



IRAN VI. IRANIAN LANGUAGES AND SCRIPTS (5) INDO- IRANIAN

IRAN vi, continued

(5) Indo-Iranian

Several important linguistic changes took place between Indo-European and Indo-Iranian, the reconstructed common ancestor of Iranian and Indian. The reconstruction of this proto-language is based primarily on the oldest recorded stages of Old Indic and Old Iranian, namely the *Rigveda* and the *Old Avesta*. Later stages of the two languages are compared when the older material is not sufficient or when the later languages have preserved obvious archaisms.

PHONOLOGY

Vowel system. The proto-Indo-European vowel system inherited by proto-Indo-Iranian was characterized by the phenomenon commonly referred to as ablaut or “vowel gradation.” In the late 19th-century descriptions of Indo-European, this implied that the vowel *e* could appear as *e*, *o*, or zero (called full grade, *o*-grade, and zero grade) or, lengthened, as *ē* and *ō* (called lengthened grade or *vridhhi*). At the end of the 19th century and the beginning of the 20th, however, it was discovered that Indo-European probably also possessed three sounds



produced in the throat, which were named “laryngeals” (as common in Semitic linguistics), and transliterated as H or ʰ (indexed $H_{1, 2, 3}$, $ʰ_{1, 2, 3}$). The laryngeals would color any e with which they were in contact as follows: H_1 would leave the quality of the e unchanged, H_2 would color it to a, and H_3 to o. The o of languages such as Latin and Greek therefore had a double origin, being the result of ablaut or a laryngeal. As proto-Indo-European gave rise to the individual languages, the laryngeals tended to disappear, leaving behind only traces of their existence. In particular, between a short vowel and a consonant they would disappear after lengthening the vowel. Several vowel changes that had been unexplained earlier could now be seen to be the result of regular ablaut.

When *n/m* and *r/l* in the zero grade column came between consonants, they became vowels, commonly transliterated as $\eta/\bar{m}$, $\bar{r}/\bar{l}$, while laryngeals between consonants became vowels, usually transliterated as $\bar{\epsilon}$ (with indexes if necessary).

The following changes characterize the Indo-Iranian vowel system. The triple vowel series $*\bar{e}$, $*\bar{a}$, $*\bar{o}$ and the corresponding diphthongs ($\bar{a}i$, $\bar{a}u$, etc.) merged into one series ($\bar{a}$, $\bar{a}i$, $\bar{a}u$), but not before the original $*\bar{e}$ had palatalized preceding velars (see below). The vocalic $*n_\epsilon$ and $*m_\epsilon$ became *a* before this merger; hence, from $*g^w m_\epsilon$ - “go, come,” the past participle $*g^w m_\epsilon$ -*tá*- and the present stem $*g^w m_\epsilon$ -*sḱ-e*- became $*gatá$ - and $*ga-sḱ-a$ -, respectively (the OIr. present stem $*jasa$ - is therefore an innovation compared with OInd. *gacchá*-, see below).

The historical correspondences are obscured, however, by other developments, such as that of $*o > \bar{a}$ in open syllable (Brugmann’s Law), the development of long vowels from short ones plus laryngeal, and various analogies.

By “Siever’s law,” the phonemes /y/ and /w/ (also written $\bar{i}$, $\bar{u}$) were realized as y and w only after short syllables, that is, syllables with short vowels plus, at most, one consonant, otherwise as *iy* and *uw*, e.g., OInd. *mṛt-yu*- “death,” Av. *mər^hθiiu*-, OPers. *māršiyu*-, but OInd. $*mart$ -(*i*)*ya*- (trisyllabic) “mortal man,” Av. *mašīia*-, OPers. *martiya*-.

Consonant system. The proto-Indo-European consonant system was



characterized by three series of stops, commonly described as unvoiced, voiced, and voiced and aspirated (e.g., *p, b, bh*), and three series of velars: palatal, velar, labialized (*k̑, ĝ, ĝh; k, g, gh; kʷ, gʷ, gʷh*). The velars were reduced in all the attested languages to two series by the merger of either **k̑* and **k* (etc.) or **k* and **kʷ* (etc.). The following changes characterize the Indo-Iranian consonant system:

The IEur. velars **k/kʷ, *g/gʷ, *gh/gʷh* merged into IIr. **k, *g, *gh*), while **k̑, *ĝ, *ĝh* became the palatal affricates **ć [tś], *j[dž], *jh [džh]*.

Before the merger of *e* with *a* and *o*, the velars were palatalized before the front vowels *e* and *i* and the glide *y*. This development first produced allophones **k ~ *kʲ/ć [tś], *g ~ *gʲ/j [dž], *gh ~ *ghʲ/jh [džh]*, but, with the merger of IE *ě, *ā, *ō* in IIr. **ā* and various analogies, *ć* and *j(h)* became phonemes, e.g., IEur. **gʷhenti* “he smashes” > IIr. **j̑hanti* > OInd. *hanti*, Av. *jaⁱṇti*; IEur. **gʷhn-enti* “they smash” > IIr. **ghnanti* > OInd. *ghnanti*, Av. **ynaⁱṇti*. The original alternation *g(g) – j(h)* was often lost by analogy; e.g., IEur. **gʷṇ₂-dhi* “smash!” > IIr. **gadhi* was replaced by **jadhi* > OInd. *jahi*, Av. *jaⁱḍi*). Analogies also continued separately in the individual languages; e.g., the aorist stem IEur. **ker-/kṛ-* “do” > IIr. **ćar-/kṛ-* > Av. *car-*, but OInd. *kar-*, and the aorist stem IEur. **gʷem-/gʷm-* “come” > OIr. **jam-/gm-*, but OInd. *gam-/gm-*.

The liquids *r* and *l* generally merged in the standard languages, but *l* was sporadically preserved in many dialects, both Indic and Iranian.

A new phoneme **š* and its allophone **ž* developed from various sources:

1. According to the so-called *ruki* rule (a name invented by Indian grammarians), IEur. **s* (and its allophone **z* found before voiced consonants) became IIr. **š (ž)* after the vowels *i* and *u*, after IIr. **r* (from IEur. *r* and *l*) and **ṛ*, and after the IEur. velars (see above), but also after the labials **p* and **b(h)*.
2. IIr. **ć (tś)* and **j (dž)* became *š* and *ž(h)* before dentals (e.g., IEur. **piḱ-tó-* > IIr. **pić-tá-* > OInd. *piṣṭa-*, Av., OPers. *pišta-* “adorned”; IIr. **yaḱ-tá-* > OInd. *yaṣṭá-*, Av. *yašta-* “sacrificed”), and probably after labials (e.g., IEur. **pḱu-* [< **peḱu-* “sheep”] > IIr. **pću-* > OInd. *kṣu-*, Av. *fšu-* “cattle”);



3. IIr. *š and *ž developed in the IEur. “thorn” groups (see, e.g., Fortson, 2004, pp. 59-60): *kþ > *kš (e.g., IEur. *kþā- “rule” > IIr. kšā- > OInd. kṣā-, OIr. *xšā-); *gð(h) > *gž (e.g., IEur. *gʰhðer- “flow” > OInd. kṣar-; Av. γžar-); and

*kþ > *ćš (e.g., IEur. *kþiti- “dwelling” > Ind. kṣiti-, OIr. šiti-); *ġhð > *jž(h) (e.g., IEur. *ġhðem/ġhðom- “earth,” cf. Hittite *tekan*, Gk. *khthón* > Ind. kṣam-; OIr. *zam-*); the simplification of “thorn” groups before consonant is possibly of IEur. date in *ġh(ð)mē “on the earth” > OInd. *jmā*, Av. *zəmə*, cf. Gk. *khamai*.

The final *š, in turn, became voiced before voiced stop, including before vowels (= voiced smooth onset), notably in final position in prefixes and before enclitic particles, e.g., *duž- “bad,” *niž- “out”; *yūž-am pers. pron. 2nd plur. nom. “you.”

The IEur. laryngeals probably became glottal stops (ʔ) or voiced smooth breathing (h) between vowels, later perhaps a mere hiatus (cf. disyllabic OAv. nom.-acc. sing. *dā* “gift” < *daʰah < *deH₃os). After vowel before consonant, they were lost with lengthening of the vowel (e.g., IIr. *dhaH-tar- “maker” > OInd. *dhātar-*, Av. *dātar-*). Other reflexes are difficult to establish, except that H₂ became a simple aspiration after unvoiced stops (e.g., IEur. *p_ltH₂-ú- “broad” > IIr. *p_{rl}tHú- > OInd. *p_{rl}thú-*, Av. *pər^oθu-*). Between consonants, the laryngeals probably became a reduced vowel (e.g., IEur. *steH₂- > IIr. *stā- “stand,” past participle IEur. *stH₂-tó- > IIr. *stHətá- > OInd. *sthitá-).

Assimilation in consonant groups was common and affected the morphology of stems ending in consonants before voiced or unvoiced endings. Usually, the first consonant would be assimilated to the second, e.g., unvoiced + voiced would give two voiced, and vice versa. In the case of two dentals, a sibilant developed between the two, e.g., *mad-ta- “intoxicated” became *mat-ta-, then *mat^sta- (this development may have taken place even earlier, as it is found in other IEur. languages as well).

Two special developments play important roles in the development of groups with voiced aspirates, namely “Grassmann’s Law” and “Bartholomae’s Law” (q.v.). According to Grassmann’s Law, in a sequence of two aspirated consonants, the first lost the aspiration, hence the reduplicated present *dha-dhā- > IIr. *dadhā- “to place.” According to Bartholomae’s Law, in a consonant



group with a (voiced) aspirate as its first member, the aspiration was transferred to the end of the group, and the whole group became voiced. This phonetic change affected mainly verb forms with endings beginning with *t* or *s*. Thus, from the root and stem **augh-* “declare,” we have 3rd sing. **augh-ta* > **aug-dha* (OAv. *aog°dā*) and (with *ruki*) 2nd sing. **augh-sa* > **aug-žha* (OAv. *aoyžā*); from **wajh-* “convey” we have **wajh-tra-* > **waj-dhra-* > Av. *važdra-* “conveyor” (cf. OInd. *voḍhar-*); from the root **dhabh-* “deceive,” we have the (reduplicated) desiderative stem **di-db-žha-* (OAv. *diβža-* “seek to “deceive”), where we have *di-* < **dhi-* by Grassmann’s Law. Of the two roots **dhā-* “place” and **dā-* “give,” we have the 3rd sing. present middle forms: Ilr. **da-dh-tai* “is placed” > **da-d-dhai* > **da-dʷdhai* > OIr. **dazdai*, but **da-d-tai* “is given” > **dat-tai* > **datʰtai* > OIr. **dastai*.

MORPHOLOGY

The morphologies of Rigvedic and Old Avestan differ little and must have been fairly close to that of Indo-Iranian. Most of the Indo-Iranian grammatical categories are found in other Indo-European languages as well, including number, gender, case, and tense. Dual forms survived in nouns, adjectives, pronouns, numerals, and verbs.

The morphology is pervaded by the Indo-European ablaut-system, modified as described above. The ablaut affects roots, suffixes, and endings, subject to a relatively small set of rules: stems, e.g., **wak-/wač-* “word; speak”: plur. nom. **wāč-ah*, acc. **wač-ah*, **ux-θa-* “utterance”; suffixes, e.g., *u*-stem noun: **was-u-* “good,” gen.-abl. sing. **was-au-š*, nom. plur. **was-aw-as*, fem. stem *was-w-ī-*; *nu*-stem present: **kṛ-nau-* “do,” 3rd sing. act. **kṛ-nau-ti*, mid. **kṛ-nu-tai*, 3rd plur. **kṛ-nw-anti*; endings, e.g., *u*-stem **krat-u-* “wisdom”: gen.-abl. sing. **krat-w-as* versus **was-au-š*. There were a few “doubly ablauting” noun stems (full grade versus zero grade in both stem and suffix): Ilr. nom. **pant-aH₂-s* “path,” gen.-abl. sing., acc. plur. **pnt-H₂-as* > OInd. *panthās* (for **pantās*), *pathas*; Av. *paṇtā*, *paθō*.

Most endings were synthetic, denoting gender, number, and case in nominal forms and number, tense, and person in finite verb forms; for instance, **sain-ā-* “army,” feminine noun *ā*-stem: **sain-ā-m* singular + accusative, **sain-ā-s* plural + nominative or accusative; **gr̥H-i-* “mountain,” masculine noun, *i*-stem: **gr̥H-*



ay-ah plural + nominative, **gr̥H-i-nš* plural + accusative; **bhara-* “carry,” pres. *a*-stem: **bhara-t* 3rd sing. pres. injunctive + active, **bhara-ta* 3rd sing. injunctive + middle, etc.

Nouns and adjectives. Nominal forms had eight cases (q.v.), with some syncretism, especially in the plural and dual. The system of vowel and consonant stems was largely that known from Old Indic and Old Iranian, except that long-vowel stems were treated as consonant stems: vowel plus laryngeal, e.g., **tanuH-* “body,” OInd., Av. *tanū-*: acc. sing. **tanuH-am* > **tanu-am*.

There was a subset of *i-* and *u-*stems with lengthened grade of the suffix alternating with full and zero grades. Old Iranian has more examples than Old Indic of this type, which may be an archaism or due to later analogical spread (cf. IIr. **sakH₂-i-* “companion”: sing. nom. **sakH₂-ā*, dat. **sakH₂-y-ai*, OInd. *sakhā*, *sakhye*, YAv. *haxa*, *haše* [< **hač-y-ai*]; OAv. *kauui-* “poet”: nom. sing. *kauuā*, YAv. acc. sing. *kauuaēm* [< **kaw-ay-am*], gen. plur. *kaouiqm* [< **kaw-y-ām*, but OInd. *kavís*, *kavīnām*]); OIr. *bāzu-* “arm,” OAv. nom. *°bāzāuš* [in compounds], gen. dual *bāzuuā* [but OInd. *°bāhus*, *bāhuós*]).

The archaic neuter *r/n-* (*l/n-*) declension, found in remnants throughout the Indo-European area, was well represented, e.g., OInd. *yak-ṛ-t* “liver,” gen.-abl. *yak-n-as*; OIr. **ayar/n-* “day,” **huwar/n-* “sun” (cf. Latin *fem-ur* “thigh,” gen. *fem-in-is*; Hittite *wātar* “water,” gen. *wetenaš*, Gk. *hud-ōr* “water,” gen. *hud-a-t-os* < **ud-ṛ-t-os*, Eng. *wat-er*, Norw. *vat-n*; Latin, Norw. *sol*, Eng. *sun*).

The endings for case and number were the same in nouns, adjectives, and, to some extent, pronouns, as well as in all declensions, except in the *a*-declension, which had several special endings, for instance, gen. sing. **-asya* (cf. Greek *-oio*), as opposed to **-as/-s* in the other declensions and instr. plur. **-āiš* (cf. Greek dat. plur. *-ois*), as opposed to common **-bhiš*.

The *a*-stems also changed the stem vowel *-a-* to *-ai-* before several endings in the plural and dual (plur. dat.-abl. **-ai-bhyas*, dual gen. **-ay-ās*), but to *-ā-* in the dual before the instr.-dat.-abl. ending (**-ā-bhyā*).

The ablative singular had a distinct form in **-t* only in the *a*-stems (**-āt*, e.g., **daiwāt* “from a god,” cf. Latin *deō* < **deōd*) and the masculine/neuter pronouns; otherwise it was identical with the genitive.



Some masculine *r*-stems and many neuter *n*- and *r/n*-stems formed their gen.-abl. sing. by adding *-s to the stem (rather than *-as; e.g., *nar- “man,” gen.-abl. sing. *nr̥š, Av. nər̥š; *huwar “sun,” gen.-abl. sing. *huwan-s, OIr. *huwaŋ-h).

In the nominative plural of masculine *a*-stems, the ending *-āsas may have been a stylistic variant of *-ās, which remained in both Old Indic and Old Iranian (Av. -āṇhō, OPers. -āha).

The plural neuter of many consonant stems with stem formants was formed by lengthening the vowel of the suffix (e.g., *man-as “thought,” plur. *man-ās, Av. manā; *r/n*- declension: *ayar/n “day,” plur. *ayār or *ayān). This type remained in Iranian, but was lost in Old Indic, where an ending -i was generalized (e.g., OInd. manāṃs-i).

The genitive plural ending -ām was probably disyllabic (always in Old Avestan, often in Old Indic).

The instrumental-dative-ablative dual probably ended in *-bhyā (OAv. -biiā, but Old Indic -bhyām, often disyllabic), and the genitive and locative were probably still distinct (endings gen. *-āh, loc. *-ah, both replaced[?] by *-aus > -os in Old Indic).

Pronouns. The enclitic 2nd person nom. sing. IIr. *tū and plur. IIr. *yūš/yūž, as well as the 1st and 2nd sing. acc. *mā and *twā, survived only in Iranian.

The enclitic 1st and 2nd person plur. acc. IIr. *nās, *wās (cf. Latin nōs, vōs) were distinct from the gen.-dat. IIr. *nas, *was (OIr. acc. *nāh, *wāh > OAv. nā, vā; OIr. gen.-dat. *nah, *wah > OAv. nē, vē); in Old Indic and Young Avestan the accusative forms were replaced by the genitive-dative forms.

There were several enclitic 3rd person forms, both nominative and oblique, which survived in Old Iranian, but only as relics in Old Indic; for instance, of the stem *si- “he, she” (OIr. hi-), only the OInd. fem. acc. sing. sīm survived; and of the stem *i- only adverbial forms (e.g., i-ha “here,” Av. i-ḍa).

The dative singular forms of the 1st and 2nd person pronouns were probably *ma-ḡhi-a and *ta-bhi-a (cf. Latin mihī and tibī < *ei), which were remade in Old Indic as mahya-m and tubhya-m, but in Old Iranian as *mabya(-h) and *tabya-h (the original *ma-ḡhi-a, OIr. *mazya, may have survived in Wāḡi maž).



The original forms of the demonstrative pronouns are difficult to reconstruct (a common phenomenon), with various earlier, unrelated forms incorporated into single paradigms. For instance, the near-deictic pronoun had nom. sing. masc. **ay-am* “this,” fem. **iy-am* (< **ī-*); the acc. sing. masc. was **ima-m* from the stem **ima-*, which had been remade from IEur. **i-m* “this.” The same pronominal stem is found, for instance, in Latin *i-s* “he,” acc. *i-m*, later *eum* “him” (< **ey-om*, with ablaut). Other oblique forms were made from a stem *a-* (e.g., gen. sing. masc.-neut. **a-sya*). The far-deictic pronoun had an oblique stem **awa-* “that,” but nom. sing. masc. and fem. forms based on **sa-*, **sā-* (OInd. *asau*, OPers. *hauv*), which it is difficult to distinguish from the 3rd person personal pronoun from **sa-/ta-* (OAv. *hūuō*, *hā*, *təm*).

Forms with 2nd-person deixis were also found (“that one near you”), but are rare in the texts; in Old Indic this category survives as the so-called “*sá figé*” (fixed, i.e., indeclinable, *sá*) and in Old Avestan as *hūuō* (see Watkins, 2000), oblique stem *ana-* (Skjærvø, 2009, in Windfuhr, ed.).

Special pronominal endings include the following: nom. sing. fem. **-ai* (e.g., OAv. *x^vaē°* “own”; cf. Latin fem. *haec* “this”), nom.-acc. neut. sing. **-t* (e.g., **kat* “which?” **čit* “what,” cf. Latin *quod*, *quid*, Eng. *what*), nom. masc. plur. **-ai* (e.g., **imai* “these”); the suffixes masc. **-sm-*, fem. **-sy-* > OIr. **-hm-*, **-hy-* in some oblique forms in the singular, e.g., dat. masc. **a-sm-āi*, fem. **a-sy-āi* “to this” > OIr. **a-hm-āi*, fem. **a-hy-āi* (there are similar forms in Germanic languages, e.g., Eng. *him*, *her* [with *-r* < *-z*]); and **-s-* in the gen. plur. masc. **-ai-š-ām*, fem. **-ā-s-ām*, e.g., masc. **aw-aišām*, fem. **aw-āsām* “of those.”

Number words. The numerals “3” and “4” had special feminine forms inherited from Indo-European (also found in Celtic), e.g., nom. masc. **trāyas*, but fem. **tišras* (Av. *θrāiiō*, *tišrō*), masc. **čatwāras*, but fem. **čatasras* (Av. *caθβārō*, *catagrō*). Other number words included ordinals (see below) and multiplicatives, e.g., IIr. **dviš* and **triš*, YAv. *biš*, *θriš* “twice, thrice” (see Emmerick, 1992).

Verbal system. The verbal system was based on three stems: present, aorist, and perfect. The present and aorist were formed according to a variety of stem systems (athematic [e.g., *jan-* “smash”], thematic [e.g., *bar-a-* “carry”], reduplicated [e.g., *hi-šta-* “stand”], with suffixes [e.g., Av. *kərə-nao-* “do”]). The verb had active and middle forms (that is, forms indicating passive [see below]



or action performed in the interest of the actor).

There were several sets of endings. The present indicative took “primary” endings; the present injunctive, aorist, pluperfect, and optative took “secondary” endings (e.g., pres. indic. 1st sing. *-ā, *-mi, 3rd sing. *-ati, but inj. *-am, *-at; 1st plur. *-mas, *-masi, but inj. *-ma); and the subjunctive took either primary or secondary endings. The perfect indicative took a special set of endings (e.g., 1st and 3rd sing. *-a, 2nd sing. *-θa, 3rd plur. *-ar).

The augment *a-* could be preposed to present injunctive and aorist forms (see Syntax, below).

The 1st sing. present indicative of thematic verbs had the ending *-ā, which is still found in Avestan but was early replaced by -āmi with -mi from the athematic verbs: *bharā (cf. Gk. *phérō*, Latin *ferō*) > *bharā-mi “I carry”, paralleling the subjunctive IIr. *-ā and *-āni.

A few verbs have 3rd singular middle in *-ai, an archaism inherited from Indo-Iranian and Indo-European, e.g., IIr. *mruH-ai “it is said” > OInd. *bruvé*, Av. *mruīie*.

The inherited 3rd plural and dual endings in *-r or *-rš were used as active endings in the present and aorist optative (e.g., 3rd plur. pres. opt. *hiiār^o* “may they be,” aor. opt. *jamiīār^oš* “may they come [now]”) and the perfect/pluperfect (OAv. perf. 3rd plur. *vaonar^ē* “they have [ever] won,” 3rd dual *vaocātar^ē* “they have [ever] spoken”; pluperf. 3rd plur. *cikōitərəš* “they are marked” [?]); they were used in middle endings in the present indicative and imperative (e.g., pres. ind. 3rd plur. IIr. *mruH-ārai > Av. *mruuāⁱre*; 3rd plur. IIr. *ćai-rai > Av. *sōire* “they lie,” cf. 3rd sing. OInd. *śaye* “he lies,” but Av. *saēte*; imperative 3rd plur. *jēn^orqam* “let them be smashed!”), as well as in the perfect optative (IIr. *va-wj-ī-ram > *vaozirəm* “they would have been carried away”). The *r*-endings in the 3rd plural middle present indicative and imperative originally corresponded, at least in part, to the 3rd singular middle in *-ai (cf. YAv. *mruīie*, *mruuāⁱre*). Several of these forms survived into Middle Iranian.

The 2nd plural imperative active of ablauting root stems took the full grade, an archaism lost in Old Indic (e.g., OInd. *stota*, YAv. *staotā* “praise!”).



The 3rd singular forms in *-i* were used as passives (Old Indic has only aorist forms, Avestan also forms from the present stem).

Active participles were formed from the present and aorist stems with the ablauting suffix **-ant-/at-* [$< *-\eta t-$] and from the perfect stem with the suffix

**-wās-/uś-* (perhaps incorporating forms in **-wat-*, which survived only in Old Indic). The addition of the suffixes **-wās-/uś-* caused a variety of morphophonological alternations, e.g., **yat-* “take up one’s position,” perf. stem **ya-yat-/ya-it-*, participle **yait-wah-/yait-uś-* $>$ Av. *yōiθβah-/yaētūš-*, **wak-* “speak,” perf. stem **wa-wac-/wa-wk-*, participle **wa-uk-wah-/wa-uk-uś-* $>$ Av. *vaox^vah-/vaokuš-*; note also **taš-* “shape,” perf. stem **tataš-/*ta-tš-*, participle **ta-tš-wah-* $>$ YAv. *taršuuah-* (see Skjærvø, 1997).

Middle participles were formed with a suffix containing *m-n* (OInd. *-amāna-*, OIr. **-amna-*) used with thematic verbs and **-āna-* with athematic verbs.

The past participle in *-ta-* was common, as were verbal adjectives in **-tHa-* and **-iHa* $>$ **-ya-* (disyllabic) forming “participles of necessity.”

Infinitives were common, though their forms vary in the attested languages; typically they were formed like datives ending in **-ai* (**-wai*, *-nai*, **-tawai/-tayai*, etc.).

SYNTAX

The noun phrase. Among noteworthy points of syntax was the survival of the old Indo-European rule that neuter plurals took their verb in the singular, a consequence, perhaps, of the fact that some forms of the neuter plural were originally collective singulars. The rule survived in Greek and Avestan, but was lost in Old Indic (e.g., OAv. *yā ... vāuuəərəzōi* [neut. plur.] have been produced [3rd sing.]”).

In their use of cases, Old Indic and Old Iranian agree and so reflect the Indo-Iranian syntax, which in turn is in the main that of other ancient Indo-European languages. Two special usages are the following.

The nominative naming phrase prominent in Old Persian is an Indo-Iranian archaism found in Old Indic as well as in Young Avestan and Old Persian



(Hoffmann, 1960), e.g., YAv. *yim mašiiāka auui dužuuacaṇhō kahrkatās nāma aojaite* “which people of evil speech call ‘chicken’ (its) name” (*Videvdat* 18.15), where *kahrkatās nāma* is in the nominative; OPers. *sikayauvatiš nāmā didā nisāya nāmā dahayāuš mādaiy avada-šim avājanam* “a fortress, Sikayauvati by name, a land, Nisāya by name, in Media, there I slew him” (Darius at Bisotun 1.58-59).

The locative was used with the verb **jhā-* “leave behind” to mean leave the competitor behind at the finish line, that is “win” the competition (Hoffmann, 1968, p. 223).

The verb phrase. The syntax of the verb was dominated by aspect and mood. Forms from the present stem described an action or state as ongoing, but forms from the aorist stem as started and/or completed; forms from the perfect stem denoted state resulting from a past event. Past tense could be indicated by an augment *a-* preposed to present and aorist forms (**adadāt* “he used to give,” **adāt* “he gave, has/had given”). Forms without the augment (present and aorist injunctive) were very common, being used to denote action without a particular time frame (**dadāt* “he usually gives,” **dāt* “he has [just now] given”).

The subjunctive had a basic prospective meaning and was used to express future, purpose, etc., while the principal functions of the optative were to express wish and unreal conditions.

Passive constructions, whether with middle forms with passive meaning or the special present formation in *-*ya-* were non-agential. In Iranian, agential passives are not found until in Old Persian (see below).

Word order. The unmarked Indo-Iranian word order was subject – direct object – verb, but variations, such as raising and lowering, were common for stylistic purposes (Skjærvø, 2009, in Windfuhr, ed., pp. 196-278).

FROM INDO-IRANIAN TO OLD IRANIAN

After the splitting up of the Iranian and Indo-Aryan tribes, the phonological systems took different paths in several important respects.

Vowels. In Old Indic, at some stage, the diphthongs *ai* and *au* were



monophthongized to *e* and *o*, while this development took place much later in Iranian.

In Old Indic, the IIr. interconsonantal **ə* (from IEur. laryngal) merged with IEur. **i*, while it was lost in Old Iranian in all positions, though anaptyctic vowels developed in some initial consonant groups, e.g., IIr. **pHtar*- “father,” OInd. *pitar*-, OAv. *ptar*-, YAv. *patar*-/ *pitar*-, OPers. *pitar*-; IIr. **dugHtar*-, OInd. *duhitar*-, OAv. *dug^ədar*-, YAv. *duxtar*- “daughter” (note that the Av. anaptyctic -^ə- has nothing to do with the IIr. **ə*).

IIr. **r̥H* became OIr. **ar*, but OInd. *īr* or *ūr* before consonant, and *ir* or *ur* before vowel, e.g., IIr. **gr̥Hi*- “mountain”: OInd. *giri*-, Av. *gaⁱri*-; IEur. **p̥l̥H-u*- “much” (cf. Gk. *polu*) > IIr. **pr̥Hu*-: OInd. *purú*-, OPers. *paru*-; IEur. **d̥l̥gho*- “long” (cf. Gk. *dolikhós*), IIr. **dr̥Hgha*-: OInd. *dīrgha*-, OPers. *darga*- “long” (Pers. *dir* “late”); **pr̥Hwa*- “earlier, past” > OInd. *pūrvá*-, OPers. *paruva*-.

There are a few exceptions, e.g., IEur. **p̥l̥Hno*- “full” (cf. Latin *plēnus*, Eng. *full*) > IIr. **pr̥Hna*- > OInd. *pūrṇá*-, but Av. *pər^ana*- (Pers. *porr*; see Vaan, 2003, pp. 506-7).

Consonants. Several major changes took place in the consonant systems, which made Old Iranian look quite different from Old Indic, among them the following.

The IIr. sibilant *s* remained in Old Indic; in Old Iranian, it became *h* before vowels when word-initial or between *a*, *ā* and a vowel, e.g., OInd. *sama*- “same,” OIr. *hama*-; OInd. *asura*- “lord,” Av. *ahura*-. In Old Indic, final *-as* became *-aḥ* only before certain sounds in the word that followed. (See Hintze, 1998, for a possible chronology of this change; see above, Earliest Evidence.)

Old Iranian lost the aspiration of voiced aspirated stops and affricates (e.g., OInd. *bhara*- versus OIr. **bara*- “carry”), which, among other things, led to the homonymy of the two verbs OInd. *dhā*- “to place” and *dā*- “to give,” both OIr. **dā*-.

As for the two palatal series, in Old Indic, the voiceless palatal affricate **č* (*tś*) lost its closure and became the new phoneme palatal *ś*; the voiced palatal affricates merged with the voiced alveo-palatals: **j* and **ǰ* > *j* and **j̥h* and **j̄h* >



h, while a new aspirated alveo-palatal phoneme *ǰh* arose from various origins (see also below). In Iranian, the affricates **č* and **ǰ* probably remained. The assumption that they had become *ts* and *dz* (thus in the *CLI*) does not provide a better explanation of the later phonetic developments and does not explain the Northeast-Iranian forms (see below and, e.g., MacKenzie, 1991, p. 173). IIr. **č* and **ǰ* may survive in the Nuristani languages as *ts* (> *s*) and *dz* (> *z*) (IIr. *dača* “ten” > Nur. *duts*; IIr. **ǰhima*- “snow” > Nur. *dzim*, *zim*; Degener, 2002, p. 104).

The loss of aspiration of affricates led to larger systematic differences between the two branches. In Indic, the original palatal **ǵh* and the original **gh* when palatalized by a following *e*, *i*, or *y* to **ǰh* [džh], both became *h*, while, in Iranian, **ǵh* became **ǰ* [dž], and palatalized **gh* remained as **ǰ* [dž]. In the Nuristani languages, too, IIr. **ǰh* apparently became **ǰ* (> *ž*, Degener, *ibid.*; also before secondary *i* < **ə* in *lüšt* < **duǰitar*- < **dughətar*-). Hence we have the following correspondences:

IEur.	IIr.	OInd.	OIr.
<i>*ǵ</i>	<i>*ǰ</i>	<i>ǰ</i>	<i>ǰ</i>
<i>*ǵh</i>	<i>*ǰh</i>	<i>h</i>	<i>ǰ</i>
<i>*g</i>	<i>*gʷ</i> > <i>*ǰ</i>	<i>ǰ</i>	<i>ǰ</i>
<i>*gh</i>	<i>*gʷh</i> > <i>*ǰh</i>	<i>h</i>	<i>ǰ</i>

Examples: IIr. **ǰanas* “kind”: OInd. *janas*-, Av. *zanah*- (cf. Latin *genus*); IIr. **bhrǰh-ant*- “high”: OInd. *bṛhánt*, Av. *bər^əzaṇt*- (cf. German *Burg* “castle,” Pers. *Al-borz*); IEur. **g^wenH₂-i*- > IIr. **ǰan(H)-i*- “woman, wife” (cf. Eng. *queen*): OInd., OIr. **ǰan-i*- (Pers. *zan*; cf. IEur. **g^wneH₂-* > OInd. *gnā*-, Av. *g^ənā*- “[heavenly] woman”; cf. Gk. *guné* and *gúnai*); IIr. **ǰhan*- “to smash”: OInd. *han*-, Av. *jan*-.

In Old Iranian, dental stops were lost (assimilated) before *s/z* (OInd. *matsya*- “fish,” Av. *masiia*-).

In Old Indic, the sibilants (*s/z*, *ś*) were lost between dentals in the group T_1ST_2 , both those from IEur. T_1ST_2 and those from IEur. $T_1^sT_2$, while, in Old Iranian, *ts* and *dz* were assimilated to *s* and *z* (e.g., **ud-stHā*- “stand up” > OInd. *utthā*-,



OIr. **ustā-*; **wid-ta-* “found” > **wit^sta-* > OInd. *vitta-*, OIr. **wista-*; IIr. **ruddha-* “grown” > **rud^zdha-* > Ind. *ruddha-*, **OIr. ruzda-*. The rule also worked in the case of dentals plus palatal or alveo-dental affricates ($\check{c} = t\check{s}$, $\check{j} = d\check{z}$), e.g., **ud-k^yē* “upward” > **ut^stšā* > OInd. *uccā* = **uttšā*, OIr. **uscā* = **ustšā*.

Groups of consonant plus the palato-alveolar sibilants **š* and **ž* developed regularly in Iranian, but variously in Old Indic: IIr. **pš* became OInd. *kṣ* initially, but *ps* (*pš*) between vowels (cf. OInd. *kṣu-*, Av. *fšū-* “cattle,” and OInd. *drapsa-* “drop” and YAv. *drafšā-* “banner”). IIr. **ž* remained in Iranian, but was eliminated in various ways in Old Indic: the original voiced “thorn” groups merged with the unvoiced ones into *kṣ*; voiced **bž* was unvoiced and became *ps* like IIr. **pš* (cf. **dibž[h]a-* > OAv. *diβžā-* “deceive,” but OInd. *dipsa-*). In prefixes and *in pausa* (including before enclitics), **ž* (< **š*) became *r* before vowels and voiced consonants other than *d* and *n*, e.g., the prefixes OInd. *dur-*, *nir-*, Av. *duž-*, *niž-*; the 2nd plural pronoun **yūž-am* (Av. *yūžəm* “you [plur.]”), instead of becoming *†yūr-am*, became OInd. *yūyam*, apparently in analogy with *vayam* “we”). Before *d* and *n*, IIr. **ž* (< **š* or **j[h]*) was assimilated in Old Indic to produce retroflex *ḍ(h)*, e.g., Av. *duž-daēna-* “having a bad *daēnā*,” OInd. *dūḍhī-* < **duž-dhī-* “having bad [poetic] vision”; IIr. **waž-dh-* in derivatives of **waž-* “convey” > OInd. *voḍh-*, OAv. *važd-* (see above).

In Old Iranian, the IIr. unvoiced stops *p*, *t*, *k* became *f*, *θ*, *x* before other consonants, including original laryngeals (*H*), e.g., OInd. *cakra-*, Av. *caxra-* “wheel”; OInd. *trita-*, Av. *θrita-* “third”; OInd. *priya-*, Av. *friia-* “dear”; IIr. **ratHa-*, OInd. *ratha-*, Av. *raθa-* “chariot.”

Double consonants of various origins were simplified, notably those resulting from assimilation, e.g., *s-s* > *s*, *z-z* > *z*, *s-tš* > *s*, *tš-š* > *š*, *jž* > *ž* (for examples, see above), *d-n* > *n* (cf. IIr. **b[h]udhna-* “bottom” > OInd. *budhna-*, Av. *buna-*), *p-b* > *b* (cf. IIr. **ap-bhyas* “to the waters” > OInd. *adbhyas*, OIr. **abyah*, YAv. *aⁱβiiō*).

Two special cases are IIr. **jasta-* /*dzasta-* “hand” and **huwarnah-* (some kind of divine fortune), which developed regularly to Av. *zasta-* and proto-Av. **huwarnah* (OAv. *x^var^ənah-*, probably trisyllabic), but in the other (attested) languages to **dasta-* and **farnah-* (for literature on these words, see *CLI*, pp. 6, 89).



Accent and stress. Although stress is not indicated in any way in the orally transmitted Avestan texts, various features indicate that proto-Avestan had a stress accent that coincided, at least to some extent, with the Rigvedic accent. Thus, in the accented syllables *-ár- and *-ǎ-, the r was unvoiced before p, t, k in proto-Avestan (*kṛp- “shape”: acc. sing. *kṛp-am, Av. kəhrp-əm, versus hu-kər^əp-ta- (< *hú-kṛp-ta-) “having a good shape”; *bár-tar- “carrier” > OIr. *ba^hrtar- > YAv. bāšar- versus *bṛtá- “carried” > bər^əta-; *mark- “destroy”: *marka- “destruction” > Av. mahrka- versus *á-mṛk-ti- “absence of destruction” > a-mər^əx-ti-; see also below).

In the athematic optative in *-yā-/ī-, Old Iranian has the, apparently, older zero grade in forms with accent on the preceding syllable, versus full grade in Old Indic (OAv. *daⁱdīṭ* “may he place,” OInd. *dadyāt* “may he give”; YAv. *vaⁱnīṭ* “may he win”).

Other survivals of Indo-Iranian accent patterns have been proposed, but are hard to prove.

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