

Lanman, C. R.

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Classification and history

Reprint from Transactions of the
American Philological Association
Volume 53, pages 83-102
1923

*To Mr. Salomon Reinach
with the profound respects of
C. R. Lanman.*

NOV 25 1923

Bibliothèque Maison de l'Orient



150014

VI. — *The Sanskrit Aorists: Their Classification and
History*

BY PROFESSOR CHARLES R. LANMAN

HARVARD UNIVERSITY

THIS paper is a by-product of the work of elaborating a *Sanskrit Grammar for Beginners*. *Brevis esse laboro, obscurus fio*. Between the Scylla and Charybdis of prolixity and inadequacy is hard steering. And so I was the more glad to accept the Executive Committee's kind invitation to print this essay in the *Transactions*, because I felt that, with it once printed, I could the more ruthlessly and easily trim it down to the Procrustean limits of the 'little grammar.' Lest any one deride me for including a table of paradigms in a 'paper,' I will add that I have put into the typography of the Table so much of painstaking ingenuity as may (I hope) justify me. Whoso doubts, — let him examine for instance the grammar of the admirable Kielhorn, where the aorist paradigms chase one another bewilderingly from page 127 to 137 and from page 145 to 147; or let him look at pages 181 to 187 of the grammar (1805) of the giant Colebrooke.

The facts concerning the aorists of the Vedic and classical Sanskrit are given in a masterly way by one of the founders of this Association, its first president (*Transactions*, L, 6), William Dwight Whitney, in his *Sanskrit Grammar*, and in the Supplement thereto, his Root-book. Had more of life and strength been granted to that stout-hearted old veteran for the study of these, his own, two works, we should probably have had a revision of the aorist-chapter which would have put this subject in a clearer light. Just this, and no more, is all that I try to do in this paper. It presents no new facts; but it endeavors to interpret long-known facts in a different way. These interpretations concern in the main the hybrid forms of the *s*-aorist and the abortive beginnings of the so-

called *siṣ*-aorist. If other matters are stated with more clearness than hitherto, — *tant mieux*.

The hybrid *s*-aorist forms in *-is* and *-it*. — It happens that the laws of Sanskrit sound-combination are such as to make the normal Vedic forms of the 2d and 3d singular active of the *s*-aorist (such as *anāis anāis*, for *anāis-s anāis-t*, from *nī*, lead) ambiguous and characterless. Whitney (at 880) says: "Before *s* and *t* of 2d and 3d sing. act. of the *s*-aorist is in the later language always inserted an *i*, making the endings *is* and *it*. This insertion is unknown in the earliest language."

But this *i* is no "insertion." In the later forms of the *s*-aorist, such as *anāiṣ-is anāiṣ-it*, we have in fact a taking-over, bodily, of the entire ending of the corresponding form of the *iṣ*-aorist, such as *abodh-is abodh-it* (which ending already contains the tense-sign *iṣ* and also the personal ending *s* or *t*), and an adding of it to the older forms of the *s*-aorist, such as *anāis anāis* (which forms already represent both the tense-sign *s* and the personal ending *s* or *t*). The forms *anāiṣ-is anāiṣ-it* are accordingly hybrid forms, that is to say, complete *s*-aorist forms to which normal endings of the *iṣ*-aorist have been superadded.¹

The *siṣ*-aorist forms. — These are an abortive outgrowth from the hybrid forms of the *s*-aorist of roots in *ā*. Beside the normal forms (such as *ayās-am ayās-us*) of the *s*-aorist of *yā*, we find also the hybrid form *ayās-it*. But if the 1. s. to *abodh-it* is *abodh-iṣam*, then a wholly analogous 1. s. to *ayās-it* should be and is *ayās-iṣam*. This is the point of derailment of the *s*-series into the *siṣ*-series.

A grammar of classical Sanskrit cannot be blamed for giving, as a paradigm of the *s*-aorist, *anāiṣ-am anāiṣ-is anāiṣ-it* etc., thus mingling new with old, and allowing the hybrid forms to displace the old and normal *anāis anāis*. But it is this mingling and displacing which confuses the genetic relations of the *s*-aorist series to the *iṣ*-aorist series. By all means, let the usual paradigm of the *s*-aorist stand, but let the grammars fail not to emphasize the secondary and later character of the hybrid forms.

¹ It is doubtless a very similar thing which has happened in the common classical forms of root *as* (be), namely *ās-is ās-it*, which replace the normal but ambiguous Vedic forms *āṣ ās*, standing for *ās-s ās-t*: cf. Doric ἄς (3d sing.). Perhaps the like holds also for the forms *abrav-is abrav-it*. — Similarly, to the complete Vedic word *i-d* (pronominal root and case-ending) is added yet another case-ending *-am*, giving *idam*. And so, in modern English, to the nom.-acc. s. neuter *i-t*, is superadded a genitive ending *-s*, giving *its*.

The Aorists : Simple, Reduplicated, Sigmatic

The aorist is used in classical Sanskrit as a simple past tense, often in connection with a perfect or an imperfect, and without distinction therefrom. In the Veda it is used for what has just taken place. Nearly half the roots that occur in the *Rig-Veda* show aorist forms; but in much of the classical Sanskrit, the aorist is of infrequent occurrence. The *s*-aorist and the *iṣ*-aorist are the most important. The reduplicated aorist serves as the aorist of causatives. Isolated Vedic forms survive in common phrases like *mā bhāis* (fear not) and *mā gās* (don't go): see also p. 86 end.—Note that the same root often makes aorists of more than one formation. Thus *gam* (go) shows all three: root-aorist, *agam-am*; reduplicated, *aḷigama-m*; sigmatic, *agam-s-i*.

Of each of the three formations (simple, reduplicated, sigmatic) there are two kinds, according as the stem does not end in *a*, or does end in *a*. Of the reduplicated aorist, however, the non-*a*-forms appear only in the Veda, and in meagre traces (*gṛ*, wake, *aḷigar*; *dhṛ*, hold, *adīdhar*; *svap*, sleep, *asiṣvap*), and accordingly do not count as one of the accepted 'seven' aorists.

Furthermore, the aorist tense-sign *s* (like the future tense-sign *sya*) is added to some roots directly, but to others with the disjunctive *i*: so that, to the *s*-aorist, we must add a sub-variety, the *iṣ*-aorist. But of this last, there are found only forms of the non-*a*-conjugation. The '*siṣ*-aorist' is merely an abortive outgrowth (see pp. 94-98) from the *s*-aorist, and (like the *iṣ*-aorist) makes only forms of the non-*a*-conjugation.

Of the simple aorist, the forms from non-*a*-stems may be called root-aorists, and those from *a*-stems may be called *a*-aorists. Likewise, of the sigmatic aorists, the forms from stems in *s* may be called *s*-aorists; and those from stems in *sa* may be called *sa*-aorists. And since reduplication is the salient characteristic of the remaining variety, we may call this the reduplicated aorist. The numeration here used for

the 'seven' aorists is the traditional one; and it appears in the following table, which shows each formation, each with one example of a root and its aorist stem.

SIMPLE		REDUPLICATED	SIGMATIC		
Non- <i>a</i> -	1. root-aor.	(Vedic)	4. <i>s</i> -aor.	5. <i>iṣ</i> -aor.	6. <i>siṣ</i> -aor.
-conj. }	dā, adā	gf, ajīgar	nī, anāiṣ	pū, apāviṣ	yā, ayāsiṣ
The <i>a</i> -	2. <i>a</i> -aorist	3. redupl. aor.	7. <i>sa</i> -aorist		
-conj. }	sic, asica	jan, ajījana	diç, adikṣa		

The sequence of these seven classes of aorists is very clear from the Table. First, as to the precedence of the non-*a*-conjugation over the *a*-conjugation. In all these aorist forms, the most pervading difference is this, that some are made from non-*a*-stems and the rest from *a*-stems. Since the forms from non-*a*-stems (upon the whole) very greatly outnumber those from *a*-stems, the non-*a*-conjugation is put first.

Second, as to the sequence of the three formations, simple and reduplicated and sigmatic. It is obviously natural to put the simplest formation first, the reduplicated (which is without any extraneous element, other than the augment, which is common to all) next, and the formation with the extraneous element (*s*) last. — Each of these three formations constitutes a minor sequence by itself: and accordingly, the root-aorist comes first and the *a*-aorist comes second; and the sigmatic aorists (4, 5, 6) of the non-*a*-conjugation are followed by the *sa*-aorist as seventh.

Thirdly: within the sigmatic formation, the forms of the non-*a*-conjugation show three sub-varieties. Here again it is plain, without any showing, that the formation with simple *s* should come first, that with *iṣ* next, and that with *siṣ* last.

The augment belongs regularly in classical Sanskrit to all aorist formations. But in the Veda, augmentless forms are extremely common, and in sense are indicative or injunctive or precativ. Prohibitive phrases with *mā* are frequent, and many of these survive in classical diction: *mā bhū* . . .

(be not . . .), mā rudas (don't cry), mā vadhīs (don't strike), mā glāsīs (tire not).

The endings are the secondary ones. Apart from a trifling exception (at p. 98 d),² all the stems in *a* are inflected exactly like any imperfect of the *a*-conjugation.

The precativē, as being an optative of the aorist, is treated with the other aorists, and at the end. — For a conspectus of paradigms of all the aorists, see the Table, p. 100.

Description and discussion of the seven aorists and the precativē may now follow in their order as just given.

Root-aorist. Active. — The augmented root is aorist-stem. This is made from roots in *ā* and from bhū. This aorist is closely analogous to the imperfect of the root-class (yā, go, ayā-m ayā-s ayā-t). In the 3. plural, the ending is *us*, and the radical *ā* disappears; but bhū has *an*. And the syllabic identity of the root is maintained before the vocalic endings by the transition-*v*: abhū^v am abhū^v an. Stems in classical use:

dā (give) adā
gā (go) agā

dhā (put) adhā
pā (drink) apā

sthā (stand) asthā
bhū (become) abhū

Root-aorist. Middle. — The augmented root in weak form is aorist-stem. Of middle forms a few are found. Thus, from roots in *ā*, with *ā* weakened to *i*: from dā (give), adithās, adi-ta; from dhā (put), adhi-thās, adhi-ta; from sthā (stand), asthi-thās, asthi-ta. So from kṛ (make), akr-i, akr-thās, akr-ata. And from roots in a sonant aspirate: arab-dha, alab-dha, abud-dha, ayud-dha, arud-dha (for arabh-ta, etc.). The Hindus refer all these middle forms to the *s*-aorist, with loss of *s*; see p. 94 a.

Root-aorist. Passive. — An isolated 3d singular is made by adding *i* to the augmented, and usually strengthened, root.

² When more precise reference is desired, the letters a, b, c, d, are used to designate the quarters of a page.

After radical *ā*, appears disjunctive *y*. Thus: tap (heat) atāp-i; dhā (put) adhāy-i. So:

vid (find) aved-i	budh (wake) abodh-i	dṛç (see) adarç-i
çri (lean) açrāy-i	stu (praise) astāv-i	bhṛ (bear) abhār-i

The a-aorist. — The stem consists of augment, weak root (no guṇa, no nasal), and stem-forming *a*; and it is inflected like any imperfect of the *a*-conjugation. The middle is rare. The *a*-aorist is thus, as to mode of formation, the precise analogue of an imperfect of the accented-*ā*-class, of which also the root-vowel is weak. But note that the *a*-aorist of a given root differs markedly from the imperfect of the same root. Examples (first, the imperfect 3. s.; then, the *a*-aorist 3. s.; but of root çās, the 1. s.):

ruh (climb) aroha-t,	aruba-t	sic (pour) asiñca-t,	asica-t
sad (sit) asīda-t,	asada-t	khyā (see) akhyā-t,	akhya-t
gam (go) agaccha-t,	agama-t	chid (cut) acchinat,	acchida-t
vṛt (turn) avarta-ta,	avṛta-t	çak (be able) açaakno-t,	açaka-t
naç (perish) anaçya-t,	anaça-t	çās (order) aças-am,	açīsa-m
vid (find) avinda-t,	avida-t	But kṛ (do) akaro-t,	akara-t!

Reduplicated aorist. — The stem consists of augment, reduplicated root, and stem-forming *a*. Inflection like that of the imperfect of the *a*-conj. This aorist serves as aorist of causatives, and of dru (run) and çri (lean) as primary verbs. It is made from some forty roots in classical Sanskrit.

Consonant of the reduplication. — This follows the general rules: of two initial consonants, the first is repeated; for an aspirate, the non-aspirate is substituted; for *h* or for a guttural, the palatal is substituted.

dru (run) adudruva-t	dhṛ (hold) adīdhara-t	kṛ (do) acikara-t
bhram (roam) abibhrama-t	han (slay) ajīghana-t	grah (seize) ajīgraha-t

Vowel of the reduplication. — For radical *a*, *ā*, *i*, *ī*, *r*, *l*, appears an *i*-vowel; for *u* or *ū*, appears an *u*-vowel.

jan (beget) ajijana-t	viç (enter) avīviça-t	vṛdh (grow) avīvṛdha-t
sādh (succeed) asīṣadha-t	dīp (shine) adīdīpa-t	kṛp (be fit) acīkṛpa-t
duh (milk) adūduha-t	yuj (join) ayūyuja-t	lup (break) alūlupa-t

Quantity. — The reduplicating syllable and the radical syllable regularly make a prosodial sequence of heavy and light (— ∪). This is a most striking feature of the formation. Considering the number of roots beginning with two consonants (some 30 odd, first and last), a reduplicating vowel long by position must have been common, and the sequence was matter of course in such examples as *dru* and *bhram* and *grah*, just given; and so likewise in

<i>tvar</i> (hurry) <i>atitvara-t</i>	<i>kṣip</i> (throw) <i>acikṣipa-t</i>	<i>hvr</i> (waver) <i>ajihvara-t</i>
<i>çri</i> (lean) <i>aççriya-t</i>	<i>cyu</i> (fall) <i>acucyuva-t</i>	<i>çru</i> (hear) <i>açuçruva-t</i>

But if the root begins with only one consonant, then (as if to establish the sequence), the reduplicating vowel is lengthened, as in the nine examples (*jan*, etc.) just given. — Exceptions are: *mīl* (wink) *amimīla-t*; *dīp* (shine) *adidīpa-t* (Vedic; later, *adīdīpa-t*).

And (again for the sake of the sequence) a radical *ā* or *ī* or *ū* is even shortened, and a penultimate nasal is dropped.

<i>rādh</i> (thrive) <i>arīradha-t</i>	<i>bhū</i> (become) <i>abūbhuva-t</i>	<i>krand</i> (cry) <i>acikrada-t</i>
<i>dīp</i> (shine) <i>adīdīpa-t</i>	<i>sūd</i> (finish) <i>asūsūda-t</i>	<i>syand</i> (flow) <i>asiṣyada-t</i>

The commonest forms of this aorist are the active 1. 2. 3. singular and 3. plural: thus, *amūmucat*, *amūmucan*. Note that all these make the prosodial sequence, ∪ — ∪ ∪, and that this exactly fits the cadence of the Vedic iambic dimeter or trimeter or of the Epic half-çloka.

Roots in *ā*, with *p* in the causative, retain the *p* here: *jñā* (know) *jñāpaya-ti*, *ajijñīpa-t*; *sthā* (stand) *sthāpaya-ti*, *atiṣṭhipa-t*.

Root *vac* (speak) makes *avoca-t* (for *a-vā-uca-t?*). Forms from the stem *voca* are so frequent, that *voc* (like *pracch* or *dad*) is treated as a root.

The s-aorist and the iṣ-aorist. — These are of course sigmatic aorists without or with the disjunctive *i*; and they are related to each other as are the sigmatic future-stems, *dā-sya* and *kar-iṣya*. The *s*-aorist is made, earlier or later, from almost 150 roots; and, earlier or later, the *iṣ*-aorist is made

from over 150 roots. Together, they are thus the most numerous of all the aorist formations. But of roots belonging to the earlier and later language or to the later language, only about 45 roots make an *s*-aorist, and about 35 make an *iṣ*-aorist.

Choice between the formation with *s* and that with *iṣ*.—

As to this matter, a comprehensive rule can hardly be given. In a dozen cases and more, the same root shows stems of both formations: thus, *ṭṛ* (pass) *atārṣ*-am, *atāriṣ*-am; so the roots *car*, *mad*, *krand*, *mṛj*, *rādh*, *stu*, etc. But for the later language, two simple and natural generalizations (the second is not comprehensive) may be of use:

First. Vocalic roots make their sigmatic aorist with *s* (not *iṣ*).

But in the Veda, these do indeed make aorists with *iṣ*, altho very seldom: thus, *gṛ* (swallow) *agāriṣ*-am. And some such forms (*asmayiṣ-ṭa*, *açayiṣ-ṭa*) survive even in classical Sanskrit. But quotable forms are extremely rare.

Second. Of consonantal roots, those whose final (such as *c*, *ç*, *j*, *h*; *d*, *dh*, *p*) combines with *s* easily and often and so as to yield an unambiguous result,—those roots add the *s* directly.

But if the root ends in a sound or in sounds (such as *ṣ*, *kṣ*, *s*, *iṣ*, *nd*, *l*, *v*, *rv*, *th*) not easily or often or unambiguously combinable directly with *s*,—then the collision is avoided by the disjunctive *i*, and the stem is made with the formative *iṣ*.

Thus from *jiv* (live) *ajiviṣ*-am; *ujjh* (forsake), *āujjhiṣ*-am: the combinations *vs*, *jhs* hardly occur in Sanskrit. From *ikṣ* (see), *āikṣiṣ*-i. From *yāc* (ask), *ayāciṣ*-am: not *ayākṣ*-am, which is aorist of *yaj* (offer). From *vad* (say), *avādiṣ*-am: not *avāts*-am, which is aorist of *vas* (dwell).

Table showing distribution of some later roots as between the two formations (*s*-aorist and *iṣ*-aorist); also the several types of treatment of the root-vowel.

S-aorist : roots with final vowel

Root	Active	Middle
ci (pile)	acāiṣ-am	
ji (win)	ajāiṣ-am	
nī (lead)	anāiṣ-am	aneṣ-i
bhī (fear)	abhāiṣ-am	
çru (hear)	açrāuṣ-am	
stu (laud)	astāuṣ-am	astoṣ-i
hu (pour)	ahāuṣ-am	
jñā (know)	ajñās-am	ajñās-i
yā (go)	ayās-am	
hā (quit)	ahās-am	ahās-i
kṛ (make)	akārṣ-am	akṛṣ-i
tṛ (pass)	atārṣ-am	
smṛ (mind)	asmārṣ-am	
hṛ (take)	ahārṣ-am	ahṛṣ-i

S-aorist : roots with medial vowel

chid (cut)	achāits-am	achits-i
ric (leave)	arāiṣ-am	arikiṣ-i
muc (free)	amāukṣ-am	amukṣ-i
rudh (hinder)	arāuts-am	aruts-i
dṛç (see)	adrākṣ-am	adṛkṣ-i
spṛç (touch)	asprākṣ-am	
pṛç (ask)	aprākṣ-am	
srj (emit)	asrākṣ-am	asṛkṣ-i
bhāj (deal)	abhākṣ-am	abhakṣ-i
tyāj (quit)	atyākṣ-am	
vas (dwell)	avāts-am	
dah (burn)	adhākṣ-am	
vyadh (pierce)	avyāts-am	
yam (hold)	ayāms-am	ayams-i
vap (strew)	avāps-am	
svap (sleep)	asvāps-am	
bhañj (break)	abhāñkṣ-am	
sañj (cling)	asāñkṣ-am	asakṣ-i

Iṣ-aorist : roots with final vowel

Root	Active	Middle
smi (smile)		asmayiṣ-i
çī (lie)		açayiṣ-i
pū (cleanse)	apāviṣ-am	apaviṣ-i
bhṛ (bear)	abhāriṣ-am	

Iṣ-aorist : roots with medial vowel

vid (know)	avediṣ-am	
vip (tremble)		avepiṣ-i
ruc (shine)		arociṣ-i
budh (wake)	abodhiṣ-am	abodhiṣ-i
vṛṣ (rain)	avarṣiṣ-am	
vṛdh (grow)		avardhiṣ-i
kṛt (cut)	akartiṣ-am	
nṛt (dance)	anartiṣ-am	
vad (speak)	avādiṣ-am	avadiṣ-i
mad (revel)	amādiṣ-am	
gras (eat)	agrasiṣ-am	
grah (grip)	agrahiṣ-am !	
vyath (waver)		avyathiṣ-i
kram (step)	akramiṣ-am	
yāc (ask)	ayāciṣ-am	
bhāṣ (speak)		abhāṣiṣ-i !
çans (laud)	açansiṣ-am	
hiñs (hurt)	ahiñsiṣ-am	

Hence these rules for the behavior of the root-vowels :

S-aorist active	Iṣ-aorist active
Finals and	Finals take vṛddhi
Medials alike, all show vṛddhi	Medial <i>i</i> , <i>u</i> , <i>r</i> take guṇa; but for Medial <i>a</i> , we find <i>ā</i> or <i>a</i>
S-aorist middle	Iṣ-aorist middle
Final <i>i</i> and <i>u</i> take guṇa	Finals and
Final <i>ā</i> and <i>r</i> and	Medials alike, all show guṇa
Medials remain unaltered	

But in the *s*-aorist middle, final *ā* weakens to *i* in the roots *dā* (give), *dhā* (put), *sthā* (stand). Thus: *adiṣ-i*, *adiṣ-ata*; *adhiṣ-i*, *adhiṣ-ata*; *asthiṣ-i*, *asthiṣ-ata*.

From the same roots and with the same weakening occur forms of the type *adi-thās*, *adi-ta*, classed above as true root-aorists middle. The Hindus class them as 's-aorists with loss of *s*' (*adi-ta* for *adiṣ-ṭa*). Thus the traditional paradigm is: *adiṣ-i*, *adi-thās*, *adi-ta*; *adiṣ-vahi*, *adiṣ-āthām*, *adiṣ-ātām*; *adiṣ-mahi*, *adi-ḍhvam*, *adiṣ-ata*. But it seems better to regard this as a patchwork of two sets of forms, each fragmentary, and each complementary to the other.

In the *iṣ*-aorist active, for medial *a*, we find *ā* in the roots *vad* (speak), *mad* (revel), *car* (move), *vraj* (go), *jval* (blaze); but medial *a* remains unaltered in *dal* (split), *vadh* (kill), *vaç* (will), *gras* (devour), *kram* (step), *grah* (grip). Thus: *acāriṣ-am*; but *adaliṣ-am*.

In the *iṣ*-aorist, moreover, consonantal roots that make a heavy syllable, remain of course unaltered. Thus: *jīv* (live) *ajīviṣ-am*; *nind* (revile) *anindiṣ-am*; *hiṅs* (hurt) *ahiṅsiṣ-am*. But *dīv* (play) *adeviṣ-am*!

The *vṛddhi* in *āçiṣ-am* (*aç*, eat), *āiṣiṣ-am* (*iṣ*, send), *āujjhiṣ-am* (*ujjh*, forsake), etc., is due to the augment.

Loss of tense-sign *s* in the *s*-aorist. — After the radical surd mute *t* or *p*,³ the tense-sign *s* is dropped before any of the active endings, *tam*, *tām*, *ta* (2. d., 3. d., 2. p.) or of the middle endings *thās*, *ta* (2. s., 3. s.): see the forms marked with a star in the paradigm (page 100), where *anāut-tam*, for *anāut-s-tam*, from *nud* (push), is quite in accord with the ordinary *ut-thīta* for *ut-sthīta*, etc. Other examples (active second persons plural) are: *achānt-ta*, for *achānt-s-ta*, from *chand* (please); *açāp-ta*, for *açāp-s-ta*, from *çap* (curse).

Likewise after the radical surd mute *k*, — when it is the

³ By 'radical surd mute *t* or *p*' is meant either a root-final (very seldom: as in *vṛt*; *tap*, *çap*, *sṛp*), or else also the mute into which the root-final is changed before the tense-sign *s* (either *t*, as in *chid*, *nud*, *pad*, *bhid*, *vid*, *krand*, *chand*, *skand*, *syand*; *budh*, *rādh*, *rudh*, *vyadh*; or else *p*, as in *labh*, *stambh*).

product of a gutturalizing ⁴ root-final (*c* or *j*), — the tense-sign is dropped without trace,⁵ before the *t* or *th* of the endings just mentioned. Thus: *apāc-ta, apāk-ta. Other examples below, left hand.

Likewise after a domalizing ⁴ root-final (*ç* or *j*), the tense-sign is dropped without trace,⁶ and the root-final becomes domal *ç* before the said *t* or *th*: thus, *adrāç-ta, adrāç-*ta*; *amārj-ta, amārç-*ta*. Other examples below, right hand.

Gutturalizing finals + <i>s</i> + ending	Domalizing finals + <i>s</i> + ending
pac (cook) apākṣ-ma; but apāk-ta, 2. p.	dṛç (see) adrākṣ-ma; but adrāç- <i>ta</i> , 2. p.
bhaj (deal) abhākṣ-ma; but abhāk-ta	spṛç (touch) asprākṣ-ma; but asprāç- <i>ta</i>
bhañj (break) abhāñkṣ-ma; abhāñk-ta	mṛj (wipe) amārṣ-ma; but amārç- <i>ta</i>
muc (free) amukṣ-i; but amuk-thās, 2. s.	srj (emit) asṛkṣ-i; but asṛç-thās, 2. s.

Not only in the *s*-aorist, but also in the *iç*-aorist, the tense-sign *s* is dropped before *dhvam* (2. p. middle); and after the domalizing vowels (*i*, *e*, *o*, *r*), the *dh* becomes domal.

bhaj (deal) abhākṣ-mahi; abhag-dhvam	nī (lead) aneṣ-mahi; but ane- <i>dhvam</i>
rā (give) arās-mahi; but arā-dhvam	stu (laud) astoṣ-mahi; but asto- <i>dhvam</i>
jan (beget) ajaniṣ-mahi; ajani- <i>dhvam</i>	vṛ (choose) avṛṣ-ata, 3. p.; avṛ- <i>dhvam</i>

Forms classed as *s*-aorists by the Hindus, and made from roots in a sonant aspirate (rabh, take hold; labh, take; budh,

⁴ The root-final *c*, before *t*, reverts to the guttural *k* (vac, uk-ta), while the root-final *ç* before *t* becomes domal *ç* (dṛç, dṛç-*ta*). — The root-final *j*, before *t*, shows a double behavior, now (like *c*) reverting to a guttural (yuj, yuk-ta), and now (like *ç*) becoming domal (mṛj, mṛç-*ta*). — And again, in like manner, before *t*, the root-final *h* shows a double behavior, now (like *c*) yielding a guttural (duh, dug-dha), and now (like *ç*) yielding a domal (ruh, rūḍha).

Accordingly, we may call the *c*, and also the *j* and the *h* that behave like *c*, the gutturalizing root-finals. And in like manner, we may call the *ç*, and also the *j* and the *h* that behave like *ç*, the domalizing root-finals.

This suggests distinctive names for the two kinds of *j*, namely, 'gutturalizing *j*' and 'domalizing *j*.' So 'gutturalizing *h*' and 'domalizing *h*.' Such names are much needed. Their meaning appears on their face (as is not the case with 'j', 'ç', 'h', 'h', nor with 'new' and 'old').

⁵ If it left a trace, we should expect *apāç-*ta* (for *apāk-ç-*ta*: since kṣ + t normally yields ç-t, as in *cakṣ-te, caç-te).

⁶ Here, even if we assumed an intervening tense-sign *s* which left a trace, the result would still be the same: for *adrāç-s-ta would yield *adrāk-ç-*ta*, and this would yield adrāç-*ta*. So *amārç-s-ta, *amārç-ç-*ta*, amārç-*ta*.

wake; yudh, fight; rudh, hinder), are found occurring in the middle voice: namely, the 3. s. forms arab-dha, alab-dha, abud-dha, ayud-dha, arud-dha. The Hindu view is that from these also an *s* has been lost, and that the combination is then made in the usual way (*bh-t* becoming *b-dh*, etc.), and as if no *s* had ever intervened to leave a trace! This is hard to believe: for alabh-s-ta ought to yield alap-s-ta; and this in turn, alap-ta. Accordingly, and in spite of the occurrence of forms with *s* (such as alap-s-ata, 3. p.), the forms of the type alab-dha may well be taken as standing for simple alabh-ta, that is, as root-aorists of the middle (p. 87 d).

For the *s*-aorist of roots in a sonant aspirate, two paradigms may be given — if only to show the complexities of the sandhi. The forms cut a much wider swath in the grammars than they do in the literature. The starred forms are either non-quotable or rare or referable in part (see just above) to the root-aorist. Thus, from rudh (hinder) and dah (burn):

Paradigms of *s*-aorist, showing loss of tense-sign

arāuts	am	aruts	i	adhākṣ	am	adhakṣ	i
arāuts	is	arud	dhās *	adhākṣ	is	ad ag dhās *	
arāuts	it	arud	dha *	adhākṣ	it	ad ag dha *	
arāuts	va	aruts	vahi	adhākṣ	va	adhakṣ	vahi
arāud	dham*	aruts	āthām	ad āg	dham*	adhakṣ	āthām
arāud	dhām*	aruts	ātām	ad āg	dhām*	adhakṣ	ātām
arāuts	ma	aruts	mahi	adhākṣ	ma	adhakṣ	mahi
arāud	dha *	arud	dhvam*	ad āg	dha *	adhag	dhvam*
arāuts	us	aruts	ata	adhākṣ	us	adhakṣ	ata

The ' *siṣ*-aorist ' so-called. — The stem consists of augment and root and the element *siṣ*; and it is inflected precisely like that of the *iṣ*-aorist. "Active only. The corresponding middle forms belong to the *s*-aorist." Thus the grammarians. (See p. 97 b.) Unequivocal *siṣ*-forms are made from only about half a dozen roots, all ending in *ā*: see p. 98 b.

The genesis of the *siṣ*-aorist from the *s*-aorist is so closely connected with the history of the *s*-aorist, and with the history of the personal endings of the *s*-aorist and of the *iṣ*-aorist, that these matters must all be treated together.

In the *iṣ*-aorist active, 2. s. and 3. s., we should expect that apāviṣ-s, apāviṣ-t, from pū (cleanse), would yield apāvīs, apāvīs. But the tendency to establish the usual relation of *s* and *t* in the two persons, 2. s. and 3. s., is so strong that in the 3. s. the ending *t* is preserved at the expense of the tense-sign *s*; and thus, for the 2. s. and 3. s., we have the forms apāv-īs, apāv-it. So, from vadh (slay), avadh-īs, avadh-it. These forms in *īs* and *it*, as endings (*nota bene!*) of the *iṣ*-aorist, are common from the earliest period of the language; but (*nota bene!*), as endings of the *s*-aorist, they are almost unknown to the oldest texts.

In the *s*-aorist active singular, the oldest Vedic inflection is quite regular. Thus:

prā (fill)	ji (win)	nī (lead)	dah (burn)	ric (leave)	muc (free)
1. aprās-am	ajāiṣ-am	anāiṣ-am	adhākṣ-am	arāikṣ-am	amāukṣ-am
2. aprās ⁷	ajāis	anāis	adhāk	arāik	amāuk
3. aprās ⁷	ajāis	anāis	adhāk	ārāik	amāuk

But the tendency to differentiate the two identical and therefore ambiguous forms of the 2. s. and 3. s. shows itself here in the *s*-aorist also, and strikingly: for in the Veda, we find as third singular of prā, ji, nī, not only the old and regular forms aprās, ajāis, anāis, but also the tentative and abortive forms aprāt,⁸ ajāit, anāit.

The second step due to this tendency is the taking-over, for the ambiguous forms of the *s*-aorist, of the unambiguous endings of the *iṣ*-aorist, namely, of the endings *īs* and *it*. These, added to the ambiguous forms ajāis, anāis (which al-

⁷ aprās for aprās-s, aprās-t
ajāis for ajāiṣ-s, ajāiṣ-t

anāis for anāiṣ-s, anāiṣ-t
adhāk for adhākṣ-s, adhākṣ-t

⁸ To wit, in a most interestingly modernized resolution of the ubiquitous āprādyāvāpṛthiviantarīkṣam. The manuscript combination āprādyāvāmay mean (Whitney, *Grammar*, 232 a) either āprā dyāvā- or āprād dyāvā-. At *R.V.* I, 115, 1c, the word-reading is ā aprāḥ dyāvā-, implying the old and correct aprās. But at *A.V.* XIII, 2, 35, the author of the word-reading has, justifiably and ignorantly, the later and (for him) easier form aprāt.

ready contain the tense-sign *s*), yield the clearly distinguished forms *ajāiṣ-īś* *ajāiṣ-īt*, *anāiṣ-īś* *anāiṣ-īt*.

Of this type are the forms which become the prevailing ones in the later language, and which are therefore given in the paradigm (page 100). But it must be carefully noted that they are a later and secondary formation, and are hardly found in the oldest texts, the *Rig-Veda*, to which a form like *anāiṣ-īt* is almost unknown.

Almost, but not entirely. — For in the *Rig-Veda*, from *yā* (*go*), we find, not only the old and normal forms of the *s*-aorist, *ayās-am* *ayās-us*, but also the later form *ayās-īt*. This last⁹ is also a true *s*-aorist; but it is nevertheless a younger hybrid form, and made, precisely like the later *anāiṣ-īt*, by adding to an *s*-aorist stem an *iṣ*-aorist ending; and it is perhaps the earliest quotable instance of such a hybrid formation.¹⁰

But in the *iṣ*-aorist, corresponding to *apāv-īt* *apāv-īś*, *abodh-īt* *abodh-īś*, *akram-īt* *akram-īś*, we have the first persons singular *apāv-iṣam*, *abodh-iṣam*, *akram-iṣam*; and so, by the easiest possible 'false analogy,' and corresponding to *ayās-īt*, is formed the first singular, *ayās-iṣam*.

The successive phases of the *s*-aorist inflection are clearly seen in the active singular of *hā* (*quit*): Phase 1. The oldest Vedic inflection; Phase 2. The inflection with tentative differentiation; Phase 3. The later hybrid inflection with *iś*, *īś*; Phase 4. The derailment into *siṣ*-forms. — There is added the middle singular.

1. <i>ahās-am</i>	<i>ahās-am</i>	<i>ahās-am</i>	<i>ahās-iṣam</i>	<i>ahās-i</i>
2. <i>ahās</i>	<i>ahās</i>	<i>ahās-īś</i>	<i>ahās-īś</i>	<i>ahās-thās</i>
3. <i>ahās</i>	<i>ahāt</i>	<i>ahās-īt</i>	<i>ahās-īt</i>	<i>ahās-ta</i>

⁹ Despite the fact that it is sometimes classified as a *siṣ*-aorist.

¹⁰ It occurs in the Soma-book of the *Rig-Veda*, ix, 86, 16. 90, 1. 92, 6, — places which do not show the marks of high antiquity. And it may itself be deemed a mark of modernity.

Forms of the type of the first singular, ayās-iṣam, in which the *s* is felt rather as a part of the root¹¹ than as a tense-sign, are the undoubted starting-point for the similar formations, few in number, which are covered by the designation 'siṣ-aorist.'

The third and second persons singular, made with *īt* and *īs*, are the only hybrid forms of the *s*-aorist, whether active or middle; and it is plain (see p. 101) that they are the only ones that would serve as points of departure for a 'false formation' like ayās-iṣam.

From this it is clear why (as the grammarians say: p. 94 d) the *siṣ*-formation is restricted to the active, and why (since the formation is an abortive outgrowth of the *s*-aorist) its 'corresponding middle' should be the middle of the *s*-aorist.

If the *siṣ*-forms are merely a false growth from the hybrid forms in *īt* and *īs* of the *s*-aorist, then we ought not to expect to find *siṣ*-forms except from roots which show *s*-aorist forms. And this is in fact the rule. And since these hybrid forms are almost unknown to the oldest texts, the *siṣ*-forms should be of extreme rarity in such texts. This also is the case.

In the *Rig-Veda*, only the beginnings of the *siṣ*-aorist are found. Thus, from *yā*: ayāsiṣ-am, -ṭam, -ṭa, -us, beside the older and normal ayās-am, ayās-us, and the hybrid ayās-īt. So from *gā* (sing): agāsiṣ-us, beside the normal 1. s. middle gās-i. — As early as the *Atharva-Veda*, occur *siṣ*-forms from *hā*: thus, hāsiṣ-us, beside the older hās-us of the older text, *R.V.* In many Vedic texts (see Whitney's note to *A.V.* VII,81,5) occurs pyāsiṣ-īmahī, beside which is found also apyās-am. — In the *Brāhmaṇas* occur *siṣ*-forms from *jñā*: thus, ajñāsiṣ-am, beside ajñās-am. So from *dhyā*: adhyāsiṣ-am, beside dyās-us. — From *ḥyā* (overpower) we find aḥyāsiṣ-am, etc.; and in *Nirukta*, from *mnā* (note), is found amnāsiṣ-us: but from neither of these roots are *s*-forms quotable (this

¹¹ In like manner the tense-sign of arās-ma has come to be taken as part of the root *rā* (give), so that from the secondary root *rās*, present-stem *rāsa-*, are made *rāsa-te*, etc.

may be accidental?). — In all the *Mahā-Bhārata*, roots *jñā* and *yā* are the only ones that make *siṣ*-forms: *ajñāsiṣ-am*, *-ma*; *ayās-īt*. — Note that all these *siṣ*-forms just cited (except *ayās-īt*) are **unequivocal** *siṣ*-forms.

Unequivocal forms from roots in *ā* occur as follows: *adrās-īt* (slept), *adhmās-īt*, *apās-īt* (kept), *avās-īt* (blew), *ahvās-īt*, *glās-īs*, *mlās-īs*; and from *nam*, *anāms-īt*. By themselves, all these forms may be taken either as forms of the *siṣ*-aorist, or else as hybrid forms of the *s*-aorist. In default of unequivocal forms to support them as *siṣ*-forms, we assume that they are hybrid *s*-aorists. For this assumption, in the case of *apās-īt*, there is the support of the subjunctive *pās-ati* (*R.V.*), and, in the case of *anāms-īt*, the support of the *Kāṭhaka* form *anān* (for *anāms-t*).

Roots with unequivocal *siṣ*-forms

yā (go) *pyā* (swell) *jyā* (overpower)
gā (sing) *jñā* (know) *mnā* (note)
hā (quit) *dhyā* (think)

Roots with equivocal forms in *it* or *is*

drā (sleep) *vā* (blow) *mlā* (fade)
dhmā (blow) *hvā* (call) *nam* (bow)
pā (keep) *glā* (tire)

To sum up then: The *siṣ*-aorist, so-called, is merely a name covering a few forms from roots in *ā* and *m*, made by false analogy from forms of the singular of the *s*-aorist active.

In the Veda are seen the beginnings of a process of transfer of *dā* (give: *δί-δω-μι*) and *dhā* (put: *τί-θη-μι*) to the *a*-conjugation. In the precisely similar case of *sthā* (stand: *ἵ-στῆ-μι*) the process was not only begun, but also carried out. With *dā* and *dhā* it proved abortive, a case of 'arrested development.' Such also is the case of the *siṣ*-formation.

The *sa*-aorist. — This is made only from roots which end in *h*, *ç*, *ṣ*, or *j*. All these finals are sounds which, in combination with the *s* of the tense-sign, make *kṣ*. All these roots have *i* or *u* or *r* as medial vowel, and it remains unstrengthened. The stem consists of augment and root and the tense-sign *sa*. It is inflected precisely like an imperfect of the *a*-conjugation, — but with three exceptions (marked with a star in the paradigm, p. 100 d) as follows:

In the middle, the forms of the 1. s. and 2. and 3. dual must be made from a stem in *s* (that is, in *kṣ*) and have the endings of the non-*a*-conjugation. Thus the grammarians; but no such forms are quotable.

The roots making *sa*-aorists are less than a score. In the earlier language, this formation is hardly more than sporadic. In the *Rig-Veda*, it appears from only seven roots. And from the entire *Mahā-Bhārata* not an instance is reported. Including *duh* (milk: *adhukṣa-t*), *guh* (hide: *aghukṣa-t*), *ruh* (climb), *mih* (mingere), *lih* (lick), some 17 roots may be listed, — 7 in *h*, 5 in *ç*, 3 in *ṣ*, 2 in *j*:

druh (harm)	adrukṣa-t		viç (enter)	avikṣa-t		diç (point)		kṛṣ (drag)
vṛh (tear)	avṛkṣa-t		mṛç (stroke)	amṛkṣa-t		kruç (yell)		dviṣ (hate)
vṛj (wring)	avṛkṣa-t		mṛj (wipe)	amṛkṣa-t		sprç (touch)		piṣ (pound)

Precative or benedictive mode. — Precative forms are optatives (and accordingly, augmentless), made, in the active, with the mode-sign *yā + s*, and, in the middle, with the mode-sign *ī + s* or else with *ī*, interposed between the radical part and the ending.

In the classical language, precative forms are extremely rare in the active, and in the middle they are virtually unknown. In the Vedic texts, however, a few score are found, and of these some examples may be given at this point, since they are made almost wholly from stems of the root-aorist and sigmatic aorists.

Of the root-aorist, only active forms are recognized by the Hindu grammar as part of the accepted precative. [In the *Rig-Veda* appear two middle forms (and no more), *pad-iṣ-ṭa* and *muc-iṣ-ṭa*.] — Of the sigmatic aorists, only middle forms are in use.

The paradigm is given at p. 101. From it, the questionable 2. and 3. dual (*bhaviṣ-ī-yāsthām*, *bhaviṣ-ī-yāsthām*) and also the 2. p. (*bhaviṣ-ī-dhvam*) are omitted, as non-quotable. They have never been found in actual use. It thus appears

[For the continuation of this sentence, see page 102]

Paradigms of aorists : simple, reduplicated, sigmatic (*s*-aorist)

<p>1. Root-aorist See p. 87</p> <p>dā (give) bhū (be)</p> <p>Active</p> <p>adā m abhū^vam adā s abhū s adā t abhū t</p> <p>The non-<i>v</i>-stems</p> <p>adā va abhū va adā tam abhū tam adā tām abhū tām</p> <p>adā ma abhū ma adā ta abhū ta ad us abhū^van</p> <p>Middle or non-<i>v</i>-conjugation</p>		<p>4. <i>S</i>-aorist See p. 89-</p> <p>nī (lead) nud (push)</p> <p>anāiṣ am anāuts am anāiṣ is anāuts is anāiṣ it anāuts it</p> <p>anāiṣ va anāuts va anāiṣ tam anāut tam * anāiṣ tām anāut tām *</p> <p>anāiṣ ma anāuts ma anāiṣ ṭa anāut ta * anāiṣ us anāuts us</p> <p>aneṣ i anuts i aneṣ thās anut thās * aneṣ ṭa anut ta *</p> <p>aneṣ vahi anuts vahi aneṣ āthām anuts āthām aneṣ ātām anuts ātām</p> <p>aneṣ mahi anuts mahi ane ḍhvam anud dhvam* aneṣ ata anuts ata</p>
<p>2. <i>A</i>-aorist See p. 88</p> <p>siç (pour)</p> <p>Active</p> <p>asica m asica s asica t</p> <p>The <i>s</i>-stems</p> <p>asicā va asica tam asica tām</p> <p>asicā ma asica ta asica n</p> <p>Middle the <i>s</i>-conjugation</p> <p>asic e asica thās asica ta</p> <p>asicā vahi asiç ethām asiç etām</p> <p>asicā mahi asica dhvam asica nta</p>	<p>3. Redupl. aor. See p. 88</p> <p>jan (beget)</p> <p>ajijana m ajijana s ajijana t</p> <p>ajijanā va ajijana tam ajijana tām</p> <p>ajijanā ma ajijana ta ajijana n</p> <p>ajijan e ajijana thās ajijana ta</p> <p>ajijanā vahi ajijan ethām ajijan etām</p> <p>ajijanā mahi ajijana dhvam ajijana nta</p>	<p>7. <i>Sa</i>-aorist See p. 98</p> <p>diç (point)</p> <p>adikṣa m adikṣa s adikṣa t</p> <p>adikṣā va adikṣa tam adikṣa tām</p> <p>adikṣā ma adikṣa ta adikṣa n</p> <p>adikṣ i * adikṣa thās adikṣa ta</p> <p>adikṣā vahi adikṣ āthām * adikṣ ātām *</p> <p>adikṣā mahi adikṣa dhvam adikṣa nta</p>

Paradigms, continued : (*iṣ*-aorist, *siṣ*-aorist, precative)

5. <i>Is</i> -aorist See p. 89-		6. <i>Sis</i> -aorist See p. 98		Precative See p. 99
pū (cleanse)	budh (wake)	yā (go)	bhū (be)	
apāviṣ am	abodhiṣ am	ayāsiṣ am	bhūyās aṃ	
apāvīṣ	abodhiṣ	ayās is	bhūyās	
apāvī t	abodhī t	ayās it	bhūyā t	
apāviṣ va	abodhiṣ va	ayāsiṣ va	bhūyās va	
apāviṣ tam	abodhiṣ tam	ayāsiṣ tam	bhūyās tam	
apāviṣ tām	abodhiṣ tām	ayāsiṣ tām	bhūyās tām	
apāviṣ ma	abodhiṣ ma	ayāsiṣ ma	bhūyās ma	
apāviṣ ta	abodhiṣ ta	ayāsiṣ ta	bhūyās ta	
apāviṣ us	abodhiṣ us	ayāsiṣ us	bhūyās us	
apaviṣ i	abodhiṣ i		bhaviṣī ^s a	
apaviṣ thās	abodhiṣ thās		bhaviṣīṣ thās	
apaviṣ ta	abodhiṣ ta		bhaviṣīṣ ta	
apaviṣ vahi	abodhiṣ vahi		bhaviṣī vahi	
apaviṣ āthām	abodhiṣ āthām		
apaviṣ ātām	abodhiṣ ātām		
apaviṣ mahi	abodhiṣ mahi		bhaviṣī mahi	
apavi dhvam	abodhi dhvam		
apaviṣ ata	abodhiṣ ata		bhaviṣī ran	

[Continuation of the sentence at the end of page 99.]

that, in the middle, the 'inserted s' is actually found only in the 2. s. and 3. s., before *-thās* and *-ta*. Other than these five forms, accordingly, there remain in the middle only four forms (the three first persons and the 3. p.), and these are clear optatives made with *ī* from sigmatic aorist stems.

The 'inserted s' is highly problematic: is it a tense-sign, following the mode-sign? but the sigmatic precatives (for example, *mañs-īṣṭhās*, *modiṣ-īṣṭhās*, *yāsiṣ-īṣṭhās*) do in fact show a tense-sign *before* the mode-sign.

Root-form. — In the active, the root is treated before *yā* (= *īvā*) as it is before the passive-sign *yá* (*ivá*): *çrū* (hear) *çrū-yāsam*; *kṛ* (do) *kṛi-yāsmā*; *kṛ* (scatter) *kṛi-yāt*; *siñc*-ati (pours) *siñc-yāt*; *vad* (say) *ud-yāsam*. And final *ā* with the *ī* of *īvā* (= *yā*) makes *e*, as elsewhere: *pā* (drink) *peyās*, 3. s. — In the middle, the root shows the same form as in the corresponding indicative aorist: *mṛkṣiṣ-ta* (*mṛc*), *modiṣiṣ-thās*.

The personal endings are the secondary ones, with the optative *us* in the 3. p. active, and with the optative *a* and *ran* in the 1. s. and 3. s. middle. — In the 2. s. and 3. s. active, the oldest texts have *-yās -yās* (for *-yās-s -yās-t*). The later texts evade the ambiguity (as elsewhere: p. 95 a), and have *-yās -yāt*, at the expense of the 'inserted s.'

Examples of actually occurring precatives: made from —

Root-aorist-stems: active only	Sigmatic aorist-stems: middle only S-aorist	Iṣ-aorist
1.s. bhū yās am RV.	1.s. mukṣ i ṽa	1.s. edhiṣ i ṽa
2.s. bhū yās RV.	1.s. lops i ṽa Upan.	1.s. janiṣ i ṽa
3.s. bhū yās RV.	2.s. mañs iṣ ṭhās	2.s. modiṣ iṣ ṭhās
3.s. bhū yā t AV.	3.s. mañs iṣ ṭa	3.s. janiṣ iṣ ṭa
2.d. bhū yās tamVS.*	3.s. mṛkṣ iṣ ṭa	3.s. vaniṣ iṣ ṭa
1.p. bhū yās ma AV.	1.p. mañs i mahi	1.p. edhiṣ i mahi
2.p. bhū yās ta TS.*		Siṣ-aorist
2.p. brū yās taNala*	*VS. 2,7	2.s. yāsiṣ iṣ ṭhās
3.p. vadh yās us TS.*	*TS. 3,2,5 ⁴ ; 2,6,6 ¹	1.p. pyāsiṣ i mahi