrative) and on the other hand the future, not only as a near future, but generally also in relative clauses. It may be substituted for the subjunctive in interrogations or exhortations, and for the optative to express eventuality or prohibition. Finally it has become the favourite mood for final sentences with yathā and yena so that, in order that.

The present dominates the verb equally from the point of view of form. Every verb aims at having a present and other stems are used to form it. Thus in early times karati and the tudati type had already been formed on the agamat aorists; similarly
the perfect has supplied the Vedas with *bibhiti* and *jāgarti*; the MBh *jaghnant-* takes its reduplication from the perfect; the Upaniṣad attempts *vedate* and is successful with *vidati*. Conversely, the present affects the other forms, hence the Epic -*sidatuḥ, samsuḥ*; it invades the imperative, in which -*tha* and rarely -*mah, mahe* are put in place of secondary endings. These are accidental and of restricted scope, but there is no doubt that they would have been much more numerous, had it not been for the preponderating grammatical tradition.

But while it it taking the first place, the present is at the same time becoming poorer from the point of view of form. In Vedic it was built up on several stems. Of these the athematic stems tend to disappear. The radical stems survive only from tradition; partial levellings like *animaḥ* after *anili* or *kurmi* after *kurmaḥ*, and *brūmi* are all provisional. The majority of the new formations which compete with them are thematic; thus the Mahābhārata has an impf. mid. *asāsata*, impv. *sāsantu* from *sāsli* and forms the imperfect *ahan* and *aghnan* on the aorist *ahanam, aghan*; the Upaniṣad gives *stu vale* for *stule* and the Śūtras have *rodali* against the early *rodili* and the Br. *rudali*. In the verbs with a nasal infix, *rundhali* is already Vedic; the Upaniṣad adds *buṇjali, yuṇjali, jāṇali* and the Epic *grhāṇali, abadhanāla*; but the commonest form of this last verb is Br. caus. *bandhayali*, fut. *bhantsyati*, Ep. fut. *bandhiṣyati*, inf. *bandhitum* and *banddhum*; the Buddhist language adds *bhindale* and *prināli*, etc. So also in the intensives: Br. *lēḷyati, Sūtras, sāṣṛjati*, Epic *jāvalāti*, *caṅkramati* and some others; but the entire category of intensives is crumbling away.

Of the thematic stems the formations in -*a-, -ya-, -aya-* remain productive, but are apt to be confounded in actual use: thus *kārayati* is equivalent to *karotī*. The desiderative class becomes atrophied after the Śūtras, showing the first signs of decay by the irregularity of their forms: as *iyakṣ-yeta* cf. *iyakṣate* Ved. (Ch. Up. has already *vival-syāmi* in place of the ŚBr. *vivatsāmi*). In fact, it is the *icchati+inf.* group, absent from the Žgveda, which takes the place of the early desiderative (so also in Pali *dharmam sotum iccāmi* etc.).

Thus there is a general closing up of the verb on the present, which itself loses its variety of forms, both in stems and moods. The future is conjugated in a way similar to the present. Besides early personal forms it displays a periphrastic combination of the *hanlāsmi* type. But this type does not succeed in establishing
in form or function itself firmly enough to become the normal usage. The preterites, which reveal their weakness by their competing with each other, in spite of the frequency of their use, are supplanted more and more either by the present itself accompanied by *sma*, which was discarded in course of time, or by the verbal adjectives in -la-, accompanied occasionally by the verb *to be* or by a personal pronoun in the 1st or 2nd persons. The participle agrees with the subject and when the active is to be expressed, the logical subject is represented by the instrumental with the participle in the neuter. The verbal use of the participle in -tavant- is not so free. Here we have the elements of a new paradigm, which later serves as a model for the use of the adjective of obligation in -ya- and -tavya- as an equivalent for the future.

To sum up, everything indicates a movement towards a system, in which the present is opposed to the preterite; and this is a preparation for a later stage in which we shall see the present opposed to participles, which take the place of the preterites. There are other groupings: the category of causatives, the only one of the derived presents which survives, was from the early period associated with the reduplicated aorist, which served as its preterite. Finally the close approach of the middle aorist in -i to the present in -yate was the starting-point of a passive formation, which was brought to exact completion by the verbal in -la- and the gerundive in -tavya-, -ya-. But before this system could crystallize, phonetic evolution made it entirely inoperative. Moreover, the grammar of the classical authors owes more to the teaching of the early grammarians than to their own individual languages. The growth of the new system, or rather, the first system to be established in Indo-aryan is not to be seen in Sanskrit, but in Middle and Modern Indian.
In Pali the verbal formations remain numerous and new stems are brought into being; but this is, in fact, the effect of the tendency to reorganize. The system of tenses is simplified: it comprises the present, the future (or conditional) and a combined preterite of the imperfect and the aorist. The subjunctive is missing from the moods, though some traces of it are recognisable in certain forms of the imperative and the optative.

**Present**

The opposition of active and passive, the sole remains of the voice system, is shown not by the endings, but in the stems. There is therefore no difference between the passives and the verbs in -yati, which indeed expressed even in Sanskrit states of fact or feeling. Accordingly we have Pali naccati (Ved. nṛtyati) dances, passati (RV paśyati and in Book IX paśyate) sees, kuppali (Ep. kupyati and kupyate) is angry, and also maññali (manyate) thinks, bujjhali awakes; in the other direction we finduccati (ucyate) is said, dīyati is given, paccati (pacyate) is being cooked, labbhati (labhyate) is admitted, is possible, probable, haññali (hanyate) is struck, kayirali (*karyate for kriyate) is made.

In the derived verbs one normally finds the long form of the suffix: the causative dasseti (darsayati) has for its passive dassiyati beside dissati (dṛśyate). Similarly bhājīyati (bhājyate) is shared, māriyati is killed, pājiyati is honoured. This is governed by an Indo-European and Vedic rhythmic rule, traceable particularly in the nominal suffixes (cf. p. 82 last para.).

But this form of suffix, which has the advantage of retaining the distinctness of the root, is not peculiar to derived verbs. It is found also in simple verbs with a distribution following the same rule: pucchiyati (prchyate), yuñjiyati in one direction and vijjati (vidyate), yujjali (yujyate) in the other. Rhythmic alternation accounts also for the long vowel in hariyati beside hirali (hriyate); the analogous form patiyati is thrown down, the passive of pāteli
which is associated with patati, is very significant; cf. in Asokan beside *vu(e)cati, ha(n)ñati forms like khādiyati, nila(k)khiyati on the one hand and ganiyati on the other. The form with the long vowel is, to judge from the grammarians, legitimate everywhere.

One of the chief advantages of the generalisation of the thematic type, which has already started in Sanskrit, is the fixation of the root. The Suttanipāta makes use of hanli; but its optative is haneyya, answering to hanati, an old subjunctive, which became a present after the Saṁhitās. Similarly we find in Pali as in Epic Sanskrit rodali, ravati; āsati corresponds to Br. āsate (āste), lehali to Ep. lihali (ledhi) and Pali adds ghasati constructed on the aorist and many others. In the reduplicated verbs dadāmi gives rise to dadāma, whence the impf. dada, opt. dade beside dajjā. From dhā- the Rgveda was already making dādhate, which produced Ep. dadhati and Pali dahi, which is more frequent than dahi, opt. vidahe, saddaheyyañ, As. 3 pl. upadhevu; as for jāyati, it corresponds to the jāgrati of the Śūtras. The verbs in -nāti often have an imperative in -na: pāpuña, jina, supa; beside ganhātu are found ganha, As. gahinevu; even in the indicative jānati, pl. jānare are opposed to jānati.

The very important class of causatives (formed from the root: chedeti, srāvayati or from the present: nacceti, laggeti, bujjhāpeti) and that of the denominatives have two phonetic forms of the same suffix: vādayati and vādeti, and with rhythmic variation of the radical vowel: namayanti, but pañāmeti, and inversely dāpeti, but samādapeti. They are met with likewise in Asokan: Girnar provides pājayati, va(d)hayati, ā(n)napayāmi; the other inscriptions, pājeli, va(d)dheti, a(n)napemī. This last form is worth noting, for it supplies evidence of an assimilation of the first person to the others (-ayāmi being treated like -ayasi, -ayati), which has the effect of fixing -e- as the root-ending.

In this way the derivatives join the verbs in -ī-, -ī-, the early athematic stems of which have been made uniform by suppressing alternations: eśi, enli, ehi; sēti (ṣeti), senti; they form a small class with neti, nemi (nayali), which attracts demī made from dehi in accordance with the relation emi: ehi; jemi (beside jināti), opt. jēyyo (for jayeyyām).

Parallel with these verbs in -e- are the verbs in -o-, beginning with hoti, hinti, homi beside bhava, bhavyaṇ and the future hessati, hehiti, whence the aorist ahesu; then karomi: karonti and the old verbs in -nu:- sunomi, sunoma, impv. sunohi; sakkomi, sakkoli: sakkoma, sakkonti (sakkali is its passive, Skt. sakyate);
PRESENT AND FUTURE STEMS

p. 229 pappomi, papponti, As. opt. pāpovā (Pali pappuyya), inf. pāpolve (Pali pappotum).

The infixed syllable is maintained by this normalisation: similarly the category in -nā- establishes jānāmi: jānāma, jānāhi, absorbs some old verbs in -no-: suṇāmi, dhunāma, pāpuṇāli (used in Asokan) and adds new verbs: mināli from mā-, munāli from man-, vināli beside vāyati, inf. vetuṇ, jināli beside jeti, sambhuṇāli against sambhoti.

The verb ‘to be’ retains the radical vowel in all forms: athi: amha, opt. sg. 1 assam beside siyam, 2 and 3 assa beside 3 siya etc. Finally, we may recall dammi, kummi confirmed by Ep. Skt. dadmi, kurmi, which are singulars remodelled on the plural, contrary to custom.

The result of all this rehandling is a huge number of verbs with fixed radicals, more rigidly fixed even than the old thematic stems.

Future

There remains a certain number of verbs in which the suffix is attached to the root, when the latter ends in a palatal: mokkhati (mokṣyati), vakkhati (vakṣyati), bhokkhani (bhokṣyāmi); in a guttural: sakkhati (sakṣyati) or in a dental: chechhati (chetsyati), vacchati (vatsyati). These forms seem to have served as models for common verbs, the roots of which caused difficulties: As. kacchati from kar-, Pa. haṅkhāmi, haṅchati from han-. But they were not clear: dakkhati and dakkhiti, which represent Skt. draṅṣyati, rank as present opposed to preterite in respect of the aor. adakkhī (adrākṣīt), and do, in fact, assume a present sense. A new future is made with a clear suffix, dakkhissati, and also sakkhissati; the connexion is then similar to that of gacchati with gacchissati.

The suffix is evident after a vowel: dassati from dā-, passati and pissati (crossed with pivissati) from pā- to drink, sossati from śru-, essati from i-, jessati from ji-, hessati a direct derivation from bhaviṣyati; but anubhossati, As. ho(s)sati. Similarly the verbs in -e-, Skt. -aya-: kathessati derived from Skt. kathayiṣyati is the normal future, from the Pali point of view, o katheti and more particularly of the preterite kalhesi (its peculiar connection with this last tense is best seen in gahessati, aggahesi opposed to the present ganhali, Skt. grñhāti).

After a consonant the most frequent formation is -issati added to the root (gamissati) and notably to the present stem: passissati,
pucchissati, gachissati, cankamissati, caus. bandhayissati; it is the normal future, which serves to interpret the others in the commentaries: thus jessasi, bhokkham are rendered as jinissasi, bhuñjissāmi.

It is convenient here to point out, but without being able to explain them, the peculiar forms taken by the suffix in verbs with a long radical (cf. p. 65), for this reason among others that they persist in Middle Indian and have modern parallels. Thus: As. hohanti they will be, beside ho(s)anti, dāhanti they will give,

Dh. ehatha beside J. e(s)satha you will go, Pali kāhasi (where the long vowel may come from the aorist), hāhasi thou wilt leave;

further, the thematic vowel in these same verbs often becomes -i-, Pali padāhisi thou wilt give, vihāhisi thou wilt leave, hāhiti; ehisi, ehiti, hoñiti; kāhisi, kāhiti, kāhinti, whence even karñiti; similarly dakkhisi, -iti, -inti; Asokan has va(ṛ)hisiti at Rupnath and in Mysore, vadhiyisati at Kalsi. There is here a glimpse of the action of the aorist.

As in Sanskrit, the past conditional is formed from the future: abhavissa would have been, 3 pl. abhavissanāsu.

**Preterite**

There is only one preterite, which is based at once on the aorist and the imperfect. The augment is no more necessary here than in Vedic. It persists in the active: 1 agamāṃ 2-3 agamā, pl. agamāma -amha, agamattha -itha, agamus; sg. 1 adam, 2 ado, adā, 3 addā; pl. 1 adamha, 2 adaltha, 2 adā, adum. Archaisms: addā, -a(adrāk), whence addanā which is found in Jāt. III, 380a, in the same strophe as addasanā, akā beside akara and akāsi.

The most general characteristic is the i of the aorist, preceded or not by the sibilant: sg. 3 assosi, As. ni(k)khami, whence agami, 1 assossimā, agamimā (as already the RV vadhīm, TS agrabhīm), pl. 3 assossam, agamism, agamiṃsu. In some verbs with a radical ending in an occlusive, the aorist, approaches the future: achecchi (achaitsīl), addakkhi (adrākṣīl), whence asakkhi (ṣak-), akkochi (kruṣ-), pāvekkhi (viṣ-); the connexion is seen in the hesitation between adhigacchissaf and agacchissam in the 1st sg. But most of the preterites are based on the present: sg. 1 agacchissam, apucchissam, parilehissam, amaññissam, bhunājīm, asurīm, 3 ānayi and ānesi, icchi, apivi, hani; pl. 3 naccīmsu or anaccīm, As. icchisu, alocayisu, husu.

In the middle sg. 2 pucchiṭha, 3 pucchiṭha, As. ni(k)khami(t)ḥā, pl. 1 akaramhase have aorist stems; sg. 2 amaññalatha, 3 jāyatha
was produced, As. *hulhā (Pa. *ahosi), pl. 3 amaññarum thought, *abajjhare were tied, are attached to the imperfect.

Of the perfect there are left only remnants: 3 sg. *āha, pl. *āhu, and side by side with this last, *āhaṃṣu (also Mahavastu) has been formed; while *vidu(m) serves as a plural for *vedi (avedi).

**Indicative endings (middle and future)**

As we have seen, Pali preserves some middle endings. These are survivals and met with principally in verse texts. It is largely a question of a graphic process for denoting a long vowel. Now this notation has no linguistic interest, since all final vowels in literary Middle Indian can have either quantity, which means in fact that all were short. It is no wonder then that middle endings have no special significance. In certain cases such as the 2 sg. *pucchitho (which in fact seems half active: -ṭhāḥ+*ah<-*ṭhāḥ), 3 *pucchithā they allow a differentiation between analogous forms; 2-3 (a)pucchi, (a)pucchasi are, on the contrary, not distinct.

It seems, however, that the complete loss of middle force is recent. Aśoka writes at Girnar *du(k)karāṃ karoti he does something difficult, but mamgalaṃ karole he performs a religious ceremony (evidently in his own interest). Is this opposition just due to chance? Similarly Girnar has ma(ṅ)ne, where the other editions have ma(ṅ)ne; but there survive only the primary indicative forms. The subjunctive of ma(ṅ)ne is ma(ṅ)ne; and in the passive the 3rd plur. aorist is āra(b)bhisu opposed to āra(b)bhare are sacrificed, fut. āra(b)bhisare.

This raises a question about the group of endings in -re of early Middle Indian. They are middle forms, since according to the Indian view, Skt. -uḥ does not contain *-r. Now -re, which is rare in Sanskrit, is frequent in Pali; labhare, khādare (explained as khādanti), jīyare beside jīyanti and jīrnanti they grow old, haññare beside haññante they are killed, miyare they die, beside marantī. Aśoka has also a future ara(b)bhisare. This form is found exceptionally in the preterite abajjhare they have been tied; and on the other hand amaññarum they thought. Here perhaps -re has been adapted to the normal final syllable of the 3 pl., and is not a survival of Vedic -ran, as Geiger maintains.

The secondary endings in the 3rd sg. mid. and 2nd pl. act., Skt. -la, Pa. -lha (abhāsatha he said, amaññatha you thought) present an obscure problem, which is important as concerning endings in constant use. So far as the 2nd pl. is concerned, we must suppose that the old -lha of the primary endings passed to
the secondary endings of the active, perhaps through the impv. *labhatha* and then the opt. *labhetha* (As. pres. *pāpunātha*, opt. *pājivedētha*); and thence to the middle, the ending *-dham* creating a difficulty (it is sometimes represented by *-vho* which presumes *-dhuvaḥ*). It would then, in short, be only a matter of a particular instance of the preponderance of active over middle.

It is harder still to explain the 3rd sg.: *abhāsalha* he said, As. opt. *paṭipajetha = paṭipajeya*; ind. As. *huthā*, but Nanaghat *hutā*. The purely mechanical analogy of the ending of the 2nd pl. appears to be insufficient in itself. In Sanskrit *-thāḥ* is second person and is replaced in Pali by *-lho* (with an intermediate *-thaḥ* rhyming with *-aḥ*, cf. *ado* thou gavest, *āsado* thou didst arrive). We might appeal to the frequent attraction of the 2-3 sg. to the secondary endings (starting from *assertī: -iḥ* and *-il*) and consider that *-thā ā* passed to the 3rd person before being secondarily and rarely replaced by *-lho* (opt. *labetho* Suttan. glossed by *labhissasi*; pret. *amaṇīṭhō*).

Moreover, the preterite has a 2 pl. *assultha, agamitlha* opposed to Skt. *aśrauṣṭa, abodhiśṭa*. And in the 3rd person of the middle, the type *pucchitha* he asked, *sūyīthā* he was heard, is well represented. The dental is unexpected.

So far as the 2nd plural is concerned there is another plausible analogy: *-mha* represents *-sma* and *śma* equally well. Since this development primary verbs, particularly the verb ‘to be’, which is met in groups with past participles (e.g. *āgal’atthā* you arrived, *āgal’amha* we arrived), may have affected the endings.

In the 3rd sg. the expected cerebral is attested once in Asokan (Sop. *nikhamit ṭha*, read *nikkhamīṭṭha*?); elsewhere *vaḍhitthā* etc. The Śutanukā inscription has *kamayitha* and it may therefore be supposed that here there is a later substitution. It depends on the formation of the 3rd sg. *-tha*.

If the present is a good explanation of *-mha*, it can be seen *a fortiori* how the 1st pl. *labhamhe* may have been formed on the present itself, resting also on the 2nd pl. *labhavhe*; both in fact are seldom used as is also the case with *labhāmase* and *labhāmhase*, cf. *asmase, amhase*.

It seems then that the active forms affected the middle, and the primary the secondary forms.

The latter point explains certain peculiarities of the future: *sossāmi* and *sussam (śru-)*, *vacchāmi* and *vaccham (vas-)*; As. Gir. *likhāpayaś saṃ*, elsewhere *lekhāpeś)sāmi*, Shah. *kaśaṃ* (Pa. *kāsaṃ*), Kal. *kachāmi*. Wackernagel has pointed out that Asokan *mā pali(b)bhaś sa(y)iśaṃ* from *bhrams-* is an injunctive. We
have noted the uncertainty between -\textit{isam} and -\textit{issam} in the aorist (p. 230 under Preterite).

Conversely, the unification of the 1st pl. active is explained by the extension of the secondary form; -\textit{ma} the normal development of -\textit{mah}, was bound, when it shortened, to encounter -\textit{mu}, the new creation for the optative; -\textit{ma} on the contrary rhymed with the -\textit{tha} of the 2nd person and had, moreover, the advantage of ranking, because of its shortness, with all endings except that of the 3rd plural.

Thus early Middle Indian, by reducing the grammatical categories of the verb, was confronted with a plethora of stems and endings. The grouping of them according to their use has led to simplifications and also to new formations, the reasons for which are sometimes not apparent. We shall find the same attempt at simplification resulting in complications in the history of the moods which survive in Middle Indian, that is to say, the imperative and optative.

**Imperative**

The extension of -\textit{tha} and the 2nd pl. middle -\textit{vho} to the 2nd pl. active has already been mentioned. The ending of the 2nd sg. in the athematic stems is maintained and even extended: \textit{bruh}, \textit{dehi}, \textit{akkh\=hi}, but also \textit{jiv\=hi} beside \textit{j\=iva}, \textit{ugganh\=hi} beside \textit{gan\=ha}, \textit{sun\=ohi} and \textit{sun\=ahi} beside \textit{sun\=a} (Ved. \textit{\=s\=nuhi}, Skt. \textit{\=s\=nu}), \textit{karohi}, \textit{tuss\=ahi} be contented. Further, -\textit{ssu} is very frequent; it is a substitute for -\textit{sva}, which is common in Sanskrit, whether the treatment can be considered as phonic or whether there is an influence of the third person in -\textit{tu}, -\textit{nlu}: \textit{puccassu} ask, \textit{muuccassu} be delivered, \textit{jahassu} release; one even comes across the 1st plural \textit{pappomu}, glossed by \textit{p\=apaneyy\=ama} may we acquire. For the same ending in the optative see below.

**Optative**

As in the other secondary formations, the endings of the 2nd and 3rd sg. are bound to become confused after the disappearance of the final consonants: \textit{dajj\=a}, which is still attested in the 3rd person, must have served also for the 2nd. Hence a combination with the old subjunctive (sporadic examples of which remain like \textit{garah\=asi} blame, \textit{bhav\=tha} be, in the 2nd person), whence a paradigm in the singular 1 \textit{dajjam} 2 \textit{dajj\=asi} 3 \textit{dajj\=a}. Similarly, in the thematic stems, 2, 3 \textit{labhe} was enlarged to \textit{labheyy\=a}
under the influence of *labheyām, labheyu (the type of forms existing in Asokan), then reinforced in Pali (perhaps in order to regain the rhythm of *dajjām, dajju) under the form *labheyājā and finally gave 2 labheyyāsi, whence 1 labheyyāmi and 3 labheyyāti. Similarly in the plural 1 labheyyāma 2 labheyyātha beside labhetha, which had the inconvenience of rhyming with the presents of the verbs in -eti and notably with the causatives.

This system resulted from a series of normalisations. But thanks to Asokan, it is known that the history of these changes was more complicated and contained a variety of abortive experiments. There were forms such as 1st sg. -ēha from -e+(a)ha; Pali had several forms of the labheyyāham type made on the same principle; a plural labheyyājā mha and even a middle vareyyāhe. In the 3rd pl. Asokan has āladhayevu a phonetic variant of -yevu and also nikhamāvu, which supplies evidence once more of a blending with the subjunctive. Girnar still has middles: susumsera which is old, and srunjāru which is a subjunctive or an imperative.

The Pali verb displays contradictory tendencies: the one towards simplification of the system, which does not succeed in overcoming the traditional congestion, the more especially as the attempt at normalisation results in introducing new forms, and the other conservative and of literary origin. And it must be admitted that we are not in a position to estimate to what extent many, even apparently novel, forms are not adaptations to Sanskrit grammar.
The distinctive feature of the Prakrits is the breakdown of the preterite. Outside Jaina Prakrit āsi only is found; in Jaina Prakrit āsi, abbaī, abhā and holthā with some other forms like (ajkāsi, vayāsi are used also with nouns in the plural; conversely, karimsu (e.g.) is found in the third and even the first person of the singular. Ans as in Pali āhāmsu both 1st and 3rd sg. exists beside āhu 3rd sg. and pl. The ending in -iḷthāja (eltha for the causative) occurs in the plural, 2nd and 3rd persons. Pischel, indeed, remarks that acche, abbhe (from chid- and bhid-) were used as optatives.

There remain, therefore, only presents (with impv. and opt.) and futures. Here the system approximates closely to that of Pali.

The formations of the present stems are manifold, but as their variations have no significance, it is useless to dwell on them, except so far as concerns the causative and passive. The causative is formed in -e- (Skt. -aya-): hāše; mainly in -ve- (Skt. -paya-) for every kind of root: hasāvei like thāvei (sthāpayati), jānāvei (formed on the present stem) and even jānavei, thavei. The normal sign of the passive is -īya or -ijja- from -i(y)ya-, freely added to the present stem: ḍharijjai, sunijjai(śru-), pucchijjai(pṛch-) and also dijjai (diyale), pījjai. There are some strong forms: dissai, dīsai (dṛṣyale), muccai (mucyale), gammai (gamyale); but it is difficult to distinguish ordinary forms from those remodelled by authors on Sanskrit.

In the inflexion of the present there are novelties of a phonetic order: 2 pl. vaḷṭha; 1 sg. vaḷṭāmi beside vaḷṭāmi (given by the grammarians for classical Prakrit, but not in the texts). Besides, we find, especially in verse, -ma in the 1st plural as in Pali (and at Niya: preṣīsāma we shall send), and -mha (and even -mhi in the sg., cf. the verb 'to be' 1st sg. mhi 1st pl. mha, mho; and in Jaina Prakrit mi, mo); but the common form is -mo or -mu its short form, corresponding more closely with the actual pronunciation. Moreover the thematic vowel is frequently replaced by -i-: jānimo, vandimo, hasimo, līhimo; similarly but more rarely
in the singular jāṇimi. It is doubtful whether we have here a remnant of the Sanskrit dissyllabic root conjugation, bravīmi having been replaced by brūmi since Pali. It is not clear how the aorists in -i or the futures in -iī would have acted and, in order to account for the limitation to the 1st person, an explanation of a phonetic order would be desirable.

There are some middle endings (3 pl. -nte and -ire), but there is no complete paradigm even in the grammarians. All our information assures us that these forms have no linguistic value.

The 2nd sg. impv. has three endings corresponding to those of Pali: ra(k)kha, bhaṇāhi, rakkhasu. As far as the last form is concerned, have we here the Pali -ssu adapted to the rhythm of the present (rakkhasi)? Or is it, on the contrary, the original ending: -su following -lu on the one hand and -si, -ti on the other? In this case one would be justified in wondering whether Pali -ssu is not an attempt to Sanskritise -su, cf. p. 233.

This ending is sometimes found in the optative: karejjaśu/asu beside karejjāsi/asi, which forms a group with karejjāmi etc. Prakrit, therefore, has at its disposal both the kuppe type and the siyā, sakktā, kujjā (kuryā) forms with dejjā, hojjā based on the last of these; whence by a process of combination, jivejjā, kuppejjā etc.

But it should be noted that the nasal of the 1st person is often wanting, so that the 1st and 3rd persons of the singular are alike. Moreover this single form has the force of the 3rd plural; bhave for bhaveyu[tt, iigacchejjii for iigaccheyu[tt. This is as good as saying that the optative is no longer genuinely conjugated.

The future forms are, on the contrary, abundant and varied. They continue, on the whole, those of Pali. It is sufficient to notice the extension of the type in -ihisi, -ihī(d)ī whence -ihī/i: so one finds at one and the same time gamissam (predominantly classical), gamissāmi (Jaina and rare), gacchām (Jaina) and gacchihiimi. The grammarians record a 2nd plural of the gacchi-hilthā type, which seems to come from the aorist and a 1st plural gacchihiissā which is not explained and, moreover, rarely used.

The picture of the Prakrit present and future does not then differ essentially from that of Pali, especially if it is borne in mind that the profusion of forms must be owing to the duration and variety of the literature and also, no doubt, to some extent to the imaginativeness of writers and grammarians. In contrast is the salient characteristic of the absence of a viable preterite. The reason of this is that at this stage of evolution the past is expressed by the past participle, a form no longer optional and supplementary to the other forms, but normal and exclusive.
Conjugation is the portion of the morphology, which best shows that literary Middle Indian represents only one part of the Indo-Aryan group. Apart from the obscure forms, which occur in normal proportions in the languages of India proper, certain cases in the Dardic group show that general parallelism does not exclude independent development. So far as we know, the general aspect of grammar is the same in that group as elsewhere, and it seems that the majority of divergencies are due to the effect of local phonology or to the vocabulary (auxiliary -st), or else to the existence of isoglosses, which bring these languages nearer to Iranian (infinitives in -ik and the use of the relative pronouns), if not actually to borrowings from Persian or Afghan (present participle in -ān, -ān?). But there remain characteristic archaisms in the inflexion entirely unknown to literary Middle Indian. The most certain of them is the survival of the long ending of the Vedic 1st plural -āmasi (it will be noticed that the s is palatalised): Kati asəmiš, Ashk. semiš, Pras. esemš-o, Pash. dial. inamas we are, Kal (South) karimiš we make.

One suspects also persistence of the Vedic 2nd pl. -athana in Kati -či, Pras. -en-o, Waig. -e; and the preservation of Skt. daddhi, which has disappeared since early Middle Indian, in Khow. det gives, but here we must reserve the possibility of annexed particles like Skt. tāvat, talhā, cf. O. Kash. tā, to, mod. tāv, Hin. tō, Rom. la.

The most astounding archaism seems to be the presence of the augment of the preterite in Kalasha and Khovar. The opposition of Khow. šer, Kal. šiu there is: Khov. ošoi, Kal. ašis there was, and of Khov. bōm I can: obetam I could, Kal. pim I drink: apis avis I drank, kārem I do: āris I did, is indeed striking; and H. W. Bailey cites mod. Iran. Yaghnobi akūnim I made (communicated by R. L. Turner) but comparison of the endings of these languages shows that they are often formed from auxiliaries probably preceded by gerundives or participles. This may then be a matter of secondary formation and not of continuation of
forms with the Sanskrit augment. These forms are hardly found any longer in Asokan except in the verb ‘to be’; in Pali the augment was still used in relatively short forms (agā, agamā), but it is absent from the non-canonical literature. In modern Indian only the auxiliary āsi persists in traces.

The Neo-indian system rests on the opposition of two groups of forms: one strictly verbal, which continues the present indicative and to some extent the future and imperative of Prakrit and one comprising nominal forms more or less combined or assimilated to the first. These forms are agential nouns, as e.g. in Singhalese, but chiefly participles, present, future or past. The construction of the present being in principle active and that of the past passive, there is a double function for the verb from the start, even when the two forms have only one stem.

**Stems**

As the sigmatic future, when it exists, and the imperative are based on the present stem, it is sufficient to consider the formation of the latter. From the Neo-indian point of view, the primary stems are of only one kind; the distinction of the categories, from which the various stems are derived, is purely a matter for etymology: for example, Hin. jā- (yāti), khā- (khādati), ho- (bhavati), so- (svapiti), kūd- (kurdu), pūch- (prcchati), kar- (karoli), uṭh- (ultīṣṭhali), gān- (gaṇayati), pī- (pibali), jāg- (jāgrati) chin- (chinatti), jān- (jānati), sun- (śnopati), nīc- (nīlyati), upaj- (utpadyate) etc. not to mention later denominatives.

It is convenient to mention here the stems extracted from past participles, which could behave as nouns in Sanskrit whence the equivalence of the two formations, not only in intransitives, but also in transitives: Hin. bais- and baiṭh- to sit down (upaniśali, upaviśṭa-), Nuri bag, Rom. (Welsh) phag-, Guj. bhāg- to break (bhagna-), also Hin., Guj. bhāg- to flee, opposed to Rom. (Greek) phang-, Guj. bāṅg- (beside bāṅj- Pkt. bhanj-). Pkt. mukka- the participle of muc- gives Panj. mukk- to fail, perhaps Kati, Waig. muk- to flee (beside Ashk. muč from muceyate), also Guj., Rom. muk- to leave, Mar. muk- to lose (beside Sdh. muṁj- from Skt. muṁc- to send). Similarly in contrast with Panj. laddh- to be found, Guj. lādh- to accrue, Rom. (Welsh) lal- means ‘to find’. The opposition of meanings is ultimately the same as between Mar. lābh- to be acquired, from the passive labhyate and the denominative Guj. lābh- to acquire. Moreover a certain
number of participle stems are indistinguishable from present passive stems e.g. Pkt. laggai, lagg- come from Skt. lagyate, lagna.-

The stem-vowel presents regular alternations, when passive or causative stems co-exist with the old normal present. The examples will show that there can be consonant alternations also notably in the causatives. But these alternations are not general and there are more convenient and more frequently used suffixes to form the passive and causal.

**Passive**

Two stems can issue directly from one and the same verb, one representing the simple or causative present active and the other the passive. For example in Sindhi:

- kх̄j- (kх̄dyate): kh̄- (kh̄dali)
- chij- (chidyate): chin- (Pkt. chindai)
- bajh- (badhyate): bandh- (Pkt. bandhai)
- rajh- (radhyate): randh- (randhati)
- labh- (labhyate): lah- (labhate)
- ṭrut- (trutylate): ṭrot- (trotayati)

The same pairs are found elsewhere, e.g. Lah. bajjh-: bannh-, Shin. rāz-: raṇ-. And there are others, e.g. Shin. daž-: day- (dah-); Nep. lāg-: lāu- (lag-); Lah.; tapp-: lā-; Guj. Hin. lāp-: lāv- (lap-); Lah. diss-: dass-, which rests on the old alternation od dṛṣya-: dars-.

Independently of the analogical pairs, which are quite common in Sindhi (e.g. ḍubh- from ḍuh- to milk), these alternations served as a model for secondary groups in which the root without the guṇa expresses the intransitive and so the passive:

Hin. ladnā to be loaded, after lādnā (lardayali)
- dikhnā to appear, after dekhnā (Pkt. dekkhai) to see
- phalnā to be torn, after phārnā (phāllayati)
- bandhnā to be tied, after bāndhnā to tie.

The pairs of verbs do not form regular series and their alternation is not consistent in any language. Moreover, they have no precise semantic force.

In some languages there are alternations generalised by the use of passive morphemes, Pkt. -ījīai or -īai added to the radical without maintaining the Sanskrit vowel variation: Marw. karīj- to be made, khauīj- to be eaten; Sdh. ḍīj- to be given, mārīj- to be beaten, from mār- causative of mar-, and so to the impersonal
halij- to be gone, and even thij- to become, which is made from a participle; Shin. cariż- to be led to pasture, tapiż- to warm oneself (from the passive radical tapp-); Lah. parhie is read, marisā I shall be beaten; Nep. garīe is made, cahidaina is not desired; O. Mar. karije is made, seviye is served, vacije, jāije it is gone (impers.); O. Guj. kahiyai is said, dījai is given; Tulsi Das pūjieta is adored, pūjiati are adored, kari and karījai is made; O. Beng. karioai, karijai and kijjai. There still remain archaisms like Mar. pāhiye, Guj. joie, it is seen, is necessary (it is expected); Mid. Beng. pāte is obtained, Panj. ki jāniye perhaps. These forms readily assume the sense of obligation: Tulsi Das sunia kathā the story (is heard) must be heard; let it be heard. Hence the polite imperatives in Hindi (dekhiye please look), North Bengali (rāhek keep), Kashmiri (gupizi thou shouldst, he should etc., hide), which are only presents passive like cāhiye is desired, is wanted; cf. also the prohibitions in Birbhum Bengali: āgune hāl diye na the hand is not put, must not be put in the fire.

The causative passive (Skt. -pyate) has given rise to a few formations: Panj. ki jāpe like ki jāniye what do I know, perhaps (kim jīnāpyate) is early; but Panj. sīp- to be sewn, from sī- (siv-) is analogous, and similarly Sdh. dhe-p- to be washed, jā-p- (jā＜p＞yate) opposed to jān- to engender, O. Mar. ghe-p- beside ghe-tj- to be taken, hārap- to be taken away, lost, on which the new models ghepij-, hārapij- were formed after the common type (Doderet, BSOS, IV, p. 59).

Finally, there is the type with a long vowel. Gujarati has -ā- regularly after a consonant: lakhā- to be written, and -ō- after a vowel: gavā- to be sung, jovā- to be seen; Tulsi Das kahōva I am called; Bengali has bolā- to be called, bujā- (Guj. bujhā-) be extinguished (but Hin, bujh-). This last verb goes back to Pa. vijjhāyati (the causative of which is vijjhāpeti extinguish), but this tells us nothing, the Pali verb having no Sanskrit antecedent, and furthermore the Sanskrit derivatives in -āyati have no special force. The question must be one of analogies going back to Middle Indian.

For suffixes preference is generally given to the alternations which tally with those of the causatives or to idioms consisting of expressions composed with par- to fall, khā- to eat, jā- to go: the first expression recalling Dravidian and the two others Iranian (śudan ＜*cyu).
Causatives

The most generalised secondary formations are those of the causative. Sanskrit had two sorts of causatives (and denominatives):

1) with an alternating radical, the radical vowel of the causative being gunated, that is to say, possessing from the standpoint of Sanskrit vocalism a supplementary a. There were, moreover, variants, the -aya- suffix;

2) with the addition of the -p- suffix to the -ā- roots: dā-payali, mā-payali; this suffix is extended to other roots, from the sūtras onwards: aś-āpayati.

The two types exist side by side in Middle Indian; but the second is more and more widely extended to the point of doubling the first and of being itself doubled (As. sāvāpayami I preach; and the participle likhāpāpilā which has been caused to be inscribed, beside likhāpilā and lekhāpilā).

1) The first type survives in Neo-indian, but in fixed forms over a restricted although wide area. It seems to be wanting in Singhalese, Kafir and Shina; in Romany the probably unique alternation mer- (mar-): mar- (māraya-) has no longer any meaning, for mar- is not ‘to kill’, but ‘to beat’; ‘to kill’ is mer-.
Torwali has kept at least mai- to die: mow- to kill; and the opposition cuj- to learn: cūj- to teach, the remains, no doubt, of an old network of analogies.
Khowar has a suffix -ē (without root alternation). It is uncertain whether this represents Pkt. -e- or a phonetic variant of the normal Kafir -ā- suffix: γar- to turn: γarē- to turn (trans.), cic- to learn: cicē- to teach.

The Prakritic languages have a stock of alternating verbs, the final consonant of which is preferably a liquid (including ɖ representing ɬ of Skt. -lāti and opposed to ɬ from -lyale) and the termini are, one an intransitive resting on an old passive, and the other a causative with active meaning. Hence the oppositions:

Guj.  \textit{val}- to turn (intr.): \textit{vål}- to turn (trans.)
Mar.  \textit{pad}- to fall: \textit{pād}- to fell
\textit{mar}- to die: \textit{mār}- to kill
\textit{car}- to graze (intr.): \textit{cār}- to graze (trans.)
\textit{lar}- to cross, be saved: \textit{lār}- to save
\textit{tul}- to break (intr.): \textit{tōd}- to break (trans.)
\textit{dab}- to be pressed down: \textit{dāb}- to press down
Sdh. sar-, bar- be on fire: sār-, bār set on fire
parh- to read: pārh- (and parhā) to teach
cīr- to be annoyed: cēr- (and cērā) to annoy
bhur- to collapse: bhūr- to ruin

Some examples from Kashmiri:

lag- to be with: lāg- (the g of which cannot be phonetic)
to be united
dal-, lar- to cross (intr.): dāl, lār to make to cross
mar- to die: mār to kill

The formation has vitality in Hindi:

mar- to die: mār- to kill, beat
chul- to be released: chor- to release
dab- to be pressed: dāb- to press
khul- to open (intr.): khōl- to open (tr.).

There are new creations: the t in kal- to be spun, cannot come from -ty-, it comes from kāl- (kart-); similarly chid- is formed from ched- to pierce, taken itself from a Sanskrit word. Conversely the t of the causative ret- to empty, comes from rīt- to be emptied, which is constructed from Hīn. rītā (rikta-); similarly the t of mel- to remove by rubbing, comes from miṭ- (mṛṣṭa-); dīkh/dikh replaces diss- from dekh- to see.

The rhythm a: ā being dominant, the alternations i: e or u: o may give way to i: ī, u: ū: thus pīs- to be crushed, from pīs- to crush, and conversely lūṭ- to loot, from lūṭ- to be looted.

There are left some pairs in Bengali, often with dissociated meanings: par- to fall: pār- to fell, gal- to melt: gāl- to melt (trans.), but cal- to go, cāl- to cause to go; sar- to go, sār- to arrange; chúl- to run: chor- to throw.

The inflexions are as in the simple verb.

2) The Sanskrit type -āpayati, Pkt. -āvei is, on the contrary, widely represented and productive: Mar. (with the vowel shortened by position) karavi- make... do (variant karīvī- no doubt under the influence of the other causative kare-), Guj. lakhāv- make... write, Marw. udāv- make... fly in the air, Sdh. larā- make... fry, mawā- make... measure, Tulsi Das sunāv- make... hear, Maith, lagab-, dial. lagav- to apply, O. Beng. bandhāvāe he ties (-āv- is reduced later to -ā- in Panjabi, Hindi and Bengali); Or. dekhāē I show, but khuāi I cause to eat, from kha-; Nep. garāu- cause to make, Kash. khy-āu- to feed, beside khyāvanāv- in Kashtwari; similarly in Singhalese kava- to make... eat, yava- to send; Rom. (Eur.) per-
to touch, \textit{perav}- to cause to touch; Nuri \textit{jan}- to know: \textit{janau}- to acquaint (see Macalister § 108); finally in Dardic: Kati \textit{pill-e} and \textit{all-ā}- to make fall, \textit{paši-ē}- to light; Ashk. impv. \textit{ušawa-} or \textit{ušā-} mount on the back, from \textit{uš-} take on the back; Kal. \textit{nāš-} to die: \textit{naša-} to kill.

This formation has imposed itself upon the Iranian dialects bordering on India: Afghan, Waxy, Yidga, v. Geiger, \textit{Grundriss II}, p. 222, 329 (the Persian causative is in \textit{-ān-}, Pahl. Bal. \textit{-ān-} and \textit{-ēn-}). It has, however, become subject to the competition of other suffixes in India proper: first of all \textit{-ār-}: Sdh. \textit{uthār-} to raise, and, with double suffix, \textit{khā-r-ā-} to feed (just as by combining the suffix and the internal alternation we have \textit{pherā-} beside \textit{pher-} to turn (trans.) opposed to \textit{phir-} to be turned; and the three processes at once in \textit{sekhār-} to teach); Kash. \textit{zy-} to be born: \textit{zēv-ār-} (the normal type contains the old causative suffix attached to a noun of action: \textit{karanāv-} to engender); Shin. \textit{paruž-} to understand: \textit{paružar-} to explain; \textit{so-} to sleep: \textit{sar-} to put to sleep; \textit{ulti-} to get up: \textit{ulhar-} to awaken (trans.). It is tempting to include the Romany denominatives in \textit{-ar-}, the Greek type \textit{kal-ar-} to blacken, which appear as causatives, when they are formed from participles as in \textit{tāl-ar-} to heat, \textit{mard-ar-} to cause to kill. This analogy would lead us to suppose a compound with \textit{kar-} to make (cf. Critical Pali Dict. s.v. \textit{adinna} Pali and Singhalese).

It is a nominal suffix also, which one is tempted to recognise in Guj. \textit{dekh-ād-} to show (indicated for Prakrit by Hemacandra: \textit{hamādaî}); it is, moreover, liable to accumulation: \textit{dev-ad-āv-} cause to be given. So also the \textit{-l-} in Panj. \textit{sikhāl-} and \textit{sikhlāu-} beside \textit{sikhāu-} to teach, \textit{bilṭāl-} beside \textit{bilṭāu-} to make sit; Nep. (exceptionally) \textit{bas-āl-} to make sit; Hindi employs this suffix after some vowel roots: \textit{dilā-} to make... give, from \textit{de-}; \textit{sulā-} to put to sleep, from \textit{so-} etc. However, R. L. Turner ND. s.v. \textit{kahalāunu} to be called, sees the source of the \textit{l} suffix in \textit{pālayali} regarded as causative of \textit{pālī}.

Causatives and denominatives have had, in fact, similar forms since Sanskrit. But the real history of these suffixes is hidden from us. The important thing to notice is that the opposition of causative to simple stems, which is made complete by the opposition of simple stems to passives, finally results in the opposition of intransitive to transitive stems (completed in exceptional cases by a different inflexion, see p. 245).

From the point of view of modern Hindi, for example, the relation is the same, whatever be the origin of the particular group, as:
mar- to die (Pa. marati)  mār- to strike (Pa. māreli)
lad- to receive a load  lād- to load (Skt. lardayali)
mit- to be effaced (from mrṣṭa-)  meḻ- or miḻ- to efface
piṣ- to be crushed  pīṣ- to crush

and

parh- to read (Pa. paṭhati)  parhā- to teach
jāg- to be wakened (Pa. jaggati)  jagā- to waken (trans.)
sun- to hear (Pa. suṇati)  sunā- to recite
sukh- to be dry (Pa. sukkha-, Skt. suṣka-)  sukhā- to dry
pak- to cook, ripen (intr. Pa. pukka-, Skt. pakva-)  pakā- to cook, ripen (trans.)
bujh- to understand (Pa. bujjhali, Skt. budhyate)  bujhā- to explain
ban- to be made (varnyate)  banā- to make
bāj to sound (vādyate)  bajā- to play

Apart from the suffixes examined, some divergent formations may be noted in Kafir, e.g. in -n- (arising from the old nasal formation or from the local participle, cf. the Kash. causative?) and even in -m- (included in or extracted from the participle -mān? v. Garwabati, LSI, VIII, II, p. 84).

Such rare exceptions only emphasize the general uniformity.

**Inflexions**

The only normal indicative inflexion is the one derived from the old thematic present and the future active. It appears in Prakrit under two forms, 3rd sg. -ai and -ei, derived from the radical and causative-denominative stems of Sanskrit. In Neo­indian the second is the more often wanting, sometimes being, it seems, mixed up with the first and finally falling into opposition to it with a clear semantic force in the two languages, Marathi and Sindhi.

In Marathi there are:

<table>
<thead>
<tr>
<th>sg.</th>
<th>1 hasē I laughed</th>
<th>mārīṁ I used to beat</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 hasāli, hasē, hasas</td>
<td>mārīs</td>
<td></td>
</tr>
<tr>
<td>3 hasē</td>
<td>mārī</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>pl.</th>
<th>1 hasō, hasūṁ</th>
<th>mārūṇi</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 hasā, hasāṁ</td>
<td>mārā</td>
<td></td>
</tr>
<tr>
<td>3 hasalī, hasal</td>
<td>mārilī/i, māril</td>
<td></td>
</tr>
</tbody>
</table>
and in Sindhi:

<table>
<thead>
<tr>
<th>sg. 1</th>
<th>halāṁ</th>
<th>I may go, I go</th>
<th>māryāṁ</th>
<th>I beat, I may beat</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>halē, halīṁ</td>
<td>māryē, mārē, mārī</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>hale</td>
<td>mārē</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pl. 1</td>
<td>halūṁ</td>
<td>māryūṁ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>halo</td>
<td>māryo</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>halan¹</td>
<td>mārīni in¹</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Elsewhere there are mixtures of forms: in Apabhramśa, karei is employed with the same force as karai; and it may be suspected that 1st sg. Beng. Or. cali, Maith. Mag. calī, 2nd sg. mid. Beng. calisi beside calasi, mod. Beng. calis beside E. Beng. calas, 3rd pl. mid. Beng. calenta beside calanta come from the causative. Proof is not forthcoming, because forms of this kind appear only, when the old ending has a final -ī. Nor is the existence of the present participle stems, dekhit- beside dekhat-, in the eastern group any more decisive. Finally, isolated forms like Kash. 2 pl. ēalin, cf. 3rd pl. ēalan must be noticed.

Even as regards the inflexions of the simple athematic, the languages in which the Sanskrit and classical Prakrit endings are clearly visible, are rare. These are, in particular, the peripheral languages. There are, first, those which preserved unknown endings from classical Sanskrit; e.g.

<table>
<thead>
<tr>
<th>Ashkun</th>
<th>Waigeli</th>
</tr>
</thead>
<tbody>
<tr>
<td>sem</td>
<td>vēsam</td>
</tr>
<tr>
<td>ses</td>
<td>vēsaš</td>
</tr>
<tr>
<td>sēi</td>
<td>vēsaī</td>
</tr>
<tr>
<td>semiš</td>
<td>vēsamistiš</td>
</tr>
<tr>
<td>[seg]</td>
<td>vēsav</td>
</tr>
<tr>
<td>sen</td>
<td>vēsalt</td>
</tr>
</tbody>
</table>

or endings which were atrophied in classical middle Indian (3rd sg.):

<table>
<thead>
<tr>
<th>Rom. (Eur.)</th>
<th>Nuri</th>
</tr>
</thead>
<tbody>
<tr>
<td>kamañ</td>
<td>nanam let me bring</td>
</tr>
<tr>
<td>kames</td>
<td>nanay- (nanēk)</td>
</tr>
<tr>
<td>kamel</td>
<td>nanar</td>
</tr>
<tr>
<td>kamas</td>
<td>nanan</td>
</tr>
<tr>
<td>[kamen]</td>
<td>nanas</td>
</tr>
<tr>
<td>kamen</td>
<td>nanand</td>
</tr>
</tbody>
</table>

Cf. Khowar šer (šete), pl. šeni; Kal. sg. 3 dali opposed to 1 dem, 2 des.
The others approximate to the common middle Indian type without any uniformity.

The -s- of the 2nd sg. and the -nt- of the 3rd pl. (with phonetic variants) are preserved in some languages, as well as in Marathi shown above, e.g.:

<table>
<thead>
<tr>
<th>Poguli (S. Kash.)</th>
<th>Nepali (Poguli)</th>
<th>O. Maithili (Gared)</th>
<th>Bengali (Gared)</th>
</tr>
</thead>
<tbody>
<tr>
<td>phāra</td>
<td>garū</td>
<td>dekhō (mod. dekhī)</td>
<td>cali</td>
</tr>
<tr>
<td>phārus</td>
<td>gares [gar]</td>
<td>dekhasī (dekh)</td>
<td>calis</td>
</tr>
<tr>
<td>phairī</td>
<td>gare</td>
<td>dekhahī (dekhe)</td>
<td>calai</td>
</tr>
<tr>
<td>phāram</td>
<td>garaū</td>
<td>dekhō (dekhī)</td>
<td>calō</td>
</tr>
<tr>
<td>phāruḷh</td>
<td>gara</td>
<td>dekhō</td>
<td>cala</td>
</tr>
<tr>
<td>phārun</td>
<td>garun</td>
<td>dekhathī</td>
<td>calanī(i)</td>
</tr>
</tbody>
</table>

O. Maithili

I shall beat I shall make I see I go

p. 247 But Oriya, which preserves 3rd pl. dekhānti, has 2nd sg. dekhu. Kashmiri has an obscure 2 sg., which may possibly be compared with 2nd pl. -g, -k in Ashkun and 1st pl. -k in Gawarb. and Kal. (partially); Nuri 2nd sg. -k appears to be local. In other respects it is almost completely in step with Poguli: sg. 1 gupa I shall hide, 3 gupi; pl. 1 gupaw, 2 gupiw (use of the vowel of the causative to avoid conflict with the 1st person?) 3 gupan.

The 2nd person singular seems a weak point in the inflexional system. In Apabhraṃśa it may well come from the imperative; the close relation of the indicative and imperative is, indeed, proved by the 2nd pl. karahu (for Pkt. karaha) which can only come from the third persons karau, pl. karantu, supported moreover by 1st pl. *karamu or karahuṃ, a contingent present naturally adapted to the imperative. But the amphibology, which the facts show to be tolerable in the plural, has, it seems, been found awkward in the singular, in which 2 karasi was supported by 1 karami and 3 karai. The impossible kara and the unrhythmical karehi were replaced in the indicative by karahi, which fitted well into the singular system and was in clear opposition to the plural karahu. This innovation had the further advantage of keeping -s- for the future.

Another difficulty was caused by the phonetic clash of the first persons of the singular and plural, at least in Apabhraṃśa and the languages connected with it. Indeed it seems that in this group the 1st sg. pronoun haum has made general a new ending, which is attested from the earliest Middle Indian: Jātaka anusā-saham I govern etc. In Apabhraṃśa the h appears no longer in the singular, while it has been recently annexed by the plural,
presumably under the influence of the second person in -hu and perhaps of the aspiration in Pkt. amho we are, we.

We have, then:

1st sg. karaum
2nd karahi
3rd karai
pl. karahu

This is the prototype of the western group: we may add to the Sindhi, a paradigm of which is given p. 245:

Lahnda mārā I may strike Cameali mārām
māre māre
māre
pl. mārāṃḥ mārām
māro mārā
māren māran

p. 248

Cf. also in Garwhali sg. 1 mārūṃ 2 mārī 3 mār, in Kumaoni 1 hiṭā, I go, 2 hiṭai 3 hiṭ.

Panjabi marches with Lahnda, except for a 1st plural in -ie, which seems to come from a singular passive of Middle Indian and is found again in Gujarati, Maithili and middle Bengali.

Finally, there is an innovation in the central languages, which is attested in Apabhraṃśa and concerns the 3rd pl. karahim, which cannot be phonetic, to judge from the 3rd pl. impv. karantu and the present participle sg. masc. karantu, fem. karanī. It is plain that the relationship of the third persons sg. karai, pl. karahim corresponds to that of the first persons sg. karaum, pl. karahu; the general effect obtained is that of endings made up of two shorts, a rhythm which was broken by -antā. A doubt remains from the fact that -ahim is already attested in the Prakrit Uttarādhyayana: but there is nothing to prevent us from supposing that a vulgarism later admitted by Apabhraṃśa as normal could have slipped exceptionally into the Jaina canon.

The Apabhraṃśa type is found in Gujarati and Rajasthani:

<table>
<thead>
<tr>
<th>Gujarati</th>
<th>O. Gujarati</th>
<th>Jaipuri</th>
</tr>
</thead>
<tbody>
<tr>
<td>sg.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 cāla</td>
<td>nācaum</td>
<td>caḷām</td>
</tr>
<tr>
<td>cāle</td>
<td>nācaṃ, nācai</td>
<td>caḷai</td>
</tr>
<tr>
<td>cāle</td>
<td>nācai</td>
<td>caḷai</td>
</tr>
<tr>
<td>pl. (cālie, but fut. cālisī)</td>
<td>nācaum</td>
<td>caḷām</td>
</tr>
<tr>
<td>cālo</td>
<td>nācau</td>
<td>caḷo</td>
</tr>
<tr>
<td>cāle</td>
<td>nācaim</td>
<td>caḷai</td>
</tr>
</tbody>
</table>
and in Awadhi (Lakhimpuri):

<table>
<thead>
<tr>
<th>sg.</th>
<th>calaā</th>
<th>[calī]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>calai</td>
<td>calo</td>
</tr>
<tr>
<td></td>
<td>calai</td>
<td>calai</td>
</tr>
</tbody>
</table>

In the centre of this group, Hindi and Braj have another unexplained peculiarity, the identity of the 1st with the 3rd plural:

Braj          Hindi, Bundeli

<table>
<thead>
<tr>
<th>sg. 1</th>
<th>calaā, calū</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>calai</td>
</tr>
<tr>
<td></td>
<td>calai</td>
</tr>
<tr>
<td></td>
<td>calai</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>pl.</th>
<th>calai</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>calai</td>
</tr>
<tr>
<td></td>
<td>calai</td>
</tr>
</tbody>
</table>

These languages, therefore, have an independent development, even those which have most characteristics in common with Apabhramśa. Another proof is found in Chattisgarhi, which has the new forms of the 2nd and 3rd plural, but retains the archaic 2nd singular:

<table>
<thead>
<tr>
<th>sg.</th>
<th>ghucaā I may move</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ghucaas</td>
</tr>
<tr>
<td></td>
<td>ghucai</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>pl.</th>
<th>ghucau</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ghucai</td>
</tr>
</tbody>
</table>

Bhojpuri has both bāras and bāre thou art, bāre having at the same time the force of 'he is'; influenced, no doubt, by Hindi.

Singhalese inflexions, which are independent, rest on the common scheme: sg. 1 kam(i) I eat (khādāmi), 2 kahi 3 kai, kā: pl. 1 kam(h)i (an intrusion of the verb 'to be'?), 2 kahi, 3 kai(i).

**Imperative**

The characteristic forms are those of the 3rd person: Skt. sg. -atu, pl. -antu; whence sg. Mar. -o, Or. -u, Beng. -uk, pl. Mar. -ol, Or. -antu, -untu, Beng. -un. Note Khow. sg. diyār let him give, which apparently represents dadātu.

In the 2nd sg. the normal form is the simple root, the Skt. Pkt. -a having been dropped. Literary Prakrit very often has long endings: karasu, karesu do, the ending of which is Sanskrit si or -sva adapted to the 3rd sg. -tu (see p. 233); karehi do, arising from the transference of the old Skt. athematic ending -(d)hi to the causative stem. Karahi is also found in Jaina Prakrit with the same rhythm, and, as we have seen, the Apa. karahi, which
derives from it, is used also in the indicative. The *karehi* type has been preserved in Braj and gives OWR *kari, kare, sevi*, O. Mar. *sāṃghē* say, *karīṁ* do.

Sindhi distinguishes the intransitive *veh* sit down, from the transitive *māri* strike. Marathi has acquired a 1st sg. in -āṁ with a vowel similar to that of the plural, under the influence of the characteristic vowel *u*.

**Future**

The sigmatic future, inflected like the present, disappeared except in a restricted area. While still current in Apabhraṃśa, it left rare and dubious traces in old Bengali, and is not to be found in Panjabi, Sindhi and even in the old Marathi and Singhalese texts. In eastern Hindi and Bihari, it is blended with the participial forms, and has to compete with composite forms in Jaipuri (suffix -s-), Marwari, Braj and Bundeli (suffix -h-). It exists no longer in a true sense, except in Gujarati and Lahnda, and outside India in Nuri. In Kashmiri it has taken the meaning of the past conditional.

<table>
<thead>
<tr>
<th>Gujarati</th>
<th>Lahnda</th>
<th>Nuri</th>
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<tbody>
<tr>
<td><strong>Sg.</strong></td>
<td></td>
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<tr>
<td>1 <em>māriś</em> I shall beat</td>
<td><em>maresāṁ</em></td>
<td><em>gupaha</em> I should have hidden</td>
</tr>
<tr>
<td>2 <em>mārše</em></td>
<td><em>maresē</em></td>
<td><em>gupahak</em></td>
</tr>
<tr>
<td>3 <em>mārše</em></td>
<td><em>maresī</em></td>
<td><em>gupihe</em></td>
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<td><strong>Pl.</strong></td>
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<td>Kashmiri</td>
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<tr>
<td>1 <em>māriśā</em></td>
<td><em>marsāhāṁ</em></td>
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<td>2 <em>māriśo</em></td>
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NOMINAL FORMS

I. Sanskrit

In Sanskrit as in Indo-iranian and Indo-european verbs have nominal as well as personal forms. Some are substantives confined to certain cases and capable of government; others are adjectives, which may be classed according to voice and tense.

Action nouns. Infinitive and Absolutive

In Indo-european, a noun, which approximates a verbal root in meaning, is capable of government like the verb itself; in this respect Vedic reproduces the prehistoric usage. Action nouns, therefore, may be formed in two ways. First, by nominal construction: sōmasya bhrthē while the soma is being brought; secondly by verbal construction: yajāthāya devān for the worship of the gods; and with the same word dāvānē, nominal construction: gotrāsya dāvānē, for the gift of the cowshed; verbal construction: máhi dāvānē for the gift (of) much. The verbal use is normal with the oblique cases of some nouns, and is then the equivalent of an infinitive: jajānuś ca rājāse and they have created (him) to reign, pārām ētāve pāṁthāḥ road for going to the further side. Naturally, they do not express voice: sluśē sā vām... rātiḥ your generosity is to be praised, nā... astī tāl atīskāde it is not to be despised. The complement alone gives the idea of it: nānyēna stōmo ānvēlāve hymn to be equalled by none other.

Thus the Vedas employ words in cases which may express the aim—the accusative and especially the dative (also certain apparent locatives, really old datives with a zero grade ending, see Meillet, BSL, XXXII, p. 191)—and, after prepositions and verbs requiring it, the ablative. The genitive occurs only after īš- to be able, for which it is the normal construction.

The stems are constituted: (i) by the simple root: drṣē to see; RV, VIII, 48, 10: indram pratiśram emy āyuḥ I go to Indra to prolong life; (ii) by derivatives of the root, sometimes in -man- and -van-: vidmānē to know, dāvānē to give; particularly by masculine and
SANSKRIT PARTICIPLES

feminine nouns: -i- being very rare (ḍṛśāye to see) and -ti- (-pīṭāye to drink) rare, which corresponds to the fact that in Vedic as in Indo-European nouns in -ti- hardly existed except in compounds; -tyā only in ityāi to go, and -tu-, which is much the most frequent (dātum to give, gāntāve to go, pātavāi (from *pātave vai) to drink, gāntoḥ to go); finally (iii) by derivatives of verbal stems: pūṣyāse (root pūṣ-) to prosper, rīṇāse (ṛ-) to gain, and especially -(a)dhyāi: iyādhyāi to go, nāśayādhyāi caus. to make to disappear.

These latter formations, which like several of those preceding them have correspondences in Iranian, are of interest as marking the beginnings of a close link with a finite verb. And it would seem indeed that an infinitive category is being created in Sanskrit; the dative forms, at first seven times more numerous than the rest, are eliminated, and -tum, rarely represented in the earliest texts, gains ground to the extent of becoming the sole form in the classical language. But literary Middle Indian remains faithful to the dative: Aṣ. khambāve, Pa. dātāve (Pa. etāse to go, is unique and suspect) and even creates new forms in the dative system, as Pa. helūye to be, opposed to Aṣ. bhelāve, Pa. dakkhitāye, Jaina Pkt. -(i)lēae beside -(i)jum. We also find nouns in -ana-, which carry the day, but not until modern times. The Sanskrit system, therefore, has not been consolidated.

The action nouns in -ti- and -tu- (and certain of their derivatives) employed in the instrumental, had the power of expressing a condition previous to the action expressed by the principal verb. This is known as the absolutive (see p. 284).

Agent nouns. Participles

Adjectives and agent nouns drawn directly from verbal roots readily retain the power of the verb to govern: RV kāmī... asya pīlim desiring his drink, dadir gāḥ giving cows, TS kāmukā enaṁ striyo bhavaṁthe women fall in love with him. Pataṁjali cites odanam bojako gacchati he goes to eat the soup, where the adjective assumes the force of a future participle. It is in this direction that the agent noun in -tar- will eventually develop: in the Rgveda, side by side with numerous constructions with the genitive, it is capable of governing the accusative, e.g. IV, 17, 8:

hāntā yō vrthrāṁ sānitolā vájam, dātā maghāni...
slayer of Vṛtra, gainer of booty, giver of presents.

This noun was even welded fairly soon to the 1st and 2nd persons of the verb as-, becoming invariable (for the 3rd person the rules of the nominal sentence remained valid). From this was formed
a future incorporated in the conjugation dālāsmi, dālāsi, dālā etc.: in the middle *dālāse, which was impossible beside the 2nd sg. dālāse, was replaced by dālāhe formed on the model of the nominal group dālāham, dālāse etc. According to Pāṇini the force is that of a remote future; in point of fact the rule is ill observed by the texts. It was indeed a form which remained somewhat rare in the early period and was not carried on into Middle Indian.

From Indo-European onward certain adjectives were connected not only with roots but with verb-stems. They are in Sanskrit:

(i) formed on the root: the adjectives in -ia-, -na- and their derivatives expressing the result, that in -ya- expressing the destination, and the derivatives and combinations with one another;

(ii) regularly distributed over the stems and capable of governing —the participles proper; see also, p. 108, 110.

Temporal participles

These rest upon Indo-European formations, but are not identical with them. There are in the active:

(i) The participles with the suffix -ant- alternating with -at-. Athematics: masc. sg. acc. sāntam being, gen. sātaḥ corresponds to Av. hantam, hataḥ and the alternation is the same in the thematics: bhavantam, gen. bhavataḥ being. In the reduplicated athematic verbs Sanskrit uniformly uses -al-: dādatam, dādataḥ giving. This is an Indian peculiarity probably archaic.

These participles are common in the present, rare in the aorist (where the middle participle often occurs) and are met with in the future, so far as the future is employed.

(ii) The perfect participles with the -vāms- -uṣ- suffix, replaced in certain forms by -val-, which is Indo-European. But the distribution is nowhere the same and -val- is wanting in Iranian.

In the middle there are two forms, which are not distributed according to tense, but according to stems:—in the athematics -āna-, which is Indo-Iranian; in the thematics -(a)māna-, which is peculiar to Indian and results from the adaptation of Indo-Iranian *-mna- to the first form (see Benveniste, BSL, XXXIV, p. 8). And is the form -mīna- of East Asokan and the Āyāranga-gasutta an early *-mīno-, giving *-mīna-, the rhythm of which is assimilated to -māna-? We must also take into account Skt. āśina- from āste sit, and Pkt. melīṇa- from melai mix, which are isolated.

The distribution of voices in the participles is only secondarily
constant. In the Veda the participles in -(m)-āna- commonly correspond to active forms of the finite verb; the contrary is distinctly rare. In reality -māna-, the only surviving form, is extended to the present stems of active verbs in the Buddhist and Jaina canons (Pa. As. samāna-, Pkt. samāṇa- being, from althi he is; etc.).

Verbal adjectives

I

The adjectives in -la- (-ila- in the derivatives in -aya-), in Sanskrit as in Iranian and Indo-european, indicate the result of the process denoted by the root: bhūtā-(bhū-), Av. būta- become; mṛtā-(mar-) Av. mṛṣṭa- mṛṣa- dead; yuktā- yoked (yuj-), Av. yūkṣa- welded; prṣṭā- (prch-), Av. parṣṭa- questioned, jālā-, Av. zāla- born (from jan(i) to beget), śrītā-(śrī-) fixed, installed, Av. srīta- placed, trusted; śrūtā- known, celebrated (śru- to hear, listen), Av. srūta- auduble, recited, famous. It is obvious that there is no fixed semantic relation to the verb. It is, however, close enough for this adjective to become a past participle of the passive voice so far as one has developed. It is a very regular formation. The zero grade of the root is a constant (except in the root dā-, where tvā-dāla- given by thee, and daltā- given, have been reformed in order to avoid clashing with ditā- bound), while this is not so in Avestan.

Sanskrit has made an innovation by assigning this same function to the adjective in -na-, which was, in fact, parallel to -la- in its origin, formation and meaning. Indo-iranian used it: Av. frīnāspa Gk. philippos, cf. priṇayati and on the other hand Vedic prīḍa- of good will, applied to horses, cf. Av. hvā-frita- much loved; ānā-, Av. āna- incomplete, are attached to a root of which Av. uyaṃna- is the present participle middle; but the verb itself is wanting. Where it exists, the formations do not necessarily correspond: Sanskrit has pūṛṇā- from Indo-eur. *pī₁, while Avestan has pərəna- as if from *pī₁.

Sanskrit is original in making a regular participle of this adjective, used principally in dissyllabic roots with liquids: pūṛṇā- (pārī-) has taken a special meaning), stīrṇā- strewn; roots with a long vowel: hīnā- abandoned, beside jahitā- from hā- (hitā- is the participle of dhā- to put), dīnā- cut, from dā- (the other dā- roots have for their participles dītā- fastened, daltā- given); finally, roots ending in a dental: bhīnṇā- broken, from bhīḍ-, skannā- jumped, from skand-.
The connection with the verb is not always very close and the construction remains adnominal: MS pñtyuh krtā sāti woman bought by her husband, TS asya prītāni encouraged by him. There is no fixed voice: gatō... ádhvā is ‘the road traversed’, but gatā- ordinarily means ‘who has gone’. The tense even is not necessarily past: like the perfect, this adjective has various imports. It indicates the past in opposition to the ingressive present in RV I, 110, 1: tatām me ápas tād u tāyate pūnah my work is finished; and lo, it is being finished over again. In the Bhagavadgītā II, 27 we read: jālasya hi dhrvom mṛtyur, dhrvam janet mṛtasya ca what is born is sure to die and what is dead is sure of being born. But the preceding verse says: alha cainām nityajātām nītyāṁ vā manyase mṛtam even if thou didst think it is born or dies indefinitely.

It is this force which accounts for the ease with which these adjectives are turned into substantives: jālāṁ son, jālāṁ what is born, jivitāṅī lives, kinds of life, yuddhāṅī fights, āśītam repast, cf. Pali gālam step, sāngāme matalam (the fact of being dead) death in combat. From āśīla- as from any other substantive and with the same sandhi, the Atharvaveda forms a possessive adjective (āśāvaṅ - owner of horses) IX, 6, 38 (prose hymn) āśīvatay ālīthāv āśiṁyātī once the guest is provided with a meal, let him eat. The more the verbal force of the first term is strengthened, the better able is this adjective to become equivalent to the perfect participle active, which for its part was going out of use. Patanjali, indicating the possibility of employing the participles alone with the force of perfects, puts kvā yāyam usīlāh where did you live? p. 256 kim yāyam īrṇāh did you cross? on all fours with kim yāyam kṛtavantaṁ did you do? kim yāyam pakvaṁantaṁ did you cook? (pakva-, cf. Pkt. pakka-, serves as the participle of pac-). In actual fact, as we shall see, the new participle in -tavanta- had only a temporary currency.

II

While the adjectives in -ta- were becoming ready for incorporation into the conjugation, being given the lask of expressing the past, other stems, which from the Indo-european period had expressed possibility or purpose, were beginning to make it feasible to render the future by a verbal noun.

Two forms have not survived: -t(u)va- (hāntva- to be killed, Av. jātwa-) is hardly to be met with except in a dozen words in the Rgveda; rarer still is -ata-, the form of which, it must be said, is not characteristic: yajata- to be honoured with a sacrifice, Av. yazata-: darsatā- visible, fine, cf. Av. surunvata- audible.
On the other hand -(i)ya- is common: dārs(i)ya- to be looked at, beautiful, Av. darśya- visible; with another vocalism dfs(i)ya-visible; bhāya- and bhāya- future, which must happen, déya-to be given. This suffix has been extended from the Vedas onwards to derived stems and to a variety of roots: hence śravāyya-glorious, made from the causative, stusēyya- to be celebrated, made from the infinitive stusē; didṛksēya- worthy of regard, made from the desiderative stem; vāreṇ(i)ya- to be desired, dear, an unexplained but common type, adapted to secondary stems didṛksēnya-, vāvṛdhenya- to be glorified; finally and especially when based on verbal nouns, śrūtya- to be heard, anānukṛtyā-inimitable, carkṛtya-worth of being celebrated. In the Atharveda there appear two more new types: one derived from substantives, at first from compound substantives exclusively: āmantraṇīya-worthy of invitation (āmantraṇam invitation; the close connection of the nouns in -ana-, -anā with the infinitive has been noticed above); and the other, -lavya-, which seems to be prehistoric (Gk. -lēos), is certainly connected with the -tu- stems and is indirectly related to the adjectives in -t(u)va-. But it takes its place also side by side with the verbal in -lā- and consequently with the new participle in -lavan-, which is the beginning of its popularity.

Participles may be placed in apposition with nouns of various types in the sentence: RV IV, 18, 12: śayūm kās tvām ajighāṃsac cārāntam who wished to kill thee, lying (noun) or walking? (participle). They do not lose on that account their ability to govern as verbs: IV, 18, 11: áthābravid vṛtrām indro haniṣyān said Indra on the point of killing Vṛtra; ahūṣata rājāntam adhvārāṇām agnim they invoked Agni who rules the sacrifices; I, 148, 2: juśānta viśvāny asya kārmopastulim bhāramāṇasya kārōḥ let them love all the works of the poet who brings the hymn. The participle is used in apposition in the direct cases for preference and generally without a complement. And in this way, so it seems, it continues to be used: Jātaka V, 290: Bodhisatāṃ pī kilantindriyāṃ viśhiyāṃ gacchantāṃ aṇānatarā īṭhī disvā while the B. was going along the street tired, a woman having seen him...

The present participle has little syntactical independence. It is freely used with verbs indicating situation or movement: viśvam anyō abhicākṣāna eti the other goes looking at the universe; but the elasticity of the substantival clause does not extend to allowing it to take the place of a verb; cases like those to be found in I, 171, 4; III, 39, 2 are only apparent. It is not so with verbal adjectives. The verbal in -lā- is opposed to a personal form in RV I, 81, 5 nā tvāvān Indra kās canā nā jātō nā janīṣyate no one
like thee, O Indra, has been born or will be born. Similarly with the future participles: ripávo hánvásah the enemies (are) to be killed; yá éka id dhávyas carṣaninám who (is) the only one to be invoked by men.

This use becomes more and more frequent, when 3rd persons are concerned. When it is a question of other persons or of other tenses than the present, either pronouns or as- and bhá- and later áste, varíale, etc. are introduced; RV yuktás te astu dákṣinaḥ let thy right-hand (horse) be yoked; MBh kenásy abhīhataḥ... kimārtham abhīhataḥ by whom hast thou been beaten... why has he been struck?

So used, the verbal in -śa- denotes completion and is therefore substituted for the perfect in its old sense. This is why free use of it is made in the 3rd person: agnír upasamāhilo bhavati means “the fire is alight” and not “the fire has been lighted”. But this use was restricted in the course of time.

The verbal with passive sense may have a complement in the instrumental, to express the logical subject: for example RV VIII, 76, 4:

\[ \text{ayám ha yéna vá idám svár marúvatalā jilám} \]

It is he, by whom with his troup of Maruts this celestial light has been conquered.

In the same way we find already in AV, V, 18, 6 a participle of obligation without, however, the noun in the instrumental.

\[ \text{ná bráhmaṇo himśilavyā 'gniḥ priyálanor iva} \]

The Brahman is invulnerable, like fire to a man who values his life.

Similarly we read in Asokan at Gînr: iyāṇa dhammalipī... rá(ñ)nā lekhāpitā, idha na kīcī jīvāṁ ārabhitpā prajāhīlavyāṁ na ca samājo ka(1)lavyo this edict was engraved under the orders of the king; let no life be here sacrificed nor any assembly be held.

In the Rûpnath series we notice that sumi (hakaṁ) samaṁhaṁ upagate (upele) and mayā(me) samaṁhe upayāte (upayile) I have joined the community, are equivalent expressions.

A peculiar case is where the verbal in the neuter nominative is equivalent to an impersonal verb in the middle-passive: as may be said (but rarely at an early date) ŠBr. tapyāte there is warmth, MS. rdhyāte it succeeds, sāṁ amale an oath is made, so too may be found RV. śraddhistam te confidence was placed in thee. This verbal adjective can eventually be combined with the logical subject in the instrumental: TS. lāsmāl samāntra tiṣṭhatā hotavyām
so the sacrifice must be made standing in the very place, MS. 
agnihotrinā nāśītvāyām an agnihotrin should not eat.

Sanskrit, then, has acquired a new preterite, but with a neuter or passive meaning: hence the purely classic use (the first example is in Manu) of the derivative in -tavant- without a copula with the force of the corresponding active participle.

On the other hand, of the six participles of obligation known to the Veda, those in -ya- and -tavya- (which appears in the Atharveda) gradually assume the character of a future of possibility: but this is a late development, on all fours with the development of the impersonal passive.

2. Neo-Indian

Participles

The only forms of those reviewed above, which have survived to modern times are the present participle and the past and future verbal adjectives. The future participle has already disappeared in Pali and in Ardhamāgadhī, except for some remnants, which have become thematically inflected, e.g. Pa. marissam acc., Amg. āgamisse loc. The old perfect participle is no longer recognizable, except in forms dissociated from the conjugation: vidvā wise; the new types vidu, viddasu are really adjectives, and the adjectives in -tavant- have equivalent by-forms in -tāvin-, which stamp them as adjectives rather than participles: bhuttavant- and bhul-tāvin- satiated, cf. RV. māyāvant- and māyāvin- magician. Both forms are, moreover, rare; all the more because the verbal in -ta- furnished a simple and supple means of expressing the past; and with this past in -ta- are grouped the Asokan -tavva-, Pali -labba- to express the future. But one serious result ensued from this. In a normal verb the present is transitive or intransitive, but the past and future participles are perforce intransitive or passive. Henceforward, opposed to a transitive present, the past and future have to be constructed passively. This dualism is at the root of the modern verb.

Further, the prominence of the past and future participles has had a repercussion on the present; and the present participle, which in the old language and even in Middle Indian never replaces the personal verb, has ended in becoming an equivalent for it.
PRESENT PARTICIPLE

Present participle

The present participle active, which in Pali still preserves the old inflections (masc. sg. nom. tiḷḷhaṁ, acc. tiḷḷhanṭam, pl. gen. tiḷḷhatalam), has gone over entirely to the thematic declension (Pkt. masc. sg. jāṇanlo, pl. jāṇantā) and it is this new form which is perpetuated in the modern languages of the continent, either directly: O. Mar. asata being, denṭa giving, karīla making, karijata being made; Tulsi Das sunāla listening to, pūjiata object of adoration; Bundeli jāt going, det giving: Braj masc. māratu, fem. mārati striking, etc.; or (and it is this form which has generally supplanted the first) with an enlargement: Hin. masc. sg. karlā making, OWR karalau making, kījala being made (cf. Pkr. kijjai, Skt. kriyate), O. Guj. paṭhatalu reading, paṭhīlau being read, Or. dekhantā seeing; and with the western treatment of -nt-: Panj. mārendā, mārandā, mārdā striking, Sdh. halando going, mārindo striking. Maiyā possesses an indeclinable present kaḷānt i beat, thou beatest, he beats etc., dīl (*dento) he gives, which is presumably based on the same participle. Kashmiri, on the contrary, has nothing like this and the nom. pl. of participles in -anda- which appear in the Mahānaya-prakāśa (Grierson, § 243, p. 260 cf. § 240) are perhaps just the third persons of verbs, which would otherwise be wanting.

The middle participle, still frequent in literary Middle Indian, appears to reoccur in a certain number of modern forms. Thus Gāwb. mimān from Skt. mriyamāna- (Turner, Position of Romani, p. 33), Kal. ēman (I was) coming, līman beating. It must, however, be admitted in this case that the participle has provided a personal conjugation in Gāwarbati: for līman beating, is the participle of līmem, līmes... I beat, thou beatest etc., and there is accordingly a present stem lī-m- which is opposed to the past stem lī-t-, the -t- of which however, does not carry on Skt. -lato judge from mī(mṛta-) dead, or bliāi (bhrlīf-) brother. And perhaps reference should be made to the fact that the Iranian Parachi possesses an absolutive in -āmān (xaramān having eaten), obscure though it is.

The athematic form, Skt. -āna- is rare in literary Middle Indian. It is surprising therefore to find that it apparently has descendants, in the passive participles (with a past sense) of India proper or in the active participles of Dardic and Singhalese (kana eating, kapana cutting).—In the former case the premature disappearance
of the first nasal of -amāna- may readily be admitted, but there is no evidence in support of this for the period in which the -v- of the causative, for instance, remains intact. In the latter case, the nouns in -ana- of Pali also recur to the mind, used especially as the first members of compounds: dvīhi pādehi vicarana-makka-ṇaṇ a monkey which walked upright, hēḻhā vasanaka-nāgarāja the dragon which lived at the bottom (supplied by Helmer Smith); but the analysis of the modern forms is uncertain and, besides, the long vowel in Dardic would still be a difficulty.

One has still greater hesitation in recognising them in the Kati type acūṇan running, vināgan striking (derived from the infinitive), which is coexistent with awēl bringing, and alle coming (the latter indeed seems to trace back to the participle in -ant-). The Ashkun present is based on a nasal stem, which can as well be traced back to the active participle as to the other, cf. kōn they do (-nti). Kashmiri has a noun of agency gupawan*, fem. -wuñā hider, O. Kash. vasavānē, fem. -vāñī dwelling in, beside the infinitive verbal noun gupunu, obl. gupōn1 while hiding, Skt. gopana-.

It is uncertain what connection these forms have with the indeclinable gupān which serves to form the present: bōh chus gupān I am concealing. It may be remarked that Pahlavi -ān still preserved the middle form: this might be a coincidence of early origin or due to borrowing and it may be recalled that infinitives in -ik of the Iranian type are common in this area.

The origin of OWR -ānau, W. Gujarati and S. Sindhi -āno, endings of the passive participles (bharāno (was) filled, marāno (was) killed) would seem clear, if there had not been in these languages a passive morpheme in -ā (p. 240)—or was the passive morpheme extracted from the participle?—, if we had not the same forms with a future sense (Sind. mārīṇo (from the active stem) on the point of being struck, Bhili padwāno on the point of falling) cf. Guj. cālvano, p. 289), if, lastly, there were not obviously derivative nouns of similar appearance; Kabir has bikāno sold, but garabāno boasting. Equally to be acknowledged as derivatives are participles with a neuter meaning like calā action of going, karā action, the Bengali passive participles, apparently derived from the causative in -ā- (borrowed? they are lacking in other languages of the group: contrariwise the Assamese type karōṭā causing to do, khuwāōtā feeding, has nothing to correspond to it in Bengali): Beng. sukhāna dried, hārāna lost; but also karāna made, and ḍhengāna cudgelled, derived from a noun.
**Uses:**

We saw that in Sanskrit as in Indo-European the present participle was placed in apposition to some substantive in the sentence, the word being, at least in principle, in some case and number. This freedom was preserved throughout the whole of Middle Indian up to the threshold of the modern languages. Apabhraṃśa examples:

Dhvanyāloka, IX cent. (Pischel, *Materialien*, p. 45)

*mahu mahu ili bhanantaaho vajjai kālu janassu*

for the man who says (gen.) “It is mine, it is mine”, the time passes.

Sarasvatīkaṇṭhābharaṇa, X cent. (*ibid.*, p. 49 and 60)

*dīḷhi pia paim saṃmuha jantī*

by thee has been seen my loved one, going (nom.) to meet thee.

*pia panthahim jantaum pekkhami* I see the beloved going (acc.) on the road. Bhavisattakaha, XI cent.

21, 1 *nāhu viraccamānu pekkhanī paricintai maṇi kheijjantī* seeing (nom.) her spouse abandoning her (acc.) she reflects, tormenting herself (nom.) in her heart.

57, 8 *pekkhai tāma samuddi vahantaim... jalajantaim* he sees the ships floating (acc. pl.) on the sea.

156, 3 *diyahaīn tīsa gayainī cintantī anudinu pultāgamanu sarantī* thirty days passed while she was thinking and recalling (obl. fem.) every day the coming of her son.

It will be noticed that in this sentence the participle has a complement.

But as soon as one has to do with a modern language, the participle is only found in, the direct case on occasion with objective force. O. Beng. (Kānха):

*māḍha acchanle loa na pekhai*

*dūḍha majhēn laḍa acchanle na dekhai*

the world being stupid does not see; it does not see butter present (obj.) in the milk.

Tulsi Das:

*taba sakhī maṅgala-gāna karata*

then the companions singing (sub.) auspicious songs.

*āvata jāni Bhānukulakelu*

having known (that) the standard of the Solar race (was) arriving (obj.).

*carana parata nrpa Rāma nihāre*

Rāma sees the king falling at his feet
Old Guj.

šiṣya śāstra paṭhatu
šiṣyū śāstra paṭhitau

I listen to the pupil reading the book, the book read by the pupil.

Beside which the oblique case occurs only in absolute construction:

Gopāliṁ gāe dohilie Caiṭra āviu

Caitra arrived as the cows were being milked by Gopāl (Gopālena goṣu duhyamānāsu).

European Romany stabilised the nom. sg. masc. in an adverbial use: Hungarian rovindo weeping, while weeping (enlarged in Greek and Bohemian by the -s of the nominative: rovindo, and by emphatic -i in Roumanian and German: rovindoī).

But from the moment when the participle could no longer be placed in apposition with any noun, its function changed. This is to be seen, for instance, in the enlarged form in Marathi, in which there is no longer anything but an adjective: Mar. vāhāle pāṇi running water, O. Mar. paḍhiyaṇṭāṃ ṭhāyīṁ in a pleasant place, vāḍhalē ḷhāda growing tree; and similarly in the unenlarged form in Assamese jiyat mācī living, fresh fish. It has become a substantive in Assamese rakhotā protector, karōlā he who does, Guj. jatā ātā-no jevo like people coming and going. To give it its old force, it is necessary to place in apposition with it an auxiliary verb, in particular the verb “to be”: OWR jāgatau hūṁtau wakit-becoming, dekhatau karatau seeing-making; Hin. Jarasandh bhī yō kahtā huā un ke pīche daurā J. also ran after them saying thus.

In fact the former participle has henceforth only two functions; in the direct-case it takes the place of the personal forms and in the oblique case, it helps to form absolute constructions.

It is consonant with the principle of the substantival sentence that the present participle should have by itself the force of a verb in the present tense (cf. p. 257). In point of fact, this only happens later on and perhaps is due to parallelism with the past participle. We find in Old Marathi:

udaka leṃ akhaṇḍa asata water is indestructible;
leṭha tinhī loka dālamanīta
leṭha samudrajaḷa usaḷata kailāsavarī
there the three worlds tremble; there the ocean-water froths up to Kailāsa;
and with the enlarged forms: mī karālā I make (masc.), tī holī she is, le marale they die.
In Tulsi Das:
rau Avadhapura cāhata sidhāe the king wants to betake himself to Oudh;
sirāli na rāli the night does not end.
Similarly in Sindhi poetry.

This use is rare nowadays except in Dardic (see above) and in Panjabi (Dogra āu mārdā I strike). The force of the true present is obtained, as will be seen, by affixing an auxiliary. As against this, values are found which derive from a sense of contingency, viz: the future and the durative past.
The future sense is seen in Sindhi: halando he will go, halandī she will go, halandā they (masc.) will go, halandiī they (fem.) will go, and also, you (fem.) will go. The 1st and 2nd persons are expressed more accurately by suffixes, v. p. 275.
In the Himalayas Jaunsari masc. mārdā fem. mārdī are used for all the 2nd and 3rd persons of the future. In Kiithail this form has a substantival value and takes on the sense of possibility with the negative: māhre niṃh dando of us not giving, we cannot give, tere niṃh dėundo ānthi of thee there is no going, thou canst not go.

We must here include the 3rd persons of the Maithill-Māghāhī group and the future base in eastern Bengali: se dekhat he will see.

In Apabhraṃśa, on the other hand, it has the force of a durative past; see for example strophe X in Pischel’s Materialien, which is descriptive, or the following sentence of the Bhavisālakāha in which the two kinds of past are opposed to one another, 294.5:
jo ciru Aggimittu diu hontao, so eu Tilayadīu sampatlao he who was formerly the Brahman A. has arrived at Tilakadvīpa. Simalarly, old Rājasthānī:
Bharatha-nai dinamprali olambhau deli She was reproaching Bh. every day.
From this follows the habitual past in Gujarati (cāllo) and the Hindi imperfect (callā he was going).

But Prakrit and Apabhraṃśa also recognise another value, which results from the combination of the sense of contingency with the past tense: the past conditional. For Apa. see Bhavis. p. 41* and Pischel, Mater., p. 11 strophe 351.
Old Rāj.

Jai rāga dveṣa na hula, tau kauna jīva duḥkha pāmata
if love and hate did not exist, then what being would feel pain?

Tulsidas:

jaū pai jia na holi kuṭīlāī
if there were not wickedness in his heart

hola jana na Bharālako
had there not been the birth of Bh.

Gujarati:

jo lame āndhā hol, to tamne pāp na hol
if you were blind, it would not be a sin for you

Panjabi:

jo mai ghalldā if I had sent

Hindi:

jadi mai jāntā, to kabhi nahī jātā
if I had known, I should never have gone

Marathi distinguishes the conditional from the present partly by its endings: old Marathi tari mī na mhaṇatā jari na dekhālā
I would not speak, if I did not see; this is opposed to the present: karito he makes (for details see in the last instance Doderet, BSOS, IV, p. 865).

Maithili, too, has created a conjugated conditional: O. Maith. dekhītalā I should have seen, karaithanhi they would have made; nowadays, while the 3rd sg. masc. ending āt, fem. āti marks the present, that in aīt, fem. aīti marks the conditional. Bengali (from middle Bengali onwards has a comparable form):

ḍubiām maritā jabe nā thākīta kāne
I should have died by drowning, if Kṛṣṇa had not been there.

It is the same in Oriya and Assamese preserves traces of it in the fixed participle hēle-n, which being added to the past gives the verb a conditional sense.

II

Sanskrit and middle Indian tend to use a substantive in an indirect case, accompanied by a participle in apposition (v. p. 313), to express an adverbial clause (the nominative absolute resulting from asyndeton is rare). The case employed in the Vedas is the locative with a temporal value: prayāty ādhwārē while the sacrifice is progressing, uccāntyām uṣāsī when the dawn is bright, sārya ādite when the sun has risen. In the Brāhmaṇa psychological values are found: varṣati although it may rain, rātryām bhūlāyām
because the night had come (similarly the genitive absolute, which appears in the same texts, takes later on the anādāre sense: rudataḥ prāvrājit despite his tears he renounced the world); but it is a secondary development. Pali has in the ordinary course aṭṭham gacate suriye after the setting of the sun, gacchantesu sakaṭesu as the carriages advanced.

The modern languages have preserved the idiom, the oblique naturally replacing the old locative. The oblique masc. singular is generally used:

Ö. Rāj. (Ö. Guj.):
meghi varasatalai morā nācaē
on the rain falling, the peacocks dance
Gopāḷivī gāe dohīle Caitru āviu
as the cows were being milked by G., Caitra came

Tulsidas:
dekhata tumhī nagara jehi jārā
by whom the town was burnt before your eyes (you looking on).
Oriya:
calante medinī kampai
as he walks, the earth quakes.
Finally, the participle is joined to the real or logical subject of the principal clause, but without agreeing with it; the result is then an absolute construction.

Muhammad Jaisī:
jo bhūle āvatahī those who are lost while coming
O. Beng.:
calītē calītē tora runujhunū bāje when walking thy bracelets tinkle
Beng.:
se nācīte nācīte āse he arrives dancing
Hindi:
ham gāte gāte sīlī hai we (fem.) sew singing the while.

Similarly Nep. jaṇḍā (obl.), jaṃdai (loc.) whilst going, Or. dekhathē going to see, Ass. cāi thākhōle as he was staying to look.

The participle thus becomes a veritable verbal noun, capable of being governed by a postposition: Marw. āvilā nai while coming (cf. bāp nai to the father), Nep. tī chorā dherai farakai chāṁdā-mā tesko bābule dekhi his father seeing this boy remaining at a great distance; and susceptible also to definition by an adjective: Lakhimpuri: hamāre khāṭi ma dundu na macāo do not make any noise while I eat (in my eating); La. mere aundeā moea on my arrival he died.
This construction is parallel to that of the past participle, which from ancient times could be taken substantively. The Bengali infinitive is explained in this way: jāile chi I am going; se lāhāke mārie lāgila he began striking him; se pārte basiyā che he sat down to read (properly “while reading”; cf. for the sense of purpose Kiunthali śīw leunde in order to fix the limit); se cālīte pāre he can walk; jāile dav allow to go, and consequently lāhāke jāile dekhiḷām I have seen him go, in which jāile must not be taken to be in apposition with lāhāke as e.g. in Hindi maī ne lārke ko calle hue dekhā by me the boy going was seen (I saw the boy-going).

In Marathi, Gujarati and Rājasthānī the absolutive is found with the same use:

Marathi:
to callām callām khālī pāḍlā he fell whilst walking
tyālā khelām myā pāhilem I have seen him playing

The combination of the participle with the absolutive of the participle of the verb “to be” is preferred when the subjects are different:
āmē khelā astām, to ālā he arrived as we were playing;
mī kām karī astām, āpan kāhīm karī nāhīm
while I am working, you are doing nothing;
myā jevitaṁnā tujhī cīthī vācān lākalī
I read your latter while dining;
tulā heṃ kām kartāṁnā yet navhe
it is impossible for thee to do (doing) this work;

Gujarati:
bhāntām pāṇḍit nipāje one becomes a scholar by studying
mane angrejī bollām āvāče che I can speak English
Mārwārī:
māhro māl magāwtām gharī na karsīje-j
he will not give half an hour to send for my goods.

Forms of juxtaposition

The equivalence described above of the nominative participle with a personal form of the verb is attested particularly in the early period of the modern languages. In the course of time a certain number of them have blended these participles with conjugated forms or have fortified them with verbal endings.

Efficient presents have thus been created replacing the old present, which had assumed a sense of contingency. The process began with the juxtaposition of Pa. acchāti (in succession to Skr. āste) with the present participle and later in expressions like Apa.
ja acchhai pecchantu so far as he remains looking, looks. Old
Marathi furnishes e. g. mhañatu āhāsi thou art saying, mhañat-
ase he is saying, to ase boluta (the order is exceptional) he is saying,
galati āhe she is melting, karitē (neut. pl.) āhāli they make.

Tulsidas jāñatā ahaī I know (masc.), jāñatī haū I know (fem.),
jāñatē hau you know.

Similarly Hin. hote hai, Nep. bhanda chan they are, Sind. mārindo
āhiā, La. mārindā hā, Panj. mārdā (mārnā) ām I strike, Nuri
jāndo mi I know. With a special meaning the verb ho- is added:
Panj. jāndā hoī I may go (but jāndā hundā hai he keeps going),
Sind. mārindo huām (if) I were striking, I may strike, Guj. hū
utarlo hoā (if) I descend, I may descend (the same sense as ularā).

The constant use of these formulas has caused the elements to be
welded together, O. Mar. dekhalase he sees, dekhalāsi thou seest,
dekhalāti they see; La. mārenām beside mārendā ān I strike.
The Sindhi future has appropriately purely nominal forms in
the third persons: halando, halandī he, she will go, halandā, halan-
dīgyā they will go (masc. fem.) v. p. 263; but the second persons
(except those of the fem. pl.) have verbal endings resulting from
a contraction: halandē, halandī from halando, -dī āhē thou wilt
go, halando (halandā āhyo) you will go; and similarly for the
first persons, except that here the verb ‘to be’ comes from Skt.
asmi, smaḥ: sing. masc. halandu-sī, fem. halandi-asī. I shall go
(cf. āndus I should have come, from *ānd-āhō-s); plur. halandā
sūm or sī (this second form, originally a feminine participle is
extended to the whole verb, under the influence of ī he is; the
same distribution is found in Shina: 1 sg. hanu-s, hani-s (*bhav-
anto-smi, *bhavanlī-smi) plur. hane-s; 2 sg. hano, hanye, plur.
hanet(-sthā); 3 sg. hanu, hani, plur. hane.

In the eastern group, where the oblique of the participle has
taken on a nominal or infinitive value, it may be classed with the
verb “to be”: Beng. calite che he is walking, a construction
comparatively recent in Bengali proper, but attested from the
15th century in Assamese literature. So probably in O. Maithili:
gor lagait chī paīyām parait chī I embrace your knees, I fall at
your feet; with a far advanced “verbalisation” in mod. Maithili,
Māgahī and Bhojpuri.

The same formula is found again in Lakhimpuri, in the singular
at any rate: dekhalī haū I see, tu, wā dekhalī haū thou seest, he
sees, independently of gender; but in the plural the feminine is
shown in the 2nd and 3rd persons: dekhetī hau, haī (cf. dekhetī
raha, rahaī in the imperfect; dekhetī hoīhau, hoīhāī in the future;
p. 269 dekhetī hoīlu, hoī in the conditional). Agglutinated forms will be
found in the "past conditional": dekhlēu if I had seen, dekhlē(h)u you would have seen.

The Gujarati and the Rajput languages alone in the plains of India lack a present formed on the participle; this grouping is found, however in the old texts: vāda karilau chai he discusses, nāsalā chai they are fleeing [and dialectically: hā caṅhlo, -lī, tā chā u I am rising (G. P. Taylor, Students' Gujarātī Grammar, revised by E. R. L. Lewis, Surat, 1944, p. 228)].

Romany is the only important group in which the present participle is detached from the conjugation. But Palestine Romany still possesses a predicative suffix e.g. -ek, pl. -ēn (an Iranian borrowing: Pahl. -āk, Ossetic -āk, -āg?) which serves at the same time as participle and verb:

jand-ek he knows (cf. ama jandō-mī I know)
panjī ātek laherdos meō he arriving has not seen
zaro kuślot-ek the boy is small (kuślotā zaro the small boy)
lači kuślot-ek the girl is small.

Past Participle

Forms:

The past participle, taken directly from the root, assumed in Sanskrit a great variety of forms unconnected with the present stems: bhūla- (bhavali), patilā- (patili), jāla- (jayate, janayati), jnāla- (janāli), kānlā- (kāmayati), pilā- (pibali), bhṛta- (bharati), bhaktalā- (bhajali), prṣila- (prcchali), iṣṭa- (icchali) and yajāti), mīla- (minotu), naddhā- (nahyati), bhinnā- (bhidyale, bhinalli), etc. It is only the derived verbs which have a consistent form in -ita- (codila-: codayati), which, moreover, is extending already to a few simple stems (carilā-: carati, etc.).

The elimination of alternations and the search for forms of general clarity and more particularly the predominance of the present stem and the assimilation of verbal adjectives to the participles, all result in a progressive normalisation of the forms in Middle Indian: -ita- spreads in Pali and becomes -ida-, -ia- in Prakrit: Pa. pucchita- continued by Pkt. pucchi(d)a- appears side by side with pujḥa- (prṣila-) preserved also by the Jaina canon; Pkt. jāṇia- replaces Skt. jnāla-, etc.

Nevertheless a certain number of 'strong' participles survive in Prakrit, to which are added new forms like pakka- (pakva-), mukka- (*mukna-, mukta- being found in Kash. -molu affixed to other participles), diṇḍa- Pa. dinna-, for *dilla-> Niya dila, Torw.
dil (from a lost present *didati*?). They are found in the modern languages and have even, to some extent, increased in number. They are numerous in Sindhi and rather less so in Lahnda and Panjabi. A few occur in Gujarati. A list of them may be found in the relevant volumes of the Linguistic Survey. Kashmiri supplies gauv, gav, (inf. gačhun; Skt. gata-gacchati), āv (āgata-), mōyōv (mṛṭa-), dodū cf. Shin. dādā (daqdha-), byūṭhù, cf. Shin. bēlu (upavīṣṭa-), dyūṭhù (dṛṣṭa-), moṭhù (mṛṣṭa-), mūtù, cf. Shin. mutu (mukta-); Ashkun has ge (gata-), cē (kṛṭa-), prōlā (Kati pta, Waig. prata) he gave, (prāta-), niśina (niśinna-). Romany: Nuri gara, Eur. geło (gata-), Nuri sīla, Eur. sulo (supta-); Sgh. kaḷa (kṛṭa- Pk. kala-), māḷa (mṛṭa-), duḷu (dṛṣṭa- Pk. dīṭha-), giya (gata-), dūn (Pa. dinna-). Marathi has enlarged the list by -lā, the weak participial suffix: ge-lā went me-lā died, jā-lā (old Mar.) became, pāl-lā obtained; Hindi has similarly gayā (gata-) from a Sanskrit nasal root and kiyā (kṛṭa-), muā (mṛṭa-) from -r- roots. Some old participles have served as stems for verbs, Mar. lādh- (labdha-) muk- (Pkt. mukka-), Hin. baith­ (upavīśṭa-), etc. Verbs have been remodelled and groups formed outside the normal series: O. Hin. dīnha (Pkt. dīnna-), cf. Mar. dīnhalā, has served as a model for kinha, līnha, pānha; but dīdha and kīdha must have been formed on līdha a combination of līnha- and Pkt. laddha- attested by Panj. laddhā, Sdh. ladho.

Even when they are found, these old participles generally have to compete with the regular forms. These are composed of the present stem followed by the representative of Skt. -ta-, -ita-; OWR kahiu (kathita-), thayau beside thiu (sthita-); Sdh. māryo, Panj. māryā, Braj māryau, Hin. mārā; Kash. gupti, gupyav, chu- (from acch- to be); similarly in Shina and Kafiri (Ashk. mūcō fled). The suffix appears under the form of -r- in Nuri, and, confused with the suffix described below, -l- in European Romany: whence Nuri kēra, Eur. xalo (khādīlā-).

Prakrit makes free use of the suffix -illa- (a form of Skt. -illa-equivalent to -vant-, Pāṇini 5.2. 96-97; -ala-, -ila- are perhaps expressive, ibid. 98-99) and Jaina Prakrit affects this suffix especially for the enlargement of participles: āgaelliyā (having) come (fem.); modern forms of it are found in Marathi, where it is regular (dekhīlā seen, gelā went), more rarely in Gujarati (under the form -el, -elo), regularly in Behari (Maithili dekhal, pīul, bhel, maral or muil), Bengali (dekkhīla, gela) and Oriya (dekkhīlā), most probably in Shina (bulu- beside bāmu-, Skt. bhuilī, Turner, BSOS, IV, p. 534), in European Romany (ačilo remained, sutilo like Beng. sutil asleep, dīnīlo mad, beside dīnīlo given, struck), in
O. Hindi (Kabir pucchala, bādhala), in vulgar Hindi (gayalā, beclā sold). In Lahnda this suffix is reserved for agent nouns formed on the infinitive: māṛṇālā, māṛṇeālā the striker; cf. Hin. gail alley, street.

We should notice, by the way, the European Romany enlargement -do, Asiat. -da, the origin of which is uncertain. Juxtaposition with the participle of da- to give, to let go, which has been suggested, suits the sense: Hin. nikāl denā to throw out, beside nikālnā to cause to go out; but there are difficulties. In any case the form is an old one, for the European loanwords have a special participle taken from the Greek: balansimen weighed. Shina possesses a series of pasts in -du: paśīdu seen, carīdu pastured (tr.), bilādu melted (biliž-, Skt. viliyate); it is not certain whether this is an extension of the strong type badu frozen, dadu burnt (baddha-, dagdha-) or not.

Uses:

On the threshold of the modern languages, the past tense is no longer used with a personal ending. The verbal adjective derived from the Sanskrit adjective in -(i)ta- takes its place. We have seen p. 257, that as a consequence the phrasing changes according as the verb is transitive or intransitive. In the second case the complement becomes the subject and the logical subject has to be expressed by an indirect case, the instrumental, when it exists. The two constructions will be found in an Apabhramśa distich (Sanat Kum. 672).

tuhum kahim gaiy caiu mamām ti bhāntantu
diṭṭhau Viṅhussirījuṇa nivaiṇa kaha vi bhāmantu

"Where hast thou gone (tvam galā) abandoning me?" so saying, wandering aimlessly, he was seen by the king and Viśṇuśrī (drślo Viṣṇuśrījulena nṛpatinā).

O. Marathi:

he kīrli... ālī tuja this glory has come to thee
myām abhivandilā śrīguru I adored the guru.

OWR:

haum boliu I spoke (two nominatives masculine)
rājakanyā maiṁ diṭṭī I saw (mayā drśṭā) the princess

Tulsi Das:

so phalu hama pāvā I obtained this fruit (masc.)
maiṁ guru sana sunī kathā I heard the story (fem.) from the master.
The same constructions are found in the old records of languages which have subsequently lost them:

O. Maithili:
Śarīkare Gorī kari dhare ānālī Ś. īed G. by the hand

O. Bengali:
śuṇīlī kāhiṇī the story has been heard.

When the transitive verb has no express complement, the verb is in the neuter:

Skt. MBh. kuruṣva yathā kṛlam upādhyāyena do, as the master has done;
Pkt. Mṛcch. suṭṭhu tue jānidam thou hast guessed well;
The masculine takes the place of the neuter in languages which have none; Hin. Gopāl ne jāṇā kī... G. recognised that...

This construction has the advantage of bringing the participle still closer to the verb in the sense that its agreement with the noun thereby disappears. It is extended to intransitive verbs in Rajasthani:

Marwari nainkiai ḍavrai gayo,
Malwi chọṭā laṛkāe caḷyo gayo
by the younger son gone, the younger son went off.

And, in modern times, with the direct construction for particularised nouns and pronouns:

Panjabi:
unhām nai kurī nū māriā
by thee to the girl was beaten, thou hast beaten the girl;
Hindi:
rājā ne is bāṭ ko balāyā
by the king to this matter was explained, the king explained this matter (beside rājā ne ye bāṭ balāī),
mard ne šerō ko mār ḍālā
the man killed the tigers;
Marathi (recent and optional; only with nouns denoting animate beings):
ṭyānē Rāmās mārilē (beside Rām mārilā) he beat Rām.

Finally, both constructions are combined and the participle is made to agree with a subject expressed as an agent. This happens regularly in Gujarati, frequently in Marathi and occasionally in Rajasthani:

Guj. tene e rājāe pakaḍyo
to him by the king (was) taken (masc.),
tene rāṇī-ne nasāḍī mukī
by him to the queen was driven away-left; and already in OWR:
Sundari nai Bharatai rakhi
Bharata kept Sundari;
Mar. tyane aptya mulgas salel patwil
by him to his son to school has been sent (masc.).

This complicated phrasing is not attested elsewhere; it is of
interest as showing the vitality of the traditional construction,
since concord has been re-introduced into the neuter participle
type of sentence.

The chief defect of the system is the failure to indicate the
person. The modern languages have had recourse, sometimes
simultaneously, to two devices, which had been already employed
by Sanskrit to express the logical or grammatical subject.

1. The pronoun is used in languages in which it has enclitic
forms. Thus for the verb "to be" Nuri has sg. 1 astom, 2 aštär,
which contain the participle ašlo (shitā-?) followed by -m and -r.
Here probably we have the direct case (full forms ama, alu),
although the normal use of -m and -r is that of object.

Sindhi uses mām mario (mārī) I have beaten (him, her). But
just as it has piu-mī my father, and indeed cio-mām-sī it was
said by me to him, it affixes the oblique pronoun directly to the
participle: māriu-mī I struck him, māria-mī I struck her.
The same system in Lahnda and Kashmiri (in which there are
no enclitic pronouns except with verbs: di-m give me):

mē wuchyow or wuchyōm I saw him
mē wuchyēyē or wuchyēyēm I saw her.
gupum gupūm I hid him, her, gupim, gupēm I hid them
guputh gupūth thou didst hide him, her, etc.

The same system again, at least partly, in Dameli from Chitral:
sg. 1 kuru-m 2 kurō-p (-p from Skt. -tvā) opposed to the old
present 1 kurim 2 kurē.

It has been proposed to recognise a pronoun also (old sg. haā
or the pl. āmi) in the first personal pronoun of the Bengali group:
O. Beng. parilahō, mod. parilām I fell. Apart from difficulties
of form, the hypothesis has against it the absence of enclitic
pronouns in normal use.

2. The most general formula is to affix auxiliary verbs to
the participle, thus constituting the composite forms noticed
below. Of these auxiliaries the verb as-, the initial vowel of
which was particularly liable to contraction, began at an early
stage to be agglutinated with participles. Pali employs āgato'mhi
I have arrived, gatāsi thou didst go (fem.), valth’ amha we lived; and in the passive: mult’amhi I am freed; dan’t’amha we are disciplined; and even with a transitive sense: patto’si nibbānāṃ thou hast gained nirvāṇa. But these periphrases are not incorporated into the grammatical system; they seem to rank with some others made from participles or gerundives in the company of tilţhati, carati, vaţali exist; in any case their presence in Pali is not on the same footing as the decay of the present. But in Prakrit the circumstances are changed. In the Mrçchakaţikā the 3rd person has no verb:

papalinu he escaped
alaţkārao tassa hatthe nikkhiţto the ornament was entrusted to him,

but in the 2nd person:
gahido’si thou art taken
nāmaţ se puchidāsi it is the name which I asked of thee

cf. tuma mae saha... ujjānaţ gadā āsi thou hadst gone with me to the garden,

and in the feminine of the 1st person:
ajjae gadamhi yes, I was there (reply to the preceding sentence)
sandesena pesidamhi I was sent (fem.) with news
alaţkidamhi edehi akkharehim I was adorned with these syllables.

The same construction is found in Marathi ghâtal e āhāti they were cast, but myā dekhilāsi I have seen thee, tā pujilāsi Bharatē Bharata has honoured thee. The same appears fairly often in the North-west:

Askk. sing. 3rd masc. gwō, fem. geī he, she went, but gwōm (gato’smi) I went, to ai laum by thee I (was) beaten.

Kashmiri in intransitives only:

wupus, fem. wupūs I have fermented (wupa I ferment)
chus, fem. chēs I am (made from a participle derived from Pkt. acch- to remain),
ōsus, fem. ōsōs I was (made from a participle derived from Pkt. āsī, impf. of as-).

(the 1st pl. remains nominal like the 3rd)
Sindhi masc. bīlusī I remained, haliasī fem. haliusī I went;
Lahnda m. āhus, fem. āhis I was.

This agglutination with the verb “to be” results in bringing the participle into closer connection with the personal verb.

In Kashmiri the 2nd persons are not distinguished by the endings in ordinary verbs: sg. masc. wupukh, fem. wupākh thou hast fermented, directly recall the present wupakh, obscure otherwise; pl. masc. wupiwa, fem. wupēwa go with the present wupiwa.
Beside dekhilāsi, pujilāsi, old Marathi has in the first person plural: jalata kāḍhīlom jauharīm we were dragged burning from the house of lacquer, in which there is no longer an intermediate root between the participle and the verbal ending. This is so also in the intransitive verb: aḷom we (=I) have come

Mod. Marathi:

mī paḍlō, paḍlyē I have fallen (masc. fem.)
tūm paḍlōs, paḍlīs, neut. paḍlēs thou hast fallen (m. f. n.)

This inflection has been extended to the active verb:
tūm kām (neut.) kelēs (not tvā kām keleē) thou didst the work

tumhi kām kelēt you did the work

tūm poḷhī (fem.) līḥīlīs thou didst read the book
tūm poḷhīyā līḥīlīyās thou didst read the books.

Here the active ending is added to the participle which is subject to concordance; there remains only one step to take before the past inflexion can be entirely assimilated to that of the present and Marathi has taken it in a large number of verbs:

O. Mar. mukūṭu leilāsi thou hast put on the crown

N. Mar. mīṃ pāṇī (neut.) pyālō (pyālē if the subject is feminine) is equivalent to *myā pāṇī pyālē. I drank the water.

mīṃ tujhī goṭī (fem.) visarlō I have forgotten the story.

In the third person there remains only the bare participle, which agrees, however, with the subject and thus becomes an active participle;

ī asē mānaḷāli she said so,

to saṃskṛt śiklā he learnt Skt.

Nepali has the same kind of construction, except that the subject remains in the instrumental case, influenced, no doubt, by a Tibetan substratum:

besyā-le bhani (fem.) the courtesan said

tiṇiharule ānanda māne (m. pl.) they held a festival.

The tendency to give an active value to the participle accompanied by the verb “to be” must be old; it is found in the Niya documents: kadamhi I have made, pesidamhi I have sent, prahidesi thou hast sent, like asītani they were established. This foreshadows O. Singh. dunmo (*dinnāḥ-smāḥ) we have given, kafamha we did, and the modern inflection kāpīmi (kalpito’smi), kāpuveni (kalpitako’smi) I have cut, etc., opposed to the nominal 3rd person sg. kāpuwē, pl. kāpuwō.

In Bihari it is the same: Maith. 1 sg. masc. dekhalehū, fem. dekhalī I saw, 2 sg. dekhalē, 2 pl. dekhalahu; in the third person there are enlarged nominal forms: sg. dekhalak, pl. dekhalanhi; fem. marali.
In Bengali, which has no gender (p. 150) or plural (even nouns and pronouns have only an agglutinative substitute plural) (p. 155); *dekhila* saw, is in origin a form of the 3rd sing.; otherwise the paradigm agrees with the present: 1 *dekhilām*, 2 *dekhilā(le)*, 3 *dekhilen* (hon. and in origin a plural).

Romany has also become indifferent to the distinction of intransitive and active, but there is concordance in gender: Eur. *bēšto* he sat, *khalo* he ate, *phendi* she said, *dine* they gave; Nuri *nanda, nandi* he, she has brought, like *bīra, bīri* he, she has been afraid.

Thus in different ways and with varying success Indo-aryan has attempted to solve the problem posed by the use of the participle: the opposition of a nominal form for the past to the verbal forms of the present and future resulted in concordance with the subject; but according as the verb was transitive or intransitive, the subject was or was not the logical subject. Thence complications ensued, from which each language tried to escape, sometimes falling into worse complications; the history of these attempts, which have probably not yet ended, is to all intents and purposes unknown, but the directing principle is clear.

*Participles in the oblique cases*

The arrangement of a noun and participle in concord in the locative to express anteriority and, on occasion, the concomitant event hardly survives in modern times; the verbal sense of the participle seems to predominate to the point of putting its subject in the nominative:

O. Rāj. beside

*jāĩm pāpa jasa līdhai nāmi*

whose name being invoked (*grhīle nāmni*) sins vanish,

which gives the old construction, we have:

*janamyaĩm desyūnī nāma Vardhamānānakumāra*

he (nom.) being born (loc.) I shall give him the name of prince V.

Thence in Hindi:

*kyūṁ ilní rāl* (fem.) *gaye* (obl. masc.) *tum āye*

why have you come, the night being so advanced?

*tīn bāje* three having struck (sg.), at three o’clock.

The absolute participle refers without difficulty to the principal subject and becomes a true absolutive with an active construction;

O. Rāj. *madya pīdhai gahilāī karau*
in drinking wine you commit stupidities (*madyam pīle*)

Hin. *pagṛī bāmdhe āyā* he came, his turban tied (*bāmdhe* obl. sg. agrees neither with *pagṛī* fem., which it governs, nor with the subject of *āyā* masc. sg.).

This allows Hindi a variation of phraseology:

* calle hue begam ne kahā *

on going-being by the lady it was said, on her departure the lady said...

* mai samjhe hue thā ki *

I was (part. sg. subject case) in the state of it having been understood, I thought that I had understood that...

Hence instruments of grammar, such as *liye* having taken, for.

The same form added to the verb 'to be' supplies Awadhi with some forms of its preterite.

Tulsi Das:

* anucita bacana kaheū I have spoken improper words (masc. subject Paraśurām) *

* dekhīhā I have seen (fem. subject Śūrpanakhā) *

and to-day in Lakhimpuri *dekheū* I saw, from *dekhe haū* (having seen (obl.) I am), *dekhīsī* thou hast, he has seen, from *dekhe(ā)ṣī*.

The absolutive is also found ending in -āṃ, cf. p. 267:

O. Rāj.: *āgī samīpi rahyāṃ* the fire being (having remained) near, *rahījyo baīthāṃ ghari* remain seated at home; Marw. *liyāṃ* having taken; Guj. *māryāṃ* having struck, Guj. Marw. *bolyāṃ karvā* to do by talking, to keep on talking.

It may be wondered whether this is an adaptation of *bolyā karvā*, properly "to do what is talked", Hin. *bolā karnaḥ*, or if on the contrary these latter forms are a substitute for the oblique. The former is the more probable, as the Hindi oblique plural is no longer in -āṃ but in -ōṃ. If so, the participle would be employed as a neuter substantive.

This is an old use:

Skt. *tasyā gatam savilāsam* her walk is graceful

* idam esām āśīlām* this is their seat

* kim prśīena* what from what is asked, why ask?

Pa. *kim te aññaltha galena* why wouldst thou go elsewhere?

Pkt. *īcchāmi pavvāvīmā, munḍāvīmā* I desire initiation (*pravrā­jitām*), tonsure (*munḍāpītam*).

Similarly Bengali: *bini jácīlē* without asking, Hin. *tum kyō aisā kiyā karle ho* why do you go on doing this? *kahe se* from what is said, according to instructions, Shina *śidīte ūo mutūs* I have escaped from having been beaten, from the blows.
This participle-substantive can be joined in Nepali to a noun by a possessive link, which creates a new participle:

\textit{maryā} or \textit{mare ko thiyo} he was of dead (neut., not “of death”), dead

\textit{babā kā ghara base ko} of the inhabited, he who has lived in his father’s house

\textit{yek jogī rukh mā jhundīye ho} an ascetic suspended to a tree (the active participle could be employed in the same way, \textit{jhunde ko} hanging).

In Bengali a participle without the -1- suffix is used in this way: \textit{māra hoi} a killing takes place, \textit{āmāke dekhā hoi} to me is seen, I am seen, \textit{ki kārā hoi} what is done? (a vaguely polite formule for what are you doing?), \textit{khāyā gele} the (food) eaten having gone, when eating is over. This participle is governed by \textit{karān} to cause to do, in expressions such as \textit{rākhā, ānā karān} make to keep, bring; the construction is the same as in \textit{gān karān} to make song, to sing. It may be wondered what is the exact link with the use of the same form as absolutive: \textit{pāiyā dei} if he receives (once received), he gives; \textit{āmi āsiyā dekhiłām} having come I saw; it can be admitted that in the second example there is a subjective case (and equally in \textit{mārā jāy} or \textit{pare} he is beaten, \textit{dekhā pari} I fall seen, I am seen and that in the former the participle has taken on the active sense. The fact is that this form is invariable suggests an extension of the substantive use, the variations of which are elusive, or here again the substitution of an apparently denasalised form (ā is spontaneously nasalised p. 45) for an old oblique plural.

In this instance the nominal value of the participle requires that its logical subject should be presented in a dependent relation, that is, joined with the possessive adjectival particle or, if it is a pronoun, as a possessive pronominal adjective:

\begin{itemize}
  \item Guj. \textit{Sikandar-nā muā pachī} after the death of Alexander,
  \item Guj. \textit{mārā pāchā āvlā sudhī raho} stay until I come back (pres. part.)
  \item Beng. \textit{āmār na dīle} if I do not give (\textit{asmākam na dalle})
  \item Mar. \textit{maj ālyā vinā} without my having come.
\end{itemize}

But it may happen that under the influence of the general construction of the verb, the logical subject is in the nominative. In Nepali we have (examples communicated by Professor Turner): \textit{mai-le gardā duniyā sabāi bhāg gayā}

as I was doing it (pres. part.), the whole world fled; like \textit{mai-le gar-chu} I am doing, but with a neuter verb just as one says \textit{ma āī chu} I come, one will say:
mī āūdai mā as I was coming.

In Bengali, beside āmār na dile if I do not give, one can well say āmi dile if I give; Mod. Beng. tumi janamilā hole since thy birth. This construction has been largely extended in Mod. Marathi, doubtless under the influence of a Dravidian substratum: mī lethe gelyā-ne if I go there, pāvśālā sarlyā-var once the monsoon is over (varśāh sṛlasya upari).

It is also a Dravidian substratum, which explains the indeclinable adjectives accompanied by their logical subject in the nominative in vulgar Singhalese: mama kī-dē (ahaṃ kalhiṭa-kāryam) the thing which I said; Oriya possesses a similar construction with an infinitive formed on the old future participle: mu debā dhāna (ahaṃ dālawya-dhānyam) the grain which I gave.

It will be noticed that all these uses move the participle away from its adjectival origin, not as in Sanskrit, which accepted as adjectives isolated from the verb words like prītā friend, śīla- cold, dpṛṭha- firm. The adjectival use is not unknown in the modern languages: moreover, the adjective is distinguished from the verb by its position: Or. paḍilā gach the fallen tree, gach paḍilā the tree has fallen. However, the adjectival value is preferably rendered by derivatives or by periphrases.

Derivatives: Guj. karelā kām the work done (kām karyā the work was done); Mar. pāṭhvileleṃ ājñāpatra the order sent (and also ḍē ājñāpatra lihilelē asūn this order having been written; naukā bāndhaleli āhe the boat has been tied up, Marw. māriyoro beaten (māriyo was beaten), Kum. hiṭyo departed (hiṭo he departed, cp. Shina zamīlu beaten, the fact of having been beaten, which is perhaps the juxtaposition of an absolutive and *sthila-

and, in any case, is sharply opposed to zamē having beaten, and zamegas I have beaten.

Periphrases: These are made with the participle of bhā-. Sanskrit is already using bhāla- in apposition and as the second member of compounds, and with any nouns: aglāna-bhāla- indefatigable; Pali recognises hardly more than the type agārika-bhāla-, gihībhāla- living as a townsman. In the same way Singhalese has suduva aśvayek white horse (śuddha-bhāla-). But in certain modern languages the first member is declined: Hindi designates “a man standing” by kharā huā ādmi; applying the formula to the participle, it will say inām pāyā huā larkā the boy who has gained a prize, nice nām dī huī puslakē the books (fem.) named below; similarly Marwari māriyo huvo is equivalent to māriyoro beaten; Maith. sātal bhel asleep, dekhal bhel perceived.
In Hindi pūra full, complete, is the participle of pūrnā to fill, but it so happens that this verb is little used and preference is given to pūra karnā to make full; here the participle employed as an adjective has driven out the verb.

`Future participles`

Of the various suffixes forming the adjective of obligation that in -ya, which was first the most widely spread, has also been the soonest to disappear, because from the moment that the consonant groups began to be assimilated, the formation lost its clarity. Even the Skt. type pūjanīya-, Pa. pūjaneya- (through a combination with the AV type śapathaya- deserving of curses), Pkt. pūanīa-, pūjanijjja- worthy of adoration (pūjanam) has not survived, despite its ties with the substantive form destined to supply infinitives. The form which carries the day is that in -(i)layya-, which had the advantage of being opposed to the adjective in -ta-, although with another vowel stage of the radical. Pali keeps patta to attain, which goes with patta- (prāpta-) and is distinguished from pāpuñāti etc.; also dālabba- (dālayya-) to give, netabba- to lead (netavya-), which go with the infinitives dālave, netave and also with the present neti (nayati).

It is from the presents pacati, pucchati, pujeti, gaheti that are made pacitabba- to be cooked, puchitabba- to be questioned, pujelabba- to be adored, gahetabba- to be taken (cf. Pkt. genhidavva- from genhai), opposed to Skt. paklatava-, prālavya-, pūjya-, Ved. gṛhyya-, MBh. gṛhitavya-.

Of the old forms there remain only isolated nouns like Hin. kāj affair (kārya-, Pkt. kajja-; but Sind. kala business, Skt. kartavya-), Hin. anaj grain, food (Skt. anādyā-), Sind. pej rice-water, Hin. pej boiled milk (Skt. peya- to be drunk, drink), Pkt. pejja-, Pa. peyya-), cf. Skt. pāṇiya, hin. pāṇī water.

This remained the almost universal formation in Indo-aryan; we have seen (p. 261) the participles in -n- and notably the Sind. type mārīno, Lah. mārnā which should be beaten.

But in surviving it has often changed its uses. The old use survives only in Gujarati and Marathi:

Apa. uttaru dēvvau a reply must be given
ujjavau karīvau the sacrifice should be made
O. Rāj. himśa na karāvī (fem.) harm should not be done
Guj. lene a copdī vāmevī he should, he wants to read this book
Mar. āmhi kāy karāvē what have we to do?
ālāṃ pāās padāāvā (masc.) now the rain must fall.

In Sindhi the type mārībo has been attracted to the present; it enters into juxtapositions as mārībo āmhīyāṃ I (masc.) am being beaten (māryamānō’smi), mārībo hosī I was being beaten, etc. The future sense is found again when the participle has taken on the value of a verb in the third person: mārībo he will be beaten, māribī she will be beaten, māribā they will be (masc.) beaten, māribīūm (fem.), but also with the pronoun in the 2nd plural “you (fem.) will be beaten”. Around this form a verbal paradigm has been built, as upon other participles: mūribusī I shall be beaten (masc.), mūribiasī fem.), etc.

Similarly in Marathi the participle of obligation, once more declined, appends -s to the 2nd sg., -t to the 3rd and 2nd pl.: lā granth liḥāoās, pothā vācaūūā anī dusrē kāṁ karāvēs thou shouldst write a work, read a book and perform some other task. Further, it is apparently the base of the potential conjugation: O. Mar. he sarīlā na larave jīvāṁ this river is impassable to living beings, āmhīṇ kaiseṇ karavela (-1- is the future suffix; cf. p. 290) by us what will there be to be done, what can we do?

In the eastern languages the same principle has given a verbal base with an active sense, like the past participle in -l-; but the future so formed is complete in Bengali only: sg. 1 dekhibā 2 dekhibi I shall see, thou wilt see, etc. and in Oriya: sg. 1 dekhibi, 2 dekhibu etc. In old Awadhi the ‘sigmatic’ future with the complete -h- suffix co-exists with the participle in -ab, fem. -abi, used in all persons; nowadays at Faizabad we find 1 dekhaabān 2 dekhābe and dekhahes but 3 dekhīhai and similarly in the plural; at Lakhimpur the sigmatic future is replaced only in the 1st plural (dekhibā); in Chattisgarhi we have dekhihaā I shall see, but dekhāb we shall see; and contrariwise 2 dekhābe thou wilt see and dekhihauc you will see; in the third person there is the old future only; sg. dekhihai, pl. dekhihai. The -b- form then is wanting and in Bihārī it is the same; this is remarkable considering that it concerns a form of nominal origin. It is surely the competition of the same form used as a substantive that has something to do with this reluctance to adopt it for the verb.

In fact from Sanskrit onwards the neuter participle could be given the value of an abstract substantive: kāryam affair; rakṣiti layam steps to be taken for watching; Apa. bhaṇiyawva-jāṇaya skilled in speaking (Latin loquendi perīta).

It is almost equivalent to an infinitive: mayā gantayam there will be, there is for me the act of going, Paṅc. nāyaṇ vaktavyasya
kālaḥ it is not the moment for speaking. This value has been developed in the modern languages in the oblique cases, as is proper for an infinitive:

Apa. (Bhav.) awasaru na huu pucchivai the opportunity for asking was lacking; bhanḍāriu pālevvai niultu the treasurer appointed to watch.

O. Rāj. khāivā-nī vāṃchā the desire to eat; jāpavā vāṃchai he desires to conquer; paśīvā na pāmmai he does not succeed in entering; cintavivā lāgau he began to reflect; jīmavā bāṭhau he sat down to eat.

Marw. carābā melya he was sent to graze (cattle).

In Gujarati karvā to do, is the normal infinitive; from it is taken a new adjective of obligation or of possibility with the possessive suffix: karvā-no (masc. sg.) to be done. Similarly Mar. karāvayācā to be done (adj.), karāvayās in order to do, karūn (old *karavauuni by the act of doing, having done). Similarly Rāj. calbo, calwo, Braj calibai, E. Hin. calab, finally Beng. Or. calib to go.

The form then exists in the whole of central and eastern India, except in Hindi and Panjabi. For the “relative participle” of Oriya, v. p. 279.

Thus the Sanskrit participles and verbal adjectives have formed a group and have evolved in a palpably parallel fashion. It is remarkable that this evolution did not end in what the group became in Sanskrit—a system of participles; there are no longer any participles, that is to say, adjectives based on verbal stems; the participial force is recognised only in the connection with auxiliary verbs, which frequently ended in fusion, that is, in total loss of form. In other respects the old participles, losing the function of adjectives become equivalent to verbs or approximate to infinitives or absolutes.

Infinitive

This will not detain us for long. In fact, the evolution of Sanskrit seemed to tend to the formation of a true infinitive, that is to say a form isolated from declension (in spite of its very clear origins) and capable both of depending on a noun or verb and of governing a noun. But it is sufficient to compare the Sanskrit infinitive with those of the languages in which the category really exists to perceive that the part it plays is much reduced: it has little more than a final sense, or is used with words expressing ideas of willing, trying, going, being able. It is with the same force that it is encountered in middle Indian, for example,
in Asokan. One does not meet with it in the nominative. The infinitive clause, some outlines of which are perceptible, does not materialise. Finally, there is only one form isolated from the tense-stems and valid both for active and passive.

The Sanskrit infinitive has disappeared from the modern languages, except perhaps from Marathi: to lē karāṁ ichilo he desires to do it. It is as well to remember that even in this case the construction could be that of an absolutive: indeed, Middle Indian had an absolutive in -ium, v. p. 285.

Leaving aside the little frontier group (Prasun and Gawarbari -k, Khowar and Pashai -ik, Shina -oiki borrowed from Iranian (Wakhi -ak, Ormuri -ēk)), there are substantival forms throughout.

One of the most frequent is that derived from the Skt. noun in -anam: on the one hand the simple form: Singh. -nu, Kash. -un, Lahn. -un (obl. -an), Sind. -ān, Bundeli -an, to which must be added inter alia the Bengali tatsamas; on the other hand the enlargement: Mar. -nē, Braj -naū, Panj. -nā (-nā after cerebrals), Rāj. -no, -nā, Nep. -nu, obl. -na). Middle Indian was already familiar with this use: eso Ayalo mama gharā gāmane niwāregjavo (equivalent to mama gharam āgantum): this Ayala should be stopped from coming to my house; cf. māraṇe chiddam the opportunity of killing him (Jacobi, Erzählungen, Gramm. 116, 101).

Elsewhere there are the participles of obligation (Guj. vā, Rāj. -bo, Braj. -iba, Beng. -iba, Or. -ibā; and Mar. -vayā- in the oblique only), and the present and past participles described above.

The proper meaning of these nouns is still recognisable and they are used in all cases with the ordinary value of the inflexion. On the other hand, they play but a small part in the periphrases with a more or less grammatical value, about which we shall hear later. One may then say that Indo-aryan has not succeeded in creating an infinitive.

Moreover, a part of the functions of the infinitive was supplied by the absolutive or its successors.

**Absolutive**

In Iranian certain adverbial accusatives of root-nouns or of nouns in -li, generally compounds, expressing an attendant fact: Avestan: paili.saṅham while contradicting, aiwi.napṭīm while wetting; the accusatives of comparable form in the Vedas have an infinitive meaning, v. p. 251.
Contrariwise, Sanskrit has actually created a category of absolutive or gerund, expressing as a rule an anterior or simultaneous occurrence. It is expressed by fixed instrumental (and locative?) forms, of which the subject (at least the notional subject) should be the same as that of the principal sentence: *pībā niśādyā* drink after being seated, *stṛiyam dṛṣṭvāya kitavām talāpa* by looking at a woman, it troubles the gambler.

The stems are related to the stems serving as infinitives in -tu, -i-, -ti-; the Vedic endings -tvī, tvā, -tvāya are affixed to simple verbs, -yā, -ya and -tyā, -tya to derivatives and compounds.

This wealth of equivalent forms is diminished in classical Sanskrit, a fact which agrees with the habits of this state of the language; but the vitality of the absolutive is manifested by the extension and renewal of forms: in the first series Vedic has already accumulated -tvāya and according to Paṇini -tvīnām (in īṣṭvīnām); Pali uses besides -tvā (whence Pkt. Saur. -dua), -tvāna (Jaina -līṇām); Asokan preserves Gir. -tpā, Shah. -tī (presumably to be read -tīi, also offers -tu (cf. again Niya vimñāvelu as accounted for, F. W. Thomas, *Acta Orientalia*, XII, p. 49) and once -tānām, the first very rare, the second rare in Pali, but continued in Mahārāṣṭrī -ūṇā.

So far as the stems in -i- are concerned, Pali adds the poetic enlargement -yāna (e.g. uttāriyāna glossed by uttāriṭvā) to the normal -ya (preserved in Pkt. -ia); to the same series the Jaina type āyāe (ādāya) is attached and is analogous with the oblique feminine of nouns (cf. Pa. aṭṭhāya corresponding at once to āsthāya and arthāya, whence, no doubt, the datives of purpose in Asokan: *a(f)ñhāe*, etc., cf. p. 132). We must also cite -ium employed not as an infinitive, but as an absolutive; Asokan is already introducing tathā karum acting thus, a form indeed difficult to explain (is the absolutive ending in -am affixed here to the stem karo?).

The characteristic form of Apabhraṃśa is -i: cañi having gone, *kari* having done; there are also -eppi and -eppinu, which recall Skt. -tvī, -tvīnam and -vi, -viṇu (remnant of *tuvīnam*?). So far as -i is concerned, several explanations can be imagined to account for it; none is convincing. A further complication is caused by the long vowel of the Rājasthānī bardic texts, e.g. karī, which has led Tessitori to look for the locative of the past participle kariyau in it. The same form -i, -i persists in Gujarati, Pahari (with various enlargements) in old Hindi, Maithili and several languages of the Hindukush (Prasun, Kalasha, Gawarbati, Khowar); Shina too has -e or -i according to the conjugation. In modern Hindi the ending has been dropped and the absolutive
has the form of the verbal root; perhaps because of that and also because it coincides with the imperative singular, it hardly appears except in combinations: kah-kar, having said, kar-ke old kari-kai having done (the second part is here actually the locative or oblique of the past participle).

Of the other modern languages Kafir alone has archaic forms: Kati, Ashkun, Waigeli -ti really seems to represent Skt. -tvī, exactly confirmed by the N. W. Asokan inscriptions. Is Kash. -th, formerly -t the same or is it -tvāya (cf. the oblique pronoun -th in the verbs from Skt. tvāya) or is it something else still? Is Waig. suffixal -bī from bhūya? Singh. -koṭa, O. Singh. -koṭu by, seems indeed to descend from Asokan Dhauli ka(l)ṭu; but the normal forms appear to rest on -ya or -āya.

Elsewhere these forms are completely wanting; we have seen that their rôle was played by participial forms. What is of importance is the constancy of the function; the absolutive is wanting only on the Afghan border (Pashai, Tirahi and the Kohistani group) and in Romany.

Moreover, the function is considerably more varied than the general definition given above would indicate: in fact, together with the locative absolute, which itself also expresses, as a rule, only concomitant events, the absolutive supplies one of the principal methods in Sanskrit of connecting sentences; like the participle or the Latin gerundive it can convey the equivalent of our principal verb. ABr. apakramya prati vādato 'tiśṭhan they departed refusing obstinately (to translate “they departed then stopped” would falsify the meaning).

Such a flexible relationship permits the creation of numerous periphrases in which the principal verb has only an auxiliary status: ABr. indram ... arabhya yanti they go holding, they keep back Indra; The absolutive here plays the same part as the present participle in the Rgveda vibhājann eti he goes distributing and, in fact, it will make up for the deficiency of the present participle used as such. In the ŚBr. tām himsitvēva mene he was thinking to have hurt him, it is equivalent to the perfect participle, which is also to disappear, cf. RV. sōmam manyate papivān he thinks he drank the Soma. The verbs “to be, to remain” are also used: the latter is no longer used except to carry the verbal endings: Daśa. sarvapaurāṇ alītya varlade he surpasses the whole world, similarly with the participle: Ram. dharmam āśritya tiṣṭhatā adhering to the law, which furnishes a shade of meaning, not to be expressed either by āśrayamāṇa- which is rather an inchoative, or by āśrita- still bearing a past sense.
These periphrases are still more frequent in the modern languages and characterise their phraseology.

The verb "to be able" is used with the absolutive in the same way, at first perhaps with a passive sense in conformity with the etymology (but Skt. sakyate is constructed with the infinitive): Apa. (Bhav.) kenavi gaṇivi na sakkiyaī cannot be counted by anyone, O. Rāj. bolī na sakai cannot be said, Hin. bol saktā nāhīm cannot say. Still the same use with the verbs "to give" and "to take": Hin. yē xat parḥ lo, do reading this letter take, give; take note of, read me this letter; Sind. cai dianu, Hin. kah denā to say, Guj. tene vāṃk kahi dīdhā he disclosed their faults, chokrāṃo nāhī lo children, bathe quickly.

A certain number of absolutes, emptied of part of their meaning through usage, played the part of postpositions in Middle Indian, see p. 160. There are few representatives in the modern languages. To the examples given in p. 181 we may add (according to Helmer Smith) Singh. sīla from (ṣhiṭvā), mul, misa except (muktvā, Pa. muñciya), karāṇakoḷa (karāṇaṃ kṛtvā) by means of. But the oblique participles, which have everywhere assumed their function comprise a fairly large list, e.g. Nep. Bih. O. Beng. lāgi because of, Nep. lāi for, Sind. lāge in view of, Hin. liye for, Mar. hoān from and the whole series of which the ancestor is the Skt. kṛte, kṛlena for, Braj kai, Panj. Hin. Bih. ke, cf. Braj kari, Panj. Hin. kar, Rāj. ār.
In spite of the impoverishment of the system, the Middle Indian verb still distinguished several tenses and moods. In the modern languages there remains no trace of the old moods, unless one counts the imperative as such, which has in general no other proper form than the 2nd sg., identical with the root of the verb. Moreover, the imperative can be replaced either by the infinitive (without any special significance) or by a present passive (a polite or deferential touch).

In the indicative itself the preterites are defunct, the sigmatic future only survives in some languages; the present alone is constant and able to render meanings, which have no longer proper expression. So also in Sanskrit it is already replacing the subjunctive in subordinate clauses. In narration it is spontaneously mingled with the other tenses of the indicative: in Middle Indian the Kharavela inscription, which is essentially historic, is altogether in the present, except the introduction in which the past relating to the infancy of the king is rendered by participles in -ta- and the conclusion, which serves as a signature, is composed of purely substantival sentences: it is, no doubt, less a matter of shades of meaning than a conflict of two styles. The present with a future sense is more rarely met with.

In the modern literatures and even in the rustic dialects, which are archaic, the old present generally keeps its intrinsic meaning, at the same time as that of the gnomic present, which is a constant. The historic use is frequent in narration; Marathi goes further: the old present regularly expresses an action repeated in the past. On the other hand, Marathi uses it also to express possibility, eventuality; and that is a meaning current in Hindi, Panjabi, Kashmiri (gupi he will hide, he may hide, (if) he hides); this leads to the future sense, normal in Shina (baram I shall take away) and in other Dardic languages (Dami, Torwali with a single form, that of the 3rd singular), in Maithili (with a conditional sense also). Nuri alone makes a subjunctive of it in a dependent clause.
and affixes a particle to it to restore the indicative sense: *nanam* let me bring, *nanami* I bring; similarly in Europe *kamāv* is more of a subjunctive, *kamāva* is a real future: I shall love.

Conversely the modal shade of meaning can be obtained by a particle affixed to the present, as for example Sgh. *vā* and at the other end of the territory Kati, Ashk. Waig. *bā* (Gawarb. -*a*?). It is a case, no doubt, at least in the latter group, of a form of Skt. *bhā*-, perhaps the optative; moreover, *ba* furnishes a verb “to be able” in Kafir. The same word is affixed to the imperative of European Romany (Roumanian, Hungarian and Welsh). It must be distinguished from the prefix -*ba* marking the future in Tirahi, which is an Afghan loan.

Lahnda forms the past conditional according to the principles of the Kafir ‘optative’, *mārām-hā* I should have, if I had beaten, *māren-hā* they should have, if they had beaten. Similarly in Kashmiri, except that the endings follow the ‘particle’, *gupa-hakh* thou wouldst have hidden, *gupī-hiw* you would have hidden.

But generally, the past conditional, as it reflects a past contingency, is linked with the imperfect: Hin. *kartā* making, thou wast, he was making: if I, he had, thou hadst made.

We have seen, on the other hand that the present passive by virtue of its gnomic meaning has often taken on the force of an obligation and serves also to make polite requests: Mar. *pāhiye*, Hin. *cāhiye*, Latin *uidetur*, it is necessary, Awadhi *dēkhaj* see ye, Hind. *dije*, *dijiye* pray give; O. Kash. *pezē* he ought to fall, *khesē* he ought to eat, modern Kash. *gupī* thou shouldst, he should hide, Hin. *dijiyo*, etc.; the Bengali precative in -*iyo* (borrowed from Hindi?) is perhaps an adaptation of these forms to the imperative type of Saur. Pkt. *dijjadu*.

The shades of meaning of the moods lead back, therefore, in various ways to those of the tenses.

Of the principal tenses the present had a possible means of expression in the old present; the preterite is normally represented by the participle which emerged from the Skt. -*la*-, -*ila*-. The future alone, except where the sigmatic form had persisted, was without adequate means of expression. We have seen the cases in which it was supplied by the participle of obligation, Skt. -(i)*lavya*-

There exist other ways of proceeding, the elements of which are modern.

First of all, nominal periphrases: Mar. *bolṭār āhe* he is a speaker,
he is going to speak, Guj. cālvāṇo cha I am going to go away, Sgh. kapanne-mi I shall cut (used previously as a durative present and narrative past); Nepali makes a compound with the infinitive garne cha he is of making, he will make; the Pashai present appears to rest on a similar combination hanik-am I strike, should strike.

Another procedure is by way of particles added to the present; we have seen this in the case of European Romany (apart from the Balkan use of kam- to wish, after Greek tha), in Gawarbati -a and -ō seem to be added to a conjugated root-form (the normal present has the suffix -m-), ōlemo I shall beat, ōlesā thou shouldst beat? Cf. boem, boes (themselves juxtapositions of a participle and a verbal inflexion). I have, thou hast been; in Shina dāṣ gives the possible contingency the value of a near future.

The particle used is often of a substantival or more precisely of a participial origin. A particularly clear case is that of Hindi:

<table>
<thead>
<tr>
<th></th>
<th>sg. 1 masc.</th>
<th>calū(ṅ)gā</th>
<th>fem. calū(ṅ)gī</th>
<th>I shall go</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-3</td>
<td>calegā</td>
<td>calegī</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pl. 1-3</td>
<td>cale(ṅ)ge</td>
<td>cale(ṅ)gī</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pl. 2</td>
<td>caloge</td>
<td>calogī</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This type is found intact in all dialects of Hindi and in the neighbouring regions: Maith. (partially), Panjabi, Mewati. But in the South of Rājasthān, Marwari and Malvī gā, Bhili go are fixed in the form of the masculine singular. In the northern dialects of the Panjab and the neighbouring Himalayan languages the suffix is -g or -ghā and further the endings of the principal verb no longer appear. Ex. Dogra (Panjabi):

1 Sg. māraṇī 2 m. mārga, f. mārgī 3 mārag  
Pl. māran mārge, f., mārgiām mārgio, mārge, f. mārgiā mārange, gan, mārgan, -gā

Cf. in the Kangra dialect in the masculine:

<table>
<thead>
<tr>
<th></th>
<th>sg. 1 mārāṇg(h)ā, 1.2.3. mārg(h)ā</th>
<th>pl. 1.2.3. mārg(h)e.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

Certain forms support the general presumption that the first member is a remnant of conjugated forms. It is possible also that there is an intrusion of the absolutive, as in the Shina pasts zamegu, zamegi and there are the ends of the principal verb no longer appear.

The second element is obviously nominal and independent; Hindi separates them on occasion; ho hī gā he will be truly. It is easy to recognise the unenlarged form of the past participle of the verb “to go”, Skt. gata-, Pkt. gao, Braj gau, Hin. gā (enlarged form Pkt. ga(y)ao, Braj. gayau, Hin. gayā). This participle, which
forms periphrases with a past meaning in Shina (harīgu, harīgi he, she has carried away) and as a natural consequence, with past conditional meaning in Ashkun (dialē-gōm I would go, cf. dialēm I will go), here connotes accomplishment; the meaning is then "I have gone in order to beat etc.". Cf. the developed expression of Welsh Romany: me java le xā I am going that I may eat, I am going to eat, and with the past participle: Nuri gara jāri gone that he may go, he means to go.

Elsewhere the second element is constituted by -l alone or enlarged. Marathi from the oldest texts onwards has -l alone: padaila, padela he will fall, karīla he will do. In Bhili and Marwari the suffix is -lo, -lā indeclinable. But Jaipuri declines -lo and similarly the Himalayan group: Kumaon -lo, Nepali -lā:

1 garū-lā I will do, I want to do
2 gar(e)lās
3 gar(e)lā

(combinations with old forms, e.g. in the Lahnda of Punch in the Kulu). For the indefinite future garne cha, v. p. 289.

In the neighbouring dialects the mārlā type competes with mārmālā just as we have seen mārgā competing with mārmāgā in the same regions.

The origin of the invariable is here the less clear as certain languages have attached verbal endings to the second element: thus in Kafir, Ashkun balēi, he will become, Kati belom I shall become; Ashk. kalim, Kati kulum I shall do, cf. Ashk. sem, Kati sēm I am.

Middle Bengali adds -li to the stem (already inflected?) of the 2nd sg. of the sigmatic future: karihali, dihali thou wouldst be willing to do, give.

We may also take into account the Bhojpuri present-future in spite of the distance and the difference in the systems: masc. dekhale, fem. dekhalisi thou seest, wilt see; dekhe-le, dekhe-lan they see, will see, dekha-lin they (fem.) see, will see (cf. dekhan if they see, dekhin if they (fem.) see). Here it really seems that we are dealing with past participles or gerundives; Konkani uses the present participle: nidlo-lō I shall sleep.

The history of these forms is therefore complicated, but the parallelism with the form in g- compels the recognition of the participle in the second element, presumably that of Skt. lā- to take, which in fact has from middle Indian onwards generally been supplanted by le- (formed after de- to give); the convergence with the use of the Russian Romany la- to take, should be noted.
Apart from the future, the cases in which the auxiliary is a participle are somewhat rare. We may cite the definite present in Sindhi: aūnī halām theō (fem. thē) or theō (thē) halām I am going, with the participle of the Skt. root slhā--; pio cāre he is grazing (trans.) where the participle is from Skt. palīta-

The same construction, but with a verbal auxiliary (cf. the method of expressing the Romany future mentioned above) serves to form the existing present of the Gujarati-Rajasthani-Braj group: Guj. cālum chūm I am that I go, I am for going, I am going, Braj māraū haū I shall beat.

The verbal auxiliary accompanying a participle in the direct or oblique cases expressing the main idea, constitutes the most ordinary method of expressing the shades of meaning of the tenses and the moods which the forms hitherto examined are incapable of rendering: duration, relative time, etc. Here there appears no precise boundary between grammar and phraseology, so much that the more cultured or more thoroughly described are the languages, the richer the conjugation appears to be. Enumeration is no more necessary here than was a table of all the postpositions in use in the morphological description of the noun. Let us be content with giving a number of the clearest examples of combinations with the verb “to be” (all declinable forms are put in the masculine):

Marathi:

Verb “to be” conjugated:

- cālal āhē I walk
- cāllō ahē —
- cāllō āhē I walked
- cālṇār āhē I am going to walk
- cālal asē I was wont to walk
- cālal aslō I am wont to walk, I should be walking
- cālal asloś (if) I walked, I should walk
- cāllō aslō (if) I had, should have been walking
- cāllō asloś — —
- cālṇār aslō I was going to walk
- cālṇār asloś (if) I was going to walk
- cālal asen I shall be walking
- cāllō asen I shall have walked
- cālṇār asen I shall be about to walk
- cālṇār holō I was going to walk
- cālal holō I was walking
- cāllō holō I had walked
cāllā jhālō I set myself to walk
cāllā hoīn I shall etc.

Verb “to be” in participial form:
cālat asāvā I ought to walk
cāllō asāvā I ought to have walked
cālñār asāvā I ought to set myself to walk
myāṃ cālat asāvē I should be walking
myāṃ cālāvē hotē I should have walked

Sindhi (not taking into account oblique pronouns, normal or suffixed).

Verb “to be”, conjugated:
halado āmhiyāṃ I am going
halyo āmhiyānī I have betaken myself
halando huāṃ I may be going
halando ho-sī I was going
halando hūndu-sī I had betaken myself

Verb “to be”, participle:
halām tho, tho halām I am going
cf. haliusī the (oblique participle) I was wont to go, which expresses more exactly haliusī I was going.

Marwari:
mārlo huāṃ I may beat (a double contingent present for the definite present mārūṃ hūṇī I beat).
mārlo huānlā I shall be beating
mārlo ho I was beating (and also with the locative of the past participle: mārai ho)
mārlo holo I was beating

Hindi:
Verb “to be” conjugated:
girā(-lī) hām I am falling
girā(-l) hūṃ I fell
girā hoūṃ I should be falling
girā hoūṃ I should have fallen
girā hūngā I should be going to fall
girā hūngā I shall have fallen

Verb “to be”, participle:
girāholā (if) I fell
girā holā I should have fallen
PERIPHERATIC CONJUGATION

**girā thā** I was falling
**girā thā** I had fallen

Maithili:

*dekhāi chi, dekhait (dekhaitī) chi* I see
*dekhāl or dekhālahū achi (or ahi)* I have seen
*dekhālē chi*
*dekhāi or dekhait(-ī) calahā* (participle conjugated with ach-) I was seeing.
*dekhālē calahā* I had seen.

Bengali:

mod. *karitechi* I am doing, *karite chilām* I was doing
*kariyyā chi* I did, *kariyyā chilām* I had done.

Nuri:

*nan-o-cam* (absolutive plus *ho* plus *acchāmi* I want to bring,
I bring.

The verb ‘to be’ serves also to form passives:

**Sindhi:** *māribo āhiyām* I am habitually beaten, cf. *māribu-sī* I shall be beaten; conversely we find the participle of the verb “to be” affixed to the old passive: *mārijām lho* I am being beaten.

Mārwāri: *māriyo hai, ho* he is, was beaten; and consequently *mhai māriyo hai, ho* I have, had beaten him, *mhai māriyo hvai* I may have beaten him; here the only construction is passive, a suppletive use of the active.

**Bengali:** *khavā hay* is being eaten, *mārā hobe* will be struck, *dharā hoiā che* has been taken; *e boī āmār parā āche* this book is my ‘perused’, has been perused by me.

**Pashai** (isolated in the group, as it seems) *hanīm, liyim bikīm* I am, thou art beaten, *hanīn bigākum* we are beaten.

**Romany** also forms a passive with *-ov-* (Pkt. *ho-*) *čindovava* I am cut; it is an extension of the type *bariovava* I become great: Nuri has nothing like it.

In order to appreciate exactly the part played by all these expressions (no attempt has been made to distinguish different periods or frequency of use), we must remind ourselves not only of the agglutinated juxtapositions described in connexion with participles and of the futures described above, but also of the frequency of analogous groups with verbs other than the verb “to be”.

Among the most characteristic should be mentioned the
expressions formed with the verb "to go"; we have seen above the futures and the Shina past, where this verb is in participle form. It can be used to make passives, when employed in personal form.

In Kashmiri this verb is constructed with the oblique infinitive; gupana yima I shall go to the hiding, I shall be hid, in Bengali apparently with the direct infinitive (formerly a participle): dekhā jāy or hay 'is seen'.

We also find "to go" accompanying the passive participle agreeing with the subject, especially in Hindi, Panjabi, Marathi and Oriya: Hin. wō mārā gayā he was killed; māi mārā jātā hām I am being killed, ruined.

This construction is less easy to explain; is there, to start with, a confusion between Pkt. jāa- from Skt. jāta- from the root jan- (Karpūram. churio jāo mhi I am (have become) covered) and Pkt. jā-, Skt. yā- to go, the continuative sense of which makes a kind of auxiliary (cf. Hin. wō kahṭā gayā or raḥtā he continued to speak; merā gaḷā baiṭḥā (baiṭhā) jātā hai my voice is going weakening (is going to be quite weakened) ? Is it an Iranianism? Persian and Afghan in fact employ sūdan in the same way, its old sense being "to go". In this case Urdu would be the intermediary and the model of the other languages. In any case the construction seems to have spread only in recent times and perhaps under the influence of English.

Is it the same with the construction with the verb "to be"? In any case the old indigenous system supplemented the passive with the neuter-passive stem opposed to the causative-active stem, v. p. 244; apart from local turns of phrase, e.g. Kati vinagan ung- to receive blows, O. Singh. gasanu lahami I receive blows (a turn of phrase already indirectly attested in the Pali of Buddaghosa, v. Crit. Pali Dic., s.v. antarakarāṇa-), mod. Sgh. gasanṭā yedenava I am exposed to blows, Hin. dekhnē mē ānā, dikhāi denā to come in sight, to give visibility, to be seen, visible; as for the types mār khānā to eat blows, to be beaten, sunāi parnā to fall into hearing, to be heard, we have already pointed out that they have analogies, the former in Iranian, the latter in Dravidian. In Bengali, besides āmi dekhā pari I fall seen, there is āmāke dekhān jāy or hay for me sight goes, exists, i.e. I am seen, I have been seen.

It is obvious that we have no longer to do with grammar here. It is a question of a peculiar use of turns of phrase of more general currency, which characterize Indian phraseology. It is sufficient
to call to mind the use which Bengali makes of the verb “to fall”, for example: se gāche uṭhiyā pārila, se gāche uṭhiyā pārila where according to the position of the stress accent, there is or is not grouping, with the result that two contradictory meanings can be obtained; having climbed the tree he has fallen, he has succeeded in climbing the tree (Anderson, Manual of the Bengali language, p. 35). The verbs for taking, giving, throwing, are noticeable for serving to give an intensive meaning: Beng. dākiyā dei I give while running, I run; “to release” is used in two languages so far apart as Gujarati and Kashmiri to reinforce the past participle: lene rānī-ne nasādī-mukī by him (to) the queen was driven out; Kash. chuh gup̄-mot̄ he was hidden. The wealth of forms, which encumbers descriptive grammars does not then afford any evidence for the nature of the true conjugation.
Voice

The impersonal verb is not unknown to old Sanskrit: MS. yād vāi pūruṣasyāmāyali when man is ill, TS. prajābhyo kalpata it went well for the creatures, RV. ávarsīl, ŚBr. varṣisvālī it has rained, it will rain; but āvarṣ- has most often an explicit subject; and in the ŚBr. ugrō vāli it is blowing strongly, which is precisely that given as the usual formula, yadā bālavād vāli when it blows strongly, there is a masculine subject implicit. Sanskrit has, in reality, developed the impersonal only under the form of the passive. It is a consequence of the fact that in this case the subject is expressed by the instrumental and of the parallelism with the verbal adjectives in -lavya- and -la- offered by the personal forms of the passive. The modern languages have no difficulty in expressing the subject: Hin. mēh or pānī parlā hai, properly "the cloud" or "the water falls", it thunders, bijī camaktī hai the lightning flashes; there is lightning, sir mē dard hai in the head there is pain, I have a headache, Kati šē linn frost occurs; Nuri must be excluded, in which varṣr'ed dinya the world, the weather rains, is an Arabicism, besides which, moreover, varṣari it rains, is also used. It obvious that the subject may be a clause and even introduced subsequently by "that" like Skt. yat and later ki taken from Persian: Hin. bihältar hogā ki... it will be better that...

As for the relation between the subject and the personal verb, it is expressed in Sanskrit by endings of two kinds: active and middle. Of these last the passives alone have retained a definite significance in classical Sanskrit, at the same time making use of a special suffix. As we have seen, the category has survived into middle Indian, while losing its characteristic endings. In Neo-Indian the category no longer exists except to a limited extent, the passive expressing itself in a large number of cases by periphrastic equivalents; yet the decay of the old passive is incomplete. As for the recent formations described above, they are of literary origin and in large part due to European influence.
In any case, the history of the middle-passive, like the absence of the impersonal, bears witness to the need of seeing things in active form; the passive forms being current in the present-future at a time when the past was of necessity expressed as a passive, one might have expected the formation of an entirely passive verb. In fact several languages use forms for the subjective case which may be suspected of being oblique: this is clear above all in the pronouns, and that not only in Shina on which Tibetan influence is presumed (LSI, I, 1, p. 350), but also in Hindi, for example: *maī* 'I'. The linguistic feeling of to-day, however, regards them always as nominatives and the same linguistic feeling, to judge by the teaching of the grammarians, analyses the passive type *maī ne yīh kitāb parhī* I have read this book, as an active construction entailing agreement with the complement.

Gender

The forms with a personal inflexion have a much smaller place in the conjugation, if they are compared with the participial forms accompanied or not by other verbs. It may be said therefore that the expression of gender takes an important place in the languages in which the adjective admits it: Hin. *maī bolā* or *bolī* I should speak, *maī bolā, bolī* I spoke; Mar. *mīṁ uthō, uthē* I should have risen, *mīṁ uthō, uthē* I rose, etc.

In the languages, which, like Hindi, express the passive in the past tense (*aurāl ne ghorā mārā, ghorī mārī* the woman beat the horse, the mare; properly: by the woman the horse, the mare beaten) the gender completely dominates person. The impersonal turn of phrase *aurāl ne ghore (ghorī) ko mārā* by the woman to the horse (mare) it has been given blows, suppresses the importance of the gender without restoring its rights to the person; similarly the Nepali honorific.

The expression of gender is absent only when it is absent from the adjective; in Singhalese, in Kafir (including Gawarbatī in which the adjective agrees partially), in Kalasha, Pashai and Khowar, and finally in the eastern group; even in Bhojpuri the conjugation still takes it into account: 2nd sg. masc. *dekhas, dekhīs* thou seest, at a time when the agreement of the adjective is no longer to be found except in the poetic possessive (*mōrī* my).
Person and number

We have seen how the expression of person tends to reappear in the participial forms, in which in principle it was not implied; moreover, the pronouns especially of the 1st and 2nd persons are generally expressed, without there being any obligation to do so.

The sense of social hierarchy, highly developed in India, has to some extent complicated the old use of the person. Not indeed in old Sanskrit in which at most the manner of addressing people according to their station is distinguished (e.g. bhōh to a Brahman); but a later roundabout formula like bhavan- is used for addressing a respectable person; in Pali and Prakrit, especially in polite literature, we also find pronouns in the plural. This became the rule in the cultured languages. Now whereas the use of "thou" is universal in Romany, it implies familiarity, tenderness or scorn in the Indo-gangetic languages. In Hindi the 2nd person of the plural is used for ordinary relations with an inferior; the polite form is the honorific 3rd plural, accompanying or implying a subject in the 3rd singular: āp properly 'oneself, himself', cf. p. 194, mahārāj, huzār, sāheb, etc.; for an honorific subject in the 3rd sg. requires a verb in the plural at all events: rājā farmāte hai the king commands, says. In consequence, in order to express the 1st sg., mai can be used and with a tinge of humility, words of the type banda (your) servant, with the 3rd singular; but ham we, is usual with no special implication: ham nahīṁ karenge I shall not do it. In Marathi and Gujarati there are analogous rules, with this complication due to the presence of three genders, that the respectful form of the feminine is the neuter: bāī-sāheb āltīṁ astīṁ the lady would have come, Guj. tem-nī sāhe rānī paṁ ṣāyāṁ che with him (them) the queen also came (is there a link between this and the fact that the Hindi type fem. plural seems to be an old neuter? p. 169). In Singhalese the plural unṁa or nu(m)bā you, as in the 3rd person un-dā, designates an equal or an inferior, whom one treats politely (whence the creation of a new plural unṁa-lā): respect is expressed by lamu-sē (apparently for ālmanāṁ chāyā your shadow) or nubā vahansē the shadow of your sandals; similarly in the 3rd person of the masculine unnāhē, unnvahansē in place of ā "he" (but the fem. ā does not admit of respectful forms); cf. gurunnānsē the master.

The use of pronouns in the plural has had morphological consequences. In Bengali for the opposition mui: āmi I: we, tui: tumī thou: you has been substituted the opposition:
mii, tii I, thou / humble
morii, lorii we, you / humble
ami, tumi I, thou / normal
amrā, tomrā we, you /

So in the second person we shall have:

lui kari (familiar) thou doest
tumi kara you (a single person) do
tomrā kara you (several persons) do

naturally not counting:

āpni (āpnārā) karen Sir, you (Gentlemen, you) do.

And in the imperative the form of the 3rd plural is valid for the 2nd: āpnār abhiprāy byakta karun explain your intentions.

In the 3rd person we not only have the scheme:

se kare he does, it does, tahārā karen they do, but granting that a pronoun previously plural, tini, has been used as a singular, we have the originally plural verbal form used with two values:

tinī karen he does, tahārā or tāmharā karen they do.

In Maithili the matter is taken still further; on the one hand the pronouns are displaced as in Bengali ham I, lōh thou (old plurals), ham sabh all the I’s, or rather, all of us, so “we”, lōh sabh you (all); but the verb no longer in any way expresses number. The idea of the honorific has completely replaced number in a complicated system, in which the forms expressing the old idea constituted the basis of the new: “thou seest” is expressed in three simple ways: dekh, dekhah an old plural and the same with a particle dekhahu-k; further with “thee” and “you” may be used dekhaichah if the complement, whether direct or not is a thing, animal or a negligible person and dekhai chahūnh (a pronominal suffix in the oblique plural), if it is a question of a respectable person; on the other hand if the subject “you” designates one or several respectable persons, use will be made of dekhaichiai and dekhaichianh according to the degree of respectability of the complement.

Here one sees the nature of the complement acting on the ending; it happens even that the ‘person’ of the complement is marked, when it is the 2nd person:

Murtā nenā kē māral kai M. has beaten the boy
Murtā togrā kē māral kau M. has beaten thee

the ending is the old ending of the 2nd pl. -ahu, thus there is here the verb agreeing with the complement.
HONORIFIC FORMS

It may happen that the indirect form of expression due to a sense of politeness has the effect of eliminating the person. This is first of all the case with the polite imperative expressed by impersonal passives, as in Hindi *dekhiye* be so good as to look, or by the infinitive alone (polite), or by expressions with *cāhiye* it is necessary. Nepali has created for itself an honorific impersonal conjugation in imitation of Tibetan:

*les le garnu bho* by him to make was, he made;

and with loss of the postposition, which was making the construction clear:

*lapāī sunnu huncha* your honour is to hear, you hear;

There is also a personal honorific conjugation, which rests in the same way on the infinitive, of the type *tyo garne bhayo* he became to make, he made, *prasanna-garāune bhaye-kā chādā* being (3) becoming (2) to render satisfied (1), provided that they made them satisfied.

In European Romany the 2nd plural *-tha* should phonetically result in *-*el, which would clash with *-el* from the 3rd sg. *-ati*; this clash is no doubt the origin of the general replacement of the 2nd plural by the 3rd (so far as concerns the verb, not the pronoun). Further, this 2nd plural, in the verb “to be” only, has been given the force of singular under obscure conditions, which indeed must also be due to phonetic accident, for Romany regularly distinguishes *tu* thou, from *tume* you.
PART III

THE SENTENCE
I. THE VERB "TO BE" AND THE NOMINAL SENTENCE

Sanskrit received from Indo-Iranian a verb of existence, \textit{as}-, supplemented, by the verb "to become" \textit{bhū}- notably in the future and aorist; moreover, the present of this second verb, being thematic, at the same time progressively assumed the sense of "to be". The verb "to exist", in conformity with Indo-European and Indo-Iranian usage, can serve as a simple copula "to be"; but when so used, it is normally wanting in the third person and can be omitted in the other persons when the pronoun is expressed:

\textit{RV kvēdānīṁ sūryāḥ} where (is) now the sun? \textit{kva ṛām pārvyāṁ gaḷām} where (has) gone the first order? \textit{nā devāsah kevalnāve} no gods for the miser; \textit{tvāṁ vāruṇa utā mitrō agne} Agni, thou art V. and M.; but \textit{tvāṁ hi raṇadhā āśi} for thou art generous.

Vedic prose preserves this tradition and develops certain peculiar turns of phrase, e.g. the formula of equivalence A. Br. \textit{paśavo vā ele yad āpah} they (are) the cattle, are the waters. The Mahabharata uses sentences in this way introduced by a pronoun (including the anaphoric), interrogative sentences and particularly those in which the predicate is a verbal adjective of result (-\textit{ta}-, -\textit{tavant-}) or of the future (-\textit{ya}-, -\textit{lavya-}); to which must be added the remote future made by a periphrasis formed from the noun of agency in the masculine singular: ŠBr. \textit{adyā varṣiṣyati... śvō vṛaṣṭā} to-day it will rain... to-morrow it rains; however this periphrasis had no vitality.

In conclusion, the verb "to be" hardly exists in the present, except in the two first persons, when it is equivalent to a pronoun.

Asokan expresses "I am an adept" indifferently as \textit{sumi upāsake} (Gavimath), \textit{upāsake sumi} (Sahasram) or as \textit{hakaṁ upāsake} (Siddapur, Bairat). The verb "to be" goes so far as to figure in a sentence containing a verb, provided that it is affixed to the subject: MBh. \textit{esoʾsmi hanmi saṁkalpaṁ} (it is) I, I shall ruin his project, Pa. \textit{samviggoʾmhi tadā āśim} then I have been frightened; whence in epigraphic Singhalese (\textit{Epig. Zeyl. III}, 258, 132 and 269, n. 4): \textit{Daḷanā-mi bal diṁni-yi, si-mi mama d... balak diṁni}
-yi (it is) I Dałana, I have given a meal; I, Sl., I also have given a meal; and in the plural denamo... dunmo we the people (*jana-smah), we have given (*dinna-mho). A fortiori in the 3rd person astli introduces a narrative with the simple sense of "well, then".

The word expressing existence has moreover varied.

The N. W. border alone preserves the use of independent as-, transforming it, moreover, into a thematic verb: Kati tuse nam kai aze what is thy name? (we should take into account also the survival of -äs- to remain, Skt. āste, Pa. -āsati, which is true at least for Kashmiri). Further, several groups of languages have utilised the old preterite, Skt. āsil, Pa. Pkt. āsi, for the formation of tenses of the past: Tulsidas racesi he arranged, Lakhimpuri 2, 3 sg. dekhis thou hast, he has seen; preterite of European Romany: Greek ker-das he made, kerel-as he was making, and of the North-west: Maiya kut-as I was beating, kutel-as I had beaten; and with the participle, Shina zamēsu he beat, Panj. jāndā-sā he was going, giā-sā he had gone.

Otherwise, there is hardly anything remaining of the old verb but the 3rd sg. of the present, Pa. Pkt. athi and with the negative Pa. Pkt. nāthi in the sense of "there is, there is not; O. Mar. āthi, nāthi, Singh. āti, nāti etc.

From Sanskrit onwards, as we have seen, bhavati gave forms to the present, which were phonetically more convenient than the plural smaḥ, stha, and dual staḥ, cf. Marouzeau, Mél. d’indianisme S. Lévi, p. 153; it supplies in a general way all the third persons. It is found very early acting as an auxiliary with verbal adjectives: in Patañjali bhāsito bhavati the Nirukta comments 2 savatiḥ... bhāsyate the word sav- is said (exists) in the language.

Other verbs, moreover, are found from Sanskrit onwards used particularly to denote duration: besides ās- and sthā- to remain we meet with i- (Vedic), yā- (Hin. jā-, etc.), car- to go, employed with participles, vidyate, varlate to occur (this last word survives as an auxiliary in the eastern group and partly in Kafir); in middle Indian there appears acch- to remain, later rah- to remain, āh- to be, all words of difficult etymology; in Singhalese iṇḍ- (Skt. sad-) properly, to be seated, cf. Hin. baiḥnā. These words supply, as well as simple copulas, affixes more or less agglutinated with participles.

But the presence of a copula is not necessary: the nominal sentence survives in the modern languages, even independently of the verbal use of participles. It is nevertheless far from being
consistent; it is frequently met with in the archaic form of these languages: poetry, literary narrative, proverbs: Sind. ūnho khūhu uthē a deep well (is) there; O. Guj. pānkha pīlā ne paga pāṇḍurā (O parrot) thy wings (are) yellow and thy feet white; O. Kash. gangī hyuh" na tīrath kāh no pilgrimage (is) like the Ganges.; Oriya (song) koili, thāna je sundara beni poe cuckoo, together how graceful they (were), the two brothers; Hin. jaisi bonī, waisi bhāṛī as (is) the sowing, so the harvest, corī kā gūr mīlāhā stolen sugar (is) sweet.

Bengali seems to use the same syntax with still more liberty: spaśṭa kathā-i bhāla plain talk (is) truly good, it is better to be frank; e surṭi baṛā miśī this melody (is) very pleasant; se ekjan bidesī lok he is a foreigner; eṭā morag nā murgī (is) it a cock or a hen? But the majority of languages prefer to express the verb “to be”; the bilingual manual of conversations from which the latter examples are borrowed (N. C. Chatterjee, A manual of colloquial Hindi and Bengali, 1914) gives for Hindi: sāf sāf bolnā bahut hī acchī bāl hai (to speak very clearly is a much better thing), yē rāg bahut acchī hai, wō pardesī hai, yē murgā hai yā murgī? And this is no characteristic of an advanced civilisation: Ashkun toā nām kā sēi what is thy name? apāi gōrā cil-wyēli sēi how old is this horse? kyawa mulī do rupai a kirān the price of that is two and a half rupees; Shina employs the verb even in the third of these types of sentence: anisei gāč du ḍabale ga āś ānā (two rupees eight annas) hani.

Singhalese appears to be more archaic: mahātmaya me rata miris Sir, this is red pepper; mokada karenne kim kartavyam, what’s to be done? menna ēka here he is; as an equivalent it often employs the copula -yī representing Skt. itī: ā hora-yī (so coro ti), he is a thief, īḍā madī-yī the room is insufficient, mē sop ladē vāḍī-yī this soup is too strong, cf. bohoma hoṇḍa-yī very well. Nuri makes use of a non-verbal suffix in the same way, sg. -ek (Iranian? cf. p. 247) pl. -ni.

It is to be noted that acting as a copula, which seems then to be generalised, has not impaired the old meaning of ‘existence’, the permanence of which has as its counterpart the total absence of a verb “to have”;
Together with the flexional wealth of Indo-European Sanskrit preserved the possibility, which depends on it, of arranging the elements of the sentence at will. This facility is indeed only used for literary effect. There is a customary order, which is inherited from Indo-Iranian and is carried over to Middle Indian. It may be summarised as follows: 1) the subject (or its psychological equivalent) at the head; 2) a group formed by the predicate: the verb or its equivalents at the end, except the imperative and the indicatives introducing a narrative, which are normally at the beginning; the verb is preceded by its complements, the indirect complements in principle preceding the direct object; however the complements indicating destination (infinitive, substantive in the dative) tend to be placed after the verb in the Brāhmaṇas at least; it is a usage which comes from Indo-Iranian (cf. Meillet-Benveniste, *Gr. du vieux perse*, p. 240) and persists; several examples are found in the inscriptions of Aśoka.

Groups of words are as a rule organised according to the same fundamental tendencies: the qualifier: genitive, attributive adjective etc., precedes the qualified; it is the same thing in compounds. Preverbs, at first independent, lose the faculty of following the verb the sense of which they modify and are then prefixed to it; employed as prepositions (a use which becomes progressively rarer), they tend to follow the noun,—which agrees with their tendency to fix themselves at the head of the verb—and finish by taking a position like the adverbs and nominal forms or the absolutes which are substituted more and more for prepositions.

We have seen that the opposition of the subject and the object, which is stressed in Sanskrit both by the form of the stem and by the ending, grew less and finally disappeared, since nearly all the modern languages have only one form of substantive for the two functions. This confusion must have contrived to establish an order, which was at first only a matter of custom. The same tendency must have been encouraged by the need for distinguishing between the participles employed as attributes and predicates; thus Or. *paḍilā gacha* the fallen tree, *gacha paḍilā* the tree fell.
The normal modern order is: real or logical subject, indirect and direct complements, adverb. verb:

Hindi: maï tum ko yê kitâb delâ hû I to-you this book giving am, guru-patnî-ne hamë tumhë indhan lene bhejâ the master's wife sent us and you to collect firewood.

Chattisgarhi: sikârî-har mâcân-upar-le bandâk-mâ bhâlû-lâ golî mâris the hunter from the height of his platform from his gun to the bear fired a ball.

Bengali: āmi tomâke ek ūkâ diba I will give you a rupee but we should distinguish:
āmi ei ām-gula nûtan-bazâr-theke enechi I have brought you these mangoes from the new market from:
āmi nûtan-bazâr-theke ei ām-gula enechi it is from the new market that I have brought these mangoes.

Singhalese: gurunnânse mâla iskölêdi simhala akuru igennuvâ the master to me at the school the Singhalese letters has taught. It is the same in Dardic, except in Kashmiri alone in which the verb may precede complement and predicate:
yim pôś ma caṭukh these flowers do not pick but:

khas(khotu) yimis guris mount (he mounted) this,horse.
In the stories of Hatim we read:
dunyâhas manz gachav we shall go into the world but:

liça chêna pâlaśohi manz such (women) do not exist in the kingdom
tim ananay khên camruv u kara they will bring thee to eat peas of leather.

We find the subject at the end also in the same narratives: amis mä āsim šemârasond u zahar on her perhaps will be-on-my (queen) the poison of the great serpent lath-kyut u dyut u nas šeśtruw u panja for that (there) was given by her to him a hook of iron;
but in subordinate clauses the verb remains consistently at the end:
më dyutuhl na zâh çhâw u-li-chira yêmî-siilin pananyau-mitrau sän wâlsaw karahô to me has not been given by thee ever a goatskin, thanks to which with my own friends festival I can make.

The origin of this reversal of construction is unexplained; the Burušaski and Tibetan languages, which border on Kashmir, have the Indian order.
Romany equally prefers the order: subject, verb (and in narrative: verb, subject), complement and predicate: Rumanian dialect *voi l'as pala i kor* she takes him to her heart, Welsh dialect *i tarrn jwvel piradas zeztar* the young girl opened the cupboard; this indeed is not strictly observed: the Rumanians call the gipsies *mar man de* bread me give. Here one can detect a European influence; in point of fact Persian has on the whole the Indian order; as for Armenian, it still keeps the old freedom. On the other hand Nuri freely sets back the verb to the head of the sentence, under the influence of Arabic.

The Indo-iranian negative comes at the head of the sentence or before the verb; this second construction, which coincides with that of adverbs and preverbs, becomes the more usual one; so we get the ordinary groups like Skt. *na šaknomi* I cannot, *nāsti*, Pa. Pkt. *nāthi* (whence Mar. *nāthi*, Singh. *nāti*, Armenian Rom. *nath*, etc.) and more recently Mar. *na-ye* does not go, Shina *nuš* indecl., does not exist. But the negative tends to reach the final position in Kashmiri, in Nepali (the negative conjugation, in which the negative precedes or follows), in Bengali, in Marathi (the negative is suffixed to the verb to such an extent that it is inserted between stem and ending: *na karī* or *karī nā* he was not doing, *karīs nā* and *karī-nā-s* thou wert not doing; *karī-nā-l* they were not doing; whence the negative conjugation of Konkani: *nidnā* he does not sleep, *nidnānā* they do not sleep, etc.).

From these postposed negatives we must distinguish the final negative expressing the interrogation “is it not?”, current, for example, in Hindi. It is in reality one word summing up a whole sentence. This is also the origin of the negative denoting an alternative: Kati *Aoghān spāhi lest ai na Bilian lest ai* the Afghan soldier is (he) the better (if) not, is the Chitrali the better? Mar. *nā* nor, or, nay.

Prohibition is expressed almost everywhere by *na* with the imperative or one of its successors; Skt. *mā* of Indo-european origin survives only in Gujarati, Romany (*mā*), Sindhi, Kashmiri (*ma, ma-la*; *mā* expressing doubt) and Hin. *mat*, dial. *mati* (etymology? *bahu-l* much, enters one’s mind, but there is no necessary connexion).

made use of: Hin. Chatt. nā, Beng. ki nā or not. One does not know what to say about Singh. da, which ends sentences, means at first "also" and is appended to interrogatives: kaw-da who? nor about Kati, Ashkun, Khowar, Shina postposed -a, which in a curious way recalls Dravidian.

III. THE LINKING OF SENTENCES

INDEPENDENT SENTENCES

Sanskrit inherited from Indo-iranian a certain number of particles serving to mark the connexion or opposition of sentences; some placed after the first word: ca, id, nú, hi, vā, etc., others intended to introduce the sentence ápī, átha, cād, etc.; it has even increased their number to start with, among other methods by the juxtaposition of several particles like Skt. cēd, kúvid, etc.; particles tend to accumulate also in ancient prose, but produce few new fixed combinations like Skt. alhavā, Pa. īṃgha (explained Saddanīti, p. 898, n. 2). It is because the particles, while still numerous, lose their strength as they diminish in number; epic often uses them as expletives.

The absence of a connecting link, which is normal as a rule, has taken on a stylistic quality; it accentuates opposition and characterizes technical prose. The language of Aśoka has even created a new word cu (ca+tu) to denote opposition. If you look through the edicts of Aśoka, you will see that the sentence is rarely without a connecting link. Such is the case, for example, at Girnar at the beginning of the 5th edict: ka(l)lāṇam du(k)karam yo ādi kāro ka(l)lāṇam so du(k)karam karo li a good action is a difficult thing; he who undertakes a good action, does a difficult thing; one sees that it is a matter of sententious style; and the sequence is resumed by a pronominal particle (equivalent in form to Vedic tād or tád) which is difficult to translate, if one considers the sentence, which follows it: ta mayā bahu ka(l)lāṇam kalam la mama pu(l)lā ca po(l)ā ca... ya me apa(c)cam anuva(l)lisare tathā so sukalam kā(s)sali; Senart translates: Now (la) I have myself performed many virtuous actions. Similarly (la) those of my sons... who shall thus follow my example, these will do good.

The want of precision in the meaning of the particle is a sign that its function is chiefly to mark the passage from one sentence to the other.
As in the last example cited, the link between the sentences may well be marked by a pronominal element. This may be a pronoun properly so called, referring to a noun or relative pronoun in the preceding sentence; it is the anaphoric sa(ta-); the frequency of its use gives old prose a stamp of decided monotony. This pronoun also became enfeebled: it is generalised as a correlative in Vedic prose, while in poems it may be omitted without difficulty; it thus loses its meaning and denotes only the connection of the sentence, giving it at the most a consecutive shade of meaning; the nom. masc. singular sa becomes entirely expletive in Skt. sa yadi, sa yad, Pa. sace if, seyyathā or tanvyatha as, Asokan sa, se, so, Pa. se; at this point we may recall that it comes very near to supplying a definite article in the epic language, a tendency, which indeed, as we have seen, has come to nothing.

In the modern languages asyndeton and linking by anaphoric pronouns still predominate. The stock of particles is very low: Singh. -da, -t is perhaps the only survival of ca, if indeed it is not the emphatic particle like Mar. c(i) Chatt. c from Pkt. ceea, cf. Marw. -ī, Guj. Sind. -j from Pkt. jjeva. New heavy conjunctions have been created signifying “something else further”: O. Hin. avara, Hin. aur, Nep. aru, Ass. āru (aparam), Mar. āni, -n, Guj. ahe, ne, Nep. ani “and”, Sind. aṅā however (anyat); similarly Hin. Sind. par (Skt. param further); less clear is the origin of Rom. te, Kash. la ‘and’, Nep. la however (going back perhaps to talā), Singh. hā (saha), Shina ga (?). The adversative adverb punāḥ, which is post-Vedic and unexplained, has been carried through middle Indian (Pa. pana; puna survives in the sense of “anew”) to Sind. Or. puni, Guj. Mar. paṇ, Nep. pani, O. Hin. puni (Sgh. pana, puma survives in the sense of “again, anew”; this will then be a Palism); it keeps the initial intact, a sign of initial use. Very characteristic is the manner of rendering “or”: use has been made of a pronominal stem, Hin. Beng. Nep. ki, Sind. Panj. Guj. ke (elsewhere replaced by Sanskrit or Arabic borrowings); in other words there are no longer any conjunctions, we have to do with an isolated interrogative sentence.

Subordination

Old Sanskrit has two procedures for denoting subordination: 1) the use of the subjunctive, which in this case has no modal value, and becomes just a grammatical tool; it is introduced by the relative pronouns or adverbs, or by the negative nēd, which accompanies the indicative as the main clause:

**SENTENCE LINKS ASYNDETON**
RV. X. 85, 25-26:
préló muṇēdāmī námūtaḥ subaddhām amūtas karam
yatheyām, Indra, mīḍhvaḥ, suputrā subhāgāsati

ghrān gacha gṛhāpalīṇī yāṭhāsah
I free her from here, not from there: there I mean to keep her, so that, O generous Indra, she may have children and good fortune... Go into the house to be the mistress of the house.

X. 51, 4;

-nādyam

ned evā mā yunājann ādra dévāḥ
I have gone for fear that the gods may join me to this place still.

2) The accentuation of the verb. To the above examples may be added the peculiar use of ca in the sense of "if":

II. 41, 11:

indras ca mṛṭāyālī no
nā naḥ paścāḍ aghāṁ naśat
if Indra favours us, no evil can then assail us.

Similarly kavīd whether? which initiates an indirect interrogation and even hi for, which is naturally affirmative and goes with the indicative:

III. 53, 18:

bālam dhehi tanāsu naḥ... tvāṁ hi baladā āsi
put strength in our bodies... for thou art the giver of strength.

The accent serves to mark a psychological subordination, which is disclosed by nothing else (v. Meillet, BSL, XXXIV, p. 122)

MS. tasmād badhirō vṛcā vādāni nā śṛṇotī that is why a deaf man (even if he) speaks, hears not; RV. lāyam ā gahi kānveṣu sū sācā
pibā come quickly, drink with the Kaṇva; TS. utāvarṣiṣyaṇa
vārṣaṭa evā it is in spite of him that he gives rain.

The two processes belong exclusively to the old language. Asokan has no more than the remnants of the subjunctive, which had a somewhat reduced use in the Brāhmaṇas; as for the accent, not only does Paṇini note it in new subordinate clauses (with purā before that), but admits it in numerous forms of principal statements, e.g. in interrogation with or without kim is it that?: which is as much as to say that, at the end of the period when it was noted, the accent had very nearly lost its syntactical force.

Classical Sanskrit and middle Indian have no longer any grammatical process for denoting subordination.

Clauses introduced by the relative yat and by the other relative adverbs yāvat, yadi, yathā, etc. are formed as if they were
independent and the indicative takes precedence of the optative. The meaning of the particles has hardly yet been evolved: even in *yat* which comes the nearest to a true particle, the relative sense is still on the surface; its use after the verbs “to say, believe, know” is not generalised; similarly in Asokan and in Pali, *kinti* states an intention, but can be translated simply “saying to oneself, what, why?” and should perhaps be so translated; as interrogation has remained a means of marking the stages of speech in the popular language, cf. Skt. *kimca* what more? which is used for coordination like *aparam, tathā ca* something else; and likewise.

The early language had at its disposal means of supplementing subordination. Such is the apposition of the participle, according to Indo-european usage. Simple apposition of one noun to another may imply a movement of the mind and be equivalent, for example, to “because..., although...”; the participle allows also the insertion of the idea of a verb, and so is equivalent to a clause. In this use it is placed in apposition with the subject or the complement, particularly with the direct object. It marks coincidence in:

RV aruṇō mā... yāntaṁ dadārśa hi the Red saw me, while I was going;

an opposition in:

Ts. mitrāḥ sān krūrām ahaṁ although a friend, thou wert cruel;

a condition in:

Kauṭilya: *lyaktam gūḍhapuruṣāḥ... hanyuḥ* if abandoned, the secret servants should kill him.

With verbs of feeling or opinion:

TS. *parabhaviṣyantī manye* I feel that I am going to collapse, class. *praharan na lajjase* art thou not ashamed to strike? āśaṅke *ciram ātmānam paribhrāntam* I suspect that I have a long time to wander.

The participle, object of the absolutive in this sentence from the Pali Jātaka, would require in French a relative pronoun heading an adjectival clause (although in English the participle may be retained):

*kumāro kammārena katam rāpakam suvannagabbhe khipāpetvā...* the prince, having deposited in his treasury the statue, which the blacksmith had made... (English also: ‘the statue made by the blacksmith’).

The participle can also, in agreement with a substantive in an oblique case (especially the locative), supply the equivalent of a clause primarily adverbial, later to imply a mental qualification,
which would be inserted into the principal clause, but is in itself complete and treated as an independent sentence: Raghuv. \textit{mā metī vyāharatī eva tasmin} despite his protestations.

The same result will be obtained again:

1) with infinitives expressing purpose (in the accusative or in the dative: RV. \textit{āhaye hāntavai} for the dragon to kill, to kill the dragon, \textit{pārām ētave} to gain the bank), or, if the case requires it, cause (in the ablative: \textit{trādhvam karlād avapādah}, literally save us from the hole, from falling; \textit{yuuyōta no anapatyāni gantoḥ}, save us from going towards infertility;

2) with absolutes expressing a past event and on occasion a mental shade of meaning (v. p. 284);

3) by a nominal compound, permitting a complex apposition, particularly, when it includes a participle:

Ragh. \textit{sruta-dehavisarjanaḥ piluḥ} when he had learnt that his father has left this life (lit. his body).

Kād. \textit{pratlīhāryā grhīlapaṃjaraḥ} caused the cage to be carried by the portress.

Pali \textit{kumārikāya laddhabhāvaṃ} the fact that we have obtained the princess.

The use of internal apposition and the more or less sharp opposition of correlative sentences are then the only means of subordinating two verbal elements to one another; consequently there is in Sanskrit no complex sentence.

\textit{A fortiori}, there is no indirect speech: the sentence expressing what is said or thought is a direct sentence, either in isolation or introduced by \textit{yat,} or and this is the most frequent, terminated by \textit{ili} of which the etymology (Latin \textit{ila}) shows that the primitive meaning is “thus”: RV. IV, 25,4: \textit{yā indrāya sunāvāmety ḍha who—let us press for Indra—thus says; that is to say: who says ‘Let us press for Indra’; I, 161,8: \textit{idāmudakām pibālēṭy abraviśana} drink this water, thus you have said; X, 17,1: \textit{tvāṣṭā duhitre vahalūm kṛṇolīlīdam viśvam bhūvanam sām eti} Tv. performs the ceremony of marriage for his daughter, so the whole world is assembled, which may be understood as “the world is assembled, saying to itself that, because Tv....”.

\textit{Illī}, in introducing direct speech or a reason, fundamentally retains its old significance (which also explains the terminal \textit{ili} of the Asokan inscriptions and -\textit{yi} equivalent to a copula in Singhalese), and in short does nothing but underline the asyndeton.

But it is a valuable instrument of subordination: Pa. \textit{ādāya nam gamissāmili āgato’mhi} I have come to take him away. In a
similar turn of phrase Latin would have a relative governing a verb in the subjunctive. Note the brevity of the Pali phrase: *suvaṇṇarūpam ti saṇṇam akalvā* without reckoning that it was of gold.

Sanskrit does not therefore transmit proper methods of syntactical subordination and indirect speech to middle Indian and modern Indian; nor have these languages developed further in this direction. Asyndeton, absolutes, absolute constructions and correlative clauses are still the only processes at their disposal. In languages without clear inflexions apposition was not possible: the participle is not longer met with except in absolute oblique cases. So far as nominal compounds are concerned, the pathological development, which they have undergone in Sanskrit literature corresponds in no way to its real history; honest texts like Asokan, the average epic, dramatic dialogue and finally the modern languages know only compounds of two terms; it is the same then with Indian as with the rest of Indo-European; the abnormal extension of the procedure in Sanskrit bears not on the grammar, but on the literary history; it dates particularly from the period when the endings of the spoken languages were becoming indistinct, which allowed the formation of loosely linked descriptions; this indeed agreed with the general tendency of the language towards parataxis.

Asyndeton is persistent, especially in the uncultured languages: ex. Ashkun:

\[ tā žārē alis-ba, kitāb pralim \] (that) thou mayst come to-morrow, I will give you a book

\[ umāid sēi žārē alēs \] hope is to-morrow thou mayst come

\[ tu Bābur diēres kā kōs \] (when) thou goest to B., what dost thou do?

\[ kūruṇ ba gōs kal, čēi Aškunū lō wiēlā-ba, sakārye miš wērī kales \] anywhere that thou mayst have gone (at this) moment (and) any Ashkun who may be seen by thee, with them thou wilt converse.

In the more cultured languages the mental link is most often denoted by pronouns or by indeclinables with pronominal stems.

Demonstratives:

Sindhi: *tā īmāndār*\(^*\) māṅhā āhē; tāhe-kare to-khe nāib\(^*\)qāzī muqarīr\(^*\) kāryā-loh thou art a man of trust; because of that I make thee assistant judge. When a demonstrative sums up a series of nouns, it alone has the mark of inflexion in Marathi: *hattī, ghōše ānī bail hyāms cārā ghālā* elephants, horses and oxen, to
them give fodder; in the same way we have \textit{Rāmā ġelā asē tyānē aīklē} Rāma has gone, such a thing has been heard by him, he has heard that Rāma has gone; similarly Guj. \textit{le gayo hato e mē sām-bhalṭū} he had gone, this I heard.

Relatives of every kind tend (as they do in Sanskrit) to be opposed to their correlatives which they precede:

\begin{itemize}
  \item \text{Mar.:} \textit{jo mulgā mīṃ kāl pāhilā loc āhe}
  \text{this is the boy (2) whom I saw yesterday (1)}
  \item \text{Hindi:} \textit{khudā jo cāhe so kare}
  \text{may God do (2) what he wills (1)}
  \item \textit{jitnā cāhiye ītnā lelo}
  \text{take as much (2) as you wish (1)}
  \item \textit{jahāṁ guł hai wāhāṁ kāṅlā bhī hai}
  \text{where there is a rose, there is also a thorn}
  \item \textit{jis rūp mē ye granth ab mīltā hai, wō use sātrahitā ślābdī mē prāpl huā hogā}
  \text{the form in which this book is presented to-day, it would have taken (must have taken it) in the seventeenth century.}
  \item \text{Bengali:} \textit{jāhā iechā jaibe tāhā khāio nā}
  \text{do not eat all you want}
  \item \textit{jālakkhan nā tini āsen jālakkhan basiyā thāk}
  \text{so long as he does not come, so long remain, wait till he comes.}
\end{itemize}

The relative alone may be used with more freedom:

\begin{itemize}
  \item \text{Hindi:} \textit{wō ādmī jo parhnā nāhīṁ jāntā nādān hai}
  \text{the (that) man who does not know how to read is ignorant}
  \item \text{Sindhi:} \textit{fulānē wāpāriā khe pāhe jo mālū ġiño homā, jo hū hāṇē unhā khāṁ inkārā thō-kare}
  \text{to such and such a merchant my property has been given by me, who now makes denial of it.}
\end{itemize}

There is uncertainty in the method of expressing an hypothesis, perhaps because it bears no apparent mark of correlation. We find \textit{je (yadi)} in Panjabi and Sindhi, but Hin. \textit{jo} (correlative to, \textit{tau}) is obscure: does it come from Skt. \textit{yāval}? but there are \textit{jab, lab} specially for time. Learned borrowings are also used: Beng., Hin. \textit{jadi}, Hin. Sh. \textit{agar}, one Sanskrit, the other Persian; Marathi alone, and this proclaims a recent Brahmānic borrowing, has resumed the Vedic pair \textit{yarhi, tarhī} which was appearing no more in Sanskrit except in the Purāṇas and is missing in middle Indian:

\begin{itemize}
  \item \textit{jar pāūs pādal astā, tar yeūṁ nako}
  \text{if it rains then do not come} \end{itemize}
O. Mar. *trailokicem anakalita jarhaim rājya joḍaila etha
tarhaim hem anucita nācarem mīm*

even if undivided rule of the three worlds shall be added to me here, yet I do not perform this impropriety. Jñān. (Rājvāde) I. 226.

In the languages which have no relative like Dardic and Romany, it is the interrogative which takes its place, when it is not the simple demonstrative as in Shina: ॐ muśā vaṭus ॐ the man (who) has come, he...

Cause is expressed by asyndeton: Beng. kāran, Guj. kāran the reason (is that); or by the interrogative: Sind. cho jo, Hīn. Panj. kyām ki why (it is) that; finally by absolutives recapitulating part of the preceding statement, like Skt. iti, iti kṛtvā, Pa. iti kalvā; Mar. (heṃ) mhanān, Apa. bhānivi, Nep. bhānī, E. Hīn. bolke, Beng. boliyā, Singh. kiya properly signifying “having said”; this last formula is also Dravidian.

Several languages make or have made use of a loose subordination, corresponding in function to Skt. yat and variable as regards form. Going back, no doubt, in effect to yena are: Mar. jem, Guj. Beng. je, Kash. zi. Under Persian influence Sindhi uses ta, Hīn. Beng. ki, Mar. kim, Guj. ke (modelled on Marathi according to Divatia, Guj. lang. and lit., p. 22); the success of this particle (which has penetrated as far as Malto, a Dravidian language) must be due in part to confusion with the interrogative, Skt. kim:

Hindi. *khul jāegā ki mai rājā hūṃ it will be revealed that (or ‘what?’) I am the king

tum ko avasya hai ki wahāṃ jāo it is necessary that you should go there

Guj. *tyāṃ mē evī vastu joī ke jivī sudhī mane sāmbharē
ta there I have seen such a thing as I shall remember all my life.

In Hīn the varied and (on the Persian model?) often pleonastic use of this particle shows that its function is simply to articulate the sentence:

Hīn. mālūm huā ki cor kaun hai it has been realised that who is the thief

aisī tadbīr kar ki jis se merā peṭh bhare
de devise a plan that by which my belly may be filled.

But inversely it can be said generally:

*baḥub din hue Devanandan ko mai ne nahiṃ dekha*

it is many days [that] I have not seen D.
the girls who waste their time playing with dolls remain without accomplishments.

Sanskrit, which preserved the moods, did not allow indirect speech; a fortiori Neo-indian, which only distinguishes, and that in a somewhat hazy fashion, contingent and factual tenses, isolates quotations by keeping the direct verb and usually their direct form.

Kash. ञh mang mōlis, me gaĉhī āsun raṅnākornā
thou ask thy father: I must have the jewelled bracelet

Beng. eṅ dīn dekhle, chabi lār maneṇ māta hoy nā
one day he noticed the picture was not (is not) to his taste

Romany (Greek); śunenā kelihe kelenā they hear music is being played.

Persian conjunctions are now widely used in such cases, but do not affect the construction:

Sindhi: māṁ khe ṅay āṁmī ṅa paīṁa chaviḥ ṛuṇayā wāljando, sāṁī he tells me that: the amount of 26 rupees I will take from thee, sir.

Hindi: māṅ ne ṛāda kiyā ki caḷaṁ I decided that I will go

gopāl ne jānā ki ṛote mē ab ṁrāṇ naṁḥ ēi
Gopal perceived that now there is no breath in the parrot.

A kind of indirect construction is provided by a change of person, especially to avoid confusion between a narrator and the person whose speech he is reporting:

Hin. kyā tum samajhte ho ki māṁ ṛūrkī hūṁ do you think that I am a fool?

bābā sāheb ne mujhe āpko yē likhne ke liye kahā ṛh ki ṛe āpke
patr kā uttar kuch bilamb se denge
the gentleman told me to write to you that he will reply to your letter shortly.

Beng. se bolite che tāhār bhratār śrāddher janya tāhāke bāṛi jete hoibe
he says: he will have to go to his house for the funeral ceremony of his brother ("that" is not expressed).

Rom. dikela i rakli nanai pāse lesthe
he sees: the girl is no longer with him ("that" not expressed.

Nepali: hāṁihaṛu ko bharbardāṛi topkāṁnāharu kā gāṛi na auna sakun bhāṇi (The Turks) saying that our baggage and artillery waggons could not come... cf. Turner, Ind. Ant. 1922, p. 44 and note p. 48.

The syntax of Neo-indian has thus remained elementary and, so far as clauses are connected in correlative form, stiff and
monotonous. It is through internal elements that sentences acquire complexity: nouns of agency like those of Hindi in -wālā, of Marathi in -nār; attributive participles, Mar. -letā, Hin. -ā huā, cf. p. 279; various infinitives:

Guj. tene hyām rehevā do let him stay here
Hin. usmē Pratāpsīh tak varāṇa milne se, yē niścit rūp se kahā jā sakta hai

from the fact that in this (book) the description goes as far as Pratāpsīh, it may be said with certainty that...

Besides these infinitives are the participles used in a nominal capacity, which have been described p. 265, 278, 282; further, the participles in the oblique cases, v. p. 266, 277; finally and above all the absolutes and the participles functioning as absolutes, numerous examples of which have been cited above. These new absolutes have assumed such importance that they supply to the languages not only subordination of clauses, but compound verbs, adverbs and postpositions (Beng. hoīte, ceye, Hin. liye, etc.).

Let us end with a few examples showing how by these means the literary languages endeavour to make the sentence supple and to enrich it:

Beng. (T. Ganguli) āmrā bibecanā kare sthir karām tomār ār āmāder kāche theke kaśṭa pāwā ucit nay
we have decided on reflection (that) you by staying longer with us it is not right to suffer inconvenience
Hin. (Hari Audh) to kyā Dayāsankar ke yahām byāh karke laṛkī ko janambhar ke liye milī mē milā denā hī āp acchā samajhte hai

but is it that (1) you consider it good (5) to attach to the soil for life (4) (our) daughter (3) by marrying her in to the family of D.? 

Hin. (contemporary): Raghuvardāśī ne Tulsī carīt mē Gosvāmī ji ki jo kalparamparā likhī hai, wō mānne yogya hai one may trust the genealogy of Gosvami written by Ragh. in his life of Tulsī Das

altyant āścaryā kī bāt hai ki Bhāratvarṣ mē sau varṣ se adhik angrezī āśkā hole huc bhī, wō unnali jo Japān ne keval pacās varṣō mē pratye kī kī hai Bhāratvarṣē kīśī bhāg mē dṛśī niḥāṁ ālī

it is a remarkable thing that after more than a century of English education in India the progress which has been realised by Japan in every direction in only 50 years is not to be seen anywhere in India.
One sees how a complex style is being formed under the influence of Europe, in which the elements of traditional syntax remain intact for the time being. Naturally, even this takes place only in the most cultured languages: Marathi, Hindi, Bengali. As regards this last good examples of literary experiments will be found in D. C. Sen, *Bengali prose style 1800-1857*; it will be seen there to what ponderosity the search for a periodic style can lead. Reaction has ensued; Bengali at least is close to being a language as supple as it is rich. But it is exceptional.
The most cultured Indo-aryan languages, by drawing largely upon Sanskrit and, to supplement it, upon Persian, have succeeded in obtaining a rich vocabulary equal to that of the European languages, but they have not been able to rival their wealth of meaning and the closeness of their connection with mental processes. Further, in spite of convergences, which for a long time past have impressed observers, in particular, with the development of the Romance group of languages, culture has not in India been sufficiently varied or wide-spread for the common language to profit by the work of writers, and for the language of the most refined authors to be nourished from popular sources. There has been a divorce between language and culture.

We are often told that there were indigenous primary schools, but no one would dare to claim that in these schools languages were studied with their rich resources and their refinements as in Europe, though, we must confess, in comparatively recent times. The only language which has been studied as such at all times, is Sanskrit: the appanage of a few, it alone served to transmit knowledge and for the exercise of cultured thought. What are, at the outset, the documents of the modern literatures? Apart from some short and rare Marathi inscriptions, half a dozen Rajput letters and in Bengal one or two collections of practical maxims in verse, they consist of bardic poems or verses of religious or popular inspiration. Written for the nobility and the people, these texts often challenge Brahman supremacy. So far as they have a connection with Brahmanic literature, they transform, not replace it. If we go back further, we find literatures resting on Sanskrit, but reserved for a cultured aristocracy: the language of Marathi lyric and the prakrits of the classical drama are quite the opposite of popular language, even after subjection to cultural influence. As for the famous Brhatkathā in Paisācī, the few fragments which we have, do not give the impression of a popular work. Against this, what do the spoken languages offer? The inscriptions of Aśoka, so rigid of syntax, and, to some extent,
the canonical books of the Buddhists and Jainas, both hieratic and popular, are linked with Sanskrit culture, so far as they presume one.

The explanation seems to be that in its passage to the lower layers of vaster populations, Indo-aryan, which in Vedic and Brahmanic form presented a degree of refinement unique at this date in Indo-european, lost this refinement and relapsed, if one may say so, into barbarism. Perhaps we may go deeper and even if we cannot make a full appreciation, we can at least note some details of the characteristics of peoples, who have had to learn Sanskrit or languages very similar and were moreover in constant contact with it.

Let us leave aside the prehistoric Indus civilisation with a language, moreover, still unknown; this border civilisation was no doubt already extinct, when the Aryans entered India, much more so in the North, in the fertile parts of the Panj ab. We do not know, who the peoples were, on whom the Aryans imposed their domination in this area and we hardly any more about the peoples, whom they encountered later.

It is a natural temptation to identify these peoples with the populations which surround the Aryan territory at the present time, whose languages still survive. Of these languages Tibetan only touches India; perhaps Buruśaski, when it is better known, will one day provide a basis for comparison, although this day appears still far off. There remain the Dravidian languages and the Munda group, which are in contact with the current Indo-aryan.

Dravidian occupies the South of the peninsula and an islet in Balochistan; Munda is spoken on the plateaux of Chota Nagpur between the Gangetic plain and the delta of the Mahanadi with isolated western branches in the Mahadeo hills.

Now, it seems to be accepted that the Aryans were preceded in the peninsula by two migrations at least: one, which seems the older and which some consider to have originated also in the West, would be that of the Dravidians, the other that of the Munda group, the languages of which appear to be related to the Indo-chinese Mon-Khmer and, even as some assert, to languages still further off in the same direction. We have no precise or, indeed, any indirect information about these two groups as regards the early period, but the parts played by them in later history are very different: the Dravidians are civilised peoples and already before the Christian era, the Tamils had founded prosperous
The hypothesis has some plausibility. Still, it must not be forgotten that there may have been languages in northern India, which have by now completely disappeared. But to verify this will be extremely difficult; the chronological distance between the factors under comparison is enormous; indeed, the early state of the languages concerned is virtually unknown. In the Dravidian of the interior there are relatively archaic forms preserved by the literatures and others sufficiently divergent to provide the elements of a reconstruction. In Munda the languages, so far as they are known, to our ignorant eyes diverge either too much or too little. We have only modern documents and the nucleus, which has been sought in the Indo-chinese languages is still uncertain.

Let us try however to summarise the present state of the question: Toponymy, which has provided such valuable data on the linguistic prehistory of Europe, has not yet been studied. But S. Levi
has shown that certain names of ancient peoples of northern India form couples in accordance with the system, which it has been agreed to call Austro-asiatic (the types Pulinda-Kulinda, Kosala-Tosala, Kalinga-Trilinga); According to Przyluski we should add to them Udambara in the Panjab and the Sātakarṇi dynasty of the Andhras (a Dravidian people? v. Journ. As. 1926, I, p. 25; JRA S, 1929, p. 273). From this point it could be inferred without difficulty that certain elements in the Sanskrit vocabulary are due to languages of the Munda group: Przyluski suggests among others (v. Pre-aryan and Pre-dravidian in India, trad, P. C. Bagchi) names of plants: betel "tāmbūla-", banana "kadala-", and already in the Rgveda that of the bamboo arrow "bānā-" replacing the Indo-european "iṣu-" and that of the plough "lāṅgala-" ("kṛṣ-" to till, "urvarā" and "śūtā" furrow, are Indo-european; but "kīnāśa-" peasant, has also a foreign appearance).

On the other hand the vocabulary of classical Sanskrit contains elements unknown to Indo-european, but corresponding to expressions in Dravidian; one is even tempted to see loan-words in RV "ulākhala-" mortar, AV "mūsala-" pestle; ŚBr. "sadanīrā" always (full of) water, the name of a river (the Gandak?) in the same way already attests "nīra-" water, which appears later as a separate word.

These comparisons and others more or less probable seem to prove exchanges between Aryan and other languages, but we have neither chronology or etymological criteria permitting us either to be sure that the linguistic groups in question are actually those we know, or to determine the path taken by the words; there are cases in which it is not known to which of two families (limiting them to two) the originals should be attributed or even in which direction borrowing has been made, for Aryan has, of course, encroached greatly upon the indigenous languages.

Two comments may, however, be made:

On the one hand, a superficial examination of the Santali vocabulary discloses an intimate and recent contact with certain forms of Hindi and above all with Bengali and Oriya. Inversely, it is also in Bengali, and in vulgar Bengali, that Messrs Chatterji and Bagchi look for new affinities between Munda and Aryan. It would seem then— provisionally—that the Aryan borrowings from Munda would have ceased during the intermediate period and were resumed in modern times in consequence of religious, administrative and economic contacts.

So far as concerns Dravidian, its most ancient form known, old Tamil literature, contains a good number of borrowings from
Sanskrit and middle Indian; in modern times the words taken by Aryan from Dravidian appear to belong rather to the western half (ex. BSOS, V, p. 742); on the other hand, certain words which made their entry into Sanskrit have not been carried on into the modern languages. This gives the impression that the contacts might have taken place in the West, say in the Malva country, rather than with the Andhras; was the glorious Ujjaini the centre of the region in which these intellectual exchanges occurred?

However this may be, exchanges of vocabulary, even when certain, have no other bearing on the problem before us than to indicate possibilities. Let us utilise these possibilities and agree that Munda and Dravidian may have been, at least in part, the languages of populations, which found themselves bound to adopt Aryan; it now remains to assess the effect upon Aryan itself.

It is in the alterations of phonemes that we first expect to discover the workings of populations which were to change their language. And, in fact, there was one which has been of very great importance, to such an extent as to transform the consonant system. Indo-iranian has a series of dentals, understanding by this the consonants articulated with the anterior part of the tongue; the earliest Sanskrit has two of these, the dentals proper and the cerebrals. This distinction is found again in Dravidian and in Munda (except Sora). If we had to seek a choice between these two sources, one would be tempted to make much of the presence of l developed secondarily in Vedic from intervocalic -d- and in an important group of modern languages from intervocalic -l-. Now, Dravidian has l, which is wanting in Munda. On the other hand, the geographic distribution itself of l appears significant: besides the western languages (except Sindhi, which has in this instance r, also a cerebral) Oriya, an eastern dialect contiguous to the Dravidian zone, has it. This lessens the value of the fundamental hypothesis that Munda withdrawing to the East, might have lost, like Indo-aryan, a phoneme, which it anciently possessed.

As to the distinction between dentals and cerebrals we have seen that it depends on the adaptation and crystallization of a series of alterations due at first to the action of the prehistoric Aryan sh sounds (chuintantes).

A characteristic of Indo-aryan phonology is the presence of
aspirated consonants. Now Munda or, at least, the Kherwari group of Munda (Sora does not have them) has aspirates; Dravidian has none. In order to combine this with the preceding observation, we might turn to account the fact that Vedic -l- has been replaced in classical Sanskrit by -d-, and see in this a Munda influence succeeding a Dravidian: this latter influence would not have been sufficient to ruin the old system of aspirates before the Munda populations saved it; nothing, moreover, hinders us from acknowledging that Dravidian itself might have lost the aspirates, while extending over new territory in the Deccan, where the influence of indigenous peoples cannot be verified and in Baluchistan (where the only eastern dialect has recent aspirates).

Above all we should remember that the position of aspirated consonants was not the same as that of dentals; the former are simply preserved, while the latter were in the beginning exposed to decay and so much the more prone to deviation. Substrata produce effects only in favourable circumstances and this is why there is nothing in Aryan to suggest either the characteristic implosives of Munda (checked consonants) or the series of palatal consonants of Dravidian. The other influences, which it has been possible to detect are modern and all local: so are perhaps the diphthongization of the initials (y)e, (w)o in Marathi and in Telugu (as also in Nepali and Dardic), or the dentalisation of palatals before, a, o, u at once in Marathi, an Aryan language, in Telugu, and Kui, Dravidian languages, and in Kurku, an isolated Munda dialect; we should perhaps also compare the “vowel harmony” of Telugu and the “resultant sounds” of Santali and Bengali.

Besides these influences one instance of parallelism deserves to be mentioned, although its significance is not too clear.

Difficulty in pronouncing consonant-groups, characteristic of modern Indian, is found also in Dravidian. The new name for “horse” appears in Sanskrit in the Śrautasūtra of Apastamba: ḡholā-, which definitely replaces āśva-. This borrowing (from what language?) presupposes a type *ghutur-, which is still recognisable in the forms of two small Munda languages: Sora kurtā, Gadaba krutā, presumably borrowed from Dravidian, to judge from the initial surd; even in Dravidian there is on the one hand Tamil kudirei, Kannaḍa kudure, and on the other Telugu gurramu; thus there is, as in Aryan, vowel insertion or group assimilation. Similarly opposed to the closely related name for “ass”, RV. gardabhā- we have on the one hand Ta. kaludei, Tel.
OTHER PARALLELISMS

gāḍiḍe but Kan. kāṭle, kāṭle; cf. also Ta. kurud- blind; Tel. gudd-, Kan. kudd-; Tam. kajalei goitre, Tel. gadha- bulb, goitre, Kan. gadde lump, pimple (it may be remarked incidentally that the irregular opposition of surds and sonants suggests the existence of aspirated consonants in prehistoric Dravidian).

This convergence can hardly be due entirely to chance. But if there is parallelism, is there also synchronism?

Whatever be its date, the tendency seems to have become established in recent times, in Dravidian as well as in Aryan. One is tempted to find early evidence for it in the history of the proper name Dravida-, known to Epic and to Manu, which of course can only be a loan-word; now Peutinger’s Tables (III cent.) gives Dymirice, the Pali Mahāvaṃsa (V cent.) Damila- and the oldest Tamil grammar Tamil. But who can be certain that there is no intermediate middle Indian form?

Tamil voices and on occasion makes fricative of intervocalic occlusives, but no connexion with middle Indian can be proved; Kumārila in the VIIth century still cites words with surds and moreover the change does not seem to be pan-Dravidian.

We have seen that Sanskrit admitted only long e and o, but that these vowels gradually acquired the short value also. Now, Dravidian and Munda have both short and long e and o. But this occurrence is too general and predictable to justify us drawing any conclusions, except that there was no local obstacle to prevent the normal shortening of old e and o in long words.

Of all these facts only those which concern cerebrals are indisputable. This is enough to warrant a search for other traces of substrata and in particular of a Dravidian substratum. For it is with Dravidian that Aryan has the most characteristics in common and these correspondences are all the more significant for being mainly secondary.

These are: in the word, the consistent use of suffixes and the absence (loss, in the case of Aryan) of prefixes and infixes, which are current in Munda; in the phrase, the absence (loss) of prepositions and of preverbs as such. In inflection, the absence (loss) of the dual number, current in Munda. In nouns there is the double stem, the oblique stem admitting of the force of a genitive and of being followed by words more or less emptied of their proper sense; and personal pronouns with two stems: that of the nominative and that of the direct and indirect object (a single stem in Munda).

In the verb are third persons in the form of nouns and varying in gender and absolutive (which is wanting in Munda),
playing an important part in the linking of sentences and in the
creation of compound locutions for stylistic or grammatical
purposes: Singh. kiya, Apa. bhanivi, Mar. mhanān, Nep. bhani,
Beng. boliyā agree with Ta. egru, Tel. ani, Kan. endu having said,
in signifying an explanation; this agreement is true only the
for southern Dravidian languages, Kurukh and Gond like Munda
remaining outside (here again Sora stands separate from the
Munda group, v. R. V. Rāmamurti, § 179). A subject for
speculation indeed, but also a justification of other comparisons
in which the southern languages alone are concerned.

There are also negative facts: the absence of the passive, of the
article, of the degrees of comparison. But while the previously
cited facts do prove something, these prove nothing; the more so
because we must take into account the preservation in Aryan of
categories unknown to Dravidian and to Munda: on the one hand
the relative and the relative sentence and on the other the adjective
or noun in agreement with another noun; we may, however,
wonder incidentally whether the presence of indeclinable stems
in the indigenous languages functioning as adjectives has not had
some effect on the future of compounds in the literary languages
of Aryan. In any case there have been local developments:
Marathi, Oriya and Singhalese have in different ways adapted
the Dravidian relative participle to their syntax, an invariable
adjective admitting a subject in the nominative in any construction.

As for other comparable expressions, for example doubled
words and echo-words (p. 162) long lists could easily be made of
these in all the families of Dravidian languages.

Remarkable and, in certain cases conclusive as these
concordances may be, the evolution of Indo-aryan has not resulted
in denaturalisation. We have only to note the convergences of
Aryan with Iranian, in which the local differences which we have
recognised are of a particular type; the loss of gender presupposes
a substratum quite different from the Indian substratum.

The most salient of the differences between the two fields are,
as we have seen, of a phonetic order. If the morphology of
Iranian be considered, the fact that the noun has become invariable
(this happens in certain languages of India) does not lend itself
to comparison; but the category of adjective subsists; in pronouns,
the generalisation of the oblique stem has its counterpart in
India. The greatest difference in the system is that which is
based on the absence of the old relative utilised as a suffixed
adjective (the izāfat which has entered India through Urdu).
In the verb the opposition of the old present and the past participle dominates the conjugation, as in India; the annexation of pronominal forms and the part played by auxiliaries have also their counterparts in India.

On the other hand isoglossal lines reaching from one area to another show that their original connexion has not been essentially disturbed. To recall the most evident: the limits of the treatment of \( r \) are not exactly those of the two groups: Afghani (partly) and Balochi make a short vowel of it, while the North-west group of the Asokan inscriptions bears witness to Indian dialects in which the treatment was "vowel+\( r \).

Cerebrals are met with in Afghani and Waki. The case of Afghani and Balochi could be considered as special; indeed, we know that these dialects were imported and that Indian civilisation penetrated their territories. Accordingly, the Balochi absolutive in \(-\text{lo}\), cf. Skt. \(-\text{lo}^{-}\), and the causative in \(-\text{av}-\) of Afghani, Waki and Yidga are Indian borrowings. It may then be considered that an Indian substratum has been in operation in eastern Iranian; the Romany gipsies perhaps come from these regions and this would at the same time explain certain of their phonetic characteristics and similarities of vocabulary (e.g. Afghani and Romany \( \text{la}^{-}\), Hin. \( \text{lāthi}^{-}\), Skt. \( \text{ya}^{\text{ṣṭi}}^{-}\)). To the same reasons may be ascribed the absence of the subjunctive and of the comparative in Afghani.

The distinction between \( s \) and \( \dot{s} \) invades Indian territory; like the languages of north-western Asokan and the Dutr. de Rhins Ms in early times, Dardic and European Romany (Asiatic Romany goes with the rest of India) have kept the old \( sh \) sounds (chuintantes); and in Kashmiri the sibilant dominates the following occlusive (p. 82, cf. p. 88) according to a formula which has analogies in Iranian; in Kashmiri and Sindhi \( \dot{s} \) becomes \( h \), \( \dot{\text{sy}} \) becomes \( s \) and \( \text{sp} \) becomes \( \dot{s} \) as in Iranian. Afghan \( \text{al}s \) eight, presumes an aspirated consonant like the Indian; but it should be noted that \( sl \) survives.

Kafiri is fond of dentalising palatals: a characteristic of Iranian from ancient times.

The inscriptions of the Kuchan epoch in Kharoṣṭhī script seem to bear witness to the existence of Indian fricatives at an early date, v. p. 63; Dardic provides them to-day. On the other hand the de-aspiration of voiced aspirated consonants which is sporadic in the rest of India, is normal in Dardic and in Panjabi as in Iran (aspiration leaving a trace in the vowel-tone of Panjabi). Incidentally we may recall that eastern Balochi has aspirated consonants of recent origin.
Certain treatments are found on both sides of the frontier without becoming generalised in either of the two areas; so that of sv which gives s in Persian and in the Prakritic dialects of India independently, but sp in the remainder of Iran and in the old western dialects of India (Asokan spasu- (svasar-), Dutr. de Rhins višpa- (viśva-), inscr. Vespasiri, Pispasiri).

In modern times initial v-, which became b- in Persian, survives in the rest of Iran; it has also survived in western India, while it became b- more to the East. In the intermediate period the treatment -l- from intervocalic -d- is common in parts of North-east Iranian and of North-west Indian, to which Romany is added here.

In the morphology it may be remarked that the relative ya-, which was preserved and which assumed great importance in India, is wanting in the North-west and in Romany, as in Iran. The use of pronominal suffixes in the verb is localised in India in the direction of the Iranian border; on the other hand the Iranian languages on the Indian border have no longer a subjunctive. Afghani, Balochi and the central dialects have a noun system with two stems; Persian and Kurdish have one form only. This difference depending, as it may, upon the relative rapidity of their evolution is naturally less significant than those previously mentioned.

It is consequently right to attribute some signification to details of vocabulary. The equivalent of Skt. strī, still current in Dardic, has a corresponding word śōja in Afghani and to mukha- correspond the Afghan. max, Parači mux (v. Morgenstiere, Elym. voc. of Pašto, p. 48). Tedesco has rediscovered the equivalent of Sind. rījh- to have pleasure, in Sogdian and has noticed the semantic agreement between Sind. vijh- to throw (Skt. vyadh- to pierce) kuh- to kill (Skt. kuś- to tear, gnaw) and old Iranian (BSL, XXIII, p. 114); similarly Turner has pointed out that Sind. van- like Afghan wana means “tree”, a meaning lost by Skt. vana- after the Vedas. The oldest grammarians were already noticing the presence of śav- to go, in Kamboja, cf. old Pers. šiyav-, Avest. šyav-, Sogd. šav- (in Sanskrit the same root has the form cyav- and another meaning). There are certainly other similar parallels and no doubt they partly explain the renewal of the Sanskrit vocabulary at the moment of its extension to the East and South. But the difficulty is to distinguish them from the borrowings which certainly took place during every period. Already Vedic duār-, where one would expect an initial aspirated consonant, is perhaps, as Hertel has suggested, an Iranian word. History
has indeed helped to maintain a permanent contact between the two civilisations; the borrowings to which allusion has just been made have been facilitated by the fact that the words remained phonologically quite close to one another in the two areas. And surely some of our etymologies, which do not take into account, the easiness of transpositions though correct, are historically false.

Therefore, profound as the local influences may have been, they have not driven the Aryan of India actually to separate itself from the Aryan of Iran or to become greatly differentiated from other Indo-European languages; the inner strength of Indo-Iranian, the prestige of Sanskrit, the historic ties with the West and the influence of Persian have all operated in the same direction. No doubt the influence of English, not only on the vocabulary, but on the syntax, will on the whole contribute to bind still closer the links between the cultivated languages of India and the Indo-European group.
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