5 The Iranian Languages

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At the present day, IE languages of the Iranian group are spoken over a wide area including virtually the whole of Iran, Afghanistan and Tajikistan, together with the neighbouring parts of Turkey, Syria, Iraq, Pakistan and Uzbekistan and larger or smaller enclaves in Oman, Armenia, Georgia, Azerbaijan, Turkmenistan and western China (see the map at the end of Schmitt (ed.) 1989). In medieval times Iranian languages such as Sogdian and Khotanese were well established even further east, in the area which later became Chinese Turkestan (Xinjiang); at a still earlier period, the original homeland of the Iranian-speaking peoples seems to have lain to the north-east of the present state of Iran.

Iranian and Indian

This chapter concentrates on the earliest attested Iranian languages, Avestan and Old Persian, which are naturally the most important for IE studies. These two Old Iranian languages are described to a large extent in terms of their similarities to and differences from the closely related Old Indian, a procedure justified in the first place by pragmatic considerations. Old Indian (Vedic and Sanskrit) is attested by a huge and varied corpus of literature, written in a clear, almost phonemic script which allows the phonological and morphological structure of the language to be clearly perceived. On the other hand, each of the attested Old Iranian languages is known from a limited corpus – in the case of Old Persian, a tiny corpus – of rather repetitive and monotonous texts, one written in an ambiguous cuneiform writing system, the other by means of an over-elaborate, almost phonetic alphabet, whose intricacies obscure rather than illuminate its grammatical structure. Although some of these deficiencies are made good by the more abundant Middle and Modern Iranian material, it cannot be denied that Iranian evidence is usually more difficult than Indian for a student of Indo-European to evaluate.

From a theoretical point of view, too, it is proper to treat the Iranian languages in constant comparison with Indian, since the two groups are not
merely closely related but jointly constitute a single Indo-Iranian branch of the IE family, as is indicated by the innumerable phonological, morphological and lexical isoglosses which they share to the exclusion of all other branches of Indo-European. One such isogloss is the use of OInd. ārya-, Avest. a'riia-, OPers. ariya- (from which the name of the country ‘Iran’ derives) as a self-designation for the speakers of Indo-Iranian, whence the alternative term ‘Aryan’. The closeness of the relationship between Indian and Iranian is most clearly demonstrated by the fact that it is possible to find not just words but whole sentences in Vedic or Avestan which may be transposed from the one language into the other merely by observing the appropriate phonological rules; for example, Avest. təm amauaŋtanəm yazatəm sūrəm dāmōhəx sxauixəm miθrəm yazāī ‘this powerful, strong (being) worthy of worship, Mithra, the strongest amongst creatures, I shall worship’ (Yasht 10.6) = Ved. *təm ámavaŋtanəm yazatəm sūra dhāmasu šávishtaṁ mîtrāṁ yajai (cf. Jackson 1892: xxxi–xxxii; also Chapter 4, pp. 98f.).

Despite the overwhelming similarity of Indian and Iranian, each is distinguished from the other by a number of characteristic innovations. Phonological innovations on the Indian side include the loss of the Indo-Iranian (II) diphthongs *aj, *aw (> e, o) and voiced sibilants (*z, *ž, etc.) and the development of a series of retroflex consonants (t, n, s, etc.), whilst Iranian languages typically show the loss of the voiced aspirates *bh, *dh, *gh, etc. (> b, d, g), the development of the voiceless fricatives f, θ, x (from II *p, *t, *k before consonants, and from *pʰ, *tʰ, *kʰ), the depalatalization of II *c, *j(h) (> *ts, *dz; OPers. θ, d, Avest. s, z), and the change of *s (in most positions) to h. Some apparent exceptions to these isoglosses may be due to the reversal of a sound change: for instance, Avestan pt (as in hapta ‘seven’) may derive from the expected *ft (as attested, directly or indirectly, in all other Iranian languages, e.g. Pers. haft) rather than preserving II *pt (cf. OInd. saptá). In other cases, however, it is clear that a development characteristic of Iranian cannot in fact have been fully carried through at the Common Iranian stage: cf. for instance, p. 136 on evidence for the survival of the palatal *c in certain clusters. Similarly, the development of *s to h, though common to Avestan, Old Persian and all later Iranian languages, is demonstrably later than the earliest attestations of Iranian in Ancient Near Eastern sources (cf. p. 127 below on the divine name Assara mazaš). Thus, at least in phonology, the innovations attributable to Common Iranian are comparatively few in number (though significant in kind).

It is in part as a result of the fact that Common Iranian cannot have differed greatly from Common Indo-Iranian (or ‘Aryan’) that it is difficult to determine the precise status of the so-called ‘Nuristani’ languages (formerly known as ‘Kafīri’). This group of languages, recorded in modern times in the north-east of Afghanistan and neighbouring parts of Pakistan, undoubtedly belongs to the Indo-Iranian family, but it is not yet clear whether it is to be
regarded as a third, independent subgroup beside Indian and Iranian (Morgenstierne 1973a: 327–43) or as an archaic form of Iranian, much influenced by several millennia of proximity to languages of the Indian group (cf. Mayrhofer 1983).

Origins
The original homeland of the Aryans, the speakers of Common Indo-Iranian, cannot be precisely identified, but is thought to have been in western Central Asia, to the east and north-east of the Caspian Sea. At a time when ‘proto-Indian’ and ‘proto-Iranian’ (i.e. the ancestral dialects from which the Indian and Iranian languages respectively derive) had already become differentiated to some extent, perhaps about the beginning of the second millennium BC, two groups of ‘proto-Indian’ or ‘Indo-Aryan’ speakers began to migrate from this homeland, one towards the west (cf. Chapter 4, p. 98, on traces of the Indo-Aryans in the Hurrian empire of Mitanni in northern Mesopotamia) and the other towards India. At a later date, Iranian tribes too began to migrate westwards, reaching central and western Iran by the middle of the ninth century BC, at which period they are referred to for the first time in Assyrian sources; whether they had come from the north-east by the most direct route, to the south of the Caspian, or more circuitously through the Caucasus is still a matter of debate. (For a more detailed summary and references to the literature on the prehistory of the Aryans see Schmitt 1987.) From the ninth century BC onwards, a scattering of Iranian linguistic material is to be found in Mesopotamian sources, beginning with the names of the Medes (Matai) and Persians (Parsuaś) and most notably including the name of the principal deity of the Iranians in the form Assara mazas (= Common Iranian *Asura-mazdās, later *Ahura-mazdāh, cf. OPers. Auramazdā, Avest. Ahurō Mazdā).

The Iranian Languages
Only two Old Iranian languages are attested by texts, namely Avestan and Old Persian. Others, such as Median and Scythian, are only known to us through occasional words and names transmitted in texts in other languages.

Avestan is the language of the Zoroastrian scriptures, the Avesta, the earliest parts of which are the Gāthās (‘Songs’) of Zoroaster or Zarathushtra – whom tradition places in the sixth century BC, though many scholars argue, partly on linguistic grounds, for a date five centuries or more earlier – and the Yasna Haptahāṭi ‘Service consisting of seven chapters’. These texts, together with a few short prayers, are preserved in ‘Gathic’ or Old Avestan, a highly archaic dialect comparable to Vedic in its stage of development. Later Avestan, also known as Younger Avestan, is attested by a much larger corpus of texts, including the Yashts (hymns in honour of individual divinities) and the Videvdād (‘Law against the demons’). The manuscript tradition of the Avesta derives from an archetype created at some time during the Sasanian
Map 5.1 The Iranian world (c. 500 BC)
period (224–651 AD), when these orally transmitted texts were written down, probably for the first time, in a specially invented and extremely elaborate alphabetic script (see Hoffmann and Narten 1989).

The Avestan orthography was designed to preserve the traditional pronunciation with great accuracy and contains much phonetic detail which is irrelevant for the comparativist. For example, the word for ‘land’ appears in such different forms as \textit{da'fhu-} and \textit{daxiu-}, both representing what is etymologically and probably phonemically \textit{*dahyu-}. A particularly confusing feature of the Avestan writing system is the frequent notation of anaptyctic and epenthetic vowels. In this chapter such unetymological vowels will be written superscript, as in \textit{daöä'ti} ‘he gives’ (= OInd. \textit{dädäti}) – as opposed to the diphthong \textit{āi} in \textit{āidi} ‘come!’ – or OAvest. \textit{d"ittia-} ‘second’ (= OInd. \textit{dvittya-}). Note too that the semi-vowels \textit{j} and \textit{w} are regularly represented by \textit{ii} and \textit{uu} (which can equally represent the sequences \textit{iy} and \textit{uw}) and that \textit{i}, \textit{ā} are not consistently distinguished from \textit{i}, \textit{u}.

Old Persian, which is known from inscriptions of the Achaemenian period (sixth to fourth centuries BC), represents a later stage of linguistic development as well as a different dialect from the language of the Avesta. Like Avestan, it is written in a specially invented script, in this case a form of the cuneiform writing commonly used in the ancient Near East. The Old Persian script combines syllabic and alphabetic principles. For example, there are two \textit{t}-signs, of which \textit{tu} is syllabic (representing \textit{[tu:]}, since \textit{i} and \textit{ā} are not distinguished from \textit{i} and \textit{u}) whilst \textit{t} can represent either a syllable \textit{[ta, ta]} or the simple consonant \textit{[t]}. Since there is no sign for \textit{*t}' (though comparable signs such as \textit{d}') do exist), \textit{[ti]} or \textit{[ti:]} has to be written by means of two signs (\textit{t-i}), a combination which can also denote \textit{[tai]}. The fact that a sign such as \textit{t} has both syllabic and consonantal values is the source of much ambiguity, as is the fact that in most cases a nasal is not written before another consonant. As a result of these two deficiencies, for instance, the third-person singular present indicative active and middle (-\textit{ti} and -\textit{tai}) and the equivalent plural endings (-\textit{nti} and -\textit{ntai}) are all indistinguishable in writing. In this chapter, for the sake of clarity, Old Persian forms will generally be cited in phonemic transcription rather than in transliteration. (On the Old Persian writing system see further Hoffmann 1976: 620–45.)

Only a brief survey can be given here of the great variety of languages attested at the Middle Iranian stage. Western Middle Iranian is represented by Middle Persian, which is essentially, though not in every detail, a later form of the same dialect as Old Persian, and by Parthian. The Eastern Middle Iranian languages include Khotanese and the closely related Tumshuquese, which are the most conservative of the Middle Iranian languages in their morphology, Sogdian, Bactrian and Choresmian. Amongst the even more numerous Modern Iranian languages we shall occasionally have reason to refer to Persian (or New Persian), Pashto, Ossetic and the Shughni group. Further information on these and other Iranian languages may be found in
the relevant chapters of the *Compendium Linguarum Iranicarum* (Schmitt 1989).

**Phonology**

The vocalic system of Common Iranian is almost identical to that of Old Indian. The main difference is the lack of ī and ō, the diphthongs from which Old Indian e and o derive being preserved in Old Iranian as ai (Avest. āē or ōī) and au (Avest. āo or āu). Compare OPers. daiva-, Avest. daēuua- ‘(evil) god, devil’ = OInd. devā- ‘god’; OPers. rautah- ‘river’ = OInd. srōtas- ‘stream’. The comparatively rare long diphthongs āi and āu, which are shortened in Indian, also survive in Old Iranian, compare Avest. instr. pl. yasnāīš ‘by sacrifices’ = OInd. yajñāīs; Avest. nom. sg. gāuš ‘ox, cow’ = OInd. gāuṣ.

The etymological origins of the Iranian vowels a, i, u, ū (=[ə]) , ā, ī, ū are in general the same as those of the equivalent Old Indian vowels. In particular, as in Indian, IE *a, e, o, ṣ, m* fall together as a and the corresponding long vowels (including those which ultimately derive from short vowel + laryngeal) as ā. Brugmann’s Law, according to which IE *o* gives ā in open syllables, seems to apply in the same circumstances in both branches of Indo-Iranian, for example, Avest. nom./acc. sg. dāru, OInd. dāru ‘wood’ = Gk δόρυ. However, the contexts in which the IE laryngeals are vocalized (to Iran. i, OInd. ī, e.g. OPers./Avest. pītār-, OInd. pītār- ‘father’ < IE *ph₂ter- ) are more restricted in Iranian, resulting in many cases of the correspondence Iranian 0 : OInd. i, e.g. OAvest. dūg²dār-, Later Avest. dūydar- = OInd. duhtdār- ‘daughter’ < IE *d₂ugh₂tēr-; OAvest. vər²nte = OInd. vrntē ‘chooses’ < *wl-nH-toi. Where Old Indian has īr, ur (before vowels) or īr, ūr (before consonants) from IE *rH or *lrH, Iranian has uniformly ar.

Avest. sarah- = OInd. širas- ‘head’ < *krh₂-os-
OPers. paru- = OInd. puru- ‘much’ < *ph₁-u-
OPers. darga-, Avest. dar²ga- = OInd. dīrgā- ‘long’ < *dlh₁gʰo-
Avest. var²nā- = OInd. úrnā- ‘wool’ < *h₂wl₁leh₂-

Since short a and long ā probably differed markedly in quality as well as in quantity (as they do both in Sanskrit and in many modern Iranian languages), the system of simple vowels in Common Iranian may be represented diagrammatically in Figure 5.1.

This simple system seems to survive almost unchanged in Old Persian (in so far as the inadequate cuneiform orthography allows one to tell), though the unitary sound ṭ had probably developed to a sequence of vowel + consonant, most likely [ar] (written a-r- in initial position, but distinct from the sequence [ar], as is proved by its different fate in Middle and New Persian). A similar development is found in Avestan, where ṭ usually gives ārə (i.e. əṛ) as in
Figure 5.1 Simple vowels

kor9naolti ‘makes’ = OInd. kr9n9ti. But many other outcomes of r are found in Avestan, e.g. ar before s (ar9sti- ‘spear’ = OPers. a-r-s-t-i- [arst-], OInd. r9st-), ehr before k, p (v9hrka- ‘wolf’ = Pers. gurg < OPers. *w9rk9-., OInd. v9k9-., see p. 138), ir before y (pres. stem kiriia- ‘to be done’ = OPers. k9riya-< *kry9-, OInd. kryj9-), r after t (pres. stem trojiia- ‘to steal’ = Sogd. c9f-< *n9f9ya-, cf. OInd. *t9f9- ‘stealing’).

The example of r may serve to illustrate the complexity of Avestan vocalism. It is not possible here to detail the development of all the vowels, but the most important contextual changes must be noted. These include the (re)appearance of mid-high vowels i and u. In final position *-ai and *-au give -i and -o (or -uu) respectively (e.g. 3 sg. pres. mid. ending -i9 = OPers. -tai, OInd. -te < *-taj, IE *-toj) while *-y9 gives Later Avest. -e (e.g. a-stem for. ending Later Avest. -ahe = OAVest. -ahi9a, OPers. -ahy9a, OInd. -asya, IE *-osja). Internally, a often becomes e between two palatal sounds, as in OAVest. yehj9a, Later Avest. yeji9e ‘of whom’ ( = OInd. ydsya), and o between p/g/m/v and u, as in po9ru- ‘much’ ( = OPers. paru-., see p. 130). Final -o (OAVest. -o or -e) and -a most often derive, via *-ah and *-ah, from *-as (IE *-os, *-es) and *-as respectively, e.g. yo (OAVest. y9) ‘who’ (nom. sg. m.), y99 ‘who’ (nom. pl. f.). Before nasals, especially in final syllables, a and ā normally develop into e and a (= [a9]) respectively, so that -en and -am are the regular accusative singular endings of a-stems and ā-stems. The ā which arises thus is subject to further changes, for instance, to i after a palatal, as in ‘cinah- ‘desire’ < *c9nah- (beside OPers./Avest. ‘canah-, OInd. cánas-). The sequences *(i)yo, *(u)wo frequently contract to i, u (or i, u, since the length of these vowels is not consistently noted in Avestan), *ay9, *aw9 to a9, ao. Compare in ‘this’ ( = OPers. iyam, OInd. iy9m, nom. sg. f.); Later Avest. tium ‘thou’ ( = OAVest. tu9m, OPers. tuvam, OInd. tuv9m, nom.); a9m ‘this’ (beside OAVest. ai9m, OInd. ay9m, nom. sg. m.); ba9n ‘they became’ ( = OInd. (ā)bhavan).

The consonantism of the Iranian languages diverges much more fundamentally from that of Old Indian. Two major innovations in Iranian are the
loss of all aspirates and the appearance of a series of fricatives \((f, \theta, x)\) unknown to Old Indian. In most cases these fricatives derive from \(p, t, k\) in pre-consonantal position, but they also correspond to the Old Indian voiceless aspirates \(ph, th, kh\) (in all positions). The voiced aspirates (IE \(*bʰ, *dʰ, *gʰ/gʷʰ\); OInd. \(bh, dh, gh\)) merely lose their aspiration, thus merging with the original non-aspirate series:

Iran. \(p\) = OInd. \(p\): OPers./Avest. \(pitar\), OInd. \(pitā\)- ‘father’

Iran. \(f\) = OInd. \(p\): Avest. \(friia-\), OInd. \(priyā\)- ‘dear’

Iran. \(t\) = OInd. \(t\): OPers. \(tuvam\), OAvest. \(tuśm\), Later Avest. \(tūm\) (see p. 131), OInd. \(tuvām\) (nom.) ‘thou’

Iran. \(θ\) = OInd. \(θ\): Avest. \(θβam\), OInd. \(tvām\) (acc.) ‘thee’

Iran. \(k\) = OInd. \(k\): Avest. \(kaθra\), OInd. \(kūtra\) ‘whither?’

Iran. \(x\) = OInd. \(k\): OPers/Avest. \(xšap-\), OInd. \(kšap-\) ‘night’

Iran. \(t\) = OInd. \(k\): Avest. \(xā-\), OInd. \(khā-\) ‘spring, well’

Iran. \(b\) = OInd. \(b\): Oss. \(bal\) ‘group’, OInd. \(bdla-\) ‘power’ (?)

Iran. \(d\) = OInd. \(d\): Avest. \(danθan-\), OInd. \(dant-\) ‘tooth’

Iran. \(g\) = OInd. \(g\): Avest. \(gαri-\), OInd. \(girī-\) ‘mountain’

Despite their loss of aspiration in Iranian, the IE voiced aspirates are still occasionally distinguishable from the equivalent non-aspirates by the effects of Bartholomae’s Law, according to which a combination such as \(*gʰ+t\) was assimilated to \(*gdh\) in Indo-Iranian (and perhaps already in Indo-European, cf. Chapter 2, p. 39), whereas \(*g+t\) gave \(*kt\). By this rule, which applied to all combinations of voiced aspirate + voiceless stop or sibilant, one may deduce from a form such as OAvest. \(aog³dā\) ‘he said’ (= \(aog\) + morpheme -\(tā\)) that the root \(aog\) originally ended in an aspirate \(*gʰ\) or \(*gʷʰ\); in this case \(*gʰ\) is confirmed by Gk \(eβεχο\) and so on. Unfortunately the contrary deduction cannot usually be made from the presence of a voiceless cluster, since the effects of Bartholomae’s Law tended to be cancelled out by the restoration of the normal form of the morpheme, as in Later Avest. \(aoxta\) for OAvest. \(aog³dā\), OPers./Later Avest. \(basta-\) ‘bound’ for expected \(*bazda-\) (= OInd. \(buddhā-\)).

Common Iranian was rich in both sibilants \((s, z, š, ʒ)\) and affricates \((č, ǰ, i.e. \(tš, dž\) – differing from the Indian \(c, j\), which, at least in the earliest period, were palatal stops – and possibly \(c, j\), i.e. \(ts, dz\)). These stem in part from IE \(*s\) and in part from the ‘two series of palatals’, that is (a) IE \(*k, *g, *gʰ\) (\(OInd. š, j, h\)); and (b) IE \(*k/kʷ, *g/gʷ, *gʰ/gʷʰ\) when secondarily palatalized before IE \(*e, *i, *j, and so on (\(OInd. c, j, h\)). The history of these sounds
is rather complicated, but is worth examining in some detail in view of the fact that Iranian here retains evidence of distinctions which are lost in Old Indian.

For Indo-European only one sibilant is to be assumed, namely *s (with the allophone *z in clusters such as *zd). In addition to its role as an independent phoneme, IE *s has a secondary origin as an automatic feature of the juncture of two dental stops (see Chapter 2, p. 40): *t+t/*d+t = *tst, *dʰ+t = *dzdʰ, e.g. IE *sed+to- = *setsto- ‘seated’ > OInd. sattá-, Middle Pers. [ni]štast (< OPers. *[ni]štasta-), Lat. sessus, cf. also OIr. sess ‘seat’, etc.; *wṛdzʰ+to- = *wṛdzḍo- ‘increased’ > OInd. vṛddhá-, Avest. vōrdzda- (the development of a voiced group in the latter case being a further instance of Bartholomae’s Law, on which see above). As these examples indicate, the resulting clusters were simplified in different ways in Indian, where the sibilant disappeared, and in Iranian, where the first of the two dental stops was lost, giving the regular correspondences Indian tt : Iranian st and Indian ddh : Iranian zd.

In Indo-Iranian, much as in Slavic (see Chapter 14, pp. 423ff.), IE *s and *z underwent a split, becoming Ind. s, *z, Iran. š, ž, after the sounds collectively known as RUKI (i.e. r, r; ū, āu; k and other velars and palatals; ĕ, āi) but remaining, at least in the first instance, unchanged in other contexts. For example: loc. pl. ending Avest. -šu (OInd. -su) after stems in u (etc.) but -su after stems in ant; Avest. mīzdā- ‘reward’, OInd. mūhdā- < *mīzdā-, IE *mīz-dʰ(h)₁-o- (Gk μῷθος) but OPers./Avest. Mazdā- (divine name), OInd. medhā- ‘wisdom’ < *mazdhā-, IE *mỳz-dʰh₁₁₁₁. (Note that the Iranian forms with z and ž here clarify their Indian counterparts, which have become opaque as a result of the loss of voiced sibilants in Old Indian.) This change does not affect Iran. st, zd < *tst, *dzdʰ, showing that the sibilant was still protected by the preceding stop when the RUKI rule operated: Avest. vīstā- ‘known’ < *wīststo- = *wīd+to- (Gk ὑπός, OIr. fess). In Iranian (but not Indian) the change to š, ž also takes place after a labial: Avest. dižza-, OInd. dipsa- < *di(d)bžₐ₁₁₁₁, desiderative of Avest. dabh, OInd. dabh ‘to injure, deceive’.

Finally, those instances of IE *s which had so far survived unchanged in Iranian underwent a further split, s remaining in groups such as sn, sp, st, *ts (> s) but becoming h in all other contexts, e.g. OPers. a(h)mi, Avest. ahmi, Khot. īmā ‘I am’, OPers. hanti, Avest. hantì, Khot. īndā ‘they are’ (= OInd. āsmi, sānti < IE *h₁esmi, *h₁senti), but OPers. asti, Avest. asti, Khot. āstā ‘he is’ (= OInd. āsti < IE *h₁esti); ā-STEM loc. pl. Avest. -ā-hu (= OInd. -ā-su). Although this development is found in all Iranian languages it must be comparatively late, since proto-Iranian forms with s (for later h) are preserved in ancient Near Eastern sources (see p. 127).

An important implication of this fact is that the development of the IE ‘first palatal series’ (*k, *g, *gʰ) to sibilants (s, z), which occurs in Avestan and all branches of Iranian other than Old Persian (and later dialects of south-west Iran), must also be later than the Common Iranian period, since the s arising from IE *k does not participate in the change of IE *s to h. As a plausible
intermediate stage between the attested Iranian series (Avest. s, z, z; OPers. \( \theta \), d, d) and the presumed Indo-Iranian palatal affricates \(*č, *j, *jʰ (< \text{IE} *\kappa, *\acute{g}, *\acute{g}ʰ)\) the dental affricates \(*ts\) and \(*dz\) may be reconstructed for Common Iranian. In Figure 5.2 the postulated development of this ‘first series’ of palatals is set beside that of the ‘second series’ (i.e. the Indo-Iranian palatal stops arising from the secondary palatalization of IE velars or labiovelars, which eventually gave palatal affricates in Iranian) in order to show how the resulting Iranian and Indian forms disambiguate one another.

As Figure 5.2 shows, only the voiceless sounds (Ind. \( \acute{s} \), Iran. \( *ts < \text{IE} *\kappa \); Ind. \( c \), Iran. \( č < \text{IE} *\kappa/kʰ \) before a palatal) are etymologically unambiguous. Each of the voiced sounds, OInd. \( j \) and \( h \), Iran. \( *dʒ \) and \( J \), has a double origin, since Old Indian confuses the two palatal series while Iranian (as always) confuses aspirates and non-aspirates. However, the ambiguity is resolved in the case of words preserved in both branches of Indo-Iranian, each of which preserves the distinction lost in the other.

\[
\begin{align*}
\text{Iran.} *ts &= \text{OInd.} \acute{s}: \text{OPers.} \acute{θ}ard\text{-}, \text{Avest.} s\acute{r}d\text{-}, \text{cf.} \text{OInd.} s\acute{r}ád\text{-} ‘year’ (\text{IE} *\kappa) \\
\text{Iran.} *dʒ &= \text{OInd.} j: \text{OPers.} yad\text{-}, \text{Avest.} yaz\text{-}, \text{OInd.} yaj ‘to worship’ (\text{IE} *\acute{g}) \\
&= \text{OInd.} h:\text{OPers.} adam\text{-}, \text{Avest.} az\acute{m}\text{-}, \text{OInd.} ah\acute{m} t (\text{IE} *\acute{g}ʰ) \\
\text{Iran.} *č &= \text{OInd.} c:\text{OPers.} \acute{c}i\text{-}, \text{Avest.} cit\text{-}, \text{OInd.} cit (enclitic) ‘also, even’ (\text{IE} *kʰ) \\
\text{Iran.} *j &= \text{OInd.} j:\text{Avest.} ja\acute{n}i\text{-}, \text{OInd.} j\acute{a}n\acute{i} ‘woman’ (\text{IE} *gʰw) \\
&= \text{OInd.} h:\text{OPers./Avest.} j\acute{a}n\text{-}, \text{OInd.} han ‘to strike, kill’ (\text{IE} *gʰwh)
\end{align*}
\]

The depalatalization seen in the unconditioned reflexes of the IE palatals

![Figure 5.2 Reflexes of the IE palatals](image-url)
(Avest. s, z; OPers. θ, d) failed to take place in most combinations with consonants, where the usual outcome in all Iranian languages is palatal š, ţ, as in Avest. fšu- beside pasu- 'sheep' (OInd. pašu-, IE *p(e)ku-). In most cases the Old Indian equivalent is retroflex s, *ṣ, cf. Avest. āšta 'eight' = OInd. āstā (IE *oktō); Avest. mdr̩zdika- 'mercy' = OInd. mrd̩zikā- (< *mrd̩zikā-, IE *-gd-). An important special case is that of IE *sk, which gives OInd. (c)ch. Iran. s, as in the inchoative present stem OInd. gācca- 'to come', Choresmian [n]ys- < *[ni]gasa- 'to arrive' (a more archaic form than Avest. jasa-), all < IE *g(m)-sko- (Gk ἔοκε). Regarding IE *kw (> OPers. s, Khot. šš [š], elsewhere sp), *g(h)w (> OPers. z, Khot. š [ž], elsewhere zb), and *kr see p. 136.

Finally, we should note the outcome of IE clusters of velar, labiovelar, or palatal + *s. All such groups give OInd. ks, whilst Iranian distinguishes four possibilities: (a) xš < *k(w)s, e.g. Avest. vaxšīa-, OInd. vāksyā-, fut. of vak 'to speak'; (b) gž < *g(w)z (for *g(w)-s by Bartholomae's Law), e.g. OAvest. aogša 'saidst'; (c) š < *ks, e.g. Avest. mošu, OInd. maksū 'quickly'; (d) ţ < *gšt (for *gš-+s), e.g. OAvest. didorštā-, desiderative of daršt 'to make firm' (OInd. dīmhati).

The following schema shows the minimum complement of consonantal phonemes to be assumed for Common Iranian. An asterisk (*) indicates those which do not survive as such in any attested language.

```
p f b m w
  t θ d n l
  *ts s *dz z r
  ě š ğ ĵ ţ y
  k x g *H
```

Regarding the reappearance of IE *l (> OPers./Avest. r) as l in later Iranian see next paragraph. On the reconstructions *ts and *dz see pp. 133–4. The symbol *H represents a consonant deriving from the IE laryngeals, whose survival, at least in certain positions, is indicated by metrical and other considerations; for example, OAvest. mazdā, a form which is disyllabic as nominative singular but trisyllabic as genitive singular, indicating nom. *mazdaH-s (> *mazdās) ~ gen. *mazdaH-as.

Not all of the phonological developments shared by Avestan and Old Persian can be ascribed to Common Iranian. The change of *s to h (except in certain groups), which occurs in all attested Iranian languages, cannot have been completed until after the arrival of Iranian speakers in western Iran, as has already been pointed out. The replacement of *l (and *) by r (and r), which Avestan and Old Persian have in common with Vedic, was nevertheless not universal in Iranian, as is shown by the later reappearance of dialectal forms with l < IE *l, for example, Pers. lištan 'to lick' beside Avest. raez (IE *lejgʰ, Gk λείχω). Similarly, the two Old Iranian languages share a
development of IE *k(**w)j to šy, as in OPers. šiyav, Avest. š(iij)auu 'to go' (IE *ǩew-, OInd. cyav, Gk σιαυμα and κινεω), but the preservation of an affricate in Khot. tsü- [t̆šhur-], Tumshuqese cch- 'id.' indicates that only the intermediate stage *čy is to be attributed to Common Iranian.

The most important isogloss separating Old Persian from Avestan is to be seen in the treatment of the 'first palatal series', IE *ǩ, *ǧ, *ǧw, which are thought to have developed via palatal affricates (II *č, *ǰ, *jȟ) and dental affricates (Common Iranian *ts̪, *dz̪) and which give θ and d in Old Persian (and later dialects of south-west Iran) but s and z in Avestan and all other Iranian languages (see pp. 131f.). The treatment of the IE combinations *ǩw and *ǧ(hw) provides a three-way isogloss, giving sp, zb in most Iranian languages (including Avestan), s, z in Old Persian and š, ž in the group of north-eastern Iranian Saka (Scythian) languages represented by Khotanese. Examples: Avest. aspa-, OPers. asa-, Khot. aśśa-[aśa-] 'horse' (= OInd. aśva-, IE *-kw-); Parthian aζbān, OPers. hζzan-, Khot. bišaa-[biza:a-] 'tongue' (cf. OInd. jihvā-, IE *-ǧhw-). Since the palatals š, ž can hardly be derived from *ts̪w and *dz̪w, it is simplest to assume Common Iranian *čw and *f̌w. The palatal nature of II *č < IE *ǩ seems also to have been preserved up to the Common Iranian stage in the case of the cluster *čr, cf. Khot. ssarā-[səra-] 'good' (= Avest. srīra-, OInd. srīla- 'beautiful', cf. Gk κρέαν). In Old Persian *čr gives ʒ (a sibilant of unclear phonetic character), a development which may have proceeded via *ts̪r and *θr, since ʒ is also the outcome of Iran. *θr < IE *tr or *薄弱, as in pūçā- 'son' (= Avest. putra-, OInd. putrā-).

It is not surprising to find that it is the languages spoken at the fringes of the Iranian world – Old Persian in the extreme south-west and the languages of the nomadic Saka peoples of the Eurasian steppes – which stand out as aberrant in respect of the old isoglosses mentioned above. In each case, Avestan represents the Iranian mainstream. Avestan is often regarded as an Eastern Iranian language, which is no doubt correct from a purely geographical point of view, but it shows none of the phonological developments which are characteristic of Eastern Iranian in later periods, such as the voicing of the fricative in the groups *xr and *ft or the depalatalization of *č. Avestan does indeed have its peculiarities, such as the reversion of *ft to pt, the development of *rt to ʒ, or the frequent insertion of a nasal g before h (e.g. aŋha, ʒ sg. subj. of ah- ‘to be’, OInd. āsat), but they do not seem likely to be very ancient, nor do they provide evidence of a particularly close relationship with any other Iranian language.

Morphophonology
At the end of the word certain special phonological changes take place. In the attested Old Iranian languages the original distinctions between long and short final vowels are lost. In general, Old Persian and Old Avestan tend to lengthen short final vowels, while Later Avestan shortens many that were
originally long. In the a-declension, for instance, both the vocative singular (originally *-a) and the instrumental singular (originally *-ā) appear as OPers./OAvest. -ā, Later Avest. -a, so that the length of the final vowel no longer has any phonemic (or etymological) significance. The merging of long and short final vowels was not universal, however; cf. Morgenstierne (1973a: 108–9) on remnants of a distinction between *-a and *-ā in Shughni and other modern Iranian languages of the Pamir mountains.

A feature common to all the Iranian languages is the loss of final *-h (< IE *-s). In some languages the loss of *-h is accompanied by a change in the quality of the preceding vowel, whereby *-ah > Avest. -ā (OAvest. also -ē), Khot. -ā [-e], Sogd. -i, and *-āh > Avest. -ā, Khot. -e [-e:] (but Sogd. [-a]; cf. the similar changes accompanying the loss of final *-m in Middle Iranian: *-am > Khot./Sogd. -u; *-ām > Khot. -o but Sogd. -a). In Old Persian, on the other hand, *-h is lost without trace, as are *-dl-t and perhaps some other final consonants, so that *-ahl-ad and *-āh/-ād give -a and -ā respectively (thus re-establishing the recently lost phonemic distinction between long and short final vowels). Such developments had a significant impact on the morphology of the Iranian languages, as may be seen from the paradigm of the a-stems in Table 5.1.

The changes typical of absolute word-final position are sometimes found also internally, in compounds and before particular morphemes: compare Avest. vačö.maršta- ‘recited aloud’ and instr. pl. vačšbiš, both from vačah- ‘speech, word’ with the same treatment of *-ah < *-as as occurs in final position in the nom./acc. sg. vačö/vačš (= OInd. vdcas, Gk (F)ετογ). In other cases, however, compound-juncture is treated as internal position, as in Avest. vačas.tašti- ‘strophe’, where the original *s ‘reappears’ in accordance with the regular treatment of the IE cluster *st. Such combinatory variants as vačas° are referred to as sandhi forms, ‘sandhi’ being the Sanskrit term for the ‘combination’ both of elements within a word and of words within a sentence (see Chapter 4, p. 107); in Old Iranian, however, the occurrence of sandhi is almost entirely restricted to the juncture of elements within a single accential unit, that is, of morphemes in a word, of words in a compound or of a clitic with its host as in Avest. frađātae-ća ‘and (it) will prosper’ (= *frađāte, 3 sg. subj. mid. of frađ + encl. -ća ‘and’, see Hoffmann 1975: 262ff.), kas-čit ‘someone’ (= nom. sg. m. kō ‘who?’ + encl. indefinite particle -čit), OPers. kaš-či. As these examples show, the forms occurring in sandhi before enclitics often preserve older phonological forms of the inflections: -tae° < IE *-tōj (see pp. 130ff.), kas° < IE *k°os. The shortening of the vowel in the first syllable of frađātae-ća is probably due to a shift of accent to the syllable preceding the particle -ća (= Gk τε, Lat. -que, etc.).

Since the accent is not noted in writing in any Old or Middle Iranian language, its position and nature can only be deduced – as in Germanic – from its observable effects. In Avestan the most important phonological change connected with the accent is the devoicing of r (and or < *r) before k, p, t,
which is restricted to forms in which the accent falls on the syllable containing r. The working of this rule, which results in written hrk, hrp and (*hrt >) š, indicates the existence of a free accent, which is often though not always on the same syllable as in the equivalent Vedic form, e.g. vōhrka- 'wolf', amōṣa- 'immortal' = Ved. vēka-, amēta-, but mahrka- 'destruction' = *márka- (as against Ved. markā-). The formation of a compound or the addition of a suffix or enclitic (see p. 137) can result in a shift of accent, as in amōṣrta-tāt- 'immortality' (cf. Ved. sarvā-tāt(i)- beside sārva-). See Mayrhofer in Schmitt 1989: 12–13; Beekes 1988: 55–69.

Whether the Avestan accent was still a musical (pitch) accent like that of Greek and Vedic or a dynamic (stress) accent is controversial, but there is no doubt that most middle and modern Iranian languages have developed a strong stress accent, which often causes syncope in unstressed syllables. In many Iranian languages the position of the stress has come to be wholly determined by the quantitative shape of the word, but a free stress, possibly reflecting the IE accent, is still found in some modern Eastern Iranian languages; cf. Morgenstierne 1973b on the difference in stress in such pairs as Pashto wūča (f.) 'dry' (= Ved. śūśkā-) and ričā 'nit' (= Ved. likšā-).

The original close relationship between accent and ablaut (see Chapter 2, pp. 50–2) has become effaced in Iranian, as in other branches of IE, to the extent that the accent can fall on any syllable, regardless of its vocalism. As a result of the merger of *ē and *ō in Indo-Iranian ā, the IE qualitative ablaut has disappeared, although the palatalization of the IE (labio)velars before *ē occasionally allows its former presence to be discerned, as in the inflection of OAvest. aogah- (n.) 'strength', acc. sg. aogō, instr. sg. aojaŋha < *h₂ewg-os, *h₂ewg-es-eh₁, cf. Gk μένος, μένος (Hoffmann 1958: 14–15) or the interrogative pronoun Avest. ka-, ča- < *kʷo-, *kʷe- (see p. 143). Some such contrasts between forms with and without palatalization survive into Middle Iranian, as in Parthian paryṇ܀̄z beside paryɵ̄y 'victory' or Khot. tcamāna, instr. sg. of kye 'who'. On the other hand, the quantitative ablaut (the IE alternation o ~ e/o ~ e/ō) is well preserved and productive in Indo-Iranian, where it appears as o ~ a ~ ā, or, in combination with a following semi-vowel or consonant, i/y ~ ai/ay ~ āi/ay, r/r ~ ar ~ ār, a/n (< *ŋ/n) ~ ān ~ ąn, etc. It is to be noted that the Indo-Iranian long grade (ā etc.) does not always derive from an IE long grade but can also represent the o-grade by Brugmann's Law (see p. 130).

These alternations, which can occur in any part of a word (root, suffix or ending), are of great importance for the historical morphology of Iranian (see also pp. 149–50 on the function of 'vṛddhi' in word formation). Ablaut occurs both within a single paradigm, a particular grade of the root and/or suffix being associated with each individual ending, and between contrasting paradigms. Ablaut of the root is most often attested in formations without suffix, particularly in root-presents such as ah-/h- 'to be' and reduplicated presents such as dadā-/dad- 'to give' (< *de-deh₃/*de-dh₃-). In formations
containing a suffix (or infix) it is usually this element which shows alternation, for example nouns in -tär/-tar/-tr- (-θr-), a thematic optatives in -yā-/ī- or present stems with infixed -na/-n-. The preservation of an alternation in both root and suffix, as in Avest. nom. sg. paṇā, gen. sg. paθō ‘path’ (< IE *pent-oh₂-s/*pnt-h₂-es) is exceptional.

Each individual form in such an alternating paradigm is characterized by a particular ablaut grade of the stem as well as by a specific ending. In the root-present, for instance, the first-, second- and third-person singular present indicative active generally require the full grade of the stem (as in OAvest. mrao-mī etc. from mrauu- ‘to say’), while the equivalent middle forms require the zero grade (*mru-yē etc.). Similarly, a u-stem such as OPers. Kuru-‘Cyrus’ has the zero grade of the stem in the nominative singular (Kur-u-š) but the full grade in the genitive singular (Kur-au-š). Occasionally the occurrence of an abnormal ablaut grade (e.g. the long grade of the root in OAvest. stäumi, 1 sg. pres. indic. act. of stauu- ‘to praise’, or the long grade of the suffix in OPers. dahāyūš, nom. sg. of the u-stem dahzyu- ‘country’) indicates that a category such as ‘root-present’ or ‘u-stem’ is not unitary but is made up of stems which originally belonged to various classes characterized by different configurations of accent and ablaut.

The endings do not normally display ablaut variation within a single paradigm, but only between contrasting paradigms (but see pp. 141–2 on the inflection of Avest. xratu-). Thus the genitive singular ending is attested as *-as (IE *-es/-os) in Avest. rāiiō, uxšō, and OPers. piča (*piθras, cf. Gk πιθρός, Lat. patris) from the stems rāii- ‘wealth’, uxšan- ‘bull’ and piθar- ‘father’ but as *-s in Avest. garōš, OAvest. čašmāŋ (with -ng < *-nh < *-ns) and nōrōš from the stems ga’ri- ‘mountain’, čašman- ‘eye’ and nar- ‘man’.

Not all of the individual forms attested are ancient: nōrōš, for instance, with its remarkable combination of zero grade in both stem and ending, is probably an innovation for expected *narō (cf. OInd. nārah, Gk ἀνδρός). Nevertheless, since the innovation must have been based on an already existing form – in this case perhaps *brā-ṛ-š (= OInd. bhrāṭur, ON bróðor), gen. sg. of brāṭar- ‘brother’ (see Hoffmann 1976: 598) – such a form can justifiably be used as evidence that Iranian inherited r-stems with ‘acrostatic’ accent and the associated type of ablaut (see Chapter 2, pp. 51f.).

**Morphology**

**Nouns**

In Avestan, as in Old Indian, the system of three genders, three numbers and eight cases is well established (though it is only in the singular of a few declensions that all eight cases are formally distinct). During the later history of Iranian this system was gradually simplified. Old Persian has already reduced the cases to six by conflating the dative with the genitive and the
instrumental with the ablative; Khotanese has gone further, retaining only remnants of the neuter gender and the dual number, while Sogdian has replaced most of the old plural inflections by forms derived from a collective noun in *-tä-. Many modern Iranian languages have dispensed both with the case system and with grammatical gender, so that in New Persian, for instance, the only morpheme surviving from the Old Iranian system of nominal inflection is the plural in -än (< OPers. gen. pl. -änäm).

In Old Iranian the various declensions are principally distinguished by the final sound of the stem: stems in a, ä, i, r, etc. They are further divided into subclasses by gender (e.g. stems in a into masculines and neutrals) and, to a limited extent, by the different accent and ablaut patterns referred to on p. 139. The number of distinct declensions is very much reduced in Middle Iranian, where there is a marked tendency to transfer masculine and neuter nouns to the a-declension and feminines to the ä-declension.

The most common declension in all Iranian languages is that of the masculine a-stems (IE *-o-stems), whose inflection in Avestan (exemplified by yasna- 'sacrifice, worship' = Ved. yajña-). Old Persian, Khotanese and Sogdian is shown in Table 5.1, together with the corresponding Vedic forms. (Only a selection of the numerous variant forms attested, especially in Avestan and Khotanese, is included in the table.)

This type of stem seems always to have had a fixed accent (with the exception of the vocative forms, which in Vedic are either unaccented – cf. Sogd. encl. voc. sg. βay 'sir!' beside stressed βayā – or accented on the first syllable regardless of the position of the accent in the rest of the paradigm – a rule for which there is some evidence also in Avestan, see Hoffmann 1975: 266 and cf. Gk ἀδελφος ~ ἀδελφός, etc.). As for the individual endings, the majority of the Iranian forms are directly comparable with their Old Indian equivalents, on the etymologies of which see Chapter 4, pp. 107f.. The Avestan/Old Persian instrumental singular in -ā corresponds to the rarer Vedic instrumental in -ēa rather than to that in -ena (which is of pronominal origin, as is Khot. -na < OIran. *-anā). The usual Avestan dative singular -āi, which may be compared directly with Greek -ο, is more archaic than OAvest. -āi.ā, OInd. -āya; the final -ā of the latter form seems to be a fossilized postposition, which may be found also in some Iranian ablative singular, locative singular and locative plural forms. In the nom.-acc.-voc. dual the Iranian forms agree with Vedic -ā (= Gk -ο, cf. also Lat. ambo) rather than -au; the two forms are thought to be old sandhi variants. In the remaining cases of the dual the Iranian and Indian forms are not precisely comparable, the most important difference being the preservation of a distinction between genitive and locative dual in Avestan. In the nominative/vocative plural the regular equivalents of Old Indian -ās and -āsas are the rare endings Avestan -ā and -āpho, Old Persian -aḥa, which seem to be particularly favoured for words pertaining to the sacral sphere (Avest. amāšā 'the immortal ones', yazatāphô 'beings worthy of worship', OPers. bagâha 'gods'). The usual form in both
### Table 5.1 Declension of masculine a-stems (IE stems in *-o*)

<table>
<thead>
<tr>
<th></th>
<th>Vedic</th>
<th>Avestan</th>
<th>Old Persian</th>
<th>Khotanese</th>
<th>Sogdian</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Singular</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nom.</td>
<td>yajñ-ás</td>
<td>yasn-ō</td>
<td>-a</td>
<td>-ā</td>
<td>-i</td>
</tr>
<tr>
<td>Acc.</td>
<td>yajñ-ām</td>
<td>yasn-ōm</td>
<td>-am</td>
<td>-u</td>
<td>-u</td>
</tr>
<tr>
<td>Instr.</td>
<td>yajñ-ā</td>
<td>yasn-a</td>
<td>-ā</td>
<td>-na</td>
<td>(= abl.)</td>
</tr>
<tr>
<td>Dat.</td>
<td>yajñ-āya</td>
<td>yasn-āi, OAvest.</td>
<td>(= gen.)</td>
<td>(= gen.)</td>
<td>(= gen.)</td>
</tr>
<tr>
<td>Abl.</td>
<td>yajñ-āt</td>
<td>yasn-āt, Later Avest. also -āda</td>
<td>-ā</td>
<td>(= instr.)</td>
<td>-a</td>
</tr>
<tr>
<td>Gen.</td>
<td>yajñ-āya</td>
<td>yasn-ahe, OAvest. -āhiā</td>
<td>-ahēyā</td>
<td>-i</td>
<td>-ē</td>
</tr>
<tr>
<td>Loc.</td>
<td>yajñ-ē</td>
<td>yesn-e, yasn-aiia</td>
<td>-ai, -ayā</td>
<td>-i (=) -a</td>
<td>-ya</td>
</tr>
<tr>
<td>Voc.</td>
<td>yajñ-a</td>
<td>yasn-a</td>
<td>-ā</td>
<td>-a</td>
<td>-a</td>
</tr>
<tr>
<td><strong>Dual</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nom.-Acc.</td>
<td>yajñ-ā, -ādu</td>
<td>yasn-a</td>
<td>-ā</td>
<td>-a</td>
<td></td>
</tr>
<tr>
<td>Instr.-Dat.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-Abl.</td>
<td>yajñ-ābhyām</td>
<td>yasn-āebiiā</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gen.</td>
<td>yajñ-āyoś</td>
<td>yasn-aiiā</td>
<td>-aibiyā</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loc.</td>
<td>(= gen.)</td>
<td>yasn-aiiō</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voc.</td>
<td>yajñ-ā, -au</td>
<td>yasn-a</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Plural</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nom.</td>
<td>yajñ-ās, -āsas</td>
<td>yasn-a</td>
<td>-ā</td>
<td>-a</td>
<td>-a</td>
</tr>
<tr>
<td>Acc.</td>
<td>yajñ-ān</td>
<td>yasn-a, OAvest. -āng</td>
<td>(= nom.)</td>
<td>(= nom.)</td>
<td></td>
</tr>
<tr>
<td>Instr.</td>
<td>yajñ-āis, -ēbis</td>
<td>yasn-āiś</td>
<td>-aibiś</td>
<td>-yau</td>
<td></td>
</tr>
<tr>
<td>Dat.</td>
<td>yajñ-ēbhicas</td>
<td>yasn-aebitiō</td>
<td>(= gen.)</td>
<td>(= gen.)</td>
<td></td>
</tr>
<tr>
<td>Abl.</td>
<td>(= dat.)</td>
<td>yasn-anah</td>
<td>(= dat.)</td>
<td>(= instr.)</td>
<td></td>
</tr>
<tr>
<td>Gen.</td>
<td>yajñ-ānām</td>
<td>yasn-anam</td>
<td>-ānām</td>
<td>-ānu</td>
<td>-ān</td>
</tr>
<tr>
<td>Loc.</td>
<td>yajñ-ēsu</td>
<td>yasn-aesu, -aeschu,</td>
<td>-aśuvā</td>
<td>-uvo'</td>
<td></td>
</tr>
<tr>
<td>Voc.</td>
<td>yajñ-ās, -āsas</td>
<td>yasn-a</td>
<td>(= instr.)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Avestan and Khotanese is -a, which has been explained as an IE collective in *-ā (< *-eh₂), compare Lat. loca ~ locus (Hoffmann 1958: 13); OPers. -ā and Sogdian -a are ambiguous and may equally well derive from *-ā or *-āś (or both).

Although Iranian inherited many varieties of stem showing ablaut variation (originally associated with a mobile accent), these seldom survive as independent types. As a result of a tendency to harmonize the inflection of all stems ending in the same sound (e.g. all stems in *u*), forms deriving from different ablaut types may be combined in the inflection of a single word, often making it difficult to discern its original ablaut pattern. This point may be illustrated by the *u*-stem Avest. xratu- (m.) 'mental power, intention, etc.' (= OInd. kratu- 'power'), of which all the attested forms are shown in Table 5.2. (The only forms which occur in Old Persian are the two acc. sg. forms...
### Table 5.2 Declension of Avestan *xratu*

<table>
<thead>
<tr>
<th></th>
<th>Old Avestan</th>
<th>Later Avestan</th>
<th>Old Avestan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nom.</td>
<td>xratuš</td>
<td>xratuš</td>
<td>xratauuō</td>
</tr>
<tr>
<td>Acc.</td>
<td>xratüm</td>
<td>xratüm, xratbaam</td>
<td>xratuš</td>
</tr>
<tr>
<td>Instr.</td>
<td>xratū, xratba</td>
<td>xratba</td>
<td><em>xratubiš</em></td>
</tr>
<tr>
<td>Dat.</td>
<td></td>
<td>xratbe</td>
<td><em>xratubiō</em></td>
</tr>
<tr>
<td>Abl.</td>
<td>(= gen.)</td>
<td>xratat</td>
<td>(= dat.)</td>
</tr>
<tr>
<td>Gen.</td>
<td>xratuš</td>
<td>xratuš, xratbō</td>
<td><em>xratunām</em></td>
</tr>
<tr>
<td>Loc.</td>
<td>xratā</td>
<td></td>
<td><em>xratušū</em></td>
</tr>
<tr>
<td>Voc.</td>
<td>[hu]xratuuō</td>
<td></td>
<td>(= nom.)</td>
</tr>
</tbody>
</table>

*xratuš* and *xratušm*, the latter showing generalization of θ from a form such as instrumental singular *xratuwaθ = Avest. xratbǎ."

In the paradigm in Table 5.2 the suffix appears in the zero grade as *u* (Avest. ū) or *w* (> Avest. β after θ), in the full grade as *au* (Avest. ūlo, in final position ūluθ) or *aw* (Avest. auθ), and in the long grade as *āu* (> Avest. ā in final position). Note also the occurrence of two ablaut variants of the ending itself in the instrumental singular (-ū < *-u-h₁; -bā < *-w-eh₁) and genitive singular (-ūš < *-ew-s; -bō < *-w-es or *-w-os). The etymologies of the remaining endings are as follows. Singular: nom. -š < *-s; acc. -m < *-m (Later Avest. variant -dm borrowed from the a-stems); dat. -ē < *-ei. Originally the ablative singular was formally distinct from the genitive only in the a-declension; Later Avest. xratat exemplifies a tendency to create special ablative forms by borrowing the final -t of the a-stems. The locative and vocative singular are both endingless but differ in the grade of the suffix. Plural: nom./voc. -ō < *-es; acc. (-ū)š < *-(u-)ns; instr. -bīš < *-bīs; dat./abl. -biiō < *-biiōs; loc. -šū < *-su. The genitive plural (like that of the a-stems and most other declensions) was remodelled in Indo-Iranian after that of the n-stems, but the older ending -am (< *-ōm, Gk -ov) is occasionally attested, as in Later Avest. yāθbām (beside yāṭunām), genitive plural of yātu- ‘sorcerer’.

In general adjectives are inflected exactly like nouns, though a few common adjectives, such as Avest. vispa- ‘all’ and its cognates, display some of the peculiarities of pronominal declension (see p. 143), e.g. Sogd. abl. (originally instr.) sg. m. visna, Later Avest. nom. pl. m. vispe (= Khot. bišsā, contrast OAvest. viṣpāghōθ), gen. pl. m. viṣpaθam (beside viṣpaŋam). The feminine forms of adjectives are usually derived from a separate stem in -ā or -ī (even where the masculine/neuter stem belongs to a class, such as the u-declension, which includes feminine nouns). Examples from Avestan: sūra-, f. sūrā- ‘strong’; poṣru-, f. poṣri- ‘much’; børzant-, f. børzāti- ‘high’.

As in Old Indian, comparatives and superlatives can be formed in two ways: with the suffixes -tara- and -tama- added to the stem of the positive
(e.g. Avest. *aš.aoj-ah-, aš.aoj-ás-tara-, aš.aoj-ás-tama- ‘possessing much, more, most power’) or with the suffixes -yah- and -išta- added directly to the underlying root in the full grade (e.g. Avest. uy-ra-, aoj-iajah-, aoj-išta- ‘stronger/est’). Also formed directly from the root is the compound form in -i-, as in Avest. tiži.asūra- ‘sharp-tusked’ (< *tiž-i- beside tiy-ra- ‘sharp’), bor*rįzi.čaxra- ‘high-wheeled’ (beside bor*ru*e*ant-), cf. OInd. rj-i-, Gk āργ-ı- as compound form of rj-rá-, āργόζ (< *āργ-ό-, -ός) ‘swift; bright’, etc. (cf. Chapter 2, p. 59).

**Pronouns**

The principal Avestan demonstrative pronouns are hö (nom. sg. m.), hà (nom. sg. f.), tät (nom. sg. n.) ‘this; he, she, it’, and its compound aēšo, aēša, aẹ̄ša-t; aēm, im, ima-t ‘this’; and hāu, hāu, auuat ‘that’. In their inflection these show the same kinds of peculiarities as the equivalent Old Indian forms (see Chapter 4, p. 110), including the employment of suppletive stems, often opposing the nominative singular masculine and feminine (e.g. hö, hà) to the rest of the declension (stem ta-), and the prefixation or suffixation of deictic particles (e.g. aē- in aē-śa- etc., *-am in aēm, im = OInd. ay-am, iy-am). The use of certain endings different from those of nouns (e.g. nom./acc. sg. n. in -t, instr. sg. m./n. in -na, nom. pl. m. in -e) and the infixation of additional elements between the stem and ending (e.g. -hm- and -hy- respectively in several cases of the m. and f. sg., -h-l-s- in the gen. pl.) may be exemplified by the following forms of the demonstrative Avest. aēm ‘this’ (stems aē- in aē-śa- etc., *-am in aēm, im = OInd. ay-am, iy-am). The Old Persian forms follow the same principles.

Similar irregularities occur in the inflection of the relative pronoun, Avest. yō (OAvest. yā), yā, yat, OPers. haya, hayā, taya (where the relative has been compounded with the demonstrative *hā-, *ta-), and of the interrogative pronouns. In Old Iranian, unlike Old Indian (see Chapter 4, p. 110), all of the four interrogative stems, ka-, kā, ča- and či-, still function as pronouns and tend to combine into a suppletive system like that of the demonstratives: Avest. kā, kā, čit (nom. sg. m., f., n.), cf. OPers. kaš-či ‘someone’, čiš-či ‘something’.

The inflection of the personal pronouns differs even more markedly from that of nouns, as may be illustrated by the following selection of first person forms:

<table>
<thead>
<tr>
<th>Form</th>
<th>Avest.</th>
<th>OPers.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nom. sg.</td>
<td>aẓām</td>
<td>adam</td>
</tr>
<tr>
<td>Acc. sg.</td>
<td>Later Avest. mam</td>
<td>OPers. mām</td>
</tr>
<tr>
<td>Dat. sg.</td>
<td>OAvest. ma*biiā</td>
<td>OPers. mā*biiā</td>
</tr>
<tr>
<td>Gen. sg.</td>
<td>Later Avest. mana</td>
<td>OPers. manā</td>
</tr>
<tr>
<td>Nom. pl.</td>
<td>Avest. vāem</td>
<td>OPers. vayam</td>
</tr>
<tr>
<td>Dat. pl.</td>
<td>OAvest. ahma*biiā</td>
<td></td>
</tr>
</tbody>
</table>
gen. pl. Later Avest. ahmākōn, OPers. amāxam
(cf. OInd. ahām, mām, māhyam(m), māma, vayām, asmabhya(m), asmākam).

It will be noted that, as in Old Indian, these forms show no distinction of
gender, and that the singular and plural forms are derived from apparently
unrelated stems. A further peculiarity of the personal pronouns is the
existence of alternative unaccented (enclitic) forms in certain cases, e.g. 1 sg.
Avest. mā, OPers. -mā (acc.), OAvest. möi, Later Avest. mē, OPers. -mai
(gen./dat.). In the plural, Old Avestan preserves a distinction between the
enclitic accusative nā ‘us’, vā ‘you’ (cf. Latin nōs, vōs) and the enclitic
genitive/dative nō, vō, while Later Avest. nō and vō, like OInd. nas and vas,
are used for all three cases. Finally, we may note the Old Avestan nominative
singular feminine forms Ößöi and xvä (from the possessive adjectives Ößä-
‘thy’, xvä- ‘(one’s) own’), whose ending may be compared with that of
Latin quaē etc. (Hoffmann 1958: 16).

Verbs
In Old Iranian, and especially in Avestan, the inflection of the verb is
extremely rich as a result of the numerous intersecting categories into which
its forms are classified: person (first, second or third), number (singular, dual,
plural), mood (indicative, injunctive, subjunctive, optative, imperative, par-
ticiple, infinitive), tense (present, aorist, perfect, etc.) and voice (active,
middle or passive). In general, the category of tense is indicated by the stem
of the verb; that of mood by the presence or absence of a modal suffix
following the tense-stem, the presence or absence of the augment a- before
the tense-stem and the choice of ending; those of person, number and voice
by the verbal endings alone (except in the case of the passive present stem in
-ya-). The following survey (based on the comprehensive description of
Kellens 1984) is primarily concerned with Avestan; Old Persian provides
examples of most of the corresponding types and categories but no complete
paradigms.

Present stems can be formed in many ways, of which only the principal
types can be mentioned here. The most important division is that between
‘thematic’ and ‘athematic’ presents. The thematic presents are formed by
adding to the root (in a particular, invariable ablaut grade) a suffix consisting
of or ending in -a- < IE *-elo-:

Avestan θβər’s-a- ‘to fashion’ (zero grade of root + suffix -a-)
bauu-a- ‘to become’ (full grade + -a-)
bi’d-iia- ‘to notice’ (zero grade + -ya-)
zb-aiaa- ‘to invoke’ (zero grade + -aya-)
bänd-aiaa- ‘to bind’ (full grade + -aya-)
xśnăuu-iiaa- ‘to satisfy’ (long grade + -aya-)
ja-sa- ‘to come, go’ (zero grade + -sa- < IE ‘inchoative’ *-sko-).
The various types of athematic present have in common certain endings different from those of thematic stems (see below on the indicative and imperative) and the occurrence of ablaut alternation in the stem:

jan-/γν- ‘to strike’ (root-present)
da-dā-/da-d- ‘to give’ (reduplicated present)
vi-na-d-/vi-n-d- ‘to find’ (infixed nasal)
db²-nao-/db²-nu- ‘to deceive’ (zero grade + -nao-/nu-)
stār²-nā-/stār²-n- ‘to spread’ (zero grade + -nā-/n-)

In origin the last two classes are special cases of the preceding type, the nasal infix having been inserted into a root with final *-w- or *-H-, cf. ādʰbao-man- ‘deception’ (which demonstrates the existence of a root dbav beside dab), stārta- ‘spread’ (< *strh₂-tio-, Gk στρωτόζ), etc.

Certain types of present stem, notably the passives in -ya-, causatives in -aya- and future stems in *-sya- (> -hya-, -šya-), express a special or modified sense of the verb:

jan-iiia- ‘to be struck’ (beside jan-/γν- ‘to strike’)
jām-aiia- ‘to cause to go’ (beside ja-sa- ‘to come, go’)
bū-šiia-nt- (fut. part. act.) ‘about to be’ (beside bauu-a-nt- (pres. part. act.) ‘being’).

The future stem is most often attested by its participles, the sense of the future indicative being more commonly expressed by the present subjunctive. The passive stem in -ya- (which in Iranian, unlike Old Indian, takes middle or active endings indifferently) is also comparatively rare, in part as a result of the fact that a passive sense can alternatively be expressed by the use of the normal (non-passive) present stem with middle instead of active endings, for example, vaena‘te (mid.) ‘is seen, seems’ as opposed to vaenåiti (act.) ‘sees’.

The principal types of aorist stem are the signatic aorist, for example, xšnau-š-/xšna-o-š- ‘to satisfy’, in which the suffix *-š- (> -s-, -h-, -š-) is combined with alternation between the long grade and full grade of the root, and the root-aorist, for example, jam-lym- ‘to come, go’, which displays alternation between the full grade and zero grade as in the most common type of root-present (though the distribution of the two alternants is slightly different in the aorist). The perfect stem is usually formed by reduplication, for example, va-uuac-/va-oc- ‘to say’. As in other IE languages, the verb ‘to know’ irregularly forms an unreduplicated perfect stem vaed-/vid-, cf. Old Ind. vēda, vidmā, Gk (Ϝ)οἶδα, (Ϝ)οἶδειν (see Chapter 9, p. 251), etc. The role of the aorist and perfect stems is very much restricted in Later Avestan – even more so in Old Persian – a development marking the first stage in the creation of the Middle Iranian verbal system (based on the present stem and a new ‘past stem’ derived from the past participle in -ta-).
It is convenient to begin a survey of the formation of the moods with the
injunctive, which is formed by the addition of the so-called ‘secondary’
endings – which actually represent the verbal endings in their most basic
forms, see Chapter 4, p. 113 – directly to the present or aorist stem. The
‘secondary’ endings (omitting those of the dual, since they are poorly attested
and often etymologically obscure) are as in Table 5.3. With the exception of
second-person singular middle *-sa (cf. Gk éœou, Horn. Gk éœeo <
*e-dkhx-so, etc. as against OInd. -thäs) and third-person plural active -at (< *-nt), an
archaic ablaut variant lost in Old Indian, these endings correspond precisely
to the equivalent Old Indian forms.

The imperfect is formed, as in Old Indian, by prefixing the augment a- (=
OInd. a-, Gk e-, Arm. e-) to the present injunctive. The imperfect is well
attested in Old Persian, and in some later Iranian languages such as Sogdian,
but comparatively rare in Avestan, where the present injunctive has largely
taken over its function as a past tense. The even rarer aorist indicative, of
which a few forms are attested in Old Avestan and Old Persian, is similarly
formed by the prefixation of the augment to the aorist injunctive. The present
and perfect indicatives, however, are characterized in a different way, by the
use of endings distinct from those of the injunctive.

The so-called ‘primary’ endings of the present indicative (again omitting the
dual forms), as attached to athematic pres. stems, are as in Table 5.4. All
of these endings have exact cognates in Old Indian. The inflection of thematic
stems differs only in the first-person singular active, where Old Avestan
attests the ending -ä (= Gk -ō, Lat. -ō, etc.) as against OPers./Later Avest./
OInd. -ä-mi. The thematic vowel, in general a, appears as ä (< *o by
Brugmann’s Law, see p. 130) in first-person plural active -ä-mahi and middle
-ä-ma’dē; on the other hand, the thematic first-person singular middle has
merely -e < *-ai where *-äj < -*a-ai might have been expected. Since the
thematic present indicative is well attested in most Iranian languages, it is
possible to give some complete paradigms, at least of the singular and plural
### Table 5.4 Primary endings

<table>
<thead>
<tr>
<th></th>
<th>Active</th>
<th>Middle</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Singular</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>-mi</td>
<td>-c</td>
</tr>
<tr>
<td>2</td>
<td>*-si (&gt; -hi, -ši, etc.)</td>
<td>*-sai (&gt; -he, -še, etc.)</td>
</tr>
<tr>
<td>3</td>
<td>-ti</td>
<td>-te</td>
</tr>
<tr>
<td><strong>Plural</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>-mahi</td>
<td>-ma'de</td>
</tr>
<tr>
<td>2</td>
<td>*-0a</td>
<td>-duiē</td>
</tr>
<tr>
<td></td>
<td>-aṇti</td>
<td>-nte</td>
</tr>
<tr>
<td>3</td>
<td>-nti</td>
<td>-a'te (&lt; *-ṇto)</td>
</tr>
<tr>
<td></td>
<td>-aṭṭ (&lt; *-ṇti)</td>
<td></td>
</tr>
</tbody>
</table>

### Table 5.5 Conjugation of the thematic present indicative active

<table>
<thead>
<tr>
<th></th>
<th>Avestan</th>
<th>Old Persian</th>
<th>Khotanese</th>
<th>Sogdian</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 sg.</td>
<td>bar-ā-mi</td>
<td>bar-ā-mi</td>
<td>barīmā</td>
<td>βarām</td>
</tr>
<tr>
<td>2 sg.</td>
<td>bar-a-hi</td>
<td>bar-a-ti</td>
<td>bīda</td>
<td>βarti/βart</td>
</tr>
<tr>
<td>3 sg.</td>
<td>bar-a-nti</td>
<td>bar-a-ti</td>
<td>barāmā</td>
<td>βarēm</td>
</tr>
<tr>
<td>1 pl.</td>
<td>bar-ā-mahi</td>
<td>bar-ā-mahi</td>
<td>barämä</td>
<td>βarēm</td>
</tr>
<tr>
<td>2 pl.</td>
<td>bar-a-θa</td>
<td>bada</td>
<td>barāt</td>
<td>βarθa/βarta</td>
</tr>
<tr>
<td>3 pl.</td>
<td>bar-ō-ṇti</td>
<td>bar-a-nti</td>
<td>bar-indā</td>
<td>βarand</td>
</tr>
</tbody>
</table>

### Table 5.6 Conjugation of the thematic present indicative middle

<table>
<thead>
<tr>
<th></th>
<th>Avestan</th>
<th>Old Persian</th>
<th>Khotanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 sg.</td>
<td>ba't-e</td>
<td>bar-ai</td>
<td>bare</td>
</tr>
<tr>
<td>2 sg.</td>
<td>bar-a-θe</td>
<td>bar-a-tai</td>
<td>bara</td>
</tr>
<tr>
<td>3 sg.</td>
<td>bar-a-nti</td>
<td>bar-a-tai</td>
<td>bade</td>
</tr>
<tr>
<td>1 pl.</td>
<td>bar-ā-ma'de</td>
<td>bar-ā-ma'de</td>
<td>barāmāne</td>
</tr>
<tr>
<td>2 pl.</td>
<td>(OAv.) bar-a-duiē</td>
<td>bar-ā-tai</td>
<td>barīru</td>
</tr>
<tr>
<td>3 pl.</td>
<td>bar-a-nte</td>
<td>bar-a-radius</td>
<td>barāre</td>
</tr>
</tbody>
</table>

forms, based on the present indicative of bar, present stem bar-a- (act.) ‘to carry’, (mid.) ‘to ride’, see Tables 5.5 and 5.6.

The second-person plural active ending *-ta in Khot. bada, Sogd. βarta (beside βarθa) is a secondary ending borrowed from the injunctive etc., as is the second-person singular middle *-ha in Khot. bara; the Khotanese second-person plural middle ending -iru is borrowed from the optative. The ending of Khotanese first-person plural active barāmā seems to correspond more
closely with Classical Sanskrit -\textit{mas} than with its Vedic variant -\textit{mahi}. A more significant division amongst the various Iranian languages is found in the third-person plural middle, where Khotanese and some other languages attest an ending *-\textit{ärai} (= Avest. -\textit{är}e) or *-\textit{rai} (= OInd./Avest. -\textit{re}). In Avestan, as in Old Indian, this ending is restricted to a small group of root-presents, some of which also have a third-person singular middle in -\textit{e} rather than -\textit{te}. These special endings, which are also found in the pf. indicative middle, seem originally to have characterized a particular subclass of root-presents (with a fixed accent on the root and ablaut alternation between long grade and full grade instead of between full grade and zero grade, see Narten 1968).

The endings of the pf. indicative active (singular and plural) are as follows: Sg. 1 -\textit{a}, 2 -\textit{da}, 3 -\textit{a}; Pl. 1 -\textit{ma}, 3 -\textit{ar} or -\textit{ar}Š. It is not clear which of the two third-person plural endings is to be equated with Old Indian -\textit{ur} (< *-\textit{r}r = -\textit{ar} or *-\textit{rr} = -\textit{ar}Š). The endings of the pf. indicative middle, in so far as they are attested, are the same as those of the present indicative middle, with third-person singular -\textit{e} and probably third-person plural *-\textit{re} (cf. Khot. hyaure ‘they exist’ < *abi-\textit{äf}-\textit{rai}, originally third-person plural pf. middle of ab\-\textit{i}-\textit{äp ‘to find, obtain’}, see above.

The subjunctive is characterized by a suffix -\textit{a}-, which is inserted between the stem (whether present, aorist or perfect) and the endings. In the case of thematic stems, the subjunctive suffix combines with the final vowel of the stem to a long \textit{ä}. The endings are a mixture of primary and secondary – the choice being fixed in some cases and free in others – except in the first-person singular, where Old Avestan active -\textit{ä} and middle -\textit{äi} are later replaced by the special endings -\textit{äni} (= OInd. -\textit{äni} beside -\textit{ä}, see Chapter 4, p. 116) and -\textit{äne} respectively.

The optative is similarly characterized by the insertion of a suffix between the present, aorist or perfect stem and the endings, which in this case are always the secondary endings, apart from the special endings third-person plural active -\textit{ar} or -\textit{ar}Š (beside secondary -\textit{n}) and first-person singular middle -\textit{a}. In the case of most athematic stems, the optative suffix shows ablaut alternation between -\textit{yä}- and -\textit{-i}- (from *-\textit{je}h_{1}/*-\textit{ih}_{1}-). In all other cases the suffix is a non-alternating -\textit{-i}-, which combines with the final vowel of thematic stems to form the diphthong *\textit{ai} (< Avest. \textit{æ} or \textit{öi}). A special feature of Iranian (attested in Avestan, Old Persian and Sogdian) is the employment of the augment with certain optative forms which express a repeated or habitual action in the past (cf. p. 150).

The endings of the imperative are added directly to the present or aorist stem. (No perfect imperative is attested.) Active: 2 sg. (thematic) -\textit{di}, (athematic) -\textit{di}, 3 sg. -\textit{tu}; 2 pl. -\textit{ta}, 3 pl. -\textit{ntu} or -\textit{ntu}. Middle: 2 sg. *-\textit{swa} (> -\textit{suua}, -\textit{huua}, -\textit{šuua}), 3 sg. -\textit{tam} or -\textit{am}; 2 pl. -\textit{düm} or -\textit{dsim}, 3 pl. -\textit{ntam}. These endings, all of which have exact cognates in Old Indian, are peculiar to the imperative (except for those of the second-person plural, which are
identical with the secondary endings). There is no first-person imperative in Iranian.

Present and aorist stems form their active participles by means of the suffix 
\(-ant/-l-at\) (athematic) or \(-nt\) (thematic), while perfect stems employ the suffix 
\(-uuah/-l-u\). All three types of stem form their middle participles in the same way, with the suffix 
\(-\tilde{a}na\) (athematic) or \(-mna\) (thematic). The latter form may be directly equated with Greek \(-\mu\nu\nu\) (< \(*-\mu\nu\nu\nu\nu\) ), while its Old Indian equivalent 
\(-m\tilde{a}na\) shows the influence of the athematic suffix 
\(-\tilde{a}na\) (< \(*-\mu\nu\nu\nu\nu\) ). Certain other verbal adjectives or participles are not formed from a tense-stem but directly from the root, the most important being the `past participle' in 
\(-ta\), which has a passive sense in the case of transitive verbs, and which comes to provide the basis for all the past-tense formations in most Middle and Modern Iranian languages. Various types of infinitive are attested in Avestan, although none of them is common. As in the case of the participles, some are derived from a tense-stem, others directly from the root. The Old Persian infinitives, on the other hand, are all of a single type (not found in Avestan or Old Indian), the suffix 
\(-tanai\) being added to the full grade (IE \(*e\)-grade) of the root, for example, 
\(\tilde{c}artanai\) `to do' from the root \(kar\).

**Word Formation**

As in Old Indian, the principal means of creating new words in Iranian are suffixation and the formation of compounds. The individual suffixes and types of compound are also largely identical with those found in Indian, see Chapter 4, pp. 121f., and need not be described again here. A peculiarity of Avestan, of which traces survive in some Middle Iranian languages, is the tendency to replace the bare stem by the nominative singular form, both in compounds and before certain suffixes, e.g. 
\(b\tilde{a}zu\).\(ao\j\a\)- `strong-armed', \(da\nu\nu\nu\).\(d\tilde{a}\)- `devil-created', \(da\nu\nu\nu\).\(t\ma\)- `arch-devil' (beside \(b\tilde{a}zu\).\(stu\nu\nu\)- `as thick as an arm', \(da\nu\nu\nu\).\(i\as\)- `devil-worshipper', etc.). A further Avestan development is the employment of the compound form in 
\(-\dd\), originally the nominative singular masculine of the \(a\)-declension (cf. 
\(da\nu\nu\nu\).\(d\tilde{a}\)- etc.), without regard to the gender or declension of the stem, as in 
\(da\nu\nu\nu\).\(s\ac\)- `well versed in the religion' (from the feminine noun \(da\nu\nu\nu\)-) or 
\(kar\).\(a\).\(t\)- (a collective noun derived from \(kar\).\(a\)-, the designation of a class of priests). Similarly in Sogdian, a feminine \(a\)-stem such as 
\(x\tilde{a}\nu\) (< \(*x\tilde{a}\nu\nu\nu\)- `house' appears before certain suffixes as 
\(x\tilde{a}\nu\)- (\(-i\) being the nominative singular masculine ending of the Sogdian \(a\)-declension, cf. Table 5.1, p. 141), e.g. plural 
\(x\tilde{a}\nu\).\(t\)- `houses', in origin a collective noun with suffix 
\(*-t\)-.

The use of `\(v\dd\)h' of the first syllable as a derivational device (see Chapter 4, p. 121) is well established in Iranian, although it never became common as it did in Classical Sanskrit. As parallels to the Old Indian forms
with ā and ār as vṛddhi of a and və/ər respectively one may cite such forms as Avest. hāauuani- ‘(time) appropriate for pressing’ from *hauuana- ‘act of pressing’ (OInd. sāvana-); vərθrayni- ‘victorious’ from vərθrayna- ‘victory’; OPers. Mārgava- ‘inhabitant of Margu-’. Some Iranian languages seem to have agreed with Old Indian also in using the long diphthongs āi, āu (= OInd. ai, au) as vṛddhi of i and u, compare the Old Persian month name θāigraci-, probably from *θigra-ka- ‘garlic’ (cf. Persian sīr ‘id.’ < *θigra-). MPers. wāspuhr (< *wāispuhr) ‘principal’ from wispuhr ‘prince’, etc. In such cases, however, Avestan consistently follows an older derivational pattern in employing the short diphthongs *aj, *aw (> aē, ao, etc.), as in duuaēpa- ‘island’ from *dwi-āp- ‘two waters’ (contrast OInd. dvipā- ‘island’ < *dwi-h₂p-o-, without vṛddhi), daozaifha- ‘hell’ from duž-ahu- ‘id.’ (literally ‘evil existence’).

Syntax

Much less study has been devoted to the syntax of the Iranian languages than to their phonology and morphology. Here it must suffice to mention some of the more important points in which they differ from Old Indian.

One of the most remarkable features of Old Iranian nominal syntax is the ability of the instrumental plural form to substitute for other cases of the plural, as in Avest. vispāiš aoi karšuun yāiš hapta ‘to all the seven continents’ (instr. vispāiš, yāiš for acc.), OPers. XIV raučabiš thakatā āha ‘14 days had passed’ (instr. raučabiš for nom.). Compare also the use of the instrumental plural for the vocative plural in Khotänese (Table 5.1, p. 139) and as a generalized oblique case of the plural in some of the modern Iranian languages of the Pamir mountains (Wakhi -ə or *-aibiš, etc.). Equally noteworthy is the use of the relative pronoun (Avest. yā-, OPers. hayā-/taya-, see p. 143) in attributive constructions such as Avest. daeuuö yö apaosöm ‘the demon Apaosha’ (acc.) or OPers. dahyūnäm tayaisäm parinäm ‘of many lands’, a usage which results from the reinterpretation of a nominal relative clause such as Avest. daeuuö yö apaosöm, originally ‘the demon who (is) Apaosha’, and the attraction of the relative pronoun (and predicate) into the case of the antecedent, giving daeuuö yim apaosöm for *daeuuö yö apaosö (see Reichelt 1909: 370–1).

Several characteristic features of the syntax of the verb in Old Iranian have already been referred to on p. 148, including the use of the injunctive in place of the imperfect as the normal narrative past tense, which is peculiar to Avestan, and the use of the optative (sometimes with augment) to express a repeated or habitual action in the past, for example, Avest. tūm zəmargūžō ākərnuuō vīspe daeūwa, zaraθuštra, yöi para ahmāθ vīro-raoda apataišn pati aiiā ẕmā ‘you, Zarathushtra, drove underground all the demons who previously used to go about on this earth in human form’; OPers. yathā-šūm hača-ma abahāya, avadā akunavayantā ‘as was said to them by me, so they
used to do’; Sogd. čāf awya nāra awī ńasta nīyāse, ńhr ‘tī-śī xā nāra čan ēdasta wāpate ‘however many pomegranates she took in (her) hands, the pomegranates fell from her hands’.

The loss of the IE perfect system, which is incipient in Later Avestan and almost complete in Old Persian, is made good by the creation of a new type of perfect based on the past participle (with an obligatory passive construction, the agent being originally in the dative, replaced in Old Persian by the genitive): Avest. yezi-čā hē aniiā ḛya šiūaodhā frauwaršī ‘and if he has committed other evil deeds’; OPers. ĭma taya manā kārtām ‘this (is) what I have done’ (lit. ‘what (has been) done by me’). In many later Iranian languages this construction comes to express a simple past tense, as in MPers. man kard ‘I did (it)’. Another verbal periphrasis which later becomes widespread, especially in Eastern Middle Iranian, is the so-called ‘potential construction’. This is first attested in Old Persian, where the past participle of a transitive verb is used with the auxiliary kar ‘to make’ (in the active) or bav ‘to become’ (in the passive) to express either a potentiality or the consummation of an action: nai āha märtya ... haya avam Gaumātam tayam magum xsačam dītam čāxriyā ‘there was no one ... who could have deprived that Gaumāta the magus of the kingship’; yaṭā kāntam abava, pasāva bīkā avaniya ‘when it had been dug, then it was filled with gravel’. In Middle Iranian the potential construction also occurs with intransitive verbs (aux. ‘to become’, Sogd. ğw-, Khot. hām-), for example, Sogd. ne nipasta bōt ‘he cannot lie down’; Khot. ku và dṛai máśīṭā parrāte hāmāte, balysā rrundu kṣamotte ‘when three months had passed, the Buddha took leave of the king’.

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The most up-to-date survey of the whole field is to be found in the Compendium Linguarum Iranicarum (Schmitt (ed.) 1989), which includes chapters on the prehistory of the Iranian languages (pp. 4–24, by M. Mayrhofer), on Old Persian (pp. 56–85, by R. Schmitt), both in German, and on Avestan (pp. 32–55, in French, by J. Kellens). For Avestan see also K. Hoffmann 1987. An earlier article by the same author (Hoffmann 1958) gives an incisive characterization of the special features of Old Iranian, as compared with Old Indian, and is still well worth consulting, as is its companion chapter on Middle Iranian (Henning 1958). These surveys supplement but do not replace Geiger and Kuhn 1895–1903, whose chapters on the Old Iranian languages (pp. 1–248, by Chr. Bartholomae), though in many respects dated, remain unsurpassed in comprehensiveness.

The standard edition of the Avesta is that of K. F. Geldner (1886–96, in the original script). The dictionary of Bartholomae (1904) has likewise not been superseded. Most beginners will find that a reader such as Reichelt 1911, which includes selected texts in transliteration together with notes and glossary, provides a convenient introduction to Avestan. The most accessible systematic grammar is that of A. V. W. Jackson (1892), whilst that of H. Reichelt (1909) is especially valuable for the long section on syntax (pp. 218–387). A modern treatment of Avestan phonology and morphology is
provided by Hoffman and Forssman 1996; see also Kellens 1984 and 1995 on the
morphology and syntax of the Avestan verb.

All the works mentioned above cover both Old and Later Avestan, though their
treatment of the former tends to be less complete as a result of the frequent obscurity
of the Gāthās. Modern editions of the Old Avestan texts, with translation and
commentary, include Insler 1975 (Gāthās only), Narten 1986 (Yasna Haptanāhātī
only), Kellens and Pirart 1988–91, and Humbach 1991. The phonology and
morphology of Old Avestan are treated in Beekes 1988 (cf. also Kellens and Pirart
1988: 42–88 on ‘phonétique et graphie’), aspects of its syntax in Kellens and Pirart
1990, which also contains a complete lexicon to the Old Avestan texts.

The most comprehensive edition of the Old Persian inscriptions is that of R. G.
Kent (1953; supplemented by Mayrhofer 1978). The longest and most important
inscription, that of Darius at Bisitun, has recently been re-edited by R. Schmitt (1991).
Kent’s book also contains a historical grammar (more detailed but less reliable than
Schmitt 1986: 56–85) and a lexicon.

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